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Feasibility Study for the 200-CS-1 Chemical Sewer Group Operable Unit

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

United States Department of Energy
P.O. Box 550
Richland, Washington 99352

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EXECUTIVE SUMMARY

This feasibility study presents the results of a remedial action evaluation addressing disposition of contaminated soil and other materials from waste sites contained in the Hanford Site 200-CS-1 Operable Unit. This feasibility study was prepared in accordance with the *Comprehensive Environmental Response, Compensation, and Liability Act of 1980.*[1]

The 200-CS-1 Operable Unit includes five waste sites located in the 200 East and 200 West Areas, commonly known as the Central Plateau. These waste sites include the following:

- 216-A-29 Ditch
- 216-B-63 Trench
- 216-S-10 Ditch
- 216-S-10 Pond
- 216-S-11 Pond.

The 200-CS-1 Operable Unit waste sites are artificial surface ponds, ditches, or trenches created to dispose of chemical discharges from the separation/concentration facilities (e.g., Plutonium Uranium Extraction Plant and the Reduction-Oxidation Plant) on the Central Plateau. Four of these waste sites (216-A-29 Ditch, 216-B-63 Trench, 216-S-10 Pond, and 216-S-10 Ditch) are dangerous waste management units under WAC 173-303, "Dangerous Waste Regulations,"[2] identified as *Resource Conservation and Recovery Act of 1976*[3] treatment, storage, and disposal units undergoing closure on three Part A Permit Application forms.[4] Historical data concerning past practice discharges suggest that the discharges most likely contained dilute concentrations of inorganic and/or organic chemicals. Radionuclide inventories are very small to negligible. A *Comprehensive Environmental Response, Compensation, and Liability Act of 1980* remedial

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[1] *Comprehensive Environmental Response, Compensation, and Liability Act of 1980*, 42 USC 9601, et seq.

[2] WAC 173-303, "Dangerous Waste Regulations," *Washington Administrative Code*, as amended, Washington State Department of Ecology, Olympia, Washington.

[3] *Resource Conservation and Recovery Act of 1976*, 42 USC 6901, et seq.

[4] The 216-S-10 Pond and the 216-S-10 Ditch are combined on one Part A permit application form (i.e., 216-S-10 Pond and Ditch). The 216-A-29 Ditch and the 216-B-63 Trench dangerous waste management units are identified each on their own Part A form. A closure plan meeting the requirements of WAC 173-303-610, "Closure and Post-Closure," has been prepared for each treatment, storage, and/or disposal unit and are found as appendices to the feasibility study.

investigation was performed to gather information on contamination levels, as needed, by the *Comprehensive Environmental Response, Compensation, and Liability Act of 1980* remedial action, *Resource Conservation and Recovery Act of 1976* corrective action, and the *Resource Conservation and Recovery Act of 1976* treatment, storage, and disposal unit closure requirements.

The U.S. Department of Energy has determined through the *Comprehensive Environmental Response, Compensation, and Liability Act of 1980* risk assessment process that two of the 200-CS-1 Operable Unit waste sites may pose a threat to human health and the environment. Specifically, there are risks associated with both human health and environmental receptors at two of these waste sites. In addition, potential risks exist to the groundwater from the contamination present at some of these waste sites.

The purpose of this feasibility study is to evaluate remedial action alternatives that will mitigate these threats to human health and the environment posed by the contaminated soil and other materials in the 200-CS-1 Operable Unit. This feasibility study evaluates the following four removal action alternatives for each site:

- Alternative 1 – No action
- Alternative 2 – Maintain existing soil cover, monitored natural attenuation, and institutional controls
- Alternative 3 – Removal, treatment, and disposal
- Alternative 4 – Engineered barrier.

The no-action alternative represents a situation where no legal restrictions, institutional controls, access controls, or active remedial measures are applied to the site. For the maintain existing soil cover, monitored natural attenuation, and institutional controls alternative, periodic surveillance and maintenance of the waste sites will be implemented for evidence of contamination and biologic intrusion. Contaminants remaining beneath the clean-soil cover would be allowed to attenuate naturally until remediation goals are met. The remove, treatment, and disposal alternative will remove the soil with concentrations of contaminants above the cleanup levels and dispose of them in an approved landfill. The engineered-barrier alternative consists of constructing surface barriers over soil with concentrations of contaminants above the cleanup levels to control the amount of water that infiltrates into contaminated media, to reduce or eliminate leaching of contamination to groundwater. In addition to their hydrological

performance, barriers also can function as physical barriers to prevent intrusion by human and ecological receptors and limit wind and water erosion.

The preferred remedial action alternatives for the 200-CS-1 Operable Unit waste sites are based on the results of the *Comprehensive Environmental Response, Compensation, and Liability Act of 1980* evaluation process. The implementation of the preferred remedial action alternatives will be coordinated with applicable *Resource Conservation and Recovery Act of 1976* treatment, storage, and disposal unit closure activities required for these waste sites.

Sufficient information now exists to support a proposal for remedial alternative selection. A confirmation sampling program for the waste sites where the No Action alternative is proposed, and a verification sampling program for waste sites where Removal, Treatment, and Disposal is proposed will be implemented. The details of the sampling programs will be determined and approved by U.S. Department of Energy and the regulators subsequent to public participation and a *Comprehensive Environmental Response, Compensation, and Liability Act* Record of Decision. These sampling programs will provide sufficient information to support the implementation of the selected remedy.

Table ES-1. Summary of the 200-CS-1 Operable Unit Waste Site Preferred Remedial Action Alternatives.

Preferred Alternative	Waste Sites	Present Worth ($ in thousands)
No Action	216-B-63 Trench	$551
	216-S-10 Pond	$551
	216-S-11 Pond	$551
Maintain Existing Soil Cover, Monitored Natural Attenuation, and Institutional Controls	None	Not applicable
Remove, Treatment, and Disposal	216-A-29 Ditch	$3,521
	216-S-10 Ditch	$2,746
Engineered Barrier	None	Not applicable

A summary of the information and conclusions contained in this feasibility study will be summarized in a proposed plan and issued for public review and comment.

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TERMS

200-CS-1	200-CS-1 Chemical Sewer Group
ALARA	as low as reasonably achievable
ARAR	applicable or relevant and appropriate requirement
BCG	biota concentration guide (see DOE-STD-1153-2002)
bgs	below ground surface
BRA	baseline risk assessment
CFR	*Code of Federal Regulations*
CERCLA	*Comprehensive Environmental Response, Compensation, and Liability Act of 1980*
CLARC	cleanup levels and risk calculations (Ecology 94-145, see also Ecology, 2007)
COC	contaminant of concern
COEC	contaminant of ecological concern
COPC	contaminant of potential concern
COPEC	contaminant of potential ecological concern
CTUIR	Confederated Tribes of the Umatilla Indian Reservation
CUL	cleanup level
DOE	U.S. Department of Energy
DQO	data quality objective
Ecology	Washington State Department of Ecology
EF	exceedance factor
EPA	U.S. Environmental Protection Agency
ERA	ecological risk assessment
ERAGS	EPA/540/R-97/006, *Ecological Risk Assessment Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessments, Interim Final*
ERDF	Environmental Restoration Disposal Facility
ET	evapotranspiration
FM	formation
FS	feasibility study
HEIS	*Hanford Environmental Information System* database
IC	institutional control
Implementation Plan	*200 Areas Remedial Investigation/Feasibility Study Implementation Plan – Environmental Restoration Program* (DOE/RL-98-28)
IRIS	*Integrated Risk Information System*
MESC	maintain existing soil cover
MNA	monitored natural attenuation
NEPA	*National Environmental Policy Act of 1969*
NMLS	Neutron-Moisture Logging System
NOAEL	no observed adverse-effect level
NPL	"National Priorities List" (40 CFR 300, Appendix B)
OU	operable unit
PCB	polychlorinated biphenyl

PRG	preliminary remediation goal
PUREX	Plutonium-Uranium Extraction (Plant or process)
RAO	remedial-action objective
RCRA	*Resource Conservation and Recovery Act of 1976*
REDOX	Reduction-Oxidation (Plant or process)
RESRAD	RESidual RADioactivity (dose model)
RI	remedial investigation
RI Report	*Remedial Investigation Report for the 200-CS-1 Chemical Sewer Group Operable Unit* (DOE/RL-2004-17)
RIRFAT	remedial investigation report, full appendix tables
RIRSAT	remedial investigation report, summary appendix tables
RL	U.S. Department of Energy, Richland Operations Office
RME	reasonable maximum exposure
ROD	record of decision
SGLS	Spectral Gamma-Ray Logging System
SSV	soil-screening value
SVOC	semivolatile organic compound
Tri-Parties	DOE, EPA, and Ecology
Tri-Party Agreement	*Hanford Federal Facility Agreement and Consent Order* (Ecology et al., 1989a)
TSD	treatment, storage, and/or disposal (unit)
VOC	volatile organic compound
WAC	*Washington Administrative Code*
WIDS	*Waste Information Data System* database
Work Plan	*200-CS-1 Operable Unit RI/FS Work Plan and RCRA TSD Unit Sampling Plan* (DOE/RL-99-44)

1

METRIC CONVERSION CHART

Into Metric Units			Out of Metric Units		
If you know	*Multiply by*	*To get*	*If you know*	*Multiply by*	*To get*
Length			**Length**		
inches	25.40	millimeters	millimeters	0.0394	inches
inches	2.54	centimeters	centimeters	0.394	inches
feet	0.305	meters	meters	3.281	feet
yards	0.914	meters	meters	1.094	yards
miles (statute)	1.609	kilometers	kilometers	0.621	miles (statute)
Area			**Area**		
sq. inches	6.452	sq. centimeters	sq. centimeters	0.155	sq. inches
sq. feet	0.0929	sq. meters	sq. meters	10.764	sq. feet
sq. yards	0.836	sq. meters	sq. meters	1.196	sq. yards
sq. miles	2.591	sq. kilometers	sq. kilometers	0.386	sq. miles
acres	0.405	hectares	hectares	2.471	acres
Mass (weight)			**Mass (weight)**		
ounces (avoir)	28.349	grams	grams	0.0353	ounces (avoir)
pounds	0.454	kilograms	kilograms	2.205	pounds (avoir)
tons (short)	0.907	ton (metric)	ton (metric)	1.102	tons (short)
Volume			**Volume**		
teaspoons	5	milliliters	milliliters	0.034	ounces (U.S., liquid)
tablespoons	15	milliliters	liters	2.113	pints
ounces (U.S., liquid)	29.573	milliliters	liters	1.057	quarts (U.S., liquid)
cups	0.24	liters	liters	0.264	gallons (U.S., liquid)
pints	0.473	liters	cubic meters	35.315	cubic feet
quarts (U.S., liquid)	0.946	liters	cubic meters	1.308	cubic yards
gallons (U.S., liquid)	3.785	liters			
cubic feet	0.0283	cubic meters			
cubic yards	0.764	cubic meters			
Temperature			**Temperature**		
Fahrenheit	(°F-32)*5/9	Centigrade	Centigrade	(°C*9/5)+32	Fahrenheit
Radioactivity			**Radioactivity**		
picocurie	37	millibecquerel	millibecquerel	0.027	picocurie

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2

1.0 INTRODUCTION

The Hanford Site, managed by the U.S. Department of Energy (DOE), encompasses approximately 1,517 km^2 (586 mi^2) in the Columbia Basin of south-central Washington State. In 1989, the U.S. Environmental Protection Agency (EPA) identified four areas, 100, 200, 300, and 1100 Areas of the Hanford Site, and placed them on the National Priorities List (NPL) (40 CFR 300, "National Oil and Hazardous Substances Pollution Contingency Plan," Appendix B, "National Priorities List") pursuant to the *Comprehensive Environmental Response, Compensation, and Liability Act of 1980* (CERCLA), also known as Superfund. The 200 Areas NPL site includes the 200 West Area and the 200 East Area (Figure 1-1), which contain waste management facilities and inactive irradiated fuel reprocessing facilities, and the 200 North Area, formerly used for interim storage and staging of irradiated fuel. Several waste sites in the 600 Area, which are located near the 200 Areas, also are included in the 200 Areas NPL site. The 200 Areas consists of approximately 850 waste sites organized into 24 process-based groupings, called operable units (OU). The 200-CS-1 Chemical Sewer Group (200-CS-1) OU is the focus of this feasibility study (FS).

EPA's Superfund program establishes the remedial investigation (RI) and FS as the methodology for "...characterizing the nature and extent of risks posed by uncontrolled hazardous waste sites and for developing and evaluating remedial options" (EPA/540/1-89/002, 1989, *Risk Assessment Guidance for Superfund Volume I Human Health Evaluation Manual, (Part A) Interim Final*). The RI/FS methodology is an analytical process intended to support risk management decision making for Superfund sites by assessing risk to human health and the environment. The process for characterization and remediation of waste sites at the Hanford Site is addressed in Ecology et al., 1989a, *Hanford Federal Facility Agreement and Consent Order* (Tri-Party Agreement).

Details of the 200 Areas integration are presented in DOE/RL-98-28, *200 Areas Remedial Investigation/Feasibility Study Implementation Plan – Environmental Restoration Program* (Implementation Plan). In 2002, the DOE, Richland Operations Office (RL), the EPA, and the Washington State Department of Ecology (Ecology) (Tri-Parties) renegotiated the 200 Areas cleanup milestones under the Tri-Party Agreement; the results of these negotiations are documented in Tri-Party Agreement change forms M-13-02-01, M-15-02-01, M-16-02-01, and M-20-02-01.

The Tri-Party Agreement also addresses the integration of cleanup programs under CERCLA and the *Resource Conservation and Recovery Act of 1976* (RCRA). The agreement provides a standard approach to directing cleanup activities in a consistent manner and to ensure that applicable regulatory requirements are met. In summary, the Tri-Party Agreement states that CERCLA remedial actions and RCRA corrective actions are functionally equivalent and work done under the Tri-Party Agreement will satisfy both cleanup regulations. This FS considered both remedial action and corrective action requirements in coordination with RCRA treatment, storage, and/or disposal (TSD) closure requirements in evaluating the potential remedial action alternatives for the 200-CS-1 OU waste sites.

The 200-CS-1 OU consists of five waste sites. The waste unit designations and their aliases are as follows:

- 216-A-29 Ditch, Snow's Canyon, Plutonium-Uranium Extraction (PUREX) Plant Chemical Sewer
- 216-B-63 Trench, B Plant Chemical Sewer
- 216-S-10 Ditch, 202 Chemical Sump #1 and Ditch, Chemical Sewer Trench, Open Ditch to the Chemical Sewer Trench
- 216-S-10 Pond, 202 Chemical Sump #1 and Ditch, Chemical Sewer Trench
- 216-S-11 Pond, 202-S Chemical Sump #2, Chemical Sewer Trenches, 216-S-11 Swamp.

The waste sites are contained in two areas shown in Figures 1-2 and 1-3. The 200-CS-1 OU waste sites are primarily artificial surface ponds, ditches, or trenches, and were created to dispose of the chemical sewer discharges from the separation/concentration processes (e.g., those at the PUREX Plant and the Reduction-Oxidation [REDOX] Plant, and the B Plant cesium/strontium recovery operations). Early chemical sewer wastes were combined with larger cooling-water and steam-condensate streams from the bismuth-phosphate and uranium-recovery processes and were discharged to ponds and ditches. Historical data suggest that the discharges most likely contained dilute discharges of inorganic and/or organic chemicals. Radionuclide inventories are very small to negligible, although uranium is present at several sites (particularly the 216-S-10 Ditch, which received an estimated 215 kg of uranium in an unplanned release). The process history for the 200-CS-1 OU waste sites is described in detail in DOE/RL-99-44, *200-CS-1 Operable Unit RI/FS Work Plan and RCRA TSD Unit Sampling Plan*, (Work Plan). A summary of the 200-CS-1 OU waste site process histories is provided in Section 2.3.

1.1 REMEDIAL INVESTIGATION AND OTHER KEY ACTIVITIES

Information regarding land use, points of compliance, remedial-action objectives (RAO), and institutional controls (IC) is important to understanding the basis for the risk assessments and remedial alternative evaluations presented in this FS. The current and foreseeable future land-use designations for the waste sites in the 200 Areas are industrial-exclusive. As a result, an industrial land use is assumed for the 200 Area risk assessments and the establishment of cleanup levels (CUL) or preliminary remediation goals (PRG). Land-use for waste sites outside of the industrial-exclusive boundary is defined as conservation/mining. For waste sites with a conservation/mining land use designation, an unrestricted land use is assumed for the establishment of CULs or PRGs. For waste sites in the 200 Areas with contaminated soil, the point of compliance for direct contact by human and ecological receptors is the top 4.6 m (15 ft) of soil, and the entire vadose zone (0 bgs to groundwater) is considered for the protection of groundwater. Both the regulators and DOE agreed that a consistent set of RAOs

be developed and used for CERCLA-related activities; these were established and documented in the Implementation Plan. ICs will supplement technically feasible remediation alternatives, but will not be the primary remedial action unless other alternatives are impractical. DOE/RL-2001-41, *Sitewide Institutional Controls Plan for Hanford CERCLA Response Actions*, describes ICs that commonly are included in CERCLA response actions at the Hanford Site.

Documentation of the activities preceding this FS (i.e., project scoping activities, such as site history reviews, land-use characterization, work plans, and PRGs) has occurred in a number of reports discussed below. Table 1-1 summarizes the history of these key activities that form the basis for the work presented in this FS.

The Work Plan documents the background and rationale, as well as detailed plans, for the conduct of RI/FS activities for the 200-CS-1 OU waste sites. The RI report for the 200-CS-1 OU (DOE/RL-2004-17, *Remedial Investigation Report for the 200-CS-1 Chemical Sewer Group Operable Unit* [RI Report]) was issued in November 2004. In January 2005, Ecology formally requested that RL update the analytical data tables of the RI Report consistent with the format agreed upon for the 200-PW-2/4 RI. The agreed format is referred to as the remedial investigation report full appendix tables (RIRFAT) and the remedial investigation report summary appendix tables (RIRSAT). In the July 2007, 200 Area Unit Managers Meeting, Ecology and RL agreed that inclusion of the reformatted tables in the Draft B FS (DOE/RL-2005-63, Draft B Reissue), will suffice to close out the Ecology comments on the RI Report. Ecology and RL agree that the RI Report can be placed in the Administrative Record as a complete document, and that the meeting minutes from the July 2007 Unit Managers Meeting be placed in the Administrative Record with the RI Report. The analytical data that this FS is based on is in DOE/RL-2005-63, Draft B Reissue. However, Appendix A (RIRFAT) and Appendix B (RIRSAT) are provided here for convenience.

Four of the five waste sites sampled for the RI are considered representative waste sites:

- 216-A-29 Ditch
- 216-B-63 Trench
- 216-S-10 Ditch
- 216-S-10 Pond.

The fifth waste site, 216-S-11 Pond, is considered an analogous waste site to the 216-S-10 Pond and is assumed to have the same outcome as the 216-S-10 Pond. The rationale for the representative and analogous waste-site approach to characterizing OUs at the Hanford Site is summarized in Section 2.2 and described in more detail in DOE/RL-96-81, *Waste Site Grouping for 200 Areas Soil Investigations*, and in the Implementation Plan.

The RI Report concluded that the data collected were of sufficient quantity and quality to support the risk-assessment activities and to proceed to the FS to support evaluation of remedial alternatives and identify preferred remedial actions. A human-health and ecological baseline risk assessment (BRA) was completed as one of the objectives of the RI. Additionally, a groundwater impact analysis was completed and indicated that contaminants currently in the vadose zone potentially could impact groundwater in the future. However,

the BRA concluded that contaminants are not expected to increase groundwater concentrations above current levels.

The RI sampling strategy focused on potential groundwater impacts and was designed to support a qualitative risk assessment. The sampling was intended to identify worst case/maximum-concentration conditions and is considered a satisfactory approach to complete the RI/FS process and support remedial alternative selection. The sampling strategy was developed with an understanding that additional waste-site sampling would be performed during the remedial design/remedial-action phase to better define the nature and extent of contamination and support refinement of the remedial-action design. Concurrent with the development of the 200-CS-1 OU FS, the Tri-Parties conducted a supplemental data quality objectives (DQO) process for waste sites on the Central Plateau that resulted in Tri-Party Agreement Change Package M-15-06-02 and in DOE/RL-2007-02, *Supplemental Remedial Investigation/Feasibility Study Work Plan for the 200 Areas Central Plateau Operable Units,* Volumes I & II. This process and the resulting Changes Packages did not require supplementary RI sampling for the waste sites in the 200-CS-1 OU.

Additionally, during development of this FS, the qualitative nature of the RI sampling strategy and resulting biases and uncertainties related to understanding the nature and extent of contamination associated with the 200-CS-1 OU waste sites were considered a satisfactory approach to complete the RI/FS process and support remedial alternative selection. These biases and uncertainties, in turn, create biases and uncertainties in the conceptual site models and risk-assessment results used for consideration during evaluation of potential remedial response actions in the FS. As a result, understanding the 200-CS-1 OU waste-site sampling strategy described in the Work Plan and the implications of the biases and uncertainties is important when evaluating remedial-action alternatives and devising post-record of decision (ROD) strategies to achieve a safe, effective, and efficient remedy.

Considering these factors, DOE decided to revise the BRA to reflect uncertainties and to review and regenerate the analytical data used to support the BRA. The revised BRA presented in this FS provides the basis for the FS.

1.2 FEASIBILITY STUDY PURPOSE

The purpose of this FS is to revise and refine the BRA presented in the RI Report and document the identification and evaluation of the 200-CS-1 OU waste-site remedial-action alternatives. This FS will refine the RAOs and general response actions initially identified in the Implementation Plan. Technology screening and development of remedial alternatives initially performed in the Implementation Plan will be reviewed and refined, as necessary, based on the site-specific data generated in the 200-CS-1 OU RI and other sources of existing information. The alternatives considered provide a range of potential response actions (e.g., no action; remove, treat, and dispose; containment) that are appropriate to address site-specific risk conditions. The alternatives will be evaluated against seven of the nine CERCLA criteria (EPA/540/G-89/004, *Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA, Interim Final*). Of these nine CERCLA evaluation criteria, two are threshold criteria that have to be met for a remedial alternative to be

considered viable overall protection of human health and environment and compliant with applicable or relevant and appropriate requirements (ARAR). Five are balancing criteria: long-term effectiveness and permanence; reduction of toxicity, mobility, or volume through treatment; short-term effectiveness; implementability; and cost. The remaining two criteria, (state acceptance and community acceptance) are considered modifying criteria and are applied before and after, respectively, the proposed plan is issued. These two criteria are not addressed in this FS. The Tri-Parties will use this FS as the basis for selecting a remedy to mitigate potential risks to human health and the environment.

The preferred remedial alternative (or alternatives) will be presented to the public in a proposed plan for review and comment. This FS will support the development of the proposed plan and subsequent ROD. The future remedial design report/remedial-action work plan will be prepared following the ROD for these waste sites and will provide additional details to support the remediation of the 200-CS-1 OU.

1.3 SCOPE

This FS is consistent with EPA guidance outlined in EPA/540/G-89/004 and meets the CERCLA requirements, as well as RCRA corrective action requirements of the Tri-Party Agreement, Part Three and Ecology, EPA, and DOE, 1989b, *Hanford Federal Facility Agreement and Consent Order Action Plan*, Section 7.0. This FS develops and evaluates remedial-action alternatives for cleanup of the 216-A-29 Ditch, the 216-B-63 Trench, the 216-S-10 Ditch and Pond, and the 216-S-11 Pond. Cleanup of these waste sites is designated as a source-control action requiring implementation of remedial actions necessary to prevent the continued release of hazardous substances or contaminants to the environment. The remedial actions proposed for cleanup must be protective of human health and the environment, including protection of ecological receptors, groundwater, and surface waters. While this FS will consider remedial-action alternatives to prevent or mitigate further migration of contaminants from the waste-site sources to groundwater, it does not address remediation of the groundwater beneath the waste sites. Remediation of contaminated groundwater beneath the Central Plateau is the subject of the RI/FS activities under way for the 200-BP-5, 200-PO-1, 200-UP-1, and 200-ZP-1 Groundwater OUs.

RCRA closure plans document RCRA TSD unit closure strategies for the 216-A-29 Ditch (DOE/RL-2008-53, *Hanford Facility Dangerous Waste Closure/Postclosure Plan for the 216-A-29 Ditch*), 216-B-63 Trench (DOE/RL-2006-11, *Hanford Facility Dangerous Waste Closure Plan for the 216-B-63 Trench*), and 216-S-10 Ditch and 216-S-10 Pond (DOE/RL-2006-12, *Hanford Facility Dangerous Waste Closure/Postclosure Plan for the 216-S-10 Pond and Ditch*) (Appendices C, D, and E, respectively). The closure strategies in the closure plans and the remedial action strategies within this FS have been coordinated to ensure that protection of human health and the environment is achieved for these waste sites.

1.4 REPORT ORGANIZATION

The essential elements of the FS process are presented in Chapters 1.0 through 9.0, followed by the references and twelve appendices, and are summarized as follows.

- Chapter 1.0 presents the purpose and scope of the FS, summary of key events preceding the FS, and this overview of the report organization.

- Chapter 2.0 presents background information, including an overview of the OU, operational histories, descriptions of the waste sites, physical setting, and natural and cultural resources, and summarizes the representative and analogous waste sites.

- Chapter 3.0 discusses the BRA completed for the RI and presents the revised BRA. Three risk assessments are completed following EPA guidance: human health, ecological, and a groundwater impacts analysis. The uncertainties associated with these risk assessments are discussed.

- Chapter 4.0 discusses land-use assumptions and develops the overall remedial action objectives and media-specific goals for the waste sites including volumes of contaminated media for each waste site in the 200-CS-1 OU.

- Chapter 5.0 refines the remedial actions identified for the 200 Area waste sites in the Implementation Plan. Refining considerations include effectiveness (likelihood of meeting RAOs for the specific contaminants present at the site), implementability relative to specific site conditions, status of technology development, and relative cost. Remedial alternatives were considered with respect to the effectiveness, implementability, and relative cost.

- Chapter 6.0 describes the remedial-alternative development process, initially conducted as part of the Implementation Plan development, and uses that information in concert with the risk-assessment results to develop the remedial alternatives to be carried forward for detailed and comparative analyses.

- Chapter 7.0 presents a detailed analysis of each of the four remedial alternatives against seven of the nine CERCLA evaluation criteria defined in EPA/540/G-89/004. This section also assesses each alternative relative to the *National Environmental Policy Act of 1969* (NEPA) values, as required by DOE.

- Chapter 8.0 presents a comparative analysis of the four remedial alternatives and identifies their relative advantages and disadvantages, based on the seven alternative bounding CERCLA evaluation criteria. The results of this analysis provide a basis for selecting a remedial alternative for each representative waste site and any analogous waste sites.

- Chapter 9.0 summarizes the conclusions of the FS and presents the path forward for remediation of the 200-CS-1 OU waste sites.

- Chapter 10.0 contains all references for the main body of the report. Each appendix contains its own reference section.

- Appendix A presents the raw data used for the revised BRA as RIRFAT. Ecology formally requested that the analytical data tables originally presented in the RI Report, be reformatted and included with this FS.

- Appendix B summarizes the data by waste site as RIRSAT. Ecology formally requested that the data summary tables originally presented in the RI Report, be reformatted and presented in this FS.

- Appendix C contains DOE/RL-2008-53, *Hanford Facility Dangerous Waste Closure/Postclosure Plan for the 216-A-29 Ditch.*

- Appendix D contains DOE/RL-2006-11, *Hanford Facility Dangerous Waste Closure/Postclosure Plan for the 216-B-63 Trench.*

- Appendix E contains DOE/RL-2006-12, *Hanford Facility Dangerous Waste Closure/Postclosure Plan for the 216-S-10 Pond and Ditch.*

- Appendix F describes the RESidual RADioactivity (RESRAD) modeling completed for the human-health radionuclide risk characterization and the groundwater impacts analysis.

- Appendix G documents the online cleanup levels and risk calculations (CLARC) database, downloaded in June 2008, used for calculating WAC 173-340, "Model Toxics Control Act -- Cleanup," CULs.

- Appendix H provides a comparison of nonradionuclide concentrations to EPA Region 6 Media-Specific Screening Levels.

- Appendix I presents an analysis of potential regulatory ARAR and available guidance with respect to the 200-CS-1 OU.

- Appendix J presents the basis for the comparative cost estimates. Detailed cost estimates, including applicable alternatives and derived costs for analogous sites, are provided for each representative waste site.

- Appendix K provides a proposed approach to address required additional soil sampling.

- Appendix L provides the methodology for site-specific soil concentrations protective of groundwater.

Figure 1-1. Location of the Hanford Site and the 200-CS-1 Operable Unit Waste Sites.

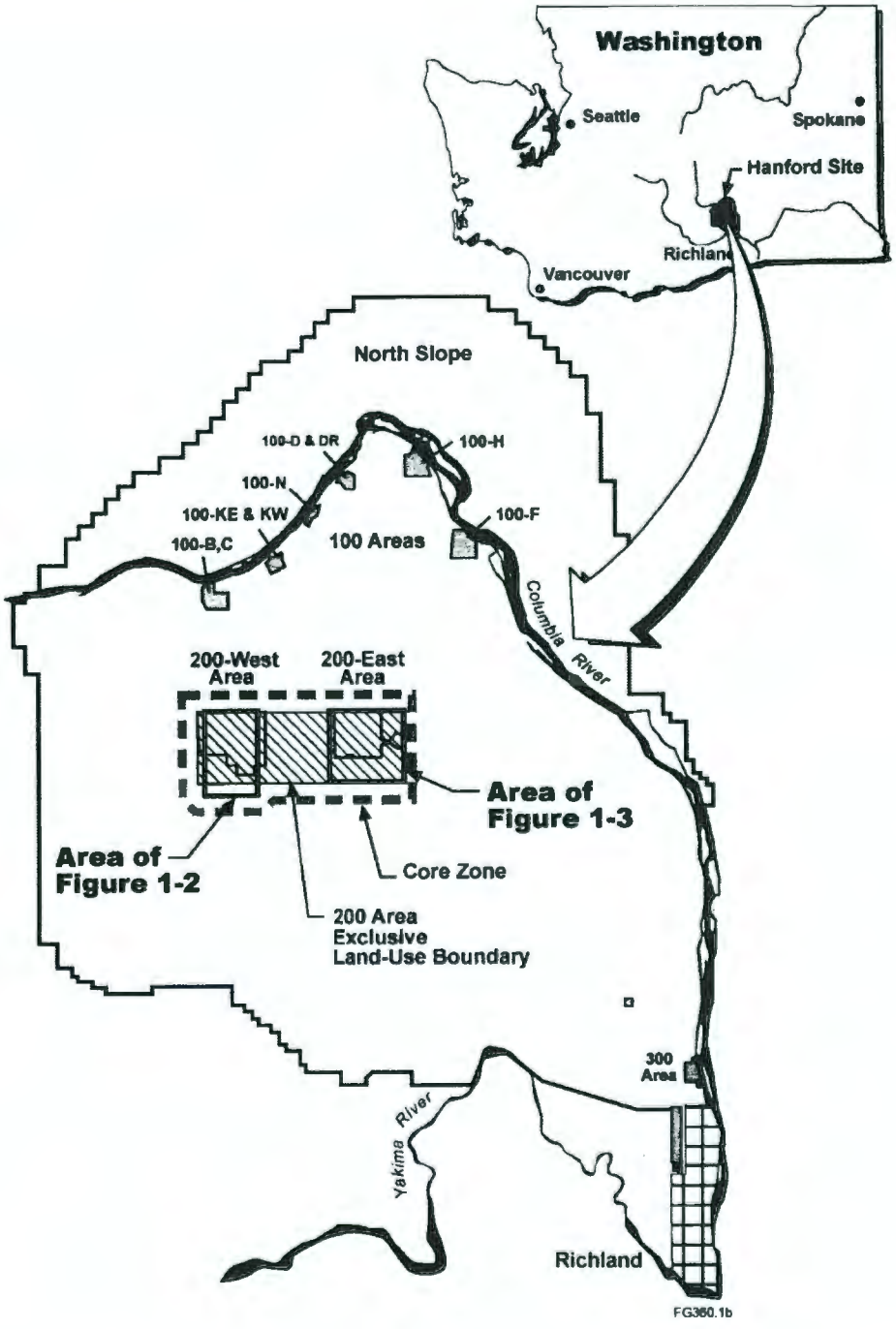

Figure 1-2. Location of the 200-CS-1 Operable Unit Waste Sites in the 200 West Area.

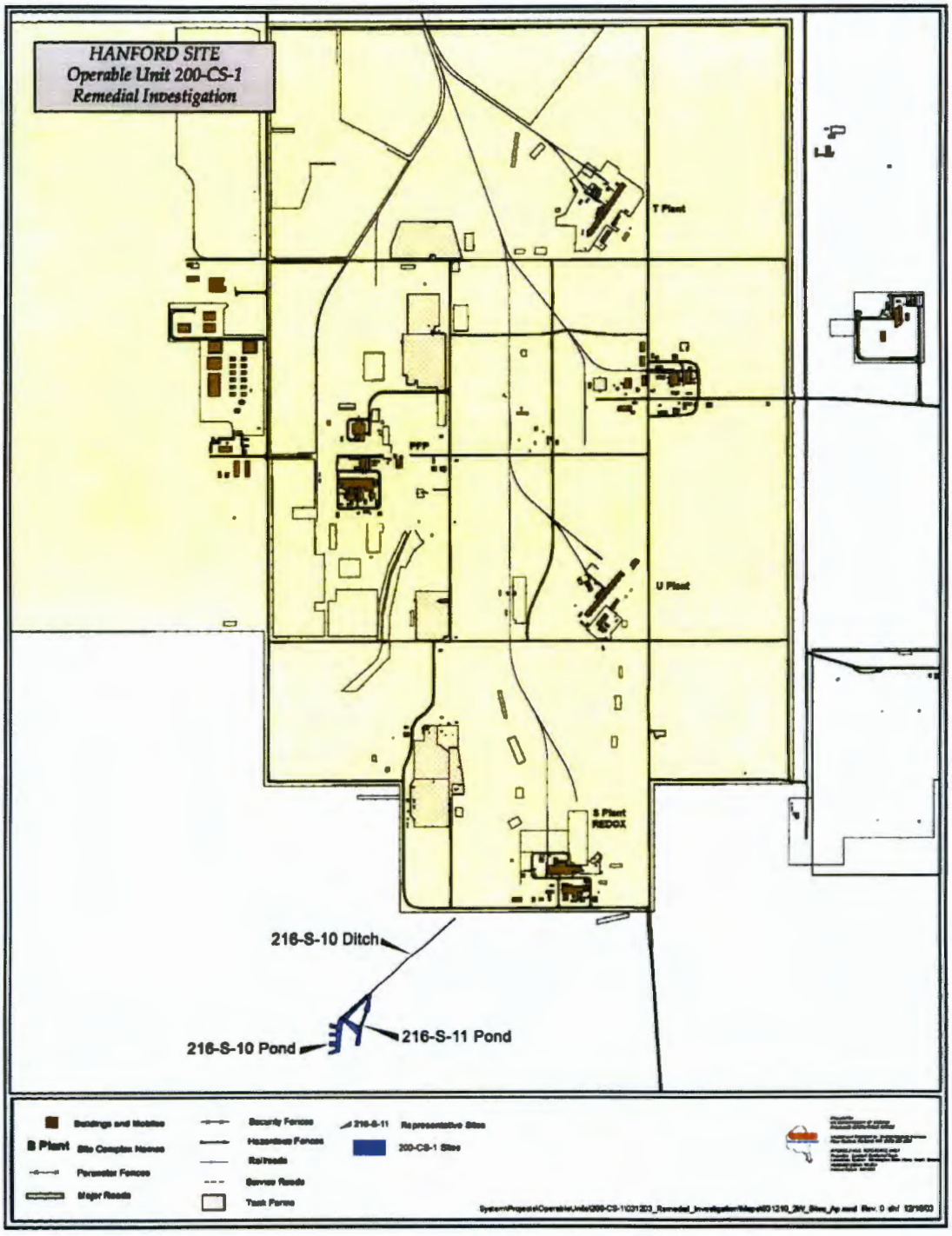

Figure 1-3. Location of the 200-CS-1 Operable Unit Waste Sites in the 200 East Area.

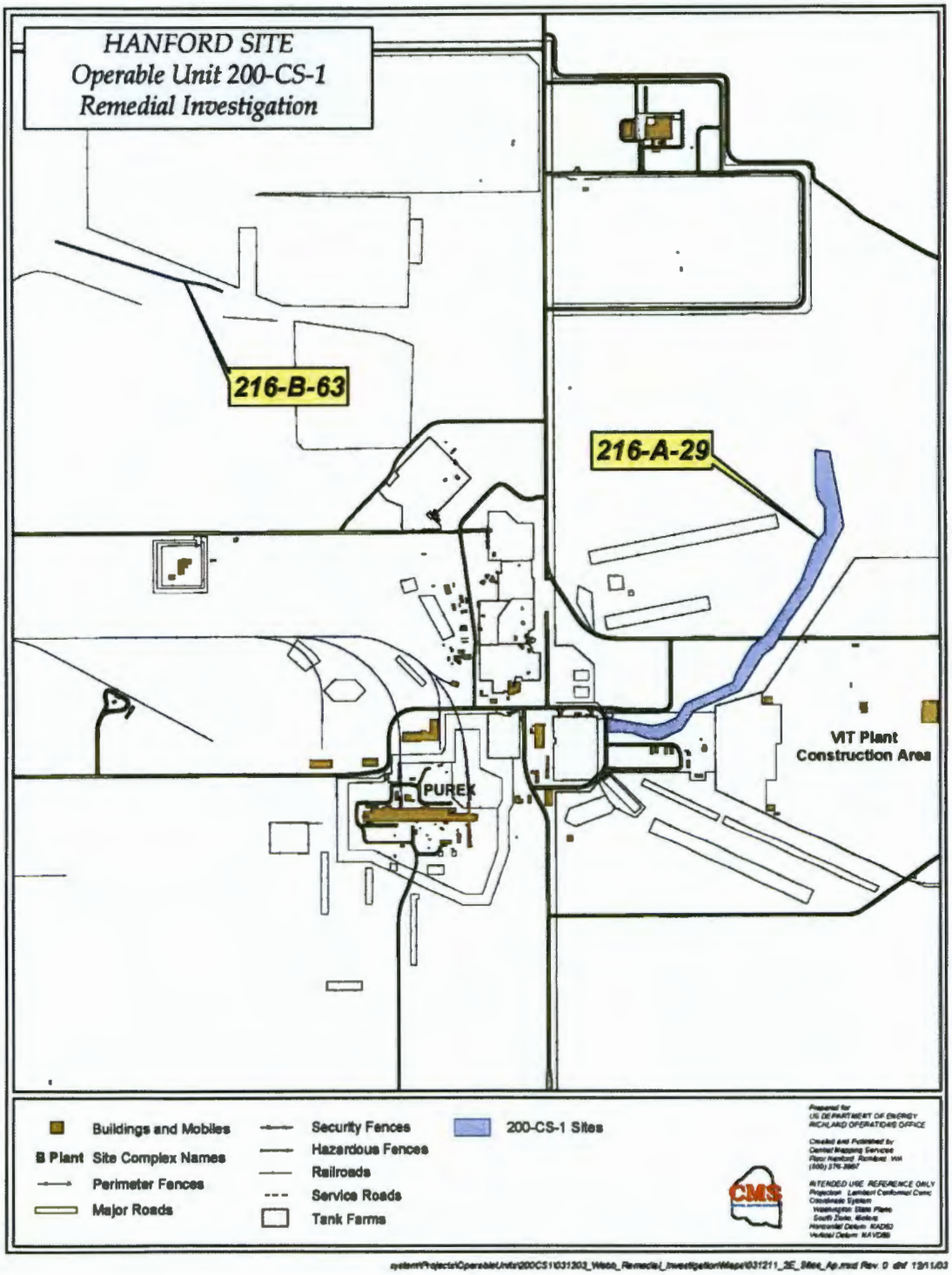

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Table 1-1. History of 200-CS-1 Operable Unit Key Remedial Investigation and Feasibility Study Activities.

Year	Key Remedial Investigation and Feasibility Study Activities
1989	Hanford 200 Areas on National Priorities List (40 CFR 300, Appendix B). The characterization and remediation of waste sites at the Hanford Site are addressed in the Tri-Party Agreement (Ecology et al., 1989a).
1996	The final prioritized waste site groups were identified and preliminary conceptual contaminant distribution models for each waste site group were completed (DOE/RL-96-81).
1998	DOE/RL-98-28 developed a strategy to streamline the characterization and remediation of waste sites in the 200 Areas, identified potential applicable or relevant and appropriate requirements and preliminary remedial-action objectives, and discussed potentially feasible remedial technologies that may be used in the 200 Areas.
1999	The 200-CS-1 Chemical Sewer Group Operable Unit data quality objectives process was completed, and the rationale for inclusion of contaminants of potential concern to be analyzed in the remedial investigation was documented (BHI-01276). The 200-CS-1 Operable Unit Remedial Investigation/Feasibility Study Work Plan (DOE/RL-99-44) was completed and provided direction for characterizing chemical, radiological, and physical conditions in soils at the four representative waste sites, and identified preliminary remedial-action objectives.
2003	Sampling of the four representative waste sites was completed between November 1999 and April 2003. A number of documents summarizing data were completed in this time frame (BHI-01177; BHI-01651; BHI-062455; PNNL-13198; and WMP-17755).
2004	The quality of the sampling results and the nature and extent of contamination were documented in the remedial investigation report (DOE/RL-2004-17).
2007	Feasibility study work continued. Concurrently, a supplemental data quality objectives process identified that no supplemental remedial investigation sampling would occur for the 200-CS-1 Operable Unit waste sites (DOE/RL-2007-02).

40 CFR 300, "National Oil and Hazardous Substances Pollution Contingency Plan," Appendix B, "National Priorities List."

BHI-01177, *Borehole Summary Report for the 216-B-2-2 Ditch.*

BHI-01276, *200-CS-1 Operable Unit DQO Summary Report.*

BHI-01651, *200-CS-1 Operable Unit Test Pit Summary Report for Fiscal Year 2002.*

BHI-062455, *Transmittal of Final Letter Report on Sampling and Analytical Activities at the 216-A-29 Ditch.*

DOE/RL-96-81, *Waste Site Grouping for 200 Areas Soil Investigations.*

DOE/RL-98-28, *200 Areas Remedial Investigation/Feasibility Study Implementation Plan – Environmental Restoration Program.*

DOE/RL-99-44, *200-CS-1 Operable Unit RI/FS Work Plan and RCRA TSD Unit Sampling Plan.*

DOE/RL-2004-17, *Remedial Investigation Report for the 200-CS-1 Chemical Sewer Group Operable Unit.*

DOE/RL-2007-02, *Supplemental Remedial Investigation Work Plan for the 200 Area Central Plateau Operable Units.*

Ecology, EPA, and DOE, 1989a, *Hanford Federal Facility Agreement and Consent Order.*

PNNL-13198, *Borehole Data Package for the 216-S-10 Pond and Ditch Well 299-W26-13.*

WMP-17755, *200-CS-1 Operable Unit Field Summary Report for Fiscal Year 2003.*

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2.0 BACKGROUND INFORMATION

2.1 OPERABLE UNITS BACKGROUND AND HISTORY

This chapter discusses the background and history of waste sites in the 200-CS-1 OU, including descriptions of the liquid-waste-generating processes, disposal processes, representative and analogous waste sites, physical setting, natural resources, cultural resources, and socioeconomics.

2.1.1 Buildings and Ancillary Facilities

The Hanford Site, established in 1943, originally was designed, built, and operated to produce plutonium for nuclear weapons using production reactors and chemical reprocessing plants. In March 1943, construction began on three reactor facilities (B, D, and F Reactors) in the 100 Areas and three chemical processing facilities (B, T, and U Plants) in the 200 Areas. Operations in the 200 East and West Areas mainly were related to separation of special nuclear materials from spent nuclear fuel (i.e., fuel withdrawn from a nuclear reactor following irradiation). When the 200 Areas were in full operation, there were eight main processing areas.

- 200 North Area – The 200 North Area was used for temporary storage of irradiated nuclear fuel and contaminated equipment.
- A Plant – In the A Plant, also known as the PUREX Plant, the tributyl-phosphate process was used to separate plutonium from irradiated fuel rods.
- B Plant – In the B Plant, the bismuth-phosphate process was used to separate plutonium from irradiated fuel rods. Recovery of cesium, strontium, and rare earth metals also was carried out at the B Plant.
- C Plant – In the C Plant, also known as the Hot Semiworks Plant, pilot-plant tests of the REDOX process were conducted before startup of the S Plant.
- S Plant – In the S Plant, the REDOX process was used to separate plutonium from irradiated fuel rods.
- T Plant – In the T Plant, the bismuth-phosphate process was used to separate plutonium from irradiated fuel rods.
- U Plant – In the U Plant, the tributyl-phosphate process was used to recover uranium from bismuth-phosphate process wastes.
- Z Plant – In the Z Plant, dibutyl phosphate, tributyl phosphate, carbon tetrachloride, and acids were used in the americium and plutonium separation and recovery process.

The following sections identify the buildings and processes involved in discharging effluent to the 200-CS-1 OU waste sites.

2.1.2 Operable Unit Description

Waste sites in the 200-CS-1 OU received liquid waste streams (principally nonradioactive dilute chemicals) from the B Plant, A Plant (PUREX), and S Plant (REDOX). Virtually every process step in the separation and radionuclide-recovery projects required the addition of solid chemicals or, more routinely, pre-mixed chemical solutions. Liquid concentrated nitric, phosphoric, and formic acids; sodium hydroxide; and aluminum nitrate were taken to the canyon buildings in railcar quantities and unloaded into the 211 Chemical Storage Tank Farm at each separation building. Most other chemical solutions were mixed onsite to preestablished concentrations and volumes in the aqueous or solvent makeup sections of the plant. Dry chemicals that were weighed and added to demineralized water also were produced in the plants. Liquids, such as acids and caustics, were piped into large tanks in the same area.

Chemical sewer wastes consisted primarily of makeup tank rinses, with lesser quantities of off-specification batches of chemicals, or overflow chemicals from tanks during aqueous makeup. Improper valving at outdoor chemical storage tanks during chemical unloading or transfer operations also may have yielded chemical sewer wastes.

The construction of separate waste sites for chemical sewer wastes generally emerged as a development in the REDOX Plant's waste treatment system, and later was applied to the PUREX and waste fractionization processes. These wastes were discharged to separate ditches or ditch/pond systems.

Most of the chemicals disposed to these streams are expected to have broken down or reacted in the environment and are expected to be largely undetectable. Some inorganic compounds (e.g., cadmium, chromium, and nitrate) could remain sufficiently intact and would be detectable in the environment.

In all cases, the waste streams were run in a noncontact manner; that is, a barrier separated the waste-stream liquids from contaminated process liquids, reducing the potential for radiological contamination of the waste streams. However, occasional waste-stream contamination did occur. Over time, coils that circulated steam and cooling water inside chemical process tanks were known to develop pinholes and hairline cracks because of the corrosive chemicals and high thermal gradients in these tanks. These minor defects usually did not lead to contamination of the steam and cooling water, because the pressure in the pipe coils was greater than the pressure in the process or condenser vessels; however, on occasions when pressure in the coils was reduced or suspended, minor leakage through the flaws led to waste stream contamination. Other accidental releases (such as operator error) also have contributed to contamination of the effluents discharged to the waste facilities in this OU.

Additional background information on the history of operations, important waste-generating processes, and liquid-waste disposal practices at the various processing areas is provided in the Implementation Plan (DOE/RL-98-28), Section 3.2 and Appendix H.

2.2 REPRESENTATIVE AND ANALOGOUS WASTE SITES

The concept of using analogous sites to reduce the amount of site characterization and evaluation required to support remedial action decision making is discussed in the Implementation Plan. The use of this approach relies on first grouping sites with similar location, geology, waste site history, and contaminants, then choosing one or more representative sites for comprehensive field investigation, including sampling. Findings from site investigations at representative sites are extended to apply to other waste group sites that were not characterized. The analogous site approach is applied to past-practice sites only; usually all TSD units are characterized separately. Sites that received wastes associated with specific processes first were grouped by waste category (e.g., cooling water). The waste categories then were grouped based on process specifics. DOE/RL-96-81 describes the grouping of 200 Areas waste sites in more detail. Application of the concept takes into account similarities between waste sites (e.g., waste-stream type, discharge history, and geology) and the available characterization data to assess the nature and extent of contamination. This approach builds on information gained from the characterization of a few waste sites (representative waste sites) that are indicative of worst case and typical OU conditions. Analogous waste sites are those that have not been identified as representative waste sites within the OU. Rather, an analogous waste site is so called because it is analogous to a representative waste site. This relationship between an analogous and a representative waste site supports the evaluation of remedial alternatives for the analogous waste site.

The rationale used to align potential analogous waste sites to representative waste sites and other characterized waste sites is described below. Relationships between analogous and representative waste sites have been developed to support the evaluation of remedial alternatives for an analogous waste site based on those required for a related representative waste site. This approach is described in detail in the Implementation Plan. The shared or similar characteristics of representative and potential analogous waste sites, as well as the identification of potential remedial alternatives that may apply, are central to this approach. Important considerations in the assignment of analogous waste sites include the following:

- Waste stream received
- Volume of effluent received in relation to the available pore volume for the waste site
- Types and amounts of contaminants received; contaminant inventory
- Waste-site size
- Waste-site configuration and construction (e.g., crib, trench, unplanned release)
- Expected distribution of contaminants and nature and extent of contamination
- Neighboring waste sites, structures, or utilities
- Geologic setting
- Potential for hydrologic and contaminant impacts to groundwater.

Figure 2-1 shows the process for evaluating the analogous waste sites relative to representative waste sites for the RI/FS process, from risk assessment to preferred alternative decisions to confirmatory sampling design.

The five waste sites included in the 200-CS-1 OU represent one of the 23 process-based OUs in the 200 Areas. Since release of the RI Report (DOE/RL-2004-17), two other waste sites (216-W-LWC and UPR-200-W-34) originally included in the 200-CS-1 OU were consolidated into other waste sites or OUs. The 216-W-LWC waste site was reconsolidated from the 200-CS-1 OU to the 200-CW-5 OU. The UPR-200-W-34 waste site was reclassified to a "rejected" waste site and was consolidated into the 216-S-10 Ditch waste site.

2.2.1 Assignment of Representative Waste Sites

Selection of representative waste sites generally is based on waste-stream inventory, the volume of effluent discharged, and information gained from previous characterization activities performed before the RI/FS. The four representative waste sites for the 200-CS-1 OU (the 216-A-29 Ditch, 216-B-63 Trench, 216-S-10 Ditch, and 216-S-10 Pond) were identified in DOE/RL-96-81; the Implementation Plan; and BHI-01276, *200-CS-1 Operable Unit DQO Summary Report.*

2.2.2 Assignment of Analogous Waste Sites

One analogous waste site in the 200-CS-1 OU has been developed for this RI/FS. This waste site, the 216-S-11 Pond, is analogous to the 216-S-10 Pond, which is discussed further in Sections 2.3.1.4 and 2.3.2.4. The 216-S-11 Pond was in operation from May 1954 to August 1965. The site provided additional leaching capacity for the disposal of water from the 216-S-10 Ditch. As such, it received the same waste stream and performed the same function as the 216-S-10 Pond.

2.3 WASTE SITE DESCRIPTIONS

This section describes the four representative waste sites for the 200-CS-1 OU: the 216-A-29 Ditch, 216-B-63 Trench, 216-S-10 Ditch, and 216-S-10 Pond. These sites were created to dispose of the chemical sewer waste streams from the separation/concentration processes (e.g., PUREX Plant, REDOX Facility, and B Plant cesium/strontium recovery operations). Most plants continuously ran raw water in the main plant chemical sewer pipes to dilute any released concentrated discharges, thus statements of volumes released per day should consider this. The 200 CS-1 OU consists primarily of waste sites that received probable dilute quantities of inorganic and/or organic chemicals as past practice discharges. Radionuclide inventories are very small to negligible, although several sites have a uranium component (particularly the 216-S-10 Ditch, which received 215 kg of uranium in an unplanned release). Detailed descriptions of these representative waste sites are provided to support development of contaminant distribution models, to evaluate risk, and to provide a baseline for implementing the analogous waste site approach in support of the RI/FS process. Data for these sites are presented in the RI Report, the Work Plan (DOE/RL-99-44), and Chapter 3.0 of this FS.

2.3.1 Background of Waste Sites

2.3.1.1 216-A-29 Ditch

The 216-A-29 Ditch received discharge from the PUREX Plant (A Plant) chemical sewer, which operated between November 1955 and July 1991. The ditch was uncovered and unlined and followed the natural topography. The ditch originated from the southeastern side of the A Tank Farm (east of the AP Tank Farm). The ditch was estimated to be approximately 1,220 m (4,000 ft) long, 1.8 m (6 ft) wide, and from 0.6 to 4.6 m (2 to 15 ft) deep. Structures in the 216-A-29 Ditch originally included a concrete spillway for the first 3 m (10 ft) from the point of inflow, a culvert under the 200 East Area perimeter road, and a wood platform and slide gate for flow control at the two earthen dams. The head end of the ditch was modified in 1983 to allow for construction of the AP Tank Farm. The end of the ditch connects to the 216-B-3-3 Ditch and finally to the 216-B-3 Pond.

Waste streams from the following sources contributed to the 216-A-29 Ditch and are summarized below. The sources are detailed in the stream-specific report, WHC-EP-0342, Addendum 2, *PUREX Plant Chemical Sewer Stream-Specific Report*:

- Various floor drains: 202-A Canyon Building pipe and operations gallery; air compressor, process blower, and service blower rooms in 202-A; 211-A pump house; and 202-A Canyon Building instrument and maintenance shops
- 618-1 and 618-2 flash tanks containing heating coils, spray water, and steam condensate
- 206-A Vacuum Acid Fractionator Building condensers and reboiler cooling water and steam condensate
- Sink drain from the battery room, instrument shop, and maintenance shop in 202-A
- 202-A laboratory ventilation room; heating, ventilation, and air conditioning-related drainage
- 202-A laboratory nonradioactive clothing change room drains
- 202-A blower room condensate
- Overflow from various demineralized water storage tanks
- Overflow from the emergency water supply tank
- Raw water used to flush continuously the PUREX Plant chemical sewer line.

During 1990, plans were developed and approved to discontinue discharges to and close the 216-A-29 Ditch (WHC-SD-EN-AP-031, *Interim-Status Groundwater Quality Assessment Program Plan for the 216-A-29 Ditch*), and in 1991 all discharges were discontinued.

Stabilization of the 216-A-29 Ditch was performed in three phases from July to October 1991. In the first phase, bulldozers were used to push the top layers of soil from within the surface contamination zone and the ditch spoil piles into the bottom of the 216-A-29 Ditch. The concrete spillway was covered with clean soil, and the ends of the culvert were filled with concrete. The slide-gate structure and the two earthen dams were lowered, and the wood platform and associated hardware were demolished and disposed of in the ditch.

In the second phase, the consolidated soils were covered with clean material and brought up to the surrounding grade. The fill was placed in a series of terraces progressing down the ditch. A terrace was placed for every 1.8 m (6 ft) decrease in streambed elevation. The face of each terrace and earth dam was armored with 15 to 25 cm (6 to 10 in.) of gravel. In all, 11 terraces were constructed.

The third phase consisted of revegetating and reposting the area disturbed by stabilization activities. A high-nitrogen fertilizer was spread over the area. Siberian wheatgrass (*Agropyron sibericum*) and thickspike wheatgrass (*Elymus lanceolata*) then were planted, followed by the placement of straw mulch. After surface radiological surveys were completed and soil samples were collected and analyzed, the area was reposted as an Underground Radioactive Material Area. The Underground Radioactive Material Area encompasses 2.6 ha (6.4 a).

In 1988, sampling was conducted at the 216-A-29 Ditch in an area where a proposed waste-transfer line from the AP Tank Farm to the Waste Treatment Plant crossed the ditch. Approval of the construction of the transfer line over the 216-A-29 Ditch was granted by Ecology in June 2002 (Price, 2002, "Re: Waste Transfer Line Crossing Over the 216-A-29 Ditch Treatment, Storage, and Disposal Unit, 02-RCA-0301,").

The 216-A-29 Ditch received both dangerous and radioactive liquid effluent at a rate of approximately 22,700,000 L/d (6,000,000 gal/d) at an average flow rate of 3,760 L/min (970 gal/min). The discharges, consisting of acidic and caustic wastes, were the result of backwashes from the regeneration of demineralizer columns in the PUREX Plant (A Plant). The dangerous waste received included corrosive waste (Dangerous Waste Code D002) consisting primarily of acidic waste, sulfuric acid, and sodium hydroxide; toxicity characteristic waste (D006); and state-only waste WT02. Hydrazine (Dangerous Waste Code U133) also was discharged to the ditch, along with heavy metals (including cadmium, nitrate, and lead) (Work Plan). Table 2-1 lists chemicals known to have been released to the 216-A-29 Ditch between 1983 and 1987.

2.3.1.2 216-B-63 Trench

The 216-B-63 Trench was constructed before 1970 as a percolation trench to receive emergency cooling water and chemical sewer waste from the B Plant (221-B Plant Canyon Building). The trench was taken out of service in 1992. The ditch was an open, unlined, man-made, earthen trench that was closed at one end (did not convey effluent to another facility). The trench was located entirely within the 200 East Area perimeter fence and was approximately 427 m (1,400 ft) long, 1.2 m (4 ft) wide, and averaged 3 m (10 ft) in depth. The first 3.1 m (10 ft) of the trench contained a 5.1 cm (2-in) rockfill. In addition to the

trench itself, the TSD unit also includes a 38 m (15 in.) diameter vitrified clay pipe extending from the 207-B Retention Basin to the trench. The 38 cm (15 in.) diameter pipe ends in a 40.6 m (16 in.) diameter carbon steel inlet pipe, approximately 1.5 m (5 ft) long, that branched off into the trench approximately 1 m (3 ft) below grade. The 40.6 m (16 in.) inlet pipe fed into a 1.8 by 2.1 m (6 by 7 ft) weir box before emptying into the trench. The weir box has been filled with concrete.

Contributors to the 216-B-63 Trench included the 2902-B High Tank (water supply), cooling water from the B Plant, and 225-B Waste Encapsulation and Storage Facility air-compressor aftercoolers, some of the 221-B Canyon Building steam condensate, and the demineralizer effluent. Minor contributions came from chemical-makeup overflow systems (e.g., sodium hydroxide, sodium nitrite), air conditioning units, and space heaters. These minor contributions were determined to have been controlled to levels below dangerous-waste designation limits. Specific sources of each are presented in the stream-specific report (WHC-EP-0342, Addendum 6, *B Plant Chemical Sewer Stream-Specific Report*).

The 216-B-63 Trench received B Plant cooling waste and in-tank solidification cooling water from March 1970 to May 1970 (ARH-2015, *Radioactive Liquid Wastes Discharged to Ground in the 200 Areas During 1970*). The trench began receiving cooling water on March 22, 1970, after an unplanned release from the B Plant (UPR-200-E-138) of 1,000 Ci of Sr-90 occurred into the 216-B-2-2 Ditch. In May 1970, the trench began receiving B Plant chemical-sewer effluent. The B Plant chemical-sewer pipeline went directly to the 216-B-63 Trench. The 207-B Retention Basin was used to retain low-level, nonhazardous liquid waste (cooling water) en route to the 216-B-2 series ditches (located east of the structure). Chemical-sewer waste did not pass through the 207-B Retention Basin, but cooling water was routed through the retention basin from March to May 1970. In August 1970, the bottom and sides of the 216-B-63 Trench were dredged out. The dredgings had readings of approximately 3,000 counts per minute of beta-gamma activity and were buried in the 218-E-12B Burial Grounds (RHO-CD-798, *Current Status of the 200 Area Ponds*). The basin is located 610 m (2,000 ft) northeast of the B Plant, immediately south of the B Tank Farms.

An upgrade to the chemical-sewer system that discharged to the 216-B-63 Trench was planned in 1980 after it was estimated that a volume of more than 1,140,000 L/d (300,000 gal/d) could be leaking into the ground from the sewer (RHO-CD-1010, *B Plant Chemical Sewer System Upgrade*). Leakage had been documented at the chemical sewer for about 10 years from the date of this recommended upgrade. About half of this amount of liquid was lost by leakage before it reached a measuring station at the 207-B Retention Basin. The pipelines that were known or suspected of leaking were relined or replaced by Project B-496 in 1985. The results of the chemical and radiological analyses of the contaminated sediments excavated during the pipeline upgrade were not found. The leak occurred at the head end of the pipeline adjacent to the B Plant facility boundary. The 38 cm (15-in.) vitrified clay pipeline located downstream of manhole No. 12 (the beginning of the TSD unit piping and the effluent conveyance pipe to the 216-B-63 Trench site) was not replaced, because it did not have known leakage problems (SD-496-CDR-001, *Conceptual Design Report Chemical Sewer Upgrade, 221-B Project B-496*).

The trench was isolated and interim stabilized in December 1994 and January 1995. The weir box at the head end of the trench was filled with concrete, and the valve stems at the 207-B Retention Basin were cut off. A prestabilization civil survey was performed, the trench was covered with clean soil and marked with concrete posts, and a post-stabilization civil survey was performed.

The 216-B-63 Trench received both dangerous and radioactive liquid effluent. The only documented hazardous effluent discharged in the past consisted of regeneration solutions from the B Plant demineralizers (271-B Building). The dangerous waste received from 1970 until October 1985 included corrosive waste (D002) consisting primarily of sodium hydroxide, sulfuric acid, and sodium nitrate. After 1985, effluents were treated to maintain a combined pH of between 4 and 10 and no longer were considered dangerous waste. As of January 1999 (DOE/RL-96-81), radiological inventory at the trench includes 21.2 kg of total uranium, 0.57 kg of total plutonium, 0.035 kg of Am-241, 0.51 kg of Cs-137, and 1.94 kg of Sr-90. The approximate average flow rate of wastewater discharged to the 216-B-63 Trench varied from 378,000 to 1,408,000 L/d (100,000 to 400,000 gal/d). Approximately 68,100,000 kg/yr (473,000 L/d [125,000 gal/d]) of waste were managed in the 216-B-63 Trench for the period from 1970 to 1992 (Work Plan).

2.3.1.3 216-S-10 Ditch

The 216-S-10 Ditch was an uncovered, unlined, artificial ditch that received wastewater from the REDOX Plant (S Plant). The ditch originated outside the perimeter fence and initially was estimated to be 686 m (2,250 ft) long, 1.8 m (6 ft) wide, and averaged 1.8 m (6 ft) deep.

The 216-S-10 Ditch started receiving discharge from the REDOX Plant in August 1951. This ditch was part of a system that includes the 216-S-10 and 216-S-11 Ponds. In addition to these three sites, during May 1954 an approximate 4,048 m^2 (1 a) overflow (HW-43121, *Tabulation of Radiological Liquid Waste Disposal Facilities*) from the ditch released an estimated 215 kg of uranium from the ditch. This unplanned release is referenced as UPR-200-W-34. Later in 1954, aluminum nitrate nonahydrate solution was inadvertently dumped into the ditch and seriously plugged the soil at the ditch. During the summer of 1995, the ditch was dredged to improve percolation in the ditch. The sludge was removed and placed in unknown low spots on both sides of the ditch (RHO-CD-798). The ditch then was covered with 0.6 m (2 ft) of soil.

Approximately 50 waste streams contributed to the 216-S-10 Ditch (WHC-EP-0342, Addendum 9, *S Plant Wastewater Stream-Specific Report*). The routine waste stream sources included the compressor cooling water from the 202-S Building and the water overflow from the water tower. The remaining sources were infrequent additions and included 202-S Building floor drains and funnel drains; 211-S Tank Farm (a liquid-chemical storage area) pump drains, tank drains, station drains, chemical-sewer line man-holes; and 276-S Solvent Handling Facility floor drains. The effluent to the chemical sewer was composed of approximately 60 percent REDOX Plant raw water, 20 percent water, and 20 percent steam condensate.

The 216-S-10 Ditch and Pond system was developed in February 1954, when it became apparent that more leaching surface was needed. At that time, the 216-S-10 Pond was

constructed. The two 216-S-11 Leach Pond lobes on the southeast side of the 216-S-10 Ditch were constructed to provide even more leaching surface in May 1954.

The south end of the 216-S-10 Ditch remained in use until 1984, when the ditch was backfilled and stabilized. The north end of the ditch remains open to a depth of approximately 3 m (10 ft), and last received discharges during 1991 (BHI-00176, *S Plant Aggregate Area Management Study Technical Baseline Report*). The supplying pipeline was plugged with concrete near the outfall in July 1994. It is estimated that approximately 505 m (1,660 ft) of the ditch is open, and 180 m (590 ft) was backfilled and stabilized.

A dangerous waste discharge from the Chemical Engineering Laboratory to the 216-S-10 Ditch and Pond occurred in September 1983. The 420 L (110 gal) of double-shell slurry simulant (consisting of sodium nitrate [46 percent], sodium hydroxide [41 percent], and small quantities of sodium phosphate, sodium fluoride, sodium chloride, and potassium di-chromate) were sent via the sewer to the ditch and pond. This discharge exhibited the dangerous waste characteristics of ignitability (D001), corrosivity (D002), characteristic waste (D007), and toxic state-only waste (WT01, WT02). Approximately 450 kg (1,000 lb) of dangerous waste were discharged to the 216-S-10 Ditch and Pond system.

As of January 1999 (DOE/RL 96-81), radiological inventory at the ditch includes 199 kg of total uranium, 0.1 kg of total plutonium, 0.015 kg of Am-241, 1.0 kg of Cs-137, and 0.86 kg of Sr-90. During operations, the maximum volume of wastewater discharged to the 216-S-10 Ditch and Pond was approximately 568,000 L/d (150,000 gal/d).

2.3.1.4 216-S-10 Pond

The 216-S-10 Pond received discharge from the REDOX Plant (S Plant). This pond was part of a system that included the 216-S-10 Ditch and the 216-S-11 Pond. The pond was dug in 1954 at the southwest end of the 216-S-10 Ditch to provide additional leaching surface. The 216-S-10 Pond was an irregular-shaped, artificial pond that covered approximately 7,139 m^2 (1.8 a)[1] and included four finger-leach trenches. The pond was approximately 2.4 m (8 ft) at its deepest point. The pond was fed by the 216-S-10 Ditch. Both the ditch and pond were designed to dispose of liquids through percolation into the soil column.

Contributors to the pond are similar to those of the 216-S-10 Ditch. In 1984, concurrent with the 216-S-10 Ditch, the 216-S-10 Pond was stabilized (Work Plan).

[1] RHO-CD-673, *Handbook 200 Areas Waste Sites,* states the pond was approximately 2 ha (5 a), while the *Waste Information Data System* Report identifies the pond at approximately 0.7 ha (1.8 a).

2.3.2 Summary of Data Collection Activities

This section summarizes the data-collection activities performed during the 200-CS-1 OU RI, as well as data contained in the following sources:

- BHI-01177, *Borehole Summary Report for the 216-B-2-2 Ditch*
- BHI-01651, *200-CS-1 Operable Unit Test Pit Summary Report for Fiscal Year 2002*
- BHI-062455, *Transmittal of Final Letter Report on Sampling and Analytical Activities at the 216-A-29 Ditch*
- PNNL-13198, *Borehole Data Package for the 216-S-10 Pond and Ditch Well 299-W26-13*
- WMP-17755, *200-CS-1 Operable Unit Field Summary Report for Fiscal Year 2003.*

This section also covers drilling, sampling, analysis, and geophysical logging.

The RI was conducted from November 1999 to April 2003 at the four representative waste sites, in accordance with the Work Plan. Data were collected to characterize the nature and vertical extent of chemical and radiological contamination and the physical conditions in the vadose zone underlying the historical boundaries of the four waste sites. Twelve test pits were excavated and sampled to determine the vertical and lateral extent of contamination within the area historically defined as the waste-site boundary. RI field investigations included test pits as follows:

- Three test pits at the 216-A-29 Ditch
- Two test pits at the 216-B-63 Trench
- Three test pits at the 216-S-10 Ditch
- Four test pits at the 216-S-10 Pond.

Samples were collected and analyzed for radionuclides, metals, anions, polychlorinated biphenyls (PCB), volatile organic compounds (VOC), semivolatile organic compounds (SVOC), and physical properties. The data collected were considered to be of sufficient quantity and quality to support qualitative risk-assessment activities, to support evaluation of remedial alternatives, and to identify preferred remedial actions, as designed in the Work Plan.

In addition, four boreholes, one at each representative waste site, were drilled, sampled, and logged to groundwater with a high-resolution Spectral Gamma-Ray Logging System (SGLS) to provide continuous vertical logs of gamma-emitting radionuclides, and were logged with a Neutron Moisture-Logging System (NMLS) to identify moisture changes. Two additional existing wells, 299-W26-6 and 699-32-77, near the 216-S-10 Pond, were logged with a high-resolution SGLS. Supplemental data for the 216-A-29 Ditch and 216-B-63 Trench were included in the RI. Two additional test pits (Areas 8 and 9) were sampled at the 216-A-29 Ditch in 1988. One additional borehole (borehole B8079 from the 216-B-2-2 Ditch) near the 216-B-63 Trench was sampled in January 1998, and a few deep vadose-zone samples were included in the RI. Because of the location of borehole B8079 and

discharges associated with the 216-B-2-2 Ditch, the data is not determined to be relevant to the risk assessment of the 216-B-63 Trench. These activities are summarized in the RI Report, BHI-01651, and WMP-17755.

The test-pit locations (Figures 2-2 through 2-4) were prepared by removing 0.3 to 0.6 m (1 to 2 ft) of topsoil from the site. The test pits were excavated to a maximum depth of 7.6 m (25 ft) below ground surface (bgs) using a trackhoe. Samples were obtained directly from the trackhoe bucket at intervals of approximately 0.7 m (2.5 ft). Before being placed in a sample jar, soil samples were screened in the field for alpha and beta-gamma radioactivity to assist in selecting sample points, to support worker health and safety, and to provide shipping information. A radiological control technician, using field instruments, performed radiological screening. Samples were analyzed for chemical, radiological, and physical properties. The test pits were backfilled in the reverse order from the order in which they were excavated, using the trackhoe. A front-end loader then was used to backfill the site with topsoil and/or gravel.

The boreholes (Figures 2-2 through 2-4) were drilled using a cable-tool drill rig and were advanced to total depth using drive barrels and split-spoon samplers. Split-spoon samplers were the primary sampling device used to collect chemical, radiological, and physical property samples. The four boreholes were decommissioned with granular bentonite after reaching total depth, in accordance with WAC 173-160, "Minimum Standards for Construction and Maintenance of Wells."

Drilling, test-pit excavation, surface and borehole geophysical surveys, and soil sampling and analysis were conducted during the field activities. Boreholes and test pits were completed, and samples were collected and analyzed for contaminants of potential concern (COPC) identified in BHI-01276 and the Work Plan.

2.3.2.1 216-A-29 Ditch Characterization

Test pits AD-1 through AD-3 were excavated and sampled at the 216-A-29 Ditch in fiscal year 2002 (BHI-01651), and details were summarized in the RI Report. Data collected from Test Pit AD-3 were in addition to the data required by the Work Plan and were used to support the decision-making process for locating a proposed waste-transfer line to the Waste Vitrification Plant as part of Project W-211. The characterization activities for the AD-3 site were performed in accordance with BHI-01562, *Sampling and Analysis Instruction for the 216-A-29 Ditch for Project W-211*. Borehole B8826 was drilled through the 216-A-29 Ditch (east of the AP Tank Farm) and sampled during fiscal year 2003 (Figure 2-2). The borehole was terminated at 83.2 m (273 ft) and was logged using a high-resolution SGLS and an NMLS. The borehole was drilled to better define stratigraphy, to assess the nature and vertical extent of chemical and radiological contamination, and to determine the physical properties of the soil beneath the waste site.

2.3.2.2 216-B-63 Trench Characterization

Borehole B8827 was drilled and sampled, and test pits BT-1 and BT-2A were excavated and sampled in the 216-B-63 Trench, located east of the B Tank Farm (Figure 2-3). The two

samples scheduled to be taken from Test Pit BT-1 at depths of 6.1 to 7.6 m (20 and 25 ft) were not obtained, because the test pit caved in excessively. Excavation equipment regulated for use in contaminated environments was unavailable, so sampling at Test Pit BT-2 in fiscal year 2002 was terminated on November 2, 2001, after sampling at the 2.3 to 2.6 m (7.5 to 8.5 ft) depth. At that point, the soil was returned to the sampling pit in the reverse order from which it was excavated. Test Pit BT-2A was excavated and sampled to 7.6 m (25 ft) on November 11, 2002. This test pit was designated "BT-2A" to distinguish it from the fiscal year 2002 operations. Borehole B8827 was drilled through the 216-B-63 Trench and sampled during fiscal year 2003. It was terminated at 31.4 m (103 ft) and was logged using a high-resolution SGLS and an NMLS. The borehole was drilled to better define stratigraphy, to assess the nature and vertical extent of chemical and radiological contamination, and to determine the physical properties of the soil beneath the waste site.

2.3.2.3 216-S-10 Ditch Characterization

Test Pits SD-1, SD-2, and SD-3 were excavated and sampled in the 216-S-10 Ditch, and borehole B8828 was drilled and sampled adjacent to the 216-S-10 Ditch, located in the 200 West Area (Figure 2-4). Borehole B8828 was completed as a RCRA monitoring well and was renumbered well 299-W26-14 to support the RCRA monitoring program. It was drilled through the 216-S-10 Ditch and sampled during fiscal year 2003. The borehole was terminated at 81.4 m (267 ft), and was logged using a high-resolution SGLS and an NMLS. The borehole was drilled to better define stratigraphy, to assess the nature and vertical extent of chemical and radiological contamination, and to determine the physical properties of the soil beneath the waste site. Test Pit SD-3 was excavated in the 216-S-10 Ditch at the original location of planned borehole B8828 to gather characterization data below the waste site.

2.3.2.4 216-S-10 Pond Characterization

Test Pits SP-1, SP-2, SP-3, and SP-4 were excavated and sampled in the 216-S-10 Pond (Figure 2-4). Borehole B8817 was drilled adjacent to the 216-S-10 Pond and sampled in fiscal year 1999. Borehole B8817 was completed as a RCRA monitoring well and was renumbered well 299-W26-13. The borehole was logged using a high-resolution SGLS and an NMLS. Additional details are provided in PNNL-13198. Borehole B8817 was drilled to better define stratigraphy, to assess the nature and vertical extent of chemical and radiological contamination, and to determine the physical properties of the soil beneath the waste sites.

2.4 PHYSICAL SETTING

The following sections briefly describe the meteorology, topography, and hydrogeologic frameworks for the 200-CS-1 OU waste sites. Additional discussions are provided in the following:

- DOE/RL-92-19, *200 East Groundwater Aggregate Area Management Study Report*
- PNNL-6415, *Hanford Site National Environmental Policy Act (NEPA) Characterization*

- PNNL-13788, *Hanford Site Groundwater Monitoring for Fiscal Year 2001*
- PNNL-13910, *Hanford Site Environmental Report for Calendar Year 2001.*

2.4.1 Meteorology

The Hanford Site lies east of the Cascade Mountains and has a semiarid climate caused by the rain-shadow effect of the mountains. Climatologic data are monitored at the Hanford Meteorological Station and other locations throughout the Hanford Site. From 1946 through 2004, the recorded maximum temperature was 45 °C (113 °F) during July 2002 and August 1961, and the recorded minimum temperature was –30.6 °C (–23 °F) during February 1950 (PNNL-6415). The monthly average temperature ranged from a low of –0.24 °C (31.7 °F) in January to a high of 24.6 °C (76.3 °F) in July. The annual average relative humidity is 54 percent (PNNL-6415).

Most precipitation occurs during late autumn and winter, with more than half of the annual amount occurring from November through February (PNNL-6415). Normal annual precipitation is 17.7 cm (6.98 in.). Because this area typically receives less than 25.5 cm (10 in.) of precipitation a year, the climate is considered semiarid.

The prevailing wind direction at the Hanford Monitoring Station is from the northwest during all months of the year (PNNL-6415). Monthly average wind speeds are lowest during the winter and average about 3 m/s (6 to 7 mi/h). The highest monthly average wind speeds occur during the summer and are about 4 m/s (8 to 9 mi/h). The record wind gust was 35.7 m/s (80 mi/h) in 1972.

2.4.2 Topography

The 200-CS-1 OU is located on the 200 Areas Central Plateau, which is a broad, relatively flat, prominent terrace (Cold Creek Bar) near the center of the Hanford Site. The Cold Creek Bar was formed about 13,000 years ago during the last cataclysmic flood from glacial Lake Missoula. The Cold Creek Bar trends generally east-west with elevations between 197 and 225 m (647 and 740 ft) above mean sea level. The plateau drops off rather steeply to the north and northwest into a former flood channel with elevation changes of between 15 and 30 m (50 and 100 ft). The plateau decreases more gently in elevation to the south into the Cold Creek Valley and to the east toward the Columbia River. Most of the 200 West Area and the southern half of the 200 East Area are situated on the Cold Creek Bar, while the northern half of the 200 East Area lies within the former flood channel. A secondary flood channel running southerly from the main channel bisects the 200 West Area. Surface elevations near of the 200 West Area sites range from approximately 198 to 204 m (650 to 670 ft). Surface elevations near of the 200 East Area sites range from approximately 177 to 207 m (580 to 680 ft). The buried former river and flood channels may provide preferential pathways for groundwater and contaminant movement.

2.4.3 Geology

The 200-CS-1 OU is located in the Pasco Basin, one of several structural and topographic basins of the Columbia Plateau. Basalts of the Columbia River Basalt Group and a sequence of suprabasalt sediments underlie the 200-CS-1 OU waste sites. From oldest to youngest, the major geologic units of interest are the Elephant Mountain Member, the Ringold Formation, the Cold Creek unit, the Hanford formation, and surficial deposits. Figure 2-5 shows a generalized stratigraphic column for the 200 Areas. Geologic cross sections of the waste sites that show the depth, thickness, and variability of these geologic units are shown in Figures 2-6 through 2-8.

Elephant Mountain Member. The Elephant Mountain Member is the uppermost basalt unit (i.e., bedrock) in the 200 Areas. Except for a small area north of the 200 East Area boundary where it has been eroded away, the Elephant Mountain Member is laterally continuous throughout the 200 Areas. The RI field investigations did not penetrate to the basalt. Based on previous investigations and nearby wells, the top of basalt is approximately 67 to 119 m (220 to 390 ft) deep at the 216-A-29 Ditch, 81 m (264 ft) deep at the 216-B-63 Trench, 173 to 179 m (567 to 587 ft) deep at the 216-S-10 Ditch, and 179 m (587 ft) deep at the 216-S-10 Pond (Work Plan; PNNL-13198; WMP-17755; PNNL-12261, *Revised Hydrogeology for the Suprabasalt Aquifer System, 200-East Area and Vicinity, Hanford Site, Washington*; and PNNL-13858, *Revised Hydrogeology for the Suprabasalt Aquifer System, 200-West Area and Vicinity, Hanford Site, Washington*). The basalt is overlain by the Ringold Formation, except at the 216-B-63 Trench and the northern portion of the 216-A-29 Ditch, where the basalt is directly overlain by the Hanford formation (Work Plan; PNNL-12261) and possibly gravels of the Cold Creek unit (DOE/RL-2002-39, *Standardized Stratigraphic Nomenclature for the Post-Ringold-Formation Sediments Within the Central Pasco Basin*).

Ringold Formation. The Ringold Formation consists of an interstratified fluvial-lacustrine sequence of unconsolidated to semiconsolidated clay, silt, sand, and granule-to-cobble gravel deposited by the ancestral Columbia River (Figure 2-5). The Ringold Formation is overlain by the Cold Creek unit in the 200 West Area and in parts of the 200 East Area.

Cold Creek Unit. The Cold Creek unit is the new standardized name for several post-Ringold Formation and pre-Hanford formation units present on the Hanford Site (DOE/RL-2002-39). The Cold Creek unit includes the former Plio-Pleistocene unit, caliche, early Palouse soil, Pre-Missoula gravels, and sidestream alluvial facies described in previous Hanford Site reports. The Cold Creek unit has been divided into five lithofacies. The five lithofacies units are differentiated based on grain size, sedimentary structure, sorting, fabric, and mineralogy as follows:

- Fine-grained, laminated to massive (fluvial-overbank and/or eolian deposits, formerly the early Palouse soil)
- Fine-to coarse-grained, calcium-carbonate cemented (calcic paleosol, formerly the caliche)

- Coarse-grained, multilithic (mainstream alluvium, formerly the Pre-Missoula gravels)
- Coarse-grained, angular, basaltic (colluvium)
- Coarse-grained, rounded, basaltic (sidestream alluvium, formerly sidestream alluvial facies) (DOE/RL-2002-39).

Based on the Cold Creek unit facies distribution from DOE/RL-2002-39, the Cold Creek unit present beneath the 200 West Area waste sites includes the overbank/eolian and the calcic paleosol facies. The Cold Creek unit is not present beneath the 200 East Area. Descriptions of the five lithofacies units, depositional environments, and association with previous site nomenclature are shown in Table 2-2.

Hanford Formation. The Hanford formation is the informal stratigraphic name used to describe the Pleistocene cataclysmic flood deposits within the Pasco Basin. The Hanford formation consists predominantly of unconsolidated sediments that range from boulder-size gravel to sand, silty sand, and silt. The sorting ranges from poorly sorted (for gravel facies) to well sorted (for fine sand and silt facies). The Hanford formation is divided into three main lithofacies: interbedded sand- to silt-dominated (formerly Touchet Beds or slackwater facies), sand-dominated (formerly sand-dominated flood facies), and gravel-dominated (formerly Pasco Gravels) that have been further subdivided into 11 textural-structural lithofacies (DOE/RL-2002-39). Beneath the 200-CS-1 OU waste sites, the Hanford formation includes the gravel-dominated and sand-dominated facies. The gravel-dominated facies are cross-stratified, coarse-grained sands and granule-to-boulder gravel. The gravel is uncemented and matrix poor. The sand-dominated facies are well-stratified fine- to coarse-grained sand and granule gravel. Silt in these facies is variable and may be interbedded with the sand. Where the silt content is low, an open-framework texture is common. Clastic dikes are common in the Hanford formation but rare in the Ringold Formation (Implementation Plan; DOE/RL-2002-39). They appear as vertical to subvertical sediment-filled structures, especially within sand- and silt-dominated units. The Hanford formation is locally overlain by veneers of surficial deposits.

A unit of questionable origin locally overlies basalt within the B-BX-BY Waste Management Area (HNF-5507, *Subsurface Conditions Description for the B-BX-BY Waste Management Area*). This unit is commonly referred to as the "Hanford formation/Cold Creek unit (?)" and will be considered part of the Hanford formation in this document. The extent of this unit is poorly understood within the 200 East Area. The unit may be equivalent or partially equivalent to the Cold Creek unit or it may represent the earliest ice-age flood deposits overlain by a locally thick sequence of fine-grained, non-flood deposits. The unit consists of a silt facies and a sandy gravel to gravelly sand facies. The silt facies overlies the sandy gravel and consists of well-sorted calcareous silt and/or fine sand up to 10 m (35 ft) thick. The sandy gravel to gravelly sand facies is basaltic and is generally indistinguishable from Hanford formation gravels when not overlain by the silt facies.

Surficial Deposits. Surficial deposits include Holocene eolian sheets of sand that form a thin veneer over the Hanford formation across the site, except in localized areas where the deposits are absent. Surficial deposits consist of very fine to medium-grained sand to occasionally

silty sand. Silty deposits less than 1 m (3 ft) thick also have been documented at waste sites where fine-grained, wind-blown material has settled out through standing water over many years. Fill material was placed in and over representative waste sites during construction and for contamination control. The fill consists of reworked Hanford formation sediments and/or surficial sand and silt. The thickness of the fill material varies from 0.3 to 2.1 m (1 to 7 ft) at the representative waste sites (BHI-01651; WMP-17755).

2.4.4 Hydrostratigraphy

Hydrostratigraphy is the description and classification of mappable units, as related to their hydrologic properties. Vadose-zone hydrostratigraphic units within the 200-CS-1 OU include the Ringold Formation, the Cold Creek unit, the Hanford formation, and surficial deposits (Figure 2-5). The unconfined-aquifer hydrostratigraphic units within the 200-CS-1 OU include the Ringold Formation and the Hanford formation. The base of the unconfined aquifer is the top of the Ringold Formation lower mud or the top of basalt (Elephant Mountain Member).

Vadose Zone. The vadose zone is the area between the ground surface and the water table. At the 200 East Area representative waste sites, the vadose zone varies from about 82.4 m (270.2 ft) thick at the 216-A-29 Ditch to about 75 m (245 ft) thick at the 216-B-63 Trench. The vadose zone is entirely within Hanford formation sediments at the 216-B-63 Trench. At the 216-A-29 Ditch, the vadose zone is predominantly Hanford formation sediments, with a thin section of Ringold Formation sediments above the water table. Note that although some facies of the Cold Creek unit have been identified beneath 200 East Area (DOE/RL-2002-39), it has not been specifically identified beneath either the 216-A-29 Ditch or the 216-B-63 Trench.

At the 200 West Area waste sites, the vadose zone varies from 68 m (223 ft) thick at the 216-S-10 Ditch to 61 m (200.5 ft) thick at the 216-S-10 Pond with groundwater flow generally to the east-southeast. Sediments within the vadose zone at these waste sites include the Hanford formation, the Cold Creek unit, and part of the Ringold Formation.

Moisture content in the 200 Areas vadose zone typically ranges between 2 and 10 percent under ambient conditions (Implementation Plan), but historically has ranged widely from 10 percent to saturation (perched water) at liquid-waste disposal sites. Before 1995, liquid-waste sites provided a significant driving force for contaminant transport. With the reduction of artificial recharge in the 200 Areas since 1995, the downward flux of liquid in the vadose zone beneath waste sites has been decreasing. However, moisture content and downward flux of moisture in the vadose zone near waste sites is expected to remain elevated over preoperational conditions for some time. Artificial recharge occurred when effluent, such as cooling water was disposed to the ground. PNL-5506, *Hanford Site Water Table Changes 1950 Through 1980 – Data Observations and Evaluation* reports that between 1943 and 1980, 6.33×10^{11} L (1.67×10^{11} gal) of liquid wastes were discharged to the soil column. Most sources of artificial recharges have been halted. The artificial recharge that does continue is largely limited to liquid discharges from sanitary sewers; two state-approved land disposal structures; and 140 small-volume, uncontaminated, miscellaneous streams. In the

absence of artificial recharge, recharge from natural precipitation becomes the dominant driving force for moving the contamination remaining in the vadose zone to the groundwater. Estimates of recharge from precipitation range from 0 to 10 cm/yr (0 to 4 in/yr) and are largely dependent upon soil texture and the type and density of vegetation.

Data collected with the neutron-moisture logging tool indicate that volumetric moisture content beneath the 200 West Area representative waste sites ranged from 2 to 15 percent over the logged intervals. The highest moisture content correlated with the top of the Cold Creek unit at 41 m (134 ft) depth at the 216-S-10 Pond borehole (PNNL-13198). Calibration data were not available for the casing sizes used in drilling the 200 East Area representative waste site boreholes, so volumetric moisture contents were not calculated for the neutron logs from these boreholes (WMP-17755).

Borehole B8826, drilled at the 216-A-29 Ditch, encountered perched water at about 78.6 to 78.9 m (258 to 259 ft) bgs that was sitting atop a 1.4 m (4.5-ft) thick, very dense, compacted, silt/clay layer of the Ringold Formation.

A limited number of soil samples were collected to determine moisture content, grain-size distribution, and bulk density. Laboratory moisture content ranged from 2.5 to 14.3 percent (equivalent to 4.9 to 27.9 volumetric moisture percent). Bulk densities ranged from 1.38 to 2.07 g/cm^3. The results were published in PNNL-13198 and WMP-17755.

Unconfined Aquifer. The uppermost or unconfined aquifer beneath the 216-A-29 Ditch is approximately 2 to 24 m (7 to 79 ft) thick and is contained within sediments of the Hanford formation and the Ringold Formation. The aquifer extends from the water table to the top of the basalt or, in some areas, the lower mud of the Ringold Formation. The groundwater mound from the 216-B-3 Pond system is diminishing. The water table beneath the ditch has declined significantly since the discharges to the 216-B-3 Pond system were reduced in 1988 and eliminated by 1995.

The uppermost or unconfined aquifer beneath the 216-B-63 Trench is 3.4 to 6.1 m (11.2 to 20.0 ft) thick and is contained within the sediments of the Hanford formation. The aquifer extends from the water table to the top of the basalt. The Ringold Formation is absent beneath the trench. Groundwater recharge occurs from the 216-B-3 Pond system, but the hydraulic gradient in this area is changing as the groundwater mound created by the pond system diminishes. The water table is nearly flat beneath the trench and has been declining since the discharges to the 216-B-3 Pond system ceased.

The uppermost or unconfined aquifer beneath the 216-S-10 Pond and Ditch is about 61 m (200 ft) thick and is contained within sediments of the Ringold Formation units 4 and 5. The aquifer extends from the water table to the lower mud of the Ringold Formation. The water table beneath the pond and ditch has declined significantly since the discharges to the U Pond system ceased in 1984. Additional hydrostratigraphical information may be found in DOE/RL-2002-39, Section 2.1.4.

2.5 NATURAL AND CULTURAL RESOURCES

Natural resources in the study area and vicinity include vegetation and wildlife resources. Biological and ecological information aids in evaluating impacts to the environment from contaminants in the soils, including potential effects of implementing remedial actions and identification of sensitive habitats and species. This section also considers cultural and aesthetic resources and socioeconomics associated with activities in the 200 Areas.

Survey data collected in 2000 and 2001 for the 200 Areas Central Plateau as part of the Ecological Compliance Assessment Project were compiled to support Central Plateau ecological evaluations (DOE/RL-2001-54, *Central Plateau Ecological Evaluation*). The information includes plant-community descriptions, identification of plant and wildlife species, and avian census data. Designated levels of habitat under DOE/RL-96-32, *Hanford Site Biological Resources Management Plan*, including rare-plant populations, are identified and mapped. The data were collected before the 24 Command Fire occurred in 2000. The fire, however, did not impact any of the waste sites being considered in this FS.

2.5.1 Vegetation

Vegetation in the study area is characterized by native shrub-steppe, interspersed with large areas of disturbed ground dominated by annual grasses and forbs. In the native shrub-steppe, the dominant shrub is big sagebrush (*Artemisia tridentata*). The understory is dominated by the native perennial grass, Sandberg's bluegrass (*Poa sandbergii*), and the introduced annual grass, cheatgrass (*Bromus tectorum*). Other shrubs typically present include rabbitbrush (*Chrysothamnus spp.*), spiny hopsage (*Grayia spinosa*), and antelope bitterbrush (*Purshia tridentata*). Other native bunchgrasses also present include Indian ricegrass (*Achnatherum hymenoides*) and needle-and-thread grass (*Hesperostipa comata*). Common herbaceous species include turpentine cymopteris (*Cymopteris terebinthinus*), globemallow (*Sphaeralcea munroana*), balsamroot (*Balsamorhiza careyana*), milkvetch (*Astragalus spp.*), yarrow (*Achillea millefolium*), dwarf evening primrose (*Camissonia pygmaea*), and daisy (*Erigeron spp.*). Dwarf evening primrose and Piper's daisy (*Erigeron piperianus*) are rare plants, but have not been encountered in the study area.

Many of the waste-disposal and storage sites in the 200 Areas have been backfilled with clean soil and planted with crested or Siberian wheatgrass (*Agropyron cristatum* and *Agropyron sibericum*, respectively) to stabilize surface soil, control soil moisture, or displace more invasive deep-rooted species like Russian thistle (*Salsola tragus,* formerly *kali*) (PNNL-6415). The area associated with the waste sites addressed in this FS is highly disturbed. This disturbed habitat primarily is the result of mechanical and operational disturbance. Outlying habitats also have been disturbed because of range fires, clearing, and construction activities.

2.5.2 Wildlife

The largest mammal frequenting the study area is the mule deer (*Odocoileus hemionus*). Mule deer are much more common along the Columbia River; the few that forage throughout

the 200 Areas make up a distinct group called the Central Population (PNNL-11472, *Hanford Site Environmental Report for Calendar Year 1996*). A large elk herd (*Cervus canadensis*) currently resides on the Fitzner-Eberhardt Arid Lands Ecology Reserve and is referred to as the Rattlesnake Hills herd. Elk, which are more dependent on open grasslands for forage, seek the cover of sagebrush and other shrub species during the summer months. The Rattlesnake Hills herd primarily occupies the Arid Lands Ecology Reserve and private lands that adjoin the reserve to the south and west. They occasionally are seen in, and just south of, the 200 Areas and have been sighted at the White Bluffs boat launch on the Hanford Site. The herd tends to congregate on the Arid Lands Ecology Reserve in the winter and disperses during the summer months to higher elevations on the Arid Lands Ecology Reserve, private land to the west of the Arid Lands Ecology Reserve, and the Yakima Training Center.

Experienced biologists reported sighting a cougar (*Felis concolor*) on the Arid Lands Ecology Reserve during the elk relocation in March 2000, supplementing anecdotal accounts of other observations of the presence of a cougar on the Hanford Site (PNNL-6415).

Other mammals common to the 200 Areas are badgers (*Taxidea taxus*), coyotes (*Canis latrans*), Great Basin pocket mice (*Perognathus parvus*), northern pocket gophers (*Thomomys talpoides*), and deer mice (*Peromyscus maniculatus*). Badgers are known for their digging ability and have been suspected of excavating contaminated soil at 200 Areas radioactive waste sites (BNWL-1794, *Distribution of Radioactive Jackrabbit Pellets in the Vicinity of the B-C Cribs, 200 East Area*). The majority of badger diggings are a result of searches for food, especially for other burrowing mammals, such as pocket gophers and mice. Pocket gophers, Great Basin pocket mice, and deer mice are abundant herbivores in the 200 Areas. These small mammals can excavate significant amounts of soil as they construct their burrows (Hakonson et al., 1982, "Disturbance of a Low-Level Waste Burial Site Cover by Pocket Gophers"). Mammals associated with buildings and facilities include Nuttall's cottontails (*Sylvilagus nuttallii*), house mice (*Mus musculus*), Norway rats (*Rattus norvegicus*), and various bat species.

Common bird species in the study area include the starling (*Sturnus vulgaris*), horned lark (*Eremophila alpestris*), meadowlark (*Sturnella neglecta*), western kingbird (*Tyrannus verticalis*), rock dove (*Columba livia*), black-billed magpie (*Pica pica*), and raven (*Corvus corax*). Burrowing owls (*Athene cunicularia*) commonly nest in the 200 Areas in abandoned badger or coyote holes, or in open-ended stormwater pipes along roadsides in more industrialized areas. Loggerhead shrike (*Lanius ludovicianus*) and sage sparrow (*Amphispiza belli*) are common nesting species in habitats dominated by sagebrush. Long-billed curlews (*Numenius americanus*) have been observed nesting on inactive waste sites.

Reptiles common to the study area include gopher snakes (*Pituophis melanoleucus*) and sideblotched lizards (*Uta stansburiana*). Rattlesnakes (*Crotalus viridis*) also have been observed. Reptile sightings are not widespread, with only 23 observations of side-blotched lizards at 316 sites surveyed during a 2001 Ecological Compliance Assessment Project survey (DOE/RL-2001-54).

Three of the most common groups of insects include darkling beetles (family *Tenebrionidae*), grasshoppers (suborder C*aelifera*), and ants (family *Formicidae*). Ants have been known to burrow up to 2.7 m (9 ft) into the vadose zone and to bring contaminants to the surface.

2.5.3 Species of Concern

The Hanford Site is home to a number of species of concern, but many of these are associated with the Columbia River and its shoreline. Two Federally protected species have been observed at the Hanford Site, the Aleutian Canada goose (*Branta canadensis leucopareia*) and the bald eagle (*Haliaeetus leucocephalus*). Both depend on the river corridor and rarely are seen in the Central Plateau. As migratory birds, these species also are protected under the *Migratory Bird Treaty Act* (1918).

Several threatened, endangered, and candidate species are found in and near the 200 Areas. These species include the ferruginous hawk (*Buteo regalis*), burrowing owl *Athene cunicularia*), loggerhead shrike (*Lanius ludovicianus*), long-billed curlew (*Numenius americanus*), and sage sparrow (*Amphispiza belli*). Plant species of concern (which include those listed as State endangered, threatened, sensitive, and monitored) that may occur in the study area include dwarf evening primrose and Piper's daisy (*Erigeron piperianus*) (WNHP, 1998, *Washington Rare Plant Species by County*).

Plant and animal species of concern, their designations, and the places of their occurrence can change over time. At this time, it is not anticipated that remediation of the 200-CS-1 OU will affect any species of concern, but incorporating the needs of these species into project planning will help to mitigate any potential effects. Especially important is avoiding, where possible, undisturbed shrub-steppe habitat, because this is important to many species of concern. The undisturbed shrub-steppe in the Central Plateau was designated as Level 3 habitat in DOE/RL-96-32, which requires mitigation of any disturbance, (e.g., through avoidance and minimization) and possibly rectification and compensation. DOE/RL-96-32 provides more detailed direction on protecting Level 3 habitats and species of concern. In addition, site-specific environmental surveys, required before ground disturbance can occur, serve as a final check to ensure that ecological resources are adequately protected.

2.5.4 Cultural Resources

A comprehensive archaeological survey of the 200 Areas found artifacts in conjunction with areas of high topographic relief and near sources of permanent water, but few artifacts associated with open, inland flats (PNL-7264, *Archaeological Survey of the 200 East and 200 West Areas, Hanford Site, Washington*). In the 200 West Area, the only culturally sensitive area identified is the historic White Bluffs Road that crosses diagonally (southwest to northeast) through the northern portion of the 200 West Area. The report concluded that additional cultural resource reviews are required only for proposed projects within 100 m (328 ft) of this road. The waste sites associated with the 200-CS-1 OU are not within 100 m (328 ft) of this road (PNL-7264).

PNL-7264 addressed only undisturbed portions of the 200 Areas and did not address facilities and structures. The *National Historic Preservation Act of 1966* requires agencies to consult with the State Historic Preservation Officer and the Advisory Council on Historic Preservation to ensure that all potentially significant cultural resources, including structures and associated sites, have been adequately identified, evaluated, and considered in planning for a proposed undertaking (e.g., remediation, renovation, or demolition) (DOE/RL-97-56, *Hanford Site Manhattan Project and Cold War Era Historic District Treatment Plan*).

DOE/RL-97-56 was developed to address these requirements and to determine the eligibility of historic properties for 36 CFR 60, "National Register of Historic Places." DOE/RL-97-56 evaluated and classified waste sites and structures on the Hanford Site, including those in the 200 Areas, and proposed recommendations for mitigation. Treatment options for mitigation were determined using 36 CFR 60.4, "Criteria for Evaluation." None of the waste sites in the 200-CS-1 OU that are subjects of this FS were recommended for individual documentation as contributing properties. Sites beginning with "216" (e.g., 216-A-29 Ditch, 216-S-10 Ditch) were categorized as "noncontributing/exempt properties" (i.e., properties that are exempted from documentation requirements as potential historic sites) (DOE/RL-97-56). Some sites not addressed in DOE/RL-97-56, such as unplanned release and septic tanks that were not considered to be significant enough to be evaluated as part of that activity, will be evaluated under site-specific preremediation cultural-resource reviews.

No cultural resources have been directly associated with OU waste sites (PNL-7264; DOE/RL-97-56; PNNL-6415); however, site-specific cultural-resource reviews will be required for each waste site before remediation or other ground-disturbing activities are begun. In addition to the site-specific review, a cursory field review of plant and animal life may be conducted concurrently with this activity.

2.5.5 Aesthetics, Visual Resources, and Noise

With the exception of Rattlesnake Mountain, Gable Mountain, and Gable Butte, land on the Hanford Site generally is flat with little relief. Rattlesnake Mountain, rising to 1,060 m (3,478 ft) above mean sea level, forms the southwestern boundary of the Hanford Site, and Gable Mountain and Gable Butte are the highest landforms on the Hanford Site itself. The view toward Rattlesnake Mountain is visually pleasing, especially in the springtime when wildflowers are in bloom. Large rolling hills are located to the west and far north. The Columbia River, flowing across the northern part of the Site and forming the eastern boundary, generally is considered scenic.

Studies at the Hanford Site on the propagation of noise have been concerned primarily with occupational noise at work sites. Environmental noise levels have not been extensively evaluated because of the remoteness of most Hanford Site activities and their isolation from receptors covered by Federal or State statutes. Most industrial facilities on the Hanford Site are located far enough away from the Site boundary that noise levels at the boundary are not measurable or are indistinguishable from background noise levels (PNNL-6415).

2.5.6 Socioeconomics

Activity on the Hanford Site plays a dominant role in the socioeconomics of the Tri-Cities and other parts of Benton and Franklin counties. The agricultural community also has a significant effect on the local economy. Any major changes in Hanford Site activity potentially would affect the Tri-Cities (Richland, Pasco, Kennewick, and smaller surrounding communities) and other areas of Benton and Franklin Counties. Data in this section are from the Hanford Site NEPA Characterization Report (PNNL-6415).

DOE and its contractors compose the largest single source of employment in the Tri-Cities. During fiscal year 2006, an average of 9,759 employees were employed by the DOE Office of River Protection and its prime contractor CH2M HILL Hanford Group, Inc.; the RL and its prime contractors Fluor Hanford, Inc., Washington Closure Hanford, LLC, and AdvanceMed Hanford; and the DOE Office of Science Pacific Northwest Site Office and the Pacific Northwest National Laboratory, which is operated by Battelle. Fiscal year 2006 year-end employment for all DOE contractors was 9,707, down from 10,135 at the end of fiscal year 2005. In addition to these totals, Bechtel National, Inc., which has had the responsibility to design, build, and start up waste treatment facilities for the vitrification of liquid radioactive waste since December 2000, employed 1,647 at the end of fiscal year 2006. Bechtel National, Inc., employment peaked at 3,867 in July 2004.

The total annual average number of DOE contractor employees has declined by nearly 7,600 since fiscal year 1994, when employment peaked at 19,200 employees, but DOE contractor employment still represents 11 percent of the total jobs in the economy. Total employment in the Richland, Kennewick, and Pasco metropolitan statistical area averaged 106,100 per month during 2006, down from 107,700 in 2005 (LMEA, 2007, *Resident Civilian Labor Force and Employment*). Based on employee records as of April 2007, over 90 percent of DOE contractor employees live in Benton and Franklin counties. Approximately 73 percent reside in Richland, Pasco, or Kennewick. More than 36 percent are Richland residents, 11 percent are Pasco residents, and 25 percent live in Kennewick. Residents of other areas of Benton and Franklin counties, including West Richland, Benton City, and Prosser, account for about 17 percent of total DOE contractor employment.

The five largest non-DOE contractor and non-government employers employed approximately 7,150 people in Benton and Franklin counties as of May 2007. These companies include (1) ConAgra/Lamb Weston, which employed 3,513; (2) Tyson Fresh Meats (formerly Iowa Beef Processing Inc.), which employed 1,250; (3) Wal-Mart (three stores), which employed 1,041; (4) the Tri-Cities Airport, which employed 714; and (5) AREVA, Inc. (formerly Framatome ANP and Siemens Power Corporation) which employed 630. Four of the largest agriculture growers and processors in the area, AgriNorthwest, Broetje Orchards, J. R. Simplot Company, and Twin City Foods, Inc., employed approximately 2,861 people during 2006; however, a large portion of the workers were seasonal. Other major area employers include school districts, Richland, Kennewick, and Pasco, which employed a total of 4,913; three major health care facilities, Kadlec Medical Center, Kennewick General Hospital, and Lourdes Health Network, which employed a total of 2,900; local government offices, Benton and Franklin county and Richland, Kennewick,

and Pasco city offices, which employed 2,112; and Boise Cascade Corporation Paper and Corrugated Container Divisions, which employed 605. Both Boise Cascade and Tyson Fresh Meats are located in western Walla Walla County, but most of their workforce resides in Benton and Franklin counties.

Tourism and government transfer payments to retirees in the form of pension benefits also are important contributors to the local economy.

An estimated 160,600 people lived in Benton County and 64,200 lived in Franklin County during 2006, totaling 224,800, an increase of over 17 percent from the Census 2000 figure (OFM, 2007, *2006 Population Estimates by Age, Gender, Race and Hispanic Origin, Using the Office of Management and Budget New Classifications*). This growth rate is faster than the state of Washington as a whole, which has grown 8.2 percent since the 2000 Census. According to the 2000 Census, population totals for Benton and Franklin counties were 142,475 and 49,347, respectively (Census, 2001a, *Poverty Thresholds in 2000, by Size of Family and Number of Related Children Under 18 Years*). Both Benton and Franklin counties also grew at a faster pace than the state during the 1990s. The population of Benton County increased 26.6 percent, up from 112,560 during 1990, and the population of Franklin County increased 31.7 percent, up from 37,473 during 1990, while the population of the state of Washington rose 21.1 percent (Census, 2001a).

Based on the 2000 census (Census, 2001b, *Census 2000 Redistricting Data (P.L. 94-171) Summary File – Oregon*; Census, 2001c, *Census 2000 Redistricting Data (P.L. 94-171) Summary File –Washington*), the 80 km (50-mi) radius area surrounding the Hanford Site had a total population of 482,300 people and a minority population of 178,500. The ethnic composition of the minority population is primarily white Hispanic (24 percent), self-designated "other and multiple" races (63 percent), and Native American (6 percent). Asians and Pacific Islanders (4 percent) and African Americans (3 percent) make up the remainder. The Hispanic population resides predominantly in Franklin, Yakima, Grant, and Adams counties. Native Americans within the 80 km (50-mi) area reside primarily on the Yakama Reservation and upstream of the Hanford Site near the town of Beverly, Washington.

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Figure 2-1. Application of the Analogous Site Approach.

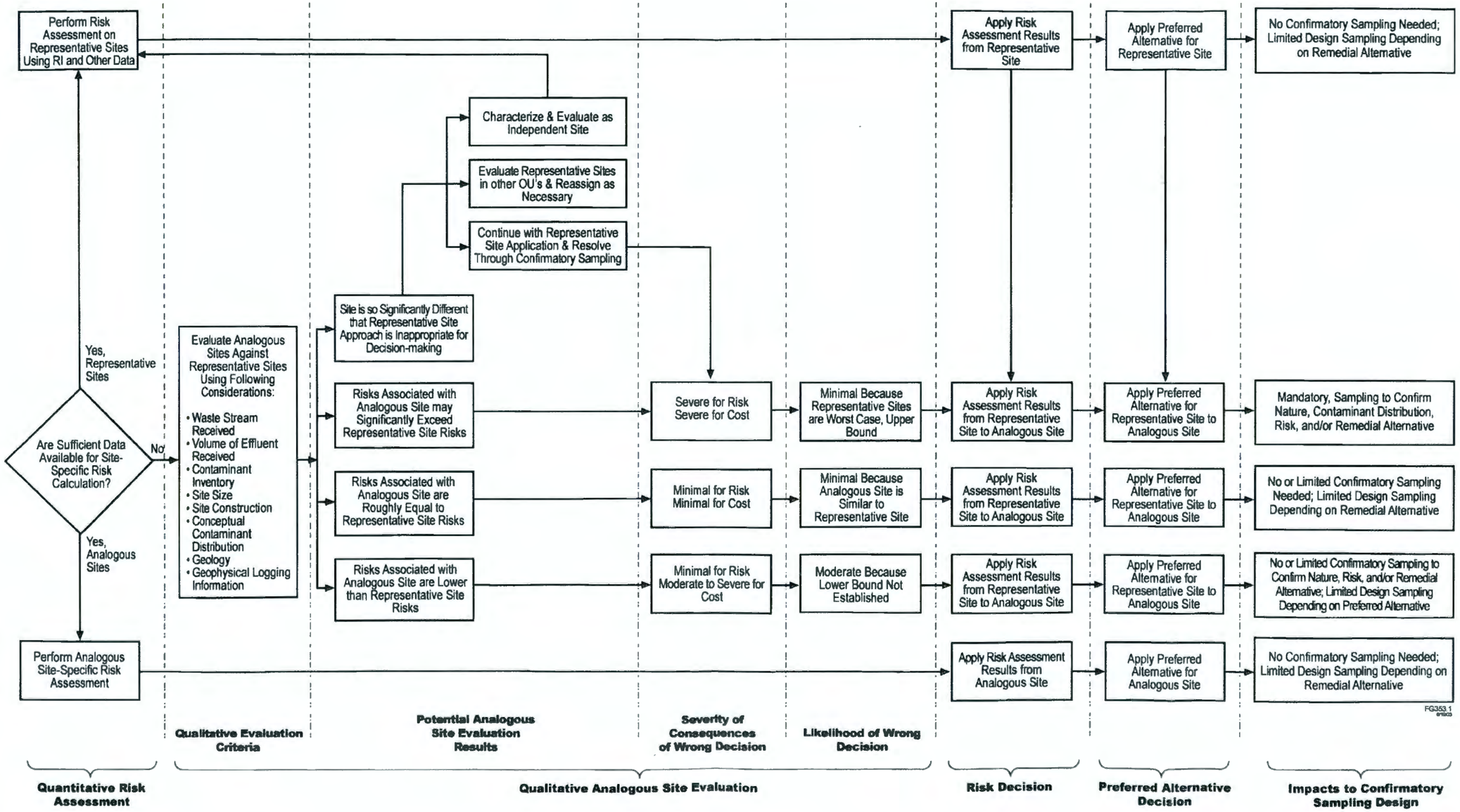


Figure 2-2. 216-A-29 Ditch Borehole and Test Pit Locations.

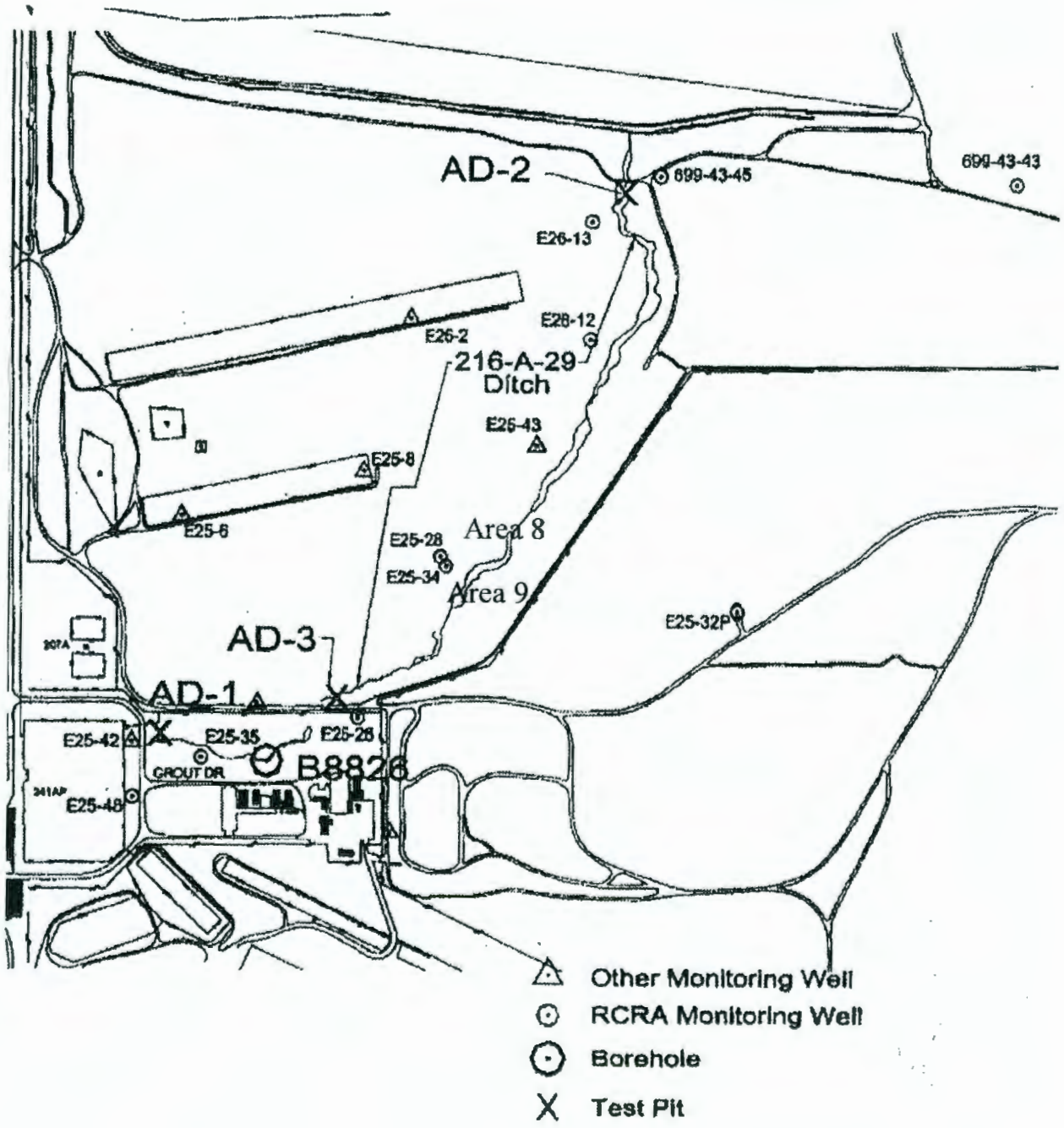


Figure 2-3. 216-B-63 Trench Borehole and Test Pit Locations.

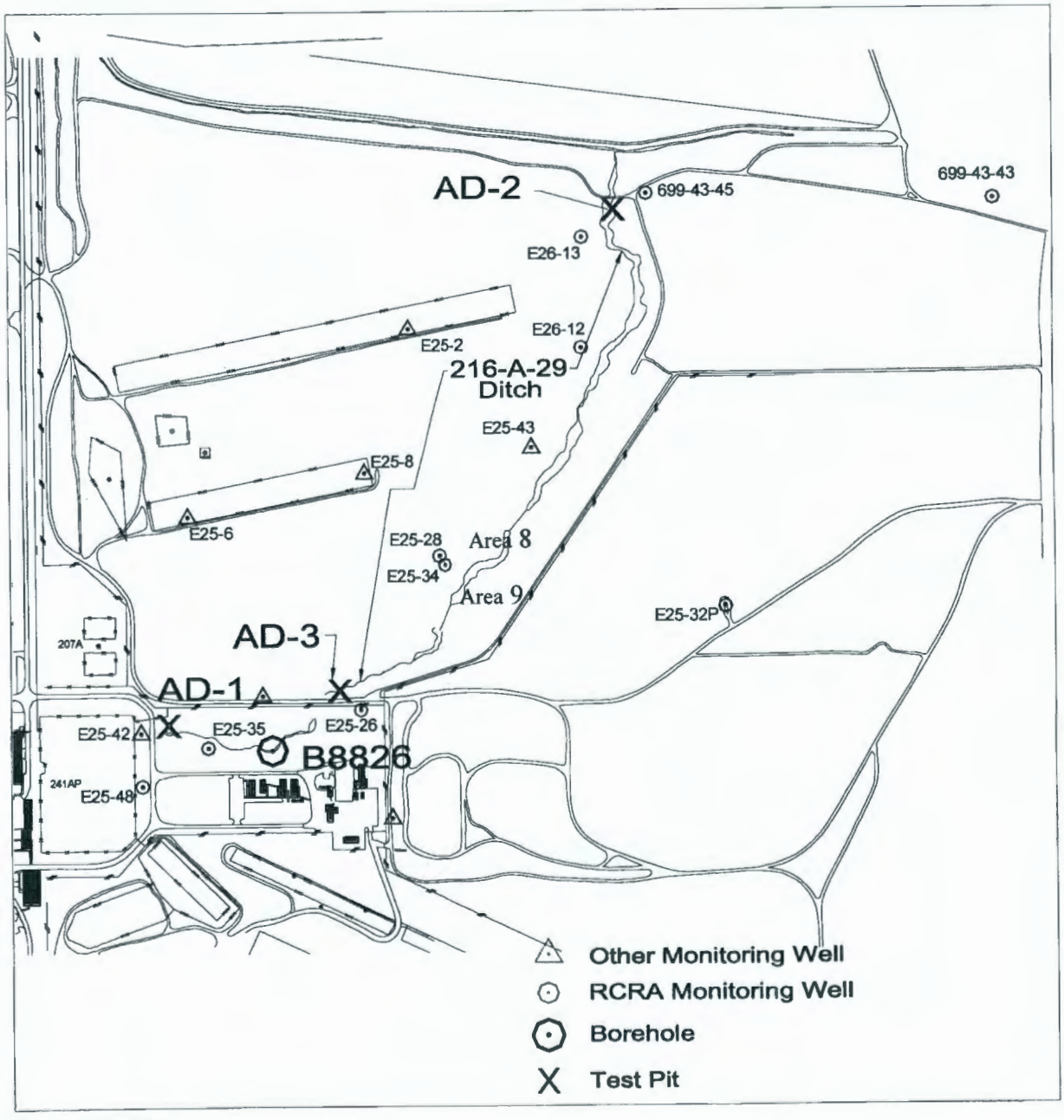


Figure 2-4. 216-S-10 Ditch and Pond Borehole and Test Pit Locations.

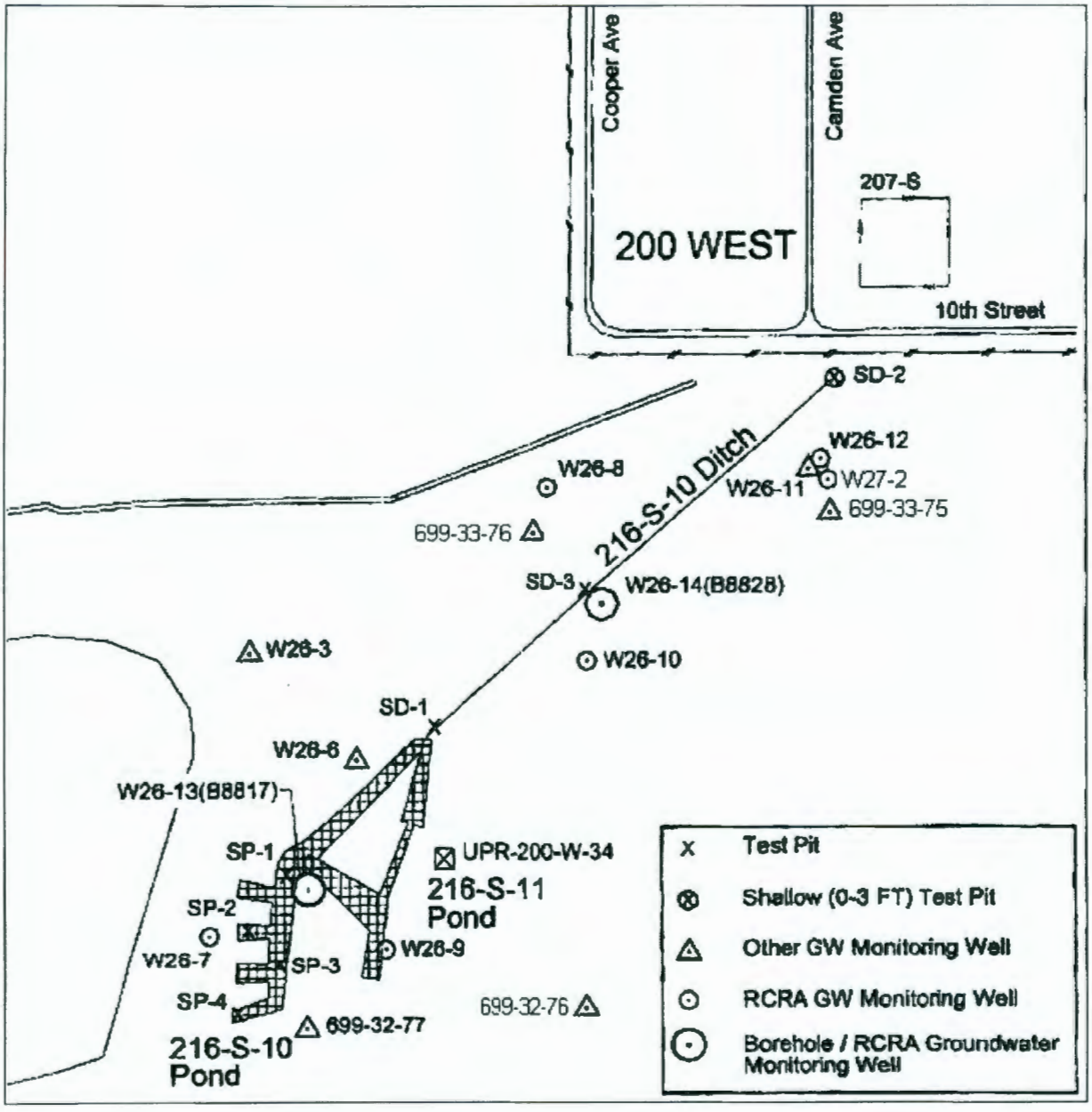
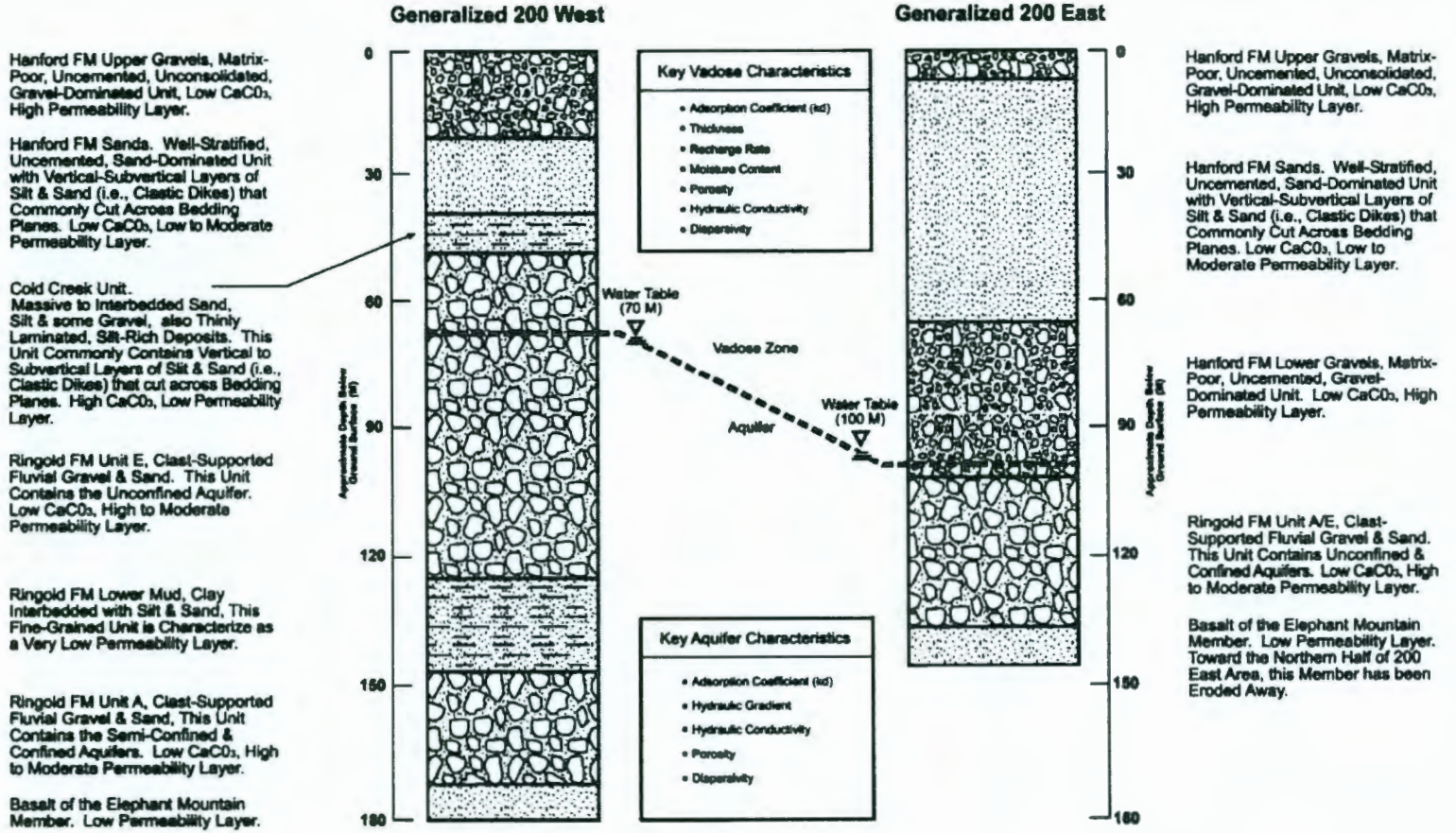


Figure 2-5. Stratigraphic Column for the 200 Areas.



FM = formation.

Figure 2-6. Geologic Cross Section Through the 216-A-29 Ditch.

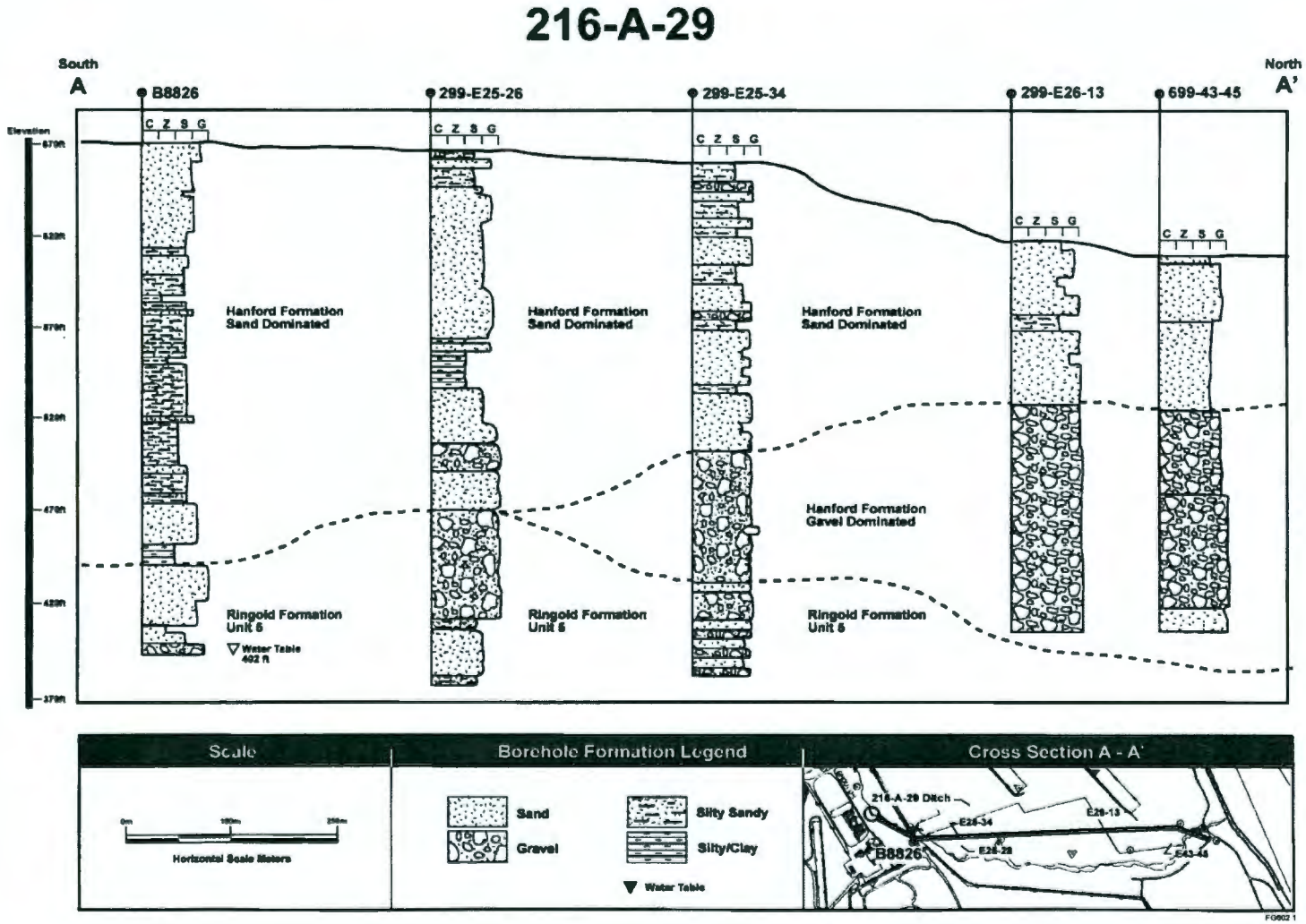


Figure 2-7. Geological Cross Section Through the 216-B-63 Trench.

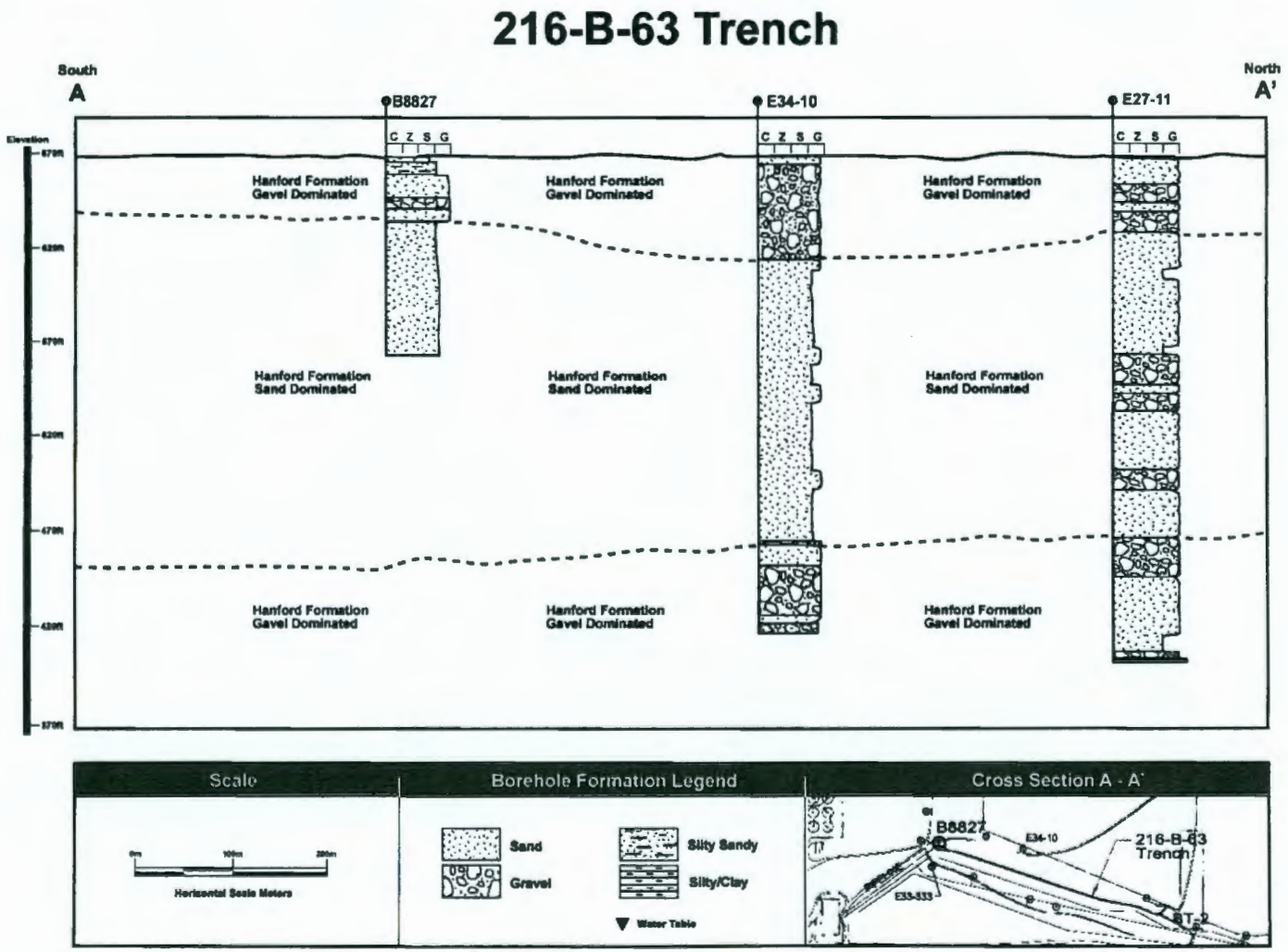
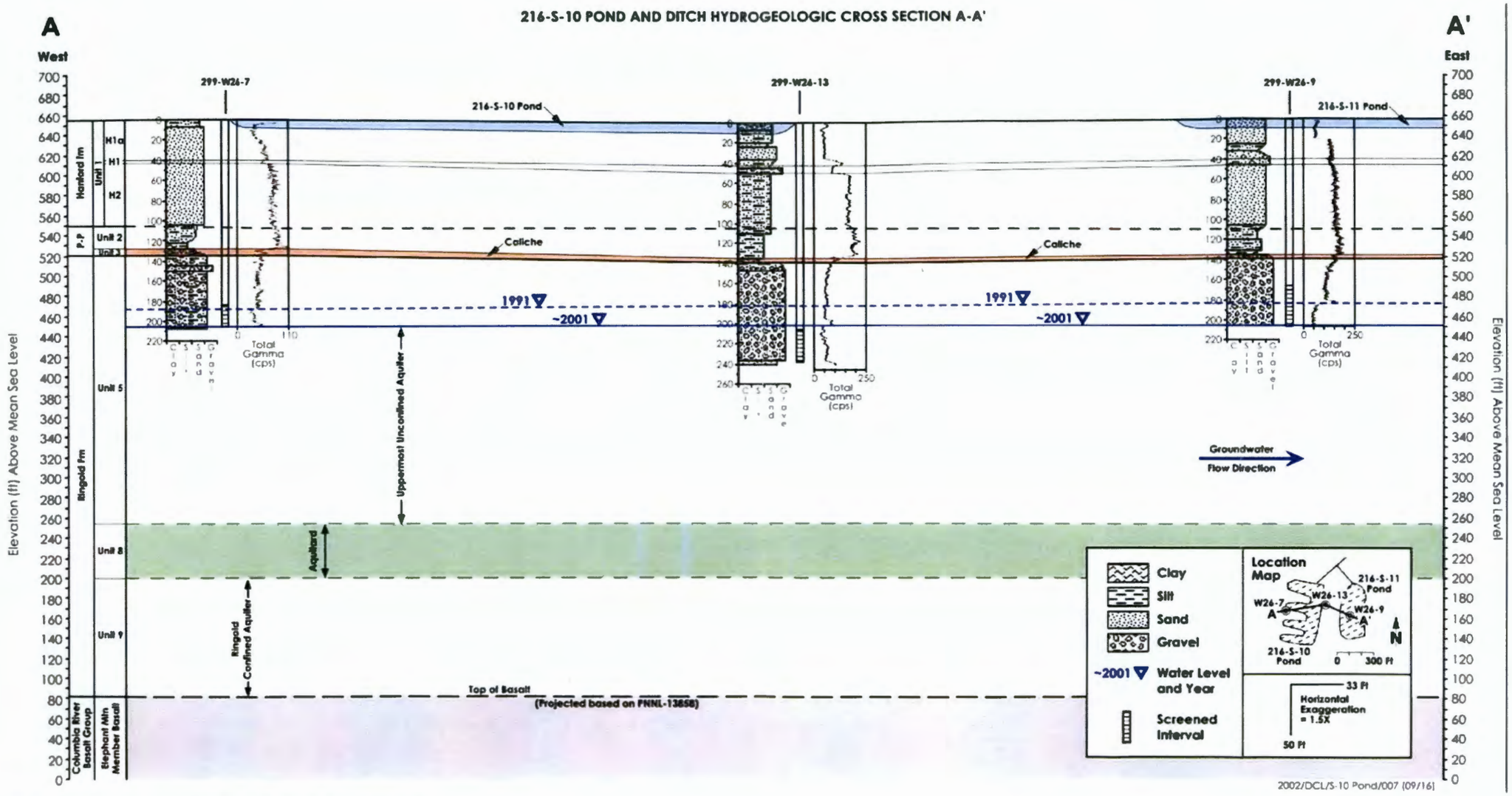


Figure 2-8. Hydrogeologic Cross Section at the 216-S-10 Pond and Ditch.



Source: PNNL-14070, *Groundwater Monitoring Plan for the 216-S-10 Pond and Ditch.*

Table 2-1. Partial Inventory of Chemicals Released to the 216-A-29 Ditch Between 1983 and 1987.

Chemicals	Kilograms	Pounds
Aluminum nitrate nonahydrate	8,379	18,455
Ammonium fluoride	2,437	5,368
Ammonium nitrate	461	1,016
Cadmium nitrate	39	85
Ferrous sulfamate	43	95
Hydrazine	290	639
Hydroxylamine nitrate	316	695
Nitric acid	18,952	41,745
Potassium hydroxide	66,208	145,833
Potassium permanganate	4,858	10,700
Sodium carbonate	641	1,412
Sodium hydroxide	20,993	46,240
Sodium nitrate	73	160
Sodium nitrite	579	1,275
Sulfamic acid	91	200
Sulfuric acid	1,887	4,156

Modified from DOE/RL-99-44, *200-CS-1 Operable Unit RI/FS Work Plan and RCRA TSD Unit Sampling Plan.*

Table 2-2. Lithofacies of the Cold Creek Unit.

Lithofacies	Environment of Deposition	Previous Site Nomenclature
Fine-grained, laminated to massive. Consists of a brown- to yellow very well sorted cohesive, compact, and massive- to laminated- and stratified-fine-grained sand and silt. It is moderately to strongly calcareous with relatively high natural background gamma activity.	Fluvial-overbank and eolian	Palouse soil, early "Palouse" soil, Hanford formation/Plio-Pleistocene unit silt.
Fine- to coarse-grained, calcium carbonate cemented. Consists of basaltic to quartzite gravels, sands, silts, and clay that are cemented with one or more layers of secondary, pedogenic calcium carbonate.	Calcic paleosol	Highly weathered subunit of the Plio-Pleistocene unit/caliche, calcrete.
Coarse-grained, multilithic. Consists of rounded, quartzose to gneissic clast-supported pebble- to cobble-size gravel with a quartzo-feldspathic sand matrix.	Mainstream alluvium	Distantly derived subunit of the Plio-Pleistocene unit/pre-Missoula flood gravel.
Coarse-grained, angular, basaltic. Consists of angular, clast- to matrix-supported basaltic gravel in a poorly sorted mixture of sand and silt with no stratification. Calcic paleosols may be present.	Colluvium	New facies designation for the Pasco Basin.
Coarse-grained, round basaltic lithofacies.	Sidestream alluvium	Locally derived subunit of the Plio-Pleistocene unit.

Based on DOE/RL-2002-39, *Standardized Stratigraphic Nomenclature for Post-Ringold Formation Sediments Within the Central Pasco Basin.*

3.0 BASELINE RISK ASSESSMENT

The evaluation of risk at a hazardous waste site is an important component in the remediation process. EPA/540/G-89/004 states, "Because the RI/FS is an analytical process designed to support risk management decision-making for Superfund sites, the assessment of health and environmental risks plays an essential role in the RI/FS." EPA/540/G-89/004 also states that uncertainties associated with the assessment of risk to human health and the environment, as well as the evaluation of remedial options,

> ...can be numerous, ranging from potential unknowns regarding site hydrogeology and the actual extent of contamination, to the performance of treatment and engineering controls being considered as part of the remedial strategy. While these uncertainties foster a natural desire to want to know more, this desire competes with the Superfund program's mandate to perform cleanups within designated schedules. The objective of the RI/FS process is not the unobtainable goal of removing all uncertainty, but rather to gather information sufficient to support an informed risk management decision regarding which remedy appears to be most appropriate for a given site.

As part of the assessment of health and environmental risk, the level of uncertainty associated with a number of factors considered during the assessment also is identified and discussed.

A BRA was performed as one of the objectives of the RI Report (DOE/RL-2004-17). The initial RI BRA concluded that the data collected during the RI were of sufficient quantity and quality to support the risk-assessment activities, to support evaluation of remedial alternatives, and to identify preferred remedial actions in the FS. An evaluation of the groundwater-protection pathway indicated that contaminants currently in the vadose zone could potentially impact groundwater in the future, but were not likely to increase groundwater concentrations above current levels. The RI BRA identified risks associated with the observed levels of chemical and radionuclide contamination at the site. However, some uncertainties associated with the degree and extent of contamination were not clearly defined and discussed in the RI and presented some challenges to developing the FS alternatives.

The uncertainty analysis plays a key role in understanding the implications for the remedy and devising post-ROD strategies to achieve a safe, effective, and efficient remedy. It was discovered during the review of the Draft A RI that additional data were available for inclusion in the BRA. As a result, DOE decided to proceed with a revision to the BRA to include all available analytical data, and thus are included with this FS.

This revised BRA presents the results of the analysis of the 216-A-29 Ditch, the 216-B-63 Trench, the 216-S-10 Pond, and the 216-S-10 Ditch. The revised BRA presented in Chapter 3.0 is organized as follows.

- Section 3.1 provides an overview; summarizes the original characterization strategy; and presents the rationale, scope, and objectives for the revised BRA.
- Section 3.2 summarizes the conceptual exposure model, including potential exposure routes and receptors, and describes land and groundwater use at the site.

- Section 3.3 summarizes the data used for this revised BRA and describes the initial data evaluation steps used to select COPCs and contaminants of potential ecological concern (COPEC).
- Section 3.4 presents the human-health risk assessment.
- Section 3.5 presents the groundwater impacts analysis.
- Section 3.6 presents the ecological risk assessment (ERA).
- Section 3.7 summarizes the outcome of the BRA (i.e., human health, ecological, and groundwater-protection pathway) and overall uncertainties. This section also discusses implications for the FS.

3.1 PURPOSE AND OVERVIEW OF THE BASELINE RISK ASSESSMENT

In EPA/540/1-89/002, the EPA defines a BRA as "...an analysis of the potential adverse health effects (current or future) caused by hazardous substance releases from a site in the absence of any actions to control or mitigate these releases (i.e., under an assumption of no action)." The BRA characterizes current site conditions and contamination in the absence of any remedial action that might reduce potential risks in the present or future.

Although some action has been taken in the past to backfill and stabilize the waste sites in the 200-CS-1 OU, RI characterization data are based on current conditions. As a result, the risk assessments completed in this chapter are referred to as BRAs, which is consistent with EPA terminology. The purpose of the BRA is to (1) provide an analysis of baseline risks[1] and help determine the need for action at sites; (2) provide a basis for determining levels of constituents that can remain onsite and still be adequately protective of public health; (3) provide a basis for comparing potential health impacts of various remedial alternatives; and (4) provide a consistent process for evaluating and documenting public health threats at sites. The goal of the BRA process is to provide a framework for developing the risk information necessary to assist decision-making at remedial sites (EPA/540/1-89/002). The BRA should present the available site data, methodologies followed, identified risks, and associated uncertainties in a clear, logical, easy-to-understand, and transparent manner.

In general, the BRA completed in the RI Report and the revised BRA completed for this FS follow EPA risk-assessment guidance (EPA/540/1-89/002; EPA/540/R-97/006, *Ecological Risk Assessment Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessments Interim Final* [ERAGS]). The approach used includes the following:

- Adherence to CERCLA guidance for a human-health risk assessment, a screening-level ecologic risk assessment, and an analysis of the groundwater-protection pathway
- Use of maximum concentrations in all scenario calculations
- Selection of reasonable maximum exposure (RME) assumptions for the RME industrial and unrestricted land use exposure scenarios to provide a conservative

[1] Baseline risks are risk that might exist if no remediation or institutional controls were applied at a site.

estimate of health risks. The RME is defined here as the highest exposure that is reasonably expected to occur at a site.

In addition to human-health and ERAs, potential threats to groundwater under the 200-CS-1 OU are evaluated. In this report, this analysis is referred to as the "groundwater impacts analysis" and is used to evaluate potential impacts to groundwater from migration of radionuclides and nonradionuclide chemicals in contaminated soil through the vadose zone to the aquifer. The approach used, combined with the original sampling survey design, is likely to result in an over-estimation of risk and possible over-specification of the selected remedy. This was recognized in the original RI/FS strategy (documented in the Work Plan [DOE/RL-99-44]) and was anticipated that the uncertainties arising from the RI sampling design would be resolved with additional sampling in the remedial design/remedial action phase.

3.1.1 Sampling Strategy, Data Usability, and Uncertainty

The purpose of the Work Plan was to establish the methods and criteria for the RI sampling, analysis, characterization, and evaluation. The Work Plan for the 200-CS-1 OU documents that the sampling design was intentionally biased to identify worst-case conditions/maximum concentrations. It also states that the primary goal of the field sampling was to characterize the site and document potential impacts to groundwater. Because of the prior application of cover/fill material at most of the 200-CS-1 OU waste sites, surface-soil samples (0 to approximately 0.45 m [1.5 ft] bgs) were not collected for the purpose of estimating the potential for direct contact exposure to contaminants by human and ecological receptors. This biased sampling approach is critical to understanding and defining the level of uncertainty in site characterization and in the subsequent use of the data in the BRA.

The Work Plan outlined a nonstatistical sampling design to be conducted and acknowledged that the consequence of this biased sampling approach was not considered severe (Work Plan). The Work Plan indicated that the biases and uncertainties arising from the site characterization would be resolved with additional sampling in the remedial design/remedial action phase.

While the use of biased sampling results in a risk assessment also biases the potential risks, the limited number of sample locations and small sample sizes also can be a source of uncertainty. EPA mandates that Superfund cleanups occur within designated schedules, with the goal of gathering sufficient data to support an informed risk-management decision about the most appropriate remedy. This requires that the biases inherent in a biased sampling design, and the uncertainty associated with small sample sizes, be accommodated in the risk analyses and clearly presented in the uncertainty discussion. In this manner, risk managers can address these uncertainties and determine the need for additional characterization and assessments in the remedial design/remedial action phase.

The data used for the revised BRA were collected under the Work Plan, based on the DQOs established for this OU in BHI-01276. In accordance with the quality assurance/quality control procedures specified in the Work Plan, at least 10 percent of all data were validated,

and a data quality assessment was performed. The data quality assessment is summarized in the RI Report, Appendix A. No sample results were rejected based on this assessment.

In addition to outlining characterization strategy and sampling protocols, the Work Plan provides a preliminary list of COPCs for the 200-CS-1 OU, which includes all contaminants that were potentially discharged to the chemical sewer OU waste sites. A list of contaminants to be evaluated in the RI, BRA, and FS was developed from this list of COPCs, based on specific exclusion criteria described in the DQO document (BHI-01276). Additional data for a number of contaminants not on the contaminants of concern (COC) list in the Work Plan were provided in the data set used for the BRA. The raw data used for this revised BRA are provided in the RI Report, Appendix A.

Data of sufficient quality and quantity for assessing baseline risks were collected for the 216-A-29 Ditch, the 216-B-63 Trench, the 216-S-10 Pond, and the 216-S-10 Ditch. Each of the waste sites has commercial laboratory data available for radionuclides, metals, anions, PCBs, VOCs, SVOCs, and physical properties.

216-A-29 Ditch. RI activities were conducted at the 216-A-29 Ditch from July 1988 to April 2003. A total of five test pits and one borehole were collected from the 216-A-29 Ditch. Test pits (Areas 8 and 9) were excavated and sampled in July 1988; the maximum depths of Areas 8 and 9 were 4.9 and 3.1 m (16 and 10.3 ft) bgs, respectively. Test pits AD-1 through AD-3 were excavated and sampled in October and November 2001; the maximum excavation depths at these test pits ranged between 4.6 and 5.2 m (15 and 17 ft) bgs. With the exception of test pit area 9, samples from five depth intervals were collected from each test pit. Samples from three depth intervals were collected from test pit area 9. Borehole B8826 was drilled and sampled from the ground surface to a depth of 83.2 m (273 ft). Samples from a total of 12 depth intervals were collected from borehole B8826. A summary of the samples from the 216-A-29 Ditch included in the BRA are listed in Table 3-1.

216-B-63 Trench. RI activities were conducted at the 216-B-63 Trench from November 2001 to March 2003. A total of two test pits and one borehole were collected from the 216-B-63 Trench. Test Pit BT-1 and BT-2A were excavated and sampled in November 2002; the maximum excavation depths at these two test pits were 5.5 and 7.6 m (18 and 25 ft) bgs, respectively. Samples from five depth intervals were collected from test pit BT-1 and samples from nine depth intervals were collected from test pit BT-2A. Borehole B8827 was drilled and sampled in March 2003 from the ground surface to a depth of 31.4 m (103 ft) bgs. Samples from a total of nine depth intervals were collected from borehole B8827. A summary of the samples for the 216-B-63 Trench included in the BRA are listed in Table 3-2.

216-S-10 Ditch. RI activities were conducted at the 216-S-10 Ditch from November 2002 and April 2003. A total of three test pits and one borehole were collected from the 216-S-10 Ditch. Test Pits SD-1 through SD-3 were excavated and sampled in November 2002, the maximum excavation depths were 5.2 m (17 ft), 4.3 m (14 ft), and 0.9 m (3 ft) bgs, respectively. Samples from five depth intervals were collected from test pits SD-1 and SD--2 and samples from two depth intervals were collected from test pit SD0-3. Well 299-W26-14 (B8826) was drilled and sampled in March 2003 from the ground surface to 81.4 m (267 ft) bgs. Samples from a total of 10 depth intervals were collected from well 299-W26-14. A summary of the samples for the 216-S-10 Ditch included in the BRA are listed in Table 3-3.

216-S-10 Pond. RI activities were conducted at the 216-S-10 Pond from December 1999 to November 2002. A total of four test pits and one borehole were collected from the 216-S-10 Pond. Test Pits SP-1 through SP-4 were excavated and sampled in November 2002, the maximum excavation depths ranged to approximately 7.62 m (25 ft) bgs. Samples from seven depth intervals were collected from each of the test pits. Borehole 299-W26-13 (B8817) was drilled and sampled in December 1999 from the ground surface to 73.4 m (240.7 ft) bgs. Samples from a total of six depth intervals were collected from borehole 299-26-13. A summary of the samples for the 216-S-10 Pond included in the BRA are listed in Table 3-4.

A detailed description of sample collection activities is provided in Chapter 2.3.

3.1.2 Scope and Objectives of the Baseline Risk Assessment

This BRA is conducted to determine whether a potential for risk to human health and the environment exists under current and reasonably anticipated future site-use conditions at the 200-CS-1 OU. The framework for the BRA and the risk evaluation to support the balancing and modifying criteria evaluation is described in the following subsections.

The scope of the revised risk assessment follows EPA guidance and conducts BRAs for four waste sites (the 216-A-29 Ditch, 216-B-63 Trench, 216-S-10 Ditch, and 216-S-10 Pond) in the 200-CS-1 OU. The exposure area (or exposure unit) evaluated in the BRA is the ditch, trench, or pond itself at each of these sites.

As identified by DOE, groundwater use by humans is precluded for the foreseeable future, and use by ecological receptors is not observed in the shallow-soil zone. As a result, the use of groundwater by human or ecological receptors is not evaluated as a potential exposure pathway for these waste sites. However, the migration of contaminants in the vadose zone to groundwater beneath the waste site is evaluated. Remediation of contaminated groundwater beneath the 200-CS-1 OU is the subject of the RI/FS activities under way for the 200-BP-5, 200-PO-1, 200-UP-1, and 200-ZP-1 Groundwater OUs.

The main objectives of the risk assessments presented in this FS are as follows:

- Logically present the methodology used and describe the various steps of each assessment
- Identify nonradionuclide and radionuclide COCs, based on their potential for presenting unacceptable health and environmental risks
- Clearly present the inherent uncertainties associated with the available data; assumptions and parameters used for exposure, toxicity, and contaminant fate and transport; and the resulting risk outcome, for use in the analysis of remedial alternatives.

3.1.3 Framework of the Baseline Risk Assessment

The following provides the framework of the BRA used to support remedial action decision-making. The primary purpose of the BRA throughout the RI/FS process was described in

Section 3.1. During the remedial investigation, the BRA helps determine the need for remedial action at sites. During the feasibility study, the BRA is used to provide a basis for determining levels of constituents that can remain onsite and still be adequately protective of public health (preliminary remediation goals). It also can be used to provide a basis for comparing potential health impacts of various remedial alternatives.

To support the RI/FS decision-making process for the 200-CS-1 OU, two points of compliance (greater detail is provided in Section 3.2.3) are considered. Several different exposure scenarios are applied to each point of compliance to determine whether remedial action should be further evaluated or required. The exposure scenarios and points of compliance used for RI/FS decision-making are provided in Table 3-5.

The land use for the 216-A-29 Ditch and the 216-B-63 Trench is designated as industrial-exclusive and is further described in Section 3.2.1. The land use for the 216-S-10 Pond and 216-S-10 Ditch is designated as conservation/mining. Understanding land use is necessary as actions at Superfund sites should be based on an estimate of the RME expected to occur under both current and future land-use conditions.

To evaluate baseline conditions for the direct contact exposure pathway, unrestricted land use standards or a rural residential exposure scenario for the 0 to 4.6 m (15 ft) bgs point of compliance was evaluated at all of the waste sites. As discussed in Section 3.2.6.5, the rural residential exposure scenario includes the evaluation of water-dependent exposure pathways including drinking water and irrigation water use. Because water-dependent pathways are included, the entire soil column is evaluated rather than limiting the evaluation to the top 4.6 m (15 ft) bgs. Therefore, the upper contaminated zone (CZ) for the 216-B-63 Trench was extended to 5.8 m (19 ft) bgs and the upper CZ at the 216-S-10 Ditch was extended to 8.2 m (27 ft) bgs. The purpose of this evaluation is to determine whether current soil concentrations can meet the unrestricted land use standards for a "no action" alternative.

Additionally, industrial land use standards or a industrial worker exposure scenario for the 0 to 4.6 m (15 ft) bgs point of compliance was evaluated at all of the waste sites. The industrial worker exposure scenario does not include the evaluation of water-dependent pathways; therefore, the upper CZs at the 216-B-63 Trench and 216-S-10 Ditch were extended only to 4.6 m (15 ft) bgs. The purpose of this evaluation is to determine whether current soil concentrations can meet the industrial land use standards considering the current land use controls.

A soil boring was drilled within the boundaries of each waste site evaluated in the BRA. Therefore, a groundwater impact analysis was evaluated at each of the waste sites within the 200-CS-1 OU.

3.1.4 Framework of the Risk Evaluation to Support the Balancing and Modifying Criteria Evaluation

Similarly, to support the balancing and modifying criteria evaluation the exposure scenarios and points of calculation used for RI/FS decision-making are provided in Table 3-6. Specifically, the results of these exposure scenarios will be used during the evaluation of the CERCLA balancing criteria of long-term effectiveness and permanence and the modifying

criteria of community acceptance. The final remedial action decision, however, will be made based on the evaluation of all nine CERCLA criteria to support remedy selection.

A hypothetical excavation scenario is performed for all waste sites to determine whether contamination that is currently at depth (directly beneath the stabilization cover) would meet industrial standards if the contamination were brought to the surface (i.e. 0 to 4.6 m [15 ft] bgs). This scenario is evaluated by assuming that the existing stabilization cover at each waste site is removed (i.e., has zero thickness), thereby exposing the upper CZ at the ground surface. Another purpose of this hypothetical scenario is to determine the length of time needed to allow radiological contamination to decay to levels below a dose rate 15 mrem/yr or to risk levels less than 10^{-4}. This information is used for evaluation of the Maintain Existing Soil Cover, Monitored Natural Attenuation, and ICs alternative.

To provide additional information about the direct contact exposure pathway, the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) and the Yakama Nation exposure scenarios were evaluated at each waste site. The CTUIR and Yakama Nation scenarios were evaluated to understand the effects of exposure and resulting health risks if land use for the 200-CS-1 OU were unrestricted.

As described previously, a soil boring was drilled within the boundaries of each waste site and evaluated in the risk assessment. The inadvertent intruder analyses are performed for this risk evaluation to understand the effects of exposure if ICs fail in the future. Similar to the hypothetical excavation worker, inadvertent intruder scenarios are used to determine the length of time needed to allow radiological contamination to decay to levels below acute and chronic dose rates of 500 mrem/yr and 100 mrem/yr, respectively.

3.2 CONCEPTUAL EXPOSURE MODEL

This conceptual exposure model provides a current understanding of the sources of contamination, physical setting, current and future land use, and identifies potentially complete human and ecological exposure pathways (i.e., an exposure pathway with all the components necessary to present a risk or hazard to a receptor or population) for the 200-CS-1 OU.

Information generated during the development of the RI/FS has been incorporated into this conceptual exposure model to identify potential exposure scenarios.

3.2.1 Land Use

The DOE worked for several years with cooperating agencies and stakeholders to define land-use goals for the Hanford Site and to develop future land-use plans (Drummond, 1992, *The Future for Hanford: Uses and Cleanup, The Final Report of the Hanford Future Site Uses Working Group*). Cooperating agencies and stakeholders included the National Park Service, Tribal Nations, the States of Washington and Oregon, local county and city governments, economic and business development interests, environmental groups, and agricultural interests. These activities initially were reported in Drummond, 1992 and culminated in the DOE/EIS-0222-F, *Final Hanford Comprehensive Land-Use Plan Environmental Impact Statement*, and 64 FR 61615, "Record of Decision: Hanford

Comprehensive Land-Use Plan Environmental Impact Statement (HCP EIS)," which were issued in 1999.

Based on DOE/EIS-0222-F and the associated ROD (64 FR 61615), industrial-exclusive land use is defined as "preserving DOE control of the continuing remediation activities and use of the existing compatible infrastructure required to support activities such as dangerous waste, radioactive waste, and mixed waste treatment, storage, and disposal facilities" (DOE/EIS-0222-F). The 216-A-29 Ditch and the 216-B-63 Trench waste sites, are located in the Core Zone consistent with the Tri-Parties' response (Klein et al., 2002, "Consensus Advice #132: Exposure Scenarios Task Force on the 200 Area") to HAB 132, "Exposure Scenarios Task Force on the 200 Area.". That document indicates that this area of the Site will have an "Industrial Scenario" for the foreseeable future.

The 216-S-10 Ditch, the 216-S-10 Pond and the 216-S-11 Pond lie outside the boundaries of the Core Zone. Based on DOE/EIS-0222 and the associated ROD (64 FR 61615), land use immediately outside the boundaries of the industrial-exclusive boundary is defined as conservation/mining. Conservation is defined as an area reserved for the management and protection of archeological, cultural, ecological, and natural resources; limited and managed mining and grazing could occur as a conditional use (e.g., a permit would be required) within appropriate areas (Implementation Plan [DOE/RL-98-28]).

In addition to the unrestricted land-use scenario, Tribal-use scenarios are evaluated in the risk assessment. The RL has agreed to include a quantitative analysis of the two available tribal use exposure scenarios in the RI/FS documents. Additionally, an evaluation of an inadvertent intruder scenario is included although it is not specifically identified by the requirements of CERCLA; EPA and Ecology have suggested that potential impacts to an inadvertent intruder be evaluated and that these scenarios be consistent with DOE O 435.1, *Radioactive Waste Management*. The recommendation for an inadvertent intruder scenario acknowledges that the inadvertent intruder scenario is a reasonable means of assessing the potential consequences of IC failure.

The inclusion of the Tribal use and inadvertent intruder exposure scenarios supports, in part, the evaluation of the CERCLA balancing criteria of long-term effectiveness and permanence and the modifying criteria of community acceptance. The final remedial action decision, however, will be made based on the evaluation of all nine CERCLA criteria to support remedy selection. Inclusion of the Tribal use and inadvertent intruder exposure scenarios establishes the potential consequences to these receptors if the land use designation for this operable unit were to change from industrial-exclusive or if a loss of ICs were to occur in the future. However, inclusion of the Tribal-use or the inadvertent intruder scenarios will not be used to define PRGs and the resulting cleanup levels.

3.2.2 Beneficial Groundwater Use

Under current site-use conditions, no complete human- or ecological-exposure pathways to groundwater are assumed at these waste sites. Local groundwater is not a current source of drinking water at the 200-CS-1 OU waste sites. Regardless of the land-use designation for soil, groundwater beneath the waste sites is not anticipated to become a future source of drinking water while groundwater remediation is underway.

Direct exposure to groundwater by terrestrial receptors is considered an incomplete exposure pathway, because no groundwater connection to the surface is available. In addition, the aquifer is too deep for plant roots to bring groundwater contaminants from the aquifer to the surface of the sites. Remediation of contaminated groundwater beneath the Central Plateau is the subject of the RI/FS activities under way for the 200-BP-5, 200-PO-1, 200-UP-1, and 200-ZP-1 Groundwater OUs and is not included in the scope of this BRA.

3.2.3 Points of Compliance for the Baseline Risk Assessment

WAC 173-340-740(6), "Unrestricted Land Use Soil Cleanup Standards," "Point of Compliance," and WAC 173-340-745(7), "Soil Cleanup Standards for Industrial Properties," "Point of Compliance," establishes a point of compliance for soil-cleanup levels based on potential human exposure to soils via direct contact. This point of compliance is established for soils from the ground surface to 4.6 m (15 ft) bgs. This is intended to represent a reasonable estimate of the depth of soil that could be excavated and distributed at the soil surface, resulting in the potential for human and ecological receptors to contact soil contaminants. In compliance with WAC 173-340-745(7), the BRA assumes that human and ecological receptors have the potential to contact shallow-zone soils from the ground surface to a depth of 4.6 m (15 ft) bgs. For evaluation of radiological contaminants under the rural residential exposure scenario, the BRA assumes the upper CZ extends to 5.8 m (19 ft) bgs for the 216-B-63 Ditch and to 8.2 m (27 ft) bgs for the 216-S-10 Ditch. Details on the performance of the radiological exposure evaluation are provided in Appendix F.

In contrast to evaluating the direct-contact exposure pathway for human and ecological receptors, contaminant concentrations in the vadose zone are used to assess potential impacts to groundwater related to infiltration of water and subsequent leaching of radionuclides and nonradionuclide chemicals from contaminated soil to the aquifer. The entire vadose zone is considered for this pathway because of the impact of infiltration of water through contaminated vadose-zone soils on groundwater. This analysis assumes that the groundwater underlying the site is the point of compliance.

3.2.3.1 Points of Compliance for the 216-A-29 Ditch

The 216-A-29 Ditch is approximately 1,220 m (4,000 ft) in length and 1.83 m (6 ft) in width for a total area of 2,233 m^2 (0.55 a). Within the boundaries of the 216-A-29 Ditch, soil boring B8826 was drilled and five test pits were excavated (Figure 2-2). Soil boring B8826 was drilled from ground surface to a depth of 83.2 m (273 ft) bgs. A total of 41 samples were collected from the top 4.6 m (15 ft), which will be used to establish compliance with direct contact exposure to soils for potential human and ecological receptors. A total of 62 samples (21 samples from depths less than 4.6 m [15 ft] bgs) were used to evaluate impacts to groundwater.

3.2.3.2 Points of Compliance for the 216-B-63 Trench

The 216-B-63 Trench is 427 m (1,400 ft) in length and 1.2 m (4 ft) in width for a total area of 520 m^2 (0.13 a). Within the boundaries of the 216-B-63 Trench, soil boring B8827 was drilled and two test pits were excavated (Figure 2-3). Soil boring B8827 was drilled from ground surface to a depth of 31.4 m (103 ft) bgs. A total of 15 samples were collected from

the top 4.6 m (15 ft), which will be used to establish compliance with direct contact exposure to soils for potential human and ecological receptors. A total of 31 samples (16 samples from depths less than 4.6 m [15 ft] bgs) were used to evaluate impacts to groundwater.

3.2.3.3 Points of Compliance for the 216-S-10 Ditch.

The 216-S-10 Ditch is approximately 686 m (2,250 ft) and 1.83 m (6 ft) in width for total area of 1,255 m^2 (0.31 a). Within the boundaries of the 216-S-10 Ditch, soil boring B8828 (later converted to well 299-W26-14) was drilled and three test pits were excavated (Figure 2-4). Soil boring B8828 was drilled from ground surface to a depth of 81.4 m (267 ft) bgs. A total of 14 samples were collected from the top 4.6 m (15 ft), which will be used to establish compliance with direct contact exposure to soils for potential human and ecological receptors. A total of 30 samples (16 samples from depths less than 4.6 m [15 ft] bgs) were used to evaluate impacts to groundwater.

3.2.3.4 Points of Compliance for the 216-S-10 Pond.

The 216-S-10 Pond covers approximately 7,139 m^2 (1.8 a). Within the boundaries of the 216-S-10 Pond, soil boring B8817 (later converted to well 299-W26-13) was drilled and four test pits were excavated (Figure 2-4). Soil boring B8817 was drilled from ground surface to a depth of 60.6 m (199 ft) bgs. A total of 19 samples were collected from the top 4.6 m (15 ft) which will be used to establish compliance with direct contact exposure to soils for potential human and ecological receptors. A total of 40 samples (22 samples from depths less than 4.6 m [15 ft] bgs) were used to evaluate impacts to groundwater.

3.2.4 Points of Calculation for the Balancing and Modifying Criteria Evaluation

To provide additional information in the CERCLA and RCRA decision-making process, additional consideration has been given to address contaminants residing below 4.6 m (15 ft) bgs. As described earlier, this information will be used in the balancing and modifying criteria evaluation. Based on the evaluation of laboratory sampling and analysis data, the upper CZ at the 216-B-63 Ditch extends to approximately 5.8 m (19 ft) bgs and the upper CZ at the 216-S-10 Ditch extends to approximately 8.2 m (27 ft) bgs. Based on evaluation of laboratory sampling and analysis data, the upper CZ within the 216-B-29 Ditch and the 216-S-10 Pond is limited to the top 4.6 m (15 ft) bgs therefore no additional evaluation will be performed at these two waste sites. The evaluation of radiological contaminants addresses the current waste site configurations, including contaminants in the upper and lower contaminated soil layers at each waste site (Appendix F).

3.2.4.1 Points of Calculation for the 216-A-29 Ditch.

For the purpose of evaluating the balancing and modifying criteria, soil samples from the 0 to 4.6 m (15 ft) bgs were evaluated. The evaluation of shallow-zone radiological contamination assumes that the 1.2 m (4 ft) of clean cover that is currently over the waste site has been removed and maximum concentrations within the upper CZ)are exposed at the ground surface. This configuration represents a soil depth that could potentially be excavated and is used to evaluate exposure of future industrial workers to soils via direct contact. The Tribal use exposure scenarios include the contribution of soil contamination to drinking water and water used for irrigation; therefore, all CZs from the ground surface to the groundwater table

are included in the RESidual RADioactivity (dose model) (ANL, 2007, *RESRAD*, Version 6.4) (RESRAD) analysis.

3.2.4.2 Points of Calculation for the 216-B-63 Trench.

For the purpose of evaluating the balancing and modifying criteria, soil samples from 0 to 5.8 m (19 ft) bgs were evaluated. The evaluation of shallow-zone radiological contamination assumes that the 1.5 m (5 ft) of clean cover that is currently over the waste site has been removed and maximum concentrations within the upper CZ are exposed at the ground surface. This configuration represents a soil depth that could potentially be excavated and is used to evaluate exposure of future industrial workers to soils via direct contact. The Tribal use exposure scenarios include the contribution of soil contamination to drinking water and water used for irrigation; therefore, all CZs from the ground surface to the groundwater table are included in the RESRAD analysis.

3.2.4.3 Points of Calculation for the 216-S-10 Ditch.

For the purpose of evaluating the balancing and modifying criteria, soil samples from the 0 to 8.2 m (27 ft) bgs were evaluated. The evaluation of shallow-zone radiological contamination assumes that any cover that is currently over the waste site has been removed and maximum concentrations within the upper CZ are exposed at the ground surface. This configuration represents a soil depth that could potentially be excavated and is used to evaluate exposure of future industrial workers to soils via direct contact. The Tribal use exposure scenarios include the contribution of soil contamination to drinking water and water used for irrigation; therefore, all CZs from the ground surface to the groundwater table are included in the RESRAD analysis.

3.2.4.4 Points of Calculation for the 216-S-10 Pond.

For the purpose of evaluating the balancing and modifying criteria, soil samples from the 0 to 4.6 m (15 ft) bgs were evaluated. The evaluation of shallow-zone radiological contamination assumes that the 1.8 m (6 ft) of clean cover that is currently over the waste site has been removed and maximum concentrations that are within the upper CZ are exposed at the ground surface. This configuration represents a soil depth that could potentially be excavated and is used to evaluate human exposure to soils via direct contact. The Tribal use exposure scenarios include the contribution of soil contamination to drinking water and water used for irrigation; therefore, all CZs from the ground surface to the groundwater table are included in the RESRAD analysis.

3.2.4.5 Points of Calculation for the Inadvertent Intruder Scenario.

Inadvertent intrusion is assumed to occur at all four waste sites in the event that ICs fail after 150 years. This assumes that current DOE facility operations and management practices will continue for the next 50 years, after which public entry to the area will be restricted for an additional 100 years by enforcement of ICs. The point of calculation for this scenario is from the ground surface to the groundwater table.

3.2.5 Computation of Exposure-Point Concentrations

EPA recommends using an average concentration to represent a "*reasonable estimate of the concentration likely to be contacted over time*" (EPA/540/1-89/002). EPA also recommends using the 95 percent upper confidence limit on the mean for this variable (EPA, 1992, *Supplemental Guidance to RAGS: Calculating the Concentration Term*). However, minimum sample size requirements is not available for calculating a 95 percent upper confidence limit concentration because of the small number of samples collected from each of the waste site locations. Therefore, the maximum-detected concentration was used as the exposure-point concentration (EPC) for each waste site.

For the analysis of nonradiological contaminants in the BRA, the EPCs at each site are represented by the maximum-detected concentration in the 0 to 4.6 m (0-to 15-ft) shallow-zone soils. For the purpose of evaluating the balancing and modifying criteria, the nonradiological EPCs at the 216-B-63 Trench and 216-S-10 Ditch are represented by the maximum concentrations in 0 to 5.8 m (0- to 19-ft) and 0 to 8.2 m (0- to 27-ft) shallow-zone soils, respectively. Nonradiological EPCs for deep-zone soils, which are used to evaluate potential impacts to groundwater, are defined as the maximum-detected concentration in 0 m to groundwater deep-zone soils.

For the analysis of radiological contaminants in the BRA, the EPCs at each site are represented by the maximum-detected concentration in the 0 to 4.6 m (0- to 15-ft) shallow-zone soils for industrial land use, and by the maximum-detected concentration within the individual shallow and deep CZs for unrestricted land use. For the purpose of evaluating the balancing and modifying criteria and potential impacts to groundwater, radiological EPCs are represented by the maximum concentrations within the individual shallow and deep CZs at each waste site. Details on the evaluation of radiological contaminants are provided in Appendix F.

Using the maximum-detected concentration could either result in the overestimation of exposure if the maximum-detected concentration is greater than the 95 percent upper confidence limit or potentially result in underestimation of exposure if worst-case conditions were not encountered during sample collection and the 95 percent upper confidence limit concentration was higher than the maximum.

3.2.6 Conceptual Exposure Model for Human Health and the Environment

An exposure pathway can be described as the physical course that a COPC takes from the point of release to the receptor. Contaminant intake or exposure route is the means by which a COPC enters a receptor. For an exposure pathway to be complete, all of the following components must be present:

- A contaminant source
- A mechanism of contaminant release and transport
- An exposure point (i.e., a location where people or wildlife can come into contact with the contaminants)

- An exposure route
- A receptor or exposed population.

In the absence of any one of these components, an exposure pathway is considered incomplete and, by definition, no risk or hazard exists. The conceptual exposure model for the waste sites is presented in Figure 3-1.

3.2.6.1 Contaminant Sources

The 200-CS-1 OU waste sites are primarily artificial surface ponds, ditches, or trenches, and were created to dispose of the chemical sewer discharges from the separation/concentration processes (e.g., those at the PUREX Plant and the REDOX Plant, and the B Plant cesium/strontium recovery operations). Early chemical sewer wastes were combined with larger cooling-water and steam-condensate streams from the bismuth-phosphate and uranium-recovery processes and were discharged to ponds and ditches. A detailed description about each of the waste sites included in the 200-CS-1 OU is provided in the RI Report.

3.2.6.2 Release Mechanisms and Environmental Transport Media

The following presents the primary release mechanisms that transport COPCs from their sources, via environmental media, to potential receptors in the vicinity of the cribs:

- Direct contact and external radiation with soil containing COPCs (receptor contact with shallow zone soil replaces release and transport)
- Infiltration, percolation, and leaching of contaminants from waste site soil to groundwater
- Generation of dust or vapors emanating from shallow-zone soil to ambient air from wind or during maintenance or construction activities at the site.

3.2.6.3 Potentially Complete Human Exposure Pathways and Receptors

The exposure pathways for potential current and future human receptors at the 200-CS-1 OU have been formulated based on the site conceptual model, in accordance with guidance provided in specific sections of EPA (EPA-540/1-89/002). Because the 216-A-29 Ditch and the 216-B-Trench are located within the industrial-exclusive land use area (DOE/EIS-0222-F), the most likely human receptor is an industrial worker. Because the 216-S-10 Ditch and the 216-S-10 Pond are located outside the industrial-exclusive boundary, the human receptor could potentially be a resident located within the conservation/mining area. Additionally, a variety of receptors are evaluated in this risk assessment to indicate what potential exposures would be if future land use were unrestricted. On the basis of current understanding of land use, the most plausible exposure pathways considered for characterizing human health risks are presented in Figure 3-1. A brief description of each exposure scenario considered for industrial-exclusive land use and hypothetical unrestricted land use are provided below.

3.2.6.4 Industrial (Exclusive) Land Use

Industrial Worker Scenario. Under reasonably anticipated future site conditions, industrial workers could potentially be exposed to shallow-zone soil from the waste site. The future industrial worker exposure scenario assumes that the workplace is the key source of contaminant exposure and that the receptor could potentially be exposed to shallow-zone soil.

Potential routes of exposure to soil include direct external exposure, incidental soil ingestion, dermal contact with soil, and inhalation of ambient vapors or dust generated from wind or maintenance activities. This exposure scenario assumes that drinking water is obtained from a source other than the groundwater beneath the site and that food products are not grown on the site.

3.2.6.5 Unrestricted Land Use

Several local and regional Tribes have ancestral ties to the Hanford Reach of the Columbia River and surrounding lands. The DOE has requested that each Tribe provide an exposure scenario that reflects their traditional activities. At this time, the CTUIR (Harris and Harper, 2004, *Exposure Scenario for CTUIR Traditional Subsistence Lifeways*) and the Yakama Nation (Ridolfi Inc., 2007, *Yakama Nation Exposure Scenario for Hanford Site Risk Assessment*) have provided scenarios.

In support of the balancing and modifying criteria evaluation, a quantitative analysis of the two available tribal use exposure scenarios is included in this evaluation. A quantitative risk evaluation (i.e., under a no action alternative) is included for both Tribal use scenarios and the results are presented in Appendix F. An inadvertent intruder exposure analysis has been included to provide information in support of DOE O 435.1. The Tribal use and inadvertent intruder exposure scenarios provide information in support of the balancing criteria evaluation. Specifically, the risk and dose estimates that are an outcome of this risk assessment will be used to evaluate the balancing and modifying criteria during the detailed analysis of remedial alternatives.

Rural Resident. Under hypothetical future site conditions, the rural resident resides on the waste site, consumes crops raised in a backyard garden, and consumes meat (i.e., beef and poultry) and milk from penned livestock. Based on the land uses identified in the comprehensive land-use plan (DOE/EIS-0222-F), it is unlikely that the 200-CS-1 OU waste sites will be used for residential purposes. A fundamental assumption associated with having a residence is the presence of a nearby well that is used for drinking water and irrigation purposes. However, this Supplemental RI and risk assessment focuses on contamination present in the soils within the boundary of the waste site and does not address existing groundwater contamination beneath the operable unit. As a result, groundwater and soil exposure pathways relevant to the rural resident cannot be summarily combined. It should be noted that for radiological contaminants, the contribution of soil contamination to drinking water and water used for irrigation purposes is evaluated. Exposure pathways associated with existing groundwater contamination beneath the 200-CS-1 OU is not considered in the risk evaluation and will be addressed in the 200-BP-5, 200-PO-1, 200-UP-1, and 200-ZP-1 Groundwater OUs.

This exposure scenario will be used only to provide information about exposure conditions under hypothetical unrestricted land-use conditions and to provide information for decision-making purposes. Future hypothetical rural residents could potentially be exposed to shallow-zone soil from residential yards. Potential routes of exposure to shallow zone soil (0 to 4.6 m [15 ft] bgs) include direct external exposure (e.g., radiation), incidental soil ingestion, dermal contact with soil, and inhalation of ambient vapors or dust generated from wind or from yard maintenance activities. Food consumption pathways include ingestion of penned livestock and poultry and ingestion of fruits and vegetables grown in a backyard garden. Uptake of

contamination into crops and livestock is solely from contamination present in soil, and includes use of groundwater contaminated by migration of contaminants in the soil beneath the waste site. As described earlier, existing groundwater contamination beneath the 200-CS-1 OU is not considered in this risk evaluation and will be addressed in the 200-PO-1 Groundwater OU for the 216-A-29 Ditch, the 200-BP-5 Groundwater OU for the 216-B-63 Trench, and the 200-UP-1 Groundwater OU for the 216-S-10 Pond and Ditch.

Tribal-Use Scenarios.

The CTUIR and Yakama Nation exposure scenarios each include an evaluation of external gamma radiation, incidental soil ingestion, and inhalation of dust particulates for the direct contact pathway. These scenarios also include exposure from food chain pathways including consumption of fruits and vegetables grown in a backyard garden and consumption of beef and poultry that graze on and are penned on a pasture. Milk consumption is included in the Yakama Nation exposure scenario but is not included in the food consumption pathway for the CTUIR scenario. Exposure from the food chain pathways is solely from contamination present in soil, and includes use of groundwater contaminated by migration of contaminants in the soil beneath the waste site. As described earlier, existing groundwater contamination beneath the 200-CS-1 OU is not considered in this risk evaluation and will be addressed in the 200-PO-1 Groundwater OU for the 216-A-29 Ditch, the 200-BP-5 Groundwater OU for the 216-B-63 Trench, and the 200-UP-1 Groundwater OU for the 216-S-10 Pond and Ditch.

Additionally, the CTUIR and Yakama Nation exposure scenario includes potential exposure from consumption of wild game hunted on the Central Plateau. Exposure from consumption of wild game is not included in this evaluation because the size of these cribs could not support foraging wild game. The areas of the waste sites within the 200-CS-1 OU range from 520 m^2 to 17,500 m^2. The CTUIR and Yakama Nation scenarios also include assumptions to estimate potential exposure from the consumption of fish and sweat lodge use. For purposes of this risk assessment, both exposure pathways are considered incomplete and were not evaluated. The fish consumption exposure pathway is being included by the 100 Areas and 300 Area River Corridor BRA. The sweat lodge exposure pathway is not included because only contamination associated with the source area is addressed in this risk assessment.

3.2.6.6 Loss of Institutional Controls – Inadvertent Intruder

This exposure scenario assumes that ICs fail 150 years in the future and a hypothetical individual inadvertently exhumes the waste beneath the waste site. The inadvertent intruder scenario is a performance assessment requirement by DOE O435.1 and DOE M 435.1-1, *Radioactive Waste Management Manual* to provide the DOE a reasonable expectation that low-level waste disposal will meet the radiological performance objectives established in DOE M 435.1-1.

The inadvertent intruder exposure scenario estimates dose to a well driller and to a rural farmer. For the well driller, potential routes of exposure to soil include direct external exposure, incidental soil ingestion, and inhalation of dust particulates. With the exception of groundwater contaminated by migration of contaminants in the soil beneath the waste site, direct contact exposure pathways and food-chain exposure pathways are the same as those for the rural residential exposure pathway. All drinking and irrigation water are assumed to be obtained from an offsite source.

3.2.6.7 Potential Impacts of Vadose Zone Contaminants on Groundwater

Constituents detected in soil were evaluated for their potential to impact groundwater beneath the waste site. Potential impacts to groundwater for nonradionuclides will be determined by comparing the maximum detected soil concentration at any depth in the soil column to WAC 173-340-747 soil-cleanup levels and is provided in Section 3.4. Potential groundwater impacts of radionuclides are evaluated within the RESRAD modeling framework and also are provided in Section 3.5.

3.3 SELECTION OF CONTAMINANTS OF POTENTIAL CONCERN

COPCs are chemicals or radionuclides present in the environment at levels that may place exposed humans at risk for experiencing adverse health effects and may partially or wholly originate from site-related sources. COPECs are chemicals or radionuclides present at levels that may be unsafe for ecological receptors. To identify COPCs at the 200-CS-1 OU, a stepwise selection process described by the EPA guidance (EPA/540/1-89/002; ERAGS) was used.

3.3.1 Data Summary

The data collected for the RI (and other surveys) and used for this risk assessment were extracted from the *Hanford Environmental Information System* (HEIS) database. This section provides a broad summary of the analytical data. The RI data were originally validated in a data quality assessment review provided in the RI Report, Appendix A. Appendix B of DOE/RL-2005-63, Draft B provides a detailed summary and presents the minimum and maximum detected and non-detected concentrations for all analytes, as well as the detection frequency, by waste site.

Each soil sample was analyzed for inorganic chemicals (including metals and anions), organic chemicals (VOCs, SVOCs, PCBs, tributyl phosphate), and radionuclides. It should be noted that analytical constituents varied across sample location and depth. Appendix B contains a detailed summary of all of the nonradionuclide and radionuclide data.

3.3.2 Data Evaluation

The data evaluation steps used in identifying COPCs at the 200-CS-1 OU include the following: 1) identification of detected constituents, 2) elimination of essential nutrients 3) elimination of radiological isotopes with short half-lives, 4) comparison of shallow-zone and deep-zone soils to Hanford Site background levels, and 5) availability of toxicology values for the human health evaluation. COPCs were identified separately for shallow-zone soils for the human and ecological receptors, and COPCs were identified for shallow- and deep-zone soils combined for the groundwater-impacts analysis.

For purposes of the BRA, the sample data were partitioned into groups based on the depth the sample was collected and the point of compliance (Table 3-5).

- Shallow-zone samples collected from the 216-A-29 Ditch, the 216-B-63 Trench, the 216-S-10 Ditch, and the 216-S-10 Pond were defined as depths ranging from 0 to

4.6 m (15 ft) bgs for the purpose of evaluating the ecological and human health direct contact exposure pathways for the FS.

- Deep-zone soil samples collected from the 216-A-29 Ditch, the 216-B-63 Trench, the 216-S-10 Ditch, and the 216-S-10 Pond were defined as those samples collected from the soil surface to the groundwater table for the purpose of evaluating impact to groundwater for the FS.

For purposes of the balancing and modifying criteria evaluation, the sample data were partitioned into groups based on the depth the sample was collected and the point of calculation (Table 3-6).

- Shallow-zone samples collected from the 216-A-29 Ditch and the 216-S-10 Pond were defined as depths ranging from 0 to 4.6 m (15 ft) bgs for the balancing and modifying criteria evaluation assuming the stabilization cover were removed and industrial workers could come into direct contact with contaminants.
- Shallow-zone samples collected from the 216-B-63 Trench were defined as depths ranging from 0 to 5.8 m (19 ft) bgs for the balancing and modifying criteria evaluation assuming the stabilization cover were removed and industrial workers could come into direct contact with contaminants.
- Shallow-zone samples collected from the 216-S-10 Ditch were defined as depths ranging from 0 to 8.2 m (27 ft) bgs for the balancing and modifying criteria evaluation assuming the stabilization cover were removed and industrial workers could come into direct contact with contaminants.
- Deep-zone soil samples collected from the 216-A-29 Ditch, the 216-B-63 Trench, the 216-S-10 Ditch, and the 216-S-10 Pond were defined as those samples collected from the soil surface to the groundwater table for the purpose of evaluating inadvertent intruder exposure scenarios for the balancing and modifying criteria evaluation.

3.3.2.1 Identification of Detected Constituents

As described previously, the HEIS database was queried, and the data were grouped to identify the maximum detected concentration per analyte for each waste site, by shallow- and deep-zone soils. All nonradiological and radiological constituents detected in one or more samples were included in the human-health and ERAs and the groundwater-impacts analysis. Maximum detected results were selected for use in all cases.

Sample data with estimated concentrations (i.e., those qualified with a "J," indicating that the result is an estimate) were evaluated at their reported concentrations. The data for some analytes were qualified to indicate that those analytes were detected in associated laboratory blanks (i.e., those qualified with a "B"). These data were evaluated at their reported concentrations. However, if a maximum concentration potentially was affected by laboratory-blank contamination, it was taken into account when discussing implications for the FS. Rejected results (i.e., qualified with an "R") were excluded from the data-evaluation process and were not used because they indicate, based on laboratory information or through the data quality assessment process, that a specific sample or result should not be used for decision making purposes.

All constituents that were detected at least once in any of the shallow- or deep-zone soil samples were retained and carried forward into the next step of the COPC selection process. Constituents that were not detected in any of the soil samples (i.e., 0 percent frequency of detection) were not carried forward into the BRA. Appendix B shows all analytes, including those with 0 percent frequency of detection.

3.3.2.2 Identification of Essential-Nutrients

Essential nutrients are those constituents considered essential for human nutrition. Recommended daily allowances are developed for essential nutrients to estimate safe and adequate daily dietary intakes (NAS, 1989, *Recommended Dietary Allowances*).

Examples of essential nutrients for human health are described in EPA/540/1-89/002 and include iron, magnesium, calcium, potassium, and sodium. To ensure that site concentrations of essential nutrients are not significantly elevated above background levels, these analytes were compared to their background concentrations. However, essential nutrients generally are not evaluated in a risk assessment (EPA/540/1-89/002). With the exception of calcium measured at the 216-A-29 Ditch, all essential nutrients were less than background concentrations. The maximum concentration of calcium at 216-A-29 Ditch is greater than the 95th percentile background by 19 percent. However, it is not considered to be significantly elevated above background, because it is less than the recommended daily intake.

3.3.2.3 Identification of Radioisotopes with Short Half-Lives

The ditches, trench, and ponds that are included in the 200-CS-1 OU were generally taken out of service in the mid-1980's to early 1990's. The 216-A-29 Ditch operated between November 1955 and July 1991. The 216-B-63 Trench was constructed before 1970 and taken out of service in 1992. The 216-S-10 Ditch started receiving discharge in August 1951; the south end of the ditch received discharge until 1984 and the north end last received discharge in 1991. The S-10 Pond was dug in 1954 and was stabilized in 1984. Many of the radionuclides with short half-lives have decayed to insignificant levels (i.e. 10 half-lives have elapsed for radioisotopes with half-lives of 1.5 years or less) during the 15 years since the ponds, ditches, and trench were taken out of service. Radioisotopes with short half-lives that are eliminated from further consideration in the risk assessment include the following:

- Actinium-228; 6-hour half-life (accounted for in the decay chain of radium-228)
- Beryllium-7; 53-day half-life
- Bismuth-212; 60-minute half-life (accounted for in the decay chain of thorium-228)
- Bismuth-214; 19-minute half-life (accounted for in the decay chain of radium-226)
- Cesium-134; 2.1-year half-life
- Lead-212; 11-hour half-life (accounted for in the decay chain of thorium-228)
- Lead-214; 27-minute half-life (accounted for in the decay chain of radium-226)
- Manganese-54; 312-day half-life
- Radium-224; 3.7-day half-life (accounted for in the decay chain of thorium-228)
- Ruthenium-106; 1.0-year half-life
- Thallium-208; 3-minute half-life
- Thorium-234; 24-day half-life (accounted for in the decay chain of uranium-238)
- Thorium-228; 1.9-year half-life.

These radioisotopes with short half-lives generally decay to a stable isotope and are generally of no concern at that point in time.

3.3.2.4 Comparison to Hanford Site Background Concentrations

Some chemicals have a wide range of occurrence in soil and water. Detecting these chemicals at a site does not necessarily indicate that they were introduced by site releases. EPA/540/R-01/003, *Guidance for Comparing Background and Chemical Concentrations in Soil for CERCLA Sites*, OSWER 9285.7-41) defines background constituents as (1) *anthropogenic* - natural and human-made substances present in the environment as a result of human activities (i.e., their presence at the site is not specifically related to the CERCLA release in question), and (2) *naturally occurring* - substances present in the environment in forms that have not been influenced by human activity.

Lognormal 90th percentile background values for the Hanford Site (representative of both naturally occurring and anthropogenic substances) were used in the background-concentration comparison for inorganic chemicals and radionuclides. Background values for inorganic chemicals are identified in DOE/RL-92-24, *Hanford Site Background: Part 1, Soil Background for Nonradioactive Analytes*, Summary Table 2. Radionuclide background values are identified in DOE/RL-96-12, *Hanford Site Background: Part 2, Soil Background for Radionuclides*, Table 5-1. Three types of background sampling were conducted. Both systematic random sampling and judgmental sampling were conducted for inorganic chemicals and naturally occurring radionuclides; surface sampling was conducted for anthropogenic radionuclides. The composition of background samples described in DOE/RL-92-24 and DOE/RL-96-12 is representative of the sedimentary facies in the vadose zone at the 200-CS-1 OU sites. These background data are recommended for use in environmental-restoration activities on the Hanford Site to maintain consistency between projects, and they have been peer reviewed for technical credibility.

DOE/RL-92-24 recommends using the systematic random-sampling results as the primary data set for inorganics. If the analyte does not have sufficient random-sampling background data (or is not different from random-sampling background results), then the judgmental sampling should be used as a secondary data set. For naturally occurring radionuclides, the systematic random-sampling background data are recommended as the primary data set. For anthropogenic radionuclides, the surface-sampling background data are recommended as the primary data set. Some inorganics and radionuclides did not have reported 90th percentile background values in Table 2 or Table 5-1 of the two DOE reports, respectively. In these cases, other sources were researched. In addition to the DOE reports, background information also was obtained from Ecology Publication 94-115, *Natural Background Soil Metals Concentrations in Washington State.*

Background values and data sources used for the background comparison step are shown in Table 3-7. Table 3-7 also includes other distributional parameters of the systematic random-sampling data set. The lognormal 90th percentile first was used to compare the site maximum value. If the maximum concentration was greater than the 90th percentile background value, the constituent was carried forward to the following step in the COPCs/COPECs selection process.

A background value for uranium as an inorganic contaminant (not a radionuclide) is unavailable in DOE/RL-92-24, as noted in Table 3-7. The background value for inorganic uranium, used for comparison purposes, was derived by dividing the 90th percentile background activity levels for U-234, U-235, and U-238 by the specific activity for each isotope, converting those values from picocuries per gram to milligrams per kilogram, and then summing the calculated values for each isotope to arrive at a total background value (Hoover, J., 2007, "RE: Background Value Question").

Any inorganic chemicals or radionuclides that do not have background values reported in DOE/RL-92-24, DOE/RL-96-12, or other described sources were carried forward to the next step of the COPC/COPEC identification process. Because background criteria have not been developed for organic chemicals in Hanford Site soils, these constituents were passed through to the next steps of the evaluation process. Constituents with maximum concentrations less than their respective 90th percentile background value were not selected as COPCs/COPECs.

3.3.2.5 Availability of Toxicity Values (for Human Health)

If a toxicity value was not available from EPA's Integrated Risk Information System (IRIS), the EPA, 2004, *Provisional Peer Reviewed Toxicity Values for Superfund (PPRTV)* database, or other suitable source (Section 3.4.1.1), then the chemical was further evaluated to determine if a structurally similar chemical could be used as a surrogate toxicity factor.

The toxicity factor for acenapthene was selected as a surrogate for acenaphthylene, pyrene was selected as a surrogate for benzo(g,h,i)perylene, and anthracene was selected as a surrogate for phenanthrene.

Toxicity values were not available from any source for bismuth, ammonia, sulfate, phosphate, gross alpha, gross beta, mesityl oxide, n-butyl benzenesulfonamide, butyl stearate, eicosane, hexadecanoic acid.

Bismuth has a long history of use as a pharmaceutical in Europe and North America. A well known, clinically used form of bismuth is bismuth subsalicylate, or PeptoBismol. Most bismuth compounds are insoluble and poorly absorbed from the gastrointestinal tract with less than 1% of an oral dose being absorbed. Bismuth compounds also are poorly absorbed when applied to the skin even when the skin is abraded or burned. Acute renal toxicity is possible with oral administration of bismuth, particularly in children. Chronic toxicity with a broad spectrum of symptoms and manifestations also is possible at clinical doses (Klaassen, 2001, *Casarett and Doull's Toxicology: The Basic Science of Poisons*). Even though bismuth may be toxic at doses related to clinical treatment, effects from exposure to environmental concentrations are unlikely to be seen due to the very low absorption potential of bismuth. The amount of bismuth subsalicylate in a single dose of Pepto Bismol is 524 mg, or 7.8 mg/kg bw/d for a 70 kg adult.

Ammonia, sulfate and phosphate are anions generally recognized to be nontoxic to humans. Total alpha and total beta measurements are considered indicators of general radiological quality.

Mesityl oxide is a ketone that is prepared by the condensation of acetone. Mesityl oxide can be used as a solvent and also is used in the production of methyl isobutyl ketone. This chemical was only detected once at the 216-A-29 Ditch at a concentration of 0.39 mg/kg.

Based on the absence of toxicological information, low detection frequency and low concentration, mesityl oxide will not be carried forward into the BRA.

n-Butyl benzenesulfonamide is a plasticizer used in the polymerization of polyamide compounds. This chemical was detected once at the 216-A-29 Ditch at a concentration of 4.4 mg/kg and also was detected in the associated laboratory blank. Based on the absence of toxicological information, low detection frequency, and the likelihood that this is a laboratory contaminant it will not be carried forward into the BRA.

Butyl stearate is used as a lubricant, in polishes, as a plasticizer, and as a dye solvent. This chemical was only detected once at the 216-S-10 Pond at a concentration of 0.23 mg/kg. Based on the absence of toxicological information and low detection frequency, butyl stearate will not be carried forward into the BRA.

Eicosane is a mixture of saturated hydrocarbons, mostly straight-chained, with an average of approximately 20 carbons and is used in lubricants and plasticizers. This chemical was only detected once at the 216-S-10 Ditch at a concentration of 0.17 mg/kg. Based on the absence of toxicological information, low detection frequency, and low concentrations, eicoseane will not be carried forward into the BRA.

Hexadecanoic acid is known as palmitic acid, which is one of the most common fatty acids found in plants and acids. This chemical was only detected once at the 216-S-10 Ditch at a concentration of 0.3 mg/kg. Based on the absence of toxicological information, low detection frequency, and low concentrations, hexadecanoic acid will not be carried forward into the BRA.

3.3.2.6 Results of the COPC Selection Process

The following two subsections present the results of the COPC selection process for the BRA and the risk evaluation used to support the balancing and modifying criteria evaluation. The COPC selection process outlined in the previous four sections is the same for both risk assessment activities. The results of COPC identification processes are presented separately for each risk assessment activity because the points of compliance used for the BRA are different from the points of calculation used to support the balancing and modifying criteria evaluation.

3.3.2.6.1 COPCs Identified for the Baseline Risk Assessment

COPCs identified for the shallow zone represent soil depths ranging from 0 to 4.6 m (15 ft) bgs. The purpose of this process is to identify site-related constituents that should be carried into the direct contact exposure analysis. The results of the COPC selection process for constituents detected in shallow-zone soil 0 to 4.6 m [15 ft] bgs from the 216-A-29 Ditch, the 216-B-63 Trench, the 216-S-10 Ditch, and the 216-S-10 Pond are provided in Tables 3-8 through 3-11, respectively.

The results of the COPC selection process for constituents detected in deep zone soil (0 to the groundwater table) from the16-A-29 Ditch, the 216-B-63 Trench, the 216-S-10 Ditch, and the 216-S-10 Pond are provided in Tables 3-12 through 3-15, respectively.

216-A-29 Ditch (0 to 4.6 m [15 ft] bgs). A total of 41 soil samples were collected and analyzed from the 0 to 4.6 m (15 ft) bgs depth interval. Of all the constituents analyzed, 26 metals, 26 radionuclides, six general chemistry parameters, four VOCs, 14 SVOCs,

aroclor-1254, and total petroleum hydrocarbons (TPH) (-kerosene and –motor oil) were detected.

Essential nutrients and five radionuclides (Ac-228, Bi-212, Bi-214, Pb-212, and Pb-214) with short half-lives were eliminated as COPCs. Six metals (aluminum, barium, beryllium, iron, manganese, and molybdenum) and six radionuclides (Eu-155, K-40, Ra-228, Th-228, Th-232, and U-234) were detected at concentrations below their respective lognormal 90th percentile Hanford background concentrations (Table 3-8) and are not considered COPCs. Gross alpha, gross beta, bismuth, mesityl oxide, n-butyl benzenesulfanamide, ammonia, chloride, and sulfate were eliminated as COPCs because human health toxicity values are not available.

The following are identified as COPCs from the 0 to 4.6 m (15 ft) bgs depth interval and are carried forward into the BRA to evaluate the direct contact exposure pathway:

- Arsenic, boron, cadmium, chromium, copper, hexavalent chromium, lead, mercury, nickel, selenium, silver, thallium, uranium, vanadium, and zinc
- Am-241, Sb-125, Cs-137, Np-237, Pu-238, Pu-239/240, Ra-226, Th-230, Sr-90, U-233/234, U-235, and U-238
- Benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, bis(2-ethylhexyl)phthalate, butylbenzyl phthalate, chrysene, diethylphthalate, di-n-butylphthalate, fluoranthene, phenanthrene, pyrene, and tributyl phosphate
- 1,2-dichloroethane, acetone, methylene chloride, and tetrachloroethene
- Fluoride and nitrate
- Aroclor-1254, TPH-kerosene range, and TPH – motor oil (high boiling).

216-B-63 Trench (0 to 4.6 m [15 ft] bgs). A total of 15 soil samples were collected and analyzed from the 0 to 4.6 m (15 ft) bgs depth interval. Of all the constituents analyzed, 26 metals, 15 radionuclides, nine general chemistry parameters, four VOCs, one SVOC, and aroclor-1254 were detected.

Essential nutrients were eliminated as COPCs. Thirteen metals (aluminum, arsenic, barium, beryllium, cadmium, iron, lead, manganese, mercury, molybdenum, nickel, silver, and uranium), eight radionuclides (K-40, Ra-226, Ra-228, Th-228, Th-232, U-233/234, U-234, and U-238), and three general chemistry parameters (chloride, fluoride, and sulfate) were detected at concentrations below their respective lognormal 90th percentile Hanford background concentrations (Table 3-9) and are not considered COPCs. Gross alpha, gross beta, bismuth, ammonia, phosphate, and sulfide were eliminated as COPCs because human health toxicity values are not available.

The following are identified as COPCs from the 0 to 4.6 m (15 ft) bgs depth interval and are carried forward into the BRA to evaluate the direct contact exposure pathway:

- Boron, chromium, copper, hexavalent chromium, selenium, thallium, vanadium, and zinc
- Am-241, Cs-137, Np-237, Sr-90, and Th-230
- bis(2-ethylhexyl)phthalate

- Acetone, benzene, methylene chloride, and toluene
- Nitrate and nitrite
- Aroclor-1254.

216-S-10 Ditch (0 to 4.6 m [15 ft] bgs). A total of 14 soil samples were collected and analyzed from the 0 to 4.6 m (15 ft) bgs depth interval. Of all the constituents analyzed, 26 metals, 14 radionuclides, seven general chemistry parameters, two VOCs, 18 SVOCs, aroclor-1254, and TPH-diesel were detected.

Essential nutrients were eliminated as COPCs. Nine metals (aluminum, arsenic, barium, beryllium, cadmium, iron, manganese, molybdenum, and uranium), seven radionuclides (K-40, Ra-226, Ra-228, Th-228, Th-232, U-234, and U-238), and three general chemistry parameters (chloride, fluoride, and sulfate) were detected at concentrations below their respective lognormal 90th percentile Hanford background concentrations (Table 3-10) and are not considered COPCs. Gross alpha, gross beta, bismuth, and phosphate were eliminated as COPCs because human health toxicity values are not available.

The following are identified as COPCs from the 0 to 4.6 m (15 ft) bgs depth interval and are carried forward into the BRA to evaluate the direct contact exposure pathway:

- Chromium, copper, hexavalent chromium, lead, mercury, nickel, selenium, silver, thallium, vanadium, and zinc
- Am-241, Cs-137, Pu-239/240, Th-230, and Sr-90
- Acenaphthene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(ghi)perylene, benzo(k)fluornathene, bis(2-ethylhexyl)phthalate, butylbenzyl phthalate, carbazole, chrysene, dibenz(a,h)anthracene, di-n-butylphthalate, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, phenanthrene, and pyrene,
- Acetone and methylene chloride
- Nitrate and nitrite
- Aroclor-1254 and TPH-diesel range.

216-S-10 Pond (0 to 4.6 m [15 ft] bgs). A total of 19 soil samples were collected and analyzed from the 0 to 4.6 m (15 ft) bgs depth interval. Of all the constituents analyzed, 25 metals, 15 radionuclides, nine general chemistry parameters, four VOCs, and one SVOC were detected.

Essential nutrients were eliminated as COPCs. Fourteen metals (aluminum, arsenic, barium, beryllium, cadmium, copper, iron, lead, manganese, molybdenum, nickel, uranium, vanadium, and zinc), six radionuclides (K-40, Ra-226, Ra-228, Th-232, U-234, and U-238), and four general chemistry parameters (chloride, fluoride, nitrate, and sulfate) were detected at concentrations below their respective lognormal 90th percentile Hanford background concentrations (Table 3-11) and are not considered COPCs. Gross alpha, gross beta, phosphate, sulfide were eliminated as COPCs because human health toxicity values are not available.

The maximum C-14 concentration of 12.2 pCi/g was measured in the 2.0 to 2.3 m (6.5 to 7.4 ft) bgs depth interval in test pit location SP-2. However, C-14 was not detected in the

three remaining locations investigated at the 216-S-10 Pond. This elevated C-14 result is considered an anomalous result when compared to what could be found in natural conditions. The background level of C-14 in living matter is 13.56 dpm/g, or 6.11 pCi/g. The sample result measured at SP-2 contains twice the amount of C-14 found in pure carbon. Based on this evaluation and the absence of C-14 at remaining 216-S-10 Pond locations, the C-14 is not considered a COPC for the risk assessment.

Tritium and Np-237 were detected in soil samples from depths slightly greater than 4.6 m (15 ft) bgs. Neither radionuclide has a reported background concentration value (Section 3.3.2.4). Tritium was detected in the 4.9 to 5.2 m (16 to 17 ft) bgs depth interval and Np-237 was detected in the 5.2 to 5.5 m (17 to 18 ft) bgs depth interval. For purposes of the BRA, the measured tritium and Np-237 concentrations were evaluated assuming they were detected in the 0 to 4.6 m (15 ft) bgs depth interval.

The following are identified as COPCs from the 0 to 4.6 m (15 ft) bgs depth interval and are carried forward into the BRA to evaluate the direct contact exposure pathway:

- Boron, chromium, hexavalent chromium, mercury, selenium, silver, and thallium
- Am-241, Cs-137, Np-237, Pu-239/240, Th-230, Sr-90, and tritium
- Bis(2-ethylhexyl)phthalate
- Acetone, methylene chloride, toluene, and xylenes (total)
- Cyanide and nitrite.

216-A-29 Ditch (Ground Surface to Groundwater Table). A total of 62 soil samples were collected and analyzed from the ground surface to the groundwater table. Of all the constituents analyzed, 26 metals, 27 radionuclides, six general chemistry parameters, six VOCs, 14 SVOCs, aroclor-1254, TPH (-kerosene and –diesel) were detected.

Essential nutrients and five radionuclides (Ac-228, Bi-212, Bi-214, Pb-212, and Pb-214) with short half-lives were eliminated as COPCs. Five metals (aluminum, beryllium, iron, manganese, and molybdenum) and six radionuclides (Eu-155, K-40, Ra-228, Th-228, Th-232, and U-234) were detected at concentrations below their respective lognormal 90th percentile Hanford background concentrations (Table 3-12) and are not considered COPCs. Gross alpha, gross beta, bismuth, mesityl oxide, n-butyl benzenesulfanamide, ammonia, sulfate, and sulfide were eliminated as COPCs because human health toxicity values are not available.

The following are identified as COPCs from ground surface to the groundwater table and are carried forward into the BRA to evaluate potential impacts to groundwater:

- Arsenic, barium, boron, cadmium, chromium, copper, hexavalent chromium, lead, mercury, nickel, selenium, silver, thallium, uranium, vanadium, and zinc
- Am-241, Sb-125, Cs-137, Np-237, Pu-238, Pu-239/240, Ra-226, Th-230, Sr-90, U-233/234, U-235, U-238, and tritium
- Benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, bis(2-ethylhexyl)phthalate, butylbenzyl phthalate, chrysene, diethylphthalate, di-n-butylphthalate, fluoranthene, phenanthrene, pyrene, and tributyl phosphate

- 1,2-dichloroethane, 2-butanone, acetone, methylene chloride, tetrachloroethene, and toluene
- Fluoride, nitrate, and nitrite
- Aroclor-1254, TPH-kerosene range, and TPH – motor oil (high boiling).

216-B-63 Trench (Ground Surface to Groundwater Table). A total of 31 soil samples were collected and analyzed from ground surface to the groundwater table. Of all the constituents analyzed, 26 metals, 26 radionuclides, 10 general chemistry parameters, four VOCs, three SVOC, and aroclor-1254 were detected.

Essential nutrients and six radionuclides (Ac-228, Bi-212, Bi-214, Pb-212, Pb-214, Tl-208) with short half-lives were eliminated as COPCs. Eleven metals (aluminum, arsenic, barium, beryllium, iron, lead, manganese, mercury, molybdenum, silver, and uranium), eight radionuclides (K-40, Ra-226, Ra-228, Th-228, Th-232, U-233/234, U-234, and U-238), and three general chemistry parameters (chloride, fluoride, and sulfate) were detected at concentrations below their respective lognormal 90th percentile Hanford background concentrations (Table 3-13) and are not considered COPCs. Gross alpha, gross beta, bismuth, ammonia, ammonia ion, phosphate, and sulfide were eliminated as COPCs because human health toxicity values are not available.

The following are identified as COPCs from ground surface to the groundwater table and are carried forward into the BRA to evaluate the direct contact exposure pathway:

- Boron, cadmium, chromium, copper, hexavalent chromium, nickel, selenium, thallium, vanadium, and zinc
- Am-241, Cs-137, Np-237, Ni-63, Pu-238, Pu-239/240, Tc-99, Th-230, Sr-90, and tritium
- bis(2-ethylhexyl)phthalate, diethylphthalate, di-n-butylphthalate
- Acetone, benzene, methylene chloride, toluene
- Nitrate and nitrite
- Aroclor-1254.

216-S-10 Ditch (Ground Surface to Groundwater Table). A total of 30 soil samples were collected and analyzed from ground surface to the groundwater table. Of all the constituents analyzed, 26 metals, 22 radionuclides, 10 general chemistry parameters, two VOCs, 22 SVOCs, aroclor-1254, and TPH-diesel were detected.

Essential nutrients and seven radionuclides (Ac-228, Bi-212, Bi-214, Pb-212, Pb-214, Tl-208, and Th-234) with short half-lives were eliminated as COPCs. Seven metals (aluminum, barium, beryllium, iron, manganese, molybdenum, and uranium), four radionuclides (K-40, Ra-228, Th-234, and U-234), and four general chemistry parameters (ammonia, chloride, fluoride, and sulfate) were detected at concentrations below their respective 90th percentile Hanford background concentrations (Table 3-14) and are not considered COPCs. Gross alpha, gross beta, bismuth, butyl stearate, eicosane, butyl ester hexadecanoic acid, ammonia ion, phosphate, and sulfide were eliminated as COPCs because human health toxicity values are not available.

The maximum Th-228 concentration of 5.9 pCi/g was measured in the 67.1 to 67.7 m (220 to 222 ft) bgs depth interval from the W26-14 soil boring. This elevated Th-228 result is considered anomalous as a result of inconsistencies with other members of the thorium decay chain. Th-228 has a half-life of 1.9 years and thus should be near equilibrium with its long-lived parent nuclides (Ra-228 and Th-232). Th-228 was measured using two different analytical methods; "IX/AEA" reported 5.9 pCi/g while "GEA" reported 0.352 pCi/g. The elevated Th-228 value produced from the "IX/AEA" analytical method is outside the range of expected activity when it is compared to the parent nuclides therefore it is rejected for risk assessment purposes. It should be noted that Th-228 may be produced by the decay of U-232 (68.9 y half life). U-232 is present in wastes at Hanford in trace amounts due to decay of Pu-236 (2.858 y half life). The presence of measurable U-232 would be accompanied by significant amounts of the other uranium and plutonium isotopes. Since this is not the case, the high value for Th-228 is suspected to be an anomalous result. Based on this evaluation, the Th-228 result of 5.9 pCi/g is considered anomalous and will not be considered a COPC.

The maximum concentrations of Th-232 and Ra-226 are 1.4 pCi/g and 0.92 pCi/g, respectively and were measured in the 45.7 to 46.3 m (150 to 150 ft) bgs depth interval from the W26-14 soil boring. Th-232 and Ra-226 measured at this depth interval are reported with concentrations slightly above their respective lognormal 90th percentile Hanford Site background values. The presence of Th-232 and Ra-226 are expected to be naturally occurring rather than man-man. Similar to Th-228, Th-232 was measured using two different analytical methods; "IX/AEA" reported 1.4 pCi/g while "GEA" reported 1.1 pCi/g. The concentration of 1.1 pCi/g reported using the "GEA" method results in a concentration that is less than the 90th percentile Hanford Site background value of 1.32 pCi/g. Based on the range of concentrations reported at this depth interval suggests that the presence of Th-232 is naturally occurring and therefore will not be considered a COPC.

The Ra-226 result of 0.92 pCi/g is slightly above the lognormal 90th percentile Hanford Site background value of 0.82 pCi/g. Ra-226 is produced from the decay of the U-234 isotope; however, U-234 was only analyzed in the 2.6 to 2.9 m (8.5 to 9.5 ft) depth interval at a concentration of 0.52 pCi/g. U-238 and U-235 were analyzed in each of the samples collected from the W26-14 soil boring but were not detected. The absence of uranium isotopes at depth suggests that Ra-226 is naturally occurring and therefore will not be considered a COPC.

The following are identified as COPCs from ground surface to the groundwater table and are carried forward into the BRA to evaluate potential impacts to groundwater:

- Arsenic, boron, cadmium, chromium, copper, hexavalent chromium, lead, mercury, nickel, selenium, silver, thallium, vanadium, and zinc
- Am-241, Cs-137, Ni-63, Pu-239/240, Th-230, Sr-90, and tritium
- Acenaphthene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(ghi)perylene, benzo(k)fluornathene, bis(2-ethylhexyl)phthalate, butylbenzyl phthalate, carbazole, chrysene, dibenz(a,h)anthracene, diethylphthalate, di-n-butylphthalate, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, phenanthrene, and pyrene
- Acetone and methylene chloride
- Nitrate and nitrite

- Aroclor-1254 and TPH-diesel range.

216-S-10 Pond (Ground Surface to Groundwater Table). A total of 40 soil samples were collected and analyzed from ground surface to the groundwater table. Of all the constituents analyzed, 25 metals, 20 radionuclides, ten general chemistry parameters, five VOCs, and one SVOC were detected.

Essential nutrients were eliminated as COPCs. Nine metals (aluminum, arsenic, beryllium, cadmium, copper, iron, manganese, molybdenum, and uranium), eight radionuclides (K-40, Ra-226, Ra-228, Th-232, U-233/234, U-234, U-235, and U-238), and four general chemistry parameters (ammonia, chloride, fluoride, and sulfate) were detected at concentrations below their respective 90th percentile Hanford background concentrations (Table 3-15) and are not considered COPCs. Gross alpha, gross beta, phosphate, sulfide were eliminated as COPCs because human health toxicity values are not available.

As described in the shallow zone COPC evaluation, C-14 was measured at test pit location SP-2. However, the C-14 result is considered anomalous and is not considered a COPC for this risk assessment.

The following are identified as COPCs from ground surface to the groundwater table and are carried forward into the BRA to evaluate the direct contact exposure pathway:

- Barium, boron, chromium, hexavalent chromium, lead, mercury, nickel, selenium, silver, thallium, vanadium, and zinc
- Am-241, Cs-137, Np-237, Ni-63, Pu-239/240, Th-230, Sr-90, and tritium
- Bis(2-ethylhexyl)phthalate
- 2-Butanone, acetone, methylene chloride, toluene, and xylenes (total)
- Cyanide, nitrate, and nitrite.

3.3.2.6.2 COPCs Identified for the Balancing and Modifying Criteria Evaluation

Additional points of calculation were considered in this risk assessment to assist in the detailed analysis of remedial alternatives. The following presents the results of the COPC selection process for the additional points of calculation described in Table 3-6. The results of the comparisons for the 216-B-63 Trench and 216-S-10 Ditch are provided in Tables 3-16 and 3-17, respectively.

216-B-63 Trench (0 to 5.8 m [19 ft] bgs). A total of 22 soil samples were collected and analyzed from 0 to 5.8 m (19 ft) bgs depth interval. Of all the constituents analyzed, 26 metals, 26 radionuclides, 12 general chemistry parameters, four VOCs, two SVOCs, and aroclor-1254 were detected.

Essential nutrients and six radionuclides (Ac-228, Bi-212, Bi-214, Pb-212, Pb-214, Tl-208) with short half-lives were eliminated as COPCs. Twelve metals (aluminum, arsenic, barium, beryllium, iron, lead, manganese, mercury, molybdenum, nickel, silver, and uranium), eight radionuclides (K-40, Ra-226, Ra-228, Th-228, Th-232, U-233/234, U-234, and U-238), and four general chemistry parameters (ammonia, chloride, fluoride, nitrogen in nitrate, and sulfate) were detected at concentrations below their respective 90th percentile Hanford background concentrations (Table 3-16) and are not considered COPCs. Gross alpha, gross

beta, bismuth, ammonium, phosphate, and sulfide were eliminated as COPCs because human health toxicity values are not available.

The following are identified as COPCs from the 0 to 5.8 m (19 ft) bgs depth interval and are carried forward into the risk evaluation used to support the balancing criteria evaluation:

- Boron, cadmium, chromium, copper, hexavalent chromium, selenium, thallium, vanadium, and zinc
- Am-241, Cs-137, Np-237, Ni-63, Pu-238, Pu-239/240, Tc-99, Th-230, Sr-90, and tritium
- bis(2-ethylhexyl)phthalate and diethylphthalate
- Acetone, benzene, methylene chloride, and toluene
- Nitrate and nitrite
- Aroclor-1254.

216-S-10 Ditch (0 to 8.2 m [27 ft] bgs). A total of 19 soil samples were collected and analyzed from 0 to 8.2 m (27 ft) bgs. Of all the constituents analyzed, 26 metals, 23 radiological contaminants, 12 general chemistry parameters, two VOCs, 22 SVOCs, aroclor-1254, and TPH were detected.

Essential nutrients and seven radionuclides (Ac-228, Bi-212, Bi-214, Pb-212, Pb-214, Tl-208, and Th-234) with short half-lives were eliminated as COPCs. Eight metals (aluminum, arsenic, barium, beryllium, iron, manganese, molybdenum, and uranium), seven radionuclides (K-40, Ra-226, Ra-228, Th-228, Th-232, U-234, and U-238), and three general chemistry parameters (chloride, fluoride, and sulfate) were detected at concentrations below their respective 90th percentile Hanford background concentrations (Table 3-17) and are not considered COPCs. Gross alpha, gross beta, bismuth, butyl stearate, eicosane, butyl ester hexadecanoic acid, chloride, phosphate, sulfate, and sulfide were eliminated as COPCs because human health toxicity values are not available.

The following are identified as COPCs from the 0 to 8.2 m (27 ft) bgs depth interval and are carried forward into the risk evaluation used to support the balancing criteria evaluation:

- Boron, chromium, cadmium, copper, hexavalent chromium, lead, mercury, nickel, selenium, silver, thallium, vanadium, and zinc
- Am-241, Cs-137, Ni-63, Pu-239/240, Th-230, Sr-90, and tritium
- Acenaphthene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(ghi)perylene, benzo(k)fluornathene, bis(2-ethylhexyl)phthalate, butylbenzyl phthalate, carbazole, chrysene, dibenz(a,h)anthracene, diethylphthalate, di-n-butylphthalate, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, phenanthrene, and pyrene
- Acetone and methylene chloride
- Nitrate and nitrite
- Aroclor-1254 and TPH-diesel range.

3.4 HUMAN-HEALTH RISK ASSESSMENT

The baseline human-health risk assessment evaluates potential adverse health effects in the absence of any remedial action. In the first phase of the risk assessment, COPCs were identified on the basis of criteria described in Section 3.3. Potential risks from nonradionuclides are evaluated by following WAC 173-340-740 "Unrestricted Land Use soil Cleanup Standards" and WAC 173-340-745, "Soil Cleanup Standards for Industrial Properties" guidance, and radionuclides are characterized by following EPA guidance (EPA/540/1-89/002). The results of the human-health risk evaluation are presented below, and the associated uncertainty discussion is presented in Sections 3.4.3 and 3.7.

Before the nonradionuclide and radionuclide risk-assessment discussions below, it should be noted that the EPCs used for both nonradionuclides and radionuclides at these waste sites are the detected maximum concentrations. A 95 percent upper confidence limit on an average concentration generally is the recommended approach to estimate an EPC for the RME expected to occur at a site (EPA, 2002, *Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites*; and EPA /540/1-89/002). In addition, EPA guidance warrants the use of the RME scenario as the basis for alternative evaluation in the FS (EPA, 1991, *Role of the Baseline Risk Assessment in Superfund Remedy Selection Decisions*, OSWER Publication 9355.0-30). As a result of the biased sampling strategy, the relatively small number of independent sample locations, and the low detection frequency (typically less than 50 percent for nearly all analytes), the use of a maximum concentration is more appropriate for this OU. The few independent sample locations create some uncertainty related to the representativeness of the data to estimate exposure.

EPA uses the general 10^{-4} to 10^{-6} risk range as a "target range" within which the Agency strives to manage risks as part of a Superfund cleanup. Once a decision has been made to make an action, the Agency has expressed a preference for cleanups achieving the more protective end of the range (i.e., 10^{-6}), although waste management strategies achieving reductions in site risks anywhere within the risk range may be deemed acceptable by the EPA risk manager. Furthermore, the upper boundary of the risk range is not a discrete line at 1×10^{-4}, although EPA generally uses 1×10^{-4} in making risk management decisions (EPA, 1991).

EPA, 1997, *Establishment of Cleanup Levels for CERCLA Sites with Radioactive Contamination,* specifies that cleanup levels for radioactive contamination at CERCLA sites should be established as they would for any chemical that poses an unacceptable risk and the risks should be characterized in standard Agency risk language consistent with CERCLA guidance. EPA/540/R-99/006, *Radiation Risk Assessment At CERCLA Sites: Q&A* further indicates that references to 15 mrem/yr in EPA, 1997 are intended as guidance for evaluation of potential ARARs and to be considered, and should be used as to be considered for establishing 15 mrem/yr cleanup levels at CERCLA sites.

3.4.1 Nonradionuclide Risk Assessment

To determine whether concentrations of nonradiological COPCs are present at concentrations that warrant remedial action, maximum soil concentrations are compared to the WAC 173-340, "Model Toxics Control Act -- Cleanup," human health cleanup levels. This

process provides a streamlined approach that combines the components of the exposure assessment (the type and magnitude of exposure) and the chemical-specific toxicity information to characterize risk. The outcome of this process provides a simplified means of characterizing total health risks by using standard exposure assumptions. To a limited extent, it provides a cumulative estimate of exposure over the incidental soil ingestion routes for all COPCs. Therefore, the use of the WAC 173-340 cleanup standards is considered the risk-assessment phase for nonradionuclides as it generally follows the BRA methodology described in the ERAGS Part A guidance (EPA-540/1-89/002).

3.4.1.1 Exposure Assessment Methodology

The unrestricted land-use soil cleanup standards (WAC 173-340-740(3), "Method B Soil Cleanup Levels for Unrestricted Land Use" and the soil cleanup standards for industrial properties (WAC 173-340-745(5), "Standard Method C Industrial Soil Cleanup Levels" presented in the Ecology, 2007, *Cleanup Levels & Risk Calculations (CLARC)* database, are precalculated and were downloaded from the CLARC online database in July 2008, as documented in Appendix G. Toxicological information and exposure assumptions are used to develop the precalculated WAC 173-340-740 and -745 cleanup levels.

These cleanup standards include the incidental soil ingestion exposure route for the direct contact exposure pathway. For an unrestricted land use, the acceptable cancer risk level is 10^{-6} for individual carcinogens and a hazard quotient of one for individual noncarcinogens. For industrial properties, the acceptable cancer risk level is 10^{-5} for individual carcinogens and a hazard quotient of one for individual noncarcinogens. When considering total site risks the hazard index shall not exceed one (1) and total excess cancer risk shall not exceed 1×10^{-5}. Therefore, with any given EPC, the cleanup level can be used to calculate the corresponding excess lifetime cancer risk or hazard quotient. The methodology used to calculate the associated risk or hazard quotient is described in Sections 3.4.1.1.3 and 3.4.1.1.4, respectively. The unrestricted land-use soil cleanup standards do not include the food chain pathways as identified for the hypothetical future rural residential exposure scenario. The uncertainties associated with this approach are discussed in the uncertainty section.

EPA toxicity values, known as non-carcinogenic reference doses (RfD) and carcinogenic slope factors were obtained from IRIS, PPRTV, HEAST, EPA's National Center for Environmental Assessment, and others. The priority among sources of toxicological constants used to develop the Region 6 screening table is as follows: (1) IRIS, (2) PPRTV and (3) a determination between National Center for Environmental Assessment, HEAST, and other documents including those from Cal EPA. The IRIS, PPRTV and National Center for Environmental Assessment values were updated as of October 2007. The HEAST values were not reviewed since HEAST has not been updated since the last screening value table.

3.4.1.1.1 Equations and Exposure Assumptions for Method B Soil Cleanup Levels for Unrestricted Land Use

The following equations were used to calculate the cleanup levels reported in the CLARC database. If a cleanup level was not reported in the CLARC database, it was calculated in accordance with the equations provided below. Tributyl phosphate was the only chemical not reported in CLARC, and a cleanup level was calculated. The equations and exposure assumptions used to develop the cleanup levels are as follows.

Noncarcinogens. For noncarcinogenic toxic effects of hazardous substances due to soil ingestion, concentrations shall be determined using Equation 740-1.

[Equation 740-1]

$$\text{Soil Cleanup Level (mg/kg)} = \frac{\text{RfD x ABW x UCF x HQ x AT}}{\text{SIR x AB1 x EF x ED}}$$

Where:

RfD	=	Reference dose as defined in WAC 173-340-708(7) (mg/kg-day)
ABW	=	Average body weight over the exposure duration (16 kg)
UCF	=	Unit conversion factor (1,000,000 mg/kg)
SIR	=	Soil ingestion rate (200 mg/day)
AB1	=	Gastrointestinal absorption fraction (1.0) (unitless)
EF	=	Exposure frequency (1.0) (unitless)
HQ	=	Hazard quotient (1) (unitless)
AT	=	Averaging time (6 years)
ED	=	Exposure duration (6 years)

Carcinogens. For carcinogenic effects of hazardous substances due to soil ingestion, concentrations shall be determined using Equation 740-2.

[Equation 740-2]

$$\text{Soil Cleanup Level (mg/kg)} = \frac{\text{RISK x ABW x AT x UCF}}{\text{CPF x SIR x AB1 x ED x EF}}$$

Where:

RISK	=	Acceptable cancer risk level (1 in 1,000,000) (unitless)
ABW	=	Average body weight over the exposure duration (16 kg)
AT	=	Averaging time (75 years)
UCF	=	Unit conversion factor (1,000,000 mg/kg)
CPF	=	Carcinogenic potency factor as defined in WAC 173-340-708(8) (kg-day/mg)
SIR	=	Soil ingestion rate (200 mg/day)
AB1	=	Gastrointestinal absorption fraction (1.0) (unitless). May use 0.6 for mixtures of dioxins and/or furans
ED	=	Exposure duration (6 years)
EF	=	Exposure frequency (1.0) (unitless)

3.4.1.1.2 Equations and Exposure Assumptions for Method C Soil Cleanup Levels for Industrial Properties

The following equations were used to calculate the cleanup levels reported in the CLARC database. If a cleanup level was not reported in the CLARC database, it was calculated in accordance with the equations provided below. Tributyl phosphate was the only chemical not reported in CLARC, and a cleanup level was calculated. The equations and exposure assumptions used to develop the cleanup levels are as follows.

Noncarcinogens. For noncarcinogenic toxic effects of hazardous substances due to soil ingestion, concentrations shall be determined using Equation 745-1.

1

[Equation 745-1]

$$\text{Soil Cleanup Level (mg/kg)} = \frac{\text{RfD x ABW x UCF x HQ x AT}}{\text{SIR x AB1 x EF x ED}}$$

Where:

RfD = Reference dose as specified in WAC 173-340-708(7) (mg/kg-day)

ABW = Average body weight over the exposure duration (70 kg)

UCF = Unit conversion factor (1,000,000 mg/kg)

SIR = Soil ingestion rate (50 mg/day)

AB1 = Gastrointestinal absorption fraction (1.0) (unitless)

EF = Exposure frequency (0.4) (unitless)

HQ = Hazard quotient (1) (unitless)

AT = Averaging time (20 years)

ED = Exposure duration (20 years)

2

3 **Carcinogens**. For carcinogenic effects of hazardous substances due to soil ingestion,
4 concentrations shall be determined using Equation 745-2.

[Equation 745-2]

$$\text{Soil Cleanup Level (mg/kg)} = \frac{\text{RISK x ABW x AT x UCF}}{\text{CPF x SIR x AB1 x ED x EF}}$$

Where:

RISK = Acceptable cancer risk level (1 in 100,000) (unitless)

ABW = Average body weight over the exposure duration (70 kg)

AT = Averaging time (75 years)

UCF = Unit conversion factor (1,000,000 mg/kg)

CPF = Carcinogenic Potency Factor as specified in WAC 173-340-708(8) (kg-day/mg)

SIR = Soil ingestion rate (50 mg/day)

AB1 = Gastrointestinal absorption fraction (1.0) (unitless).

3.4.1.1.3 Cancer Risk Estimation Method

The potential for cancer effects is evaluated by estimating the excess lifetime cancer risks (ELCR). This risk is the incremental increase in the probability of developing cancer during one's lifetime in addition to the background probability of developing cancer (that is, if no exposure to site chemicals occurs). For example, a $2x10^{-6}$ excess lifetime cancer risk means that, for every 1 million people exposed to the carcinogen throughout their lifetimes, the average incidence of cancer may increase by two cases of cancer. In the U.S., the background probability of developing cancer for men is a little less than one in two, and for women a little more than one in three (American Cancer Society, 2007). As previously mentioned, cancer slope factors developed by the EPA represent upper bound estimates, so any cancer risks generated in this assessment should be regarded as an upper bound on the potential cancer risks rather than accurate representations of true cancer risk. The true cancer risk is likely to be less than that predicted (EPA/540/1-89/002).

Although synergistic or antagonistic interactions might occur between cancer-causing chemicals and other chemicals, information is generally lacking in the toxicological literature to predict quantitatively the effects of these potential interactions. Therefore, cancer risks are treated as additive within an exposure route in this assessment. This is consistent with the EPA guidelines on chemical mixtures (EPA, 1986). To estimate the cancer risks from exposure to multiple carcinogens from all exposure routes considered, the following equation is used:

$$Risk_T = \sum_{i}^{N} \frac{C_{soil}}{CUL_{carcinogen}} \times TR$$

where:

- $Risk_T$ = Total excess lifetime cancer risk for all chemicals
- C_{soil} = Chemical concentration in soil (mg/kg)
- $CUL_{carcinogen}$ = Cleanup level based on carcinogenic effect (mg/kg)
- TR = Target excess lifetime cancer risk (10^{-6}) for unrestricted land use and (10^{-5}) for industrial properties.

3.4.1.1.4 Noncancer Risk Estimation Method

For noncancer effects, the likelihood that a receptor will develop an adverse effect is estimated by comparing the predicted level of exposure for a particular chemical with the highest level of exposure that is considered protective (that is, its RfD). The ratio of the chronic daily intake divided by RfD is termed the hazard quotient (HQ).

When the HQ for a chemical exceeds 1 (that is, exposure exceeds RfD), there is a concern for potential noncancer health effects. To assess the potential for noncancer effects posed by exposure to multiple chemicals, a hazard index (HI) approach was used according to EPA guidance (EPA/540/1-89/002). This approach assumes that the noncancer hazard associated with exposure to more than one chemical is additive; therefore, synergistic or antagonistic

interactions between chemicals are not accounted for. The HI may exceed 1 even if all the individual HQs are less than 1. In this case, the chemicals may be segregated by similar mechanisms of toxicity and toxicological effects. Separate HIs may then be derived based on mechanism and effect. To estimate the HI from all exposure routes considered the following equation is used:

$$HI_T = \sum_i^N \frac{C_{soil}}{CUL_{noncarcinogen}}$$

where:

HI_T = Total hazard index for all chemicals
C_{soil} = Chemical concentration in soil (mg/kg)
$CUL_{noncarcinogen}$ = Cleanup level based on noncarcinogenic effect (mg/kg).

Should they become necessary, comparisons of maximum soil concentrations to the Region 6 medium-specific screening levels are provided in Appendix H. The methodology for this comparison is consistent with previously-described WAC 173-340 methodology.

3.4.2 Results of the Nonradiological Baseline Risk Assessment

The BRA for nonradiological COPCs was performed using the points of compliance and exposure scenarios described in Section 3.1.3 and listed in Table 3-5. Excess lifetime cancer risk estimates and hazard quotients were calculated for COPCs using the methodologies described in Sections 3.4.1.1.3 and 3.4.1.1.4, respectively. These risk estimates and hazard quotients were calculated using the soil cleanup levels for unrestricted land use and the soil cleanup levels for industrial properties. The risk estimates and hazard quotients for each land use evaluated are presented in Tables 3-18 through 3-25.

3.4.2.1 Summary of Risk Estimates for the 216-A-29 Ditch (0 to 4.6 m [15 ft] bgs)

The following are identified as nonradiological COPCs from the 0 to 4.6 m (15 ft) bgs depth interval and are carried forward into the BRA to evaluate the direct contact exposure pathway:

- Arsenic, boron, cadmium, chromium, copper, hexavalent chromium, lead, mercury, nickel, selenium, silver, thallium, uranium, vanadium, and zinc
- Benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, bis(2-ethylhexyl)phthalate, butylbenzyl phthalate, chrysene, diethylphthalate, di-n-butylphthalate, fluoranthene, phenanthrene, pyrene, and tributyl phosphate
- 1,2-dichloroethane, acetone, methylene chloride, and tetrachloroethene
- Fluoride and nitrate
- Aroclor-1254, TPH-kerosene range, and TPH – motor oil (high boiling).

Unrestricted Land Use. With the exception of arsenic, benzo(a)pyrene, and aroclor-1254, the maximum detected concentrations of all COPCs were less than their respective residential cleanup level (Table 3-18). The total ELCR for all carcinogenic COPCs is 2.2×10^{-5}, which

is greater than the target threshold risk value of 1×10^{-6}. The primary contributors to risk include arsenic (1.9×10^{-6}), benzo(a)pyrene (1.2×10^{-6}), and aroclor-1254 (1.9×10^{-5}), all other COPCs were reported with an ELCR less than 1×10^{-6}. The total HI for all noncarcinogenic COPCs is 1.8, which is above the target hazard index value of 1.0. However, individual hazard quotients were not greater than one (1) for any COPC.

Test pit location AD-3 was reported with concentrations of arsenic greater than the soil cleanup level of 6.5 mg/kg at the depth interval from 1.8 to 2.1 m (6 to 7 ft) bgs and again at 2.6 to 2.9 m (8.5 to 9.5 ft) bgs. Test pit location AD-2 was reported with concentrations of arsenic greater than the soil cleanup level of 6.5 at the depth interval from 1.5 to 1.8 m (5 to 6 ft) bgs. Test pit location AD-1 was reported with concentrations of benzo(a)pyrene and aroclor-1254 over their soil cleanup levels of 0.14 mg/kg and 0.5 mg/kg respective in the 1.2 to 1.5 m (4 to 5 ft) bgs depth interval. Test pit location AD-1 also reported concentrations of arsenic greater than 6.5 mg/kg in the 2.0 to 2.3 m (6.5 to 7.5 ft) bgs depth interval and again at the 2.7 to 3.0 m (9 to 10 ft) bgs depth interval. Borehole B8826 was reported with aroclor-1254 concentrations greater than 0.5 mg/kg in the 1.2 to 2.0 m (4 to 6.6 ft) bgs depth interval.

Industrial Land Use. The maximum detected concentrations of all COPCs were less than their respective industrial cleanup level (Table 3-19). The total ELCR for all carcinogenic COPCs is 3.0×10^{-7}, which is less than the target threshold risk value of 1×10^{-5}. The total HI for all noncarcinogenic COPCs is 0.44, which is less than the target hazard index value of 1.0.

3.4.2.2 Summary of Risk Estimates for the 216-B-63 Trench (0 to 4.6 m [15 ft] bgs)

The following are identified as nonradiological COPCs from the 0 to 4.6 m (15 ft) bgs depth interval and are carried forward into the BRA to evaluate the direct contact exposure pathway:

- Boron, chromium, copper, hexavalent chromium, selenium, thallium, vanadium, and zinc
- bis(2-ethylhexyl)phthalate
- Acetone, benzene, methylene chloride, and toluene
- Nitrate and nitrite
- Aroclor-1254.

Unrestricted Land Use. The maximum detected concentrations of all COPCs were less than their respective residential cleanup level (Table 3-20). The total ELCR for all carcinogenic COPCs is 1.6×10^{-7}, which is less than the target threshold risk value of 1×10^{-6}. The total HI for all noncarcinogenic COPCs is 0.27, which is less than the target hazard index value of 1.0.

Industrial Land Use. The maximum detected concentrations of all COPCs were less than their respective industrial cleanup level (Table 3-21). The total ELCR for all carcinogenic COPCs is 1.8×10^{-9}, which is less than the target threshold risk value of 1×10^{-5}. The total HI for all noncarcinogenic COPCs is less than 0.01, which is less than the target hazard index value of 1.0.

3.4.2.3 Summary of Risk Estimates for the 216-S-10 Ditch (0 to 4.6 m [15 ft] bgs)

The following are identified as nonradiological COPCs from the 0 to 4.6 m (15 ft) bgs depth interval and are carried forward into the BRA to evaluate the direct contact exposure pathway:

- Boron, chromium, copper, hexavalent chromium, lead, mercury, nickel, selenium, silver, thallium, vanadium, and zinc
- Acenaphthene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(ghi)perylene, benzo(k)fluornathene, bis(2-ethylhexyl)phthalate, butylbenzyl phthalate, carbazole, chrysene, dibenz(a,h)anthracene, di-n-butylphthalate, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, phenanthrene, and pyrene,
- Acetone and methylene chloride
- Nitrate and nitrite
- Aroclor-1254 and TPH-diesel range.

Unrestricted Land Use. With the exception of benzo(a)pyrene and aroclor-1254, the maximum detected concentrations of all COPCs were less than their respective residential cleanup level (Table 3-22). The total ELCR for all carcinogenic COPCs is 1.4×10^{-5}, which is greater than the target threshold risk value of 1×10^{-6}. The primary contributors to risk include benzo(a)pyrene (4.4×10^{-6}), and aroclor-1254 (7.4×10^{-6}), all other COPCs were reported with an ELCR less than 1×10^{-6}. The total HI for all noncarcinogenic COPCs is 0.79, which is less than the target hazard index value of 1.0.

Test pit location SD-2 was reported with concentrations of benzo(a)pyrene and aroclor-1254 greater than their soil cleanup levels of 0.14 mg/kg and 0.5 mg/kg respective in the 0 to 0.5 m (1.5 ft) bgs depth interval. Test pit location SD-2 also reported aroclor-1254 over 0.5 mg/kg in the 0.5 to 0.9 m (1.5 to 3.0 ft) depth interval.

Industrial Land Use. The maximum detected concentrations of all COPCs were less than their respective industrial cleanup level (Table 3-23). The total ELCR for all carcinogenic COPCs is 1.0×10^{-7}, which is less than the target threshold risk value of 1×10^{-5}. The total HI for all noncarcinogenic COPCs is 0.02, which is less than the target hazard index value of 1.0.

3.4.2.4 Summary of Risk Estimates for the 216-S-10 Pond (0 to 4.6 m [15 ft] bgs)

The following are identified as COPCs from the 0 to 4.6 m (15 ft) bgs depth interval and are carried forward into the BRA to evaluate the direct contact exposure pathway:

- Boron, chromium, hexavalent chromium, mercury, selenium, silver, and thallium
- Bis(2-ethylhexyl)phthalate
- Acetone, methylene chloride, toluene, and xylenes (total)
- Cyanide and nitrite.

Unrestricted Land Use. The maximum detected concentrations of all COPCs were less than their respective unrestricted land use cleanup level (Table 3-24). The total ELCR for all carcinogenic COPCs is 2.1×10^{-9}, which is less than the target threshold risk value of 1×10^{-6}.

The total HI for all noncarcinogenic COPCs is 0.16, which is less than the target hazard index value of 1.0.

Industrial Land Use. The maximum detected concentrations of all COPCs were less than their respective industrial cleanup level (Table 3-25). The total ELCR for all carcinogenic COPCs is 1.6×10^{-11}, which is less than the target threshold risk value of 1×10^{-5}. The total HI for all noncarcinogenic COPCs is less than 0.01, which is less than the target hazard index value of 1.0.

3.4.2.5 Nonradionuclide Risk Evaluation Results for the Balancing and Modifying Criteria Evaluation

The risk evaluation used to support the balancing and modifying criteria evaluation was performed using the points of calculation and exposure scenarios described in Section 3.1.4 and listed in Table 3-6. Excess lifetime cancer risk estimates and hazard quotients were calculated for COPCs using the methodologies described in Sections 3.4.1.1.3 and 3.4.1.1.4, respectively. These risk estimates and hazard quotients were calculated using the soil cleanup levels for unrestricted land use and the soil cleanup levels for industrial properties. The risk estimates and hazard quotients for the 216-B-63 Trench and the 216-S-10 Ditch are provided in Tables 3-26 through 3-29.

3.4.2.6 Summary of Risk Estimates for the 216-B-63 Trench (0 to 5.8 m [19 ft] bgs)

The following are identified as nonradiological COPCs from the 0 to 5.8 m (19 ft) bgs depth interval and are carried forward into the risk evaluation used to support the balancing criteria evaluation:

- Boron, cadmium, chromium, copper, hexavalent chromium, selenium, thallium, vanadium, and zinc
- Bis(2-ethylhexyl)phthalate and diethylphthalate
- Acetone, benzene, methylene chloride, and toluene
- Nitrate and nitrite
- Aroclor-1254.

Unrestricted Land Use. The maximum detected concentrations of all COPCs were less than their respective residential cleanup level (Table 3-26). The total ELCR for all carcinogenic COPCs is 1.6×10^{-7}, which is less than the target threshold risk value of 1×10^{-6}. The total HI for all noncarcinogenic COPCs is 0.34, which is less than the target hazard index value of 1.0.

Industrial Land Use. The maximum detected concentrations of all COPCs were less than their respective industrial cleanup level (Table 3-27). The total ELCR for all carcinogenic COPCs is 1.8×10^{-9}, which is less than the target threshold risk value of 1×10^{-5}. The total HI for all noncarcinogenic COPCs is less than 0.01, which is less than the target hazard index value of 1.0.

3.4.2.7 Summary of Risk Estimates for the 216-S-10 Ditch (0 to 8.2 m [27 ft] bgs)

The following are identified as COPCs from the 0 to 8.2 m (27 ft) bgs depth interval and are carried forward into the risk evaluation used to support the balancing criteria evaluation:

- Boron, chromium, cadmium, copper, hexavalent chromium, lead, mercury, nickel, selenium, silver, thallium, vanadium, and zinc
- Acenaphthene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(ghi)perylene, benzo(k)fluornathene, bis(2-ethylhexyl)phthalate, butylbenzyl phthalate, carbazole, chrysene, dibenz(a,h)anthracene, diethylphthalate, di-n-butylphthalate, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, phenanthrene, and pyrene,
- Acetone and methylene chloride
- Nitrate and nitrite
- Aroclor-1254 and TPH-diesel range.

Unrestricted Land Use. With the exception of benzo(a)pyrene and aroclor-1254, the maximum detected concentrations of all COPCs were less than their respective residential cleanup level (Table 3-28). The total ELCR for all carcinogenic COPCs is 1.4×10^{-5}, which is greater than the target threshold risk value of 1×10^{-6}. The primary contributors to risk include benzo(a)pyrene (4.4×10^{-6}), and aroclor-1254 (7.4×10^{-6}), all other COPCs were reported with an ELCR less than 1×10^{-6}. The total HI for all noncarcinogenic COPCs is 0.92, which is less than the target hazard index value of 1.0.

Test pit location SD-2 was reported with concentrations of benzo(a)pyrene and aroclor-1254 greater than their soil cleanup levels of 0.14 mg/kg and 0.5 mg/kg respectively in the 0 to 0.5 m (1.5 ft) bgs depth interval. Test pit location SD-2 also reported aroclor-1254 over 0.5 mg/kg in the 0.5 to 0.9 m (1.5 to 3.0 ft) depth interval.

Industrial Land Use. The maximum detected concentrations of all COPCs were less than their respective industrial cleanup level (Table 3-29). The total ELCR for all carcinogenic COPCs is 1.0×10^{-7}, which is less than the target threshold risk value of 1×10^{-5}. The total HI for all noncarcinogenic COPCs is 0.07, which is less than the target hazard index value of 1.0.

3.4.2.8 Summary of Nonradionuclide Contaminants of Concern for Direct Contact Exposure Pathway

For the BRA, a summary of the nonradiological COCs identified for each waste site is provided in Table 3-30. These COCs were identified based on direct contact exposure to soils from the 0 to 4.6 m (15 ft) bgs depth interval for unrestricted land use and for industrial properties.

For purposes of evaluating balancing and modifying criteria, a summary of the nonradiological COCs identified for at the 216-B-63 Trench and the 216-S-10 Ditch is provided in Table 3-31. These COCs were identified based on direct contact exposure to soils from the 0 to 5.8 m (19 ft) bgs depth interval for at the 216-B-63 Trench and the 0 to 8.2 m (27 ft) bgs depth interval for the 216-S-10 Ditch. Similar to the BRA, COCs were identified for unrestricted land use and for industrial properties.

3.4.3 Radionuclide Risk Assessment

Radionuclide risk assessment closely follows the EPA approach of identifying COPCs, completing exposure and toxicity assessments, and integrating that information into risk characterization and discussing uncertainty, as outlined in EPA/540/1-89/002. Human-health risk assessment for radionuclides is consistent with the conceptual site model described in Section 3.2 and shown in Figure 3-1.

Risk assessment for radionuclides was accomplished using the RESRAD code Version 6.4 (ANL, 2007). The EPA evaluated the suitability of over two dozen multimedia pathway models and computer codes for analysis of radionuclide cleanup sites. Three models met the majority of the evaluation criteria; RESRAD version 5.19 was identified as one of the three models (EPA/402/R-96/011-A, *Radiation Site Cleanup Regulations: Technical Support Document for the Development of Radionuclide Cleanup Levels for Soils*). EPA evaluated the codes for their ability to model the transport of a contaminant via an exposure pathway, including defining (1) the nature, extent, and location of the contaminant source or sources, (2) actual or potential mechanisms of release, migration, and fate in the environment, (3) a medium or media through which the contaminant is transported or in which the contaminant remains, (4) points of possible receptor contact with the contaminated medium, and (5) an exposure route (e.g., ingestion). These criteria are consistent with the important elements of the analyses to be performed to support this FS.

RESRAD Version 6.4 was used to estimate the annual dose and the excess lifetime cancer risk. The analysis proceeds in two steps. First, the results of soil characterization in shallow-zone soils are used to construct a simplified model of radionuclide distributions in the soil at each site. The soil model specifies the concentration of various radionuclides in the shallow-zone soils at the 200-CS-1 OU waste sites. In this simplified approach, the soil contamination is assumed to be present in layers below the ground surface, each layer having a uniform concentration of the contaminants. Second, the soil model is input to the RESRAD software to calculate potential human-health risks from the contamination. The integration of these two steps is considered risk characterization and is discussed below.

The annual radiation doses and excess lifetime cancer risks are calculated for various time periods. For comparative purposes, radiation dose and risk estimates are discussed relative to the following exposure times.

- 0 year represents current waste-site conditions.
- 50 years is the estimated time that DOE will have an on-site presence.
- 150 years is the estimated time that ICs are assumed to be effective.
- 500 years is the estimated time that passive ICs are assumed to be effective.
- 1,000 years is the estimated time frame that peak radiation dose and risk estimates should fall within.
- The year in which the target radiation dose limit of 15 mrem/y is achieved.

Radionuclide COPCs, assumptions, input parameters, and model results for potential human-health risks based on RESRAD modeling are discussed below. Appendix F contains the details of the RESRAD analysis.

3.4.3.1 Radionuclide Contaminants of Potential Concern

Radiological COPCs were selected in accordance with the COPC selection process described in Section 3.3. The radiological COPCs identified for the BRA are listed in Section 3.3.2.6.1 and the radiological COPCs identified for risk evaluations performed specifically for the detailed analysis of remedial alternatives are listed in Section 3.3.2.6.2.

3.4.3.2 Radionuclide Exposure Assumptions

Similar to the nonradiological risk assessment, exposure assumptions estimate the type and magnitude of exposure to the COPCs present at the site. The exposure assumptions that are used for each exposure scenario input into the RESRAD code are provided in Appendix F. Each summary table lists each of the required RESRAD input parameters, lists the values that are input into the code, and provides the rationale and citation for each of the input parameters. A detailed description of how each exposure scenario was evaluated by the RESRAD code is provided in Appendix F.

For radionuclides, the integration of toxicological information, radioactive-decay information, and exposure factors to calculate annual dose rates and total lifetime excess cancer risk using the RESRAD code is considered risk characterization.

3.4.3.3 RESRAD Results

The radiological risk assessment is completed using an approach similar to that for the nonradiological constituents. A BRA was completed using the direct contact point of compliance (i.e., 0 to 4.6 m (15 ft) bgs) to determine the potential for exposure and risk. Additional exposure scenarios and points of calculation were evaluated to specifically use in the detailed analysis of remedial alternatives. The following subsections present the results of the BRA followed by the results of the risk evaluations conducted specifically for balancing and modifying criteria evaluation.

3.4.3.4 Radiological Risk Results for the Baseline Risk Assessment

As discussed in Section 3.2, the industrial worker exposure scenario for the BRA reflects the current and reasonably anticipated future land use within the industrial exclusive zone of the Central Plateau for which the 216-A-29 Ditch and the 216-B-63 Trench lie within. The direct contact exposure routes evaluated for the industrial worker are external gamma radiation, incidental soil ingestion, and inhalation of dust particulates.

The rural residential exposure scenario for the BRA is performed to provide information about exposure if the waste sites within the industrial-exclusive area were released for unrestricted land use. The 216-S-10 Ditch and 216-S-10 Pond are located within the conservation/preservation land use area. The rural residential scenario evaluates exposure from the direct contact pathway (external gamma radiation, incidental soil ingestion, and inhalation of dust particulates) in addition to the food chain. A summary of excess lifetime cancer risks and annual dose rates for the BRA is provided for the rural residential scenario in Tables 3-32 and 3-33 and for the industrial worker scenario in Table 3-34.

3.4.3.4.1 216-A-29 Ditch (0 to 4.6 m [15 ft] bgs)

The following are identified as radiological COPCs from the 0 to 4.6 m (15 ft) bgs depth interval (contamination zone 1 [CZ 1]) and are evaluated in the BRA to evaluate the direct contact exposure pathway:

- Am-241, Sb-125, Cs-137, Np-237, Pu-238, Pu-239/240, Ra-226, Th-230, Sr-90, U-233/234, U-235, and U-238.

Tritium is identified as the radiological COPC in CZ 2, which represents the depth interval ranging from 58.3 to 82.0 m (175 to 269 ft) bgs at the head end of the ditch and from 33.83 to 62.48 m (111 to 205 ft) bgs at the outlet end of the ditch. CZ 2 is included in the rural residential scenario, which evaluates the migration of contaminants in the vadose zone to groundwater beneath the waste site and subsequent exposure through water-dependent pathways (i.e., drinking water and irrigation). A summary of the EPCs input into the RESRAD code for each of the exposure scenarios evaluated is provided in Appendix F.

Under the current waste site configuration, the 216-A-29 Ditch is approximately 1,220 m (4,000 ft) in length and 1.83 m (6 ft) in width for a total area of 2,220 m^2 (0.55 a). This waste site currently has 1.22 m (4 ft) of cover placed over the top of the waste site.

Because of the length (1,220 m) of the 216-A-29 Ditch, two separate RESRAD analyses were performed. Each RESRAD analysis uses geologic and hydrologic properties representing the head and outlet ends of the ditch. A detailed description of geologic and hydrologic properties and input parameters used for the 216-A-29 Ditch RESRAD analysis is provided in Appendix F.

As explained in Section 3.5.5.1, the RESRAD code is not considered a valid model for predicting the impact of uranium on groundwater beneath the 216-A-29 Ditch. Therefore, the uranium isotopes were omitted from the water-dependent pathways of the rural residential scenario.

Rural Residential Scenario (Head End). The peak ELCR of 1.5×10^{-5} is below the risk threshold value of 10^{-4}. The peak annual dose rate of 0.45 mrem/yr occurs 17 years from the present and is substantially below the threshold value of 15 mrem/yr.

Industrial Worker Scenario (Head End). The peak ELCR of 1.4×10^{-12} is substantially below the risk threshold value of 10^{-4}. The peak annual dose rate of 7.2×10^{-8} mrem/yr occurs in 10,000 years and is substantially below the threshold value of 15 mrem/yr.

Rural Residential Scenario (Outlet End). The peak ELCR of 4.0×10^{-5} is below the risk threshold value of 10^{-4}. The peak annual dose rate of 1.3 mrem/yr occurs 16 years from the present and is substantially below the threshold value of 15 mrem/yr.

Industrial Worker Scenario (Outlet End). The peak ELCR of 1.2×10^{-11} is substantially below the risk threshold value of 10^{-4}. The peak annual dose rate of 6.3×10^{-7} mrem/yr occurs in 10,000 years and is substantially below the threshold value of 15 mrem/yr.

3.4.3.4.2 216-B-63 Trench (0 to 4.6 m [15 ft] bgs)

The following are identified as radiological COPCs from the 0 to 4.6 m (15 ft) bgs depth interval and are evaluated for the industrial worker scenario in the BRA to evaluate the direct contact exposure pathway:

- Am-241, Cs-137, Np-237, Sr-90, and Th-230.

The following are identified as radiological COPCs from the 0 to 5.8 m (19 ft) bgs (CZ 1) depth interval and are evaluated for the rural residential scenario in the BRA to evaluate the direct contact exposure pathway and migration of contaminants in the vadose zone to groundwater beneath the waste site (drinking water and irrigation use):

- Am-241, Cs-137, Np-237, Ni-63, Pu-238, Pu-239/240, Tc-99, Th-230, Sr-90, and tritium.

Nickel-63 is identified as the radiological COPC in CZ 2, which represents the depth interval ranging from 5.79 to 74.37 m (19 to 244 ft) bgs. CZ 2 is included in the rural residential scenario, which evaluates the migration of contaminants in the vadose zone to groundwater beneath the waste site and subsequent exposure through water-dependent pathways (i.e., drinking water and irrigation). A summary of the EPCs input into the RESRAD code for each of the exposure scenarios evaluated is provided in Appendix F.

Under the current waste site configuration, the 216-B-63 Trench is approximately 427 m (1,400 ft) in length and 1.2 m (4 ft) in width for a total area 520 m^2 (0.13 a). This waste site currently has 1.52 m (5 ft) of cover placed over the top of the waste site. A detailed description of geologic and hydrologic properties and input parameters used for the 216-B-63 Trench RESRAD analysis is provided in Appendix F.

Rural Residential Scenario. The peak ELCR of 3.5×10^{-5} is below the risk threshold value of 10^{-4}. The peak annual dose rate of 0.66 mrem/yr occurs 506 years from the present and is substantially below the threshold value of 15 mrem/yr.

Industrial Worker Scenario. The peak ELCR of 2.4×10^{-14} is substantially below the risk threshold value of 10^{-4}. The peak annual dose rate of 1.3×10^{-9} mrem/yr occurs in 10,000 years and is substantially below the threshold value of 15 mrem/yr.

3.4.3.4.3 216-S-10 Ditch (0 to 4.6 m [15 ft] bgs)

The following are identified as radiological COPCs from the 0 to 4.6 m (15 ft) bgs depth interval and are evaluated in the BRA to evaluate the direct contact exposure pathway:

- Am-241, Cs-137, Pu-239/240, Th-230, and Sr-90.

The following are identified as radiological COPCs from the 0 to 8.3 m (27 ft) bgs (CZ 1) depth interval and are evaluated for the rural residential scenario in the BRA to evaluate the direct contact exposure pathway and migration of contaminants in the vadose zone to groundwater beneath the waste site (drinking water and irrigation use):

- Am-241, Cs-137, Ni-63, Pu-239/240, Th-230, Sr-90, and tritium.

Nickel-63 is identified as the radiological COPC in CZ 2, which represents the depth interval ranging from 42.67 to 64.01 m (140 to 210 ft) bgs. CZ 2 is included in the rural residential scenario, which evaluates the migration of contaminants in the vadose zone to groundwater beneath the waste site and subsequent exposure through water-dependent pathways (i.e., drinking water and irrigation). A summary of the EPCs input into the RESRAD code for each of the exposure scenarios evaluated is provided in Appendix F.

Under the current waste site configuration, the 216-S-10 Ditch is approximately 686 m (2,250 ft) and 1.2 m(4 ft) in width for a total area of 836 m^2 (0.21 a). This waste site currently has 0.61 m (2 ft) of cover placed over the top of the waste site. A detailed description of geologic and hydrologic properties and input parameters used for the 216-S-10 Ditch RESRAD analysis is provided in Appendix F.

Rural Residential Scenario. The peak ELCR of 1.8×10^{-5} is below the risk threshold value of 10^{-4}. The peak annual dose rate of 1.7 mrem/yr occurs 3,299 years from the present and is substantially below the threshold value of 15 mrem/yr.

Industrial Worker Scenario. The peak ELCR of 2.5×10^{-8} is substantially below the risk threshold value of 10^{-4}. The peak annual dose rate of 1.3×10^{-3} mrem/yr occurs in 10,000 years and is substantially below the threshold value of 15 mrem/yr.

3.4.3.4.4 216-S-10 Pond (0 to 4.6 m [15 ft] bgs)

The following are identified as radiological COPCs from the 0 to 4.6 m (15 ft) bgs depth interval and are evaluated in the BRA to evaluate the direct contact exposure pathway:

- Am-241, Cs-137, Np-237, Pu-239/240, Th-230, Sr-90, and tritium.

Nickel-63 and strontium-90 are identified as radiological COPCs in CZ 2, which represents the depth interval ranging from 13.41 to 23.16 m (44 to 76 ft) bgs. Plutonium-239 is identified as the radiological COPC in CZ 3, which represents the depth interval ranging from 23.16 to 35.96 m (76 to 118 ft) bgs. CZs 2 and 3 are included in the rural residential scenario, which evaluates the migration of contaminants in the vadose zone to groundwater beneath the waste site and subsequent exposure through water-dependent pathways (i.e., drinking water and irrigation). A summary of the EPCs input into the RESRAD code for each of the exposure scenarios evaluated is provided in Appendix F.

Under the current waste site configuration, the 216-S-10 Pond is approximately 305 m (1,040 ft) in length and 57.4 m (85 ft) in width for a total area of 17,500 m^2 (4.3 a). This waste site currently has 1.8 m (6 ft) of cover placed over the top of the waste site. A detailed description of geologic and hydrologic properties and input parameters used for the 216-S-10 Pond RESRAD analysis is provided in Appendix F.

Rural Residential Scenario. The peak ELCR of 8.8×10^{-14} is below the risk threshold value of 10^{-4}. The peak annual dose rate of 5.6×10^{-9} mrem/yr occurs 321 years from the present and is substantially below the threshold value of 15 mrem/yr.

Industrial Worker Scenario. The peak ELCR of 5.5×10^{-15} is below the risk threshold value of 10^{-4}. The peak annual dose rate of 2.9×10^{-10} mrem/yr occurs 10,000 years from the present and is substantially below the threshold value of 15 mrem/yr.

3.4.3.5 Radiological Risk Results for the Balancing and Modifying Criteria Evaluation

The exposure scenarios conducted for the balancing and modifying criteria evaluation are specifically included for the detailed analysis of the remedial alternatives. The hypothetical excavation industrial worker and inadvertent intruder, and the Native American scenarios (CTUIR and Yakama Nation) are evaluated for each of the 200-CS-1 OU waste sites.

The industrial worker scenario considers a hypothetical excavation scenario in which the contaminants that are currently located at depth are excavated and placed on the ground

surface. This hypothetical scenario provides information about potential direct contact exposure risk that could be encountered if the CZ were excavated and brought to the surface. The industrial worker scenario includes an evaluation of external gamma radiation, incidental soil ingestion, and inhalation of dust particulates for the direct contact pathway.

The inadvertent intruder exposure scenario considers exposure to an individual who inadvertently exhumes the waste within the boundaries of each waste site if ICs fail 150 years in the future. The inadvertent intruder scenario is a performance assessment requirement by DOE O 435.1 and DOE M 435.1-1 to provide the DOE a reasonable expectation that low-level waste disposal will meet the radiological performance objectives established in DOE M 435.1-1. The performance assessment methodology typically evaluates both acute and chronic inadvertent intruder exposure scenarios to demonstrate compliance with the 500 mrem effective dose equivalent acute and 100 mrem/yr effective dose equivalent chronic intruder protection performance objectives established in DOE M 435.1-1. The inadvertent intruder exposure scenario estimates dose to a well driller and to a rural farmer. The exposure pathways evaluated for these scenarios are consistent with those for the industrial worker and rural residential exposure scenarios, respectively.

The two Native American exposure scenarios (CTUIR and Yakama Nation) are included for the purpose of evaluating the balancing and modifying criteria in the detailed remedial alternatives analysis. These scenarios reflect the current waste site configuration at each of the waste sites and exposure conditions if the land within the industrial exclusive zone of the Central Plateau were released for unrestricted land use.

The CTUIR and the Yakama Nation exposure scenarios each include an evaluation of external gamma radiation, incidental soil ingestion, and inhalation of dust particulates for the direct contact pathway. These scenarios also include exposure from food chain pathways including consumption of fruits and vegetables grown in a backyard garden and consumption of beef and poultry that graze on and are penned on a rural pasture. Milk consumption is included in the rural residential and Yakama Nation exposure scenarios. However, milk consumption was not included in the food consumption pathway for the CTUIR scenario. Exposure from the food chain pathways is wholly contributed from uptake of contaminants that are currently in surface soil. It does not include any contribution of contamination that could occur from use of contaminated irrigation water or from consumption of contaminated drinking water by livestock.

Additionally, the CTUIR and Yakama Nation exposure scenarios include the potential for exposure from consumption of wild game hunted on the Central Plateau. Exposure from consumption of wild game is not included in this evaluation because the size of the waste sites within the 200-CS-1 OU could not support foraging wild game over long periods of time. The combined area of the 200-CS-1 waste sites is approximately 21,000 m^2 (5.2 a). The CTUIR and Yakama Nation scenarios also include assumptions to estimate potential exposure from the consumption of fish and sweat lodge use. For purposes of this risk assessment, both exposure pathways are considered incomplete and were not evaluated. The fish consumption exposure pathway is being included by the 100 Areas and 300 Area River Corridor BRA. The sweat lodge exposure pathway is not included because only contamination associated with the source area is addressed in this risk assessment. A summary of excess lifetime cancer risks and annual dose rates for the balancing and modifying criteria evaluation is provided for the

hypothetical excavation - industrial worker scenario in Table 3-35, for the CTUIR scenario in Tables 3-36 and 3-37, for the Yakama Nation scenario in Tables 3-38 and 3-39, and for the inadvertent intruder well driller and post-drilling rural residential scenario in Tables 3-40 and 3-41.

3.4.3.5.1 216-A-29 Ditch (0 to 4.6 m [15 ft] bgs)

The following are identified as radiological COPCs from the 0 to 4.6 m (15 ft) bgs depth interval and are included in the RESRAD analysis for the balancing and modifying criteria to evaluate the direct contact exposure pathway:

- Am-241, Sb-125, Cs-137, Np-237, Pu-238, Pu-239/240, Ra-226, Th-230, Sr-90, U-233/234, U-235, and U-238.

Tritium is identified as the radiological COPC in CZ 2, which represents the depth interval ranging from 58.3 to 82.0 m (175 to 269 ft) bgs at the head end of the ditch and from 33.83 to 62.48 m (111 to 205 ft) bgs at the outlet end of the ditch. CZ 2 is included in the Native American scenarios, which evaluate the migration of contaminants in the vadose zone to groundwater beneath the waste site and subsequent exposure through water-dependent pathways (i.e., drinking water and irrigation). A summary of the EPCs input into the RESRAD code for each of the exposure scenarios evaluated is provided in Appendix F.

Under the current waste site configuration, the 216-A-29 Ditch is approximately 1,220 m (4,000 ft) in length and 1.83 m (6 ft) in width for a total area of 2,220 m^2 (0.55 a). This waste site currently has 1.22 m (4 ft) of cover placed over the top of the waste site.

Because of the length (1,220 m) of the 216-A-29 Ditch, two separate RESRAD analyses were performed. Each RESRAD analysis uses geologic and hydrologic properties representing the head and outlet ends of the ditch. A detailed description of geologic and hydrologic properties and input parameters used for the 216-A-29 Ditch RESRAD analysis is provided in Appendix F.

As explained in Section 3.5.5.1, the RESRAD code is not considered a valid model for predicting the impact of uranium on groundwater beneath the 216-A-29 Ditch. Therefore, the uranium isotopes were omitted from the water-dependent pathways of the Native American scenarios.

Hypothetical Excavation – Industrial Worker Scenario (Head End and Outlet End). The peak ELCR of 5.8×10^{-4} is at time 0 and is approximately equal to the risk threshold value of 10^{-4}. The peak annual dose rate of 49 mrem/yr occurs at time 0. The primary contributor to risk and dose at time zero is cesium-137 (76% contribution) and the primary exposure route is external radiation. The dose rate for Cs-137 is reduced to levels below 15 mrem/yr in 40 years.

CTUIR Scenario (Head End). The peak ELCR of 4.5×10^{-5} is in 17 years and is less than the risk threshold value of 10^{-4}. The peak annual dose rate of 1.2 mrem/yr occurs in 17 years and is below the annual dose threshold of 15 mrem/yr. The primary contributor to risk and dose in the 17 year timeframe is from the presence of tritium through the drinking water ingestion route.

CTUIR Scenario (Outlet End). The peak ELCR of 1.4×10^{-4} is in 16 years and is within the range of the risk threshold value of 10^{-4}. The peak annual dose rate of 3.5 mrem/yr occurs in 16 years and is below the annual dose threshold of 15 mrem/yr. The primary contributor to risk and dose in the 16 year timeframe is from the presence of tritium through the drinking water ingestion route.

Yakama Nation Scenario (Head End). The peak ELCR of 4.5×10^{-5} is in 17 years and is less than the risk threshold value of 10^{-4}. The peak annual dose rate of 1.1 mrem/yr occurs in 17 years and is below the annual dose threshold of 15 mrem/yr. The primary contributor to risk and dose in the 17 year timeframe is from the presence of tritium through the drinking water ingestion route.

Yakama Scenario (Outlet End). The peak ELCR of 1.5×10^{-4} is in 16 years and is within the range of the risk threshold value of 10^{-4}. The peak annual dose rate of 3.7 mrem/yr occurs in 16 years and is below the annual dose threshold of 15 mrem/yr. The primary contributor to risk and dose in the 16 year timeframe is from the presence of tritium through the drinking water ingestion route.

Inadvertent Intruder – Well Driller Scenario (Head End). The peak annual dose rate is 0.00136 mrem/yr at the time that active ICs are assumed to fail (150 years from the present) and is less than the acute dose threshold value of 500 mrem/yr.

Inadvertent Intruder – Post Drilling Rural Farmer Scenario (Head End). The peak annual dose rate is 0.36 mrem/yr at the time that active ICs are assumed to fail (150 years from the present) and is less than the chronic dose threshold value of 100 mrem/yr.

3.4.3.5.2 216-B-63 Trench (0 to 5.8 m [19 ft] bgs)

The following are identified as radiological COPCs from the 0 to 5.8 m (19 ft) bgs (CZ 1) depth interval and are evaluated for all the balancing and modifying criteria scenarios that evaluate the direct contact exposure pathway (hypothetical excavation, inadvertent intruder, and Native American Scenarios) and migration of contaminants in the vadose zone to groundwater beneath the waste site for the Native American scenarios (drinking water and irrigation use):

- Am-241, Cs-137, Np-237, Ni-63, Pu-238, Pu-239/240, Tc-99, Th-230, Sr-90, and tritium.

Nickel-63 is identified as the radiological COPC in CZ 2, which represents the depth interval ranging from 5.79 to 74.37 m (19 to 244 ft) bgs. CZ 2 is included in the Native American scenarios, which evaluate the migration of contaminants in the vadose zone to groundwater beneath the waste site and subsequent exposure through water-dependent pathways (i.e., drinking water and irrigation). A summary of the EPCs input into the RESRAD code for each of the exposure scenarios evaluated is provided in Appendix F.

Under the current waste site configuration, the 216-B-63 Trench is approximately 427 m (1,400 ft) in length and 1.2 m (4 ft) in width for a total area 520 m^2 (0.13 a). This waste site currently has 1.52 m (5 ft) of cover placed over the top of the waste site. A detailed description of geologic and hydrologic properties and input parameters used for the 216-B-63 Trench RESRAD analysis is provided in Appendix F.

Hypothetical Excavation – Industrial Worker Scenario. The peak ELCR of 2.0×10^{-5} is at time 0 and is less than the risk threshold value of 10^{-4}. The peak annual dose rate of 1.5 mrem/yr occurs in 6,627 years, which is below the 15 mrem/yr threshold value.

CTUIR Scenario. The peak ELCR of 1.1×10^{-4} is in 506 years and is within the range of the risk threshold value of 10^{-4}. The peak annual dose rate of 2.0 mrem/yr occurs in 506 years and is below the annual dose threshold of 15 mrem/yr. The primary contributor to risk and dose at the 506 year timeframe is from the presence of TC-99 through the drinking water ingestion route.

Yakama Scenario. The peak ELCR of 1.2×10^{-4} is in 506 years and is within the range of the risk threshold value of 10^{-4}. The peak annual dose rate of 2.0 mrem/yr occurs in 506 years and is below the annual dose threshold of 15 mrem/yr. The primary contributor to risk and dose at the 506 year timeframe is from the presence of Tc-99 through the drinking water ingestion route.

Inadvertent Intruder – Well Driller Scenario. The peak annual dose rate is 2.3×10^{-4} mrem/yr at the time that active ICs are assumed to fail (150 years from the present) and is less than the acute dose threshold value of 500 mrem/yr.

Inadvertent Intruder – Post Drilling Rural Farmer Scenario. The peak annual dose rate is 0.0088 mrem/yr at the time that active ICs are assumed to fail (150 years from the present) and is less than the chronic dose threshold value of 100 mrem/yr.

3.4.3.5.3 216-S-10 Ditch (0 to 8.2 m [27 ft] bgs)

The following are identified as radiological COPCs from the 0 to 8.2 m (27 ft) bgs (CZ 1) depth interval and are evaluated for all the balancing and modifying criteria scenarios that evaluate the direct contact exposure pathway (hypothetical excavation, inadvertent intruder, and Native American Scenarios) and migration of contaminants in the vadose zone to groundwater beneath the waste site for the Native American scenarios (drinking water and irrigation use):

- Am-241, Cs-137, Ni-63, Pu-239/240, Th-230, Sr-90, and tritium.

Nickel-63 is identified as the radiological COPC in CZ 2, which represents the depth interval ranging from 42.67 to 64.01 m (140 to 210 ft) bgs. CZ 2 is included in the Native American scenarios, which evaluate the migration of contaminants in the vadose zone to groundwater beneath the waste site and subsequent exposure through water-dependent pathways (i.e., drinking water and irrigation). A summary of the EPCs input into the RESRAD code for each of the exposure scenarios evaluated is provided in Appendix F.

Under the current waste site configuration, the 216-S-10 Ditch is approximately 686 m (2,250 ft) and 1.2 m (4 ft) in width for a total area of 836 m^2 (0.21 a). This waste site currently has 0.61 m (2 ft) of cover placed over the top of the waste site. A detailed description of geologic and hydrologic properties and input parameters used for the 216-S-10 Ditch RESRAD analysis is provided in Appendix F.

Hypothetical Excavation – Industrial Worker Scenario. The peak ELCR of 4.9×10^{-5} is at time 0 and is less than the risk threshold value of 10^{-4}. The peak annual dose rate of 3.5 mrem/yr occurs at time 0, which is below the 15 mrem/yr threshold value.

CTUIR Scenario. The peak ELCR of 1.8×10^{-4} is in 3,299 years and is within the range of the risk threshold value of 10^{-4}. The peak annual dose rate of 7.0 mrem/yr occurs in 3,299 years and is below the annual dose threshold of 15 mrem/yr. The primary contributor to risk and dose at the 3,299 year timeframe is from the presence of plutonium-239 from the plant consumption route.

Yakama Scenario. The peak ELCR of 1.9×10^{-4} is in 3,299 years and is within the range of the risk threshold value of 10^{-4}. The peak annual dose rate of 7.3 mrem/yr occurs in 3,299 years and is below the annual dose threshold of 15 mrem/yr. The primary contributor to risk and dose at the 3,299 year timeframe is from the presence of plutonium-239 from the plant consumption route.

Inadvertent Intruder – Well Driller Scenario. The peak annual dose rate is 2.1×10^{-4} mrem/yr at the time that active ICs are assumed to fail (150 years from the present) and is less than the acute dose threshold value of 500 mrem/yr.

Inadvertent Intruder – Post Drilling Rural Farmer Scenario. The peak annual dose rate is 0.022 mrem/yr at the time that active ICs are assumed to fail (150 years from the present) and is less than the chronic dose threshold value of 100 mrem/yr.

3.4.3.5.4 216-S-10 Pond (0 to 4.6 m [15 ft] bgs)

The following are identified as radiological COPCs from the 0 to 4.6 m (15 ft) bgs depth interval and are included in the RESRAD analysis for the balancing and modifying criteria to evaluate the direct contact exposure pathway:

- Am-241, Cs-137, Np-237, Pu-239/240, Th-230, Sr-90, and tritium

Nickel-63 and Sr-90 are identified as radiological COPCs in CZ 2, which represents the depth interval ranging from 13.41 to 23.16 m (44 to 76 ft) bgs. Plutonium-239 is identified as the radiological COPC in CZ 3, which represents the depth interval ranging from 23.16 to 35.96 m (76 to 118 ft) bgs. CZs 2 and 3 are included in the Native American scenarios, which evaluate the migration of contaminants in the vadose zone to groundwater beneath the waste site and subsequent exposure through water-dependent pathways (i.e., drinking water and irrigation). A summary of the EPCs input into the RESRAD code for each of the exposure scenarios evaluated is provided in Appendix F.

Under the current waste site configuration, the 216-S-10 Pond is approximately 305 m (1,040 ft) in length and 57.4 m (85 ft) in width for a total area of 17,500 m^2 (4.3 a). This waste site currently has 1.8 m (6 ft) of cover placed over the top of the waste site. A detailed description of geologic and hydrologic properties and input parameters used for the 216-S-10 Pond RESRAD analysis is provided in Appendix F.

Hypothetical Excavation – Industrial Worker Scenario. The peak ELCR of 2.4×10^{-5} is in 4,082 years and is less than the risk threshold value of 10^{-4}. The peak annual dose rate of 1.3 mrem/yr is in 4,082 years, which is below the 15 mrem/yr threshold value.

CTUIR Scenario. The peak ELCR of 3.2×10^{-10} is in 2,572 years and is less than the risk threshold value of 10^{-4}. The peak annual dose rate of 1.5×10^{-5} mrem/yr occurs at 2,572 years and is below the annual dose threshold of 15 mrem/yr. The primary contributor to risk and

dose at the 2,572 year timeframe is from the presence of plutonium-239 in CZ3 from the drinking water ingestion route.

Yakama Scenario. The peak ELCR of 3.5×10^{-10} is in 2,572 years and is less than the risk threshold value of 10^{-4}. The peak annual dose rate of 1.7×10^{-5} mrem/yr occurs at 2,572 years and is below the annual dose threshold of 15 mrem/yr. The primary contributor to risk and dose at the 2,572 year timeframe is from the presence of plutonium-239 in CZ 3 from the drinking water ingestion route.

Inadvertent Intruder – Well Driller Scenario. The peak annual dose rate is 7.0×10^{-5} mrem/yr 350 years from the time that active ICs are assumed to fail (500 years from the present) and is less than the acute dose threshold value of 500 mrem/yr.

Inadvertent Intruder – Post Drilling Rural Farmer Scenario. The peak annual dose rate is 0.007 mrem/yr 350 years from the time that active ICs are assumed to fail (500 years from the present) and is less than the chronic dose threshold value of 100 mrem/yr.

3.4.3.6 Summary of Radionuclide Contaminants of Concern for Direct Contact Exposure Pathway

For the BRA, no radiological COCs were identified for any of the waste sites based on the rural residential and industrial worker exposure scenarios. For both scenarios, these results are based on the current waste site configuration. Both rural residential and industrial worker scenarios include the evaluation of direct contact exposure to soils from the upper CZ. The rural residential scenario also considers exposure from water dependent pathways that are influenced by migration of contaminants in the vadose zone to the groundwater beneath the waste sites.

For the balancing and modifying criteria risk evaluation, no radiological COCs were identified for any of the waste sites based on the Native American and Inadvertent Intruder exposure scenarios. The total ELCR and the total dose rate for the Native American exposure scenarios were less than 10^{-4} and less than 15 mrem/yr at all time periods evaluated. The dose rates for the Inadvertent Intruder well driller scenario was less than the 500 mrem/yr acute dose rate at all time periods evaluated. The dose rates for the Inadvertent Intruder post drilling rural farmer scenario was less than the 100 mrem/yr chronic dose rate at all time periods evaluated.

For the hypothetical excavation scenario, the 216-A-29 Ditch resulted in a dose rate of 49 mrem/yr at time 0, which is greater than the threshold value 15 mrem/yr. This dose rate would potentially occur if the stabilization cover were removed exposing the upper layer of contamination. It would take approximately 40 years for the current concentrations of Cs-137 to decay to a level below 15 mrem/yr. For the remaining waste sites, the dose rate was below 15 mrem/yr at all years evaluated if the cover were removed exposing the upper layer of contamination.

3.5 GROUNDWATER-IMPACT ANALYSIS

The impact to groundwater is evaluated for each of the waste sites evaluated in the 200-CS-1 OU. The purpose of this analysis is to identify the nonradioactive and radioactive contaminants that could pose a potential future impact to groundwater using the data collected

as part of the RI. RESRAD modeling is used to determine whether the radionuclides beneath each of the waste sites will reach groundwater in 1,000 years. If any of radionuclides reach groundwater during the period of simulation, the resulting concentrations in the groundwater are compared to maximum contaminant levels (MCL).

3.5.1 Groundwater Impact Analysis Methodology

The COPC identification process was described in Section 3.3. In Section 3.3 nonradiological and radiological COPCs were identified for shallow-zone and deep-zone soils. COPCs were only identified for each of the waste sites for the purpose of the groundwater impact analysis.

3.5.2 Nonradionuclide Groundwater-Impact Analysis

Soil concentrations protective of groundwater were calculated using the fixed-parameter three-phase partitioning model described in WAC 173-340-747. Use of this model for determining soil concentrations protective of groundwater is referenced under calculation of Method B soil cleanup levels in CLARC under WAC 173-340, "Model Toxics Control Act – Cleanup." Maximum concentrations of nonradiological COPCs from each of the waste sites are compared to their corresponding soil concentrations protective of groundwater (i.e., cleanup levels).

3.5.2.1 WAC 173-340-747 Soil Concentrations Protective of Groundwater

Soil concentrations protective of groundwater are based on the WAC 173-340-747 fixed-parameter three-phase equilibrium partitioning model (hereinafter referred to as the three-phase model). The equation used to derive the three-phase model values is described below:

$$C_s = C_w (UCF) DF \left[K_d + \frac{(\theta_w + \theta_a H_{cc})}{\rho_b} \right]$$

where,

- C_s = soil concentration (mg/kg)
- C_w = groundwater cleanup level (µg/L)
- UCF = unit conversion factor (1 mg/1000 µg)
- DF = dilution factor (20)
- K_d = distribution coefficient (L/kg)
- θ_w = water-filled soil porosity (0.3)
- θ_a = air-filled soil porosity (0.13)
- H_{cc} = Henry's law constant
- ρ_b = dry bulk soil density (1.5 kg/L).

Chemical-specific parameter values used in the calculation of the groundwater protection cleanup levels are provided in Appendix G. Unless otherwise specified, the groundwater

cleanup levels are calculated from the more conservative of Equation 720-1 or 720-2 from WAC 173-340-720, "Groundwater Cleanup Standards," and the distribution coefficients (K_d) and Henry's law constants (H_{cc}) values were obtained from CLARC database (Ecology, 2008). If distribution coefficients or Henry's law constants were not available in CLARC database, then the K_d and H_{cc} values were obtained from another sources as referenced in Appendix G.

3.5.2.1.1 Waste Site-Specific Soil Concentrations Protective of Groundwater

As described in the previous section, soil concentrations protective of groundwater are based on the WAC 173-340-747 three phase model. WAC 173-340-747(5)(h) describes a process for developing site-specific input parameters that can be used within the three phase model. Development of site-specific dilution factor parameters requires site-specific site information including (1) hydraulic conductivity, (2) hydraulic gradient, (3) thickness of the mixing zone, (4) infiltration rate, and (5) estimated length of contaminant source area parallel to groundwater flow. The methodology used to develop a site-specific dilution factor for each waste site within the 200-CS-1 OU is described in Appendix L. Based on the information presented in Appendix L, the following site-specific dilution factors were used to calculate soil concentrations protective of groundwater and are listed below:

- 216-A-29 Ditch (DF = 310)
- 216-B-63 Trench (DF = 620)
- 216-S-10 Ditch (DF = 122)
- 216-S-10 Pond (DF = 122).

3.5.3 Results of the Nonradionuclide Groundwater-Impact Analysis

The results of the COPC selection process are summarized in Section 3.3.2.6 for each waste site evaluated. The COPCs identified through the COPC-selection process are compared to the soil concentration protective of groundwater as described in the previous section. The results of the comparison to soil concentrations protective of groundwater are presented in Tables 3-42 through 3-45 for each waste site. Maximum detected COPC concentrations greater than their default soil concentration protective of groundwater were subsequently compared to the site-specific soil concentrations protective of groundwater and are shown in Tables 3-46 through 3-48. When COPCs are detected at concentrations greater than their respective cleanup level it may indicate the need to take action.

216-A-29 Ditch (Ground Surface to Groundwater Table). The following are identified as nonradiological COPCs from ground surface to the groundwater table and are carried forward into the groundwater impacts analysis:

- Arsenic, barium, boron, cadmium, chromium, copper, hexavalent chromium, lead, mercury, nickel, selenium, silver, thallium, uranium, vanadium, and zinc
- Benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, bis(2-ethylhexyl)phthalate, butylbenzyl phthalate, chrysene, diethylphthalate, di-n-butylphthalate, fluoranthene, phenanthrene, pyrene, and tributyl phosphate

- 1,2-dichloroethane, 2-butanone, acetone, methylene chloride, tetrachloroethene, and toluene
- Fluoride, nitrate, and nitrite
- Aroclor-1254, TPH-kerosene range, and TPH – motor oil (high boiling).

With the exception of arsenic, the maximum detected concentrations of all COPCs were less than their respective site-specific soil concentration protective of groundwater. The maximum arsenic concentration of 12 mg/kg was measured at two depths in test pit AD-3. Arsenic concentrations were below the cleanup level at all other sample locations within the 216-A-29 Ditch. Arsenic was analyzed at five depth intervals ranging between 1.83 to 5.18 m (6 and 17 ft) bgs at test pit AD-3. Arsenic concentrations at these five depths range from 2.2 to 12 mg/kg. The two upper depth intervals of 1.82 to 2.13 m (6.5 to 7.5 ft) and the 2.6 to 2.9 m ((8.5 to 9.5 ft) bgs are where the maximum arsenic concentrations were located. The three remaining depth intervals were measured at concentrations less than or equal to 3.4 mg/kg at depths below 2.9 m (9.5 ft) bgs. It is likely that the presence of arsenic is naturally occurring rather from a release of arsenic and will not likely move through the vadose zone to the groundwater table. The because the range of concentrations are not greater than twice the lognormal 90th percentile background concentration of 6.47 mg/kg and arsenic concentrations decrease with depth. Therefore, the presence of arsenic is considered naturally occurring and will not be considered a COC.

A comparison to default soil concentrations protective of groundwater is shown in Table 3-42. Maximum detected concentrations of COPCs greater than default values were subsequently compared to site-specific soil concentrations protective of groundwater and are shown in Table 3-46.

Test pit location AD-3 was reported with concentrations of arsenic greater than the cleanup level at the 1.8 to 2.1 m (6 to 7 ft) bgs depth interval.

216-B-63 Trench (Ground Surface to Groundwater Table). The following are identified as COPCs from ground surface to the groundwater table and are carried forward into the BRA to evaluate the direct contact exposure pathway:

- Boron, cadmium, chromium, copper, hexavalent chromium, nickel, selenium, thallium, vanadium, and zinc
- Bis(2-ethylhexyl)phthalate, diethylphthalate, di-n-butylphthalate
- Acetone, benzene, methylene chloride, toluene
- Nitrate and nitrite
- Aroclor-1254.

The maximum detected concentrations of all COPCs were less than their respective site-specific soil concentration protective of groundwater. A comparison to default soil concentrations protective of groundwater is shown in Table 3-43. Maximum detected concentrations of COPCs greater than default values were subsequently compared to site-specific soil concentrations protective of groundwater and are shown in Table 3-47.

216-S-10 Ditch (Ground Surface to Groundwater Table). The following are identified as COPCs from ground surface to the groundwater table and are carried forward into the BRA to evaluate potential impacts to groundwater:

- Arsenic, boron, cadmium, chromium, copper, hexavalent chromium, lead, mercury, nickel, selenium, silver, thallium, vanadium, and zinc
- Acenaphthene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(ghi)perylene, benzo(k)fluoranthene, bis(2-ethylhexyl)phthalate, butylbenzyl phthalate, carbazole, chrysene, dibenz(a,h)anthracene, diethylphthalate, di-n-butylphthalate, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, phenanthrene, and pyrene
- Acetone and methylene chloride
- Nitrate and nitrite
- Aroclor-1254 and TPH-diesel range.

With the exception of arsenic and aroclor-1254, the maximum detected concentrations of all COPCs were less than their respective site-specific soil concentration protective of groundwater. The maximum arsenic concentration measured at the 216-S-10 Ditch is 6.7 mg/kg, which is slightly greater than the lognormal 90th percentile Hanford site background value of 6.47 mg/kg (Table 3-7). The maximum detected concentration is less than the 90th percentile value of 7.38 mg/kg and the lognormal 95th percentile value of 7.65 mg/kg. Based on this comparison to Hanford Site background values, arsenic is not considered a COC for the groundwater impact analysis. A comparison to default soil concentrations protective of groundwater is shown in Table 3-44. Maximum detected concentrations of COPCs greater than default values were subsequently compared to site-specific soil concentrations protective of groundwater and are shown in Table 3-48.

Test pit SD-2 was reported with aroclor-1254 greater than the cleanup level in the 0 to 0.5 m (1.5 ft) and the 0.5 to 0.9 m (1.5 to 3.0 ft) depth intervals depth intervals. Aroclor-1254 is the only contaminant of concern identified at the 216-S-10 Ditch based on the comparison to site-specific soil concentrations protective of groundwater. Although the concentrations of aroclor-1254 detected are greater than the site-specific screening value, it is unlikely that aroclor-1254 will impact groundwater beneath this waste site. This conclusion is supported by the observation that aroclor-1254 is limited to the top 0.91 m (3 ft) bgs and the general recognition that aroclor-1254 has a large Kd value.

216-S-10 Pond (Ground Surface to Groundwater Table). The following are identified as COPCs from the ground surface to the groundwater table and are carried forward into the BRA to evaluate the direct contact exposure pathway:

- Barium, boron, chromium, hexavalent chromium, lead, mercury, nickel, selenium, silver, thallium, vanadium, and zinc
- Bis(2-ethylhexyl)phthalate
- 2-Butanone, acetone, methylene chloride, toluene, and xylenes (total)
- Cyanide, nitrate, and nitrite.

The maximum detected concentrations of all COPCs were less than their respective site-specific soil concentration protective of groundwater. A comparison to default soil concentrations protective of groundwater is shown in Table 3-45. Maximum detected concentrations of COPCs greater than default values were subsequently compared to site-specific soil concentrations protective of groundwater and are shown in Table 3-49.

3.5.3.1 Summary of Nonradionuclide Contaminants of Concern for Groundwater Impacts Analysis

For the groundwater impacts analysis, a summary of the nonradiological COCs identified for each waste site is provided in Table 3-50. These COCs were identified based on a comparison of maximum detected soil concentrations of soils collected from the 0 to groundwater table interval to site-specific soil concentrations protective of groundwater.

3.5.4 Radionuclide Groundwater Impact Analysis

The impact to groundwater from radionuclides was estimated using RESRAD computer code, version 6.4 (December 2007). The RESRAD code was developed by Argonne National Laboratory to implement DOE guidelines for allowable residual radioactive material in soil (DOE O 5400.5).

RESRAD incorporates a simplified model of contaminant transport from the CZ through the unsaturated zone and the aquifer. It is assumed that the radioactive constituents are evenly distributed within the homogeneous CZ that has a specified thickness and specified physical properties. The radionuclides released from the CZ are subject to transport through the vadose zone. RESRAD employs a one-dimensional simplification of advective flow in the vadose zone. However, the major processes affecting radionuclide transport such as advection, sorption, and radioactive decay and ingrowths are included. RESRAD allows for modeling up to five unsaturated zone layers with different hydrogeologic properties beneath the CZ. The saturated zone is assumed to be homogeneous. Transport in the saturated zone includes dilution. This simplified one-dimensional model leads to conservative estimates of the potential impact to the groundwater because it does not account for other processes that can reduce the contaminant concentrations in the groundwater such as longitudinal and transverse dispersion, mineral precipitation/dissolution, and other site-specific hydrogeologic influences.

Contaminant transport is incorporated in RESRAD as a part of the exposure analysis. The transport calculations are performed when one or more of the water-related exposure pathways are activated. To evaluate soil impact on groundwater, the drinking water pathway and other water-dependent pathways are activated in RESRAD. For this analysis it is assumed that a groundwater well is installed at the down-gradient boundary of the waste site. The well is pumped during the entire 1,000 year period of interest. This implementation of RESRAD results in leaching of radionuclides from the CZ and travel with the infiltrating water downward through the unsaturated zone. The radionuclides that reach groundwater during the period of interest travel down-gradient in the groundwater in the horizontal direction. The radionuclides that reach the groundwater are then captured at the well. Time-dependent contaminant concentrations at the well are calculated and compared to their respective federal MCL.

Two methods are provided in RESRAD to calculate the contaminant concentrations in groundwater from the well. The nondispersion model was used in this analysis to allow for simulating radionuclide transport in the aquifer downward from the site and to implement vertical mixing in the saturated zone. The contaminant travel time in the groundwater to the well is calculated as a function of the saturated zone hydraulic conductivity and gradient, length of the contaminant zone parallel to the hydraulic gradient, distance of the well intake below the water table, aquifer-effective porosity, depth of contamination within the saturated zone at the well location, and radionuclide-specific parameters. The contaminant concentration in the well is adjusted by the dilution in the saturated zone. Calculated concentrations are a function of the contaminated area, infiltration rate, well-pumping rate, depth of contamination within the saturated zone at the well location, and the effective pumping interval width.

Groundwater concentrations are considered for two land use assumptions including industrial and unrestricted. For industrial land use, there is no irrigation at the site (the irrigation rate is equal to 0) but there is infiltration through precipitation. For unrestricted land use, there is irrigation at the site (irrigation rate of 0.76 m/yr) in addition to infiltration through precipitation.

A set of RESRAD input parameters is developed for both land use assumptions. The input parameters are the same as defined for the rural residential exposure scenario in the BRA. The input parameters are summarized in the RESRAD input parameters summary tables provided in Appendix F. The tables provide the value for each input parameter, rationale for this value, and reference to the source based on which the parameter value was defined.

A detailed description of how each waste site soil model was assembled for the groundwater impacts analysis is provided in Appendix F.

3.5.5 Results of the Radionuclide Groundwater Impact Analysis

The results of the radionuclide groundwater impact analysis are presented below for unrestricted and industrial land use. RESRAD allows the user to input information from only one contamination layer at a time, therefore it is necessary to construct multiple layers for each waste site followed by the summation of the results from each analysis.

3.5.5.1 216-A-29 Ditch

The 216-A-29 Ditch is approximately 1,220 m (4,000 ft) in length, to account for the potential of differing soil properties and depths to groundwater two soil columns were developed to understand the impacts to groundwater. One soil column was prepared to represent the head end of the 216-A-29 Ditch and another was prepared to represent the outlet end of the Ditch. A detailed description of the soil properties of each soil column and the layers of contamination modeled are provided in Appendix F.

As described in Section 3.3.2, the following radiological COPCs were identified for 0 bgs to the groundwater table point of compliance and are evaluated for their potential to impact groundwater:

- Am-241, Sb-125, Cs-137, Np-237, Pu-238, Pu-239/240, Ra-226, Th-230, Sr-90, tritium, U-233/234, U-235, and U-238.

The maximum detected concentrations of all COPCs were less than their respective site-specific soil concentration protective of groundwater. A comparison to default soil concentrations protective of groundwater is shown in Table 3-45. Maximum detected concentrations of COPCs greater than default values were subsequently compared to site-specific soil concentrations protective of groundwater and are shown in Table 3-49.

3.5.3.1 Summary of Nonradionuclide Contaminants of Concern for Groundwater Impacts Analysis

For the groundwater impacts analysis, a summary of the nonradiological COCs identified for each waste site is provided in Table 3-50. These COCs were identified based on a comparison of maximum detected soil concentrations of soils collected from the 0 to groundwater table interval to site-specific soil concentrations protective of groundwater.

3.5.4 Radionuclide Groundwater Impact Analysis

The impact to groundwater from radionuclides was estimated using RESRAD computer code, version 6.4 (December 2007). The RESRAD code was developed by Argonne National Laboratory to implement DOE guidelines for allowable residual radioactive material in soil (DOE O 5400.5).

RESRAD incorporates a simplified model of contaminant transport from the CZ through the unsaturated zone and the aquifer. It is assumed that the radioactive constituents are evenly distributed within the homogeneous CZ that has a specified thickness and specified physical properties. The radionuclides released from the CZ are subject to transport through the vadose zone. RESRAD employs a one-dimensional simplification of advective flow in the vadose zone. However, the major processes affecting radionuclide transport such as advection, sorption, and radioactive decay and ingrowths are included. RESRAD allows for modeling up to five unsaturated zone layers with different hydrogeologic properties beneath the CZ. The saturated zone is assumed to be homogeneous. Transport in the saturated zone includes dilution. This simplified one-dimensional model leads to conservative estimates of the potential impact to the groundwater because it does not account for other processes that can reduce the contaminant concentrations in the groundwater such as longitudinal and transverse dispersion, mineral precipitation/dissolution, and other site-specific hydrogeologic influences.

Contaminant transport is incorporated in RESRAD as a part of the exposure analysis. The transport calculations are performed when one or more of the water-related exposure pathways are activated. To evaluate soil impact on groundwater, the drinking water pathway and other water-dependent pathways are activated in RESRAD. For this analysis it is assumed that a groundwater well is installed at the down-gradient boundary of the waste site. The well is pumped during the entire 1,000 year period of interest. This implementation of RESRAD results in leaching of radionuclides from the CZ and travel with the infiltrating water downward through the unsaturated zone. The radionuclides that reach groundwater during the period of interest travel down-gradient in the groundwater in the horizontal direction. The radionuclides that reach the groundwater are then captured at the well. Time-dependent contaminant concentrations at the well are calculated and compared to their respective federal MCL.

Two methods are provided in RESRAD to calculate the contaminant concentrations in groundwater from the well. The nondispersion model was used in this analysis to allow for simulating radionuclide transport in the aquifer downward from the site and to implement vertical mixing in the saturated zone. The contaminant travel time in the groundwater to the well is calculated as a function of the saturated zone hydraulic conductivity and gradient, length of the contaminant zone parallel to the hydraulic gradient, distance of the well intake below the water table, aquifer-effective porosity, depth of contamination within the saturated zone at the well location, and radionuclide-specific parameters. The contaminant concentration in the well is adjusted by the dilution in the saturated zone. Calculated concentrations are a function of the contaminated area, infiltration rate, well-pumping rate, depth of contamination within the saturated zone at the well location, and the effective pumping interval width.

Groundwater concentrations are considered for two land use assumptions including industrial and unrestricted. For industrial land use, there is no irrigation at the site (the irrigation rate is equal to 0) but there is infiltration through precipitation. For unrestricted land use, there is irrigation at the site (irrigation rate of 0.76 m/yr) in addition to infiltration through precipitation.

A set of RESRAD input parameters is developed for both land use assumptions. The input parameters are the same as defined for the rural residential exposure scenario in the BRA. The input parameters are summarized in the RESRAD input parameters summary tables provided in Appendix F. The tables provide the value for each input parameter, rationale for this value, and reference to the source based on which the parameter value was defined.

A detailed description of how each waste site soil model was assembled for the groundwater impacts analysis is provided in Appendix F.

3.5.5 Results of the Radionuclide Groundwater Impact Analysis

The results of the radionuclide groundwater impact analysis are presented below for unrestricted and industrial land use. RESRAD allows the user to input information from only one contamination layer at a time, therefore it is necessary to construct multiple layers for each waste site followed by the summation of the results from each analysis.

3.5.5.1 216-A-29 Ditch

The 216-A-29 Ditch is approximately 1,220 m (4,000 ft) in length, to account for the potential of differing soil properties and depths to groundwater two soil columns were developed to understand the impacts to groundwater. One soil column was prepared to represent the head end of the 216-A-29 Ditch and another was prepared to represent the outlet end of the Ditch. A detailed description of the soil properties of each soil column and the layers of contamination modeled are provided in Appendix F.

As described in Section 3.3.2, the following radiological COPCs were identified for 0 bgs to the groundwater table point of compliance and are evaluated for their potential to impact groundwater:

- Am-241, Sb-125, Cs-137, Np-237, Pu-238, Pu-239/240, Ra-226, Th-230, Sr-90, tritium, U-233/234, U-235, and U-238.

Uranium isotopes were detected above background levels in the head end (Test Pit AD-1) and outlet end (Test Pit AD-2) of the 216-A-29 Ditch. The maximum U-233/234 and U-238 concentrations of 2.3 pCi/g and 1.8 pCi/g respectively were detected in the 2.3 to 2.6 m (7.5 to 8.5 ft) depth interval at Test Pit AD-2. Maximum concentrations of these uranium isotopes range from approximately two to four times greater than naturally-occurring levels as shown in Table 3-12.

Questionable RESRAD output is obtained when the uranium isotope activity levels are input into the RESRAD code. The soil model developed for the head and outlet ends of the 216-A-29 Ditch suggest that the relatively low uranium isotope levels currently measured in soil would reach groundwater between 1,600 and 2,400 years at concentrations considerably above the uranium drinking water MCL of 30 ug/L. Similarly, when Hanford Site 90th percentile lognormal background levels for U-234, U-235 and U-238 isotopes are input into the soil models developed for the head and outlet ends of the 216-A-29 Ditch, the uranium isotopes reach groundwater in a similar time frame at concentrations considerably above the uranium MCL. These results indicate that the RESRAD code is not a valid model for predicting the impact of uranium on groundwater beneath the 216-A-29 Ditch. The results of the RESRAD analysis for uranium isotopes will not be discussed further in the groundwater impacts analysis. However, a full analysis of uranium isotopes was performed for the 216-A-29 Ditch waste site and is provided in the uncertainty analysis in Section 3.7.

With the exception of tritium and the uranium isotopes, all radiological constituents listed above are included in CZ 1, which represents the depth interval ranging from 1.22 to 4.57 m (4.15 ft) bgs at both ends of the ditch. Tritium is identified as the radiological COPC in CZ 2, which represents the depth interval ranging from 58.3 to 82.0 m (175 to 269 ft) bgs at the head end of the ditch and from 33.83 to 62.48 m (111 to 205 ft) bgs at the outlet end of the ditch. The EPCs input into the RESRAD code for each contamination layer are listed in Appendix F. The results of the groundwater impact analysis for the 216-A-29 Ditch are presented in Table 3-51.

Radionuclide COPCs present in the shallow CZ 1 do not reach the groundwater table during the 1,000 year period of interest. Tritium is the only radiological COPC identified in CZ 2. Tritium reaches the groundwater table in 16 or 17 years for unrestricted land use conditions (application of irrigation water) and tritium reach groundwater in 19 or 20 years for industrial land use conditions (no application of irrigation water). Peak tritium concentrations in groundwater range from 961 pCi/L to 12,710 pCi/L, all of which are less than the drinking water MCL of 20,000 pCi/L.

3.5.5.2 216-B-63 Trench

The following are identified as radiological COPCs from ground surface to the groundwater table and are evaluated for their potential to impact groundwater.

- Am-241, Cs-137, Np-237, Ni-63, Pu-238, Pu-239/240, Tc-99, Th-230, Sr-90, and tritium.

All radiological constituents listed above are included in CZ 1, which represents the depth interval ranging from 1.52 to 5.79 m (5.0 to 19 ft) bgs. Nickel-63 is identified as the radiological COPC in CZ 2, which represents the depth interval ranging from 5.79 to 74.4 m (19 to 244 ft) bgs. The EPCs input into the RESRAD code for each contamination layer is

listed in Appendix F. The results of the groundwater impact analysis for the 216-B-63 Trench are presented in Table 3-52.

Among the radionuclide COPCs present in the shallow CZ 1, only Tc-99 is predicted to reach the groundwater table during the 1,000 year period of interest. The peak Tc-99 groundwater concentration for unrestricted land use (application of irrigation water) is 670 pCi/L at 507 years. The peak Tc-99 groundwater concentration for industrial land use (no application of irrigation water) is 147 pCi/L at 2,315 years. The peak Tc-99 groundwater concentrations under both land use conditions are less than the drinking water MCL of 900 pCi/L.

Ni-63 is the only radiological COPC identified in CZ 2. The peak Ni-63 groundwater concentration for unrestricted land use (application of irrigation water) is 0.0025 pCi/L at 963 years, which is less than the drinking water MCL of 50 pCi/L. Ni-63 did not reach the groundwater table in the industrial land use scenario because the infiltration rate used (0.003 m/yr) is about seven times smaller than the infiltration rate used in the unrestricted land use scenario (0.02 m/yr).

3.5.5.3 216-S-10 Ditch

The following are identified as radiological COPCs from ground surface to the groundwater table and are evaluated for their potential to impact groundwater:

- Am-241, Cs-137, Ni-63, Pu-239/240, Th-230, Sr-90, and tritium.

All radiological constituents listed above are included in CZ 1, which represents the depth interval ranging from 0.61 to 8.22 m (2.0 to 27 ft) bgs. Nickel-63 is identified as the radiological COPC in CZ 2, which represents the depth interval ranging from 42.67 to 64.01 m (140 to 210 ft) bgs. The EPCs input into the RESRAD code for each contamination layer is listed in Appendix F. The results of the groundwater impact analysis for the 216-S-10 Ditch are presented in Table 3-53.

Radionuclide COPCs present in the shallow CZ 1 do not reach the groundwater table during the 1,000 year period of interest. Ni-63 is the only radiological COPC identified in CZ 2. The peak Ni-63 groundwater concentration for unrestricted land use (application of irrigation water) is 2.6E-13 pCi/L at 3,936, which is less than the drinking water MCL of 50 pCi/L. Nickel-63 did not reach the groundwater table in the industrial land use scenario because the infiltration rate used (0.008 m/yr) is about five times smaller than the infiltration rate used in the unrestricted land use scenario (0.04 m/yr).

3.5.5.4 216-S-10 Pond

The following are identified as radiological COPCs from ground surface to the groundwater table and are evaluated for their potential to impact groundwater:

- Am-241, Cs-137, Np-237, Ni-63, Pu-239/240, Th-230, Sr-90, and tritium.

With the exception of Ni-63, all radiological constituents listed above are included in CZ 1, which represents the depth interval ranging from 1.83 to 4.57 m (6.15 ft) bgs. Nickel-63 and Sr-90 are identified as the radiological COPCs in CZ 2, which represents the depth interval ranging from 13.41 to 23.16 m (44 to 76 ft) bgs. Plutonium-239 is identified as the radiological COPC in CZ 3, which represents the depth interval ranging from 23.16 to 35.96 m (76 to 118 ft) bgs. The EPCs input into the RESRAD code for each contamination

layer is listed in Appendix F. The results of the groundwater impact analysis for the 216-S-10 Ditch are presented in Table 3-54.

Among the radionuclide COPCs present in the shallow CZ 1, only tritium is predicted to reach the groundwater table during the 1,000 year period of interest. The peak tritium groundwater concentration for unrestricted land use (application of irrigation water) is 7.4E-05 pCi/L at 321 years and is less than the drinking water MCL of 20,000 pCi/L. Tritium did not reach the groundwater table in the industrial land use scenario because the infiltration rate used (0.008 m/yr) is about five times smaller than the infiltration rate used in the unrestricted land use scenario (0.04 m/yr). Radiological COPCs identified in CZ 2 and CZ 3 do not reach the groundwater table for either land use condition.

3.5.6 Human Health Risk Assessment and Groundwater Impacts Analysis Uncertainty Discussion

The purpose of this risk assessment is to identify potential risk and hazards from exposure to contaminants in soil within the boundaries of the 216-A-29 Ditch, the 216-B-63 Trench, the 216-S-10 Pond, and the 216-S-10 Ditch. Estimating and evaluating human health risk from exposure to environmental contaminants is a complex process with inherent uncertainties. Uncertainty reflects limitations in knowledge, and simplifying assumptions must be made to quantify health risks.

In this assessment, uncertainties are generally associated with the use of maximum concentrations for estimating exposure, limitations in available data from each waste site, and the development and use of exposure assumptions to estimate risk.

Uncertainties associated with using maximum concentrations to estimate exposure and risk include the following:

- Maximum concentrations were used because there are limited characterization data available from each waste site. The 216-A-29 Ditch is approximately 1,220 m (4,000 ft) in length and 1.83 m (6 ft) in width for a total area of 2,233 m^2 (0.55 a). One soil boring was drilled and five test pits were excavated within the boundary of this waste site. The 216-B-63 Trench is 427 m (1,400 ft) in length and 1.2 m (4 ft) in width for a total area of 520 m^2 (0.13 a). One soil boring was drilled and two test pits were excavated within the boundary of this waste site. The 216-S10 Ditch is approximately 686 m (2,250 ft) and 1.2 m (4 ft) in width for a total area of 836 m^2 (0.21 a). One soil boring was drilled and three test pits were excavated within the boundary of this waste site. The 216-S-10 Pond is 305 m (1,040 ft) in length and 57.4 m (85 ft) in width for a total area of 17,500 m^2 (4.3 a). One soil boring was drilled and four test pits were excavated within the boundary of this waste site. Use of maximum concentrations most likely over-states health risks because the toxicity factors for estimating both cancer and noncancer risks are based on long-term average exposures. EPA recommends using an average concentration to represent a "reasonable estimate of the concentration likely to be contacted over time" (EPA/540/1-89/002). Using the maximum detected concentration estimates peak health risks rather than average exposure and risk as recommended by EPA.

Uncertainties associated with the limitations in available data include the following:

- This risk assessment addressed potential exposures and health risk from contaminants currently present in the soil and does not include existing or potential future contamination in the groundwater beneath the 200-CS-1 OU. This assumption potentially under-states the health risks for the rural residential, CTUIR, and the Yakama Nation exposure scenarios. It also under-states potential annual dose associated with the inadvertent intruder rural farmer exposure scenario. It should be noted that health risks from potential exposure to groundwater beneath the 200-CS-1 OU will be evaluated in the 200-PO-1 groundwater OU. Cumulative risks across soil and groundwater will be evaluated as balancing factors in evaluating remedial alternatives from the groundwater operable unit.

Uncertainties associated with limitations in available exposure assumptions:

- Health risks associated with exposure to nonradiological contaminants were estimated using the direct contact exposure pathway (incidental soil ingestion only) as the equations provided in WAC 173-340-740 and WAC 173-340-745 were used. TA streamlined calculation approach based on the use of the Method B soil cleanup levels for unrestricted land use or the Method C soil cleanup levels for industrial properties (Section 3.4.1.1). The exposure routes and assumptions used in the Method B soil cleanup levels do not include food chain exposure pathways. This assumption potentially under-states health risks for the rural residential scenario. However, the magnitude of the understatement in health risks is likely to be small. The COPCs identified for the risk evaluation (consisting largely of metals below background values) generally do not bioaccumulate through the food chain. It is important to note that direct contact and food chain pathways were assessed for radionuclides with the rural residential scenario.

- Ingestion of contaminants that could potentially bioaccumulate in wild game was not included as an exposure pathway in the Yakama Nation and the CTUIR exposure scenarios. The size of the waste sites (approximately 176 m^2 combined) is considered too small to support a sufficient number and variety of foraging wild game for consumption. While consumption of game animals is a potentially complete exposure pathway, it is not reasonable to assume that those animals could accumulate contaminants solely from the 216-A-2 Crib and the 216-A-4 Cribs. Therefore, this pathway was not considered to contribute significantly to total exposure.

Uncertainties associated with the limitations in the fate and transport modeling of Uranium Isotopes from the 216-A-29 Ditch:

- Questionable RESRAD output is obtained when the uranium isotope activity levels are input into the RESRAD code. The soil model developed for the head and outlet ends of the 216-A-29 Ditch suggest that the relatively low uranium isotope levels currently measured in soil would reach groundwater between 1,600 and 2,400 years at concentrations considerably above the uranium drinking water MCL of 30 ug/L. Similarly, when Hanford Site 90th percentile lognormal background levels for U-234, U-235 and U-238 isotopes are input into the soil models developed for the head and outlet ends of the 216-A-29 Ditch, the uranium isotopes reach groundwater in a

similar time frame also at concentrations considerably above the uranium MCL. A summary of the groundwater concentrations that are estimated from the RESRAD code are provided for the 216-A-29 Ditch using site-specific data. Uranium concentrations estimated from the RESRAD code using Hanford Site background levels and soil characteristics from the 216-A-29 Ditch are also provided in Table 3-55. These results indicate that the RESRAD code cannot provide a reasonable prediction of the impact of uranium on groundwater beneath the 216-A-29 Ditch.

There are two upgradient and eight down gradient RCRA wells from the 216-A-29 Ditch and include the following:

- 699-43-43 (upgradient)
- 699-43-45 (upgradient)
- 299-E25-26 (down gradient)
- 299-E25-28 (down gradient)
- 299-E25-34 (down gradient)
- 299-E25-35 (down gradient)
- 299-E25-48 (down gradient)
- 299-E26-12 (down gradient)
- 299-E26-13 (down gradient)

Analytical data were extracted from the HEIS database for these monitoring wells to determine if they are currently being monitored for uranium or uranium isotopes. Currently, these monitoring wells have not been monitored for these constituents. Monitoring wells 299-E25-28, -45, and -35 were analyzed for gross alpha during 2007. Gross alpha was measured at 1.68 pCi/L in 299-E25-28 and was not detected in the other two wells. Gross alpha has been measured semi-annually in 699-43-45 between 2000 and 2008 and was detected sporadically at concentrations ranging from 1.4 pCi/L and 2.4 pCi/L. The low concentrations of gross alpha measured at these four locations suggest an absence of uranium or uranium isotopes in groundwater because uranium is an alpha emitter.

3.6 ECOLOGICAL RISK ASSESSMENT

A screening-level ecologic risk assessment represents Steps 1 and 2 of the eight-step ecological risk-assessment process developed for the Superfund program as described in ERAGS guidance. The primary purposes of Steps 1 and 2 are to quickly and efficiently identify analytes and sites with minimal potential for ecological risk and eliminate them from further evaluation. The first step, preliminary problem formulation, is considered a conservative, qualitative determination of whether ecological receptors, habitat, and exposure pathways are present at a site. The second step, ecological risk-based screening, is a conservative assessment of whether constituents detected at the 200-CS-1 OU are present at concentrations that are sufficiently high to indicate a potential for adverse health effects at the waste sites and to support a decision to proceed to a baseline ERA (Steps 3 through 7 of the 8-step ecological risk-assessment process) or discuss remedial alternatives.

For the purposes of this ERA, a screening-level ecologic risk assessment was not performed because adequate information currently exists suggesting the potential ecological receptors, habitat, and exposure pathways at each of the waste sites within the 200-CS-1 OU. Secondly,

ecological indicator concentrations (or soil screening values) are provided by several sources including WAC 173-340-900, "Tables," Table 749-3, for a limited number of analytes. Therefore, a more robust refinement of COPECs was performed for the ERA.

A refined COPEC analysis is performed on the initial set of analytes identified as COPECs in Section 3.3 of this section. COPEC identification is part of ERAGS Step 3 "COPEC refinement," which has the objective of determining the contaminants that warrant additional investigation to evaluate ecological risks. A conceptual model is developed and assessment endpoints are defined based on COPECs and the ecological receptors potentially at risk. This information leads to the formulation of risk questions and measures of exposure, effect, and ecosystem/receptor characteristics needed to evaluate the risk questions. A study design is developed based on the COPECs, assessment endpoints, risk questions, and measures.

3.6.1 Conceptual Exposure Model for the Ecological Risk Assessment

The following subsections provides a detailed description of the ecological setting, receptors of concern, and potentially complete exposure pathways and routes for ecological receptors. Figure 3-2 provides a diagram of the conceptual exposure model for ecological receptors.

3.6.1.1 Ecological Setting

Information about the ecological setting at the 200-CS-1 OU is presented in more detail in DOE/RL-2001-54. The environmental setting encompasses the terrestrial habitats within the area of the waste sites. The availability and quality of terrestrial habitats determines the wildlife types that can be present and the likelihood that they use areas associated with the waste sites in the study area.

3.6.1.1.1 Terrestrial Habitats and Vegetation at the 200-CS-1 Operable Unit Waste Sites

Environmental monitoring has been an ongoing activity since the early days of the Hanford Site. The monitoring activities continue today, and a significant body of information exists about the ecology of the Central Plateau. The latest data-collection activities that focused on the Central Plateau were conducted in 2000 and 2001. The information collected was compiled in DOE/RL-2001-54.

The Hanford Site is located within the Columbia Basin eco-region, a 14.8 million acre region once dominated by steppe and shrub-steppe vegetation (Franklin and Dyrness, 1973, *Natural Vegetation of Oregon and Washington*). Today, an estimated 60 percent of the shrub-steppe habitat in the State of Washington has been converted to other uses by humans, as reported in TNC, 1999, *Biodiversity Inventory and Analysis of the Hanford Site, Final Report 1994-1999.*

The habitats associated with the Central Plateau have been characterized, mapped, and described in recent years in WHC-SD-EN-TI-216, *Vegetation Communities Associated with the 100-Area and 200-Area Facilities on the Hanford Site*; TNC (1999); and documents produced by the Pacific Northwest National Laboratory (e.g., PNL-8942, 1993, *Habitat Types on the Hanford Site: Wildlife and Plant Species of Concern*; PNNL-13230, *Hanford Site Environmental Report for Calendar Year 1999*).

ICs and limited access to the Hanford Site for nearly 60 years have preserved the shrub-steppe ecosystems in some areas, while other locations (e.g., facilities, waste sites) are highly

disturbed. The Hanford Site as a whole and the U.S. Department of Defense Yakima Training Center are considered significant parcels within the Columbia Basin eco-region, because they contain the largest remaining areas of relatively undisturbed shrub-steppe habitat (*Evaluating the Conservation of Avian Diversity in Eastern Washington: A Geographic Analysis of Upland Breeding Birds* [Smith, 1994]; and TNC, 1999).

The shrub-steppe community present on the Hanford Site is characterized by three or four layers of vegetation, depending on its stage of succession. The area surrounding the 200-CS-1 OU representative waste sites contains two of the eight representative vegetation community types found on the Central Plateau. At the waste sites in the 200 East Area, the vegetation surrounding the waste sites consists of crested wheatgrass. Crested wheatgrass also is found in the immediate vicinity of the 216-B-63 Trench, but the surrounding area consists of the cheatgrass/Sandberg's bluegrass vegetation community. In the 200 West Area, the 216-S-10 Pond and Ditch lie in the cheatgrass/Sandberg's bluegrass vegetation community. All of the eight vegetation communities and the available census data on plant, bird, and mammal species are described in depth in DOE/RL-2001-54. A brief description of the vegetation and wildlife in the two communities found at the representative waste sites follows.

Crested Wheatgrass Community. Many of the waste sites within this community represent stabilized or revegetated sites and may be treated with herbicides to control broadleaf plants. This community lacks diverse vegetation but may provide a more favorable habitat for large predatory arthropods than other plant communities. Vertebrate species found in this community include reptiles such as gopher snakes (*Pituophis melanoleucus*), side-blotched lizards (*Uta stansburiana*), and rattlesnakes (*Crotalus viridis*). Small mammals found in this community type include the Great Basin Pocket Mouse (*Perognathus parvus*), deer mice (*Peromyscus maniculatus*), house mice (*Mus musculis*), bushy-tailed woodrats (*Neotoma cinerea*), gophers (*Thomomys talpoides*), ground squirrels (*Spermophilius* spp.), black-tailed jackrabbits (*Lepus californicus*), and mountain cottontails (*Sylvilagus nutalli).* Birds associated with this community include the American Robin (*Turdus migratus*), the Western Meadowlark (*Sturnella neglecta*), Brewer's blackbird (*Euphagus cyanocephalus*), killdeer (*Charadrius viociferous*), long-billed curlew (*Numenius americanus*), chukar (*Alectoris chukar*), brown-headed cowbird (*Molothrus ater*), and barn swallow (*Hirundo rustica*), as well as ravens (*Corvus corax*), crows (*Corvus brachyrhynchos*), magpies (*Pica hudsonia*), juncos (*Junco hyemalis*), and house sparrows (*Passer domesticus*). Arthropods found in the crested wheatgrass community are harvester ants (*Pogonomyrmex salinarius*), ground beetles (*Amara quenseli Schnoenherr*), darkling beetles (*Coniontis setosa Casey*, *Eleodes hispilabris imitabilis*, and *Philolithus densicollus Horn*), and camel crickets (*Ceuthophilus vicinus*).

Cheatgrass/Sandberg's Bluegrass Community. This grassland community lacks large bunchgrasses, consisting mostly of the cheatgrass with up to 20 percent Sandberg's bluegrass (a small, native bunchgrass) as well as species such as Russian thistle, mustard, and hoary aster (a native perennial). The insect species in this community are similar to those found in the shrub-steppe areas, but seed-feeding arthropods are more abundant. Vertebrate species found in this community include reptiles such as gopher snakes (*P. melanoleucus*), side-blotched lizards (*U. stansburiana*), and rattlesnakes (*C. viridis*). Small mammals found in this community type include the Great Basin Pocket Mouse (*P. parvus*), deer mice (*P. maniculatus*), bushy-tailed woodrats (*N. cinerea*), gophers (*T. talpoides*), ground squirrels

(*Spermophilius* spp.), black-tailed jackrabbits (*L. californicus*), and mountain cottontails (*S. nutalli)*. Birds associated with this community include the American robin (*T. migratus*), the western meadowlark (*S. neglecta*), Brewer's blackbird (*E. cyanocephalus*), killdeer (*C. viociferous*), long-billed curlew (*N. americanus*), chukar (*A. chukar*), brown-headed cowbird (*M. ater*), horned lark (*Eremophilia alpestris*) barn swallow (*H. rustica*), as well as California quail (*Callipepla californica*), ring-necked pheasants (*Phasianus colchicus*), mourning doves (*Zenaida macroura*), ravens (*C. corax*), crows (*C. brachyrhynchos*), magpies (*P. hudsonia*), juncos (*J. hyemalis*), and house sparrows (*P. domesticus*). Arthropods found in the cheatgrass/Sandberg's bluegrass community are ground beetles (*A. quenseli Schnoenherr, Dicheirus piceus Menetries,* and *Harpalus fraternus LaConte*), darkling beetles (*Blapstinus discolor Horn, C. setosa Casey, Eleodes novoverrcula Boddy,* and *P. densicollus Horn*), and camel crickets (*C. vicinus*).

Large mammals including badgers (*Taxidiea taxus*), coyotes (*Canis latrans)*, as well as some mule deer (*Odocoileus hemionus*) and an occasional elk (*Cervus elaphus*) may be found across almost all the vegetation communities including those described in the previous paragraphs. These species are highly mobile and not associated with a given vegetation community, but are likely to be found in and potentially feed in the outer areas surrounding the representative waste sites.

3.6.1.2 Aquatic Habitats

The 200 CS-1 OU contains no aquatic areas or aquatic habitat. Although some standing water potentially could remain after precipitation events, the waste sites at the 200-CS-1 OU do not contain permanent bodies of surface water. Therefore, only pathways associated with exposure to contaminated soil are considered to be complete at these sites.

3.6.1.2.1 Sensitive Habitat

Rare habitats are those identified in DOE/RL-96-32 as important for plant, fish, and wildlife species that have a low availability. Within the Central Plateau, the only identified rare habitat areas (rated as Level IV in DOE/RL-96-32) are located near the basalt ridges of Gable Butte and Gable Mountain. These basalt outcrops have limited availability, are associated with rare plant communities, and are easily disturbed. No waste sites are in close vicinity to these rare habitats. Wildlife likely to occur in these habitats are birds (prairie falcon [*Falco mexicanus*], rock wren [*Salpinctes obsoletus*], poorwill [*Phalaenoptilus nutallii*], and chukar), small mammals (yellow-bellied marmots [*Marmota flaviventris*] and woodrats [*N. cinerea*]), and reptiles (horned lizards, rattlesnakes [*C. viridis*], and gopher snakes [*P. melanoleucus*]). Sensitive habitats include wetlands (or riparian) habitat (DOE/RL-96-32). Wetlands do not occur within the vicinity of the sites.

3.6.1.2.2 Endangered, Threatened, and Sensitive Species

Two federally-protected species have been observed at the Hanford Site, the Aleutian Canada goose (*Branta Canadensis leucoparia*) and the bald eagle (*Haliaeetus leucocephalus*). Both depend on the river corridor and rarely are seen in the Central Plateau. As migratory birds, these species are protected under the *Migratory Bird Treaty Act* (1918). The ferruginous hawk (*Buteo regalis*) and the sage grouse (*Centrocercus urophasianus*) are State threatened species that reside in the sagebrush/steppe habitat; a small population of ferruginous hawks nest in the 200 Areas.

Several additional State and Federal special-status species, such as burrowing owls (*Athene cunicularia*), loggerhead shrike (*Lanus ludovicianus*), long-billed curlew (*N. americanus*) and the sage sparrow (*Amphispiza belli*), are found in and near the 200 Areas. Of these, only the long-billed curlew is expected to be associated with the vegetation communities at these representative waste sites, although burrowing owls may be attracted to disturbed sites.

No plants, invertebrates, amphibians, reptiles, or mammals on the Federal or State of Washington threatened and endangered species lists are known to inhabit the 200-CS-1 OU waste sites. Sensitive species include threatened and endangered species, which are protected by Federal and State laws. The State of Washington defines sensitive species as any wildlife species native to the State of Washington that is vulnerable or declining and is likely to become endangered or threatened throughout a significant portion of its range within the State without cooperative management or removal of threats (WAC 232-12-297, "Endangered, Threatened, and Sensitive Wildlife Species Classification").

3.6.1.2.2.1 Rare Plants

Rare plant species are vascular plant species listed by the Washington Natural Heritage Program (WNHP 1998) as endangered, threatened, or sensitive in the State of Washington. The Nature Conservancy survey discovered 112 populations of 28 rare plant taxa on the Hanford Site (TNC 1999). Although rare plants were found dispersed throughout the Site, the highest densities occurred on the east end of Umtanum Ridge, the basalt-derived sands near Gable Mountain, the White Bluffs, Rattlesnake Mountain, and the Yakima Ridge. Rare plants and sensitive habitats of concern occur within the 200 East and 200 West Area fence lines, but not on the waste sites themselves. In the 200 Areas, Piper's daisies (*Erigeron piperianus*) have been found in areas near the two representative waste sites. In the 200 West Area, the Piper's daisies are much farther from the representative waste sites (DOE/RL-2001-54).

3.6.1.2.2.2 Mammals of Concern

The State of Washington has classified the pygmy rabbit (*Brachylagus idahoensis*) as a candidate endangered species. None have been observed to date in the Central Plateau. The pygmy rabbit depends on sagebrush, primarily big sagebrush (*Artemisia tridentata*), and usually is found in areas where big sagebrush grows in very dense stands.

3.6.1.2.2.3 New-to-Science Species

The Nature Conservancy conducted a biodiversity survey of plants, mammals, reptiles, amphibians, birds, and insects at the Hanford Site between 1994 and 1998 (TNC 1999). This survey found two species and one variety of plants, and 41 species and two subspecies of insects that had not been known to science. A listing of the new plant and insect species (Looney, 2007, *Hanford*) may be viewed at http://www.wsu.edu:8080/~zack/hanford.html.

Insects were dispersed throughout the Hanford Site, with the new species found in shrub-steppe, areas around the basalt talus, springs, and upland areas. The size, diversity, and relatively undisturbed nature of the Hanford Site shrub-steppe habitat have provided for a large and diverse insect population, of which the new-to-science species are a part. One of the new-to-science species, a ground-dwelling beetle (*Aphodius* new species) may be present at waste sites planted with crested wheatgrass, but a transect trapping study in the 200 East and 200 West Areas did not trap any *Aphodius* species (DOE/RL 2001-54).

The U.S. Fish and Wildlife Service and State of Washington have not yet determined the protective status of these new-to-science species (i.e., whether they are considered threatened or endangered). The habitat-based management plan at the Hanford Site will offer protection to most of these species. Except for some of the insects, none of these new-to-science species are expected to be located near the 200-CS-1 OU waste sites. Habitat protection is key to preserving the insect diversity at the Hanford Site.

3.6.1.2.3 Receptors of Concern

Receptors of concern are those ecological species that may be exposed to contaminants at the 200-CS-1 OU site. Based on the above descriptions of habitat and ecological organisms on the Central Plateau, terrestrial mammals and birds are identified as receptors of concern for waste sites within the "industrial-exclusive" area of the core zone. Additionally, soil biota on the site, such as plants and soil organisms, are also considered for unrestricted land use.

3.6.1.2.4 Potentially Complete Ecological Exposure Pathways and Receptors

The major exposure routes associated with the direct contact exposure pathway are incidental ingestion of contaminated soil and ingestion of food items that have taken up contaminants from the soil. These routes are the same as those used to develop the soil screening levels for soil. Although some standing water potentially could remain after precipitation events, these sites have no permanent bodies of water; therefore, only exposure routes associated with direct contact with soil are considered to be complete at this site.

Only the incidental soil ingestion exposure route is considered when developing the soil screening levels. Although inhalation and dermal exposure routes contribute to the dose of chemicals received by an animal, the contribution from these pathways is expected to be relatively small and not to contribute significantly to receptor exposure (EPA, 2005, *Ecological Soil Screening Levels for Antimony, Interim Final*). Inhalation is an insignificant pathway for contaminated soil in areas where plants cover the contaminated ground surface or where much of the contamination is buried. Dermal exposure to wildlife is mitigated by the fur or feathers that cover the bodies of most vertebrates. In addition, the incidental consumption of soil during grooming is assumed to be included in the incidental soil-ingestion estimates.

As described in Section 3.2.3, the point of compliance for evaluation of ecological receptors is from the ground surface to 4.6 m (15 ft) bgs. This depth is intended to represent a reasonable estimate of the depth of soil that could be excavated or disturbed at the soil surface resulting in the potential for ecological receptors to contact soil contaminants. The application of screening criteria to soil data within the top 4.6 m (15 ft) assumes that the exposure of ecological receptors could occur to chemical concentrations anywhere within those top 4.6 m (15 ft). Burrowing depths of site-specific species were not taken into account because screening criteria were used to evaluate generic receptor species. The 4.6 m (15 ft) depth is deeper than the expected burrowing or rooting depth of species known to occur at the Hanford Site (WMP-20570, *Central Plateau Terrestrial Ecological Risk Assessment Data Quality Objectives Summary Report – Phase I*).

3.6.2 Refinement of Contaminants of Potential Ecological Concern

COPECs are chemicals or radionuclides present at levels that may be unsafe for ecological receptors. To identify COPECs at the 200-CS-1 OU, a stepwise selection process described by ERAGS was used.

The analytical data and the data evaluation process used for the ERA is the same as that described in Sections 3.2 and 3.3. The following steps were followed to derive the refined COPEC list that will be carried forward into the next step of the ERA:

- Identification of detected constituents
- Identification of essential nutrients
- Identification of radioisotopes with short half-lives
- Comparison to Hanford Site background concentrations
- Comparison to soil screening values for nonradiological contaminants
- Comparison to radionuclide biota concentration guidelines
- Metal and organic data considerations.

3.6.2.1 Identification of Detected Constituents

This step is similar to that used for the human health COPC selection process as described in Section 3.3.2.1. All constituents that were detected at least once in any of the shallow-zone soil samples were retained and carried forward into the next step of the COPEC selection process. Constituents that were not detected in any of the soil samples (i.e., 0 percent frequency of detection) were not carried forward into the ERA. Appendix B shows all analytes, including those with 0 percent frequency of detection.

3.6.2.2 Identification of Essential Nutrients

Identification of essential nutrients determines whether calcium, iron, potassium, magnesium, and sodium are present at potentially toxic levels. This evaluation will be addressed on an *ad hoc* basis, given the lack of soil-screening values (SSV) for these nutrients. The only nutrient evaluated by EPA for ecotoxicological properties to date is iron (EPA, 2005). Iron is not expected to be toxic in soils characterized by oxidized conditions and circumneutral pH (EPA, 2005). Other nutrients that lack SSVs (calcium, potassium, magnesium, and sodium) are generally recognized as nontoxic to ecological receptors. Generally, concentrations of nutrients measured at the 200-CS-1 OU waste sites are the same as Hanford Site background levels. It is worth noting that many other inorganics (e.g., copper, zinc) also are nutrients, but these metals have SSVs and, therefore, a toxicological assessment is possible.

3.6.2.3 Identification of Radioisotopes with Short Half-Lives

The ditches, trench, and ponds that are included in the 200-CS-1 OU were generally taken out of service in the mid-1980's to early 1990's. The 216-A-29 Ditch operated between November 1955 and July 1991. The 216-B-63 Trench was constructed before 1970 and taken out of service in 1992. The 216-S-10 Ditch started receiving discharge in August 1951; the south end of the ditch received discharge until 1984 and the north end last received discharge

in 1991. The S-10 Pond was dug in 1954 and was stabilized in 1984. Many of the radionuclides with short half-lives have decayed to insignificant levels during the 15 years since the ponds, ditches, and trench were taken out of service. Radioisotopes with short half-lives that are eliminated from further consideration in the risk assessment include the following:

- Actinium-228; 6-hour half-life (accounted for in the decay chain of radium-228)
- Beryllium-7; 53-day half-life
- Bismuth-212; 60-minute half-life (accounted for in the decay chain of thorium-228)
- Bismuth-214; 19-minute half-life (accounted for in the decay chain of radium-226)
- Cesium-134; 2.1-year half-life
- Lead-212; 11-hour half-life (accounted for in the decay chain of thorium-228)
- Lead-214; 27-minute half-life (accounted for in the decay chain of radium-226)
- Manganese-54; 312-day half-life
- Radium-224; 3.7-day half-life (accounted for in the decay chain of thorium-228)
- Ruthenium-106; 1.0-year half-life
- Thallium-208; 3-minute half-life
- Thorium-234; 24-day half-life (accounted for in the decay chain of uranium-238)
- Thorium-228 (half-life of 1.9 years).

3.6.2.4 Comparison to Hanford Site Background Concentrations

A comparison of maximum detected soil concentrations measured at each of the 200-CS-1 OU waste sites to the Hanford Site lognormal 90th percentile background values was performed. This comparison and the sources of background information is the same as that described in Section 3.3.2.4.

3.6.2.5 Comparison to Ecological Soil Screening Values for Nonradiological Contaminants

Refined COPECs are identified when the ratio of the SSVs to the maximum detected concentration is greater than one. This ratio is referred to as a hazard quotient and is defined by the equation below.

$$HQ_{ij} = \frac{Exposure_{ij}}{SSV_{ij}}$$

Where:

HQ_{ij} = shallow zone soil hazard quotient for receptor i and COPEC j (unitless)
$Exposure_{ij}$ = maximum detected concentration for receptor i and COPE j (mg/kg)
SSV_{ij} = soil screening value for receptor i and COPEC j (mg/kg).

Toxicity information is summarized as HQs to provide an indication of risk for evaluated ecological receptors.

3.6.2.5.1 Literature Search on Known Ecological Effects

Data gaps on ecotoxicological information are filled through a literature search on known ecological effects. This literature search also provides information on which ecological

receptors are most likely to be at risk from COPECs. Effects-related information includes toxicity reference values (TRV) and transfer factors. In compiling this type of ecological data, ERAGS recommends consulting a toxicological database. Los Alamos National Laboratory has created such a database to address continuing ERA ecotoxicity data needs. The LA-UR-05-7424, *ECORISK Database* represents a comprehensive and up-to-date compilation of toxicity information on 134 chemicals. Online literature databases (e.g., EPA ECOTOX database at www.epa.gov/ecotox/ecotox_home.htm; MEDLINE, database of medical abstracts at www.medline.com; PubMed, list of medical citations at www.ncbi.nlm.nih.gov/PubMed) and bibliographies (e.g., Oak Ridge National Laboratory technical reports) were searched to find primary literature relevant for deriving TRVs.

To date, 879 primary toxicity study evaluations have been collated for terrestrial receptors. Detailed information from each study was scored and ranked in a tiered-review system, and a primary toxicity value was calculated based on the published dose-response relationship. Thus, this literature review meets the intent of ERAGS problem formulation to obtain and review primary literature and also is consistent with the approach taken by Superfund (CERCLA) to develop ecological soil-screening levels (EPA, 2003, *Guidance for Developing Ecological Soil Screening Levels*, OSWER Directive 9285.7-55).

3.6.2.5.2 Inorganic and Organic Soil Screening Values

Inorganic and organic analytes lacking SSVs in WAC 173-340-900, Table 749-3, have been augmented to the extent possible with a literature review of exposure and toxicity information. In addition, SSVs for chemicals not listed in WAC 173-340-900, Table 749-3, have been added. All soil biota, plant, and wildlife SSVs are calculated using the WAC 173-340-900, Table 749-4, exposure models (i.e., shrew, vole, and robin). While the shrew and vole are not present on the Central Plateau and the robin is not common in sage-steppe habitat, these species are protective (e.g., have higher exposure potential) representatives of the mammalian and avian receptors. As previously discussed, this literature review is accommodated by information contained in the LA-UR-05-7424. Wildlife exposure data from the *ECORISK Database* V-2.0 consists of invertebrate and plant transfer factors as well as TRVs. Regarding toxicity information, the *ECORISK Database* V-2.0 provides no-observed-effect concentrations and no-observed-adverse-effect levels, either as critical study values or as geometric means of such values. Because WAC 173-340-900 employs TRVs based on lowest observed adverse-effect levels (WAC 173-340-900, Table 749-5) and plant/soil biota SSVs based on LOECs (WAC 173-340-900, Table 749-3), the augmented SSVs are protective values. A summary of the ecological soil screening values used for the 200-CS-1 OU are listed in Table 3-56.

3.6.2.5.3 Additional Metal and Organic Data Considerations

Metals exert toxic effects through a variety of mechanisms. The current estimate of risk from inorganics compares shallow zone soil concentrations to literature toxicity and exposure (e.g., transfer factor) information. It is important to realize that much of the primary literature on heavy metal toxicity deals with highly bioavailable chemical forms, such as soluble metal salts. Because bioavailability of inorganics typically decreases as the soil weathers (Allen, 2001, *Bioavailability of Metals in Terrestrial Ecosystems: Importance of Partitioning for Bioavailability to Invertebrates, Microbes, and Plants*), the years or decades since contaminants were released to Central Plateau soils will decrease contaminant bioavailability.

Consequently, metals historically released to soils of Central Plateau waste sites may not represent the equivalent toxicity or biotic transferability of freshly applied soluble metal salts as reported in published toxicity studies. Estimates of site-specific bioavailability will provide ecological realism in exposure estimates for Central Plateau biota.

PCBs are a detected class of organic chemicals retained as an initial COPEC. Also known as Aroclors, PCBs are considered persistent, bioaccumulative, and toxic chemicals of special ecological concern. More information on EPA's program for persistent, bioaccumulative, and toxic chemicals (EPA, 2004) can be found at http://www.epa.gov/pbt, and the Washington State strategy for persistent, bioaccumulative toxins are at http://www.ecy.wa.gov/biblio/0203030.html. Carnivorous mammals of the family Mustelidae, including badgers, are more sensitive to PCBs than other mammals (EPA/630/P-03/002A, Framework for Application of the Toxicity Equivalence Methodology for Polychlorinated Dioxins, Furans and Biphenyls in Ecological Risk Assessment, (External Review Draft)). Considering Aroclor 1254, for example, the primary toxicity value selected (0.031 mg/kg/d) in the ECORISK Database concerns adverse reproductive effects in mink, specifically the number of mink whelped/number mated (LA-UR-05-7424). Because the exposure potential is greatest for upper-trophic levels, LA-UR-05-7424 has developed highly protective PCB TRVs for predators (carnivores) and less conservative TRVs for other feeding guilds.

SSVs are available for TPH gasoline-range organics and diesel-range organics, and there are SSVs for some of the fuel constituents (e.g., individual polycyclic aromatic hydrocarbons). Maximum detected concentrations were less than wildlife SSVs for fuels or fuel constituents. In addition, the maximum concentrations of kerosene and motor oil-range TPHs were less than the TPH- gasoline-range organics or TPH- diesel-range organics wildlife SSVs. The TPH kerosene-range maximum detect was 440 mg/kg and is less than the TPH- gasoline-range organics wildlife SSV of 5000 mg/kg or the TPH- diesel-range organics wildlife SSV of 6000 mg/kg. The TPH motor oil-range maximum detect was 760 mg/kg and is less than the TPH- gasoline-range organics wildlife SSV of 5000 mg/kg or the TPH- diesel-range organics wildlife SSV of 6000 mg/kg. Thus, concentrations of fuels and fuel constituents measured at Central Plateau waste sites do not suggest any potential for ecological risks. For this reason, fuels and fuel constituents are not identified as COPECs.

3.6.2.6 Comparison to Radionuclide Biota Concentration Guidelines

For radionuclides, toxicity data are not radionuclide–specific when expressed as dose limits (e.g., 0.1 rad/d). These dose limits can, however, be translated into radionuclide-specific concentrations (e.g., picocuries per gram) for a defined exposure scenario, as detailed in DOE/EH-0676, *RESRAD-BIOTA: A Tool for Implementing A Graded Approach to Biota Dose Evaluation* and in DOE-STD-1153-2002, *A Graded Approach for Evaluating Radiation Doses to Aquatic and Terrestrial Biota.* This DQO uses biota concentration guide (DOE-STD-1153-2002) (BCG) developed by the U.S. Department of Energy's Biota Dose Assessment Committee, contained in DOE-STD-1153-2002, for the purpose of evaluating radiation as a stressor to biota and ecosystems. While BCGs are not used as ARARs, they are one line of evidence in evaluating ecological risks. Thus, BCGs are being used within the broader ERAGS framework because the 200-CS-1 OU waste sites have both radionuclide and nonradionuclide COPC.

Radionuclides were evaluated for inclusion as COPECs for the Central Plateau by evaluating the maximum detected radionuclide concentrations in the 0 to 15-ft soil depth zone. Use of the maximum soil concentrations is expected to be protective of adverse effects on both populations and the more sensitive individuals in these populations (DOE-STD-1153-2002; DOE/EH-0676).

The radionuclide evaluation process considered the contribution of radionuclide COPECs to dose, because adsorbed dose rates of ionizing radiation are additive, and multiple radionuclides are being evaluated (Jones et al. 2003, "Principals and Issues in Radiological Ecological Risk Assessment"). Potentially significant dose contributors are identified as COPECs.

3.6.2.7 Results of the Refinement of COPEC Process

The following subsection presents the results of the COPEC refinement process for the ERA. COPECs identified for the shallow zone soil represent soil depths ranging from 0 to 4.6 m (15 ft) bgs. The purpose of this process is to identify site-related constituents that should be evaluated further in the ERA. The results of the COPEC selection process for constituents detected in shallow-zone soil 0 to 4.6 m [15 ft] bgs from the 216-A-29 Ditch, the 216-B-63 Trench, the 216-S-10 Ditch, and the 216-S-10 Pond are provided in Tables 3-57 through 3-60.

3.6.2.7.1 Summary of COPECs Identified for the 216-A-29 Ditch

A total of 41 soil samples were collected and analyzed from the 0 to 4.6 m (15 ft) bgs depth interval. Of all the constituents analyzed, 26 metals, 26 radionuclides, six general chemistry parameters, four VOCs, 14 SVOCs, aroclor-1254, and TPH (-kerosene and –motor oil) were detected.

Essential nutrients and five radionuclides (Ac-228, Bi-212, Bi-214, Pb-212, and Pb-214) with short half-lives were eliminated as COPECs. Six metals (aluminum, barium, beryllium, iron, manganese, and molybdenum) and six radionuclides (Eu-155, K-40, Ra-228, Th-228, Th-232, and U-234) were detected at concentrations below their respective lognormal 90th percentile Hanford background concentrations (Table 3-8) and are not considered COPECs. Gross alpha, gross beta, bismuth, diethylphthalate, tributyl phosphate, mesityl oxide, n-butyl benzenesulfanamide, ammonia, chloride, nitrate, nitrogen in nitrate and nitrite, sulfate, TPH-kerosene range, and TPH- motor oil (high boiling) were eliminated as COPECs because ecological toxicity values are not available.

Maximum soil concentrations from the 216-A-29 Ditch were compared to the wildlife SSV because it is within the industrial-exclusive land use area of the Central Plateau. The following are identified as COPECs from the 0 to 4.6 m (15 ft) bgs depth interval because the maximum detected concentration is greater than its respective wildlife SSV. A comparison of maximum detected concentrations from the 216-A-29 Ditch to the 90th percentile Hanford Site background value and the wildlife SSV is provided in Table 3-57.

A summary of the hazard quotients for each of the 216-A-29 Ditch COPECs that are greater than their respective wildlife SSV is provided in Table 3-58. Based on this set of comparisons, the following are considered COPECs at the 216-A-29 Ditch:

- Cadmium, lead, selenium, silver, thallium, vanadium,
- Americium-241 and cesium-137
- Bis(2-ethylhexyl)phthalate and di-n-butylphthalate.

3.6.2.7.2 Summary of COPECs Identified for the 216-B-63 Trench

A total of 15 soil samples were collected and analyzed from the 0 to 4.6 m (15 ft) bgs depth interval. Of all the constituents analyzed, 26 metals, 15 radionuclides, nine general chemistry parameters, four VOCs, one SVOC, and aroclor-1254 were detected.

Essential nutrients were eliminated as COPECs. Thirteen metals (aluminum, arsenic, barium, beryllium, cadmium, iron, lead, manganese, mercury, molybdenum, nickel, silver, and uranium), eight radionuclides (K-40, Ra-226, Ra-228, Th-228, Th-232, U-233/234, U-234, and U-238), and three general chemistry parameters (chloride, fluoride, and sulfate) were detected at concentrations below their respective lognormal 90th percentile Hanford background concentrations (Table 3-9) and are not considered COPCs. Gross alpha, gross beta, bismuth, ammonia, nitrate, nitrite, nitrogen in nitrite, and nitrate, phosphate, and sulfide were eliminated as COPECs because ecological toxicity values are not available.

Maximum soil concentrations from the 216-B-63 Trench were compared to the wildlife SSV because it is within the industrial-exclusive land use area of the Central Plateau. The following are identified as COPECs from the 0 to 4.6 m (15 ft) bgs depth interval because the maximum detected concentration is greater than its respective wildlife SSV. A comparison of maximum detected concentrations from the 216-B-63 Trench to the 90th percentile Hanford Site background value and the wildlife SSV is provided in Table 3-59.

A summary of the hazard quotients for each of the 216-B-63 Trench COPECs that are greater than their respective wildlife SSV is provided in Table 3-60. Based on this set of comparisons, the following are considered COPECs at the 216-B-63 Trench:

- Selenium, thallium, and vanadium
- Cesium-137 and Sr-90.

3.6.2.7.3 Summary of COPECs Identified for the 216-S-10 Ditch

A total of 14 soil samples were collected and analyzed from the 0 to 4.6 m (15 ft) bgs depth interval. Of all the constituents analyzed, 26 metals, 14 radionuclides, seven general chemistry parameters, two VOCs, 18 SVOCs, aroclor-1254, and TPH-diesel were detected.

Essential nutrients were eliminated as COPECs. Nine metals (aluminum, arsenic, barium, beryllium, cadmium, iron, manganese, molybdenum, and uranium), seven radionuclides (K-40, Ra-226, Ra-228, Th-228, Th-232, U-234, and U-238), and three general chemistry parameters (chloride, fluoride, and sulfate) were detected at concentrations below their respective lognormal 90th percentile Hanford background concentrations (Table 3-10) and are not considered COPECs. Gross alpha, gross beta, bismuth, carbazole, nitrate, nitrite, nitrogen in nitrite and nitrate, and phosphate were eliminated as COPECs because ecological values are not available.

Maximum soil concentrations from the 216-S-10 Ditch were compared to the minimum of the plant, biota, or wildlife SSV because it is within the conservation/mining land use area of the Central Plateau. The following are identified as COPECs from the 0 to 4.6 m (15 ft) bgs depth interval because the maximum detected concentration is greater than its respective ecological SSV. A comparison of maximum detected concentrations from the 216-S-10 Ditch to the 90th percentile Hanford Site background value and the lowest of the plant, soil biota, or wildlife SSV is provided in Table 3-61.

A summary of the hazard quotients for each of the 216-S-10 Ditch COPECs that are greater than their respective wildlife SSV is provided in Table 3-62. Based on this set of comparisons, the following are considered COPECs at the 216-S-10 Ditch:

- Boron, chromium, copper, mercury, selenium, silver, thallium, vanadium, and zinc
- Cesium-137
- Bis(2-ethylhexyl)phthalate and di-n-butylphthalate
- Aroclor-1254.

Boron, total chromium, silver, vanadium, and zinc were reported with concentrations greater than their respective plant SSV. Copper and mercury were reported with concentrations greater than their respective soil biota SSV. Selenium, thallium, aroclor-1254, pyrene, di-n-butylphthalate, and bis(2-ethylhexyl)phalate were reported with concentrations greater than their respective wildlife SSV.

3.6.2.7.4 Summary of COPECs Identified for the 216-S-10 Pond

A total of 19 soil samples were collected and analyzed from the 0 to 4.6 m (15 ft) bgs depth interval. Of all the constituents analyzed, 25 metals, 15 radionuclides, nine general chemistry parameters, four VOCs, and one SVOC were detected.

Essential nutrients were eliminated as COPECs. Fourteen metals (aluminum, arsenic, barium, beryllium, cadmium, copper, iron, lead, manganese, molybdenum, nickel, uranium, vanadium, and zinc), six radionuclides (K-40, Ra-226, Ra-228, Th-232, U-234, and U-238), and four general chemistry parameters (chloride, fluoride, nitrate, and sulfate) were detected at concentrations below their respective lognormal 90th percentile Hanford background concentrations (Table 3-11) and are not considered COPECs. Gross alpha, gross beta, nitrite, nitrogen in nitrite and nitrate, phosphate, sulfide were eliminated as COPECs because ecological toxicity values are not available.

Maximum soil concentrations from the 216-S-10 Pond were compared to the minimum of the plant, biota, or wildlife SSV because it is within the conservation/mining land use area of the Central Plateau. The following are identified as COPECs from the 0 to 4.6 m (15 ft) bgs depth interval because the maximum detected concentration is greater than its respective ecological SSV. A comparison of maximum detected concentrations from the 216-S-10 Pond to the 90th percentile Hanford Site background value and the ecological SSV is provided in Table 3-63.

A summary of the hazard quotients for each of the 216-S-10 Pond COPECs that are greater than their respective wildlife SSV is provided in Table 3-64. Based on this set of comparisons, the following are considered COPECs at the 216-S-10 Pond:

- Boron, mercury, selenium, silver, and thallium
- Bis(2-ethylhexyl)phthalate.

Boron and silver were reported with concentrations greater than their respective plant SSV. Mercury was reported with concentrations greater than the respective soil biota SSV. Thallium and bis(2-ethylhexyl)phthalate were reported with concentrations greater than their respective wildlife SSV.

3.6.2.8 Summary of COPECs

For the ERA, a summary of the constituents identified as COPECs for each waste site is provided in Table 3-65. The 216-A-29 Ditch and the 216-B-63 Trench are located within the

industrial-exclusive land use area of the Central Plateau. COPECs for the 216-A-29 Ditch and the 216-B-63 Trench are identified based on a comparison of maximum soil concentrations to wildlife SSVs. The 216-S-10 Ditch and the 216-S-10 Pond are located within the conservation/mining land use area of the Central Plateau. COPECs for the 216-S-10 Ditch and the 216-S-10 Pond are identified based on a comparison of maximum soil concentrations to the minimum of the plant, biota, or wildlife soil screening value.

3.6.2.9 Development of Ecological Preliminary Remediation Goals

Ecological PRGs for terrestrial wildlife were developed for select metals to determine whether remedial action is required. Ecological PRGs were developed for those metal COPECs that were measured at concentrations greater than their respective wildlife SSVs. Ecological PRGs were developed for metals using the approach described in Ryti et al., 2004, *Preliminary Remediation Goals for Terrestrial Wildlife*.

Ecological PRGs are developed using the methodology and equations similar to those used for the wildlife SSVs but is modified by the introduction of ecological information that can be used to define assessment population areas (a population area use factor). The area-used factors are calculated as the ratio of the contaminated site area to the receptor's home range (EPA, 2003). The major assumption in area use factors is that individuals obtain their exposure in proportion to the fraction of their home range that is represented by the contaminated site. It also assumes that habitat quality is relative uniform throughout the assessment population area. Ecological PRGs for terrestrial wildlife have been developed for three sizes of waste sites on the Central Plateau which represent small sites (0.1 ha [0.2 a]), medium sites (1.0 ha [2.5 a]), and large sites (10 ha [24.7 a]). For the purposes of this ERA, total area of the 200-CS-1 OU waste sites is approximately 3.0 ha (7.5 a), therefore the site-specific SSVs for the 1 ha (2.5 a) area are used. Of the COPECs identified above (Table 3-65), site-specific terrestrial wildlife SSVs were developed for boron (9,900 mg/kg), lead (560 mg/kg), selenium (25 mg/kg), thallium (3.7 mg/kg), vanadium 7,200 mg/kg), and aroclor-1254 (260 mg/kg).

Additional literature review was performed for those constituents that reported concentrations greater than a plant or soil biota SSV. For silver phytotoxicity, an EPA ecological soil-screening levels of 560 mg/kg was used as a site-specific SSV (EPA 2006).

If a site-specific soil screening value was not developed or additional literature review did not identify additional information, then the COPECs identified using the ecological soil screening values were unchanged.

3.6.2.9.1 Summary of Contaminant of Ecological Concerns Identified for the 216-A-29 Ditch

Maximum soil concentrations from the 216-A-29 Ditch were compared to the Ecological PRGs for terrestrial wildlife or their wildlife SSV. A comparison of maximum detected concentrations from the 216-A-29 Ditch to the Ecological PRGs or the ecological SSV is provided in Table 3-66. The following are identified as COECs from the 0 to 4.6 m (15 ft) bgs depth interval because the maximum detected concentration is greater than its respective ecological SSV.

- Cadmium and silver.

Cs-137 (98 pCi/g) and Am-241 (145 pCi/g) concentrations at the 216-A-29 Ditch are greater than their Tier 1 BCGs of 3.9 pCi/g and 2.1 pCi/g respectively. Site-specific BCGs will be developed for Cs-137 and Am-241 in the Central Plateau in a future ecological PRG document. It is anticipated that the site-specific BCGs for these radioisotopes will be orders of magnitude greater than their current screening level BCGs. Therefore, Cs-137 and Am-241 are not identified as COECs at the 216-A-29 Ditch.

Bis(2-ethylhexyl)phthalate and di-n-butylphthalate are reported at concentrations greater than their wildlife SSVs. These COPECs are likely to be common laboratory contaminants as there is no history of the production of plastics at the Hanford Site. Common laboratory contaminants are those that are introduced in the laboratory after the collection of the sample in the field. Therefore, bis(2-ethylhexyl)phthalate and di-n-butylphthalate are not identified as COECs at the 216-A-29 Ditch.

3.6.2.9.2 Summary of Contaminant of Ecological Concerns Identified for the 216-B-63 Trench

Maximum soil concentrations from the 216-B-63 Trench were compared to the Ecological PRG for terrestrial wildlife or the wildlife SSV. A comparison of maximum detected concentrations from the 216- B-63 Trench to the Ecological PRG or ecological SSV is provided in Table 3-67. Based on this comparison, no COECs are identified from the 0 to 4.6 m (15 ft) bgs depth interval because the maximum detected concentration is not greater than their respective ecological SSV.

Cs-137 (3.6 pCi/g) and Sr-90 (30 pCi/g) concentrations at the 216-B-63 Trench are greater than their Tier 1 BCGs of 2.1 and 23 pCi/g, respectively. Site-specific BCGs will be developed for Cs-137 and Sr-90 in the Central Plateau in a future ecological PRG document. It is anticipated that the site-specific BCGs for these radioisotopes will be orders of magnitude greater than the current screening level BCGs. Therefore, Cs-137 and Sr-90 are not identified as COECs at the 216-B-63 Trench.

Bis(2-ethylhexyl)phthalate is reported at a concentration greater than the wildlife SSV. This COPEC is likely to be a common laboratory contaminant as there is no history of the production of plastics at the Hanford Site. Common laboratory contaminants are those that are introduced in the laboratory after the collection of the sample in the field. Therefore, bis(2-ethylhexyl)phthalate is not identified as a COECs at the 216-B-63 Trench.

3.6.2.9.3 Summary of Contaminant of Ecological Concerns Identified for the 216-S-10 Ditch

Maximum soil concentrations from the 216-S-10 Ditch were compared to the Ecological PRG for terrestrial wildlife or the minimum plant, soil biota or wildlife SSV. A comparison of maximum detected concentrations from the 216-S-10 Ditch to the Ecological PRG or ecological SSV is provided in Table 3-68. Based on this comparison, the following are identified as COECs from the 0 to 4.6 m (15 ft) bgs depth interval because the maximum detected concentration is greater than its respective ecological SSV.

- Chromium, copper, mercury, zinc, and aroclor-1254.

Cs-137 concentrations (9.1 pCi/g) at the 216-S-10 Ditch are greater than the Tier 1 BCG of 3.9 pCi/g. Site-specific BCGs will be developed for Cs-137 in the Central Plateau in a future ecological PRG document. It is anticipated that the site-specific BCGs for Cs-137 will be

orders of magnitude greater than the current screening level BCG. Therefore, Cs-137 is not identified as COEC at the 216-S-10 Ditch.

Bis(2-ethylhexyl)phthalate and di-n-butylphthalate are reported at concentrations greater than their wildlife SSVs. These COPECs are likely to be common laboratory contaminants as there is no history of the production of plastics at the Hanford Site. Common laboratory contaminants are those that are introduced in the laboratory after the collection of the sample in the field. Therefore, bis(2-ethylhexyl)phthalate and di-n-butylphthalate are not identified as COECs at the 216- S-10 Ditch.

Boron and vanadium are reported at concentrations greater than their plant SSVs. Boron currently does not have a 90th percentile Hanford Site background value. Based on the outcome of the Central Plateau Terrestrial Risk Assessment, boron was detected in reference sites at concentrations ranging between 0.72 and 2.7mg/kg. The maximum detected concentration of boron at the 216-S-10 Ditch was 1.5 mg/kg, which is well within the range measured in the reference sites.

The maximum vanadium concentration at the 216-S-10 Ditch was 87.5 mg/kg, which is greater than the plant SSV of 2 mg/kg. However, the 90th percentile Hanford Site background value for vanadium is 85 mg/kg with the 90th and 95th UCL Hanford Site concentrations reported as 93.9 mg/kg and 96.1 mg/kg, respectively. Therefore, the presence of vanadium is likely to be naturally occurring and is not identified as a COEC at the 216-S-10 Ditch.

3.6.2.9.4 Summary of Contaminant of Ecological Concerns Identified for the 216-S-10 Pond

Maximum soil concentrations from the 216-S-10 Pond were compared to Ecological PRGs for terrestrial wildlife or the minimum plant, soil biota or wildlife SSV. A comparison of maximum detected concentrations from the 216-S-10 Pond to the Ecological PRG or the ecological SSV is provided in Table 3-69. Based on this comparison, no COECs from the 0 to 4.6 m (15 ft) bgs depth interval were identified because the maximum detected concentrations are less than their respective ecological SSV.

Bis(2-ethylhexyl)phthalate is reported at concentrations greater than its wildlife SSV. This COPEC is likely to be a common laboratory contaminant as there is no history of the production of plastics at the Hanford Site. Common laboratory contaminants are those that are introduced in the laboratory after the collection of the sample in the field. Therefore, bis(2-ethylhexyl)phthalate is not identified as a COEC at the 216- S-10 Pond.

Boron and mercury are reported at concentrations greater than their plant or soil biota SSV. Boron currently does not have a 90th percentile Hanford Site background value. Based on the outcome of the Central Plateau Terrestrial Risk Assessment, boron was detected in reference sites at concentrations ranging between 0.72 and 2.7mg/kg. The maximum detected concentration of boron at the 216-S-10 Pond was 1.0 mg/kg, which is well within the range measured in the reference sites.

The maximum mercury concentration at the 216-S-10 Pond was 0.43 mg/kg, which is greater than the plant SSV of 0.1 mg/kg. However, the 90th percentile Hanford Site background value for mercury is 0.33 mg/kg with the 90th and 95th UCL Hanford Site concentrations reported as

0.6 mg/kg and 0.7 mg/kg, respectively. Therefore, mercury is likely to be naturally occurring and is not identified as a COEC at the 216-S-10 Pond.

3.6.2.10 Summary of COECs

The COECs identified at the 200-CS-1 OU waste sites is summarized in Table 3-70.

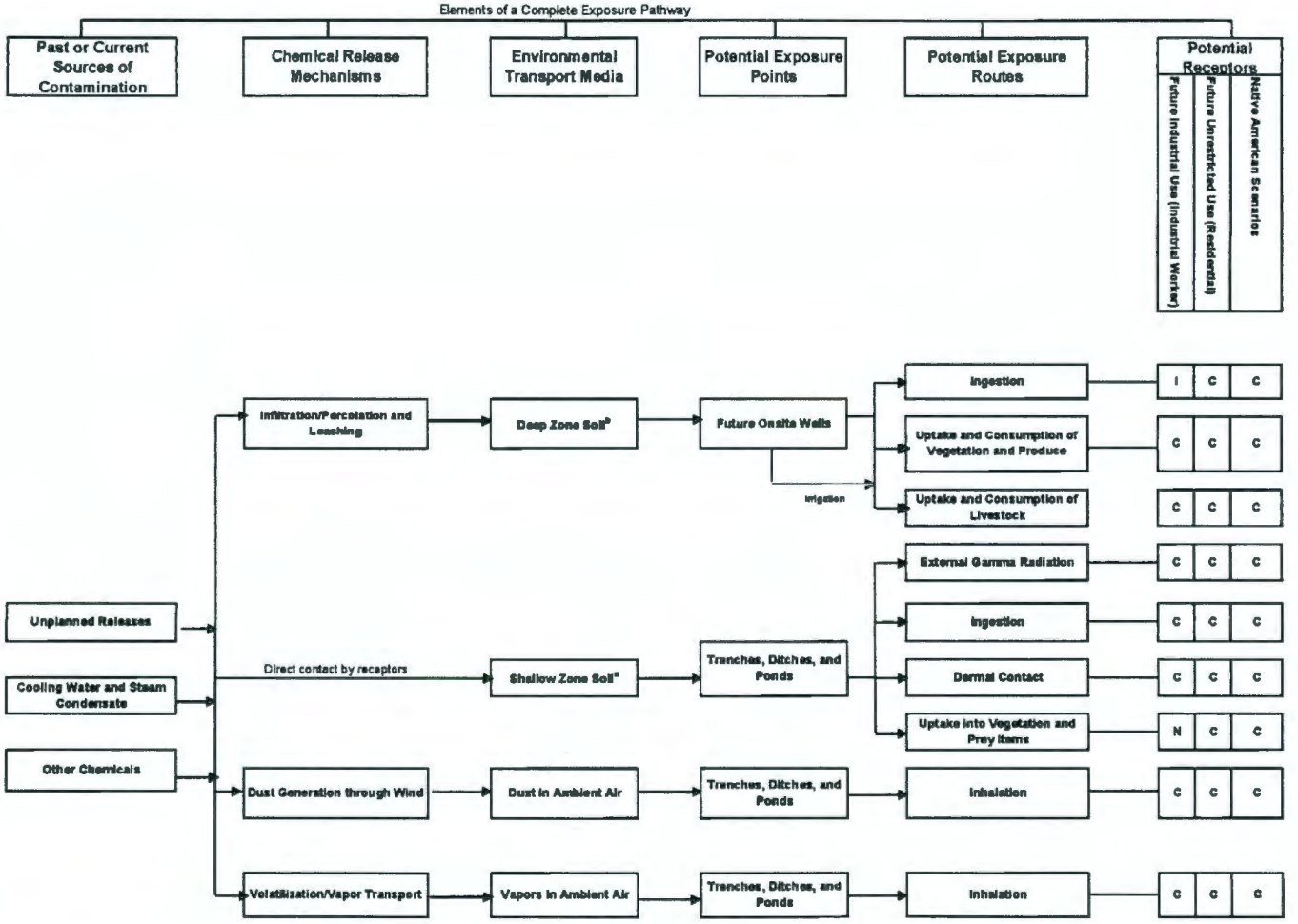
3.6.2.11 Summary of Uncertainty Analysis

Overall, the ERA performed for the 200-CS-1 OU sites was a conservative screening process designed to avoid underestimating potential risks to wildlife. The incorporation of conservative assumptions into the toxicity reference values and exposure parameters, and the use of maximum concentrations as the EPCs, were factors in ensuring that the ERA followed a conservative approach. Potential ecological risks, noted as exceedances of screening criteria, were identified for several constituents based on the ERA. The COECs identified for the sites are considered sufficiently conservative to represent those chemicals that may pose ecological risks at the site, and the potential ecological risks are unlikely to be underestimated by the screening-level ecologic risk assessment process.

3.7 SUMMARY OF CONTAMINANTS OF CONCERN AND CONTAMINANTS OF ECOLOGICAL CONCERN

A summary of the COCs and COECs identified through the BRA is provided in Table 3-71.

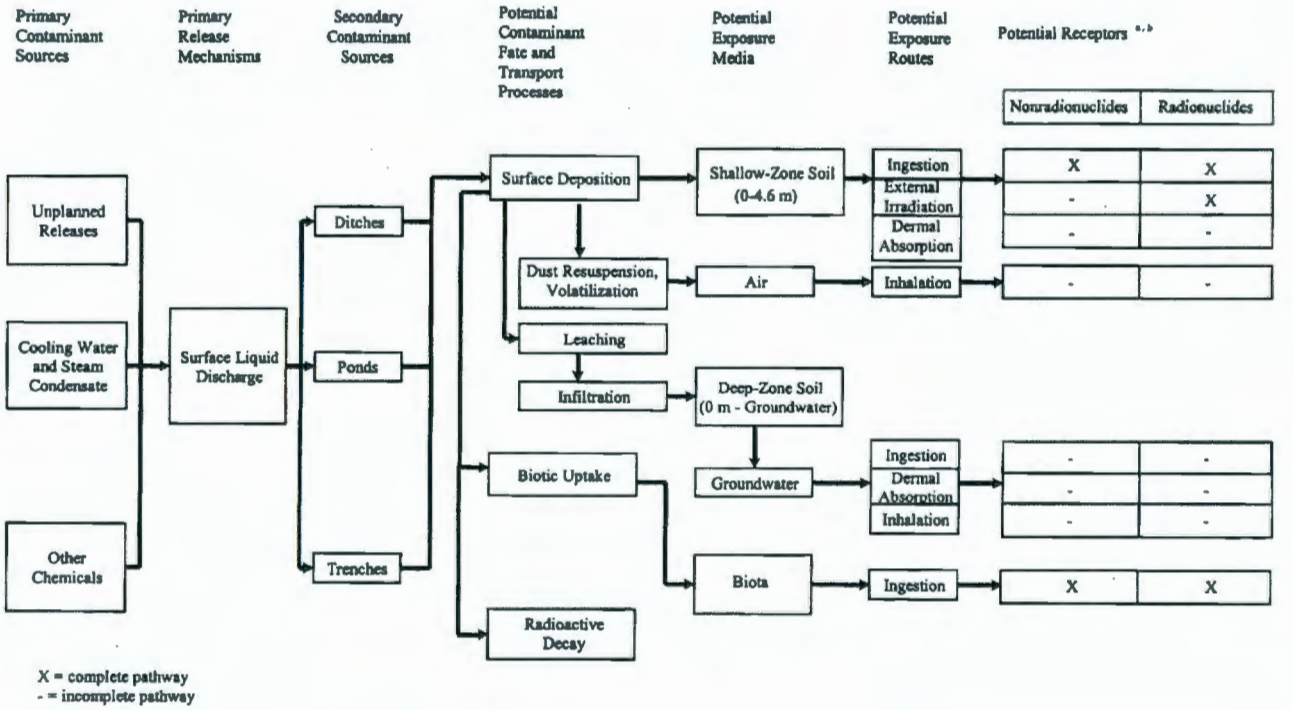
Figure 3-1. Human Health Conceptual Exposure Model for the 200-CS-1 Operable Unit.



a. Shallow zone soil is defined as zero to 15 feet below ground surface. This depth could be extended beyond 15' bgs when suggested by site-specific data.
b. Deep zone soil is defined as zero to the groundwater table.

C = Potentially complete exposure pathway
N = Incomplete exposure pathway
I = This is a potentially complete exposure pathway; however exposure is considered insignificant.

Figure 3-2. Conceptual Exposure Model for Ecological Receptors.



[a] Terrestrial receptors are evaluated for waste sites with an industrial land-use designation.
[b] Plant biota and terrestrial receptors are evaluated for waste sites with a conservation/mining land-use designation.

Table 3-1. Summary of Samples from 216-A-29 Ditch Used in Baseline Risk Assessment 200-CS-1 OU.

Test Pit Location	Sample ID	Borehole Location	Laboratory ID	Media	Bottom Depth Interval (ft)	Sample Date and Time
AD-3	10128	--	B13C81	Soil	7	10/30/01 8:30 AM
AD-3	10128	--	B13C77	Soil	9.5	10/30/01 8:50 AM
AD-3	10128	--	B13C89	Soil	12	10/30/01 9:01 AM
AD-3	10128	--	B13C78	Soil	12	10/30/01 9:10 AM
AD-3	10128	--	B13C79	Soil	14.5	10/30/01 9:45 AM
AD-3	10128	--	B13C80	Soil	17	10/30/01 10:00 AM
AD-1	10132	--	B13CK9	Soil	5	10/31/01 7:50 AM
AD-1	10132	--	B13CL0	Soil	7.5	10/31/01 8:05 AM
AD-1	10132	--	B13CL1	Soil	10	10/31/01 8:20 AM
AD-1	10132	--	B13CL2	Soil	12.5	10/31/01 8:35 AM
AD-1	10132	--	B13CL3	Soil	15	10/31/01 8:45 AM
AD-2	10136	--	B13CR9	Soil	6	11/01/01 8:15 AM
AD-2	10136	--	B13CR3	Soil	8.5	11/01/01 8:40 AM
AD-2	10136	--	B13CR4	Soil	8.5	11/01/01 8:40 AM
AD-2	10136	--	B13CR5	Soil	11	11/01/01 9:10 AM
AD-2	10136	--	B13CR8	Soil	11	11/01/01 9:10 AM
AD-2	10136	--	B13CR6	Soil	14	11/01/01 9:30 AM
AD-2	10136	--	B13CR7	Soil	16	11/01/01 9:45 AM
Area 9	18591	--	B0P714	Soil	4.3	07/06/98 12:15 PM
Area 9	18591	--	B0P712	Soil	7.3	07/06/98 11:33 AM
Area 9	18591	--	B0P710	Soil	7.3	07/06/98 11:33 AM
Area 9	18591	--	B0P708	Soil	10.3	07/06/98 11:33 AM
Area 8	18592	--	B0P716	Soil	3	07/07/98 8:31 AM
Area 8	18592	--	B0P718	Soil	7	07/07/98 8:44 AM
Area 8	18592	--	B0P720	Soil	10	07/07/98 8:56 AM
Area 8	18592	--	B0P722	Soil	10	07/07/98 8:56 AM
Area 8	18592	--	B0P724	Soil	13	07/07/98 9:20 AM
Area 8	18592	--	B0P726	Soil	16	07/07/98 9:42 AM
--	--	B8826	B16NF7	Soil	6.5	04/07/03 12:30 PM
--	--	B8826	B16546	Soil	9	04/07/03 1:40 PM
--	--	B8826	B16548	Soil	11.5	04/07/03 2:15 PM
--	--	B8826	B16FN6-A	Soil	11.5	04/07/03 2:15 PM
--	--	B8826	B16NF6	Soil	11.5	04/07/03 2:15 PM
--	--	B8826	B16549	Soil	14.5	04/07/03 2:50 PM
--	--	B8826	B16550	Soil	17	04/07/03 3:30 PM
--	--	B8826	B16551	Soil	22	04/08/03 8:10 AM
--	--	B8826	B16553	Soil	52.5	04/08/03 11:40 AM
--	--	B8826	B16555	Soil	102	04/09/03 4:10 PM
--	--	B8826	B16HC0	Soil	152	04/10/03 3:10 PM
--	--	B8826	B16564	Soil	152	04/10/03 3:10 PM
--	--	B8826	B16FV4	Soil	152	04/10/03 3:10 PM
--	--	B8826	B16FV5	Soil	202	04/14/03 8:30 AM
--	--	B8826	B16FV7	Soil	274	04/17/03 3:10 PM
--	--	B8826	B16W47	Soil	274	04/17/03 3:10 PM

-- not applicable.
ID = Identification.

Table 3-2. Summary of Samples from 216-B-63 Trench Used in Baseline Risk Assessment 200-CS-1 OU.

Test Pit Location	Sample ID	Borehole Location	Laboratory ID	Media	Bottom Depth Interval (ft)	Sample Date and Time
--	--	B8827	B16FW5	Soil	13	03/24/03
--	--	B8827	B16528	Soil	14.5	03/24/03
--	--	B8827	B16529	Soil	17	03/24/03
--	--	B8827	B16530	Soil	17	03/24/03
--	--	B8827	B16531	Soil	19	03/24/03
--	--	B8827	B16HB4	Soil	19	03/24/03
--	--	B8827	B16HB4-A	Soil	19	03/24/03
--	--	B8827	B16532	Soil	21.5	03/24/03
--	--	B8827	B16HB7	Soil	21.5	03/24/03
--	--	B8827	B16533	Soil	25	03/24/03
--	--	B8827	B16534	Soil	30	03/24/03
--	--	B8827	B16535	Soil	55	03/25/03
--	--	B8827	B16HB8	Soil	55	03/25/03
--	--	B8827	B16536	Soil	103	03/25/03
BT-1	14076	--	B15XM2	Soil	8	11/12/02
BT-1	14076	--	B15XK9	Soil	10.5	11/12/02
BT-1	14076	--	B15XM4	Soil	10.5	11/12/02
BT-1	14076	--	B15XM3	Soil	10.5	11/12/02
BT-1	14076	--	B15XL0	Soil	13	11/12/02
BT-1	14076	--	B15XL1	Soil	15.5	11/12/02
BT-1	14076	--	B15XL2	Soil	18	11/12/02
BT-2A	10142	--	B13D72	Soil	6	11/02/01
BT-2A	10142	--	B15XM1	Soil	7	11/11/02
BT-2A	10142	--	B13D73	Soil	8.5	11/02/01
BT-2A	10142	--	B13D82	Soil	8.5	11/02/01
BT-2A	10142	--	B15XJ7	Soil	9.5	11/11/02
BT-2A	10142	--	B15XJ8	Soil	12	11/11/02
BT-2A	10142	--	B15XJ9	Soil	14.5	11/11/02
BT-2A	10142	--	B15XK0	Soil	17	11/11/02
BT-2A	10142	--	B15XK1	Soil	21	11/11/02
BT-2A	10142	--	B15XK2	Soil	25	11/11/02

-- not applicable.

Table 3-3. Summary of Samples from 216-S-10 Ditch Used in Baseline Risk Assessment 200-CS-1 OU. (2 Pages)

Test Pit Location	Sample ID	Well Location	Laboratory ID	Media	Bottom Depth Interval (ft)	Sample Date and Time
SD-1	14116	--	B15Y84	Soil	7	11/21/02
SD-1	14116	--	B15YB6	Soil	9.5	11/21/02
SD-1	14116	--	B15YF9	Soil	9.5	11/21/02
SD-1	14116	--	B15YF8	Soil	9.5	11/21/02
SD-1	14116	--	B15YB7	Soil	12	11/21/02

Table 3-3. Summary of Samples from 216-S-10 Ditch Used in Baseline Risk Assessment 200-CS-1 OU. (2 Pages)

Test Pit Location	Sample ID	Well Location	Laboratory ID	Media	Bottom Depth Interval (ft)	Sample Date and Time
SD-1	14116	--	B15YB8	Soil	14.5	11/21/02
SD-1	14116	--	B15YB9	Soil	17	11/21/02
SD-3	14117	--	B160N2	Soil	4	11/21/02
SD-3	14117	--	B15YB1	Soil	6.5	11/21/02
SD-3	14117	--	B15YB2	Soil	9	11/21/02
SD-3	14117	--	B15YB3	Soil	11.5	11/21/02
SD-3	14117	--	B15YB4	Soil	14	11/21/02
SD-2	14119	--	B15Y85	Soil	1.5	11/20/02
SD-2	14119	--	B15YB0	Soil	3	11/20/02
--	--	299-W26-14	B16547	Soil	9	04/07/03
--	--	299-W26-14	B16538	Soil	22	03/07/03
--	--	299-W26-14	B16539	Soil	22	03/07/03
--	--	299-W26-14	B16545	Soil	27	03/07/03
--	--	299-W26-14	B16HB6	Soil	27	03/07/03
--	--	299-W26-14	B16HB6-A	Soil	27	03/07/03
--	--	299-W26-14	B16540	Soil	52	03/07/03
--	--	299-W26-14	B16541	Soil	102	03/11/03
--	--	299-W26-14	B16HC1	Soil	137	03/11/03
--	--	299-W26-14	B16542	Soil	137	03/12/03
--	--	299-W26-14	B16HC2	Soil	137	03/12/03
--	--	299-W26-14	B16KB0	Soil	152	03/14/03
--	--	299-W26-14	B16HC3	Soil	187	03/17/03
--	--	299-W26-14	B16KB1	Soil	187	03/17/03
--	--	299-W26-14	B16543	Soil	202	03/17/03
--	--	299-W26-14	B16544	Soil	222	03/18/03

-- not applicable.
ID = Identification.

Table 3-4. Summary of Samples from 216-S-10 Pond Used in Baseline Risk Assessment 200-CS-1 OU. (2 Pages)

Test Pit Location	Sample Site ID	Well Location	Sample Number	Media	Sample Interval Bottom	Laboratory Quality Control Type	Sample Date and Time
--	--	299-W26-13	B0X099	Soil	37	S	11/19/99
--	--	299-W26-13	B0X0X4	Soil	37	S	11/19/99
--	--	299-W26-13	B0X0B0	Soil	37	--	11/19/99
--	--	299-W26-13	B0X0B2	Soil	52	R	11/22/99
--	--	299-W26-13	B0X0B1	Soil	52	R	11/23/99
--	--	299-W26-13	B0X0B3	Soil	101.5	--	11/23/99
--	--	299-W26-13	B0X0B4	Soil	137.2	--	11/30/99
--	--	299-W26-13	B0X0B5	Soil	152.1	--	12/01/99
--	--	299-W26-13	B0X0B6	Soil	182	--	12/02/99
--	--	299-W26-13	B0X0B7	Soil	199.4	--	12/07/99

Table 3-4. Summary of Samples from 216-S-10 Pond Used in Baseline Risk Assessment 200-CS-1 OU. (2 Pages)

Test Pit Location	Sample Site ID	Well Location	Sample Number	Media	Sample Interval Bottom	Laboratory Quality Control Type	Sample Date and Time
--	--	299-W26-13	B0X4C9	Soil	NA	--	12/08/99
--	--	--	B15YL7	Soil	8	--	11/14/02
--	--	--	B15YJ5	Soil	10.5	B	11/14/02
--	--	--	B15YL4	Soil	10.5	S	11/14/02
--	--	--	B15YL3	Soil	10.5	R	11/14/02
--	--	--	B15YJ6	Soil	13	--	11/14/02
SP-1	14096	--	B15YJ7	Soil	15.5	--	11/14/02
SP-1	14096	--	B15YJ8	Soil	18	--	11/14/02
SP-1	14096	--	B15YJ9	Soil	21	--	11/14/02
SP-1	14096	--	B15YK0	Soil	25	--	11/14/02
SP-2	14097	--	B15YL8	Soil	7.5	--	11/15/02
SP-2	14097	--	B15YK7	Soil	10	--	11/15/02
SP-2	14097	--	B15YK8	Soil	12.5	--	11/15/02
SP-2	14097	--	B15YK9	Soil	15	--	11/15/02
SP-2	14097	--	B15YL0	Soil	17.5	--	11/15/02
SP-2	14097	--	B15YL1	Soil	21	--	11/15/02
SP-2	14097	--	B15YL2	Soil	26	--	11/15/02
SP-3	14098	--	B15YP9	Soil	7	--	11/18/02
SP-3	14098	--	B15YM1	Soil	9.5	--	11/18/02
SP-3	14098	--	B15YM2	Soil	12	--	11/18/02
SP-3	14098	--	B15YM3	Soil	14.5	--	11/18/02
SP-3	14098	--	B15YM4	Soil	17	--	11/18/02
SP-3	14098	--	B15YM5	Soil	21	--	11/18/02
SP-3	14098	--	B15YM6	Soil	25	--	11/18/02
SP-4	14118	--	B15YR0	Soil	5	--	11/20/02
SP-4	14118	--	B15YN3	Soil	7.5	--	11/20/02
SP-4	14118	--	B15YN4	Soil	10	--	11/20/02
SP-4	14118	--	B15YN5	Soil	12.5	--	11/20/02
SP-4	14118	--	B15YN6	Soil	15	--	11/20/02
SP-4	14118	--	B15YN7	Soil	21	--	11/20/02
SP-4	14118	--	B15YN8	Soil	25	--	11/20/02

-- not applicable.

B = both split and replicate.
ID = Identification.
NA = not available.
R = replicate.
Split = split.

Table 3-5. Summary Points of Compliance and Exposure Scenarios Used for the Baseline Risk Assessment.

	216-A-29 Ditch		216-B-63 Trench		216-S-10 Ditch		216-S-10 Pond	
Point of Compliance [a]	0 to 4.6 m (15 ft) bgs [b]	0 to Groundwater Table	0 to 4.6 m (15 ft) bgs [b]	0 to Groundwater Table	0 to 4.6 m (15 ft) bgs [b]	0 to Groundwater Table	0 to 4.6 m (15 ft) bgs [b]	0 to Groundwater Table
Land Use	Unrestricted and Industrial Land Use	Unrestricted and Industrial Land Use	Unrestricted and Industrial Land Use	Unrestricted and Industrial Land Use	Unrestricted and Industrial Land Use	Unrestricted and Industrial Land Use	Unrestricted and Industrial Land Use	Unrestricted and Industrial Land Use
Exposure Scenario	Residential or Industrial Worker	Soil Impact on Groundwater	Residential or Industrial Worker	Soil Impact on Groundwater	Residential or Industrial Worker	Soil Impact on Groundwater	Residential or Industrial Worker	Soil Impact on Groundwater

[a] Reflects maximum contaminant concentrations within the current configuration of each waste site.
[b] Water-dependent exposure pathways are included in the rural residential scenario for radiological contaminants, therefore all contamination zones from zero to the groundwater table are included in the RESidual RADioactivity (RESRAD) analysis.
bgs = below ground surface.

Table 3-6. Summary Points of Calculation and Exposure Scenarios Used for the Balancing and Modifying Criteria Evaluation.

	216-A-29 Ditch			216-B-63 Trench		
Point of Calculation *	0 to 4.6 m (15 ft) bgs *	0 to 4.6 m (15 ft) bgs	0 to Groundwater Table	0 to 4.6 m (15 ft) bgs *	0 to 5.7 m (19 ft) bgs	0 to Groundwater Table
Land Use	Unrestricted	Industrial	Failure of Institutional Controls	Unrestricted	Industrial	Failure of Institutional Controls
Exposure Scenario	CTUIR Yakama Nation	Hypothetical Excavation Scenario	Inadvertent Intruder - Well Driller - Rural Farmer	CTUIR Yakama Nation	Hypothetical Excavation Scenario	Inadvertent Intruder - Well Driller - Rural Farmer
Site Configuration	Current site configuration	Excavates mass of contamination from 1.2 to 4.6 m (4 to 15 ft) to surface	Well drilled through crib and cuttings brought to surface	Current site configuration	Excavates mass of contamination from 1.5 to 5.7 m (5 to 19 ft) to surface	Well drilled through crib and cuttings brought to surface
	216-S-10 Ditch			216-S-10 Pond		
Point of Calculation *	0 to 4.6 m (15 ft) bgs *	0 to 8.2 m (27 ft) bgs	0 to Groundwater Table	0 to 4.6 m (15 ft) bgs *	0 to 4.6 m (15 ft) bgs	0 to Groundwater Table
Land Use	Unrestricted	Industrial	Failure of Institutional Controls	Unrestricted	Industrial	Failure of Institutional Controls
Exposure Scenario	CTUIR Yakama Nation	Hypothetical Excavation Scenario	Inadvertent Intruder - Well Driller - Rural Farmer	CTUIR Yakama Nation	Hypothetical Excavation Scenario	Inadvertent Intruder - Well Driller - Rural Farmer
Site Configuration	Current site configuration	Excavates mass of contamination from 0.61 to 8.2 m (2 to 27 ft) to surface	Well drilled through crib and cuttings brought to surface	Current site configuration	Excavates mass of contamination from 1.2 to 4.6 m (4 to 15 ft) to surface	Well drilled through crib and cuttings brought to surface

* Water-dependent exposure pathways are included in the rural residential scenario for radiological contaminants, therefore all contamination zones from zero to the groundwater table are included in the RESidual RADioactivity (RESRAD) analysis.
CTUIR = Confederated Tribes of the Umatilla Indian Reservation.

Table 3-7. Hanford Site-specific Background Concentrations. (2 Pages)

Constituent (CAS)	Units	Lognormal 90th Percentile Value	90% UCL	Lognormal 95th Percentile Value	Source of Background Values
Metals					
Aluminum (7429-90-5)	mg/kg	11800	13000	13300	DOE/RL-92-24, V.1, Rev.4
Antimony (7440-36-0)	mg/kg	5.0	--	--	Statewide Conc.; Ecology Publication 94-115; Oct. 2004
Arsenic (7440-38-2)	mg/kg	6.47	7.38	7.65	DOE/RL-92-24, V.1, Rev.4
Barium (7440-39-3)	mg/kg	132	144	148	DOE/RL-92-24, V.1, Rev.4
Beryllium (7440-41-7)	mg/kg	1.51	1.62	1.65	DOE/RL-92-24, V.1, Rev.4
Cadmium (7440-43-9)	mg/kg	1	--	--	Statewide Conc.; Ecology Publication 94-115; Oct. 2004
Calcium (7440-70-2)	mg/kg	17200	19700	20400	DOE/RL-92-24, V.1, Rev.4
Chromium (7440-47-3)	mg/kg	18.5	21.4	22.3	DOE/RL-92-24, V.1, Rev.4
Cobalt (7440-48-4)	mg/kg	15.7	16.9	17.3	DOE/RL-92-24, V.1, Rev.4
Copper (7440-50-8)	mg/kg	22	24.1	24.7	DOE/RL-92-24, V.1, Rev.4
Iron (7439-89-6)	mg/kg	32600	35000	35600	DOE/RL-92-24, V.1, Rev.4
Lead (7439-92-1)	mg/kg	10.2	11.7	12.2	DOE/RL-92-24, V.1, Rev.4
Magnesium (7439-95-4)	mg/kg	7060	7620	7780	DOE/RL-92-24, V.1, Rev.4
Manganese (7439-96-5)	mg/kg	512	550	561	DOE/RL-92-24, V.1, Rev.4
Mercury (7439-97-6)	mg/kg	0.33	0.6	0.7	DOE/RL-92-24, V.1, Rev.4
Molybdenum	mg/kg	2.8-6.0 (a)	--	--	Judgmental samples, DOE/RL-92-24
Nickel (7440-02-0)	mg/kg	19.1	21	21.6	DOE/RL-92-24, V.1, Rev.4
Potassium (7440-09-7)	mg/kg	2150	2440	2520	DOE/RL-92-24, V.1, Rev.4
Silver (7440-22-4)	mg/kg	0.73	1.33	1.52	DOE/RL-92-24, V.1, Rev.4
Sodium (7440-23-5)	mg/kg	690	878	937	DOE/RL-92-24, V.1, Rev.4
Uranium (7440-61-1)	mg/kg	3.21	--	--	Isotopic Activity Conversion based on DOE/RL-96-12 values
Vanadium (7440-62-2)	mg/kg	85.1	93.9	96.4	DOE/RL-92-24, V.1, Rev.4
Zinc (7440-66-6)	mg/kg	67.8	72.1	73.3	DOE/RL-92-24, V.1, Rev.4
Radiological					
Cesium-137 (10045-97-3)	pCi/g	1.05	--	1.51	DOE/RL-96-12, Rev.0
Cobalt-60 (10198-40-0)	pCi/g	8.42E-03	--	0.0104	DOE/RL-96-12, Rev.0
Europium-154 (15585-10-1)	pCi/g	3.34E-02	--	4.27E-02	DOE/RL-96-12, Rev.0
Europium-155 (14391-16-3)	pCi/g	5.39E-02	--	7.23E-02	DOE/RL-96-12, Rev.0
Gross beta (12587-47-2)	pCi/g	22.96	--	24.07	DOE/RL-96-12, Rev.0
Plutonium-238 (13981-16-3)	pCi/g	0.00378	--	6.48E-03	DOE/RL-96-12, Rev.0
Plutonium-239/240 (PU-239/240)	pCi/g	2.48E-02	--	3.66E-02	DOE/RL-96-12, Rev.0
Potassium-40 (13966-00-2)	pCi/g	16.6	--	17.9	DOE/RL-96-12, Rev.0
Radium-226 (13982-63-3)*	pCi/g	0.815	--	0.928	DOE/RL-96-12, Rev.0
Radium-228 (15262-20-1)*	pCi/g	1.32	--	1.47	DOE/RL-96-12, Rev.0
Strontium-90 (10098-97-2)	pCi/g	0.178	--	0.247	DOE/RL-96-12, Rev.0
Thorium-228 (14274-82-9)*	pCi/g	1.32	--	1.47	DOE/RL-96-12, Rev.0

Table 3-7. Hanford Site-specific Background Concentrations. (2 Pages)

Constituent (CAS)	Units	Lognormal 90th Percentile Value	90% UCL	Lognormal 95th Percentile Value	Source of Background Values
Thorium-230 (14269-63-7)*	pCi/g	1.1	--	1.23	DOE/RL-96-12, Rev.0
Thorium-232 (TH-232)	pCi/g	1.32	--	1.47	DOE/RL-96-12, Rev.0
Total beta radiostrontium (SR-RAD)	pCi/g	0.178	--	0.247	DOE/RL-96-12, Rev.0
Uranium-233/234 (U-233/234)*	pCi/g	1.1	--	1.23	DOE/RL-96-12, Rev.0
Uranium-234 (13966-29-5)*	pCi/g	1.1	--	1.23	DOE/RL-96-12, Rev.0
Uranium-235 (15117-96-1)	pCi/g	0.109	--	0.153	DOE/RL-96-12, Rev.0
Uranium-238 (U-238)	pCi/g	1.06	--	1.18	DOE/RL-96-12, Rev.0
Wet Chemistry					
Ammonia (7664-41-7)	mg/kg	9.23	15.1	17.3	DOE/RL-92-24, V.1, Rev.4
Chloride (16887-00-6)	mg/kg	100	182	214	DOE/RL-92-24, V.1, Rev.4
Fluoride (16984-48-8)	mg/kg	2.81	3.7	3.98	DOE/RL-92-24, V.1, Rev.4
Nitrate (14797-55-8)	mg/kg	52	93.4	110	DOE/RL-92-24, V.1, Rev.4
Phosphate (14265-44-2)	mg/kg	0.785	2.87	4.08	DOE/RL-92-24, V.1, Rev.4
Sulfate (14808-79-8)	mg/kg	237	469	566	DOE/RL-92-24, V.1, Rev.4

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DOE/RL-92-24, *Hanford Site Background: Part 1, Soil Background for Nonradioactive Analytes.*
DOE/RL-96-12, *Hanford Site Background: Part 2, Soil Background for Radionuclides.*
Ecology Publication 94-115, *Natural Background Soil Metals Concentrations in Washington State.*
CAS = Chemical Abstracts Service.
UCL = upper control limit.

Table 3-8. 216-A-29 Ditch - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) bgs to Hanford Site Background. (3 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m [15 ft] bgs	90th Percentile Background Concentration	Does Maximum Detected from 0 to 4.6 m (0 to15 ft) bgs Exceed Background?
Metals Analyses				
Aluminum	10,100 mg/kg	1.8 [6] - 2.1 [7]	11,800 mg/kg	No
Arsenic	12 mg/kg	2.6 [8.5] - 2.9 [9.5]	6.5 mg/kg	Yes
Barium	118 mg/kg	1.8 [6] - 2.1 [7]	132 mg/kg	No
Beryllium	0.63 mg/kg	1.2 [4] - 2.0 [6.5]	1.5 mg/kg	No
Boron	3.4 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background
Cadmium	28 mg/kg	1.2 [4] - 1.5 [5.0]	1.0 mg/kg	Yes
Chromium	37 mg/kg	1.2 [4] - 1.5 [5.0]	19 mg/kg	Yes
Copper	172 mg/kg	1.2 [4] - 1.5 [5.0]	22 mg/kg	Yes
Hexavalent Chromium	8.8 mg/kg	2.3 [7.5] - 2.6 [8.5]	No background	No background
Iron	26,900 mg/kg	1.5 [5] - 1.8 [6]	32,600 mg/kg	No

Table 3-8. 216-A-29 Ditch - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) bgs to Hanford Site Background. (3 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m [15 ft] bgs	90th Percentile Background Concentration	Does Maximum Detected from 0 to 4.6 m (0 to15 ft) bgs Exceed Background?
Lead	390 mg/kg	2.3 [7.5] - 2.6 [8.5]	10 mg/kg	Yes
Magnesium	4,310 mg/kg	1.2 [4] - 2.0 [6.5]	7,060 mg/kg	No
Manganese	454 mg/kg	1.8 [6] - 2.1 [7]	512 mg/kg	No
Mercury	5.2 mg/kg	1.2 [4] - 1.5 [5.0]	0.33 mg/kg	Yes
Molybdenum	3.2 mg/kg	1.2 [4] - 1.5 [5.0]	2.8-6.0 mg/kg	No
Nickel	28 mg/kg	1.2 [4] - 1.5 [5.0]	19 mg/kg	Yes
Selenium	2.5 mg/kg	2.7 [9] - 3.5 [11.5]	No background	No background
Silver	42 mg/kg	1.2 [4] - 1.5 [5.0]	0.73 mg/kg	Yes
Thallium	0.52 mg/kg	1.8 [6] - 2.1 [7]	No background	No background
Uranium	5.3 mg/kg	2.3 [7.5] - 2.6 [8.5]	3.2 mg/kg	Yes
Vanadium	104 mg/kg	2.3 [7.5] - 2.6 [8.5]	85 mg/kg	Yes
Zinc	224 mg/kg	1.2 [4] - 1.5 [5.0]	68 mg/kg	Yes
Radiological Constituents				
Americium-241	145 pCi/g	1.2 [4] - 2.0 [6.5]	No background	No background
Antimony-125	1.7 pCi/g	1.2 [4] - 1.5 [5.0]	No background	No background
Cesium-137	98 pCi/g	1.2 [4] - 1.5 [5.0]	1.1 pCi/g	Yes
Europium-155	0.050 pCi/g	0 [0] - 3.0 [10]	0.054 pCi/g	No
Neptunium-237	0.12 pCi/g	3.5 [11.5] - 3.8 [12.5]	No background	No background
Plutonium-238	16 pCi/g	1.2 [4] - 2.0 [6.5]	0.0038 pCi/g	Yes
Plutonium-239/240	667 pCi/g	1.2 [4] - 2.0 [6.5]	0.025 pCi/g	Yes
Potassium-40	16 pCi/g	1.8 [6] - 2.1 [7]	17 pCi/g	No
Radium-226	0.90 pCi/g	2.6 [8.5] - 2.9 [9.5]	0.82 pCi/g	Yes
Radium-228	1.1 pCi/g	1.8 [6] - 2.1 [7]	1.3 pCi/g	No
Thorium-228	1.1 pCi/g	3.0 [10] - 3.4 [11]	1.3 pCi/g	No
Thorium-230	1.5 pCi/g	2.7 [9] - 3.5 [11.5]	1.1 pCi/g	Yes
Thorium-232	1.2 pCi/g	3.0 [10] - 3.4 [11]	1.3 pCi/g	No
Total beta radiostrontium	0.78 pCi/g	3.0 [10] - 3.4 [11]	0.18 pCi/g	Yes
Uranium-233/234	2.3 pCi/g	2.3 [7.5] - 2.6 [8.5]	1.1 pCi/g	Yes
Uranium-234	0.96 pCi/g	3.0 [10] - 3.4 [11]	1.1 pCi/g	No
Uranium-235	0.44 pCi/g	1.2 [4] - 1.5 [5.0]	0.11 pCi/g	Yes
Uranium-238	1.8 pCi/g	2.3 [7.5] - 2.6 [8.5]	1.1 pCi/g	Yes

Table 3-8. 216-A-29 Ditch - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) bgs to Hanford Site Background. (3 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m [15 ft] bgs	90th Percentile Background Concentration	Does Maximum Detected from 0 to 4.6 m (0 to15 ft) bgs Exceed Background?
Semivolatile Organic Compounds				
Benzo(a)anthracene	0.18 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background
Benzo(a)pyrene	0.16 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background
Benzo(b)fluoranthene	0.24 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background
Bis(2-ethylhexyl) phthalate	6.2 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background
Butylbenzylphthalate	0.29 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background
Chrysene	0.21 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background
Diethylphthalate	0.33 mg/kg	2.7 [9] - 3.5 [11.5]	No background	No background
Di-n-butylphthalate	2.7 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background
Fluoranthene	0.37 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background
Phenanthrene	0.37 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background
Pyrene	0.35 mg/kg	1.2 [4] - 1.3 [4.3]	No background	No background
Tributyl phosphate	0.54 mg/kg	1.2 [4] - 2.0 [6.5]	No background	No background
Volatile Organic Compounds				
1,2-Dichloroethane	0.013 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background
Acetone	0.030 mg/kg	2.3 [7.5] - 2.6 [8.5]	No background	No background
Methylene chloride	0.078 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background
Tetrachloroethene	0.0060 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background
General Inorganic Chemistry				
Ammonia	42 mg/kg	1.2 [4] - 1.5 [5.0]	9.2 mg/kg	Yes
Chloride	226 mg/kg	1.2 [4] - 1.5 [5.0]	100 mg/kg	Yes
Fluoride	5.3 mg/kg	2.7 [9] - 3.5 [11.5]	2.8 mg/kg	Yes
Nitrate	927 mg/kg	1.2 [4] - 1.5 [5.0]	52 mg/kg	Yes
Nitrogen in Nitrite and Nitrate	210 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background
Sulfate	2,970 mg/kg	1.2 [4] - 1.5 [5.0]	237 mg/kg	Yes
Miscellaneous Organic Analyses				
Aroclor-1254	0.094 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background
Total petroleum hydrocarbons - kerosene range	0.44 mg/kg	1.2 [4] - 2.0 [6.5]	No background	No background
Total petroleum hydrocarbons - motor oil (high boiling)	0.76 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background

bgs = below ground surface.

Table 3-9. 216-B-63 Trench - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) bgs to Hanford Site Background. (2 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m [15 ft] bgs	90th Percentile Background Concentration	Does Maximum Detected from 0 to 4.6 m (15 ft) bgs Exceed Background?
Metals Analyses (mg/kg)				
Aluminum	6,750 mg/kg	1.5 [5] - 1.8 [6]	11,800 mg/kg	No
Arsenic	5.1 mg/kg	4.6 [15] - 5.2 [17]	6.5 mg/kg	No
Barium	97 mg/kg	2.3 [7.5] - 2.6 [8.5]	132 mg/kg	No
Beryllium	0.71 mg/kg	3.8 [12.5] - 4.4 [14.5]	1.5 mg/kg	No
Boron	5.8 mg/kg	1.5 [5] - 1.8 [6]	No background	No background
Cadmium	0.27 mg/kg	1.5 [5] - 1.8 [6]	1.0 mg/kg	No
Chromium	22 mg/kg	3.8 [12.5] - 4.4 [14.5]	19 mg/kg	Yes
Copper	31 mg/kg	3.7 [12] - 4.0 [13]	22 mg/kg	Yes
Hexavalent Chromium	0.45 mg/kg	2.9 [9.5] - 3.2 [10.5]	No background	No background
Iron	28,400 mg/kg	1.8 [6] - 2.1 [7]	32,600 mg/kg	No
Lead	6.3 mg/kg	3.7 [12] - 4.0 [13]	10 mg/kg	No
Manganese	410 mg/kg	1.8 [6] - 2.1 [7]	512 mg/kg	No
Mercury	0.11 mg/kg	3.0 [10] - 4.0 [13]	0.33 mg/kg	No
Molybdenum	0.55 mg/kg	1.5 [5] - 1.8 [6]	2.8-6.0 mg/kg	No
Nickel	15 mg/kg	3.8 [12.5] - 4.4 [14.5]	19 mg/kg	No
Selenium	0.75 mg/kg	2.3 [7.5] - 2.6 [8.5]	No background	No background
Silver	0.35 mg/kg	3.0 [10] - 4.0 [13]	0.73 mg/kg	No
Thallium	0.53 mg/kg	1.8 [6] - 2.1 [7]	No background	No background
Uranium	1.9 mg/kg	2.3 [7.5] - 2.6 [8.5]	3.2 mg/kg	No
Vanadium	87 mg/kg	2.3 [7.5] - 2.6 [8.5]	85 mg/kg	Yes
Zinc	81 mg/kg	3.7 [12] - 4.0 [13]	68 mg/kg	Yes
Radiological Constituents				
Americium-241	0.035 pCi/g	2.9 [9.5] - 3.2 [10.5]	No background	No background
Cesium-137	3.6 pCi/g	2.9 [9.5] - 3.2 [10.5]	1.1 pCi/g	Yes
Neptunium-237	0.054 pCi/g	2.9 [9.5] - 3.2 [10.5]	No background	No background
Potassium-40	14 pCi/g	3.0 [10] - 4.0 [13]	17 pCi/g	No
Radium-226	0.61 pCi/g	2.1 [7] - 2.4 [8]	0.82 pCi/g	No
Radium-228	0.83 pCi/g	2.1 [7] - 2.4 [8]	1.3 pCi/g	No
Thorium-228	0.87 pCi/g	2.9 [9.5] - 3.2 [10.5]	1.3 pCi/g	No
Thorium-230	1.5 pCi/g	3.8 [12.5] - 4.4 [14.5]	1.1 pCi/g	Yes
Thorium-232	0.88 pCi/g	2.3 [7.5] - 2.6 [8.5]	1.3 pCi/g	No
Total beta	30 pCi/g	2.3 [7.5] - 2.6 [8.5]	0.18 pCi/g	Yes

Table 3-9. 216-B-63 Trench - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) bgs to Hanford Site Background. (2 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m [15 ft] bgs	90th Percentile Background Concentration	Does Maximum Detected from 0 to 4.6 m (15 ft) bgs Exceed Background?
radiostrontium				
Uranium-233/234	0.36 pCi/g	1.5 [5] - 1.8 [6]	1.1 pCi/g	No
Uranium-234	0.75 pCi/g	2.3 [7.5] - 2.6 [8.5]	1.1 pCi/g	No
Uranium-238	0.93 pCi/g	2.3 [7.5] - 2.6 [8.5]	1.1 pCi/g	No
Semivolatile Organic Compounds				
Bis(2-ethylhexyl) phthalate	0.021 mg/kg	2.4 [8] - 2.9 [9.5]	No background	No background
Volatile Organic Compounds				
Acetone	0.066 mg/kg	1.5 [5] - 1.8 [6]	No background	No background
Benzene	0.0080 mg/kg	1.5 [5] - 1.8 [6]	No background	No background
Methylene chloride	0.027 mg/kg	2.9 [9.5] - 3.2 [10.5]	No background	No background
Toluene	0.0030 mg/kg	2.1 [7] - 2.4 [8]	No background	No background
General Inorganic Chemistry				
Ammonia	10.0 mg/kg	4.6 [15] - 5.2 [17]	9.2 mg/kg	Yes
Chloride	18 mg/kg	1.5 [5] - 1.8 [6]	100 mg/kg	No
Fluoride	0.76 mg/kg	2.3 [7.5] - 2.6 [8.5]	2.8 mg/kg	No
Nitrate	833 mg/kg	1.5 [5] - 1.8 [6]	52 mg/kg	Yes
Nitrite	0.82 mg/kg	2.9 [9.5] - 3.2 [10.5]	No background	No background
Nitrogen in Nitrite and Nitrate	230 mg/kg	1.5 [5] - 1.8 [6]	No background	No background
Phosphate	6.4 mg/kg	2.1 [7] - 2.4 [8]	0.79 mg/kg	Yes
Sulfate	76 mg/kg	1.5 [5] - 1.8 [6]	237 mg/kg	No
Sulfide	44 mg/kg	3.4 [11] - 3.7 [12]	No background	No background
Miscellaneous Organic Analyses				
Aroclor-1254	77 mg/kg	3.0 [10] - 4.0 [13]	No background	No background

bgs = below ground surface.

Table 3-10. 216-S-10 Ditch - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) bgs to Hanford Site Background. (2 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m [15 ft] bgs	90th Percentile Background Concentration	Does Maximum Detected from 0 to 4.6 m (15 ft) bgs Exceed Background?
Metals Analyses				
Aluminum	10,800 mg/kg	0 [0] - .5 [1.5]	11,800 mg/kg	No
Arsenic	5.5 mg/kg	2.6 [8.5] - 2.9 [9.5]	6.5 mg/kg	No
Barium	120 mg/kg	.9 [3] - 1.2 [4]	132 mg/kg	No
Beryllium	0.50 mg/kg	1.8 [6.5] - 2.7 [9]	1.5 mg/kg	No
Cadmium	0.48 mg/kg	0 [0] - .5 [1.5]	1.0 mg/kg	No
Chromium	815 mg/kg	0 [0] - .5 [1.5]	19 mg/kg	Yes
Copper	244 mg/kg	0 [0] - .5 [1.5]	22 mg/kg	Yes
Hexavalent Chromium	14 mg/kg	.5 [1.5] - .9 [3]	No background	No background
Iron	28,800 mg/kg	0 [0] - .5 [1.5]	32,600 mg/kg	No
Lead	30 mg/kg	0 [0] - .5 [1.5]	10 mg/kg	Yes
Manganese	451 mg/kg	.9 [3] - 1.2 [4]	512 mg/kg	No
Mercury	4.3 mg/kg	0 [0] - .5 [1.5]	0.33 mg/kg	Yes
Molybdenum	0.88 mg/kg	0 [0] - .5 [1.5]	2.8-6.0 mg/kg	No
Nickel	20 mg/kg	0 [0] - .5 [1.5]	19 mg/kg	Yes
Selenium	0.44 mg/kg	2.6 [8.5] - 2.9 [9.5]	No background	No background
Silver	30 mg/kg	0 [0] - .5 [1.5]	0.73 mg/kg	Yes
Thallium	0.99 mg/kg	0 [0] - .5 [1.5]	No background	No background
Uranium	1.5 mg/kg	2.6 [8.5] - 2.9 [9.5]	3.2 mg/kg	No
Vanadium	88 mg/kg	2.6 [8.5] - 2.9 [9.5]	85 mg/kg	Yes
Zinc	506 mg/kg	0 [0] - .5 [1.5]	68 mg/kg	Yes
Radiological Constituents				
Americium-241	1.8 pCi/g	1.8 [6.5] - 2.7 [9]	No background	No background
Cesium-137	9.1 pCi/g	0 [0] - .5 [1.5]	1.1 pCi/g	Yes
Plutonium-239/240	5.3 pCi/g	1.8 [6.5] - 2.7 [9]	0.025 pCi/g	Yes
Potassium-40	13 pCi/g	2.6 [8.5] - 2.7 [9]	17 pCi/g	No
Radium-226	0.60 pCi/g	2.6 [8.5] - 2.7 [9]	0.82 pCi/g	No
Radium-228	0.94 pCi/g	2.6 [8.5] - 2.7 [9]	1.3 pCi/g	No
Thorium-228	0.73 pCi/g	1.8 [6.5] - 2.7 [9]	1.3 pCi/g	No
Thorium-230	1.3 pCi/g	1.8 [6.5] - 2.7 [9]	1.1 pCi/g	Yes
Thorium-232	0.61 pCi/g	2.6 [8.5] - 2.7 [9]	1.3 pCi/g	No
Total beta radiostrontium	0.46 pCi/g	.9 [3] - 1.2 [4]	0.18 pCi/g	Yes
Uranium-234	0.52 pCi/g	2.6 [8.5] - 2.9 [9.5]	1.1 pCi/g	No
Uranium-238	0.54 pCi/g	2.6 [8.5] - 2.9 [9.5]	1.1 pCi/g	No

Table 3-10. 216-S-10 Ditch - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) bgs to Hanford Site Background. (2 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m [15 ft] bgs	90th Percentile Background Concentration	Does Maximum Detected from 0 to 4.6 m (15 ft) bgs Exceed Background?
Semivolatile Organic Compounds				
Acenaphthene	0.061 mg/kg	0 [0] - .5 [1.5]	No background	No background
Anthracene	0.15 mg/kg	0 [0] - .5 [1.5]	No background	No background
Benzo(a)anthracene	0.55 mg/kg	0 [0] - .5 [1.5]	No background	No background
Benzo(a)pyrene	0.60 mg/kg	0 [0] - .5 [1.5]	No background	No background
Benzo(b)fluoranthene	0.53 mg/kg	0 [0] - .5 [1.5]	No background	No background
Benzo(ghi)perylene	0.66 mg/kg	0 [0] - .5 [1.5]	No background	No background
Benzo(k)fluoranthene	0.45 mg/kg	0 [0] - .5 [1.5]	No background	No background
Bis(2-ethylhexyl)phthalate	0.58 mg/kg	0 [0] - .5 [1.5]	No background	No background
Butylbenzylphthalate	0.58 mg/kg	0 [0] - .5 [1.5]	No background	No background
Carbazole	0.097 mg/kg	0 [0] - .5 [1.5]	No background	No background
Chrysene	0.68 mg/kg	0 [0] - .5 [1.5]	No background	No background
Dibenz[a,h]anthracene	0.11 mg/kg	0 [0] - .5 [1.5]	No background	No background
Di-n-butylphthalate	2.3 mg/kg	0 [0] - .5 [1.5]	No background	No background
Fluoranthene	1.5 mg/kg	0 [0] - .5 [1.5]	No background	No background
Fluorene	0.059 mg/kg	0 [0] - .5 [1.5]	No background	No background
Indeno(1,2,3-cd)pyrene	0.40 mg/kg	0 [0] - .5 [1.5]	No background	No background
Phenanthrene	0.93 mg/kg	0 [0] - .5 [1.5]	No background	No background
Pyrene	1.6 mg/kg	0 [0] - .5 [1.5]	No background	No background
Volatile Organic Compounds				
Acetone	0.0090 mg/kg	4.1 [13.5] - 4.4 [14.5]	No background	No background
Methylene chloride	0.010 mg/kg	.5 [1.5] - .9 [3]	No background	No background
General Inorganic Chemistry				
Chloride	12 mg/kg	2.6 [8.5] - 2.7 [9]	100 mg/kg	No
Fluoride	0.70 mg/kg	2.6 [8.5] - 2.9 [9.5]	2.8 mg/kg	No
Nitrate	81 mg/kg	0 [0] - .5 [1.5]	52 mg/kg	Yes
Nitrite	1.2 mg/kg	2.6 [8.5] - 2.9 [9.5]	No background	No background
Nitrogen in Nitrite and Nitrate	11 mg/kg	0 [0] - .5 [1.5]	No background	No background
Phosphate	1.5 mg/kg	.9 [3] - 1.2 [4]	0.79 mg/kg	Yes
Sulfate	199 mg/kg	0 [0] - .5 [1.5]	237 mg/kg	No
Miscellaneous Organic Analyses				
Aroclor-1254	3.7 mg/kg	0 [0] - .5 [1.5]	No background	No background
Total petroleum hydrocarbons - diesel range	31 mg/kg	0 [0] - .5 [1.5]	No background	No background

bgs = below ground surface.

Table 3-11. 216-S-10 Pond - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) bgs to Hanford Site Background. (2 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m [15 ft] bgs	90th Percentile Background Concentration	Does Maximum Detected from 0 to 4.6 m (15 ft) bgs Exceed Background?
Metals Analyses				
Aluminum	5,870 mg/kg	1.8 [6] - 2.1 [7]	11,800 mg/kg	No
Arsenic	5.6 mg/kg	2.0 [6.5] - 2.3 [7.5]	6.5 mg/kg	No
Barium	103 mg/kg	4.3 [14] - 4.6 [15]	132 mg/kg	No
Beryllium	0.42 mg/kg	1.2 [4] - 1.5 [5.0]	1.5 mg/kg	No
Boron	1.0 mg/kg	1.8 [6] - 2.1 [7]	No background	No background
Cadmium	0.20 mg/kg	2.7 [9] - 3.0 [10]	1.0 mg/kg	No
Chromium	26 mg/kg	2.7 [9] - 3.0 [10]	19 mg/kg	Yes
Copper	18 mg/kg	2.0 [6.5] - 2.3 [7.5]	22 mg/kg	No
Hexavalent Chromium	2.7 mg/kg	2.1 [7] - 2.4 [8]	No background	No background
Iron	25,100 mg/kg	1.2 [4] - 1.5 [5.0]	32,600 mg/kg	No
Lead	5.4 mg/kg	1.8 [6] - 2.1 [7]	10 mg/kg	No
Manganese	392 mg/kg	1.8 [6] - 2.1 [7]	512 mg/kg	No
Mercury	0.43 mg/kg	3.5 [11.5] - 3.8 [12.5]	0.33 mg/kg	Yes
Molybdenum	0.29 mg/kg	2.0 [6.5] - 2.3 [7.5]	2.8-6.0 mg/kg	No
Nickel	12 mg/kg	2.0 [6.5] - 2.3 [7.5]	19 mg/kg	No
Selenium	0.46 mg/kg	2.7 [9] - 3.0 [10]	No background	No background
Silver	8.3 mg/kg	2.7 [9] - 3.0 [10]	0.73 mg/kg	Yes
Thallium	0.62 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background
Uranium	2.0 mg/kg	2.9 [9.5] - 3.2 [10.5]	3.2 mg/kg	No
Vanadium	82 mg/kg	2.9 [9.5] - 3.2 [10.5]	85 mg/kg	No
Zinc	60 mg/kg	2.9 [9.5] - 3.2 [10.5]	68 mg/kg	No
Radiological Constituents				
Americium-241	0.40 pCi/g	3.5 [11.5] - 3.8 [12.5]	No background	No background
Carbon-14	12 pCi/g	2.0 [6.5] - 2.3 [7.5]	No background	No background
Cesium-137	1.8 pCi/g	3.5 [11.5] - 3.8 [12.5]	1.1 pCi/g	Yes
Plutonium-239/240	2.3 pCi/g	3.5 [11.5] - 3.8 [12.5]	0.025 pCi/g	Yes
Potassium-40	13 pCi/g	2.0 [6.5] - 2.3 [7.5]	17 pCi/g	No
Radium-226	0.55 pCi/g	1.8 [6] - 2.1 [7]	0.82 pCi/g	No
Radium-228	0.88 pCi/g	1.2 [4] - 1.5 [5.0]	1.3 pCi/g	No
Thorium-228	1.5 pCi/g	3.7 [12] - 4.0 [13]	1.3 pCi/g	Yes
Thorium-230	1.6 pCi/g	4.1 [13.5] - 4.4 [14.5]	1.1 pCi/g	Yes

Table 3-11. 216-S-10 Pond - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) bgs to Hanford Site Background. (2 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m [15 ft] bgs	90th Percentile Background Concentration	Does Maximum Detected from 0 to 4.6 m (15 ft) bgs Exceed Background?
Thorium-232	0.83 pCi/g	3.7 [12] - 4.0 [13]	1.3 pCi/g	No
Total beta radiostrontium	1.3 pCi/g	2.9 [9.5] - 3.2 [10.5]	0.18 pCi/g	Yes
Uranium-234	0.56 pCi/g	2.9 [9.5] - 3.2 [10.5]	1.1 pCi/g	No
Uranium-238	0.57 pCi/g	2.9 [9.5] - 3.2 [10.5]	1.1 pCi/g	No
Semivolatile Organic Compounds				
Bis(2-ethylhexyl) phthalate	0.14 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background
Volatile Organic Compounds				
Acetone	0.026 mg/kg	2.6 [8.5] - 2.9 [9.5]	No background	No background
Methylene chloride	0.015 mg/kg	2.9 [9.5] - 3.2 [10.5]	No background	No background
Toluene	0.0042 mg/kg	2.9 [9.5] - 3.2 [10.5]	No background	No background
Xylenes (total)	0.0014 mg/kg	1.8 [6] - 2.1 [7]	No background	No background
General Inorganic Chemistry				
Chloride	3.1 mg/kg	2.9 [9.5] - 3.2 [10.5]	100 mg/kg	No
Cyanide	0.20 mg/kg	2.9 [9.5] - 3.2 [10.5]	No background	No background
Fluoride	1.1 mg/kg	2.9 [9.5] - 3.2 [10.5]	2.8 mg/kg	No
Nitrate	45 mg/kg	2.0 [6.5] - 2.3 [7.5]	52 mg/kg	No
Nitrite	1.6 mg/kg	2.9 [9.5] - 3.2 [10.5]	No background	No background
Nitrogen in Nitrite and Nitrate	15 mg/kg	2.0 [6.5] - 2.3 [7.5]	No background	No background
Phosphate	3.8 mg/kg	3.5 [11.5] - 3.8 [12.5]	0.79 mg/kg	Yes
Sulfate	12 mg/kg	2.0 [6.5] - 2.3 [7.5]	237 mg/kg	No
Sulfide	59 mg/kg	3.4 [11] - 3.7 [12]	No background	No background

bgs = below ground surface.

Table 3-12. 16-A-29 Ditch - Deep Zone Soil Comparison of Maximum Soil Concentrations from Zero to Groundwater Table to Hanford Site Background. (3 Pages)

Constituent Name	Maximum Detected Concentration from 0 to Groundwater Table	Depth of Maximum Detected from 0 to Groundwater Table (m [ft] bgs)	90th Percentile Background Concentration	Does Maximum Detected from 0 to Groundwater Table Exceed Background?
Metals Analyses				
Aluminum	10,100 mg/kg	1.8 [6] - 2.1 [7]	11,800 mg/kg	No
Arsenic	12 mg/kg	2.6 [8.5] - 2.9 [9.5]	6.5 mg/kg	Yes
Barium	166 mg/kg	79.2 [260] - 79.9 [262]	132 mg/kg	Yes
Beryllium	0.68 mg/kg	7.5 [24.5] - 8.2 [27]	1.5 mg/kg	No

Table 3-12. 16-A-29 Ditch - Deep Zone Soil Comparison of Maximum Soil Concentrations from Zero to Groundwater Table to Hanford Site Background. (3 Pages)

Constituent Name	Maximum Detected Concentration from 0 to Groundwater Table	Depth of Maximum Detected from 0 to Groundwater Table (m [ft] bgs)	90th Percentile Background Concentration	Does Maximum Detected from 0 to Groundwater Table Exceed Background?
Boron	3.4 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background
Cadmium	28 mg/kg	1.2 [4] - 1.5 [5.0]	1.0 mg/kg	Yes
Chromium	37 mg/kg	1.2 [4] - 1.5 [5.0]	19 mg/kg	Yes
Copper	172 mg/kg	1.2 [4] - 1.5 [5.0]	22 mg/kg	Yes
Hexavalent Chromium	8.8 mg/kg	2.3 [7.5] - 2.6 [8.5]	No background	No background
Iron	26,900 mg/kg	1.5 [5] - 1.8 [6]	32,600 mg/kg	No
Lead	390 mg/kg	2.3 [7.5] - 2.6 [8.5]	10 mg/kg	Yes
Manganese	454 mg/kg	1.8 [6] - 2.1 [7]	512 mg/kg	No
Mercury	5.2 mg/kg	1.2 [4] - 1.5 [5.0]	0.33 mg/kg	Yes
Molybdenum	3.2 mg/kg	1.2 [4] - 1.5 [5.0]	2.8-6.0 mg/kg	No
Nickel	32 mg/kg	79.2 [260] - 79.9 [262]	19 mg/kg	Yes
Selenium	2.5 mg/kg	2.7 [9] - 3.5 [11.5]	No background	No background
Silver	42 mg/kg	1.2 [4] - 1.5 [5.0]	0.73 mg/kg	Yes
Thallium	0.52 mg/kg	1.8 [6] - 2.1 [7]	No background	No background
Uranium	5.3 mg/kg	2.3 [7.5] - 2.6 [8.5]	3.2 mg/kg	Yes
Vanadium	104 mg/kg	2.3 [7.5] - 2.6 [8.5]	85 mg/kg	Yes
Zinc	224 mg/kg	1.2 [4] - 1.5 [5.0]	68 mg/kg	Yes
Radiological Constituents				
Americium-241	145 pCi/g	1.2 [4] - 2.0 [6.5]	No background	No background
Antimony-125	1.7 pCi/g	1.2 [4] - 1.5 [5.0]	No background	No background
Cesium-137	98 pCi/g	1.2 [4] - 1.5 [5.0]	1.1 pCi/g	Yes
Europium-155	0.050 pCi/g	0 [0] - 3.0 [10]	0.054 pCi/g	No
Neptunium-237	0.12 pCi/g	3.5 [11.5] - 3.8 [12.5]	No background	No background
Plutonium-238	16 pCi/g	1.2 [4] - 2.0 [6.5]	0.0038 pCi/g	Yes
Plutonium-239/240	667 pCi/g	1.2 [4] - 2.0 [6.5]	0.025 pCi/g	Yes
Potassium-40	16 pCi/g	1.8 [6] - 2.1 [7]	17 pCi/g	No
Radium-226	0.90 pCi/g	2.6 [8.5] - 2.9 [9.5]	0.82 pCi/g	Yes
Radium-228	1.1 pCi/g	1.8 [6] - 2.1 [7]	1.3 pCi/g	No
Thorium-228	1.1 pCi/g	3.0 [10] - 3.4 [11]	1.3 pCi/g	No
Thorium-230	1.6 pCi/g	15.2 [50] - 16.0 [52.5]	1.1 pCi/g	Yes
Thorium-232	1.2 pCi/g	3.0 [10] - 3.4 [11]	1.3 pCi/g	No
Total beta radiostrontium	0.78 pCi/g	3.0 [10] - 3.4 [11]	0.18 pCi/g	Yes
Tritium	7.1 pCi/g	79.2 [260] - 79.9 [262]	No background	No background
Uranium-233/234	2.3 pCi/g	2.3 [7.5] - 2.6 [8.5]	1.1 pCi/g	Yes
Uranium-234	0.96 pCi/g	3.0 [10] - 3.4 [11]	1.1 pCi/g	No
Uranium-235	0.44 pCi/g	1.2 [4] - 1.5 [5.0]	0.11 pCi/g	Yes
Uranium-238	1.8 pCi/g	2.3 [7.5] - 2.6 [8.5]	1.1 pCi/g	Yes

Table 3-12. 16-A-29 Ditch - Deep Zone Soil Comparison of Maximum Soil Concentrations from Zero to Groundwater Table to Hanford Site Background. (3 Pages)

Constituent Name	Maximum Detected Concentration from 0 to Groundwater Table	Depth of Maximum Detected from 0 to Groundwater Table (m [ft] bgs)	90th Percentile Background Concentration	Does Maximum Detected from 0 to Groundwater Table Exceed Background?
Semivolatile Organic Compounds				
Benzo(a)anthracene	0.18 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background
Benzo(a)pyrene	0.16 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background
Benzo(b)fluoranthene	0.24 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background
Bis(2-ethylhexyl) phthalate	6.2 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background
Butylbenzylphthalate	0.29 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background
Chrysene	0.21 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background
Diethylphthalate	0.33 mg/kg	2.7 [9] - 3.5 [11.5]	No background	No background
Di-n-butylphthalate	2.7 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background
Fluoranthene	0.37 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background
Phenanthrene	0.37 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background
Pyrene	0.35 mg/kg	1.2 [4] - 1.3 [4.3]	No background	No background
Tributyl phosphate	0.54 mg/kg	1.2 [4] - 2.0 [6.5]	No background	No background
Volatile Organic Compounds				
1,2-Dichloroethane	0.013 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background
2-Butanone	0.0020 mg/kg	82.9 [272] - 83.5 [274]	No background	No background
Acetone	0.030 mg/kg	2.3 [7.5] - 2.6 [8.5]	No background	No background
Methylene chloride	0.078 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background
Tetrachloroethene	0.0060 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background
Toluene	0.0010 mg/kg	79.2 [260] - 79.9 [262]	No background	No background
General Inorganic Chemistry				
Ammonia	42 mg/kg	1.2 [4] - 1.5 [5.0]	9.2 mg/kg	Yes
Fluoride	5.3 mg/kg	2.7 [9] - 3.5 [11.5]	2.8 mg/kg	Yes
Nitrate	927 mg/kg	1.2 [4] - 1.5 [5.0]	52 mg/kg	Yes
Nitrite	2.7 mg/kg	79.2 [260] - 79.9 [262]	No background	No background
Nitrogen in Nitrite and Nitrate	210 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background
Sulfate	2,970 mg/kg	1.2 [4] - 1.5 [5.0]	237 mg/kg	Yes
Sulfide	58 mg/kg	79.2 [260] - 79.9 [262]	No background	No background
Miscellaneous Organic Analyses				
Aroclor-1254	9.4 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background
Total petroleum hydrocarbons - kerosene range	440 mg/kg	1.2 [4] - 2.0 [6.5]	No background	No background
Total petroleum hydrocarbons - motor oil (high boiling)	760 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background

bgs = below ground surface.

Table 3-13. 216-B-63 Trench - Deep Zone Soil Comparison of Maximum Soil Concentrations from Zero to Groundwater Table to Hanford Site Background. (2 Pages)

Constituent Name	Maximum Detected Concentration from 0 to Groundwater Table	Depth of Maximum Detected from 0 to Groundwater (m [ft] bgs)	90th Percentile Background Concentration	Does Maximum Detected from 0 to Groundwater Table Exceed Background?
Metals Analyses				
Aluminum	6,750 mg/kg	1.5 [5] - 1.8 [6]	11,800 mg/kg	No
Arsenic	5.1 mg/kg	4.6 [15] - 5.2 [17]	6.5 mg/kg	No
Barium	97 mg/kg	2.3 [7.5] - 2.6 [8.5]	132 mg/kg	No
Beryllium	0.91 mg/kg	5.3 [17.5] - 5.8 [19]	1.5 mg/kg	No
Boron	5.8 mg/kg	1.5 [5] - 1.8 [6]	No background	No background
Cadmium	2.4 mg/kg	5.3 [17.5] - 5.8 [19]	1.0 mg/kg	Yes
Chromium	22 mg/kg	3.8 [12.5] - 4.4 [14.5]	19 mg/kg	Yes
Copper	31 mg/kg	3.7 [12] - 4.0 [13]	22 mg/kg	Yes
Hexavalent Chromium	0.48 mg/kg	5.3 [17.5] - 5.8 [19]	No background	No background
Iron	28,400 mg/kg	1.8 [6] - 2.1 [7]	32,600 mg/kg	No
Lead	6.3 mg/kg	3.7 [12] - 4.0 [13]	10 mg/kg	No
Manganese	410 mg/kg	1.8 [6] - 2.1 [7]	512 mg/kg	No
Mercury	0.11 mg/kg	3.0 [10] - 4.0 [13]	0.33 mg/kg	No
Molybdenum	0.55 mg/kg	1.5 [5] - 1.8 [6]	2.8-6.0 mg/kg	No
Nickel	21 mg/kg	5.9 [19.5] - 6.6 [21.5]	19	Yes
Selenium	0.75 mg/kg	2.3 [7.5] - 2.6 [8.5]	No background	No background
Silver	0.35 mg/kg	3.0 [10] - 4.0 [13]	0.73 mg/kg	No
Thallium	0.53 mg/kg	1.8 [6] - 2.1 [7]	No background	No background
Uranium	1.9 mg/kg	2.3 [7.5] - 2.6 [8.5]	3.2 mg/kg	No
Vanadium	87 mg/kg	2.3 [7.5] - 2.6 [8.5]	85 mg/kg	Yes
Zinc	81 mg/kg	3.7 [12] - 4.0 [13]	68 mg/kg	Yes
Radiological Constituents				
Americium-241	0.035 pCi/g	2.9 [9.5] - 3.2 [10.5]	No background	No background
Cesium-137	3.6 pCi/g	2.9 [9.5] - 3.2 [10.5]	1.1 pCi/g	Yes
Neptunium-237	0.054 pCi/g	2.9 [9.5] - 3.2 [10.5]	No background	No background
Nickel-63	23 pCi/g	5.3 [17.5] - 5.8 [19]	No background	No background
Plutonium-238	0.081 pCi/g	5.3 [17.5] - 5.8 [19]	0.0038 pCi/g	Yes
Plutonium-239/240	0.026 pCi/g	5.3 [17.5] - 5.8 [19]	0.025 pCi/g	Yes
Potassium-40	14 pCi/g	3.0 [10] - 4.0 [13]	17 pCi/g	No
Radium-226	0.61 pCi/g	2.1 [7] - 2.4 [8]	0.82 pCi/g	No
Radium-228	0.83 pCi/g	2.1 [7] - 2.4 [8]	1.3 pCi/g	No
Technetium-99	0.41 pCi/g	5.3 [17.5] - 5.8 [19]	No background	No background
Thorium-228	0.91 pCi/g	16.2 [53] - 15.6.8 [55]	1.3 pCi/g	No
Thorium-230	1.7 pCi/g	8.5 [28] - 9.1 [30]	1.1 pCi/g	Yes

Table 3-13. 216-B-63 Trench - Deep Zone Soil Comparison of Maximum Soil Concentrations from Zero to Groundwater Table to Hanford Site Background. (2 Pages)

Constituent Name	Maximum Detected Concentration from 0 to Groundwater Table	Depth of Maximum Detected from 0 to Groundwater (m [ft] bgs)	90th Percentile Background Concentration	Does Maximum Detected from 0 to Groundwater Table Exceed Background?
Thorium-232	0.88 pCi/g	2.3 [7.5] - 2.6 [8.5]	1.3 pCi/g	No
Total beta radiostrontium	30 pCi/g	2.3 [7.5] - 2.6 [8.5]	0.18 pCi/g	Yes
Tritium	0.33 pCi/g	5.2 [17] - 5.5 [18]	No background	No background
Uranium-233/234	0.36 pCi/g	1.5 [5] - 1.8 [6]	1.1 pCi/g	No
Uranium-234	0.75 pCi/g	2.3 [7.5] - 2.6 [8.5]	1.1 pCi/g	No
Uranium-238	0.93 pCi/g	2.3 [7.5] - 2.6 [8.5]	1.1 pCi/g	No
Semivolatile Organic Compounds				
Bis(2-ethylhexyl) phthalate	0.054 mg/kg	7.3 [24] - 7.6 [25]	No background	No background
Diethylphthalate	0.21 mg/kg	5.3 [17.5] - 5.8 [19]	No background	No background
Di-n-butylphthalate	0.021 mg/kg	30.8 [101] - 31.4 [103]	No background	No background
Volatile Organic Compounds				
Acetone	0.066 mg/kg	1.5 [5] - 1.8 [6]	No background	No background
Benzene	0.0080 mg/kg	1.5 [5] - 1.8 [6]	No background	No background
Methylene chloride	0.027 mg/kg	2.9 [9.5] - 3.2 [10.5]	No background	No background
Toluene	0.0030 mg/kg	2.1 [7] - 2.4 [8]	No background	No background
General Inorganic Chemistry				
Ammonia	10.0 mg/kg	4.6 [15] - 5.2 [17]	9.2 mg/kg	Yes
Chloride	18 mg/kg	1.5 [5] - 1.8 [6]	100 mg/kg	No
Fluoride	0.76 mg/kg	2.3 [7.5] - 2.6 [8.5]	2.8 mg/kg	No
Nitrate	833 mg/kg	1.5 [5] - 1.8 [6]	52 mg/kg	Yes
Nitrite	0.82 mg/kg	2.9 [9.5] - 3.2 [10.5]	No background	No background
Nitrogen in Nitrite and Nitrate	230 mg/kg	1.5 [5] - 1.8 [6]	No background	No background
Phosphate	6.4 mg/kg	2.1 [7] - 2.4 [8]	0.79 mg/kg	Yes
Sulfate	76 mg/kg	1.5 [5] - 1.8 [6]	237 mg/kg	No
Sulfide	44 mg/kg	3.4 [11] - 3.7 [12]	No background	No background
Miscellaneous Organic Analyses				
Aroclor-1254	0.077 mg/kg	3.0 [10] - 4.0 [13]	No background	No background

bgs = below ground surface.

Table 3-14. 216-S-10 Ditch - Deep Zone Soil Comparison of Maximum Soil Concentrations from Zero to Groundwater Table to Hanford Site Background. (2 Pages)

Constituent Name	Maximum Detected Concentration from 0 to Groundwater Table	Depth of Maximum Detected from 0 to Groundwater (m [ft] bgs)	90th Percentile Background Concentration	Does Maximum Detected from 0 to Groundwater Table Exceed Background?
Metals Analyses				
Aluminum	10,800 mg/kg	0 [0] - .5 [1.5]	11,800 mg/kg	No
Arsenic	6.7 mg/kg	41.1 [135] - 41.8 [137]	6.5 mg/kg	Yes
Barium	120 mg/kg	.9 [3] - 1.2 [4]	132 mg/kg	No
Beryllium	0.65 mg/kg	7.6 [25] -8.2 [27]	1.5 mg/kg	No
Boron	1.5 mg/kg	0 [0] - .5 [1.5]	No background	No background
Cadmium	2.3 mg/kg	7.6 [25] -8.2 [27]	1.0 mg/kg	Yes
Chromium	815 mg/kg	0 [0] - .5 [1.5]	19 mg/kg	Yes
Copper	244 mg/kg	0 [0] - .5 [1.5]	22 mg/kg	Yes
Hexavalent Chromium	14 mg/kg	.5 [1.5] - .9 [3]	No background	No background
Iron	28,800 mg/kg	0 [0] - .5 [1.5]	32,600 mg/kg	No
Lead	30 mg/kg	0 [0] - .5 [1.5]	10 mg/kg	Yes
Manganese	451 mg/kg	.9 [3] - 1.2 [4]	512 mg/kg	No
Mercury	4.3 mg/kg	0 [0] - .5 [1.5]	0.33 mg/kg	Yes
Molybdenum	0.88 mg/kg	0 [0] - .5 [1.5]	2.8-6.0 mg/kg	No
Nickel	21 mg/kg	45.7 [150] - 46.3 [152]	19 mg/kg	Yes
Selenium	1.9 mg/kg	7.6 [25] -8.2 [27]	No background	No background
Silver	30 mg/kg	0 [0] - .5 [1.5]	0.73 mg/kg	Yes
Thallium	0.99 mg/kg	0 [0] - .5 [1.5]	No background	No background
Uranium	1.5 mg/kg	2.6 [8.5] - 2.9 [9.5]	3.2 mg/kg	No
Vanadium	131 mg/kg	61.0 [200] - 61.1 [202]	85 mg/kg	Yes
Zinc	506 mg/kg	0 [0] - .5 [1.5]	68 mg/kg	Yes
Radiological Constituents				
Americium-241	1.8 pCi/g	1.8 [6.5] - 2.7 [9]	No background	No background
Cesium-137	9.1 pCi/g	0 [0] - .5 [1.5]	1.1 pCi/g	Yes
Nickel-63	38 pCi/g	7.6 [25] -8.2 [27]	No background	No background
Plutonium-239/240	5.3 pCi/g	1.8 [6.5] - 2.7 [9]	0.025 pCi/g	Yes
Potassium-40	14 pCi/g	41.1 [135] - 41.8 [137]	17 pCi/g	No
Radium-226	0.92 pCi/g	45.7 [150] - 46.3 [152]	0.82 pCi/g	Yes
Radium-228	1.1 pCi/g	45.7 [150] - 46.3 [152]	1.3 pCi/g	No
Thorium-228	5.9 pCi/g	67.1 [220] - 67.7 [222]	1.3 pCi/g	Yes
Thorium-230	1.4 pCi/g	6.1 [20] - 6.7 [22]	1.1 pCi/g	Yes
Thorium-232	1.4 pCi/g	45.7 [150] - 46.3 [152]	1.3 pCi/g	Yes
Total beta radiostrontium	0.46 pCi/g	.9 [3] - 1.2 [4]	0.18 pCi/g	Yes
Tritium	0.061 pCi/g	7.6 [25] -8.2 [27]	No background	No background
Uranium-234	0.52 pCi/g	2.6 [8.5] - 2.9 [9.5]	1.1 pCi/g	No
Semivolatile Organic Compounds				
Acenaphthene	0.061 mg/kg	0 [0] - .5 [1.5]	No background	No background

Table 3-14. 216-S-10 Ditch - Deep Zone Soil Comparison of Maximum Soil Concentrations from Zero to Groundwater Table to Hanford Site Background. (2 Pages)

Constituent Name	Maximum Detected Concentration from 0 to Groundwater Table	Depth of Maximum Detected from 0 to Groundwater (m [ft] bgs)	90th Percentile Background Concentration	Does Maximum Detected from 0 to Groundwater Table Exceed Background?
Anthracene	0.15 mg/kg	0 [0] - .5 [1.5]	No background	No background
Benzo(a)anthracene	0.55 mg/kg	0 [0] - .5 [1.5]	No background	No background
Benzo(a)pyrene	0.60 mg/kg	0 [0] - .5 [1.5]	No background	No background
Benzo(b)fluoranthene	0.53 mg/kg	0 [0] - .5 [1.5]	No background	No background
Benzo(ghi)perylene	0.66 mg/kg	0 [0] - .5 [1.5]	No background	No background
Benzo(k)fluoranthene	0.45 mg/kg	0 [0] - .5 [1.5]	No background	No background
Bis(2-ethylhexyl)phthalate	0.58 mg/kg	0 [0] - .5 [1.5]	No background	No background
Butylbenzylphthalate	0.58 mg/kg	0 [0] - .5 [1.5]	No background	No background
Carbazole	0.097 mg/kg	0 [0] - .5 [1.5]	No background	No background
Chrysene	0.68 mg/kg	0 [0] - .5 [1.5]	No background	No background
Dibenz[a,h]anthracene	0.11 mg/kg	0 [0] - .5 [1.5]	No background	No background
Diethylphthalate	0.36 mg/kg	.5 [1.5] - .9 [3]	No background	No background
Di-n-butylphthalate	2.3 mg/kg	0 [0] - .5 [1.5]	No background	No background
Fluoranthene	1.5 mg/kg	0 [0] - .5 [1.5]	No background	No background
Fluorene	0.059 mg/kg	0 [0] - .5 [1.5]	No background	No background
Indeno(1,2,3-cd)pyrene	0.40 mg/kg	0 [0] - .5 [1.5]	No background	No background
Phenanthrene	0.93 mg/kg	0 [0] - .5 [1.5]	No background	No background
Pyrene	1.6 mg/kg	0 [0] - .5 [1.5]	No background	No background
Volatile Organic Compounds				
Acetone	0.010 mg/kg	.9 [3] - 1.2 [4]	No background	No background
Methylene chloride	0.018 mg/kg	45.7 [150] - 46.3 [152]	No background	No background
General Inorganic Chemistry				
Ammonia	3.5 mg/kg	6.1 [20] - 6.7 [22]	9.2 mg/kg	No
Chloride	32 mg/kg	6.1 [20] - 6.7 [22]	100 mg/kg	No
Fluoride	0.72 mg/kg	7.6 [25] -8.2 [27]	2.8 mg/kg	No
Nitrate	81 mg/kg	0 [0] - .5 [1.5]	52 mg/kg	Yes
Nitrite	1.2 mg/kg	2.6 [8.5] - 2.9 [9.5]	No background	No background
Nitrogen in Nitrite and Nitrate	11 mg/kg	0 [0] - .5 [1.5]	No background	No background
Phosphate	2.4 mg/kg	61.0 [200] - 61.1 [202]	0.79 mg/kg	Yes
Sulfate	199 mg/kg	0 [0] - .5 [1.5]	237 mg/kg	No
Sulfide	97 mg/kg	7.6 [25] -8.2 [27]	No background	No background
Miscellaneous Organic Analyses				
Aroclor-1254	3.7 mg/kg	0 [0] - .5 [1.5]	No background	No background
Total petroleum hydrocarbons - diesel range	31 mg/kg	0 [0] - .5 [1.5]	No background	No background

bgs = below ground surface.

Table 3-15. 216-S-10 Pond - Deep Zone Soil Comparison of Maximum Soil Concentrations from Zero to Groundwater Table to Hanford Site Background. (2 Pages)

Constituent Name	Maximum Detected Concentration from 0 to Groundwater Table	Depth of Maximum Detected from 0 to Groundwater (m [ft] bgs)	90th Percentile Background Concentration	Does Maximum Detected from 0 to Groundwater Table Exceed Background?
Metals Analyses				
Aluminum	5,870 mg/kg	1.8 [6] - 2.1 [7]	11,800 mg/kg	No
Arsenic	5.6 mg/kg	2.0 [6.5] - 2.3 [7.5]	6.5 mg/kg	No
Barium	180 mg/kg	6.2 [20] - 6.4 [21]	132 mg/kg	Yes
Beryllium	0.45 mg/kg	45.8 [150.1] - 46.4 [152.1]	1.5 mg/kg	No
Boron	1.0 mg/kg	1.8 [6] - 2.1 [7]	No background	No background
Cadmium	0.50 mg/kg	54.9 [180] - 55.5 [182]	1.0 mg/kg	No
Chromium	39 mg/kg	60.2 [197.4] - 60.8 [199.4]	19 mg/kg	Yes
Copper	21 mg/kg	4.9 [16] - 5.2 [17]	22 mg/kg	No
Hexavalent Chromium	2.7 mg/kg	2.1 [7] - 2.4 [8]	No background	No background
Iron	25,100 mg/kg	1.2 [4] - 1.5 [5.0]	32,600 mg/kg	No
Lead	10 mg/kg	15.2 [50] - 15.8 [52]	10 mg/kg	Yes
Manganese	392 mg/kg	1.8 [6] - 2.1 [7]	512 mg/kg	No
Mercury	0.43 mg/kg	3.5 [11.5] - 3.8 [12.5]	0.33 mg/kg	Yes
Molybdenum	0.29 mg/kg	2.0 [6.5] - 2.3 [7.5]	2.8-6.0 mg/kg	No
Nickel	25 mg/kg	60.2 [197.4] - 60.8 [199.4]	19 mg/kg	Yes
Selenium	2.0 mg/kg	54.9 [180] - 55.5 [182]	No background	No background
Silver	8.3 mg/kg	2.7 [9] - 3.0 [10]	0.73 mg/kg	Yes
Thallium	0.62 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background
Uranium	2.1 mg/kg	10.7 [35] - 11.3 [37]	3.2 mg/kg	No
Vanadium	88 mg/kg	45.8 [150.1] - 46.4 [152.1]	85 mg/kg	Yes
Zinc	201 mg/kg	60.2 [197.4] - 60.8 [199.4]	68 mg/kg	Yes
Radiological Constituents				
Americium-241	0.40 pCi/g	3.5 [11.5] - 3.8 [12.5]	No background	No background
Carbon-14	12 pCi/g	2.0 [6.5] - 2.3 [7.5]	No background	No background
Cesium-137	1.8 pCi/g	3.5 [11.5] - 3.8 [12.5]	1.1 pCi/g	Yes
Neptunium-237	0.062 pCi/g	5.2 [17] - 5.5 [18]	No background	No background
Nickel-63	2.5 pCi/g	15.2 [50] - 15.8 [52]	No background	No background
Plutonium-239/240	2.3 pCi/g	3.5 [11.5] - 3.8 [12.5]	0.025 pCi/g	Yes
Potassium-40	14 pCi/g	60.2 [197.4] - 60.8 [199.4]	17 pCi/g	No
Radium-226	0.74 pCi/g	4.9 [16] - 5.2 [17]	0.82 pCi/g	No
Radium-228	0.94 pCi/g	4.9 [16] - 5.2 [17]	1.3 pCi/g	No
Thorium-228	1.5 pCi/g	3.7 [12] - 4.0 [13]	1.3 pCi/g	Yes
Thorium-230	1.6 pCi/g	4.1 [13.5] - 4.4 [14.5]	1.1 pCi/g	Yes
Thorium-232	0.83 pCi/g	3.7 [12] - 4.0 [13]	1.3 pCi/g	No
Total beta radiostrontium	1.6 pCi/g	15.2 [50] - 15.8 [52]	0.18 pCi/g	Yes
Tritium	1.5 pCi/g	4.9 [16] - 5.2 [17]	No background	No background

Table 3-15. 216-S-10 Pond - Deep Zone Soil Comparison of Maximum Soil Concentrations from Zero to Groundwater Table to Hanford Site Background. (2 Pages)

Constituent Name	Maximum Detected Concentration from 0 to Groundwater Table	Depth of Maximum Detected from 0 to Groundwater (m [ft] bgs)	90th Percentile Background Concentration	Does Maximum Detected from 0 to Groundwater Table Exceed Background?
Uranium-233/234	0.58 pCi/g	6.1 [20] - 6.4 [21]	1.1 pCi/g	No
Uranium-234	0.56 pCi/g	2.9 [9.5] - 3.2 [10.5]	1.1 pCi/g	No
Uranium-235	0.022 pCi/g	15.2 [50] - 15.8 [52]	0.11 pCi/g	No
Uranium-238	0.57 pCi/g	2.9 [9.5] - 3.2 [10.5]	1.1 pCi/g	No
Semivolatile Organic Compounds				
Bis(2-ethylhexyl) phthalate	0.26 mg/kg	54.9 [180] - 55.5 [182]	No background	No background
Volatile Organic Compounds				
2-Butanone	0.012 mg/kg	2.0 [6.5] - 2.3 [7.5]	No background	No background
Acetone	0.033 mg/kg	30.3 [99.5] - 30.9 [101.5]	No background	No background
Methylene chloride	0.023 mg/kg	4.9 [16] - 5.2 [17]	No background	No background
Toluene	0.0042 mg/kg	2.9 [9.5] - 3.2 [10.5]	No background	No background
Xylenes (total)	0.0014 mg/kg	1.8 [6] - 2.1 [7]	No background	No background
General Inorganic Chemistry				
Ammonia	2.1 mg/kg	15.2 [50] - 15.8 [52]	9.2 mg/kg	No
Chloride	4.0 mg/kg	4.9 [16] - 5.2 [17]	100 mg/kg	No
Cyanide	0.20 mg/kg	2.9 [9.5] - 3.2 [10.5]	No background	No background
Fluoride	1.1 mg/kg	2.9 [9.5] - 3.2 [10.5]	2.8 mg/kg	No
Nitrate	134 mg/kg	4.9 [16] - 5.2 [17]	52 mg/kg	Yes
Nitrite	1.6 mg/kg	2.9 [9.5] - 3.2 [10.5]	No background	No background
Nitrogen in Nitrite and Nitrate	23 mg/kg	4.9 [16] - 5.2 [17]	No background	No background
Phosphate	3.8 mg/kg	3.5 [11.5] - 3.8 [12.5]	0.79 mg/kg	Yes
Sulfate	12 mg/kg	54.9 [180] - 55.5 [182]	237 mg/kg	No
Sulfide	59 mg/kg	3.4 [11] - 3.7 [12]	No background	No background

bgs = below ground surface.

Table 3-16. 216-B-63 Trench - Shallow Zone Soil for Balancing and Modifying Criteria Evaluation Comparison of Maximum Soil Concentrations from Zero to 5.8 m (19 ft) bgs to Hanford Site Background. (2 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 5.8 m (0 to 19 ft) bgs	Units	Depth of Maximum Detected from 0 to 5.8 m (0 to 19 ft) bgs	90th Percentile Background Concentration	Does Maximum Detected from 0 to 5.8 m (19 ft) bgs Exceed Background?
Metals Analyses					
Aluminum	6,750	mg/kg	3.0 [10] - 4.0 [13]	11,800	No
Arsenic	5.1	mg/kg	5.3 [17.5] - 5.8 [19]	6.5	No
Barium	97	mg/kg	5.3 [17.5] - 5.8 [19]	132	No
Beryllium	0.91	mg/kg	5.3 [17.5] - 5.8 [19]	1.5	No
Boron	5.8	mg/kg	3.0 [10] - 4.0 [13]	No background	No background
Cadmium	2.4	mg/kg	5.3 [17.5] - 5.8 [19]	1.0	Yes
Chromium	22	mg/kg	5.3 [17.5] - 5.8 [19]	19	Yes
Copper	31	mg/kg	5.3 [17.5] - 5.8 [19]	22	Yes
Hexavalent Chromium	0.48	mg/kg	5.3 [17.5] - 5.8 [19]	No background	No background
Iron	28,400	mg/kg	3.0 [10] - 4.0 [13]	32,600	No
Lead	6.3	mg/kg	5.3 [17.5] - 5.8 [19]	10	No
Manganese	410	mg/kg	5.3 [17.5] - 5.8 [19]	512	No
Mercury	0.11	mg/kg	3.7 [12] - 4.0 [13]	0.33	No
Molybdenum	0.55	mg/kg	3.0 [10] - 4.0 [13]	2.8-6.0	No
Nickel	15	mg/kg	5.3 [17.5] - 5.8 [19]	19	No
Selenium	0.75	mg/kg	3.0 [10] - 4.0 [13]	No background	No background
Silver	0.35	mg/kg	3.0 [10] - 4.0 [13]	0.73	No
Thallium	0.53	mg/kg	1.8 [6] - 2.1 [7]	No background	No background
Uranium	1.9	mg/kg	5.3 [17.5] - 5.8 [19]	3.2	No
Vanadium	87	mg/kg	5.3 [17.5] - 5.8 [19]	85	Yes
Zinc	81	mg/kg	5.3 [17.5] - 5.8 [19]	68	Yes
Radiological Constituents					
Americium-241	0.035	pCi/g	2.9 [9.5] - 3.2 [10.5]	No background	No background
Cesium-137	3.6	pCi/g	4.4 [14.5] - 4.7 [15.5]	1.1	Yes
Neptunium-237	0.054	pCi/g	4.6 [15] - 5.2 [17]	No background	No background
Nickel-63	23	pCi/g	5.3 [17.5] - 5.8 [19]	No background	No background
Plutonium-238	0.081	pCi/g	5.3 [17.5] - 5.8 [19]	0.0038	Yes
Plutonium-239/240	0.026	pCi/g	5.3 [17.5] - 5.8 [19]	0.025	Yes
Potassium-40	14	pCi/g	5.3 [17.5] - 5.8 [19]	17	No
Radium-226	0.61	pCi/g	5.3 [17.5] - 5.8 [19]	0.82	No
Radium-228	0.83	pCi/g	5.3 [17.5] - 5.8 [19]	1.3	No
Technetium-99	0.41	pCi/g	5.3 [17.5] - 5.8 [19]	No background	No background
Thorium-228	0.98	pCi/g	5.3 [17.5] - 5.8 [19]	1.3	No

Table 3-16. 216-B-63 Trench - Shallow Zone Soil for Balancing and Modifying Criteria Evaluation Comparison of Maximum Soil Concentrations from Zero to 5.8 m (19 ft) bgs to Hanford Site Background. (2 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 5.8 m (0 to 19 ft) bgs	Units	Depth of Maximum Detected from 0 to 5.8 m (0 to 19 ft) bgs	90th Percentile Background Concentration	Does Maximum Detected from 0 to 5.8 m (19 ft) bgs Exceed Background?
Thorium-230	1.5	pCi/g	5.3 [17.5] - 5.8 [19]	1.1	Yes
Thorium-232	0.88	pCi/g	5.3 [17.5] - 5.8 [19]	1.3	No
Total beta radiostrontium	30	pCi/g	5.3 [17.5] - 5.8 [19]	0.18	Yes
Tritium	0.33	pCi/g	5.3 [17.5] - 5.8 [19]	No background	No background
Uranium-233/234	0.36	pCi/g	5.3 [17.5] - 5.8 [19]	1.1	No
Uranium-234	0.75	pCi/g	2.9 [9.5] - 3.2 [10.5]	1.1	No
Uranium-238	0.93	pCi/g	2.9 [9.5] - 3.2 [10.5]	1.1	No
Semivolatile Organic Compounds					
Bis(2-ethylhexyl) phthalate	0.023	mg/kg	4.9 [16] - 5.2 [17]	No background	No background
Diethylphthalate	0.21	mg/kg	5.3 [17.5] - 5.8 [19]	No background	No background
Volatile Organic Compounds					
Acetone	0.066	mg/kg	4.9 [16] - 5.2 [17]	No background	No background
Benzene	0.0080	mg/kg	5.3 [17.5] - 5.8 [19]	No background	No background
Methylene chloride	0.027	mg/kg	5.3 [17.5] - 5.8 [19]	No background	No background
Toluene	0.0030	mg/kg	2.9 [9.5] - 3.2 [10.5]	No background	No background
General Inorganic Chemistry					
Ammonia	8.2	mg/kg	4.6 [15] - 5.2 [17]	9.2	No
Chloride	18	mg/kg	5.3 [17.5] - 5.8 [19]	100	No
Fluoride	0.76	mg/kg	5.3 [17.5] - 5.8 [19]	2.8	No
Nitrate	833	mg/kg	5.3 [17.5] - 5.8 [19]	52	Yes
Nitrogen in Nitrate	33	mg/kg	5.3 [17.5] - 5.8 [19]	52	No
Nitrogen in Nitrite	0.25	mg/kg	2.9 [9.5] - 3.2 [10.5]	No background	No background
Nitrogen in Nitrite and Nitrate	230	mg/kg	5.3 [17.5] - 5.8 [19]	No background	No background
Phosphate	6.4	mg/kg	4.4 [14.5] - 4.7 [15.5]	0.79	Yes
Sulfate	76	mg/kg	5.3 [17.5] - 5.8 [19]	237	No
Sulfide	44	mg/kg	3.4 [11] - 3.7 [12]	No background	No background
Miscellaneous Organic Analyses					
Aroclor-1254	0.077	mg/kg	3.0 [10] - 4.0 [13]	No background	No background

bgs = below ground surface.

Table 3-17. 216-S-10 Ditch - Shallow Zone Soil for Balancing and Modifying Criteria Evaluation Comparison of Maximum Soil Concentrations from Zero to 8.2 m (27 ft) bgs to Hanford Site Background. (3 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 8.2 m (0 to 27 ft) bgs	Units	Depth of Maximum Detected from 0 to 8.2 m (0 to 27 ft) bgs	90th Percentile Background Concentration	Does Maximum Detected from 0 to 8.2 m (27 ft) bgs Exceed Background?
Metals Analyses					
Aluminum	11	mg/kg	1.8 [6] - 2.1 [7]	11,800	No
Arsenic	5.5	mg/kg	7.6 [25] - 8.2 [27]	6.5	No
Barium	120	mg/kg	7.6 [25] - 8.2 [27]	132	No
Beryllium	0.65	mg/kg	7.6 [25] - 8.2 [27]	1.5	No
Boron	1.5	mg/kg	1.8 [6] - 2.1 [7]	No background	No background
Chromium	815	mg/kg	7.6 [25] - 8.2 [27]	19	Yes
Cadmium	2.3	mg/kg	7.6 [25] - 8.2 [27]	1.0	Yes
Copper	244	mg/kg	7.6 [25] - 8.2 [27]	22	Yes
Iron	28,800	mg/kg	1.8 [6] - 2.1 [7]	32,600	No
Hexavalent Chromium	14	mg/kg	1.8 [6] - 2.1 [7]	No background	No background
Lead	30	mg/kg	7.6 [25] - 8.2 [27]	10	Yes
Manganese	451	mg/kg	7.6 [25] - 8.2 [27]	512	No
Mercury	4.3	mg/kg	7.6 [25] - 8.2 [27]	0.33	Yes
Molybdenum	0.88	mg/kg	7.6 [25] - 8.2 [27]	2.8-6.0	No
Nickel	20	mg/kg	7.6 [25] - 8.2 [27]	19	Yes
Selenium	1.9	mg/kg	7.6 [25] - 8.2 [27]	No background	No background
Silver	30	mg/kg	7.6 [25] - 8.2 [27]	0.73	Yes
Thallium	0.99	mg/kg	1.8 [6] - 2.1 [7]	No background	No background
Uranium	0.0015	mg/g	7.6 [25] - 8.2 [27]	3.2	No
Vanadium	88	mg/kg	7.6 [25] - 8.2 [27]	85	Yes
Zinc	506	mg/kg	7.6 [25] - 8.2 [27]	68	Yes
Radiological Constituents					
Americium-241	1.8	pCi/g	2.6 [8.5] - 2.9 [9.5]	No background	No background
Cesium-137	9.1	pCi/g	2 [6.5] - 2.7 [9]	1.1	Yes
Nickel-63	38	pCi/g	7.6 [25] - 8.2 [27]	No background	No background
Plutonium-239/240	5.3	pCi/g	7.6 [25] - 8.2 [27]	0.025	Yes
Potassium-40	13	pCi/g	7.6 [25] - 8.2 [27]	17	No
Radium-226	0.60	pCi/g	7.6 [25] - 8.2 [27]	0.82	No
Radium-228	0.94	pCi/g	7.6 [25] - 8.2 [27]	1.3	No

Table 3-17. 216-S-10 Ditch - Shallow Zone Soil for Balancing and Modifying Criteria Evaluation Comparison of Maximum Soil Concentrations from Zero to 8.2 m (27 ft) bgs to Hanford Site Background. (3 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 8.2 m (0 to 27 ft) bgs	Units	Depth of Maximum Detected from 0 to 8.2 m (0 to 27 ft) bgs	90th Percentile Background Concentration	Does Maximum Detected from 0 to 8.2 m (27 ft) bgs Exceed Background?
Thorium-228	1.1	pCi/g	7.6 [25] - 8.2 [27]	1.3	No
Thorium-230	1.4	pCi/g	7.6 [25] - 8.2 [27]	1.1	Yes
Thorium-232	1.00	pCi/g	7.6 [25] - 8.2 [27]	1.3	No
Total beta radiostrontium	0.46	pCi/g	2 [6.5] - 2.7 [9]	0.18	Yes
Tritium	0.061	pCi/g	7.6 [25] - 8.2 [27]	No background	No background
Uranium-234	0.52	pCi/g	2.6 [8.5] - 2.9 [9.5]	1.1	No
Uranium-238	0.54	pCi/g	2.6 [8.5] - 2.9 [9.5]	1.1	No
Semivolatile Organic Compounds					
Acenaphthene	0.061	mg/kg	0 [0] - .5 [1.5]	No background	No background
Anthracene	0.15	mg/kg	0 [0] - .5 [1.5]	No background	No background
Benzo(a)anthracene	0.55	mg/kg	0 [0] - .5 [1.5]	No background	No background
Benzo(a)pyrene	0.60	mg/kg	0 [0] - .5 [1.5]	No background	No background
Benzo(b)fluoranthene	0.53	mg/kg	0 [0] - .5 [1.5]	No background	No background
Benzo(ghi)perylene	0.66	mg/kg	0 [0] - .5 [1.5]	No background	No background
Benzo(k)fluoranthene	0.45	mg/kg	0 [0] - .5 [1.5]	No background	No background
Bis(2-ethylhexyl) phthalate	0.58	mg/kg	7.6 [25] - 8.2 [27]	No background	No background
Butylbenzylphthalate	0.58	mg/kg	0 [0] - .5 [1.5]	No background	No background
Carbazole	0.097	mg/kg	0 [0] - .5 [1.5]	No background	No background
Chrysene	0.68	mg/kg	0 [0] - .5 [1.5]	No background	No background
Dibenz[a,h]anthracene	110	mg/kg	0 [0] - .5 [1.5]	No background	No background
Diethylphthalate	0.36	mg/kg	7.6 [25] - 8.2 [27]	No background	No background
Di-n-butylphthalate	2.3	mg/kg	4.9 [16] - 5.2 [17]	No background	No background
Fluoranthene	1.5	mg/kg	0 [0] - .5 [1.5]	No background	No background
Fluorene	0.059	mg/kg	0 [0] - .5 [1.5]	No background	No background
Indeno(1,2,3-cd)pyrene	0.40	mg/kg	0 [0] - .5 [1.5]	No background	No background
Phenanthrene	0.93	mg/kg	0 [0] - .5 [1.5]	No background	No background
Pyrene	1.6	mg/kg	.5 [1.5] - .9 [3]	No background	No background

Table 3-17. 216-S-10 Ditch - Shallow Zone Soil for Balancing and Modifying Criteria Evaluation Comparison of Maximum Soil Concentrations from Zero to 8.2 m (27 ft) bgs to Hanford Site Background. (3 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 8.2 m (0 to 27 ft) bgs	Units	Depth of Maximum Detected from 0 to 8.2 m (0 to 27 ft) bgs	90th Percentile Background Concentration	Does Maximum Detected from 0 to 8.2 m (27 ft) bgs Exceed Background?
Volatile Organic Compounds					
Acetone	0.010	mg/kg	4.9 [16] - 5.2 [17]	No background	No background
Methylene chloride	0.018	mg/kg	7.6 [25] - 8.2 [27]	No background	No background
General Inorganic Chemistry					
Chloride	32	mg/kg	7.6 [25] - 8.2 [27]	100	No
Fluoride	0.72	mg/kg	7.6 [25] - 8.2 [27]	2.8	No
Nitrate	81	mg/kg	6.1 [20] - 6.7 [22]	52	Yes
Nitrogen in ammonia	2.8	mg/kg	6.1 [20] - 6.7 [22]	No background	No background
Nitrogen in ammonium	0.078	mg/kg	7.6 [25] - 8.2 [27]	No background	No background
Nitrogen in Nitrate	0.57	mg/kg	2.6 [8.5] - 2.9 [9.5]	No background	No background
Nitrogen in Nitrite	0.35	mg/kg	2.6 [8.5] - 2.9 [9.5]	No background	No background
Nitrogen in Nitrite and Nitrate	11	mg/kg	7.6 [25] - 8.2 [27]	No background	No background
Phosphate	1.5	mg/kg	.9 [3] - 1.2 [4]	0.79	Yes
Sulfate	199	mg/kg	7.6 [25] - 8.2 [27]	237	No
Sulfide	97	mg/kg	7.6 [25] - 8.2 [27]	No background	No background
Miscellaneous Organic Analyses					
Aroclor-1254	3.7	mg/kg	.5 [1.5] - .9 [3]	No background	No background
Total petroleum hydrocarbons - diesel range	31	mg/kg	0 [0] - .5 [1.5]	No background	No background

bgs = below ground surface.

Table 3-18. 216-A-29 Ditch - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) bgs to Unrestricted Land Use Direct Contact Cleanup Levels. (2 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m (15 ft) (m [ft] bgs)	Soil Cleanup Levels *	ELCR	HQ
Metals Analyses					
Arsenic	12 mg/kg	2.6 [8.5] - 2.9 [9.5]	6.5 mg/kg	1.88E-06	--
Boron	3.4 mg/kg	1.2 [4] - 1.5 [5.0]	16,000 mg/kg	--	2.13E-04
Cadmium	28 mg/kg	1.2 [4] - 1.5 [5.0]	40 mg/kg	--	0.70
Chromium	37 mg/kg	1.2 [4] - 1.5 [5.0]	120,000 mg/kg	--	3.07E-04
Copper	172 mg/kg	1.2 [4] - 1.5 [5.0]	2,960 mg/kg	--	0.058
Hexavalent Chromium	8.8 mg/kg	2.3 [7.5] - 2.6 [8.5]	240 mg/kg	--	0.037
Lead	390 mg/kg	2.3 [7.5] - 2.6 [8.5]	400 mg/kg	--	--
Mercury	5.2 mg/kg	1.2 [4] - 1.5 [5.0]	24 mg/kg	--	0.22
Nickel	28 mg/kg	1.2 [4] - 1.5 [5.0]	1,600 mg/kg	--	0.017
Selenium	2.5 mg/kg	2.7 [9] - 3.5 [11.5]	400 mg/kg	--	0.0063
Silver	42 mg/kg	1.2 [4] - 1.5 [5.0]	400 mg/kg	--	0.11
Thallium	0.52 mg/kg	1.8 [6] - 2.1 [7]	5.6 mg/kg	--	0.093
Uranium	5.3 mg/kg	2.3 [7.5] - 2.6 [8.5]	240 mg/kg	--	0.022
Vanadium	104 mg/kg	2.3 [7.5] - 2.6 [8.5]	560 mg/kg	--	0.19
Zinc	224 mg/kg	1.2 [4] - 1.5 [5.0]	24,000 mg/kg	--	0.0093
Semivolatile Organic Compounds					
Benzo(a)anthracene	0.18 mg/kg	1.2 [4] - 1.5 [5.0]	1.4 mg/kg	1.31E-07	--
Benzo(a)pyrene	**0.16 mg/kg**	**1.2 [4] - 1.5 [5.0]**	**0.14 mg/kg**	**1.17E-06**	**--**
Benzo(b)fluoranthene	0.24 mg/kg	1.2 [4] - 1.5 [5.0]	1.4 mg/kg	1.75E-07	--
Bis(2-ethylhexyl) phthalate	6.2 mg/kg	1.2 [4] - 1.5 [5.0]	71 mg/kg	8.68E-08	--
Butylbenzylphthalate	0.29 mg/kg	1.2 [4] - 1.5 [5.0]	16,000 mg/kg	--	1.81E-05
Chrysene	0.21 mg/kg	1.2 [4] - 1.5 [5.0]	137 mg/kg	1.53E-09	--
Diethylphthalate	0.33 mg/kg	2.7 [9] - 3.5 [11.5]	64,000 mg/kg	--	5.16E-06
Di-n-butylphthalate	2.7 mg/kg	1.2 [4] - 1.5 [5.0]	8,000 mg/kg	--	3.43E-04
Fluoranthene	0.37 mg/kg	1.2 [4] - 1.5 [5.0]	3,200 mg/kg	--	1.16E-04
Phenanthrene	0.37 mg/kg	1.2 [4] - 1.5 [5.0]	24,000 mg/kg	--	1.54E-05
Pyrene	0.35 mg/kg	1.2 [4] - 1.3 [4.3]	2,400 mg/kg	--	1.46E-04
Tributyl phosphate	0.54 mg/kg	1.2 [4] - 2.0 [6.5]	185 mg/kg	2.94E-09	--
Volatile Organic Compounds					
1,2-Dichloroethane	0.013 mg/kg	1.2 [4] - 1.5 [5.0]	11 mg/kg	1.18E-09	--
Acetone	0.030 mg/kg	2.3 [7.5] - 2.6 [8.5]	72,000 mg/kg	--	4.17E-07
Methylene chloride	0.078 mg/kg	1.2 [4] - 1.5 [5.0]	133 mg/kg	5.85E-10	--
Tetrachloroethene	0.0060 mg/kg	1.2 [4] - 1.5 [5.0]	1.9 mg/kg	3.24E-09	--

Table 3-18. 216-A-29 Ditch - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) bgs to Unrestricted Land Use Direct Contact Cleanup Levels. (2 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m (15 ft) (m [ft] bgs)	Soil Cleanup Levels *	ELCR	HQ
General Inorganic Chemistry (mg/kg)					
Fluoride	5.3 mg/kg	2.7 [9] - 3.5 [11.5]	4,800 mg/kg	--	0.0011
Nitrate	927 mg/kg	1.2 [4] - 1.5 [5.0]	128,000 mg/kg	--	0.0072
Miscellaneous Organic Analyses					
Aroclor-1254	9.4 mg/kg	1.2 [4] - 1.5 [5.0]	0.50 mg/kg	1.88E-05	--
Total petroleum hydrocarbons - kerosene range	440 mg/kg	1.2 [4] - 2.0 [6.5]	2,000 mg/kg	--	0.22
Total petroleum hydrocarbons - motor oil (high boiling)	760 mg/kg	1.2 [4] - 1.5 [5.0]	4,000 mg/kg	--	0.19
Total ELCR: 2.22E-05					
Hazard Index: 1.8					

* Cleanup levels from WAC 173-340-740, "Unrestricted Land Use Soil Cleanup Standards."
Shaded cells indicate the constituent exceeds either the ELCR or HQ.

-- = not applicable.
bgs = below ground surface.
ELCR = excess lifetime cancer risk.
HQ = hazard quotient.

Table 3-19. 216-A-29 Ditch - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) bgs to Industrial Land Use Cleanup Levels. (2 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m (15 ft) (m [ft] bgs)	Industrial Use Soil Cleanup Levels *	ELCR	HQ
Metals Analyses					
Arsenic	12 mg/kg	2.6 [8.5] - 2.9 [9.5]	88 mg/kg	1.39E-07	--
Boron	3.4 mg/kg	1.2 [4] - 1.5 [5.0]	700,000 mg/kg	--	4.86E-06
Cadmium	28 mg/kg	1.2 [4] - 1.5 [5.0]	1,750 mg/kg	--	0.016
Chromium	37 mg/kg	1.2 [4] - 1.5 [5.0]	5.25E+06 mg/kg	--	7.01E-06
Copper	172 mg/kg	1.2 [4] - 1.5 [5.0]	129,500 mg/kg	--	0.0013
Hexavalent Chromium	8.8 mg/kg	2.3 [7.5] - 2.6 [8.5]	10,500 mg/kg	--	8.38E-04
Lead	390 mg/kg	2.3 [7.5] - 2.6 [8.5]	800 mg/kg	--	--
Mercury	5.2 mg/kg	1.2 [4] - 1.5 [5.0]	1,050 mg/kg	--	0.0050
Nickel	28 mg/kg	1.2 [4] - 1.5 [5.0]	70,000 mg/kg	--	3.94E-04
Selenium	2.5 mg/kg	2.7 [9] - 3.5 [11.5]	17,500 mg/kg	--	1.44E-04
Silver	42 mg/kg	1.2 [4] - 1.5 [5.0]	17,500 mg/kg	--	0.0024
Thallium	0.52 mg/kg	1.8 [6] - 2.1 [7]	245 mg/kg	--	0.0021
Uranium	5.3 mg/kg	2.3 [7.5] - 2.6 [8.5]	10,500 mg/kg	--	5.03E-04

Table 3-19. 216-A-29 Ditch - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) bgs to Industrial Land Use Cleanup Levels. (2 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m (15 ft) (m [ft] bgs)	Industrial Use Soil Cleanup Levels *	ELCR	HQ
Vanadium	104 mg/kg	2.3 [7.5] - 2.6 [8.5]	24,500 mg/kg	--	0.0042
Zinc	224 mg/kg	1.2 [4] - 1.5 [5.0]	1.05E+06 mg/kg	--	2.13E-04
Semivolatile Organic Compounds					
Benzo(a)anthracene	0.18 mg/kg	1.2 [4] - 1.5 [5.0]	180 mg/kg	1.00E-09	--
Benzo(a)pyrene	0.16 mg/kg	1.2 [4] - 1.5 [5.0]	18 mg/kg	8.90E-09	--
Benzo(b)fluoranthene	0.24 mg/kg	1.2 [4] - 1.5 [5.0]	180 mg/kg	1.33E-09	--
Bis(2-ethylhexyl) phthalate	6.2 mg/kg	1.2 [4] - 1.5 [5.0]	9,375 mg/kg	6.61E-10	--
Butylbenzylphthalate	0.29 mg/kg	1.2 [4] - 1.5 [5.0]	700,000 mg/kg	--	4.14E-07
Chrysene	0.21 mg/kg	1.2 [4] - 1.5 [5.0]	18,000 mg/kg	1.17E-11	--
Diethylphthalate	0.33 mg/kg	2.7 [9] - 3.5 [11.5]	2.80E+06 mg/kg	--	1.18E-07
Di-n-butylphthalate	2.7 mg/kg	1.2 [4] - 1.5 [5.0]	350,000 mg/kg	--	7.83E-06
Fluoranthene	0.37 mg/kg	1.2 [4] - 1.5 [5.0]	140,000 mg/kg	--	2.64E-06
Phenanthrene	0.37 mg/kg	1.2 [4] - 1.5 [5.0]	1.05E+06 mg/kg	--	3.52E-07
Pyrene	0.35 mg/kg	1.2 [4] - 1.3 [4.3]	105,000 mg/kg	--	3.33E-06
Tributyl phosphate	0.54 mg/kg	1.2 [4] - 2.0 [6.5]	24,300 mg/kg	2.24E-11	--
Volatile Organic Compounds					
1,2-Dichloroethane	0.013 mg/kg	1.2 [4] - 1.5 [5.0]	1,442 mg/kg	9.01E-12	--
Acetone	0.030 mg/kg	2.3 [7.5] - 2.6 [8.5]	3.15E+06 mg/kg	--	9.52E-09
Methylene chloride	0.078 mg/kg	1.2 [4] - 1.5 [5.0]	17,500 mg/kg	4.46E-12	--
Tetrachloroethene	0.0060 mg/kg	1.2 [4] - 1.5 [5.0]	243 mg/kg	2.47E-11	--
General Inorganic Chemistry					
Fluoride	5.3 mg/kg	2.7 [9] - 3.5 [11.5]	210,000 mg/kg	--	2.50E-05
Nitrate	927 mg/kg	1.2 [4] - 1.5 [5.0]	5.60E+06 mg/kg	--	1.66E-04
Miscellaneous Organic Analyses					
Aroclor-1254	9.4 mg/kg	1.2 [4] - 1.5 [5.0]	66 mg/kg	1.43E-07	--
Total petroleum hydrocarbons - kerosene range	440 mg/kg	1.2 [4] - 2.0 [6.5]	2,000 mg/kg	--	0.22
Total petroleum hydrocarbons - motor oil (high boiling)	760 mg/kg	1.2 [4] - 1.5 [5.0]	4,000 mg/kg	--	0.19
Total ELCR: 2.95E-07					
Hazard Index: 0.44					

* Cleanup levels from WAC 173-340-745, "Soil Cleanup Standards for Industrial Properties."

-- = not applicable.
bgs = below ground surface.
ELCR = excess lifetime cancer risk.
HQ = hazard quotient.

Table 3-20. 216-B-63 Trench - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) bgs to Unrestricted Land Use Direct Contact Cleanup Levels.

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m (15 ft) (m [ft] bgs)	Soil Cleanup Levels *	ELCR	HQ
Metals Analyses					
Boron	5.8 mg/kg	1.5 [5] - 1.8 [6]	16,000 mg/kg	--	3.63E-04
Chromium	22 mg/kg	3.8 [12.5] - 4.4 [14.5]	120,000 mg/kg	--	1.83E-04
Copper	31 mg/kg	3.7 [12] - 4.0 [13]	2,960 mg/kg	--	0.010
Hexavalent Chromium	0.45 mg/kg	2.9 [9.5] - 3.2 [10.5]	240 mg/kg	--	0.0019
Selenium	0.75 mg/kg	2.3 [7.5] - 2.6 [8.5]	400 mg/kg	--	0.0019
Thallium	0.53 mg/kg	1.8 [6] - 2.1 [7]	5.6 mg/kg	--	0.095
Vanadium	87 mg/kg	2.3 [7.5] - 2.6 [8.5]	560 mg/kg	--	0.16
Zinc	81 mg/kg	3.7 [12] - 4.0 [13]	24,000 mg/kg	--	0.0034
Semivolatile Organic Compounds					
Bis(2-ethylhexyl) phthalate	0.021 mg/kg	2.4 [8] - 2.9 [9.5]	71 mg/kg	2.94E-10	2.94E-04
Volatile Organic Compounds					
Acetone	0.066 mg/kg	1.5 [5] - 1.8 [6]	72,000 mg/kg	--	9.17E-07
Benzene	0.0080 mg/kg	1.5 [5] - 1.8 [6]	18 mg/kg	4.40E-10	--
Methylene chloride	0.027 mg/kg	2.9 [9.5] - 3.2 [10.5]	133 mg/kg	2.03E-10	--
Toluene	0.0030 mg/kg	2.1 [7] - 2.4 [8]	6,400 mg/kg	--	4.69E-07
General Inorganic Chemistry					
Nitrate	833 mg/kg	1.5 [5] - 1.8 [6]	128,000 mg/kg	--	0.0065
Nitrite	0.82 mg/kg	2.9 [9.5] - 3.2 [10.5]	8,000 mg/kg	--	1.03E-04
Miscellaneous Organic Analyses					
Aroclor-1254	0.077 mg/kg	3.0 [10] - 4.0 [13]	0.50 mg/kg	1.54E-07	--
Total ELCR: 1.55E-07					
Hazard Index: 0.27					

* Cleanup levels from WAC 173-340-745, "Soil Cleanup Standards for Industrial Properties."

-- = not applicable.
bgs = below ground surface.
ELCR = excess lifetime cancer risk.
HQ = hazard quotient.

Table 3-21. 216-B-63 Trench - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) bgs to Industrial Land Use Cleanup Levels.

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m (15 ft) (m [ft] bgs)	Industrial Use Soil Cleanup Levels *	ELCR	HQ
Metals Analyses					
Boron	5.8 mg/kg	1.5 [5] - 1.8 [6]	700,000 mg/kg	--	8.29E-06
Chromium	22 mg/kg	3.8 [12.5] - 4.4 [14.5]	5.25E+06 mg/kg	--	4.17E-06
Copper	31 mg/kg	3.7 [12] - 4.0 [13]	129,500 mg/kg	--	2.36E-04
Hexavalent Chromium	0.45 mg/kg	2.9 [9.5] - 3.2 [10.5]	10,500 mg/kg	--	4.29E-05
Selenium	0.75 mg/kg	2.3 [7.5] - 2.6 [8.5]	17,500 mg/kg	--	4.29E-05
Thallium	0.53 mg/kg	1.8 [6] - 2.1 [7]	245 mg/kg	--	0.0022
Vanadium	87 mg/kg	2.3 [7.5] - 2.6 [8.5]	24,500 mg/kg	--	0.0035
Zinc	81 mg/kg	3.7 [12] - 4.0 [13]	1.05E+06 mg/kg	--	7.70E-05
Semivolatile Organic Compounds					
Bis(2-ethylhexyl) phthalate	0.021 mg/kg	2.4 [8] - 2.9 [9.5]	9,375 mg/kg	2.24E-12	2.24E-06
Volatile Organic Compounds					
Acetone	0.066 mg/kg	1.5 [5] - 1.8 [6]	72,000 mg/kg	--	9.17E-07
Benzene	0.0080 mg/kg	1.5 [5] - 1.8 [6]	18 mg/kg	4.40E-10	--
Methylene chloride	0.027 mg/kg	2.9 [9.5] - 3.2 [10.5]	133 mg/kg	2.03E-10	--
Toluene	0.0030 mg/kg	2.1 [7] - 2.4 [8]	6,400 mg/kg	--	4.69E-07
General Inorganic Chemistry					
Nitrate	833 mg/kg	1.5 [5] - 1.8 [6]	5.60E+06 mg/kg	--	1.49E-04
Nitrite	0.82 mg/kg	2.9 [9.5] - 3.2 [10.5]	350,000 mg/kg	--	2.35E-06
Miscellaneous Organic Analyses					
Aroclor-1254	0.077 mg/kg	3.0 [10] - 4.0 [13]	66 mg/kg	1.17E-09	--
Total ELCR: 1.82E-09					
Hazard Index: 0.0063					

* Cleanup levels from WAC 173-340-745, "Soil Cleanup Standards for Industrial Properties."

-- = not applicable.
bgs = below ground surface.
ELCR = excess lifetime cancer risk.
HQ = hazard quotient.

Table 3-22. 216-S-10 Ditch - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) bgs to Unrestricted Land Use Direct Contact Cleanup Levels. (2 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m (15 ft) (m [ft] bgs)	Soil Cleanup Levels	ELCR	HQ
Metals Analyses					
Boron	1.5 mg/kg	0 [0] - .5 [1.5]	16,000 mg/kg	--	9.38E-05
Chromium	815 mg/kg	0 [0] - .5 [1.5]	120,000 mg/kg	--	0.0068
Copper	244 mg/kg	0 [0] - .5 [1.5]	2,960 mg/kg	--	0.082
Hexavalent Chromium	14 mg/kg	.5 [1.5] - .9 [3]	240 mg/kg	--	0.059
Lead	30 mg/kg	0 [0] - .5 [1.5]	400 mg/kg	--	--
Mercury	4.3 mg/kg	0 [0] - .5 [1.5]	24 mg/kg	--	0.18
Nickel	20 mg/kg	0 [0] - .5 [1.5]	1,600 mg/kg	--	0.013
Selenium	0.44 mg/kg	2.6 [8.5] - 2.9 [9.5]	400 mg/kg	--	0.0011
Silver	30 mg/kg	0 [0] - .5 [1.5]	400 mg/kg	--	0.076
Thallium	0.99 mg/kg	0 [0] - .5 [1.5]	5.6 mg/kg	--	0.18
Vanadium	88 mg/kg	2.6 [8.5] - 2.9 [9.5]	560 mg/kg	--	0.16
Zinc	506 mg/kg	0 [0] - .5 [1.5]	24,000 mg/kg	--	0.021
Semivolatile Organic Compounds					
Acenaphthene	0.061 mg/kg	0 [0] - .5 [1.5]	4,800 mg/kg	--	1.27E-05
Anthracene	0.15 mg/kg	0 [0] - .5 [1.5]	24,000 mg/kg	--	6.25E-06
Benzo(a)anthracene	0.55 mg/kg	0 [0] - .5 [1.5]	1.4 mg/kg	4.02E-07	--
Benzo(a)pyrene	0.60 mg/kg	0 [0] - .5 [1.5]	0.14 mg/kg	4.38E-06	--
Benzo(b)fluoranthene	0.53 mg/kg	0 [0] - .5 [1.5]	1.4 mg/kg	3.87E-07	--
Benzo(ghi)perylene	0.66 mg/kg	0 [0] - .5 [1.5]	2,400 mg/kg	2.75E-10	--
Benzo(k)fluoranthene	0.45 mg/kg	0 [0] - .5 [1.5]	14 mg/kg	3.29E-08	--
Bis(2-ethylhexyl) phthalate	0.58 mg/kg	0 [0] - .5 [1.5]	71 mg/kg	8.12E-09	--
Butylbenzylphthalate	0.58 mg/kg	0 [0] - .5 [1.5]	16,000 mg/kg	--	3.63E-05
Carbazole	0.097 mg/kg	0 [0] - .5 [1.5]	50 mg/kg	1.94E-09	--
Chrysene	0.68 mg/kg	0 [0] - .5 [1.5]	137 mg/kg	4.96E-09	--
Dibenz[a,h]anthracene	0.11 mg/kg	0 [0] - .5 [1.5]	0.14 mg/kg	8.03E-07	--
Di-n-butylphthalate	2.3 mg/kg	0 [0] - .5 [1.5]	8,000 mg/kg	--	2.88E-04
Fluoranthene	1.5 mg/kg	0 [0] - .5 [1.5]	3,200 mg/kg	--	4.69E-04
Fluorene	0.059 mg/kg	0 [0] - .5 [1.5]	3,200 mg/kg	--	1.84E-05
Indeno(1,2,3-cd) pyrene	0.40 mg/kg	0 [0] - .5 [1.5]	1.4 mg/kg	2.92E-07	--
Phenanthrene	0.93 mg/kg	0 [0] - .5 [1.5]	24,000 mg/kg	--	3.88E-05
Pyrene	1.6 mg/kg	0 [0] - .5 [1.5]	2,400 mg/kg	--	6.67E-04
Volatile Organic Compounds					
Acetone	0.0090 mg/kg	4.1 [13.5] - 4.4 [14.5]	72,000 mg/kg	--	1.25E-07
Methylene chloride	0.010 mg/kg	.5 [1.5] - .9 [3]	133 mg/kg	7.50E-11	--

Table 3-22. 216-S-10 Ditch - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) bgs to Unrestricted Land Use Direct Contact Cleanup Levels. (2 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m (15 ft) (m [ft] bgs)	Soil Cleanup Levels	ELCR	HQ
General Inorganic Chemistry					
Nitrate	81 mg/kg	0 [0] - .5 [1.5]	128,000 mg/kg	--	6.30E-04
Nitrite	1.2 mg/kg	2.6 [8.5] - 2.9 [9.5]	8,000 mg/kg	--	1.44E-04
Miscellaneous Organic Analyses					
Aroclor-1254	3.7 mg/kg	0 [0] - .5 [1.5]	0.50 mg/kg	7.40E-06	--
Total petroleum hydrocarbons - diesel range	31 mg/kg	0 [0] - .5 [1.5]	2,000 mg/kg	--	0.016
Total ELCR: 1.37E-05					
Hazard Index: 0.79					

* Cleanup levels from WAC 173-340-740, "Unrestricted Land Use Soil Cleanup Standards."
Shaded cells indicate the constituent exceeds either the ELCR or HQ.

-- = not applicable.
bgs = below ground surface.
ELCR = excess lifetime cancer risk.
HQ = hazard quotient.

Table 3-23. 216-S-10 Ditch - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) bgs to Industrial Use Cleanup Levels. (2 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m (15 ft) (m [ft] bgs	Industrial Use Soil Cleanup Levels *	ELCR	HQ
Metals Analyses					
Boron	1.5 mg/kg	0 [0] - .5 [1.5]	700,000 mg/kg	--	2.14E-06
Chromium	815 mg/kg	0 [0] - .5 [1.5]	5.25E+06 mg/kg	--	1.55E-04
Copper	244 mg/kg	0 [0] - .5 [1.5]	129,500 mg/kg	--	0.0019
Hexavalent Chromium	14 mg/kg	.5 [1.5] - .9 [3]	10,500 mg/kg	--	0.0013
Lead	30 mg/kg	0 [0] - .5 [1.5]	800 mg/kg	--	--
Mercury	4.3 mg/kg	0 [0] - .5 [1.5]	1,050 mg/kg	--	0.0041
Nickel	20 mg/kg	0 [0] - .5 [1.5]	70,000 mg/kg	--	2.90E-04
Selenium	0.44 mg/kg	2.6 [8.5] - 2.9 [9.5]	17,500 mg/kg	--	2.51E-05
Silver	30 mg/kg	0 [0] - .5 [1.5]	17,500 mg/kg	--	0.0017
Thallium	0.99 mg/kg	0 [0] - .5 [1.5]	245 mg/kg	--	0.0040
Vanadium	88 mg/kg	2.6 [8.5] - 2.9 [9.5]	24,500 mg/kg	--	0.0036
Zinc	506 mg/kg	0 [0] - .5 [1.5]	1.05E+06 mg/kg	--	4.82E-04
Semivolatile Organic Compounds					
Acenaphthene	0.061 mg/kg	0 [0] - .5 [1.5]	210,000 mg/kg	--	2.90E-07
Anthracene	0.15 mg/kg	0 [0] - .5 [1.5]	1.05E+06 mg/kg	--	1.43E-07

Table 3-23. 216-S-10 Ditch - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) bgs to Industrial Use Cleanup Levels. (2 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m (15 ft) (m [ft] bgs	Industrial Use Soil Cleanup Levels *	ELCR	HQ
Benzo(a)anthracene	0.55 mg/kg	0 [0] - .5 [1.5]	180 mg/kg	3.06E-09	--
Benzo(a)pyrene	0.60 mg/kg	0 [0] - .5 [1.5]	18 mg/kg	3.34E-08	--
Benzo(b)fluoranthene	0.53 mg/kg	0 [0] - .5 [1.5]	180 mg/kg	2.95E-09	--
Benzo(ghi)perylene	0.66 mg/kg	0 [0] - .5 [1.5]	105,000 mg/kg	6.29E-12	--
Benzo(k)fluoranthene	0.45 mg/kg	0 [0] - .5 [1.5]	1,798 mg/kg	2.50E-10	--
Bis(2-ethylhexyl) phthalate	0.58 mg/kg	0 [0] - .5 [1.5]	9,375 mg/kg	6.19E-11	--
Butylbenzylphthalate	0.58 mg/kg	0 [0] - .5 [1.5]	700,000 mg/kg	--	8.29E-07
Carbazole	0.097 mg/kg	0 [0] - .5 [1.5]	6,563 mg/kg	1.48E-11	--
Chrysene	0.68 mg/kg	0 [0] - .5 [1.5]	18,000 mg/kg	3.78E-11	--
Dibenz[a,h]anthracene	0.11 mg/kg	0 [0] - .5 [1.5]	18 mg/kg	6.12E-09	--
Di-n-butylphthalate	2.3 mg/kg	0 [0] - .5 [1.5]	350,000 mg/kg	--	6.57E-06
Fluoranthene	1.5 mg/kg	0 [0] - .5 [1.5]	140,000 mg/kg	--	1.07E-05
Fluorene	0.059 mg/kg	0 [0] - .5 [1.5]	140,000 mg/kg	--	4.21E-07
Indeno(1,2,3-cd)pyrene	0.40 mg/kg	0 [0] - .5 [1.5]	180 mg/kg	2.22E-09	--
Phenanthrene	0.93 mg/kg	0 [0] - .5 [1.5]	1.05E+06 mg/kg	--	8.86E-07
Pyrene	1.6 mg/kg	0 [0] - .5 [1.5]	105,000 mg/kg	--	1.52E-05
Volatile Organic Compounds					
Acetone	0.0090 mg/kg	4.1 [13.5] - 4.4 [14.5]	3.15E+06 mg/kg	--	2.86E-09
Methylene chloride	0.010 mg/kg	.5 [1.5] - .9 [3]	17,500 mg/kg	5.71E-13	--
General Inorganic Chemistry					
Nitrate	81 mg/kg	0 [0] - .5 [1.5]	5.60E+06 mg/kg	--	1.44E-05
Nitrite	1.2 mg/kg	2.6 [8.5] - 2.9 [9.5]	350,000 mg/kg	--	3.29E-06
Miscellaneous Organic Analyses					
Aroclor-1254	3.7 mg/kg	0 [0] - .5 [1.5]	66 mg/kg	5.64E-08	--
Total petroleum hydrocarbons - diesel range	31 mg/kg	0 [0] - .5 [1.5]	2,000 mg/kg	--	0.016
Total ELCR: 1.04E-07					
Hazard Index: 0.018					

* Cleanup levels from WAC 173-340-745, "Soil Cleanup Standards for Industrial Properties."

-- = not applicable.
bgs = below ground surface.
ELCR = excess lifetime cancer risk.
HQ = hazard quotient.

Table 3-24. 216-S-10 Pond - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) bgs to Unrestricted Land Use Direct Contact Cleanup Levels.

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m (15 ft) (m [ft] bgs)	Soil Cleanup Levels *	ELCR	HQ
Metals Analyses					
Boron	1.0 mg/kg	1.8 [6] - 2.1 [7]	16,000 mg/kg	--	6.25E-05
Chromium	26 mg/kg	2.7 [9] - 3.0 [10]	120,000 mg/kg	--	2.18E-04
Hexavalent Chromium	2.7 mg/kg	2.1 [7] - 2.4 [8]	240 mg/kg	--	0.011
Mercury	0.43 mg/kg	3.5 [11.5] - 3.8 [12.5]	24 mg/kg	--	0.018
Selenium	0.46 mg/kg	2.7 [9] - 3.0 [10]	400 mg/kg	--	0.0012
Silver	8.3 mg/kg	2.7 [9] - 3.0 [10]	400 mg/kg	--	0.021
Thallium	0.62 mg/kg	1.2 [4] - 1.5 [5.0]	5.6 mg/kg	--	0.11
Semivolatile Organic Compounds					
Bis(2-ethylhexyl) phthalate	0.14 mg/kg	1.2 [4] - 1.5 [5.0]	71 mg/kg	1.96E-09	--
Volatile Organic Compounds					
Acetone	0.026 mg/kg	2.6 [8.5] - 2.9 [9.5]	72,000 mg/kg	--	3.61E-07
Methylene chloride	0.015 mg/kg	2.9 [9.5] - 3.2 [10.5]	133 mg/kg	1.13E-10	--
Toluene	0.0042 mg/kg	2.9 [9.5] - 3.2 [10.5]	6,400 mg/kg	--	6.56E-07
Xylenes (total)	0.0014 mg/kg	1.8 [6] - 2.1 [7]	16,000 mg/kg	--	8.68E-08
General Inorganic Chemistry					
Cyanide	0.20 mg/kg	2.9 [9.5] - 3.2 [10.5]	1,600 mg/kg	--	1.25E-04
Nitrite	1.6 mg/kg	2.9 [9.5] - 3.2 [10.5]	8,000 mg/kg	--	1.98E-04
Total ELCR: 2.07E-09					
Hazard Index: 0.16					

* Cleanup levels from WAC 173-340-740, "Unrestricted Land Use Soil Cleanup Standards."

-- = not applicable.
bgs = below ground surface.
ELCR = excess lifetime cancer risk.
HQ = hazard quotient.

Table 3-25. 216-S-10 Pond - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) bgs to Industrial Use Cleanup Levels. (2 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m (15 ft) (m [ft] bgs)	Industrial Use Soil Cleanup Levels	ELCR	HQ
Metals Analyses					
Boron	1.0 mg/kg	1.8 [6] - 2.1 [7]	700,000 mg/kg	--	1.43E-06
Chromium	26 mg/kg	2.7 [9] - 3.0 [10]	5.25E+06 mg/kg	--	4.99E-06
Hexavalent Chromium	2.7 mg/kg	2.1 [7] - 2.4 [8]	10,500 mg/kg	--	2.57E-04
Mercury	0.43 mg/kg	3.5 [11.5] - 3.8 [12.5]	1,050	--	4.10E-04

Table 3-25. 216-S-10 Pond - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) bgs to Industrial Use Cleanup Levels. (2 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m (15 ft) (m [ft] bgs)	Industrial Use Soil Cleanup Levels	ELCR	HQ
Selenium	0.46 mg/kg	2.7 [9] - 3.0 [10]	17,500 mg/kg	--	2.63E-05
Silver	8.3 mg/kg	2.7 [9] - 3.0 [10]	17,500 mg/kg	--	4.74E-04
Thallium	0.62 mg/kg	1.2 [4] - 1.5 [5.0]	245 mg/kg	--	0.0025
Semivolatile Organic Compounds					
Bis(2-ethylhexyl) phthalate	0.14 mg/kg	1.2 [4] - 1.5 [5.0]	9,375 mg/kg	1.49E-11	--
Volatile Organic Compounds					
Acetone	0.026 mg/kg	2.6 [8.5] - 2.9 [9.5]	3.15E+06 mg/kg	--	8.25E-09
Methylene chloride	0.015 mg/kg	2.9 [9.5] - 3.2 [10.5]	17,500 mg/kg	8.57E-13	--
Toluene	0.0042 mg/kg	2.9 [9.5] - 3.2 [10.5]	28,000 mg/kg	--	1.50E-07
Xylenes (total)	0.0014 mg/kg	1.8 [6] - 2.1 [7]	700,000 mg/kg	--	1.98E-09
General Inorganic Chemistry					
Cyanide	0.20 mg/kg	2.9 [9.5] - 3.2 [10.5]	70,000 mg/kg	--	2.86E-06
Nitrite	1.6 mg/kg	2.9 [9.5] - 3.2 [10.5]	350,000 mg/kg	--	4.51E-06
Total ELCR: 1.58E-11					
Hazard Index: 0.0037					

* Cleanup levels from WAC 173-340-745, "Soil Cleanup Standards for Industrial Properties."

-- = not applicable.
bgs = below ground surface.
ELCR = excess lifetime cancer risk.
HQ = hazard quotient.

Table 3-26. 216-B-63 Trench - Shallow Zone Soil for Balancing Criteria Evaluation Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) bgs to Unrestricted Land Use Direct Contact Cleanup Levels.

Constituent Name	Maximum Detected Concentration from 0 to 5.8 m (19 ft) bgs	Depth of Maximum Detected from 0 to 5.8 m (19 ft) bgs	Soil Cleanup Levels	ELCR	HQ
Metals Analyses					
Boron	5.8 mg/kg	3.0 [10] - 4.0 [13]	16,000 mg/kg	--	3.63E-04
Cadmium	2.4 mg/kg	5.3 [17.5] - 5.8 [19]	40 mg/kg	--	0.061
Chromium	22 mg/kg	5.3 [17.5] - 5.8 [19]	120,000 mg/kg	--	1.83E-04
Copper	31 mg/kg	5.3 [17.5] - 5.8 [19]	2,960 mg/kg	--	0.010
Hexavalent Chromium	0.48 mg/kg	5.3 [17.5] - 5.8 [19]	240 mg/kg	--	0.0020
Selenium	0.75 mg/kg	3.0 [10] - 4.0 [13]	400 mg/kg	--	0.0019
Thallium	0.53 mg/kg	1.8 [6] - 2.1 [7]	5.6 mg/kg	--	0.095
Vanadium	87 mg/kg	5.3 [17.5] - 5.8 [19]	560 mg/kg	--	0.16
Zinc	81 mg/kg	5.3 [17.5] - 5.8 [19]	24,000 mg/kg	--	0.0034

Table 3-26. 216-B-63 Trench - Shallow Zone Soil for Balancing Criteria Evaluation Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) bgs to Unrestricted Land Use Direct Contact Cleanup Levels.

Constituent Name	Maximum Detected Concentration from 0 to 5.8 m (19 ft) bgs	Depth of Maximum Detected from 0 to 5.8 m (19 ft) bgs	Soil Cleanup Levels	ELCR	HQ
Semivolatile Organic Compounds					
Bis(2-ethylhexyl)phthalate	0.023 mg/kg	4.9 [16] - 5.2 [17]	71 mg/kg	3.22E-10	--
Diethylphthalate	0.21 mg/kg	5.3 [17.5] - 5.8 [19]	64,000 mg/kg	--	3.28E-06
Volatile Organic Compounds					
Acetone	0.066 mg/kg	4.9 [16] - 5.2 [17]	72,000 mg/kg	--	9.17E-07
Benzene	0.0080 mg/kg	1.5 [5.0] - 1.8 [6.0]	18 mg/kg	4.40E-10	--
Methylene chloride	0.027 mg/kg	5.3 [17.5] - 5.8 [19]	133 mg/kg	2.03E-10	--
Toluene	0.0030 mg/kg	2.9 [9.5] - 3.2 [10.5]	6,400 mg/kg	--	4.69E-07
General Inorganic Chemistry					
Nitrate	833 mg/kg	5.3 [17.5] - 5.8 [19]	128,000 mg/kg	--	0.0065
Nitrogen in Nitrite	0.25 mg/kg	2.9 [9.5] - 3.2 [10.5]	8,000 mg/kg	--	3.13E-05
Miscellaneous Organic Analyses					
Aroclor-1254	0.077 mg/kg	3.0 [10] - 4.0 [13]	0.50 mg/kg	1.54E-07	--
Total ELCR: 1.55E-07					
Hazard Index: 0.34					

* Cleanup levels from WAC 173-340-740, "Unrestricted Land Use Soil Cleanup Standards."

-- = not applicable.
bgs = below ground surface.
ELCR = excess lifetime cancer risk.
HQ = hazard quotient.

Table 3-27. 216-B-63 Trench - Shallow Zone Soil for Balancing Criteria Evaluation Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) bgs to Industrial Use Cleanup Levels. (2 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m (15 ft) (m [ft] bgs)	Industrial Use Soil Cleanup Levels	ELCR	HQ
Metals Analyses					
Boron	5.8 mg/kg	3.0 [10] - 4.0 [13]	700,000 mg/kg	--	8.29E-06
Cadmium	2.4 mg/kg	5.3 [17.5] - 5.8 [19]	1,750 mg/kg	--	0.0014
Chromium	22 mg/kg	5.3 [17.5] - 5.8 [19]	5.25E+06 mg/kg	--	4.17E-06
Copper	31 mg/kg	5.3 [17.5] - 5.8 [19]	129,500 mg/kg	--	2.36E-04
Hexavalent Chromium	0.48 mg/kg	5.3 [17.5] - 5.8 [19]	10,500 mg/kg	--	4.60E-05
Selenium	0.75 mg/kg	3.0 [10] - 4.0 [13]	17,500 mg/kg	--	4.29E-05
Thallium	0.53 mg/kg	1.8 [6] - 2.1 [7]	245 mg/kg	--	0.0022
Vanadium	87 mg/kg	5.3 [17.5] - 5.8 [19]	24,500 mg/kg	--	0.0035
Zinc	81 mg/kg	5.3 [17.5] - 5.8 [19]	1.05E+06 mg/kg	--	7.70E-05
Semivolatile Organic Compounds (mg/kg)					
Bis(2-ethylhexyl)phthalate	0.023 mg/kg	4.9 [16] - 5.2 [17]	9,375 mg/kg	2.45E-12	--

Table 3-27. 216-B-63 Trench - Shallow Zone Soil for Balancing Criteria Evaluation Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) bgs to Industrial Use Cleanup Levels. (2 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m (15 ft) (m [ft] bgs)	Industrial Use Soil Cleanup Levels	ELCR	HQ
Diethylphthalate	0.21 mg/kg	5.3 [17.5] - 5.8 [19]	2.80E+06 mg/kg	--	7.50E-08
Volatile Organic Compounds (mg/kg)					
Acetone	0.066 mg/kg	4.9 [16] - 5.2 [17]	72,000 mg/kg	--	9.17E-07
Benzene	0.0080 mg/kg	1.5 [5.0] - 1.8 [6.0]	18 mg/kg	4.40E-10	--
Methylene chloride	0.027 mg/kg	5.3 [17.5] - 5.8 [19]	133 mg/kg	2.03E-10	--
Toluene	0.0030 mg/kg	2.9 [9.5] - 3.2 [10.5]	6,400 mg/kg	--	4.69E-07
General Inorganic Chemistry (mg/kg)					
Nitrate	833 mg/kg	5.3 [17.5] - 5.8 [19]	5.60E+06 mg/kg	--	1.49E-04
Nitrogen in Nitrite	0.25 mg/kg	2.9 [9.5] - 3.2 [10.5]	350,000 mg/kg	--	7.14E-07
Miscellaneous Organic Analyses (mg/kg)					
Aroclor-1254	0.077 mg/kg	3.0 [10] - 4.0 [13]	66 mg/kg	1.17E-09	--
Total ELCR: 1.82E-09					
Hazard Index: 0.0077					

* Cleanup levels from WAC 173-340-745, "Soil Cleanup Standards for Industrial Properties."

-- = not applicable.
bgs = below ground surface.
ELCR = excess lifetime cancer risk.
HQ = hazard quotient.

Table 3-28. 216-S-10 Ditch - Shallow Zone Soil for Balancing Criteria Evaluation Comparison of Maximum Soil Concentrations from Zero to 8.4 m (27 ft) bgs to Unrestricted Land Use Direct Contact Cleanup Levels. (2 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 5.8 m (19 ft) bgs	Depth of Maximum Detected from 0 to 5.8 m (19 ft) bgs	Soil Cleanup Levels	ELCR	HQ
Metals Analyses					
Boron	1.5 mg/kg	1.8 [6] - 2.1 [7]	16,000 mg/kg	--	9.38E-05
Chromium	815 mg/kg	7.6 [25] - 8.2 [27]	120,000 mg/kg	--	0.0068
Cadmium	2.3 mg/kg	7.6 [25] - 8.2 [27]	40 mg/kg	--	0.057
Copper	244 mg/kg	7.6 [25] - 8.2 [27]	2,960 mg/kg	--	0.082
Hexavalent Chromium	14 mg/kg	1.8 [6] - 2.1 [7]	240 mg/kg	--	0.059
Lead	30 mg/kg	7.6 [25] - 8.2 [27]	400 mg/kg	--	0.075
Mercury	4.3 mg/kg	7.6 [25] - 8.2 [27]	24 mg/kg	--	0.18
Nickel	20 mg/kg	7.6 [25] - 8.2 [27]	1,600 mg/kg	--	0.013
Selenium	1.9 mg/kg	7.6 [25] - 8.2 [27]	400 mg/kg	--	0.0048
Silver	30 mg/kg	7.6 [25] - 8.2 [27]	400 mg/kg	--	0.076
Thallium	0.99 mg/kg	1.8 [6] - 2.1 [7]	5.6 mg/kg	--	0.18
Vanadium	88 mg/kg	7.6 [25] - 8.2 [27]	560 mg/kg	--	0.16
Zinc	506 mg/kg	7.6 [25] - 8.2 [27]	24,000 mg/kg	--	0.021

Table 3-28. 216-S-10 Ditch - Shallow Zone Soil for Balancing Criteria Evaluation Comparison of Maximum Soil Concentrations from Zero to 8.4 m (27 ft) bgs to Unrestricted Land Use Direct Contact Cleanup Levels. (2 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 5.8 m (19 ft) bgs	Depth of Maximum Detected from 0 to 5.8 m (19 ft) bgs	Soil Cleanup Levels	ELCR	HQ
Semivolatile Organic Compounds					
Acenaphthene	0.061 mg/kg	0 [0] - .5 [1.5]	4,800 mg/kg	--	1.27E-05
Anthracene	0.15 mg/kg	0 [0] - .5 [1.5]	24,000 mg/kg	--	6.25E-06
Benzo(a)anthracene	0.55 mg/kg	0 [0] - .5 [1.5]	1.4 mg/kg	4.02E-07	--
Benzo(a)pyrene	**0.60 mg/kg**	**0 [0] - .5 [1.5]**	**0.14 mg/kg**	**4.38E-06**	**--**
Benzo(b)fluoranthene	0.53 mg/kg	0 [0] - .5 [1.5]	1.4 mg/kg	3.87E-07	--
Benzo(ghi)perylene	0.66 mg/kg	0 [0] - .5 [1.5]	2,400 mg/kg		--
Benzo(k)fluoranthene	0.45 mg/kg	0 [0] - .5 [1.5]	14 mg/kg	3.29E-08	--
Bis(2-ethylhexyl)phthalate	0.58 mg/kg	7.6 [25] - 8.2 [27]	71 mg/kg	8.12E-09	--
Butylbenzylphthalate	0.58 mg/kg	0 [0] - .5 [1.5]	16,000 mg/kg	--	3.63E-05
Carbazole	0.097 mg/kg	0 [0] - .5 [1.5]	50 mg/kg	1.94E-09	--
Chrysene	0.68 mg/kg	0 [0] - .5 [1.5]	137 mg/kg	4.96E-09	--
Dibenz[a,h]anthracene	0.11 mg/kg	0 [0] - .5 [1.5]	0.14 mg/kg	8.03E-07	--
Diethylphthalate	0.36 mg/kg	7.6 [25] - 8.2 [27]	64,000 mg/kg	--	5.63E-06
Di-n-butylphthalate	2.3 mg/kg	4.9 [16] - 5.2 [17]	8,000 mg/kg	--	2.88E-04
Fluoranthene	1.5 mg/kg	0 [0] - .5 [1.5]	3,200 mg/kg	--	4.69E-04
Fluorene	0.059 mg/kg	0 [0] - .5 [1.5]	3,200 mg/kg	--	1.84E-05
Indeno(1,2,3-cd)pyrene	0.40 mg/kg	0 [0] - .5 [1.5]	1.4 mg/kg	2.92E-07	--
Phenanthrene	0.93 mg/kg	0 [0] - .5 [1.5]	24,000 mg/kg	--	3.88E-05
Pyrene	1.6 mg/kg	.5 [1.5] - .9 [3]	2,400 mg/kg	--	6.67E-04
Volatile Organic Compounds					
Acetone	0.010 mg/kg	4.9 [16] - 5.2 [17]	72,000 mg/kg	--	1.39E-07
Methylene chloride	0.018 mg/kg	7.6 [25] - 8.2 [27]	133 mg/kg	1.33E-10	--
General Inorganic Chemistry					
Nitrate	81 mg/kg	6.1 [20] - 6.7 [22]	128,000 mg/kg	--	6.30E-04
Nitrogen in Nitrate	0.57 mg/kg	2.6 [8.5] - 2.9 [9.5]	128,000 mg/kg	--	4.45E-06
Nitrogen in Nitrite	0.35 mg/kg	2.6 [8.5] - 2.9 [9.5]	8,000 mg/kg	--	4.38E-05
Miscellaneous Organic Analyses					
Aroclor-1254	**3.7 mg/kg**	**.5 [1.5] - .9 [3]**	**0.50 mg/kg**	**7.40E-06**	
Total petroleum hydrocarbons - diesel range	31 mg/kg	0 [0] - .5 [1.5]			
Total ELCR: 1.37E-05					
Hazard Index: 0.92					

* Cleanup levels from WAC 173-340-740, "Unrestricted Land Use Soil Cleanup Standards."
Shaded cells indicate the constituent exceeds either the ELCR or HQ.

-- = not applicable.
bgs = below ground surface.
ELCR = excess lifetime cancer risk.
HQ = hazard quotient.

Table 3-29. 216-S-10 Ditch - Shallow Zone Soil for Balancing Criteria Evaluation Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) bgs to Industrial Use Cleanup Levels. (2 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m (15 ft) (m [ft] bgs)	Industrial Use Soil Cleanup Levels *	Excess Lifetime Cancer Risk	Hazard Quotient
Metals Analyses					
Boron	1.5 mg/kg	1.8 [6] - 2.1 [7]	700,000 mg/kg		2.14E-06
Chromium	815 mg/kg	7.6 [25] - 8.2 [27]	5.25E+06 mg/kg		1.55E-04
Cadmium	2.3 mg/kg	7.6 [25] - 8.2 [27]	1,750 mg/kg		0.0013
Copper	244 mg/kg	7.6 [25] - 8.2 [27]	129,500 mg/kg		0.0019
Hexavalent Chromium	14 mg/kg	1.8 [6] - 2.1 [7]	10,500 mg/kg		0.0013
Lead	30 mg/kg	7.6 [25] - 8.2 [27]	800 mg/kg		0.038
Mercury	4.3 mg/kg	7.6 [25] - 8.2 [27]	1,050 mg/kg		0.0041
Nickel	20 mg/kg	7.6 [25] - 8.2 [27]	70,000 mg/kg		2.90E-04
Selenium	1.9 mg/kg	7.6 [25] - 8.2 [27]	17,500 mg/kg		1.09E-04
Silver	30 mg/kg	7.6 [25] - 8.2 [27]	17,500 mg/kg		0.0017
Thallium	0.99 mg/kg	1.8 [6] - 2.1 [7]	245 mg/kg		0.0040
Vanadium	88 mg/kg	7.6 [25] - 8.2 [27]	24,500 mg/kg		0.0036
Zinc	506 mg/kg	7.6 [25] - 8.2 [27]	1.05E+06 mg/kg		4.82E-04
Semivolatile Organic Compounds					
Acenaphthene	0.061 mg/kg	0 [0] - .5 [1.5]	210,000 mg/kg		2.90E-07
Anthracene	0.15 mg/kg	0 [0] - .5 [1.5]	1.05E+06 mg/kg		1.43E-07
Benzo(a)anthracene	0.55 mg/kg	0 [0] - .5 [1.5]	180 mg/kg	3.06E-09	
Benzo(a)pyrene	0.60 mg/kg	0 [0] - .5 [1.5]	18 mg/kg	3.34E-08	
Benzo(b)fluoranthene	0.53 mg/kg	0 [0] - .5 [1.5]	180 mg/kg	2.95E-09	
Benzo(ghi)perylene	0.66 mg/kg	0 [0] - .5 [1.5]	105,000 mg/kg		
Benzo(k)fluoranthene	0.45 mg/kg	0 [0] - .5 [1.5]	1,798 mg/kg	2.50E-10	
Bis(2-ethylhexyl)phthalate	0.58 mg/kg	7.6 [25] - 8.2 [27]	9,375 mg/kg	6.19E-11	
Butylbenzylphthalate	0.58 mg/kg	0 [0] - .5 [1.5]	700,000 mg/kg		8.29E-07
Carbazole	0.097 mg/kg	0 [0] - .5 [1.5]	6,563 mg/kg	1.48E-11	
Chrysene	0.68 mg/kg	0 [0] - .5 [1.5]	18,000 mg/kg	3.78E-11	
Dibenz[a,h]anthracene	0.11 mg/kg	0 [0] - .5 [1.5]	18 mg/kg	6.12E-09	
Diethylphthalate	0.36 mg/kg	7.6 [25] - 8.2 [27]	2.80E+06 mg/kg		1.29E-07
Di-n-butylphthalate	2.3 mg/kg	4.9 [16] - 5.2 [17]	350,000 mg/kg		6.57E-06
Fluoranthene	1.5 mg/kg	0 [0] - .5 [1.5]	140,000 mg/kg		1.07E-05
Fluorene	0.059 mg/kg	0 [0] - .5 [1.5]	140,000 mg/kg		4.21E-07
Indeno(1,2,3-cd) pyrene	0.40 mg/kg	0 [0] - .5 [1.5]	180 mg/kg	2.22E-09	
Phenanthrene	0.93 mg/kg	0 [0] - .5 [1.5]	1.05E+06 mg/kg		8.86E-07
Pyrene	1.6 mg/kg	.5 [1.5] - .9 [3]	105,000 mg/kg		1.52E-05
Volatile Organic Compounds					
Acetone	0.010 mg/kg	4.9 [16] - 5.2 [17]	3.15E+06 mg/kg		3.17E-09
Methylene chloride	0.018 mg/kg	7.6 [25] - 8.2 [27]	17,500 mg/kg	1.01E-12	

Table 3-29. 216-S-10 Ditch - Shallow Zone Soil for Balancing Criteria Evaluation Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) bgs to Industrial Use Cleanup Levels. (2 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m (15 ft) (m [ft] bgs)	Industrial Use Soil Cleanup Levels *	Excess Lifetime Cancer Risk	Hazard Quotient
General Inorganic Chemistry					
Nitrate	81 mg/kg	6.1 [20] - 6.7 [22]	5.60E+06 mg/kg		1.44E-05
Nitrogen in Nitrate	0.57 mg/kg	2.6 [8.5] - 2.9 [9.5]	5.60E+06 mg/kg		1.02E-07
Nitrogen in Nitrite	0.35 mg/kg	2.6 [8.5] - 2.9 [9.5]	350,000 mg/kg		1.00E-06
Miscellaneous Organic Analyses)					
Aroclor-1254	3.7 mg/kg	.5 [1.5] - .9 [3]	66 mg/kg	5.64E-08	
Total petroleum hydrocarbons - diesel range	31 mg/kg	0 [0] - .5 [1.5]	2,000 mg/kg		0.016
Total ELCR: 1.04E-07					
Hazard Index: 0.072					

* Cleanup levels from WAC 173-340-745, "Soil Cleanup Standards for Industrial Properties."

-- = not applicable.
bgs = below ground surface.
ELCR = excess lifetime cancer risk.
HQ = hazard quotient.

Table 3-30. Summary of Nonradiological COCs for the Direct Contact Exposure Pathway.

	0 to 4.6 m (15 ft) Below Ground Surface	
Waste Site	Unrestricted Land Use [a]	Industrial Land Use [b]
216-A-29 Ditch	Arsenic, Benzo(a)pyrene, Aroclor-1254	No COCs identified
216-B-63 Trench	No COCs identified	No COCs identified
216-S-10 Ditch	Benzo(a)pyrene, Aroclor-1254	No COCs identified
216-S-10 Pond	No COCs identified	No COCs identified

[a] Based on comparison of maximum detected concentrations from waste site to the WAC 173-340-740 cleanup level.
[b] Based on comparison of maximum detected concentrations from waste site to the WAC 173-340-745 cleanup level.

COC = contaminant of concern

Table 3-31. Summary of Nonradiological COCs for the Balancing Criteria Evaluation.

Waste Site	Unrestricted Land Use [a]	Industrial Land Use [b]
216-B-63 Trench [c]	No COCs identified	No COCs identified
216-S-10 Ditch [d]	Benzo(a)pyrene, Aroclor-1254	No COCs identified

[a] Based on comparison of maximum detected concentrations from waste site to the WAC 173-340-740 cleanup level.
[b] Based on comparison of maximum detected concentrations from waste site to the WAC 173-340-745 cleanup level.
[c] The point of calculation for the 216-B-63 Trench is 0 to 5.79 m (19 ft) bgs.
[d] The point of calculation for the 216-S-10 Ditch is 0 to 8.22 m (27 ft) bgs.

COC = contaminant of concern.

Table 3-32. Summary of Excess Lifetime Cancer Risks Rural Residential Scenario for Baseline Risk Assessment.

Calculation Period (yr)	Contamination Zone	Excess Lifetime Cancer Risk				
		216-A-29 Ditch		216-B-63 Trench	216-S-10 Ditch	216-S-10 Pond
		Head End	Outlet End			
0	CZ1	1.61E-12	2.24E-11	2.20E-16	1.16E-05	9.47E-17
	CZ2	1.97E-05	5.77E-05	0	0	0
	CZ3	--	--	--	--	0
	Total ELCR	1.97E-05	5.77E-05	2.20E-16	1.16E-05	9.47E-17
50	CZ1	1.40E-12	1.76E-11	7.69E-16	5.05E-06	3.70E-16
	CZ2	1.80E-06	3.72E-06	0	0	0
	CZ3	--	--	--	--	0
	Total ELCR	**1.80E-06**	**3.72E-06**	**7.69E-16**	**5.05E-06**	**3.70E-16**
150	CZ1	1.33E-12	1.56E-11	1.89E-15	3.36E-06	8.99E-16
	CZ2	2.65E-09	2.29E-09	0	0	0
	CZ3	--	--	--	--	0
	Total ELCR	**2.65E-09**	**2.30E-09**	**1.89E-15**	**3.36E-06**	**8.99E-16**
500	CZ1	1.35E-12	1.54E-11	3.07E-05	7.15E-06	2.46E-15
	CZ2	3.23E-19	1.32E-20	0	0	0
	CZ3	--	--	--	--	1.61E-11
	Total ELCR	**1.35E-12**	**1.54E-11**	**3.07E-05**	**7.15E-06**	**1.61E-11**
1,000	CZ1	1.36E-12	1.70E-08	8.69E-13	1.17E-05	4.00E-15
	CZ2	0	0	3.20E-11	0	0
	CZ3	--	--	--	--	5.03E-11
	Total ELCR	**1.36E-12**	**1.70E-08**	**3.29E-11**	**1.17E-05**	**5.03E-11**
Peak Year	CZ1	1.51E-12	2.02E-11	3.52E-05	1.84E-05	8.76E-14
	CZ2	1.47E-05	4.23E-05	0	0	0
	CZ3	--	--	--	--	0
	Total ELCR	**1.47E-05**	**4.23E-05**	**3.52E-05**	**1.84E-05**	**8.76E-14**
		17 yr (Tritium)	16 yr (Tritium)	506 (Tc-99)	3,299 (Pu-239)	321 (Tritium)
Peak Year	CZ1	--	--	3.21E-12	1.81E-05	5.65E-15
	CZ2	--	--	4.18E-11	5.49E-21	0
	CZ3	--	--	--	--	6.61E-11
	Total ELCR	--	--	**4.50E-11**	**1.81E-05**	**6.61E-11**
				963 (Ni-63)	3,936 (Ni-63)	2,572 (Pu-239)

ELCR = excess lifetime cancer risk.

Table 3-33. Summary of Annual Dose Rates Rural Residential Scenario for Baseline Risk Assessment.

Annual Radiation Dose (mrem/yr)						
Calculation Period (yr)	**Contamination Zone**	**216-A-29 Ditch**		**216-B-63 Trench**	**216-S-10 Ditch**	**216-S-10 Pond**
		Head End	**Outlet End**			
0	CZ1	7.56E-08	1.11E-06	2.99E-12	1.1	6.35E-13
	CZ2	0.0053	0.017	0	0	0
	CZ3	--	--	--	--	0
	Total Dose	**0.0053**	**0.017**	**2.99E-12**	**1.1**	**6.35E-13**
50	CZ1	6.28E-08	8.08E-07	2.66E-11	0.67	1.27E-11
	CZ2	0.069	0.15	0	0	0
	CZ3	0.069	--	--	--	0
	Total Dose	**0.14**	**0.15**	**2.66E-11**	**0.67**	**1.26E-11**
150	CZ1	5.81E-08	6.87E-07	7.55E-11	0.57	3.61E-11
	CZ2	1.01E-04	9.05E-05	0	0	0
	CZ3	--	--	--	--	0
	Total Dose	**1.01E-04**	**9.11E-05**	**7.55E-11**	**0.57**	**3.53E-11**
500	CZ1	5.90E-08	6.74E-07	2.37E-10	0.85	1.05E-10
	CZ2	1.23E-14	5.23E-16	0	0	0
	CZ3	--	--	--	--	1.62E-06
	Total Dose	**5.90E-08**	**6.74E-07**	**2.37E-10**	**0.85**	**5.62E-05**
1,000	CZ1	5.94E-08	6.56E-07	2.24E-08	1.2	1.74E-10
	CZ2	8.28E-29	0	9.45E-07	0	0
	CZ3	--	--	--	--	5.59E-06
	Total Dose	**5.94E-08**	**6.56E-07**	**9.67E-07**	**1.2**	**5.59E-06**
Peak Year	CZ1	6.97E-08	9.70E-07	0.66	1.7	5.63E-09
	CZ2	0.45	1.3	0	0	0
	CZ3	--	--	--	--	0
	Total Dose	**0.45**	**1.3**	**0.66**	**1.7**	**5.63E-09**
		17 yr (Tritium)	16 yr (Tritium)	506 (Tc-99)	3,299 (Pu-239)	321 (Tritium)
Peak Year	CZ1	--	--	8.20E-08	1.6	2.47E-10
	CZ2	--	--	1.23E-06	1.42E-16	0
	CZ3	--	--	--	--	7.47E-06
	Total Dose	--	--	**1.32E-06**	**1.6**	**7.47E-06**
				963 (Ni-63)	3,936 (Ni-63)	2,572 (Pu-239)

Table 3-34. Summary of Annual Dose Rates and Excess Lifetime Cancer Risks Industrial Worker Scenario for Baseline Risk Assessment.

Calculation Period (yr)	216-A-29 Ditch		216-B-63 Trench	216-S-10 Ditch	216-S-10 Pond
	Head End	Outlet End			
Annual Radiation Dose (mrem/yr)					
0	2.64E-08	3.86E-07	1.04E-12	2.28E-04	2.22E-13
50	2.22E-08	2.85E-07	9.30E-12	8.82E-05	4.48E-12
150	2.10E-08	2.50E-07	2.66E-11	5.40E-05	1.30E-11
500	2.32E-08	2.71E-07	8.54E-11	1.48E-04	4.06E-11
1,000	2.65E-08	3.05E-07	1.63E-10	2.75E-04	7.48E-11
Peak: 10000	7.22E-08	6.33E-07	1.27E-09	0.0013	2.90E-10
Excess Lifetime Cancer Risk					
0	4.73E-13	6.64E-12	5.63E-17	3.34E-09	2.36E-17
50	4.14E-13	5.23E-12	2.16E-16	1.41E-09	1.05E-16
150	4.01E-13	4.76E-12	5.47E-16	1.07E-09	2.66E-16
500	4.45E-13	5.18E-12	1.67E-15	2.88E-09	7.91E-16
1,000	5.07E-13	5.82E-12	3.15E-15	5.29E-09	1.44E-15
Peak: 10000	1.38E-12	1.21E-11	2.43E-14	2.51E-08	5.54E-15

Table 3-35. Summary of Annual Dose Rates and Excess Lifetime Cancer Risks Hypothetical Excavation Industrial Worker Scenario for Balancing and Modifying Criteria Evaluation.

Calculation Period (yr)	216-A-29 Ditch		216-B-63 Trench	216-S-10 Ditch	216-S-10 Pond
	Head End	Outlet End			
Radiation Dose (mrem/yr)					
0	49	49	1.4	3.5	0.75
50	23	23	0.49	1.2	0.31
150	12	12	0.17	0.29	0.19
500	9.9	9.9	0.37	0.40	0.44
1,000	9.3	9.2	0.65	0.66	0.73
Peak: 0	49	49	1.496 (6627 yr)	3.5	1.28 (4082 yr)
Excess Lifetime Cancer Risk					
0	5.88E-04	5.88E-04	2.04E-05	4.94E-05	1.05E-05
50	2.17E-04	2.17E-04	7.39E-06	1.65E-05	4.38E-06
150	6.27E-05	6.27E-05	3.13E-06	3.99E-06	3.13E-06
500	4.23E-05	4.21E-05	7.01E-06	6.64E-06	7.81E-06
1,000	3.99E-05	3.96E-05	1.23E-05	1.15E-05	1.33E-05
Peak: 0	5.88E-04	5.88E-04		4.94E-05	2.4E-05 (4,082 yr)

Table 3-36. Summary of Excess Lifetime Cancer Risks CTUIR Scenario for Balancing and Modifying Criteria Evaluation.

Calculation Period (yr)	Contamination Zone	Excess Lifetime Cancer Risk				
		216-A-29 Ditch		216-B-63 Trench	216-S-10 Ditch	216-S-10 Pond
		Head End	Outlet End			
0	CZ1	4.41E-12	5.90E-11	1.28E-15	7.81E-05	5.99E-16
	CZ2	7.14E-05	2.20E-04	0	0	0
	CZ3	--	--	--	--	0
	Total ELCR	**7.14E-05**	**2.20E-04**	**1.28E-15**	**7.81E-05**	**5.99E-16**
50	CZ1	4.00E-12	4.90E-11	2.90E-15	3.98E-05	1.40E-15
	CZ2	5.50E-06	1.21E-05	0	0	0
	CZ3	--	--	--	--	0
	Total ELCR	**5.50E-06**	**1.21E-05**	**2.90E-15**	**3.98E-05**	**1.40E-15**
150	CZ1	3.87E-12	4.54E-11	6.15E-15	3.39E-05	2.92E-15
	CZ2	8.08E-09	7.44E-09	0	0	0
	CZ3	--	--	--	--	0
	Total ELCR	**8.08E-09**	**7.49E-09**	**6.15E-15**	**3.39E-05**	**2.92E-15**
500	CZ1	3.94E-12	4.50E-11	1.11E-04	7.19E-05	7.39E-15
	CZ2	9.85E-19	4.30E-20	0	0	0
	CZ3	--	--	--	--	8.73E-11
	Total ELCR	**3.94E-12**	**4.50E-11**	**1.11E-04**	**7.19E-05**	**8.73E-11**
1,000	CZ1	3.96E-12	8.00E-07	2.79E-12	1.15E-04	1.18E-14
	CZ2	0	0	1.33E-10	0	0
	CZ3	--	--	--	--	2.45E-10
	Total ELCR	**3.96E-12**	**8.00E-07**	**1.36E-10**	**1.15E-04**	**2.45E-10**
Peak Year	CZ1	4.21E-12	5.46E-11	1.14E-04	1.79E-04	2.02E-13
	CZ2	4.52E-05	1.39E-04	0	0	0
	CZ3	--	--	--	--	1.44E-13
	Total ELCR	**4.52E-05**	**1.39E-04**	**1.14E-04**	**1.79E-04**	**3.46E-13**
		17 yr (Tritium)	16 yr (Tritium)	506 (Tc-99)	3,299 (Pu-239)	321 (Tritium)
Peak Year	CZ1	--	--	1.03E-11	1.77E-04	1.65E-14
	CZ2	--	--	1.74E-10	2.50E-20	0
	CZ3	--	--	--	--	3.17E-10
	Total ELCR	--	--	**1.84E-10**	**1.77E-04**	**3.17E-10**
				963 (Ni-63)	3936 (Ni-63)	2,572 (Pu-239)

ELCR = excess lifetime cancer risk.

Table 3-37. Summary of Annual Dose Rates CTUIR Scenario for Balancing and Modifying Criteria Evaluation.

Annual Radiation Dose (mrem/yr)						
Calculation Period (yr)	**Contamination Zone**	**Excess Lifetime Cancer Risk**				
		216-A-29 Ditch		**216-B-63 Trench**	**216-S-10 Ditch**	**216-S-10 Pond**
		Head End	**Outlet End**			
0	CZ1	9.45E-08	1.38E-06	3.74E-12	4.4	7.94E-13
	CZ2	0.013	0.047	0	0	0
	CZ3	--	--	--	--	0
	Total Dose	**0.013**	**0.047**	**3.74E-12**	**4.4**	**6.35E-13**
50	CZ1	7.85E-08	1.01E-06	3.32E-11	2.8	1.59E-11
	CZ2	0.18	0.42	0	0	0
	CZ3		--	--	--	0
	Total Dose	**0.18**	**0.42**	**3.32E-11**	**2.8**	**1.26E-11**
150	CZ1	7.26E-08	8.58E-07	9.43E-11	2.4	4.51E-11
	CZ2	2.59E-04	2.56E-04	0	0	0
	CZ3	--	--	--	--	0
	Total Dose	**2.59E-04**	**2.57E-04**	**9.43E-11**	**2.4**	**3.53E-11**
500	CZ1	7.37E-08	8.43E-07	2.96E-12	3.6	1.31E-10
	CZ2	3.16E-14	1.48E-15	0	0	0
	CZ3	--	--	--	--	3.35E-06
	Total Dose	**7.37E-08**	**6.74E-07**	**2.96E-12**	**3.6**	**5.62E-05**
1,000	CZ1	7.43E-08	8.20E-07	4.99E-08	4.9	2.17E-10
	CZ2	2.17E-28	0	1.94E-06	0	0
	CZ3	--	--	--	--	1.15E-05
	Total Dose	**5.94E-08**	**6.56E-07**	**1.99E-06**	**4.9**	**5.59E-06**
Peak Year	CZ1	8.68E-08	1.21E-06	2.0	7.0	1.25E-08
	CZ2	1.1	3.5	0	0	0
	CZ3	--	--	--	--	0
	Total Dose	**1.1**	**3.5**	**2.0**	**7.0**	**111**
		17 yr (Tritium)	16 yr (Tritium)	506 (Tc-99)	3,299 (Pu-239)	321 (Tritium)
Peak Year	CZ1	--	--	1.84E-07	6.9	3.08E-10
	CZ2	--	--	2.52E-06	2.87E-16	0
	CZ3	--	--		--	1.54E-05
	Total Dose	**0**	**0**	**2.70E-06**	**6.9**	**1.54E-05**
				963 (Ni-63)	3936 (Ni-63)	2,572 (Pu-239)

Table 3-38. Summary of Excess Lifetime Cancer Risks Yakama Nation Scenario for Balancing and Modifying Criteria Evaluation.

Calculation Period (yr)	Contamination Zone	Excess Lifetime Cancer Risk				
		216-A-29 Ditch		216-B-63 Trench	216-S-10 Ditch	216-S-10 Pond
		Head End	Outlet End			
0	CZ1	4.41E-12	5.90E-11	1.28E-15	8.62E-05	5.99E-16
	CZ2	7.14E-05	2.34E-04	0	0	0
	CZ3	--	--	--	--	0
	Total ELCR	**7.14E-05**	**2.34E-04**	**1.28E-15**	**8.62E-05**	**5.99E-16**
50	CZ1	4.00E-12	4.90E-11	2.90E-15	4.34E-05	1.40E-15
	CZ2	5.50E-06	1.28E-05	0	0	0
	CZ3	--	--	--	--	0
	Total ELCR	**5.50E-06**	**1.28E-05**	**2.90E-15**	**4.34E-05**	**1.40E-15**
150	CZ1	3.87E-12	4.54E-11	6.15E-15	3.60E-05	2.92E-15
	CZ2	8.08E-09	7.91E-09	0	0	0
	CZ3	--	--	--	--	
	Total ELCR	**8.08E-09**	**7.96E-09**	**6.15E-15**	**3.60E-05**	**2.92E-15**
500	CZ1	3.94E-12	4.50E-11	1.13E-04	7.57E-05	7.39E-15
	CZ2	9.85E-19	4.57E-20	0	0	0
	CZ3	--	--	--	--	9.57E-11
	Total ELCR	**3.94E-12**	**4.50E-11**	**1.13E-04**	**7.57E-05**	**9.57E-11**
1,000	CZ1	3.96E-12	8.00E-07	2.84E-12	1.22E-04	1.18E-14
	CZ2	0	0	1.47E-10	0	0
	CZ3	--	--	--	--	2.68E-10
	Total ELCR	**3.96E-12**	**8.00E-07**	**1.50E-10**	**1.22E-04**	**2.68E-10**
Peak Year	CZ1	4.21E-12	5.46E-11	1.16E-04	1.89E-04	2.54E-13
	CZ2	4.52E-05	1.47E-04	0	0	0
	CZ3	--	--	--	--	1.58E-13
	Total ELCR	**4.52E-05**	**1.47E-04**	**1.16E-04**	**1.89E-04**	**4.12E-13**
		17 yr (Tritium)	16 yr (Tritium)	506 (Tc-99)	3,299 (Pu-239)	321 (Tritium)
Peak Year	CZ1	--	--	1.05E-11	1.86E-04	1.65E-14
	CZ2	--	--	1.92E-10	2.87E-20	0
	CZ3	--	--	--	--	3.48E-10
	Total ELCR	0	0	**2.03E-10**	**1.86E-04**	**3.48E-10**
				963 (Ni-63)	3,936 (Ni-63)	2,572 (Pu-239)

ELCR = excess lifetime cancer risk.

Table 3-39. Summary of Annual Dose Rates Yakama Nation Scenario for Balancing and Modifying Criteria Evaluation.

Annual Radiation Dose (mrem/yr)						
Calculation Period (yr)	**Contamination Zone**	**216-A-29 Ditch**		**216-B-63 Trench**	**216-S-10 Ditch**	**216-S-10 Pond**
		Head End	**Outlet End**			
0	CZ1	9.45E-08	1.38E-06	3.74E-12	4.8	7.94E-13
	CZ2	0.013	0.049	0	0	0
	CZ3	--	--	--	--	0
	Total Dose	**0.013**	**0.049**	**3.74E-12**	**4.8**	**6.35E-13**
50	CZ1	7.85E-08	1.01E-06	3.32E-11	2.9	1.59E-11
	CZ2	0.18	0.44	0	0	0
	CZ3	--	--	--	--	0
	Total Dose	**0.18**	**0.44**	**3.32E-11**	**2.9**	**1.26E-11**
150	CZ1	7.26E-08	8.58E-07	9.43E-11	2.5	4.51E-11
	CZ2	2.59E-04	2.70E-04	0	0	0
	CZ3	--	--	--	--	0
	Total Dose	**2.59E-04**	**2.71E-04**	**9.43E-11**	**2.5**	**3.53E-11**
500	CZ1	7.37E-08	8.43E-07	2.96E-10	3.7	1.31E-10
	CZ2	3.16E-14	1.56E-15	0	0	0
	CZ3	--	--	--	--	3.61E-06
	Total Dose	**7.37E-08**	**6.74E-07**	**2.96E-10**	**3.7**	**5.62E-05**
1,000	CZ1	7.43E-08	8.20E-07	5.05E-08	5.2	2.17E-10
	CZ2	2.17E-28	0.00E+00	2.09E-06	0	0
	CZ3	--	--	--	--	1.24E-05
	Total Dose	**5.94E-08**	**6.56E-07**	**2.14E-06**	**5.2**	**5.59E-06**
Peak Year	CZ1	8.68E-08	1.21E-06	2.0	7.3	1.54E-08
	CZ2	1.1	3.7	0	0	0
	CZ3	--	--	--	--	0
	Total Dose	**1.1**	**3.7**	**2.0**	**7.3**	**111**
		17 yr (Tritium)	16 yr (Tritium)	506 (Tc-99)	3,299 (Pu-239)	321 (Tritium)
Peak Year	CZ1	--	--	1.87E-07	7.3	3.08E-10
	CZ2	--	--	2.73E-06	3.21E-16	0
	CZ3	--	--	--	--	1.66E-05
	Total Dose	--	--	**2.92E-06**	**7.3**	**1.66E-05**
				963 (Ni-63)	3,936 (Ni-63)	2,572 (Pu-239)

Table 3-40. Summary of Annual Dose Rates Inadvertent Intruder - Well Driller Scenario.

Annual Radiation Dose (mrem/yr)				
Calculation Period (yr)	**216-A-29 Ditch**	**216-B-63 Trench**	**216-S-10 Ditch**	**216-S-10 Pond**
150	1.36E-03	1.18E-04	2.13E-04	4.85E-05
500	5.19E-04	1.67E-04	1.63E-04	6.95E-05

Table 3-41. Summary of Annual Dose Rates Inadvertent Intruder - Post-Drilling Rural Residential Scenario.

Annual Radiation Dose (mrem/yr)				
Calculation Period (yr)	**216-A-29 Ditch**	**216-B-63 Trench**	**216-S-10 Ditch**	**216-S-10 Pond**
150	3.58E-01	8.78E-03	2.22E-02	5.04E-03
500	2.63E-01	1.39E-02	1.78E-02	6.56E-03
1,000	2.18E-01	1.89E-02	1.46E-02	5.55E-03

Table 3-42. 216-A-29 Ditch - Deep Zone Soil Comparison of Maximum Soil Concentrations from 0 to Groundwater Table to Default Soil Concentrations Protective of Groundwater. (2 Pages)

Constituent Name	**Maximum Detected Concentration from 0 to Groundwater Table**	**Depth of Maximum Detected from 0 to Groundwater (m [ft] bgs)**	**Soil Concentrations Protective of Groundwater**	**Does Maximum Concentration Exceed Soil Concentrations Protective of Groundwater?**
Metals Analyses				
Arsenic	12 mg/kg	2.6 [8.5] - 2.9 [9.5]	6.5 mg/kg	Yes
Barium	166 mg/kg	79.2 [260] - 79.9 [262]	1,650 mg/kg	No
Boron	3.4 mg/kg	1.2 [4] - 1.5 [5.0]	210 mg/kg	No
Cadmium	28 mg/kg	1.2 [4] - 1.5 [5.0]	1.0 mg/kg	Yes
Chromium	37 mg/kg	1.2 [4] - 1.5 [5.0]	2,000 mg/kg	No
Copper	172 mg/kg	1.2 [4] - 1.5 [5.0]	263 mg/kg	No
Hexavalent Chromium	8.8 mg/kg	2.3 [7.5] - 2.6 [8.5]	18 mg/kg	No
Lead	390 mg/kg	2.3 [7.5] - 2.6 [8.5]	270 mg/kg	Yes
Mercury	5.2 mg/kg	1.2 [4] - 1.5 [5.0]	2.1 mg/kg	Yes
Nickel	32 mg/kg	79.2 [260] - 79.9 [262]	130 mg/kg	No
Selenium	2.5 mg/kg	2.7 [9] - 3.5 [11.5]	5.2 mg/kg	No
Silver	42 mg/kg	1.2 [4] - 1.5 [5.0]	14 mg/kg	Yes
Thallium	0.52 mg/kg	1.8 [6] - 2.1 [7]	1.6 mg/kg	No
Uranium	5.3 mg/kg	2.3 [7.5] - 2.6 [8.5]	1.3 mg/kg	Yes
Vanadium	104 mg/kg	2.3 [7.5] - 2.6 [8.5]	2,240 mg/kg	No
Zinc	224 mg/kg	1.2 [4] - 1.5 [5.0]	5,970 mg/kg	No

Table 3-42. 216-A-29 Ditch - Deep Zone Soil Comparison of Maximum Soil Concentrations from 0 to Groundwater Table to Default Soil Concentrations Protective of Groundwater. (2 Pages)

Constituent Name	Maximum Detected Concentration from 0 to Groundwater Table	Depth of Maximum Detected from 0 to Groundwater (m [ft] bgs)	Soil Concentrations Protective of Groundwater	Does Maximum Concentration Exceed Soil Concentrations Protective of Groundwater?
Semivolatile Organic Compounds				
Benzo(a)anthracene	0.18 mg/kg	1.2 [4] - 1.5 [5.0]	0.86 mg/kg	No
Benzo(a)pyrene	0.16 mg/kg	1.2 [4] - 1.5 [5.0]	0.23 mg/kg	No
Benzo(b)fluoranthene	0.24 mg/kg	1.2 [4] - 1.5 [5.0]	3.0 mg/kg	No
Bis(2-ethylhexyl) phthalate	6.2 mg/kg	1.2 [4] - 1.5 [5.0]	14 mg/kg	No
Butylbenzylphthalate	0.29 mg/kg	1.2 [4] - 1.5 [5.0]	893 mg/kg	No
Chrysene	0.21 mg/kg	1.2 [4] - 1.5 [5.0]	96 mg/kg	No
Diethylphthalate	0.33 mg/kg	2.7 [9] - 3.5 [11.5]	72 mg/kg	No
Di-n-butylphthalate	2.7 mg/kg	1.2 [4] - 1.5 [5.0]	57 mg/kg	No
Fluoranthene	0.37 mg/kg	1.2 [4] - 1.5 [5.0]	631 mg/kg	No
Phenanthrene	0.37 mg/kg	1.2 [4] - 1.5 [5.0]	1,140 mg/kg	No
Pyrene	0.35 mg/kg	1.2 [4] - 1.3 [4.3]	655 mg/kg	No
Tributyl phosphate	0.54 mg/kg	1.2 [4] - 2.0 [6.5]	0.68 mg/kg	No
Volatile Organic Compounds				
1,2-Dichloroethane	0.013 mg/kg	1.2 [4] - 1.5 [5.0]	0.0023 mg/kg	Yes
2-Butanone	0.0020 mg/kg	82.9 [272] - 83.5 [274]	20 mg/kg	No
Acetone	0.030 mg/kg	2.3 [7.5] - 2.6 [8.5]	29 mg/kg	No
Methylene chloride	0.078 mg/kg	1.2 [4] - 1.5 [5.0]	0.022 mg/kg	Yes
Tetrachloroethene	0.0060 mg/kg	1.2 [4] - 1.5 [5.0]	8.59E-04 mg/kg	Yes
Toluene	0.0010 mg/kg	79.2 [260] - 79.9 [262]	4.7 mg/kg	No
General Inorganic Chemistry				
Fluoride	5.3 mg/kg	2.7 [9] - 3.5 [11.5]	24 mg/kg	No
Nitrate	927 mg/kg	1.2 [4] - 1.5 [5.0]	Not available	--
Nitrate as N	209 mg/kg	1.2 [4] - 1.5 [5.0]	40 mg/kg	Yes
Nitrite	2.7 mg/kg	79.2 [260] - 79.9 [262]	Not available	-
Nitrite as N	0.82 mg/kg	79.2 [260] - 79.9 [262]	4.0 mg/kg	No
Miscellaneous Organic Analyses				
Aroclor-1254	9.4 mg/kg	1.2 [4] - 1.5 [5.0]	0.066 mg/kg	Yes

WAC 173-340-747, "Deriving Soil Concentrations for Ground Water Protection."
bgs = below ground surface.

Table 3-43. 216-B-63 Trench - Deep Zone Soil Comparison of Maximum Soil Concentrations from 0 to Groundwater Table to Default Soil Concentrations Protective of Groundwater.

Constituent Name	Maximum Detected Concentration from 0 to Groundwater Table	Depth of Maximum Detected from 0 to Groundwater (m [ft] bgs)	Soil Concentrations Protective of Groundwater	Does Maximum Concentration Exceed Soil Concentrations Protective of Groundwater?
Metals Analyses				
Boron	5.8 mg/kg	1.5 [5] - 1.8 [6]	210 mg/kg	No
Cadmium	2.4 mg/kg	5.3 [17.5] - 5.8 [19]	0.69 mg/kg	Yes
Chromium	22 mg/kg	3.8 [12.5] - 4.4 [14.5]	2,000 mg/kg	No
Copper	31 mg/kg	3.7 [12] - 4.0 [13]	263 mg/kg	No
Hexavalent Chromium	0.48 mg/kg	5.3 [17.5] - 5.8 [19]	18 mg/kg	No
Nickel	21 mg/kg	5.9 [19.5] - 6.6 [21.5]	130 mg/kg	No
Selenium	0.75 mg/kg	2.3 [7.5] - 2.6 [8.5]	5.2 mg/kg	No
Thallium	0.53 mg/kg	1.8 [6] - 2.1 [7]	1.6 mg/kg	No
Vanadium	87 mg/kg	2.3 [7.5] - 2.6 [8.5]	2,240 mg/kg	No
Zinc	81 mg/kg	3.7 [12] - 4.0 [13]	5,970 mg/kg	No
Semivolatile Organic Compounds				
Bis(2-ethylhexyl) phthalate	0.054 mg/kg	7.3 [24] - 7.6 [25]	14 mg/kg	No
Diethylphthalate	0.21 mg/kg	5.3 [17.5] - 5.8 [19]	72 mg/kg	No
Di-n-butylphthalate	0.021 mg/kg	30.8 [101] - 31.4 [103]	57 mg/kg	No
Volatile Organic Compounds				
Acetone	0.066 mg/kg	1.5 [5] - 1.8 [6]	29 mg/kg	No
Benzene	0.0080 mg/kg	1.5 [5] - 1.8 [6]	0.0045 mg/kg	Yes
Methylene chloride	0.027 mg/kg	2.9 [9.5] - 3.2 [10.5]	0.022 mg/kg	Yes
Toluene	0.0030 mg/kg	2.1 [7] - 2.4 [8]	4.7 mg/kg	No
General Inorganic Chemistry				
Nitrate	833 mg/kg	1.5 [5] - 1.8 [6]	Not available	-
Nitrate as N	188 mg/kg	1.5 [5] - 1.8 [6]	40 mg/kg	Yes
Nitrite	0.82 mg/kg	2.9 [9.5] - 3.2 [10.5]	Not available	No
Nitrite as N	0.25 mg/kg	2.9 [9.5] - 3.2 [10.5]	4.0 mg/kg	No
Miscellaneous Organic Analyses				
Aroclor-1254	0.077 mg/kg	3.0 [10] - 4.0 [13]	0.066 mg/kg	Yes

WAC 173-340-747, "Deriving Soil Concentrations for Ground Water Protection."
bgs = below ground surface.

Table 3-44. 216-S-10 Ditch - Deep Zone Soil Comparison of Maximum Soil Concentrations from 0 to Groundwater Table to Default Soil Concentrations Protective of Groundwater. (2 Pages)

Constituent Name	Maximum Detected Concentration from 0 to Groundwater Table	Depth of Maximum Detected from 0 to Groundwater (m [ft] bgs)	Soil Concentrations Protective of Groundwater	Does Maximum Concentration Exceed Soil Concentrations Protective of Groundwater?
Metals Analyses				
Arsenic	6.7 mg/kg	41.1 [135] - 41.8 [137]	0.034 mg/kg	Yes
Boron	1.5 mg/kg	0 [0] - .5 [1.5]	210 mg/kg	No
Cadmium	2.3 mg/kg	7.6 [25] -8.2 [27]	0.69 mg/kg	Yes
Chromium	815 mg/kg	0 [0] - .5 [1.5]	2,000 mg/kg	No
Copper	244 mg/kg	0 [0] - .5 [1.5]	263 mg/kg	No
Hexavalent Chromium	14 mg/kg	.5 [1.5] - .9 [3]	18 mg/kg	No
Lead	30 mg/kg	0 [0] - .5 [1.5]	270 mg/kg	No
Mercury	4.3 mg/kg	0 [0] - .5 [1.5]	2.1 mg/kg	Yes
Nickel	21 mg/kg	45.7 [150] - 46.3 [152]	130 mg/kg	No
Selenium	1.9 mg/kg	7.6 [25] -8.2 [27]	5.2 mg/kg	No
Silver	30 mg/kg	0 [0] - .5 [1.5]	14 mg/kg	Yes
Thallium	0.99 mg/kg	0 [0] - .5 [1.5]	1.6 mg/kg	No
Vanadium	131 mg/kg	61.0 [200] - 61.1 [202]	2,240 mg/kg	No
Zinc	506 mg/kg	0 [0] - .5 [1.5]	5,970 mg/kg	No
Semivolatile Organic Compounds				
Acenaphthene	0.061 mg/kg	0 [0] - .5 [1.5]	121 mg/kg	No
Anthracene	0.15 mg/kg	0 [0] - .5 [1.5]	1,140 mg/kg	No
Benzo(a)anthracene	0.55 mg/kg	0 [0] - .5 [1.5]	0.86 mg/kg	No
Benzo(a)pyrene	0.60 mg/kg	0 [0] - .5 [1.5]	0.23 mg/kg	Yes
Benzo(b)fluoranthene	0.53 mg/kg	0 [0] - .5 [1.5]	3.0 mg/kg	No
Benzo(ghi)perylene	0.66 mg/kg	0 [0] - .5 [1.5]	25,700 mg/kg	No
Benzo(k)fluoranthene	0.45 mg/kg	0 [0] - .5 [1.5]	30 mg/kg	No
Bis(2-ethylhexyl) phthalate	0.58 mg/kg	0 [0] - .5 [1.5]	14 mg/kg	No
Butylbenzylphthalate	0.58 mg/kg	0 [0] - .5 [1.5]	893 mg/kg	No
Carbazole	0.097 mg/kg	0 [0] - .5 [1.5]	0.31 mg/kg	No
Chrysene	0.68 mg/kg	0 [0] - .5 [1.5]	96 mg/kg	No
Dibenz[a,h]anthracene	0.11 mg/kg	0 [0] - .5 [1.5]	0.43 mg/kg	No
Diethylphthalate	0.36 mg/kg	.5 [1.5] - .9 [3]	72 mg/kg	No
Di-n-butylphthalate	2.3 mg/kg	0 [0] - .5 [1.5]	57 mg/kg	No
Fluoranthene	1.5 mg/kg	0 [0] - .5 [1.5]	631 mg/kg	No
Fluorene	0.059 mg/kg	0 [0] - .5 [1.5]	101 mg/kg	No
Indeno(1,2,3-cd)pyrene	0.40 mg/kg	0 [0] - .5 [1.5]	8.3 mg/kg	No
Phenanthrene	0.93 mg/kg	0 [0] - .5 [1.5]	Not available	Not available
Pyrene	1.6 mg/kg	0 [0] - .5 [1.5]	655 mg/kg	No

Table 3-44. 216-S-10 Ditch - Deep Zone Soil Comparison of Maximum Soil Concentrations from 0 to Groundwater Table to Default Soil Concentrations Protective of Groundwater. (2 Pages)

Constituent Name	Maximum Detected Concentration from 0 to Groundwater Table	Depth of Maximum Detected from 0 to Groundwater (m [ft] bgs)	Soil Concentrations Protective of Groundwater	Does Maximum Concentration Exceed Soil Concentrations Protective of Groundwater?
Volatile Organic Compounds				
Acetone	0.010 mg/kg	.9 [3] - 1.2 [4]	29 mg/kg	No
Methylene chloride	0.018 mg/kg	45.7 [150] - 46.3 [152]	0.022 mg/kg	No
General Inorganic Chemistry				
Nitrate	81 mg/kg	0 [0] - .5 [1.5]	Not available	-
Nitrate as N	18 mg/kg	0 [0] - .5 [1.5]	40 mg/kg	No
Nitrite	1.2 mg/kg	2.6 [8.5] - 2.9 [9.5]	Not available	-
Nitrite as N	0.35 mg/kg	2.6 [8.5] - 2.9 [9.5]	4.0 mg/kg	No
Miscellaneous Organic Analyses				
Aroclor-1254	3.7 mg/kg	0 [0] - .5 [1.5]	0.066 mg/kg	Yes

WAC 173-340-747, "Deriving Soil Concentrations for Ground Water Protection."
bgs = below ground surface.

Table 3-45. 216-S-10 Pond - Deep Zone Soil Comparison of Maximum Soil Concentrations from 0 to Groundwater Table to Default Soil Concentrations Protective of Groundwater.

Constituent Name	Maximum Detected Concentration from 0 to Groundwater Table	Depth of Maximum Detected from 0 to Groundwater (m [ft] bgs)	Soil Concentrations Protective of Groundwater	Does Maximum Concentration Exceed Soil Concentrations Protective of Groundwater?
Metals Analyses (mg/kg)				
Barium	180	6.2 [20] - 6.4 [21]	1,650	No
Boron	1.0	1.8 [6] - 2.1 [7]	210	No
Chromium	39	60.2 [197.4] - 60.8 [199.4]	2,000	No
Hexavalent Chromium	2.7	2.1 [7] - 2.4 [8]	18	No
Lead	10	15.2 [50] - 15.8 [52]	270	No
Mercury	0.43	3.5 [11.5] - 3.8 [12.5]	2.1	No
Nickel	25	60.2 [197.4] - 60.8 [199.4]	130	No
Selenium	2.0	54.9 [180] - 55.5 [182]	5.2	No
Silver	8.3	2.7 [9] - 3.0 [10]	14	No
Thallium	0.62	1.2 [4] - 1.5 [5.0]	1.6	No
Vanadium	88	45.8 [150.1] - 46.4 [152.1]	2,240	No
Zinc	201	60.2 [197.4] - 60.8 [199.4]	5,970	No
Semivolatile Organic Compounds (mg/kg)				
Bis(2-ethylhexyl)phthalate	0.26	54.9 [180] - 55.5 [182]	14	No

Table 3-45. 216-S-10 Pond - Deep Zone Soil Comparison of Maximum Soil Concentrations from 0 to Groundwater Table to Default Soil Concentrations Protective of Groundwater.

Constituent Name	Maximum Detected Concentration from 0 to Groundwater Table	Depth of Maximum Detected from 0 to Groundwater (m [ft] bgs)	Soil Concentrations Protective of Groundwater	Does Maximum Concentration Exceed Soil Concentrations Protective of Groundwater?
Volatile Organic Compounds (mg/kg)				
2-Butanone	0.012	2.0 [6.5] - 2.3 [7.5]	20	No
Acetone	0.033	30.3 [99.5] - 30.9 [101.5]	29	No
Methylene chloride	0.023	4.9 [16] - 5.2 [17]	0.022	Yes
Toluene	0.0042	2.9 [9.5] - 3.2 [10.5]	4.7	No
Xylenes (total)	0.0014	1.8 [6] - 2.1 [7]	15	No
General Inorganic Chemistry (mg/kg)				
Cyanide	0.20	2.9 [9.5] - 3.2 [10.5]	0.80	No
Nitrate	134	4.9 [16] - 5.2 [17]	Not Available	-
Nitrate as N	30	4.9 [16] - 5.2 [17]	40	No
Nitrite	1.6	2.9 [9.5] - 3.2 [10.5]	Not Available	--
Nitrite as N	0.48	2.9 [9.5] - 3.2 [10.5]	4.0	No

WAC 173-340-747, "Deriving Soil Concentrations for Ground Water Protection."
bgs = below ground surface.

Table 3-46. 216-A-29 Ditch - Deep Zone Soil Comparison of Maximum Soil Concentrations from 0 to Groundwater Table to Site-Specific Soil Concentrations Protective of Groundwater.

Constituent Name	Maximum Detected Concentration from 0 to Groundwater Table	Depth of Maximum Detected from 0 to Groundwater (m [ft] bgs)	Soil Concentrations Protective of Groundwater	Does Maximum Concentration Exceed Soil Concentrations Protective of Groundwater?
Metals Analyses				
Arsenic	12 mg/kg	2.6 [8.5] - 2.9 [9.5]	11 mg/kg	Yes
Cadmium	28 mg/kg	1.2 [4] - 1.5 [5.0]	310 mg/kg	No
Lead	390 mg/kg	2.3 [7.5] - 2.6 [8.5]	83,700 mg/kg	No
Mercury	5.2 mg/kg	1.2 [4] - 1.5 [5.0]	648 mg/kg	No
Silver	42 mg/kg	1.2 [4] - 1.5 [5.0]	4,216 mg/kg	No
Uranium	5.3 mg/kg	2.3 [7.5] - 2.6 [8.5]	409 mg/kg	No
Volatile Organic Compounds				
1,2-Dichloroethane	0.013 mg/kg	1.2 [4] - 1.5 [5.0]	0.72 mg/kg	No
Methylene chloride	0.078 mg/kg	1.2 [4] - 1.5 [5.0]	6.8 mg/kg	No
Tetrachloroethene	0.0060 mg/kg	1.2 [4] - 1.5 [5.0]	0.27 mg/kg	No
General Inorganic Chemistry				
Nitrate as N	209 mg/kg	1.2 [4] - 1.5 [5.0]	12,400 mg/kg	No
Miscellaneous Organic Analyses				
Aroclor-1254	9.4 mg/kg	1.2 [4] - 1.5 [5.0]	21 mg/kg	No

WAC 173-340-747, "Deriving Soil Concentrations for Ground Water Protection."
bgs = below ground surface.

Table 3-47. 216-B-63 Trench - Deep Zone Soil Comparison of Maximum Soil Concentrations from 0 to Groundwater Table to Site-Specific Soil Concentrations Protective of Groundwater.

Constituent Name	Maximum Detected Concentration from 0 to Groundwater Table	Depth of Maximum Detected from 0 to Groundwater (m [ft] bgs)	Soil Concentrations Protective of Groundwater	Does Maximum Concentration Exceed Soil Concentrations Protective of Groundwater?
Metals Analyses				
Cadmium	2.4 mg/kg	5.3 [17.5] - 5.8 [19]	428 mg/kg	No
Volatile Organic Compounds				
Benzene	0.0080 mg/kg	1.5 [5] - 1.8 [6]	2.8 mg/kg	No
Methylene chloride	0.027 mg/kg	2.9 [9.5] - 3.2 [10.5]	14 mg/kg	No
General Inorganic Chemistry				
Nitrate as N	188 mg/kg	1.5 [5] - 1.8 [6]	24,800 mg/kg	No
Miscellaneous Organic Analyses				
Aroclor-1254	0.077 mg/kg	3.0 [10] - 4.0 [13]	41 mg/kg	No

WAC 173-340-747, "Deriving Soil Concentrations for Ground Water Protection."
bgs = below ground surface.

Table 3-48. 216-S-10 Ditch - Deep Zone Soil Comparison of Maximum Soil Concentrations from 0 to Groundwater Table to Site-Specific Soil Concentrations Protective of Groundwater.

Constituent Name	Maximum Detected Concentration from 0 to Groundwater Table	Depth of Maximum Detected from 0 to Groundwater (m [ft] bgs)	Soil Concentrations Protective of Groundwater	Does Maximum Concentration Exceed Soil Concentrations Protective of Groundwater?
Metals Analyses				
Arsenic	6.7 mg/kg	41.1 [135] - 41.8 [137]	6.5 mg/kg	Yes
Cadmium	2.3 mg/kg	7.6 [25] -8.2 [27]	4.2 mg/kg	No
Mercury	4.3 mg/kg	0 [0] - .5 [1.5]	13 mg/kg	No
Silver	30 mg/kg	0 [0] - .5 [1.5]	83 mg/kg	No
Semivolatile Organic Compounds				
Benzo(a)pyrene	0.60 mg/kg	0 [0] - .5 [1.5]	1.4 mg/kg	No
Miscellaneous Organic Analyses				
Aroclor-1254	3.7 mg/kg	0 [0] - .5 [1.5]	0.41 mg/kg	Yes

WAC 173-340-747, "Deriving Soil Concentrations for Ground Water Protection."
bgs = below ground surface.

Table 3-49. 216-S-10 Pond - Deep Zone Soil Comparison of Maximum Soil Concentrations from 0 to Groundwater Table to Site-Specific Soil Concentrations Protective of Groundwater.

Constituent Name	Maximum Detected Concentration from 0 to Groundwater Table	Depth of Maximum Detected from 0 to Groundwater (m [ft] bgs)	Soil Concentrations Protective of Groundwater	Does Maximum Concentration Exceed Soil Concentrations Protective of Groundwater?
Volatile Organic Compounds				
Methylene chloride	0.023 mg/kg	4.9 [16] - 5.2 [17]	0.134 mg/kg	No

WAC 173-340-747, "Deriving Soil Concentrations for Ground Water Protection."
bgs = below ground surface.

Table 3-50. Summary of Nonradiological COCs for the Groundwater Impacts Analysis.

Waste Site	Ground Surface to Groundwater Table
216-A-29 Ditch	No COCs identified
216-B-63 Trench	Cadmium and Nitrogen in Nitrate
216-S-10 Ditch	Aroclor-1254
216-S-10 Pond	No COCs identified

COC = contaminant of concern.

Table 3-51. Peak Radionuclide Groundwater Concentrations at the 216-A-29 Ditch.

Layer	Nuclide	Peak Concentration (Peak Year2418)		EPA MCL
		Activity	Peak Year	
Groundwater Concentration for 216-A-29 Ditch Head End Unrestricted Land Use				
Upper Layer (CZ1)	NA	NA	NA	NA
Lower Layer (CZ2)	Tritium	6,356	17 y	20,000 pCi/L
Groundwater Concentration for216-A-29 Ditch Outlet End Unrestricted Land Use				
Upper Layer (CZ1)	NA	NA	NA	NA
Lower Layer (CZ2)	Tritium	12,710	16 y	20,000 pCi/L
Groundwater Concentration for216-A-29 Ditch Head End Industrial Land Use (Peak Year 12,518)				
Upper Layer (CZ1)	NA	NA	NA	NA
Lower Layer (CZ2)	Tritium	961	20 y	20,000 pCi/L
Groundwater Concentration for216-A-29 Ditch Outlet End Industrial Land Use (Peak Year 5,452)				
Upper Layer (CZ1)	NA	NA	NA	NA
Lower Layer (CZ2)	Tritium	2,763	19 y	20,000 pCi/L

EPA = U.S. Environmental Protection Agency.
MCL = maximum concentration level.
NA = the contaminants did not reach groundwater within 10,000 years.

Table 3-52. Peak Radionuclide Groundwater Concentrations at the 216-B-63 Trench.

Layer	Nuclide	Peak pCi/L	Peak Year	EPA MCL
Unrestricted Land Use				
Upper Layer(CZ1)	Tc-99	670	507 y	900 pCi/L
Lower Layer (CZ2)	Ni-63	0.0025	963	50 pCi/L
Industrial Land Use				
Upper Layer(CZ1)	Tc-99	147	2,315 y	900 pCi/L
Lower Layer(CZ2)	Ni-63	NA	NA	NA

EPA = U.S. Environmental Protection Agency.
MCL = maximum concentration level.
NA indicates the contaminants did not reach groundwater within 10,000 years.

Table 3-53. Peak Radionuclide Groundwater Concentrations at the 216-S-10 Ditch.

Layer	Nuclide	Peak pCi/L	Peak Year	EPA MCL
Groundwater Concentration for216-S-10 Ditch Unrestricted Land Use				
Upper Layer (CZ1)	NA	NA	NA	NA
Lower Layer (CZ2)	Ni-63	2.6E-13	3,936	50 pCi/L
Groundwater Concentration for216-S-10 Ditch Industrial Land Use				
Upper Layer (CZ1)	NA	NA	NA	NA
Lower Layer (CZ2)	Ni-63	NA	NA	NA

EPA = U.S. Environmental Protection Agency.
MCL = maximum concentration level.
NA indicates the contaminants did not reach groundwater within 10,000 years.

Table 3-54. Peak Radionuclide Groundwater Concentrations at the 216-S-10 Pond.

Layer	Nuclide	Peak pCi/L	Peak Year	EPA MCL
Groundwater Concentration for216-S-10 Pond Unrestricted Land Use				
Upper Layer (CZ1)	Tritium	7.38E-05	321	20,000 pCi/L
Lower Layer (CZ2)	Ni-63 & Sr-90	NA	NA	NA
Bottom Layer (CZ3)	Pu-239	NA	NA	NA
Groundwater Concentration for216-S-10 Pond Industrial Land Use				
Upper Layer (CZ1)	Tritium	NA	NA	20,000 pCi/L
Lower Layer (CZ2)	Ni-63 & Sr-90	NA	NA	NA
Bottom Layer (CZ3)	Pu-239	NA	NA	NA

EPA = U.S. Environmental Protection Agency.
MCL = maximum concentration level.
NA indicates the contaminants did not reach groundwater within 10,000 years.

Table 3-55. Comparison of Peak Uranium Groundwater Concentrations at the 216-A-29 Ditch and Hanford Site Background Levels. (2 Pages)

Layer	Nuclide	Peak Year	Activity	Mass	EPA MCL
Groundwater Concentration for 216-A-29 Ditch Head End Unrestricted Land Use					
Upper Layer (CZ1)	U-234 (2.3 pCi/g) U-235(0.44 pCi/g) U-238 (1.8 pCi/g)	2,418	708 pCi/L 134 pCi/L 558 pCi/L **Total U:**	0.11 µg/L 62.0 µg/L 1,660 µg/L **1,722 µg/L**	30 µg/L
Groundwater Concentration for 216-A-29 Ditch Head End Using 90th Percentile Hanford Site Background Levels Unrestricted Land Use					
	U-234 (1.1 pCi/g) U-235(0.11 pCi/g) U-238 (1.1 pCi/g)	2,418	337 pCi/L 34 pCi/L 340 pCi/L **Total U:**	0.054 µg/L 15.7 µg/L 1,012 µg/L **1,028 µg/L**	30 µg/L

Table 3-55. Comparison of Peak Uranium Groundwater Concentrations at the 216-A-29 Ditch and Hanford Site Background Levels. (2 Pages)

Layer	Nuclide	Peak Year	Activity	Mass	EPA MCL
Groundwater Concentration for 216-A-29 Ditch Outlet End Unrestricted Land Use					
	U-234 (2.3 pCi/g) U-235(0.44 pCi/g) U-238 (1.8 pCi/g)	1,060	667 pCi/L 128 pCi/L 522 pCi/L **Total U:**	0.11 µg/L 59.2 µg/L 1,553 µg/L **1,612 µg/L**	30 µg/L
Groundwater Concentration for 216-A-29 Ditch Outlet End Using 90th Percentile Hanford Site Background Levels Unrestricted Land Use					
	U-234 (1.1 pCi/g) U-235(0.11 pCi/g) U-238 (1.1 pCi/g)	1,060	318 pCi/L 31.9 pCi/L 318 pCi/L **Total U:**	0.051 µg/L 14.8 µg/L 946 µg/L **961 µg/L**	30 µg/L
Groundwater Concentration for 216-A-29 Ditch Head End Industrial Land Use					
	U-234 (2.3 pCi/g) U-235(0.44 pCi/g) U-238 (1.8 pCi/g)	12,518	471 pCi/L 92.9 pCi/L 380 pCi/L **Total U:**	0.075 µg/L 43.0 µg/L 1,131 µg/L **1,174 µg/L**	30 µg/L
Groundwater Concentration for 216-A-29 Ditch Head End Using 90th Percentile Hanford Site Background Levels Industrial Land Use					
	U-234 (1.1 pCi/g) U-235(0.11 pCi/g) U-238 (1.1 pCi/g)	12,518	224 pCi/L 23.2 pCi/L 232 pCi/L **Total U:**	0.036 µg/L 10.7 µg/L 690 µg/L **701 µg/L**	30 µg/L
Groundwater Concentration for 216-A-29 Ditch Outlet End Industrial Land Use (Peak Year 5,452)					
	U-234 (2.3 pCi/g) U-235(0.44 pCi/g) U-238 (1.8 pCi/g)	5,452	458 pCi/L 88.6 pCi/L 363 pCi/L **Total U:**	0.074 µg/L 41.0 µg/L 1,080 µg/L **1,121 µg/L**	30 µg/L
Groundwater Concentration for 216-A-29 Ditch Outlet End Using 90th Percentile Hanford Site Background Levels Industrial Land Use					
	U-234 (1.1 pCi/g) U-235(0.11 pCi/g) U-238 (1.1 pCi/g)	5,452	218 pCi/L 22.2 pCi/L 222 pCi/L **Total U:**	0.035 µg/L 10.3 µg/L 661 µg/L **671 µg/L**	30 µg/L

EPA = U.S. Environmental Protection Agency.
MCL = maximum concentration level.

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Table 3-56. Summary of Ecological Soil Screening Values 200-CS-1 Operable Unit. (10 Pages)

Media	Receptor	Analyte Name	Con ID	Benchmark	Units	Source	Type of Benchmark	Notes
Soil	Wildlife (avian)	1,2-Dichloroethane	107-06-02	0.85	mg/kg	LA-UR-05-7424	Screening-level	American robin (Avian herbivore)
Soil	Wildlife (avian)	1,2-Dichloroethane	107-06-02	33	mg/kg	LA-UR-05-7424	Screening-level	American kestrel (Avian intermediate carnivore)
Soil	Wildlife (avian)	1,2-Dichloroethane	107-06-02	670	mg/kg	LA-UR-05-7424	Screening-level	American kestrel (Avian top carnivore)
Soil	Wildlife (avian)	1,2-Dichloroethane	107-06-02	4.6	mg/kg	LA-UR-05-7424	Screening-level	American robin (Avian insectivore)
Soil	Wildlife (avian)	1,2-Dichloroethane	107-06-02	1.4	mg/kg	LA-UR-05-7424	Screening-level	American robin (Avian omnivore)
Soil	Wildlife (mammalian)	1,2-Dichloroethane	107-06-02	27	mg/kg	LA-UR-05-7424	Screening-level	Deer mouse (Mammalian omnivore)
Soil	Wildlife (mammalian)	1,2-Dichloroethane	107-06-02	36	mg/kg	LA-UR-05-7424	Screening-level	Desert cottontail (Mammalian herbivore)
Soil	Wildlife (mammalian)	1,2-Dichloroethane	107-06-02	89	mg/kg	LA-UR-05-7424	Screening-level	Montane shrew (Mammalian insectivore)
Soil	Wildlife (mammalian)	1,2-Dichloroethane	107-06-02	14000	mg/kg	LA-UR-05-7424	Screening-level	Red fox (Mammalian top carnivore)
Soil	Plant	2-Methylnaphthalene	91-57-6	NA				
Soil	Soil Invertebrate	2-Methylnaphthalene	91-57-6	NA				
Soil	Wildlife	2-Methylnaphthalene	91-57-6	100	mg/kg	EPA, 2007a	EcoSSL	Mammalian
Soil	Plant	2-secButyl-4,6-dinitrophenol(DNBP)	88-85-7	NA				
Soil	Soil Invertebrate	2-secButyl-4,6-dinitrophenol(DNBP)	88-85-7	NA				
Soil	Wildlife	2-secButyl-4,6-dinitrophenol(DNBP)	88-85-7	NA				
Soil	Plant	Acenaphthene	83-32-9	20	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	
Soil	Soil Invertebrate	Acenaphthene	83-32-9	NA				
Soil	Wildlife	Acenaphthene	83-32-9	100	mg/kg	EPA, 2007a	EcoSSL	Mammalian
Soil	Wildlife (mammalian)	Acenaphthene	83-32-9	160	mg/kg	LA-UR-05-7424	Screening-level	Deer mouse (Mammalian omnivore)
Soil	Wildlife (mammalian)	Acenaphthene	83-32-9	490	mg/kg	LA-UR-05-7424	Screening-level	Desert cottontail (Mammalian herbivore)
Soil	Wildlife (mammalian)	Acenaphthene	83-32-9	120	mg/kg	LA-UR-05-7424	Screening-level	Montane shrew (Mammalian insectivore)
Soil	Wildlife (mammalian)	Acenaphthene	83-32-9	6200	mg/kg	LA-UR-05-7424	Screening-level	Red fox (Mammalian top carnivore)
Soil	Plant	Acenaphthylene	208-96-8	NA				
Soil	Soil Invertebrate	Acenaphthylene	208-96-8	NA				
Soil	Wildlife	Acenaphthylene	208-96-8	100	mg/kg	EPA, 2007a	EcoSSL	Mammalian
Soil	Wildlife (avian)	Acetone	67-64-1	1200	mg/kg	LA-UR-05-7424	Screening-level	American kestrel (Avian intermediate carnivore)
Soil	Wildlife (avian)	Acetone	67-64-1	30000	mg/kg	LA-UR-05-7424	Screening-level	American kestrel (Avian top carnivore)
Soil	Wildlife (avian)	Acetone	67-64-1	7.5	mg/kg	LA-UR-05-7424	Screening-level	American robin (Avian herbivore)
Soil	Wildlife (avian)	Acetone	67-64-1	170	mg/kg	LA-UR-05-7424	Screening-level	American robin (Avian insectivore)
Soil	Wildlife (avian)	Acetone	67-64-1	14	mg/kg	LA-UR-05-7424	Screening-level	American robin (Avian omnivore)
Soil	Wildlife (mammalian)	Acetone	67-64-1	1.2	mg/kg	LA-UR-05-7424	Screening-level	Deer mouse (Mammalian omnivore)
Soil	Wildlife (mammalian)	Acetone	67-64-1	1.4	mg/kg	LA-UR-05-7424	Screening-level	Desert cottontail (Mammalian herbivore)
Soil	Wildlife (mammalian)	Acetone	67-64-1	15	mg/kg	LA-UR-05-7424	Screening-level	Montane shrew (Mammalian insectivore)
Soil	Wildlife (mammalian)	Acetone	67-64-1	2900	mg/kg	LA-UR-05-7424	Screening-level	Red fox (Mammalian top carnivore)
Soil	Plant	alpha-Chlordane	5103-71-9	2.2	mg/kg	LA-UR-05-7424	Screening-level	Generic plant
Soil	Soil Invertebrate	alpha-Chlordane	5103-71-9	1	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	Chlordane
Soil	Wildlife	alpha-Chlordane	5103-71-9	2.7	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	Chlordane
Soil	Plant	Ammonia	7664-41-7	NA				
Soil	Soil Invertebrate	Ammonia	7664-41-7	NA				
Soil	Wildlife	Ammonia	7664-41-7	NA				

Table 3-56. Summary of Ecological Soil Screening Values 200-CS-1 Operable Unit. (10 Pages)

Media	Receptor	Analyte Name	Con ID	Benchmark	Units	Source	Type of Benchmark	Notes
Soil	Plant	Anthracene	120-12-7	NA				
Soil	Soil Invertebrate	Anthracene	120-12-7	NA				
Soil	Wildlife	Anthracene	120-12-7	100	mg/kg	EPA, 2007a	EcoSSL	Mammalian
Soil	Wildlife (mammalian)	Anthracene	120-12-7	310	mg/kg	LA-UR-05-7424	Screening-level	Deer mouse (Mammalian omnivore)
Soil	Wildlife (mammalian)	Anthracene	120-12-7	1100	mg/kg	LA-UR-05-7424	Screening-level	Desert cottontail (Mammalian herbivore)
Soil	Wildlife (mammalian)	Anthracene	120-12-7	210	mg/kg	LA-UR-05-7424	Screening-level	Montane shrew (Mammalian insectivore)
Soil	Wildlife (mammalian)	Anthracene	120-12-7	5800	mg/kg	LA-UR-05-7424	Screening-level	Red fox (Mammalian top carnivore)
Soil	Plant	Antimony	7440-36-0	5	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	
Soil	Soil Invertebrate	Antimony	7440-36-0	78	mg/kg	EPA, 2005	EcoSSL	
Soil	Wildlife	Antimony	7440-36-0	0.27	mg/kg	EPA, 2005	EcoSSL	Mammalian
Soil	Plant	Aroclor-1254	11097-69-1	4.00E+01	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	
Soil	Soil Invertebrate	Aroclor-1254	11097-69-1	NA				
Soil	Wildlife	Aroclor-1254	11097-69-1	0.041	mg/kg	LA-UR-05-7424	Screening-level	American robin (Avian insectivore)
Soil	Wildlife (avian)	Aroclor-1254	11097-69-1	0.17	mg/kg	LA-UR-05-7424	Screening-level	American kestrel (Avian intermediate carnivore)
Soil	Wildlife (avian)	Aroclor-1254	11097-69-1	0.22	mg/kg	LA-UR-05-7424	Screening-level	American kestrel (Avian top carnivore)
Soil	Wildlife (avian)	Aroclor-1254	11097-69-1	1.3	mg/kg	LA-UR-05-7424	Screening-level	American robin (Avian herbivore)
Soil	Wildlife (avian)	Aroclor-1254	11097-69-1	0.041	mg/kg	LA-UR-05-7424	Screening-level	American robin (Avian insectivore)
Soil	Wildlife (avian)	Aroclor-1254	11097-69-1	0.08	mg/kg	LA-UR-05-7424	Screening-level	American robin (Avian omnivore)
Soil	Wildlife (mammalian)	Aroclor-1254	11097-69-1	0.88	mg/kg	LA-UR-05-7424	Screening-level	Deer mouse (Mammalian omnivore)
Soil	Wildlife (mammalian)	Aroclor-1254	11097-69-1	52	mg/kg	LA-UR-05-7424	Screening-level	Desert cottontail (Mammalian herbivore)
Soil	Wildlife (mammalian)	Aroclor-1254	11097-69-1	0.44	mg/kg	LA-UR-05-7424	Screening-level	Montane shrew (Mammalian insectivore)
Soil	Wildlife (mammalian)	Aroclor-1254	11097-69-1	0.15	mg/kg	LA-UR-05-7424	Screening-level	Red fox (Mammalian top carnivore)
Soil	Plant	Aroclor-1260	11096-82-5	4.00E+01	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	
Soil	Soil Invertebrate	Aroclor-1260	11096-82-5	NA				
Soil	Wildlife	Aroclor-1260	11096-82-5	0.14	mg/kg	LA-UR-05-7424	Screening-level	Red fox (Mammalian top carnivore)
Soil	Plant	Aroclor-1262	37324-23-5	NA				
Soil	Soil Invertebrate	Aroclor-1262	37324-23-5	NA				
Soil	Wildlife	Aroclor-1262	37324-23-5	NA				
Soil	Plant	Arsenic	7440-38-2	1.80E+01	mg/kg	EPA, 2005a	EcoSSL	
Soil	Soil Invertebrate	Arsenic	7440-38-2	6.80E+00	mg/kg	LA-UR-05-7424	Screening-level	Earthworm
Soil	Wildlife	Arsenic	7440-38-2	4.30E+01	mg/kg	EPA, 2005a	EcoSSL	Avain
Soil	Plant	Barium	7440-39-3	5.00E+02	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	
Soil	Soil Invertebrate	Barium	7440-39-3	3.30E+02	mg/kg	EPA, 2005b	EcoSSL	
Soil	Wildlife	Barium	7440-39-3	102	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	
Soil	Wildlife (mammalian)	Benzene	71-43-2	24	mg/kg	LA-UR-05-7424	Screening-level	Deer mouse (Mammalian omnivore)
Soil	Wildlife (mammalian)	Benzene	71-43-2	35	mg/kg	LA-UR-05-7424	Screening-level	Desert cottontail (Mammalian herbivore)
Soil	Wildlife (mammalian)	Benzene	71-43-2	47	mg/kg	LA-UR-05-7424	Screening-level	Montane shrew (Mammalian insectivore)
Soil	Wildlife (mammalian)	Benzene	71-43-2	7600	mg/kg	LA-UR-05-7424	Screening-level	Red fox (Mammalian top carnivore)
Soil	Plant	Benzo(a)anthracene	56-55-3	18	mg/kg	LA-UR-05-7424	Screening-level	Generic plant
Soil	Soil Invertebrate	Benzo(a)anthracene	56-55-3	NA				

Table 3-56. Summary of Ecological Soil Screening Values 200-CS-1 Operable Unit. (10 Pages)

Media	Receptor	Analyte Name	Con ID	Benchmark	Units	Source	Type of Benchmark	Notes
Soil	Wildlife	Benzo(a)anthracene	56-55-3	1.1	mg/kg	EPA, 2007a	EcoSSL	Mammalian
Soil	Wildlife (mammalian)	Benzo(a)anthracene	56-55-3	3.4	mg/kg	LA-UR-05-7424	Screening-level	Deer mouse (Mammalian omnivore)
Soil	Wildlife (mammalian)	Benzo(a)anthracene	56-55-3	6.2	mg/kg	LA-UR-05-7424	Screening-level	Desert cottontail (Mammalian herbivore)
Soil	Wildlife (mammalian)	Benzo(a)anthracene	56-55-3	3	mg/kg	LA-UR-05-7424	Screening-level	Montane shrew (Mammalian insectivore)
Soil	Wildlife (mammalian)	Benzo(a)anthracene	56-55-3	45	mg/kg	LA-UR-05-7424	Screening-level	Red fox (Mammalian top carnivore)
Soil	Plant	Benzo(a)pyrene	50-32-8	NA				
Soil	Soil Invertebrate	Benzo(a)pyrene	50-32-8	NA				
Soil	Wildlife	Benzo(a)pyrene	50-32-8	12	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	
Soil	Wildlife (mammalian)	Benzo(a)pyrene	50-32-8	12	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	
Soil	Plant	Benzo(b)fluoranthene	205-99-2	18	mg/kg	LA-UR-05-7424	Screening-level	Generic plant
Soil	Soil Invertebrate	Benzo(b)fluoranthene	205-99-2	NA				
Soil	Wildlife	Benzo(b)fluoranthene	205-99-2	1.1	mg/kg	EPA, 2007a	EcoSSL	
Soil	Wildlife (mammalian)	Benzo(g,h,i)perylene	191-24-2	47	mg/kg	LA-UR-05-7424	Screening-level	Deer mouse (Mammalian omnivore)
Soil	Wildlife (mammalian)	Benzo(g,h,i)perylene	191-24-2	540	mg/kg	LA-UR-05-7424	Screening-level	Desert cottontail (Mammalian herbivore)
Soil	Wildlife (mammalian)	Benzo(g,h,i)perylene	191-24-2	24	mg/kg	LA-UR-05-7424	Screening-level	Montane shrew (Mammalian insectivore)
Soil	Wildlife (mammalian)	Benzo(g,h,i)perylene	191-24-2	94	mg/kg	LA-UR-05-7424	Screening-level	Red fox (Mammalian top carnivore)
Soil	Plant	Benzo(ghi)perylene	191-24-2	NA				
Soil	Soil Invertebrate	Benzo(ghi)perylene	191-24-2	NA				
Soil	Wildlife	Benzo(ghi)perylene	191-24-2	1.1	mg/kg	EPA, 2007a	EcoSSL	Mammalian
Soil	Plant	Benzo(k)fluoranthene	207-08-9	NA				
Soil	Soil Invertebrate	Benzo(k)fluoranthene	207-08-9	NA				
Soil	Wildlife	Benzo(k)fluoranthene	207-08-9	1.1	mg/kg	EPA, 2007a	EcoSSL	Mammalian
Soil	Wildlife (mammalian)	Benzo(k)fluoranthene	207-08-9	100	mg/kg	LA-UR-05-7424	Screening-level	Deer mouse (Mammalian omnivore)
Soil	Wildlife (mammalian)	Benzo(k)fluoranthene	207-08-9	350	mg/kg	LA-UR-05-7424	Screening-level	Desert cottontail (Mammalian herbivore)
Soil	Wildlife (mammalian)	Benzo(k)fluoranthene	207-08-9	62	mg/kg	LA-UR-05-7424	Screening-level	Montane shrew (Mammalian insectivore)
Soil	Wildlife (mammalian)	Benzo(k)fluoranthene	207-08-9	400	mg/kg	LA-UR-05-7424	Screening-level	Red fox (Mammalian top carnivore)
Soil	Plant	beta-1,2,3,4,5,6-Hexachlorocyclohexane	319-85-7	NA				
Soil	Soil Invertebrate	beta-1,2,3,4,5,6-Hexachlorocyclohexane	319-85-7	NA				
Soil	Wildlife	beta-1,2,3,4,5,6-Hexachlorocyclohexane	319-85-7	0.27	mg/kg	LA-UR-05-7424	Screening-level	Montane shrew (Mammalian insectivore)
Soil	Plant	Bis(2-ethylhexyl) phthalate	117-81-7	NA				
Soil	Soil Invertebrate	Bis(2-ethylhexyl) phthalate	117-81-7	NA				
Soil	Wildlife	Bis(2-ethylhexyl) phthalate	117-81-7	0.02	mg/kg	LA-UR-05-7424	Screening-level	American robin (Avian insectivore)
Soil	Wildlife (avian)	Bis(2-ethylhexyl)phthalate	117-81-7	0.045	mg/kg	LA-UR-05-7424	Screening-level	American kestrel (Avian intermediate carnivore)
Soil	Wildlife (avian)	Bis(2-ethylhexyl)phthalate	117-81-7	0.033	mg/kg	LA-UR-05-7424	Screening-level	American kestrel (Avian top carnivore)
Soil	Wildlife (avian)	Bis(2-ethylhexyl)phthalate	117-81-7	20	mg/kg	LA-UR-05-7424	Screening-level	American robin (Avian herbivore)
Soil	Wildlife (avian)	Bis(2-ethylhexyl)phthalate	117-81-7	0.02	mg/kg	LA-UR-05-7424	Screening-level	American robin (Avian insectivore)
Soil	Wildlife (avian)	Bis(2-ethylhexyl)phthalate	117-81-7	0.04	mg/kg	LA-UR-05-7424	Screening-level	American robin (Avian omnivore)
Soil	Wildlife (mammalian)	Bis(2-ethylhexyl)phthalate	117-81-7	1.1	mg/kg	LA-UR-05-7424	Screening-level	Deer mouse (Mammalian omnivore)
Soil	Wildlife (mammalian)	Bis(2-ethylhexyl)phthalate	117-81-7	2700	mg/kg	LA-UR-05-7424	Screening-level	Desert cottontail (Mammalian herbivore)
Soil	Wildlife (mammalian)	Bis(2-ethylhexyl)phthalate	117-81-7	0.59	mg/kg	LA-UR-05-7424	Screening-level	Montane shrew (Mammalian insectivore)

Table 3-56. Summary of Ecological Soil Screening Values 200-CS-1 Operable Unit. (10 Pages)

Media	Receptor	Analyte Name	Con ID	Benchmark	Units	Source	Type of Benchmark	Notes
Soil	Wildlife (mammalian)	Bis(2-ethylhexyl)phthalate	117-81-7	1.2	mg/kg	LA-UR-05-7424	Screening-level	Red fox (Mammalian top carnivore)
Soil	Plant	Boron	7440-42-8	5.00E-01	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	
Soil	Soil Invertebrate	Boron	7440-42-8	NA				
Soil	Wildlife	Boron	7440-42-8	2.00E+00	mg/kg	LA-UR-05-7424	Screening-level	American robin (Avian herbivore)
Soil	Wildlife (avian)	Boron	7440-42-8	56	mg/kg	LA-UR-05-7424	Screening-level	American kestrel (Avian intermediate carnivore)
Soil	Wildlife (avian)	Boron	7440-42-8	1400	mg/kg	LA-UR-05-7424	Screening-level	American kestrel (Avian top carnivore)
Soil	Wildlife (avian)	Boron	7440-42-8	2	mg/kg	LA-UR-05-7424	Screening-level	American robin (Avian herbivore)
Soil	Wildlife (avian)	Boron	7440-42-8	7.5	mg/kg	LA-UR-05-7424	Screening-level	American robin (Avian insectivore)
Soil	Wildlife (avian)	Boron	7440-42-8	3.2	mg/kg	LA-UR-05-7424	Screening-level	American robin (Avian omnivore)
Soil	Wildlife (mammalian)	Boron	7440-42-8	56	mg/kg	LA-UR-05-7424	Screening-level	Deer mouse (Mammalian omnivore)
Soil	Wildlife (mammalian)	Boron	7440-42-8	77	mg/kg	LA-UR-05-7424	Screening-level	Desert cottontail (Mammalian herbivore)
Soil	Wildlife (mammalian)	Boron	7440-42-8	120	mg/kg	LA-UR-05-7424	Screening-level	Montane shrew (Mammalian insectivore)
Soil	Wildlife (mammalian)	Boron	7440-42-8	21000	mg/kg	LA-UR-05-7424	Screening-level	Red fox (Mammalian top carnivore)
Soil	Wildlife (mammalian)	Butylbenzylphalate	85-68-7	160	mg/kg	LA-UR-05-7424	Screening-level	Deer mouse (Mammalian omnivore)
Soil	Wildlife (mammalian)	Butylbenzylphalate	85-68-7	2300	mg/kg	LA-UR-05-7424	Screening-level	Desert cottontail (Mammalian herbivore)
Soil	Wildlife (mammalian)	Butylbenzylphalate	85-68-7	90	mg/kg	LA-UR-05-7424	Screening-level	Montane shrew (Mammalian insectivore)
Soil	Wildlife (mammalian)	Butylbenzylphalate	85-68-7	1900	mg/kg	LA-UR-05-7424	Screening-level	Red fox (Mammalian top carnivore)
Soil	Plant	Cadmium	7440-43-9	4.00E+00	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	
Soil	Soil Invertebrate	Cadmium	7440-43-9	2.00E+01	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	
Soil	Wildlife	Cadmium	7440-43-9	1.40E+01	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	
Soil	Plant BCG	Carbon-14	14762-75-5	6.07E+04	pCi/g	DOE-STD-1153-2002	BCG	Terrestrial Plant
Soil	Wildlife BCG	Carbon-14	14762-75-5	4.76E+03	pCi/g	DOE-STD-1153-2002	BCG	Terrestrial Animal
Soil	Plant BCG	Cesium-137	10045-97-3	2.21E+03	pCi/g	DOE-STD-1153-2002	BCG	Terrestrial Plant
Soil	Wildlife BCG	Cesium-137	10045-97-3	2.08E+01	pCi/g	DOE-STD-1153-2002	BCG	Terrestrial Animal
Soil	Plant	Chromium	7440-47-3	4.20E+01	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	Washington state background
Soil	Soil Invertebrate	Chromium	7440-47-3	4.20E+01	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	Washington state background
Soil	Wildlife	Chromium	7440-47-3	6.70E+01	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	
Soil	Plant	Chrysene	218-01-9	NA				
Soil	Soil Invertebrate	Chrysene	218-01-9	NA				
Soil	Wildlife	Chrysene	218-01-9	1.1	mg/kg	EPA, 2007a	EcoSSL	Mammalian
Soil	Wildlife (mammalian)	Chrysene	218-01-9	3.1	mg/kg	LA-UR-05-7424	Screening-level	Deer mouse (Mammalian omnivore)
Soil	Wildlife (mammalian)	Chrysene	218-01-9	6.5	mg/kg	LA-UR-05-7424	Screening-level	Desert cottontail (Mammalian herbivore)
Soil	Wildlife (mammalian)	Chrysene	218-01-9	2.4	mg/kg	LA-UR-05-7424	Screening-level	Montane shrew (Mammalian insectivore)
Soil	Wildlife (mammalian)	Chrysene	218-01-9	46	mg/kg	LA-UR-05-7424	Screening-level	Red fox (Mammalian top carnivore)
Soil	Plant	cis-1,2-Dichloroethene	156-59-2	NA				
Soil	Soil Invertebrate	cis-1,2-Dichloroethene	156-59-2	NA				
Soil	Wildlife	cis-1,2-Dichloroethene	156-59-2	23	mg/kg	LA-UR-05-7424	Screening-level	Montane shrew (Mammalian insectivore), surrogate Dichloroethene[cis/trans-1,2-]
Soil	Plant BCG	Cobalt-60	10198-40-0	6.13E+03	pCi/g	DOE-STD-1153-2002	BCG	Terrestrial Plant
Soil	Wildlife BCG	Cobalt-60	10198-40-0	6.92E+02	pCi/g	DOE-STD-1153-2002	BCG	Terrestrial Animal
Soil	Plant	Copper	7440-50-8	1.00E+02	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	

Table 3-56. Summary of Ecological Soil Screening Values 200-CS-1 Operable Unit. (10 Pages)

Media	Receptor	Analyte Name	Con ID	Benchmark	Units	Source	Type of Benchmark	Notes
Soil	Soil Invertebrate	Copper	7440-50-8	5.00E+01	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	
Soil	Wildlife	Copper	7440-50-8	2.17E+02	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	
Soil	Wildlife (avian)	Cyanide (total)	57-12-5	0.61	mg/kg	LA-UR-05-7424	Screening-level	American kestrel (Avian intermediate carnivore)
Soil	Wildlife (avian)	Cyanide (total)	57-12-5	1.4	mg/kg	LA-UR-05-7424	Screening-level	American kestrel (Avian top carnivore)
Soil	Wildlife (avian)	Cyanide (total)	57-12-5	0.1	mg/kg	LA-UR-05-7424	Screening-level	American robin (Avian herbivore)
Soil	Wildlife (avian)	Cyanide (total)	57-12-5	0.1	mg/kg	LA-UR-05-7424	Screening-level	American robin (Avian insectivore)
Soil	Wildlife (avian)	Cyanide (total)	57-12-5	0.1	mg/kg	LA-UR-05-7424	Screening-level	American robin (Avian omnivore)
Soil	Wildlife (mammalian)	Cyanide (total)	57-12-5	340	mg/kg	LA-UR-05-7424	Screening-level	Deer mouse (Mammalian omnivore)
Soil	Wildlife (mammalian)	Cyanide (total)	57-12-5	740	mg/kg	LA-UR-05-7424	Screening-level	Desert cottontail (Mammalian herbivore)
Soil	Wildlife (mammalian)	Cyanide (total)	57-12-5	310	mg/kg	LA-UR-05-7424	Screening-level	Montane shrew (Mammalian insectivore)
Soil	Wildlife (mammalian)	Cyanide (total)	57-12-5	5200	mg/kg	LA-UR-05-7424	Screening-level	Red fox (Mammalian top carnivore)
Soil	Plant	Dibenz(a,h)anthracene	53-70-3	NA				
Soil	Soil Invertebrate	Dibenz(a,h)anthracene	53-70-3	NA				
Soil	Wildlife	Dibenz(a,h)anthracene	53-70-3	1.1	mg/kg	EPA, 2007a	EcoSSL	Mammalian
Soil	Wildlife (mammalian)	Dibenzo(a,h)anthracene	53-70-3	22	mg/kg	LA-UR-05-7424	Screening-level	Deer mouse (Mammalian omnivore)
Soil	Wildlife (mammalian)	Dibenzo(a,h)anthracene	53-70-3	95	mg/kg	LA-UR-05-7424	Screening-level	Desert cottontail (Mammalian herbivore)
Soil	Wildlife (mammalian)	Dibenzo(a,h)anthracene	53-70-3	12	mg/kg	LA-UR-05-7424	Screening-level	Montane shrew (Mammalian insectivore)
Soil	Wildlife (mammalian)	Dibenzo(a,h)anthracene	53-70-3	54	mg/kg	LA-UR-05-7424	Screening-level	Red fox (Mammalian top carnivore)
Soil	Plant	Dichlorodiphenyldichloroethane	72-54-8	7.1	mg/kg	EPA, 2007b	EcoSSL	only MATC for DDT
Soil	Soil Invertebrate	Dichlorodiphenyldichloroethane	72-54-8	0.0059	mg/kg	EPA, 2007b	EcoSSL	GMM LC50 for DDT w/ UF of 100 applied to extrapolate to a chronic NOEC
Soil	Wildlife	Dichlorodiphenyldichloroethane	72-54-8	0.75	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	
Soil	Plant	Dichlorodiphenyldichloroethylene	72-55-9	7.1	mg/kg	EPA, 2007b	EcoSSL	only MATC for DDT
Soil	Soil Invertebrate	Dichlorodiphenyldichloroethylene	72-55-9	0.0059	mg/kg	EPA, 2007b	EcoSSL	GMM LC50 for DDT w/ UF of 100 applied to extrapolate to a chronic NOEC
Soil	Wildlife	Dichlorodiphenyldichloroethylene	72-55-9	0.75	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	
Soil	Plant	Dichlorodiphenyltrichloroethane	50-29-3	7.1	mg/kg	EPA, 2007b	EcoSSL	only MATC for DDT
Soil	Soil Invertebrate	Dichlorodiphenyltrichloroethane	50-29-3	0.0059	mg/kg	EPA, 2007b	EcoSSL	GMM LC50 for DDT w/ UF of 100 applied to extrapolate to a chronic NOEC
Soil	Wildlife	Dichlorodiphenyltrichloroethane	50-29-3	0.75	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	
Soil	Plant	Diethylphthalate	84-66-2	100	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	
Soil	Plant	Di-n-butylphthalate	84-74-2	2.00E+02	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	
Soil	Soil Invertebrate	Di-n-butylphthalate	84-74-2	NA				
Soil	Wildlife	Di-n-butylphthalate	84-74-2	0.11	mg/kg	LA-UR-05-7424	Screening-level	American robin (Avian insectivore)
Soil	Wildlife (avian)	Di-n-butylphthalate	84-74-2	0.068	mg/kg	LA-UR-05-7424	Screening-level	American kestrel (Avian intermediate carnivore)
Soil	Wildlife (avian)	Di-n-butylphthalate	84-74-2	0.24	mg/kg	LA-UR-05-7424	Screening-level	American kestrel (Avian top carnivore)
Soil	Wildlife (avian)	Di-n-butylphthalate	84-74-2	0.39	mg/kg	LA-UR-05-7424	Screening-level	American robin (Avian herbivore)
Soil	Wildlife (avian)	Di-n-butylphthalate	84-74-2	0.011	mg/kg	LA-UR-05-7424	Screening-level	American robin (Avian insectivore)
Soil	Wildlife (avian)	Di-n-butylphthalate	84-74-2	0.021	mg/kg	LA-UR-05-7424	Screening-level	American robin (Avian omnivore)
Soil	Wildlife (mammalian)	Di-n-butylphthalate	84-74-2	370	mg/kg	LA-UR-05-7424	Screening-level	Deer mouse (Mammalian omnivore)
Soil	Wildlife (mammalian)	Di-n-butylphthalate	84-74-2	16000	mg/kg	LA-UR-05-7424	Screening-level	Desert cottontail (Mammalian herbivore)
Soil	Wildlife (mammalian)	Di-n-butylphthalate	84-74-2	180	mg/kg	LA-UR-05-7424	Screening-level	Montane shrew (Mammalian insectivore)
Soil	Wildlife (mammalian)	Di-n-butylphthalate	84-74-2	5000	mg/kg	LA-UR-05-7424	Screening-level	Red fox (Mammalian top carnivore)

Table 3-56. Summary of Ecological Soil Screening Values 200-CS-1 Operable Unit. (10 Pages)

Media	Receptor	Analyte Name	Con ID	Benchmark	Units	Source	Type of Benchmark	Notes
Soil	Plant	Endosulfan I	959-98-8	NA				
Soil	Soil Invertebrate	Endosulfan I	959-98-8	NA				
Soil	Wildlife	Endosulfan I	959-98-8	0.64	mg/kg	LA-UR-05-7424	Screening-level	Deer mouse (Mammalian omnivore), surrogate endosulfan
Soil	Plant	Endosulfan sulfate	1031-07-8	NA				
Soil	Soil Invertebrate	Endosulfan sulfate	1031-07-8	NA				
Soil	Wildlife	Endosulfan sulfate	1031-07-8	0.64	mg/kg	LA-UR-05-7424	Screening-level	Deer mouse (Mammalian omnivore), surrogate endosulfan
Soil	Plant BCG	Europium-152	14683-23-9	1.47E+04	pCi/g	DOE-STD-1153-2002	BCG	Terrestrial Plant
Soil	Wildlife BCG	Europium-152	14683-23-9	1.52E+03	pCi/g	DOE-STD-1153-2002	BCG	Terrestrial Animal
Soil	Plant BCG	Europium-154	15585-10-1	1.25E+04	pCi/g	DOE-STD-1153-2002	BCG	Terrestrial Plant
Soil	Wildlife BCG	Europium-154	15585-10-1	1.29E+03	pCi/g	DOE-STD-1153-2002	BCG	Terrestrial Animal
Soil	Plant	Fluoranthene	206-44-0	NA				
Soil	Soil Invertebrate	Fluoranthene	206-44-0	NA				
Soil	Soil Invertebrate	Fluoranthene	206-44-0	38	mg/kg	LA-UR-05-7424	Screening-level	Earthworm (Soil-dwelling invertebrate)
Soil	Wildlife	Fluoranthene	206-44-0	100	mg/kg	EPA, 2007a	EcoSSL	Mammalian
Soil	Wildlife (mammalian)	Fluoranthene	206-44-0	38	mg/kg	LA-UR-05-7424	Screening-level	Deer mouse (Mammalian omnivore)
Soil	Wildlife (mammalian)	Fluoranthene	206-44-0	260	mg/kg	LA-UR-05-7424	Screening-level	Desert cottontail (Mammalian herbivore)
Soil	Wildlife (mammalian)	Fluoranthene	206-44-0	22	mg/kg	LA-UR-05-7424	Screening-level	Montane shrew (Mammalian insectivore)
Soil	Wildlife (mammalian)	Fluoranthene	206-44-0	360	mg/kg	LA-UR-05-7424	Screening-level	Red fox (Mammalian top carnivore)
Soil	Plant	Fluorene	86-73-7	NA				
Soil	Soil Invertebrate	Fluorene	86-73-7	30	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	
Soil	Wildlife	Fluorene	86-73-7	100	mg/kg	EPA, 2007a	EcoSSL	Mammalian
Soil	Plant	Fluoride	16984-48-8	NA				
Soil	Soil Invertebrate	Fluoride	16984-48-8	NA				
Soil	Wildlife	Fluoride	16984-48-8	31	mg/kg	LA-UR-05-7424	Screening-level	American robin (Avian insectivore)
Soil	Wildlife (avian)	Fluoride	16984-48-8	210	mg/kg	LA-UR-05-7424	Screening-level	American kestrel (Avian intermediate carnivore)
Soil	Wildlife (avian)	Fluoride	16984-48-8	1000	mg/kg	LA-UR-05-7424	Screening-level	American kestrel (Avian top carnivore)
Soil	Wildlife (avian)	Fluoride	16984-48-8	210	mg/kg	LA-UR-05-7424	Screening-level	American robin (Avian herbivore)
Soil	Wildlife (avian)	Fluoride	16984-48-8	31	mg/kg	LA-UR-05-7424	Screening-level	American robin (Avian insectivore)
Soil	Wildlife (avian)	Fluoride	16984-48-8	54	mg/kg	LA-UR-05-7424	Screening-level	American robin (Avian omnivore)
Soil	Wildlife (mammalian)	Fluoride	16984-48-8	240	mg/kg	LA-UR-05-7424	Screening-level	Deer mouse (Mammalian omnivore)
Soil	Wildlife (mammalian)	Fluoride	16984-48-8	3500	mg/kg	LA-UR-05-7424	Screening-level	Desert cottontail (Mammalian herbivore)
Soil	Wildlife (mammalian)	Fluoride	16984-48-8	120	mg/kg	LA-UR-05-7424	Screening-level	Montane shrew (Mammalian insectivore)
Soil	Wildlife (mammalian)	Fluoride	16984-48-8	4600	mg/kg	LA-UR-05-7424	Screening-level	Red fox (Mammalian top carnivore)
Soil	Plant	gamma-Chlordane	5566-34-7	2.2	mg/kg	LA-UR-05-7424	Screening-level	Generic plant
Soil	Soil Invertebrate	gamma-Chlordane	5566-34-7	1	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	Chlordane
Soil	Wildlife	gamma-Chlordane	5566-34-7	2.7	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	Chlordane
Soil	Plant	Hexavalent Chromium	18540-29-9	0.35	mg/kg	LA-UR-05-7424	Screening-level	Generic plant
Soil	Soil Invertebrate	Hexavalent Chromium	18540-29-9	0.34	mg/kg	LA-UR-05-7424	Screening-level	Earthworm
Soil	Wildlife	Hexavalent Chromium	18540-29-9	81	mg/kg	EPA, 2005c	EcoSSL	Mammalian
Soil	Plant	Indeno(1,2,3-cd)pyrene	193-39-5	NA				

Table 3-56. Summary of Ecological Soil Screening Values 200-CS-1 Operable Unit. (10 Pages)

Media	Receptor	Analyte Name	Con ID	Benchmark	Units	Source	Type of Benchmark	Notes
Soil	Soil Invertebrate	Indeno(1,2,3-cd)pyrene	193-39-5	NA				
Soil	Wildlife	Indeno(1,2,3-cd)pyrene	193-39-5	1.1	mg/kg	EPA, 2007a	EcoSSL	Mammalian
Soil	Wildlife (mammalian)	Indeno(1,2,3-cd)pyrene	193-39-5	110	mg/kg	LA-UR-05-7424	Screening-level	Deer mouse (Mammalian omnivore)
Soil	Wildlife (mammalian)	Indeno(1,2,3-cd)pyrene	193-39-5	590	mg/kg	LA-UR-05-7424	Screening-level	Desert cottontail (Mammalian herbivore)
Soil	Wildlife (mammalian)	Indeno(1,2,3-cd)pyrene	193-39-5	62	mg/kg	LA-UR-05-7424	Screening-level	Montane shrew (Mammalian insectivore)
Soil	Wildlife (mammalian)	Indeno(1,2,3-cd)pyrene	193-39-5	270	mg/kg	LA-UR-05-7424	Screening-level	Red fox (Mammalian top carnivore)
Soil	Plant	Lead	7439-92-1	5.00E+01	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	
Soil	Soil Invertebrate	Lead	7439-92-1	5.00E+02	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	
Soil	Wildlife	Lead	7439-92-1	1.18E+02	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	
Soil	Plant	Lithium	7439-93-2	NA				
Soil	Soil Invertebrate	Lithium	7439-93-2	NA				
Soil	Wildlife	Lithium	7439-93-2	NA				
Soil	Plant	Manganese	7439-96-5	1100	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	Washington state background
Soil	Soil Invertebrate	Manganese	7439-96-5	450	mg/kg	EPA, 2007c	EcoSSL	
Soil	Wildlife	Manganese	7439-96-5	1500	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	
Soil	Plant	Mercury	7439-97-6	3.00E-01	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	
Soil	Soil Invertebrate	Mercury	7439-97-6	1.00E-01	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	
Soil	Wildlife	Mercury	7439-97-6	5.50E+00	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	
Soil	Plant	Methoxychlor	72-43-5	NA				
Soil	Soil Invertebrate	Methoxychlor	72-43-5	NA				
Soil	Wildlife	Methoxychlor	72-43-5	5	mg/kg	LA-UR-05-7424	Screening-level	Montane shrew (Mammalian insectivore)
Soil	Plant	Methylene chloride	75-09-2	1600	mg/kg	LA-UR-05-7424	Screening-level	Generic plant (Terrestrial autotroph - producer)
Soil	Wildlife (mammalian)	Methylene chloride	75-09-2	2.6	mg/kg	LA-UR-05-7424	Screening-level	Deer mouse (Mammalian omnivore)
Soil	Wildlife (mammalian)	Methylene chloride	75-09-2	3.4	mg/kg	LA-UR-05-7424	Screening-level	Desert cottontail (Mammalian herbivore)
Soil	Wildlife (mammalian)	Methylene chloride	75-09-2	9	mg/kg	LA-UR-05-7424	Screening-level	Montane shrew (Mammalian insectivore)
Soil	Wildlife (mammalian)	Methylene chloride	75-09-2	1700	mg/kg	LA-UR-05-7424	Screening-level	Red fox (Mammalian top carnivore)
Soil	Plant	Molybdenum	7439-98-7	2.00E+00	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	
Soil	Soil Invertebrate	Molybdenum	7439-98-7	NA				
Soil	Wildlife	Molybdenum	7439-98-7	7.00E+00	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	
Soil	Plant	Naphthalene	91-20-3	1	mg/kg	LA-UR-05-7424	Screening-level	Generic plant
Soil	Soil Invertebrate	Naphthalene	91-20-3	NA				
Soil	Wildlife	Naphthalene	91-20-3	100	mg/kg	EPA, 2007a	EcoSSL	Mammalian
Soil	Plant	Nickel	7440-02-0	3.00E+01	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	
Soil	Soil Invertebrate	Nickel	7440-02-0	2.00E+02	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	
Soil	Wildlife	Nickel	7440-02-0	9.80E+02	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	
Soil	Plant	Nitrate	14797-55-8	NA				
Soil	Soil Invertebrate	Nitrate	14797-55-8	NA				
Soil	Wildlife	Nitrate	14797-55-8	NA				
Soil	Plant	Nitrogen in Nitrite	NO2-N	NA				
Soil	Soil Invertebrate	Nitrogen in Nitrite	NO2-N	NA				

Table 3-56. Summary of Ecological Soil Screening Values 200-CS-1 Operable Unit. (10 Pages)

Media	Receptor	Analyte Name	Con ID	Benchmark	Units	Source	Type of Benchmark	Notes
Soil	Wildlife	Nitrogen in Nitrite	NO2-N	NA				
Soil	Plant	petroleum hydrocarbons	TPH	NA				
Soil	Soil Invertebrate	petroleum hydrocarbons	TPH	NA				
Soil	Wildlife	petroleum hydrocarbons	TPH	NA				
Soil	Plant	Phenanthrene	85-01-8	NA				
Soil	Soil Invertebrate	Phenanthrene	85-01-8	29	mg/kg	LA-UR-05-7424	Screening-level	Earthworm
Soil	Wildlife	Phenanthrene	85-01-8	100	mg/kg	EPA, 2007a	EcoSSL	Mammalian
Soil	Plant	Phenol	108-95-2	70	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	
Soil	Soil Invertebrate	Phenol	108-95-2	30	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	
Soil	Wildlife	Phenol	108-95-2	38	mg/kg	LA-UR-05-7424	Screening-level	Deer mouse (Mammalian omnivore)
Soil	Plant BCG	Plutonium-239/240	PU-239/240	1.27E+04	pCi/g	DOE-STD-1153-2002	BCG	Terrestrial Plant; Pu-239
Soil	Wildlife BCG	Plutonium-239/240	PU-239/240	6.11E+03	pCi/g	DOE-STD-1153-2002	BCG	Terrestiral Animal; Pu-239
Soil	Plant	Pyrene	129-00-0	NA				
Soil	Soil Invertebrate	Pyrene	129-00-0	18	mg/kg	LA-UR-05-7424	Screening-level	Earthworm
Soil	Wildlife	Pyrene	129-00-0	1.1	mg/kg	EPA, 2007a	EcoSSL	Mammalian
Soil	Plant	Selenium	7782-49-2	1	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	
Soil	Soil Invertebrate	Selenium	7782-49-2	70	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	
Soil	Wildlife	Selenium	7782-49-2	0.3	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	
Soil	Plant	Silver	7440-22-4	2	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	
Soil	Plant	Silver	7440-22-4	560	mg/kg	EPA, 2006	EcoSSL	EcoSSL for Silver, OSWER Directive 9285.7-77
Soil	Soil Invertebrate	Silver	7440-22-4	NA	mg/kg	EPA, 2006	EcoSSL	EcoSSL for Silver, OSWER Directive 9285.7-77
Soil	Wildlife (avian)	Silver	7440-22-4	4.2	mg/kg	EPA, 2006	EcoSSL	EcoSSL for Silver, OSWER Directive 9285.7-77
Soil	Wildlife (mammalian)	Silver	7440-22-4	14	mg/kg	EPA, 2006	EcoSSL	EcoSSL for Silver, OSWER Directive 9285.7-77
Soil	Plant	Strontium (elemental)	7440-24-6	NA				
Soil	Soil Invertebrate	Strontium (elemental)	7440-24-6	NA				
Soil	Wildlife	Strontium (elemental)	7440-24-6	96	mg/kg	LA-UR-05-7424	Screening-level	Deer mouse (Mammalian omnivore)
Soil	Plant BCG	Strontium-90	10098-97-2	3.58E+03	pCi/g	DOE-STD-1153-2002	BCG	Terrestrial Plant
Soil	Wildlife BCG	Strontium-90	10098-97-2	2.25E+01	pCi/g	DOE-STD-1153-2002	BCG	Terrestrial Animal
Soil	Plant	Sulfate	14808-79-8	NA				
Soil	Soil Invertebrate	Sulfate	14808-79-8	NA				
Soil	Wildlife	Sulfate	14808-79-8	NA				
Soil	Plant BCG	Technetium-99	14133-76-7	2.19E+04	pCi/g	DOE-STD-1153-2002	BCG	Terrestrial Plant
Soil	Wildlife BCG	Technetium-99	14133-76-7	4.49E+03	pCi/g	DOE-STD-1153-2002	BCG	Terrestrial Animal
Soil	Plant	Tetrachloroethene	127-18-4	10	mg/kg	LA-UR-05-7424	Screening-level	Earthworm
Soil	Soil Invertebrate	Tetrachloroethene	127-18-4	NA				
Soil	Wildlife	Tetrachloroethene	127-18-4	0.18	mg/kg	LA-UR-05-7424	Screening-level	Montane shrew (Mammalian insectivore)
Soil	Wildlife (mammalian)	Tetrachloroethene	127-18-4	0.36	mg/kg	LA-UR-05-7424	Screening-level	Deer mouse (Mammalian omnivore)
Soil	Wildlife (mammalian)	Tetrachloroethene	127-18-4	8.8	mg/kg	LA-UR-05-7424	Screening-level	Desert cottontail (Mammalian herbivore)
Soil	Wildlife (mammalian)	Tetrachloroethene	127-18-4	0.18	mg/kg	LA-UR-05-7424	Screening-level	Montane shrew (Mammalian insectivore)
Soil	Wildlife (mammalian)	Tetrachloroethene	127-18-4	31	mg/kg	LA-UR-05-7424	Screening-level	Red fox (Mammalian top carnivore)

Table 3-56. Summary of Ecological Soil Screening Values 200-CS-1 Operable Unit. (10 Pages)

Media	Receptor	Analyte Name	Con ID	Benchmark	Units	Source	Type of Benchmark	Notes
Soil	Plant	Thallium	7440-28-0	1	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	
Soil	Wildlife (avian)	Thallium	7440-28-0	6.6	mg/kg	LA-UR-05-7424	Screening-level	American kestrel (Avian intermediate carnivore)
Soil	Wildlife (avian)	Thallium	7440-28-0	75	mg/kg	LA-UR-05-7424	Screening-level	American kestrel (Avian top carnivore)
Soil	Wildlife (avian)	Thallium	7440-28-0	9.2	mg/kg	LA-UR-05-7424	Screening-level	American robin (Avian herbivore)
Soil	Wildlife (avian)	Thallium	7440-28-0	0.9	mg/kg	LA-UR-05-7424	Screening-level	American robin (Avian insectivore)
Soil	Wildlife (avian)	Thallium	7440-28-0	1.6	mg/kg	LA-UR-05-7424	Screening-level	American robin (Avian omnivore)
Soil	Wildlife (mammalian)	Thallium	7440-28-0	0.068	mg/kg	LA-UR-05-7424	Screening-level	Deer mouse (Mammalian omnivore)
Soil	Wildlife (mammalian)	Thallium	7440-28-0	2.8	mg/kg	LA-UR-05-7424	Screening-level	Desert cottontail (Mammalian herbivore)
Soil	Wildlife (mammalian)	Thallium	7440-28-0	0.032	mg/kg	LA-UR-05-7424	Screening-level	Montane shrew (Mammalian insectivore)
Soil	Wildlife (mammalian)	Thallium	7440-28-0	2.8	mg/kg	LA-UR-05-7424	Screening-level	Red fox (Mammalian top carnivore)
Soil	Plant	Tin	7440-31-5	5.00E+01	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	
Soil	Soil Invertebrate	Tin	7440-31-5	NA				
Soil	Wildlife	Tin	7440-31-5	NA				
Soil	Plant	Toluene	108-88-3	200	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	
Soil	Wildlife (mammalian)	Toluene	108-88-3	25	mg/kg	LA-UR-05-7424	Screening-level	Deer mouse (Mammalian omnivore)
Soil	Wildlife (mammalian)	Toluene	108-88-3	61	mg/kg	LA-UR-05-7424	Screening-level	Desert cottontail (Mammalian herbivore)
Soil	Wildlife (mammalian)	Toluene	108-88-3	23	mg/kg	LA-UR-05-7424	Screening-level	Montane shrew (Mammalian insectivore)
Soil	Wildlife (mammalian)	Toluene	108-88-3	3100	mg/kg	LA-UR-05-7424	Screening-level	Red fox (Mammalian top carnivore)
Soil	Soil Invertebrate	Total Petroleum Hydrocarbons - Diesel Range	TPHDIESEL	200	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	
Soil	Plant	Tributyl phosphate	126-73-8	NA				
Soil	Soil Invertebrate	Tributyl phosphate	126-73-8	NA				
Soil	Wildlife	Tributyl phosphate	126-73-8	NA				
Soil	Plant	Trichloroethene	79-01-6	NA				
Soil	Soil Invertebrate	Trichloroethene	79-01-6	NA				
Soil	Wildlife	Trichloroethene	79-01-6	42	mg/kg	LA-UR-05-7424	Screening-level	Montane shrew (Mammalian insectivore)
Soil	Plant BCG	Tritium	10028-17-8	1.68E+06	pCi/g	DOE-STD-1153-2002	BCG	Terrestrial Plant
Soil	Wildlife BCG	Tritium	10028-17-8	1.74E+05	pCi/g	DOE-STD-1153-2002	BCG	Terrestrial Animal
Soil	Plant	Uranium	7440-61-1	5.00E+00	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	
Soil	Soil Invertebrate	Uranium	7440-61-1	100	mg/kg	Sheppard et al., 2005		
Soil	Wildlife	Uranium	7440-61-1	220	mg/kg	LA-UR-05-7424	Screening-level	Montane shrew (Mammalian insectivore)
Soil	Plant BCG	Uranium-233/234	13966-29-5	5.16E+04	pCi/g	DOE-STD-1153-2002	BCG	Terrestrial Plant; U-234
Soil	Wildlife BCG	Uranium-233/234	13966-29-5	5.13E+03	pCi/g	DOE-STD-1153-2002	BCG	Terrestrial Animal; U-234
Soil	Plant BCG	Uranium-235	15117-96-1	2.74E+04	pCi/g	DOE-STD-1153-2002	BCG	Terrestrial Plant
Soil	Wildlife BCG	Uranium-235	15117-96-1	2.77E+03	pCi/g	DOE-STD-1153-2002	BCG	Terrestrial Animal
Soil	Plant BCG	Uranium-238	U-238	1.57E+04	pCi/g	DOE-STD-1153-2002	BCG	Terrestrial Plant
Soil	Wildlife BCG	Uranium-238	U-238	1.58E+03	pCi/g	DOE-STD-1153-2002	BCG	Terrestrial Animal
Soil	Plant	Vanadium	7440-62-2	NA	mg/kg	EPA, 2005d	EcoSSL	EcoSSL for Vanadium, OSWER Directive 9285.7-75
Soil	Plant	Vanadium	7440-62-2	0.025	mg/kg	LA-UR-05-7424	Screening-level	Generic plant (Terrestrial autotroph - producer)
Soil	Soil Invertebrate	Vanadium	7440-62-2	NA	mg/kg	EPA, 2005d	EcoSSL	EcoSSL for Vanadium, OSWER Directive 9285.7-75
Soil	Wildlife (avian)	Vanadium	7440-62-2	7.8	mg/kg	EPA, 2005d	EcoSSL	EcoSSL for Vanadium, OSWER Directive 9285.7-75

Table 3-56. Summary of Ecological Soil Screening Values 200-CS-1 Operable Unit. (10 Pages)

Media	Receptor	Analyte Name	Con ID	Benchmark	Units	Source	Type of Benchmark	Notes
Soil	Wildlife (mammalian)	Vanadium	7440-62-2	280	mg/kg	EPA, 2005d	EcoSSL	EcoSSL for Vanadium, OSWER Directive 9285.7-75
Soil	Plant	Xylenes (total)	1330-20-7	100	mg/kg	LA-UR-05-7424	Screening-level	Generic plant (Terrestrial autotroph - producer)
Soil	Wildlife (avian)	Xylenes (total)	1330-20-7	280	mg/kg	LA-UR-05-7424	Screening-level	American kestrel (Avian intermediate carnivore)
Soil	Wildlife (avian)	Xylenes (total)	1330-20-7	3200	mg/kg	LA-UR-05-7424	Screening-level	American kestrel (Avian top carnivore)
Soil	Wildlife (avian)	Xylenes (total)	1330-20-7	90	mg/kg	LA-UR-05-7424	Screening-level	American robin (Avian herbivore)
Soil	Wildlife (avian)	Xylenes (total)	1330-20-7	41	mg/kg	LA-UR-05-7424	Screening-level	American robin (Avian insectivore)
Soil	Wildlife (avian)	Xylenes (total)	1330-20-7	56	mg/kg	LA-UR-05-7424	Screening-level	American robin (Avian omnivore)
Soil	Wildlife (mammalian)	Xylenes (total)	1330-20-7	2	mg/kg	LA-UR-05-7424	Screening-level	Deer mouse (Mammalian omnivore)
Soil	Wildlife (mammalian)	Xylenes (total)	1330-20-7	7	mg/kg	LA-UR-05-7424	Screening-level	Desert cottontail (Mammalian herbivore)
Soil	Wildlife (mammalian)	Xylenes (total)	1330-20-7	1.4	mg/kg	LA-UR-05-7424	Screening-level	Montane shrew (Mammalian insectivore)
Soil	Wildlife (mammalian)	Xylenes (total)	1330-20-7	130	mg/kg	LA-UR-05-7424	Screening-level	Red fox (Mammalian top carnivore)
Soil	Plant	Zinc	7440-66-6	8.60E+01	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	
Soil	Soil Invertebrate	Zinc	7440-66-6	2.00E+02	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	
Soil	Wildlife	Zinc	7440-66-6	3.60E+02	mg/kg	WAC 173-340-900, Table 749-3	Screening-level	

LA-UR-05-7424, *ECORISK Database.*
Sheppard et al., 2005, "Derivation of Ecotoxicity Thresholds for Uranium."
DOE-STD-1153-2002, *A Graded Approach for Evaluating Radiation Doses to Aquatic and Terrestrial Biota.*
EPA, 2005, *Ecological Soil Screening Levels for Antimony, Interim Final.*
EPA, 2005a, *Ecological Soil Screening Levels for Barium, Interim Final.*
EPA, 2005b, *Ecological Soil Screening Levels for Arsenic, Interim Final.*
EPA, 2005c, *Ecological Soil Screening Levels for Chromium, Interim Final.*
EPA, 2005d, *Ecological Soil Screening Level for Vanadium, Interim Final.*
EPA, 2006, *Ecological Soil Screening Level for Silver, Interim Final.*
EPA, 2007a, *Ecological Soil Screening Levels for Polycyclic Aromatic Hydrocarbons (PAHs), Interim Final.*
EPA, 2007b, *Ecological Soil Screening Levels for DDT and Metabolites, Interim Final.*
EPA, 2007c, *Ecological Soil Screening Levels for Manganese, Interim Final.*
WAC 173-340-900, "Tables,"Table 749-3.

Table 3-57. 216-A-29 Ditch - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) bgs to Hanford Site Background. (4 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m (15 ft) (m [ft]) bgs	90th Percentile Background Concentration	Does Maximum Detected from 0 to 4.6 m (15 ft) bgs Exceed Background?	Wildlife SSV	Does Maximum Detected from 0 to 4.6 m (15 ft) bgs Exceed Wildlife SSV?
Metals Analyses						
Aluminum	10,100 mg/kg	1.8 [6] - 2.1 [7]	11,800 mg/kg	No	Less than background	No
Arsenic	12 mg/kg	2.6 [8.5] - 2.9 [9.5]	6.5 mg/kg	Yes	43	No
Barium	118 mg/kg	1.8 [6] - 2.1 [7]	132 mg/kg	No	Less than background	No
Beryllium	0.63 mg/kg	1.2 [4] - 2.0 [6.5]	1.5 mg/kg	No	Less than background	No
Boron	3.4 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background	2	Yes
Cadmium	28 mg/kg	1.2 [4] - 1.5 [5.0]	1.0 mg/kg	Yes	14	Yes
Chromium	37 mg/kg	1.2 [4] - 1.5 [5.0]	19 mg/kg	Yes	67	No
Copper	172 mg/kg	1.2 [4] - 1.5 [5.0]	22 mg/kg	Yes	217	No
Hexavalent Chromium	8.8 mg/kg	2.3 [7.5] - 2.6 [8.5]	No background	No background	81	No
Iron	26,900 mg/kg	1.5 [5] - 1.8 [6]	32,600 mg/kg	No	Less than background	No
Lead	390 mg/kg	2.3 [7.5] - 2.6 [8.5]	10 mg/kg	Yes	118	Yes
Magnesium	4,310 mg/kg	1.2 [4] - 2.0 [6.5]	7,060 mg/kg	No	Less than background	No
Manganese	454 mg/kg	1.8 [6] - 2.1 [7]	512 mg/kg	No	Less than background	No
Mercury	5.2 mg/kg	1.2 [4] - 1.5 [5.0]	0.33 mg/kg	Yes	5.5	No
Molybdenum	3.2 mg/kg	1.2 [4] - 1.5 [5.0]	2.8-6.0 mg/kg [a]	No	Less than background	No
Nickel	28 mg/kg	1.2 [4] - 1.5 [5.0]	19 mg/kg	Yes	980	No
Selenium	2.5 mg/kg	2.7 [9] - 3.5 [11.5]	No background	No background	0.3	Yes
Silver	42 mg/kg	1.2 [4] - 1.5 [5.0]	0.73 mg/kg	Yes	4.2	Yes
Thallium	0.52 mg/kg	1.8 [6] - 2.1 [7]	No background	No background	0.032	Yes

Table 3-57. 216-A-29 Ditch - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) bgs to Hanford Site Background. (4 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m (15 ft) (m [ft]) bgs	90th Percentile Background Concentration	Does Maximum Detected from 0 to 4.6 m (15 ft) bgs Exceed Background?	Wildlife SSV	Does Maximum Detected from 0 to 4.6 m (15 ft) bgs Exceed Wildlife SSV?
Uranium	5.3 mg/kg	2.3 [7.5] - 2.6 [8.5]	3.2 mg/kg	Yes	220	No
Vanadium	104 mg/kg	2.3 [7.5] - 2.6 [8.5]	85 mg/kg	Yes	7.8	Yes
Zinc	224 mg/kg	1.2 [4] - 1.5 [5.0]	68 mg/kg	Yes	360	No
Radiological Constituents (pCi/g)						
Americium-241	145 mg/kg	1.2 [4] - 2.0 [6.5]	No background	No background	3.89	Yes
Antimony-125	1.7 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background	3.52	No
Cesium-137	98 mg/kg	1.2 [4] - 1.5 [5.0]	1.1 mg/kg	Yes	2.08	Yes
Europium-155	0.050 mg/kg	0 [0] - 3.0 [10]	0.054 mg/kg	No	Less than background	No
Neptunium-237	0.12 mg/kg	3.5 [11.5] - 3.8 [12.5]	No background	No background	1900	No
Plutonium-238	16 mg/kg	1.2 [4] - 2.0 [6.5]	0.0038 mg/kg	Yes	5400	No
Plutonium-239/240	667 mg/kg	1.2 [4] - 2.0 [6.5]	0.025 mg/kg	Yes	6110	No
Potassium-40	16 mg/kg	1.8 [6] - 2.1 [7]	17 mg/kg	No	Less than background	No
Radium-226	0.90 mg/kg	2.6 [8.5] - 2.9 [9.5]	0.82 mg/kg	Yes	50.6	No
Radium-228	1.1 mg/kg	1.8 [6] - 2.1 [7]	1.3 mg/kg	No	Less than background	No
Thorium-228	1.1 mg/kg	3.0 [10] - 3.4 [11]	1.3 mg/kg	No	Less than background	No
Thorium-230	1.5 mg/kg	2.7 [9] - 3.5 [11.5]	1.1 mg/kg	Yes	9980	No
Thorium-232	1.2 mg/kg	3.0 [10] - 3.4 [11]	1.3 mg/kg	No	Less than background	No
Total beta radiostrontium	0.78 mg/kg	3.0 [10] - 3.4 [11]	0.18 mg/kg	Yes	22.5	No
Uranium-233/234	2.3 mg/kg	2.3 [7.5] - 2.6 [8.5]	1.1 mg/kg	Yes	4830	No
Uranium-234	0.96 mg/kg	3.0 [10] - 3.4 [11]	1.1 mg/kg	No	Less than background	No
Uranium-235	0.44 mg/kg	1.2 [4] - 1.5 [5.0]	0.11 mg/kg	Yes	2770	No

Table 3-57. 216-A-29 Ditch - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) bgs to Hanford Site Background. (4 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m (15 ft) (m [ft]) bgs	90th Percentile Background Concentration	Does Maximum Detected from 0 to 4.6 m (15 ft) bgs Exceed Background?	Wildlife SSV	Does Maximum Detected from 0 to 4.6 m (15 ft) bgs Exceed Wildlife SSV?
Uranium-238	1.8 mg/kg	2.3 [7.5] - 2.6 [8.5]	1.1 mg/kg	Yes	1580	No
Semivolatile Organic Compounds (mg/kg)						
Benzo(a)anthracene	0.18 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background	1.1	No
Benzo(a)pyrene	0.16 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background	1.1	No
Benzo(b)fluoranthene	0.24 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background	1.1	No
Bis(2-ethylhexyl) phthalate	6.2 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background	0.02	Yes
Butylbenzylphthalate	0.29 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background	90	No
Chrysene	0.21 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background	2.4	No
Diethylphthalate	0.33 mg/kg	2.7 [9] - 3.5 [11.5]	No background	No background	Not available	Not available
Di-n-butylphthalate	2.7 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background	0.011	Yes
Fluoranthene	0.37 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background	22	No
Phenanthrene	0.37 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background	100	No
Pyrene	0.35 mg/kg	1.2 [4] - 1.3 [4.3]	No background	No background	1.1	No
Tributyl phosphate	0.54 mg/kg	1.2 [4] - 2.0 [6.5]	No background	No background	Not available	Not available
Volatile Organic Compounds (mg/kg)						
1,2-Dichloroethane	0.013 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background	0.85	No
Acetone	0.030 mg/kg	2.3 [7.5] - 2.6 [8.5]	No background	No background	1.2	No
Methylene chloride	0.078 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background	2.6	No
Tetrachloroethene	0.0060 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background	0.18	No
General Inorganic Chemistry (mg/kg)						
Ammonia	42 mg/kg	1.2 [4] - 1.5 [5.0]	9.2 mg/kg	Yes	Not available	Not available
Chloride	226 mg/kg	1.2 [4] - 1.5 [5.0]	100 mg/kg	Yes	Not available	Not available
Fluoride	5.3 mg/kg	2.7 [9] - 3.5 [11.5]	2.8 mg/kg	Yes	31	No
Nitrate	927 mg/kg	1.2 [4] - 1.5 [5.0]	52 mg/kg	Yes	Not available	Not available

Table 3-57. 216-A-29 Ditch - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) bgs to Hanford Site Background. (4 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m (15 ft) (m [ft]) bgs	90th Percentile Background Concentration	Does Maximum Detected from 0 to 4.6 m (15 ft) bgs Exceed Background?	Wildlife SSV	Does Maximum Detected from 0 to 4.6 m (15 ft) bgs Exceed Wildlife SSV?
Nitrogen in Nitrite and Nitrate	210 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background	Not available	Not available
Sulfate	2,970 mg/kg	1.2 [4] - 1.5 [5.0]	237 mg/kg	Yes	Not available	Not available
Miscellaneous Organic Analyses (mg/kg)						
Aroclor-1254	0.094 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background	0.041	Yes
Total petroleum hydrocarbons - kerosene range	0.44 mg/kg	1.2 [4] - 2.0 [6.5]	No background	No background	Not available	Not available
Total petroleum hydrocarbons - motor oil (high boiling)	0.76 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background	Not available	Not available

bgs = below ground surface.
SSV = soil screening values.

Table 3-58. 216-A-29 Ditch - Shallow Zone Soil Summary of Hazard Quotients and Ecological Soil Screening Values for Nonradiological Constituents.

Constituent Name	Maximum Detected Concentration (mg/kg)	Plant HQ	Soil Biota HQ	Wildlife HQ	Plant SSV mg/kg	Reference	Soil Biota SSV mg/kg	Reference	Min Wildlife SSV mg/kg	BAFWorm	Reference	KPlant	Reference	Shrew TRV mg/kg-d	Reference	Vole TRV mg/kg-d	Reference	Robin TRV mg/kg-d	Reference	Shrew SSV mg/kg	Vole SSV mg/kg	Robin SSV mg/kg
Boron	3.4	7	NA	0.2	0.5	1	NA	-	22	1	3	4	3	28	3	28	3	2.92	3	122	22	22.6
Cadmium	28	7.0	1.40	1.94	4	1	20	1	14	4.6	1	0.14	1	15	1	15	1	20	1	14	288	38.7
Lead	390	7.8	0.78	3.3	50	1	500	1	118	0.69	1	0.005	1	20	1	20	1	11.3	1	125	2132	118.0
Selenium	2.52	2.5	0.0	8.2	1	1	70	1	0.3	10.5	1	0.007	1	0.725	1	0.55	1	1	1	0.3	55	0.9
Silver	42	21	NA	5.01	2	1	NA	-	8	2.04	3	0.4	3	6.02	2	6.02	2	2.02	2	13	45	8.4
Thallium	0.52	0.5	NA	16.8	1	1	NA	-	0.03	1	3	0.004	3	0.0071	3	0.0071	3	0.35	3	0.03	0.8	2.7
Vanadium	104	52.0	NA	7.9	2	1	NA	-	13	0.042	3	0.006	3	4.16	2	4.16	2	0.344	2	298	432	13.2
Aroclor-1254	0.094	0.0	NA	0.7	160	3	NA	-	0.13	6.8	3	0.106	3	0.611	3	0.611	3	0.1	3	0.4	15	0.1
Di-n-butyl phthalate	2.74	0.0	NA	75.4	200	1	NA	-	0.04	35.6	3	0.9	3	1.34E+03	3	1.34E+03	3	0.14	3	167.2	4598	0.04
Bis(2-ethylhexyl)phthalate	6.2	NA	NA	93.6	NA	-	NA	-	0.07	154	3	0.05	3	18.3	3	18.3	3	1.1	3	0.5	774	0.07

REFERENCES
1= WAC 173-340-900, "Tables," Tables 749-3 and 749-5.
2=EPA ecological soil-screening levels.
3=Los Alamos National Laboratory EcoRisk Database.
4=Oak Ridge National Laboratory.
5=Sheppard SC, Sheppard MI, Gallerand MO, Sanipelli B. 2005. Derivation of ecotoxicity thresholds for uranium. Journal Environmental Radioactivity 79:55-83.

RULES
WAC default replaced unless new TF results in lower SSV than WAC.
Arsenic is assumed to be in the pentavalent form

ND = not detected.
NA = not available or applicable.

Table 3-59. 216-B-63 Trench - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) bgs to Hanford Site Background. (4 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m (15 ft) (m [ft]) bgs	90th Percentile Background Concentration	Does Maximum Detected from 0 to 4.6 m (15 ft) bgs Exceed Background?	Wildlife SSV	Does Maximum Detected from 0 to 4.6 m (15 ft) bgs Exceed Wildlife SSV?
Metals Analyses						
Aluminum	6,750 mg/kg	1.5 [5] - 1.8 [6]	11,800 mg/kg	No	Less than background	No
Arsenic	5.1 mg/kg	4.6 [15] - 5.2 [17]	6.5 mg/kg	No	Less than background	No
Barium	97 mg/kg	2.3 [7.5] - 2.6 [8.5]	132 mg/kg	No	Less than background	No
Beryllium	0.71 mg/kg	3.8 [12.5] - 4.4 [14.5]	1.5 mg/kg	No	Less than background	No
Boron	5.8 mg/kg	1.5 [5] - 1.8 [6]	No background	No background	2	Yes
Cadmium	0.27 mg/kg	1.5 [5] - 1.8 [6]	1.0 mg/kg	No	Less than background	No
Chromium	22 mg/kg	3.8 [12.5] - 4.4 [14.5]	19 mg/kg	Yes	67	No
Copper	31 mg/kg	3.7 [12] - 4.0 [13]	22 mg/kg	Yes	217	No
Hexavalent Chromium	0.45 mg/kg	2.9 [9.5] - 3.2 [10.5]	No background	No background	81	No
Iron	28,400 mg/kg	1.8 [6] - 2.1 [7]	32,600 mg/kg	No	Less than background	No
Lead	6.3 mg/kg	3.7 [12] - 4.0 [13]	10 mg/kg	No	Less than background	No
Manganese	410 mg/kg	1.8 [6] - 2.1 [7]	512 mg/kg	No	Less than background	No
Mercury	0.11 mg/kg	3.0 [10] - 4.0 [13]	0.33 mg/kg	No	Less than background	No

Table 3-59. 216-B-63 Trench - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) bgs to Hanford Site Background. (4 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m (15 ft) (m [ft]) bgs	90th Percentile Background Concentration	Does Maximum Detected from 0 to 4.6 m (15 ft) bgs Exceed Background?	Wildlife SSV	Does Maximum Detected from 0 to 4.6 m (15 ft) bgs Exceed Wildlife SSV?
Molybdenum	0.55 mg/kg	1.5 [5] - 1.8 [6]	2.8-6.0 mg/kg	No	Less than background	No
Nickel	15 mg/kg	3.8 [12.5] - 4.4 [14.5]	19 mg/kg	No	Less than background	No
Selenium	0.75 mg/kg	2.3 [7.5] - 2.6 [8.5]	No background	No background	0.3	Yes
Silver	0.35 mg/kg	3.0 [10] - 4.0 [13]	0.73 mg/kg	No	Less than background	No
Thallium	0.53 mg/kg	1.8 [6] - 2.1 [7]	No background	No background	0.032	Yes
Uranium	1.9 mg/kg	2.3 [7.5] - 2.6 [8.5]	3.2 mg/kg	No	Less than background	No
Vanadium	87 mg/kg	2.3 [7.5] - 2.6 [8.5]	85 mg/kg	Yes	7.8	Yes
Zinc	81 mg/kg	3.7 [12] - 4.0 [13]	68 mg/kg	Yes	360	No
Radiological Constituents						
Americium-241	0.035 mg/kg	2.9 [9.5] - 3.2 [10.5]	No background	No background	3.89	No
Cesium-137	3.6 mg/kg	2.9 [9.5] - 3.2 [10.5]	1.1 mg/kg	Yes	2.08	Yes
Neptunium-237	0.054 mg/kg	2.9 [9.5] - 3.2 [10.5]	No background	No background	1900	No
Potassium-40	14 mg/kg	3.0 [10] - 4.0 [13]	17 mg/kg	No	Less than background	No
Radium-226	0.61 mg/kg	2.1 [7] - 2.4 [8]	0.82 mg/kg	No	Less than background	No
Radium-228	0.83 mg/kg	2.1 [7] - 2.4 [8]	1.3 mg/kg	No	Less than background	No
Thorium-228	0.87 mg/kg	2.9 [9.5] - 3.2 [10.5]	1.3 mg/kg	No	Less than background	No

Table 3-59. 216-B-63 Trench - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) bgs to Hanford Site Background. (4 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m (15 ft) (m [ft]) bgs	90th Percentile Background Concentration	Does Maximum Detected from 0 to 4.6 m (15 ft) bgs Exceed Background?	Wildlife SSV	Does Maximum Detected from 0 to 4.6 m (15 ft) bgs Exceed Wildlife SSV?
Thorium-230	1.5 mg/kg	3.8 [12.5] - 4.4 [14.5]	1.1 mg/kg	Yes	9980	No
Thorium-232	0.88 mg/kg	2.3 [7.5] - 2.6 [8.5]	1.3 mg/kg	No	Less than background	No
Total beta radiostrontium	30 mg/kg	2.3 [7.5] - 2.6 [8.5]	0.18 mg/kg	Yes	22.5	Yes
Uranium-233/234	0.36 mg/kg	1.5 [5] - 1.8 [6]	1.1 mg/kg	No	Less than background	No
Uranium-234	0.75 mg/kg	2.3 [7.5] - 2.6 [8.5]	1.1 mg/kg	No	Less than background	No
Uranium-238	0.93 mg/kg	2.3 [7.5] - 2.6 [8.5]	1.1 mg/kg	No	Less than background	No
Semivolatile Organic Compounds						
Bis(2-ethylhexyl) phthalate	0.021 mg/kg	2.4 [8] - 2.9 [9.5]	No background	No background	0.02	Yes
Volatile Organic Compounds						
Acetone	0.066 mg/kg	1.5 [5] - 1.8 [6]	No background	No background	1.2	No
Benzene	0.0080 mg/kg	1.5 [5] - 1.8 [6]	No background	No background	24	No
Methylene chloride	0.027 mg/kg	2.9 [9.5] - 3.2 [10.5]	No background	No background	2.6	No
Toluene	0.0030 mg/kg	2.1 [7] - 2.4 [8]	No background	No background	23	No
General Inorganic Chemistry						
Ammonia	10.0 mg/kg	4.6 [15] - 5.2 [17]	9.2 mg/kg	Yes	Not available	Not available
Chloride	18 mg/kg	1.5 [5] - 1.8 [6]	100 mg/kg	No	Less than background	No

Table 3-59. 216-B-63 Trench - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) bgs to Hanford Site Background. (4 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m (15 ft) (m [ft]) bgs	90th Percentile Background Concentration	Does Maximum Detected from 0 to 4.6 m (15 ft) bgs Exceed Background?	Wildlife SSV	Does Maximum Detected from 0 to 4.6 m (15 ft) bgs Exceed Wildlife SSV?
Fluoride	0.76 mg/kg	2.3 [7.5] - 2.6 [8.5]	2.8 mg/kg	No	Less than background	No
Nitrate	833 mg/kg	1.5 [5] - 1.8 [6]	52 mg/kg	Yes	Not available	Not available
Nitrite	0.82 mg/kg	2.9 [9.5] - 3.2 [10.5]	No background	No background	Not available	Not available
Nitrogen in Nitrite and Nitrate	230 mg/kg	1.5 [5] - 1.8 [6]	No background	No background	Not available	Not available
Phosphate	6.4 mg/kg	2.1 [7] - 2.4 [8]	0.79 mg/kg	Yes	Not available	Not available
Sulfate	76 mg/kg	1.5 [5] - 1.8 [6]	237 mg/kg	No	Less than background	No
Sulfide	44 mg/kg	3.4 [11] - 3.7 [12]	No background	No background	Not available	Not available
Miscellaneous Organic Analyses						
Aroclor-1254	0.077 mg/kg	3.0 [10] - 4.0 [13]	No background	No background	0.041	No

SSV = soil screening values.

Table 3-60. 216-B-63 Trench - Shallow Zone Soil Summary of Hazard Quotients and Ecological Soil Screening Values for Nonradiological Constituents.

Hazardous Substance	soil conc. (mg/kg)	Plant HQ	Soil Biota HQ	Wildlife HQ	Plant SSV mg/kg	Reference	Soil Biota SSV mg/kg	Reference	Min Wildlife SSV mg/kg	BAFWorm	Reference	KPlant	Reference	Shrew TRV mg/kg-d	Reference	Vole TRV mg/kg-d	Reference	Robin TRV mg/kg-d	Reference	Shrew SSV mg/kg	Vole SSV mg/kg	Robin SSV mg/kg	Notes
Boron	5.8	12	NA	0.3	0.5	1	NA	-	22	1	3	4	3	28	3	28	3	2.92	3	122	22	22.6	
Selenium	0.75	0.8	0.0	2.4	1	1	70	1	0.3	10.5	1	0.007	1	0.725	1	0.55	1	1	1	0.3	55	0.9	
Thallium	0.53	0.5	NA	17.1	1	1	NA	-	0.03	1	3	0.004	3	0.0071	3	0.0071	3	0.35	3	0.03	0.8	2.7	
Vanadium	86.9	43.5	NA	6.6	2	1	NA	-	13	0.042	3	0.006	3	4.16	2	4.16	2	0.344	2	298	432	13.2	
Bis(2-ethylhexyl)phthalate	0.021	NA	NA	0.3	NA	-	NA	-	0.07	154	3	0.05	3	18.3	3	18.3	3	1.1	3	0.5	774	0.07	

REFERENCES
1= WAC 173-340-900, "Tables," Tables 749-3 and 749-5.
2=EPA ecological soil-screening levels.
3=Los Alamos National Laboratory EcoRisk Database.
4=Oak Ridge National Laboratory.
5=Sheppard SC, Sheppard MI, Gallerand MO, Sanipelli B. 2005. Derivation of ecotoxicity thresholds for uranium. Journal Environmental Radioactivity 79:55-83.

RULES
WAC default replaced unless new TF results in lower SSV than WAC.

ND = not detected.
NA = not available or applicable.
SSV = soil-screening value.

Table 3-61. 216-S-10 Ditch - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) bgs to Hanford Site Background. (4 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m (15 ft) (m [ft]) bgs	90th Percentile Background Concentration	Does Maximum Detected from 0 to 4.6 m (15 ft) bgs Exceed Background?	Minimum of Plant, Soil or Wildlife SSV	Does Maximum Detected from 0 to 4.6 m (15 ft) bgs Exceed Ecological SSV?
Metals Analyses						
Aluminum	10,800 mg/kg	0 [0] - .5 [1.5]	11,800 mg/kg	No	Less than background	No
Arsenic	5.5 mg/kg	2.6 [8.5] - 2.9 [9.5]	6.5 mg/kg	No	Less than background	No
Barium	120 mg/kg	.9 [3] - 1.2 [4]	132 mg/kg	No	Less than background	No
Beryllium	0.50 mg/kg	1.8 [6.5] - 2.7 [9]	1.5 mg/kg	No	Less than background	No
Boron	1.50 mg/kg	0 [0] - .5 [1.5]	No background	No background	0.5	Yes
Cadmium	0.48 mg/kg	0 [0] - .5 [1.5]	1.0 mg/kg	No	Less than background	No
Chromium	815 mg/kg	0 [0] - .5 [1.5]	19 mg/kg	Yes	42	Yes
Copper	244 mg/kg	0 [0] - .5 [1.5]	22 mg/kg	Yes	50	Yes
Hexavalent Chromium	14 mg/kg	.5 [1.5] - .9 [3]	No background	No background	43	No
Iron	28,800 mg/kg	0 [0] - .5 [1.5]	32,600 mg/kg	No	Less than background	No
Lead	30 mg/kg	0 [0] - .5 [1.5]	10 mg/kg	Yes	50	No
Manganese	451 mg/kg	.9 [3] - 1.2 [4]	512 mg/kg	No	Less than background	No
Mercury	4.3 mg/kg	0 [0] - .5 [1.5]	0.33 mg/kg	Yes	0.1	Yes
Molybdenum	0.88 mg/kg	0 [0] - .5 [1.5]	2.8-6.0 mg/kg	No	Less than background	No
Nickel	20 mg/kg	0 [0] - .5 [1.5]	19 mg/kg	Yes	30	No
Selenium	0.44 mg/kg	2.6 [8.5] - 2.9 [9.5]	No background	No background	0.3	Yes
Silver	30 mg/kg	0 [0] - .5 [1.5]	0.73 mg/kg	Yes	2	Yes
Thallium	0.99 mg/kg	0 [0] - .5 [1.5]	No background	No background	0.032	Yes
Uranium	1.5 mg/kg	2.6 [8.5] - 2.9 [9.5]	3.2 mg/kg	No	Less than background	No

Table 3-61. 216-S-10 Ditch - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) bgs to Hanford Site Background. (4 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m (15 ft) (m [ft]) bgs	90th Percentile Background Concentration	Does Maximum Detected from 0 to 4.6 m (15 ft) bgs Exceed Background?	Minimum of Plant, Soil or Wildlife SSV	Does Maximum Detected from 0 to 4.6 m (15 ft) bgs Exceed Ecological SSV?
Vanadium	88 mg/kg	2.6 [8.5] - 2.9 [9.5]	85 mg/kg	Yes	2	Yes
Zinc	506 mg/kg	0 [0] - .5 [1.5]	68 mg/kg	Yes	86	Yes
Radiological Constituents						
Americium-241	1.8 pCi/g	1.8 [6.5] - 2.7 [9]	No background	No background	3.89	No
Cesium-137	9.1 pCi/g	0 [0] - .5 [1.5]	1.1 pCi/g	Yes	2.08	Yes
Plutonium-239/240	5.3 pCi/g	1.8 [6.5] - 2.7 [9]	0.025 pCi/g	Yes	6110	No
Potassium-40	13 pCi/g	2.6 [8.5] - 2.7 [9]	17 pCi/g	No	Less than background	No
Radium-226	0.60 pCi/g	2.6 [8.5] - 2.7 [9]	0.82 pCi/g	No	Less than background	No
Radium-228	0.94 pCi/g	2.6 [8.5] - 2.7 [9]	1.3 pCi/g	No	Less than background	No
Thorium-228	0.73 pCi/g	1.8 [6.5] - 2.7 [9]	1.3 pCi/g	No	Less than background	No
Thorium-230	1.3 pCi/g	1.8 [6.5] - 2.7 [9]	1.1 pCi/g	Yes	175000	No
Thorium-232	0.61 pCi/g	2.6 [8.5] - 2.7 [9]	1.3 pCi/g	No	Less than background	No
Total beta radiostrontium	0.46 pCi/g	.9 [3] - 1.2 [4]	0.18 pCi/g	Yes	22.5	No
Uranium-234	0.52 pCi/g	2.6 [8.5] - 2.9 [9.5]	1.1 pCi/g	No	Less than background	No
Uranium-238	0.54 pCi/g	2.6 [8.5] - 2.9 [9.5]	1.1 pCi/g	No	Less than background	No
Semivolatile Organic Compounds						
Acenaphthene	0.061 mg/kg	0 [0] - .5 [1.5]	No background	No background	20	No
Anthracene	0.15 mg/kg	0 [0] - .5 [1.5]	No background	No background	29	No
Benzo(a)anthracene	0.55 mg/kg	0 [0] - .5 [1.5]	No background	No background	1.1	No
Benzo(a)pyrene	0.60 mg/kg	0 [0] - .5 [1.5]	No background	No background	1.1	No
Benzo(b)fluoranthene	0.53 mg/kg	0 [0] - .5 [1.5]	No background	No background	1.1	No

Table 3-61. 216-S-10 Ditch - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) bgs to Hanford Site Background. (4 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m (15 ft) (m [ft]) bgs	90th Percentile Background Concentration	Does Maximum Detected from 0 to 4.6 m (15 ft) bgs Exceed Background?	Minimum of Plant, Soil or Wildlife SSV	Does Maximum Detected from 0 to 4.6 m (15 ft) bgs Exceed Ecological SSV?
Benzo(ghi)perylene	0.66 mg/kg	0 [0] - .5 [1.5]	No background	No background	1.1	No
Benzo(k)fluoranthene	0.45 mg/kg	0 [0] - .5 [1.5]	No background	No background	1.1	No
Bis(2-ethylhexyl) phthalate	0.58 mg/kg	0 [0] - .5 [1.5]	No background	No background	0.02	Yes
Butylbenzylphthalate	0.58 mg/kg	0 [0] - .5 [1.5]	No background	No background	90	No
Carbazole	0.097 mg/kg	0 [0] - .5 [1.5]	No background	No background	Not available	Not available
Chrysene	0.68 mg/kg	0 [0] - .5 [1.5]	No background	No background	2.4	No
Dibenz[a,h]anthracene	0.11 mg/kg	0 [0] - .5 [1.5]	No background	No background	1.1	No
Di-n-butylphthalate	2.3 mg/kg	0 [0] - .5 [1.5]	No background	No background	0.011	Yes
Fluoranthene	1.5 mg/kg	0 [0] - .5 [1.5]	No background	No background	22	No
Fluorene	0.059 mg/kg	0 [0] - .5 [1.5]	No background	No background	30	No
Indeno(1,2,3-cd)pyrene	0.40 mg/kg	0 [0] - .5 [1.5]	No background	No background	1.1	No
Phenanthrene	0.93 mg/kg	0 [0] - .5 [1.5]	No background	No background	29	No
Pyrene	1.6 mg/kg	0 [0] - .5 [1.5]	No background	No background	1.1	Yes
Volatile Organic Compounds						
Acetone	0.0090 mg/kg	4.1 [13.5] - 4.4 [14.5]	No background	No background	1.2	No
Methylene chloride	0.010 mg/kg	.5 [1.5] - .9 [3]	No background	No background	2.6	No
General Inorganic Chemistry						
Chloride	12 mg/kg	2.6 [8.5] - 2.7 [9]	100 mg/kg	No	Less than background	No
Fluoride	0.70 mg/kg	2.6 [8.5] - 2.9 [9.5]	2.81 mg/kg	No	Less than background	No
Nitrate	81 mg/kg	0 [0] - .5 [1.5]	52 mg/kg	Yes	Not available	Not available
Nitrite	1.2 mg/kg	2.6 [8.5] - 2.9 [9.5]	No background	No background	Not available	Not available

Table 3-61. 216-S-10 Ditch - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) bgs to Hanford Site Background. (4 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m (15 ft) (m [ft]) bgs	90th Percentile Background Concentration	Does Maximum Detected from 0 to 4.6 m (15 ft) bgs Exceed Background?	Minimum of Plant, Soil or Wildlife SSV	Does Maximum Detected from 0 to 4.6 m (15 ft) bgs Exceed Ecological SSV?
Nitrogen in Nitrite and Nitrate	11 mg/kg	0 [0] - .5 [1.5]	No background	No background	Not available	Not available
Phosphate	1.5 mg/kg	.9 [3] - 1.2 [4]	0.785 mg/kg	Yes	Not available	Not available
Sulfate	199 mg/kg	0 [0] - .5 [1.5]	237 mg/kg	No	Less than background	No
Miscellaneous Organic Analyses						
Aroclor-1254	3.7 mg/kg	0 [0] - .5 [1.5]	No background	No background	0.041	Yes
Total petroleum hydrocarbons - diesel range	31 mg/kg	0 [0] - .5 [1.5]	No background	No background	200	No

SSV = soil screening values.

Table 3-62. 216-S-10 Ditch - Shallow Zone Soil Summary of Hazard Quotients and Ecological Soil Screening Values for Nonradiological Constituents.

Hazardous Substance	Soil Conc. (mg/kg)	Plant HQ	Soil Biota HQ	Wildlife HQ	Plant SSV mg/kg	Reference	Soil Biota SSV mg/kg	Reference	Min Wildlife SSV mg/kg	BAFWorm	Reference	KPlant	Reference	Shrew TRV mg/kg-d	Reference	Vole TRV mg/kg-d	Reference	Robin TRV mg/kg-d	Reference	Shrew SSV mg/kg	Vole SSV mg/kg	Robin SSV mg/kg	Notes
Boron	1.5	3	NA	0.1	0.5	1	NA	-	22	1	3	4	3	28	3	28	3	2.92	3	122	22	22.6	
Chromium (total)	815	19	19	12	42	1	42	1	67	0.49	1	0.008	3	35.2	1	29.6	1	5	1	307	2884	67.3	
Copper	244	2.4	4.9	1.1	100	1	50	1	217	0.88	1	0.02	1	44	1	33.6	1	61.7	1	217	2366	530.9	
Mercury, inorganic	4.3	14	43	0.78	0.3	1	0.1	1	6	1.32	1	0.085	1	2.86	1	2.18	1	0.9	1	9	63	5.5	
Selenium	0.44	0.4	0.0	1.4	1	1	70	1	0.3	10.5	1	0.007	1	0.725	1	0.55	1	1	1	0.3	55	0.9	
Silver	30.4	15	NA	3.6	2	1	NA	-	8	2.04	3	0.4	3	6.02	2	6.02	2	2.02	2	13	45	8.4	
Thallium	0.99	1.0	NA	32	1	1	NA	-	0.03	1	3	0.004	3	0.0071	3	0.0071	3	0.35	3	0.03	0.8	2.7	
Vanadium	87.5	44	NA	6.6	2	1	NA	-	13	0.042	3	0.006	3	4.16	2	4.16	2	0.344	2	298	432	13.2	
Zinc	506	5.9	2.5	1.4	86	1	200	1	359	3.19	1	0.095	1	703.3	1	537.4	1	131	1	974	14208	359.0	
Aroclor-1254	3.7	0.02	NA	28	160	3	NA	-	0.13	6.8	3	0.106	3	0.611	3	0.611	3	0.1	3	0.4	15	0.1	
Di-n-butyl phthalate	2.3	0.0	NA	63	200	1	NA	-	0.04	35.6	3	0.9	3	1.34E+03	3	1.34E+03	3	0.14	3	167.2	4598	0.04	
Bis(2-ethylhexyl)phthalate	0.58	NA	NA	8.8	NA	-	NA	-	0.07	154	3	0.05	3	18.3	3	18.3	3	1.1	3	0.5	774	0.07	

REFERENCES
1= WAC 173-340-900, "Tables," Tables 749-3 and 749-5.
2=EPA ecological soil-screening levels.
3=Los Alamos National Laboratory EcoRisk Database.
4=Oak Ridge National Laboratory.
5=Sheppard SC, Sheppard MI, Gallerand MO, Sanipelli B. 2005. Derivation of ecotoxicity thresholds for uranium. Journal Environmental Radioactivity 79:55-83.

RULES
WAC default replaced unless new TF results in lower SSV than WAC.

ND = not detected.
NA = not available or applicable.
SSV = soil-screening value.

Table 3-63. 216-S-10 Pond - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) bgs to Hanford Site Background. (4 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m (15 ft) (m [ft]) bgs	90th Percentile Background Concentration	Does Maximum Detected from 0 to 4.6 m (15 ft) bgs Exceed Background?	Minimum of Plant, Soil or Wildlife SSV	Does Maximum Detected from 0 to 4.6 m (15 ft) bgs Exceed Ecological SSV?
Metals Analyses						
Aluminum	5,870 mg/kg	1.8 [6] - 2.1 [7]	11,800 mg/kg	No	Less than background	No
Arsenic	5.6 mg/kg	2.0 [6.5] - 2.3 [7.5]	6.5 mg/kg	No	Less than background	No
Barium	103 mg/kg	4.3 [14] - 4.6 [15]	132 mg/kg	No	Less than background	No
Beryllium	0.42 mg/kg	1.2 [4] - 1.5 [5.0]	1.5 mg/kg	No	Less than background	No
Boron	1.0 mg/kg	1.8 [6] - 2.1 [7]	No background	No background	0.5	Yes
Cadmium	0.20 mg/kg	2.7 [9] - 3.0 [10]	1.0 mg/kg	No	Less than background	No
Chromium	26 mg/kg	2.7 [9] - 3.0 [10]	19 mg/kg	Yes	42	No
Copper	18 mg/kg	2.0 [6.5] - 2.3 [7.5]	22 mg/kg	No	Less than background	No
Hexavalent Chromium	2.7 mg/kg	2.1 [7] - 2.4 [8]	No background	No background	43	No
Iron	25,100 mg/kg	1.2 [4] - 1.5 [5.0]	32,600 mg/kg	No	Less than background	No
Lead	5.4 mg/kg	1.8 [6] - 2.1 [7]	10 mg/kg	No	Less than background	No
Manganese	392 mg/kg	1.8 [6] - 2.1 [7]	512 mg/kg	No	Less than background	No
Mercury	0.43 mg/kg	3.5 [11.5] - 3.8 [12.5]	0.33 mg/kg	Yes	0.1	Yes
Molybdenum	0.29 mg/kg	2.0 [6.5] - 2.3 [7.5]	2.8-6.0 mg/kg	No	Less than background	No

Table 3-63. 216-S-10 Pond - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) bgs to Hanford Site Background. (4 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m (15 ft) (m [ft]) bgs	90th Percentile Background Concentration	Does Maximum Detected from 0 to 4.6 m (15 ft) bgs Exceed Background?	Minimum of Plant, Soil or Wildlife SSV	Does Maximum Detected from 0 to 4.6 m (15 ft) bgs Exceed Ecological SSV?
Nickel	12 mg/kg	2.0 [6.5] - 2.3 [7.5]	19 mg/kg	No	Less than background	No
Selenium	0.46 mg/kg	2.7 [9] - 3.0 [10]	No background	No background	0.3	Yes
Silver	8.3 mg/kg	2.7 [9] - 3.0 [10]	0.73 mg/kg	Yes	2	Yes
Thallium	0.62 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background	0.032	Yes
Uranium	2.0 mg/kg	2.9 [9.5] - 3.2 [10.5]	3.2 mg/kg	No	Less than background	No
Vanadium	82 mg/kg	2.9 [9.5] - 3.2 [10.5]	85 mg/kg	No	Less than background	No
Zinc	60 mg/kg	2.9 [9.5] - 3.2 [10.5]	68 mg/kg	No	Less than background	No
Radiological Constituents						
Americium-241	0.40 pCi/g	3.5 [11.5] - 3.8 [12.5]	No background	No background	3.89	No
Carbon-14	12 pCi/g	2.0 [6.5] - 2.3 [7.5]	No background	No background	19000000	No
Cesium-137	1.8 pCi/g	3.5 [11.5] - 3.8 [12.5]	1.05 pCi/g	Yes	2.08	No
Plutonium-239/240	2.3 pCi/g	3.5 [11.5] - 3.8 [12.5]	0.0248 pCi/g	Yes	6110	No
Potassium-40	13 pCi/g	2.0 [6.5] - 2.3 [7.5]	16.6 pCi/g	No	Less than background	No
Radium-226	0.55 pCi/g	1.8 [6] - 2.1 [7]	0.815 pCi/g	No	Less than background	No
Radium-228	0.88 pCi/g	1.2 [4] - 1.5 [5.0]	1.32 pCi/g	No	Less than background	No
Thorium-228	1.5 pCi/g	3.7 [12] - 4.0 [13]	1.32 pCi/g	Yes	539	No
Thorium-230	1.6 pCi/g	4.1 [13.5] - 4.4 [14.5]	1.1 pCi/g	Yes	175000	No

Table 3-63. 216-S-10 Pond - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) bgs to Hanford Site Background. (4 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m (15 ft) (m [ft]) bgs	90th Percentile Background Concentration	Does Maximum Detected from 0 to 4.6 m (15 ft) bgs Exceed Background?	Minimum of Plant, Soil or Wildlife SSV	Does Maximum Detected from 0 to 4.6 m (15 ft) bgs Exceed Ecological SSV?
Thorium-232	0.83 pCi/g	3.7 [12] - 4.0 [13]	1.32 pCi/g	No	Less than background	No
Total beta radiostrontium	1.3 pCi/g	2.9 [9.5] - 3.2 [10.5]	0.178 pCi/g	Yes	22.5	No
Uranium-234	0.56 pCi/g	2.9 [9.5] - 3.2 [10.5]	1.1 pCi/g	No	Less than background	No
Uranium-238	0.57 pCi/g	2.9 [9.5] - 3.2 [10.5]	1.06 pCi/g	No	Less than background	No
Semivolatile Organic Compounds						
Bis(2-ethylhexyl) phthalate	0.14 mg/kg	1.2 [4] - 1.5 [5.0]	No background	No background	0.02	Yes
Volatile Organic Compounds						
Acetone	0.026 mg/kg	2.6 [8.5] - 2.9 [9.5]	No background	No background	1.2	No
Methylene chloride	0.015 mg/kg	2.9 [9.5] - 3.2 [10.5]	No background	No background	2.6	No
Toluene	0.0042 mg/kg	2.9 [9.5] - 3.2 [10.5]	No background	No background	23	No
Xylenes (total)	0.0014 mg/kg	1.8 [6] - 2.1 [7]	No background	No background	1.4	No
General Inorganic Chemistry						
Chloride	3.1 mg/kg	2.9 [9.5] - 3.2 [10.5]	100	No	Less than background	No
Cyanide	0.20 mg/kg	2.9 [9.5] - 3.2 [10.5]	No background	No background	0.3	No
Fluoride	1.1 mg/kg	2.9 [9.5] - 3.2 [10.5]	2.81	No	Less than background	No
Nitrate	45 mg/kg	2.0 [6.5] - 2.3 [7.5]	52	No	Less than background	No
Nitrite	1.6 mg/kg	2.9 [9.5] - 3.2 [10.5]	No background	No background	Not available	Not available

Table 3-63. 216-S-10 Pond - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) bgs to Hanford Site Background. (4 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m (15 ft) (m [ft]) bgs	90th Percentile Background Concentration	Does Maximum Detected from 0 to 4.6 m (15 ft) bgs Exceed Background?	Minimum of Plant, Soil or Wildlife SSV	Does Maximum Detected from 0 to 4.6 m (15 ft) bgs Exceed Ecological SSV?
Nitrogen in Nitrite and Nitrate	15 mg/kg	2.0 [6.5] - 2.3 [7.5]	No background	No background	Not available	Not available
Phosphate	3.8 mg/kg	3.5 [11.5] - 3.8 [12.5]	0.785	Yes	Not available	Not available
Sulfate	12 mg/kg	2.0 [6.5] - 2.3 [7.5]	237	No	Less than background	No
Sulfide	59 mg/kg	3.4 [11] - 3.7 [12]	No background	No background	Not available	Not available

SSV = soil screening values.

Table 3-64. 216-S-10 Pond - Shallow Zone Soil Summary of Hazard Quotients and Ecological Soil Screening Values for Nonradiological Constituents.

Constituent Name	Maximum Detected Concentration (mg/kg)	Plant HQ	Soil Biota HQ	Wildlife HQ	Plant SSV mg/kg	Reference	Soil Biota SSV mg/kg	Reference	Min Wildlife SSV mg/kg	BAFWorm	Reference	KPlant	Reference	Shrew TRV mg/kg-d	Reference	Vole TRV mg/kg-d	Reference	Robin TRV mg/kg-d	Reference	Shrew SSV mg/kg	Vole SSV mg/kg	Robin SSV mg/kg	notes
Boron	1	2.0	NA	0.0	0.5	1	NA	-	22	1	3	4	3	28	3	28	3	2.92	3	122	22	22.6	
Mercury, inorganic	0.43	1.4	4.3	0.078	0.3	1	0.1	1	6	1.32	1	0.085	1	2.86	1	2.18	1	0.9	1	9	63	5.5	
Selenium	0.46	0.46	0.007	1.5	1	1	70	1	0.3	10.5	1	0.007	1	0.725	1	0.55	1	1	1	0.3	55	0.9	
Silver	8.3	4.2	NA	0.99	2	1	NA	-	8	2.04	3	0.4	3	6.02	2	6.02	2	2.02	2	13	45	8.4	
Thallium	0.62	0.6	NA	20	1	1	NA	-	0.03	1	3	0.004	3	0.0071	3	0.0071	3	0.35	3	0.03	0.8	2.7	
Bis(2-ethylhexyl)phthalate	0.14	NA	NA	2.1	NA	-	NA	-	0.07	154	3	0.05	3	18.3	3	18.3	3	1.1	3	0.5	774	0.07	

REFERENCES
1= WAC 173-340-900, "Tables," Tables 749-3 and 749-5.
2=EPA ecological soil-screening levels.
3=Los Alamos National Laboratory EcoRisk Database.
4=Oak Ridge National Laboratory.
5=Sheppard SC, Sheppard MI, Gallerand MO, Sanipelli B. 2005. Derivation of ecotoxicity thresholds for uranium. Journal Environmental Radioactivity 79:55-83.

RULES
WAC default replaced unless new TF results in lower SSV than WAC.

ND = not detected.
NA = not available or applicable.
SSV = soil-screening value.

Table 3-65. Summary of Refined COPECs for 200-CS-1 OU Waste Sites.

216-A-29 Ditch Industrial Land Use		216-B-63 Trench Industrial Land Use
Cadmium	Americium-241	Selenium
Lead	Cesium-137	Thallium
Selenium	Bis(2-ethylhexyl)phthalate	Vanadium
Silver	Di-n-butylphthalate	Cesium-137
Thallium		Total beta radiostrontium (Sr-90)
Vanadium		
216-S-10 Ditch Unrestricted Land Use		**216-S-10 Pond Unrestricted Land Use**
Boron	Vanadium	Boron
Chromium	Zinc	Mercury
Copper	Cesium-137	Selenium
Mercury	Bis(2-ethylhexyl)phthalate	Silver
Selenium	Di-n-butylphthalate	Thallium
Silver	Aroclor-1254	Bis(2-ethylhexyl)phthalate
Thallium		

Table 3-66. 216-A-29 Ditch - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) bgs to Site-Specific Wildlife Soil Screening Values.

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m (15 ft) (m [ft]) bgs	Eco PRG for Medium-Sized Site (1 ha) or Ecological SSV	Does Maximum Detected from 0 to 4.6 m (15 ft) bgs Exceed EcoPRG?
Metals Analyses (mg/kg)				
Boron	3.4	1.2 [4] - 1.5 [5.0]	990	No
Cadmium	28	1.2 [4] - 1.5 [5.0]	14	Yes
Lead	390	2.3 [7.5] - 2.6 [8.5]	560	No
Selenium	2.5	2.7 [9] - 3.5 [11.5]	25	No
Silver	42	1.2 [4] - 1.5 [5.0]	4.2	Yes
Thallium	0.52	1.8 [6] - 2.1 [7]	3.7	No
Vanadium	104	2.3 [7.5] - 2.6 [8.5]	7200	No
Radiological Constituents (pCi/g)				
Americium-241	145	1.2 [4] - 2.0 [6.5]	3.89	Yes
Cesium-137	98	1.2 [4] - 1.5 [5.0]	2.08	Yes
Semivolatile Organic Compounds (mg/kg)				
Bis(2-ethylhexyl) phthalate	6.2	1.2 [4] - 1.5 [5.0]	0.02	Yes
Di-n-butylphthalate	2.7	1.2 [4] - 1.5 [5.0]	0.011	Yes
Miscellaneous Organic Analyses (mg/kg)				
Aroclor-1254	0.094	1.2 [4] - 1.5 [5.0]	26	No

Shading indicates the use of a ecological preliminary remediation goals.
SSV = soil screening values.

Table 3-67. 216-B-63 Trench - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6m (15 ft) bgs to Site-Specific Wildlife Soil Screening Values.

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6m (15 ft) (m [ft]) bgs	Eco PRG for Medium-Sized Site (1 ha) or Ecological SSV	Does Maximum Detected from 0 to 4.6 m (15 ft) bgs Exceed EcoPRG?
Metals Analyses (mg/kg)				
Boron	5.8	1.5 [5] - 1.8 [6]	990	No
Selenium	0.75	2.3 [7.5] - 2.6 [8.5]	25	No
Thallium	0.53	1.8 [6] - 2.1 [7]	3.7	No
Vanadium	87	2.3 [7.5] - 2.6 [8.5]	7200	No
Radiological Constituents (pCi/g)				
Cesium-137	3.6	2.9 [9.5] - 3.2 [10.5]	2.08	Yes
Total beta radiostrontium	30	2.3 [7.5] - 2.6 [8.5]	22.5	Yes
Semivolatile Organic Compounds (mg/kg)				
Bis(2-ethylhexyl) phthalate	0.021	2.4 [8] - 2.9 [9.5]	0.02	Yes

Shading indicates the use of a ecological preliminary remediation goals.
SSV = soil screening values.

Table 3-68. 216-S-10 Ditch - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6m (15 ft) bgs to Site-Specific Ecological Soil Screening Values.

Constituent Name	Maximum Detected Concentration from 0 to 4.6m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6m (15 ft) (m [ft]) bgs	Eco PRG for Medium-Sized Site (1 ha) or Ecological SSV	Does Maximum Detected from 0 to 4.6 m (15 ft) bgs Exceed EcoPRG?
Metals Analyses (mg/kg)				
Boron	1.50	0 [0] - .5 [1.5]	0.5	Yes
Chromium	815	0 [0] - .5 [1.5]	42	Yes
Copper	244	0 [0] - .5 [1.5]	50	Yes
Mercury	4.3	0 [0] - .5 [1.5]	0.1	Yes
Selenium	0.44	2.6 [8.5] - 2.9 [9.5]	25	No
Silver	30	0 [0] - .5 [1.5]	560	No
Thallium	0.99	0 [0] - .5 [1.5]	3.7	No
Vanadium	88	2.6 [8.5] - 2.9 [9.5]	2	Yes
Zinc	506	0 [0] - .5 [1.5]	86	Yes
Radiological Constituents (pCi/g)				
Cesium-137	9.1	0 [0] - .5 [1.5]	2.08	Yes
Semivolatile Organic Compounds (mg/kg)				
Bis(2-ethylhexyl) phthalate	0.58	0 [0] - .5 [1.5]	0.02	Yes
Di-n-butylphthalate	2.3	0 [0] - .5 [1.5]	0.011	Yes
Miscellaneous Organic Analyses (mg/kg)				
Aroclor-1254	3.7	0 [0] - .5 [1.5]	260	No

Shading indicates the use of a ecological preliminary remediation goals.
SSV = soil screening values.

Table 3-69. 216-S-10 Pond - Shallow Zone Soil Comparison of Maximum Soil Concentrations from Zero to 4.6m (15 ft) bgs to Site-Specific Ecological Soil Screening Values.

Constituent Name	Maximum Detected Concentration from 0 to 4.6m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6m (15 ft) (m [ft]) bgs	Eco PRG for Medium-Sized Site (1 ha) or Ecological SSV	Does Maximum Detected from 0 to 4.6 m (15 ft) bgs Exceed EcoPRG?
Metals Analyses (mg/kg)				
Boron	1.0	1.8 [6] - 2.1 [7]	0.5	Yes
Mercury	0.43	3.5 [11.5] - 3.8 [12.5]	0.1	Yes
Selenium	0.46	2.7 [9] - 3.0 [10]	25	No
Silver	8.3	2.7 [9] - 3.0 [10]	560	No
Thallium	0.62	1.2 [4] - 1.5 [5.0]	3.7	No
Semivolatile Organic Compounds (mg/kg)				
Bis(2-ethylhexyl) phthalate	0.14	1.2 [4] - 1.5 [5.0]	0.02	Yes

Shading indicates the use of a ecological preliminary remediation goals.
SSV = soil screening values.

Table 3-70. Summary of COECs for 200-CS-1 OU Waste Sites.

216-A-29 Ditch Industrial Land Use	**216-B-63 Trench Industrial Land Use**
Cadmium Silver	No COECs identified
216-S-10 Ditch Unrestricted Land Use	**216-S-10 Pond Unrestricted Land Use**
Chromium Copper Mercury Zinc Aroclor-1254	No COECs identified

Table 3-71. Summary of Contaminants of Concern Identified for Baseline Risk Assessment.

		Nonradiological		Radiological	
	Land Use/Receptor	**Direct Contact Exposure Pathway COCs[a]**	**Groundwater Impact Analysis COCs[b]**	**Direct Contact Exposure Pathway COCs[a]**	**Groundwater Impact Analysis COCs[b]**
216-A-29 Ditch	Unrestricted Land Use/ Rural Resident	Arsenic, Benzo(a)pyrene, Aroclor-1254	No COCs identified	No COCs identified	No COCs identified Tritium concentrations less than MCL
	Industrial Land Use/Industrial Worker	No COCs identified	Not applicable	No COCs identified	No COCs identified
	Ecological	Cadmium, Silver	Not applicable	No COECs identified	Not applicable
216-B-63 Trench	Unrestricted Land Use/ Rural Resident	No COCs identified	No COCs identified	No COCs identified	No COCs identified Tc-99 and Ni-63 concentrations less than MCL
	Industrial Land Use/Industrial Worker	No COCs identified	Not applicable	No COCs identified	No COCs identified
	Ecological	No COECs Identified	Not applicable	No COECs identified	Not applicable
216-S-10 Ditch	Unrestricted Land Use/ Rural Resident	Benzo(a)pyrene, Aroclor-1254	Aroclor-1254	No COCs identified	No COCs identified Ni-63 concentrations less than MCL
	Industrial Land Use/Industrial Worker	No COCs identified	Not applicable	No COCs identified	No COCs identified
	Ecological	Chromium, Copper, Mercury, Zinc, Aroclor-1254	Not applicable	No COECs identified	Not applicable
216-S-10 Pond	Unrestricted Land Use/ Rural Resident	No COCs identified	No COCs identified	No COCs identified	No COCs identified Tritium concentrations less than MCL
	Industrial Land Use/Industrial Worker	No COCs identified	Not applicable	No COCs identified	No COCs identified
	Ecological	No COECs Identified	Not applicable	No COECs identified	Not applicable

[a] Direct contact exposure pathway considers soil depths from 0 to 4.6 m (15 ft) bgs.
[b] Soil concentrations protective of groundwater considers soil depths from the entire soil column (zero to the groundwater table).
COC = contaminant of concern.
COEC = contaminant of ecological concern
MCL = maximum concentration level.

A summary of the COCs identified for the balancing and modifying criteria risk evaluation is provided in Table 3-72.

Table 3-72. Summary of Contaminants of Concern Identified for Risk Evaluation Used to Support the Balancing and Modifying Criteria Evaluation.

	Nonradiological	Radiological	Nonradiological	Radiological
Land Use/Receptor	**Direct Contact Exposure Pathway COCs**	**Direct Contact Exposure Pathway COCs and Peak Year**	**Direct Contact Exposure Pathway COCs**	**Direct Contact Exposure Pathway COCs and Peak Year**
	216-A-29 Ditch		**216-S-10 Pond**	
Industrial Land Use/ Hypothetical Excavation Industrial Worker	Not applicable	Cesium-137	Not applicable	No COCs identified
Unrestricted Land Use/ CTUIR	Not applicable	No COCs identified	Not applicable	No COCs identified
Unrestricted Land Use/ Yakama Nation	Not applicable	No COCs identified	Not applicable	No COCs identified
Loss of Institutional Controls/ Inadvertent Intruder – Well Driller	Not applicable	No COCs identified	Not applicable	No COCs identified
Inadvertent Intruder - Rural Farmer	Not applicable	No COCs identified	Not applicable	No COCs identified
	216-B-63 Trench		**216-S-10 Ditch**	
Unrestricted Land Use/ Rural Resident	No COCs identified	Not applicable	Benzo(a)pyrene, Aroclor-1254	Not applicable
Industrial Land Use/Industrial Worker	No COCs identified	Not applicable	No COCs identified	Not applicable
Industrial Land Use/ Hypothetical Excavation Industrial Worker	Not applicable	No COCs identified	Not applicable	Max ELCR of 5.4E-04 and dose of 37.5 mrem/yr at time zero from Cs-137 15 mrem/yr achieved in 40 years
Unrestricted Land Use/ CTUIR	Not applicable	No COCs identified	Not applicable	No COCs identified
Unrestricted Land Use/ Yakama Nation	Not applicable	No COCs identified	Not applicable	No COCs identified
Loss of Institutional Controls/ Inadvertent Intruder – Well Driller	Not applicable	No COCs identified	Not applicable	No COCs identified
Inadvertent Intruder - Rural Farmer	Not applicable	No COCs identified	Not applicable	No COCs identified

COC = contaminant of concern.
CTUIR = Confederted Tribes of the Umatilla Indian Reservation.
ELCR = excess lifetime cancer risk.

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4.0 DEVELOPMENT OF REMEDIAL ACTION OBJECTIVES AND PRELIMINARY REMEDIATION GOALS

This chapter addresses the development of RAOs, general-response actions, and identifies the volumes or areas of media to which general-response actions might be applied (first major component of the FS process). This chapter is organized as follows:

- Section 4.1 Land-Use and Nature and Extent of Contamination
- Section 4.2 Development of Remedial Action Objectives
- Section 4.3 Development of General Response Actions.

Previous chapters of this FS present the results of investigations into the nature and extent of contamination at the 200-CS-1 OU waste sites and an assessment of the baseline risks to human health and the environment from the contamination. Chapter 3.0 evaluates the risks from exposure to contaminated soil by completing a human health risk assessment and an ERA. These analyses determined that soils at some of the 200-CS-1 OU waste sites pose unacceptable risks and require an FS to develop and assess remedial-action alternatives. The next step is for this chapter to identify both the remediation objectives and goals that the remedial action alternatives shall meet to mitigate the risks associated with the 200-CS-1 OU.

4.1 LAND USE AND NATURE AND EXTENT OF CONTAMINATION

To identify appropriate cleanup objectives, the current and future land use of a site must be considered. Current and future land uses are discussed in the following sections.

4.1.1 Current Land Use

All current land-use activities associated with the 200 Areas are industrial in nature. The facilities located in the 200 Areas were built to process irradiated fuel from the plutonium production reactors in the 100 Areas. Most of the facilities directly associated with fuel reprocessing are now inactive and awaiting final disposition. Several waste-management facilities operate in the 200 Areas, including permanent waste disposal facilities, such as the Environmental Restoration Disposal Facility (ERDF), low-level radioactive-waste burial grounds, and RCRA-permitted mixed-waste trenches. Construction of tank-waste treatment facilities in the 200 Areas began in 2002, and the 200 Areas are the planned disposal location for the vitrified low-activity tank wastes. Past-practice disposal sites in the 200 Areas are being evaluated for remediation and are likely to include ICs (e.g., deed restrictions or covenants) as part of the selected remedy. Other Federal agencies, such as the U.S. Department of the Navy, also use the Hanford Site 200 Areas TSD units. A commercial, low-level radioactive-waste disposal facility, operated by U.S. Ecology, Inc., currently operates on a portion of a tract in the 200 Areas that is leased to the State of Washington.

The DOE-selected land uses for the areas associated with the 200-CS-1 OU waste sites, documented through the land-use ROD (64 FR 61615) and environmental impact statement

(DOE/EIS-0222-F) are industrial-exclusive for sites located within the exclusive-use boundary and are conservation (mining) for sites outside the boundary.

According to DOE/EIS-0222-F, industrial-exclusive land use would preserve DOE control of the continuing remediation activities and would use the existing compatible infrastructure required to support activities, such as dangerous-waste, radioactive-waste, and mixed-waste TSD units. The DOE and its contractors, and the U.S. Department of Defense and its contractors, could continue their Federal waste-disposal missions; and the Northwest Low-Level Radioactive Waste Compact could continue using the U.S. Ecology, Inc., site for commercial radioactive waste. Research supporting the dangerous-waste, radioactive-waste, and mixed-waste TSD units also would be encouraged within this land-use designation. New uses of radioactive materials, such as food irradiation, could be developed, and the products could be packaged for commercial distribution here under this land-use designation.

The conservation (mining) land use would enable the extraction of valuable near-surface geologic resources to support implementation of remedial actions (i.e., surface barriers) at some locations on the Hanford Site after obtaining *National Environmental Policy Act of 1969* (NEPA) or CERCLA approval to protect NEPA-sensitive (e.g., biologic, geologic, historic, or cultural) resources. The Hanford Site has no proven reserve of any metallic ore bodies; therefore, heap/leach or open-pit mining methods would not be applicable. The ROD (64 FR 61615) identifies conservation (mining) as an area reserved for the management and protection of archeological, cultural, ecological, and natural resources. Limited and managed mining (e.g., quarrying for sand, gravel, basalt, and topsoil for governmental purposes only) could occur as a special use (i.e., a permit [issued by the DOE Realty Officer] would be required) within appropriate areas. Limited public access would be consistent with resource conservation. The ROD also indicates that mining would be restricted from contaminated areas.

4.1.2 Anticipated Future Land Use

The reasonably anticipated future land use for the areas associated with the 200-CS-1 OU waste sites in the 200 Areas are industrial-exclusive. Land use for 200-CS-1 OU waste sites outside of the industrial-exclusive boundary are conservation (mining). The DOE worked for several years with cooperating agencies and stakeholders to define land-use goals for the Hanford Site and develop future land-use plans (Drummond, 1992). The cooperating agencies and stakeholders included the U.S. Department of the Interior, Tribal Nations, States of Washington and Oregon, local county and city governments, economic and business development interests, environmental groups, and agricultural interests. These activities initially were reported in Drummond, 1992, and culminated in DOE/EIS-0222-F and the associated ROD (64 FR 61615), which were issued in 1999 to address future land use through the year 2049.

4.1.3 Regional Land Use

Communities in the region of the Hanford Site consist of the incorporated cities of Richland, West Richland, Kennewick, and Pasco, as well as surrounding communities within Benton and Franklin Counties. The estimated population of the region in the year 2006 was 224,800, with

the population of Benton County being 160,600 and the population of Franklin County being 64,200 (OFM, 2007). There are no residences on the Hanford Site. The nearest inhabited residences to the 200 Areas are farmhouses on land approximately 16 km (10 mi) north across the Columbia River. The City of Richland corporate boundary is approximately 27 km (17 mi) to the south (PNNL-6415).

4.1.4 Land-Use Summary

Both the 216-A-29 Ditch and 216-B-63 Trench, located in the 200 Areas, are inside the industrial-exclusive area. The 216-S 10 Ditch, 216-S-10 Pond, and the 216-S-11 Pond, are located outside of the 200 Area industrial-exclusive boundary in the conservation (mining) area.

4.1.5 Nature and Extent of Soil Contamination

An investigation into the nature and extent of contamination was performed for each 200-CS-1 OU waste site, and the results are summarized in Sections 4.1.5.2 through 4.1.5.5 below. The details of the risk assessment were discussed in Chapter 3.0. Section 3.7 summarizes the COCs and COECs identified in the BRA and are provided in Table 3-71. These risk drivers are the basis for the discussion and evaluation in Chapters 4.0 through 8.0. COCs and COECs are those constituents that are the primary contributors to risk or adverse health effects at each waste site and are often referred to as such in Chapters 4.0 through 8.0.

4.1.5.1 Conceptual Exposure- Model for Human Health and the Environment

An exposure pathway can be described as the physical course that a COPC takes from the point of release to the receptor. Contaminant intake or an exposure route is the means by which a COPC enters a receptor. For an exposure pathway to be complete, all of the following components must be present:

- A contaminant source
- A mechanism of contaminant release and transport
- An exposure point (i.e., a location where people or wildlife can come into contact with the contaminants)
- An exposure route
- A receptor or exposed population.

In the absence of any one of these components, an exposure pathway is considered incomplete and, by definition, no risk or hazard exists. The conceptual exposure models for the waste sites are presented in Figure 3-1.

The presence of a complete exposure pathway is a key feature in the RI/FS and risk assessment process. This information also is used in the FS to evaluate remedial action by considering

exposure pathway modifications (e.g., contaminant sources, releases, transport, and exposure points) through the use of technologies and ICs.

4.1.5.2 Summary of Human Health Risk Assessment

A human health risk assessment was performed (Work Plan [DOE/RL-99-44]) and is presented in Section 3.4. To support the RI/FS decision-making process for the 200-CS-1 OU, two points of compliance (Section 3.2.3) are considered. Several different exposure scenarios are applied to each point of compliance to determine whether remedial action should be further evaluated or required. As explained in Section 3.2, the 216-A-29 Ditch and the 216-B-63 Trench are located within the industrial-exclusive land use area of the Core Zone. Although the 216-S-10 Ditch, the 216-S-10 Pond and the 216-S-11 Pond lie outside the boundaries of the Core Zone they are within the conservation/mining land use area.

EPA uses the general 10^{-4} to 10^{-6} risk range as a target range within which the EPA strives to manage risks as part of a Superfund cleanup. Once a decision has been made to make an action, the EPA has expressed a preference for cleanups achieving the more protective end of the range (i.e., 10^{-6}), although waste management strategies achieving reductions in site risks anywhere within the risk range may be deemed acceptable by the EPA risk manager. Furthermore, the upper boundary of the risk range is not a discrete line at 1×10^{-4}, although EPA generally uses 1×10^{-4} in making risk management decisions (EPA, 1991, *Role of the Baseline Risk Assessment in Superfund Remedy Selection Decisions*, OSWER Directive 9355.0-30).

The results of the BRA indicate that radiological COPCs present in their current site configuration do not result in unacceptable human health risks for either an unrestricted land use (rural residential scenario) or industrial land use (industrial worker scenario).

For unrestricted land use, the acceptable cancer risk level is 10^{-6} for individual carcinogens and a hazard quotient of one for individual noncarcinogens. Those contaminants listed in Table 4-1 were identified as COCs because the maximum detected concentration resulted in a cancer risk level greater than 10^{-6}.

4.1.5.3 Summary of the Groundwater Impacts Analysis

Results of the groundwater impact analysis are presented in Section 3.5. For the groundwater impacts analysis, the aquifer beneath the waste site is considered the point of compliance. To evaluate baseline conditions for this exposure pathway, the entire vadose zone (from ground surface to the groundwater table) is considered when evaluating possible impacts to the groundwater.

Maximum waste-site concentrations of nonradionuclides COPCs were compared to the default WAC 173-340-747 CULs. Maximum waste-site concentrations greater than default WAC 173-340-747 CULs subsequently were compared to CULs that implement a site-specific dilution factor (Section 3.5.2.1.1). Radionuclides COCs were identified through the use of waste-site specific contaminant distribution models entered into the RESRAD code. The resulting groundwater concentrations are compared to the federal drinking water standards. If the concentration of the radiological groundwater contaminant is greater than its respective

drinking water standards, it is identified as a COC. The groundwater impact analysis COCs identified for each of the waste sites are provided in Table 4-1.

4.1.5.4 Summary of Ecological Risk Assessment

Results of the ERA are presented in Section 3.6. As described in Section 3.2, the 216-A-29 Ditch and the 216-B-63 Trench are located within the industrial-exclusive land use area of the Core Zone. Although the 216-S-10 Ditch, the 216-S-10 Pond and the 216-S-11 Pond lie inside the boundaries of the Core Zone, they are within the conservation/mining land use area.

To evaluate baseline conditions, maximum soil concentrations from the 0 to 4.6 m (15 ft) bgs point of compliance were compared to standards protective of ecological receptors. Maximum soil concentrations of nonradiological contaminants from the 216-A-29 Ditch and the 216-B-63 Trench were compared to ecological soil screening values (and Ecological PRGs) protective of terrestrial wildlife receptors because these waste sites are within the industrial-exclusive land use area. Maximum soil concentrations of nonradiological contaminants from the 216-S-10 Ditch and the 216-S-10 Pond were compared to minimum plant, biota, or terrestrial wildlife soil screening values (and Ecological PRGs) because these waste sites are within the conservation/mining land use area. Maximum radiological soil concentrations were compared to the radionuclide biota concentration guidelines. The COECs identified for each waste site are provided in Table 4-1.

4.1.5.5 Volumes of Contaminated Media

Volumes of contaminated soil by waste site, based on the risks identified in the revised BRA are summarized in Table 4-2.

4.2 DEVELOPMENT OF REMEDIAL-ACTION OBJECTIVES

This section includes a discussion of COCs/COECs, RAOs, and PRGs. RAOs consist of medium-specific or OU-specific goals for protecting human health and the environment, including protection of groundwater. The objectives should be as specific as possible, but not so specific that the range of alternatives that can be developed is unduly limited. RAOs aimed at protecting human health and the environment should specify the following (EPA/540/G-89/004):

- The COCs or COECs
- The exposure route(s) and receptor(s)
- An acceptable contaminant level or range of levels for each exposure route (i.e., a PRG).

4.2.1 Introduction

RAOs for the 200-CS-1 OU FS are developed in this section. Inputs to developing the RAOs include the conceptual site model, the results of the BRA, and significant chemical-specific ARARs. The resulting RAOs are word statements that specify the media, COCs/COECs,

potential exposure routes, and PRGs to protect human health and the environment and ensure that the site complies with ARARs.

RAOs are used throughout the FS process, first to aid in identifying technologies and, later, as a basis for evaluating their effectiveness. The objectives for protection of human health and the environment can be achieved by the elimination or mitigation of hazardous substances at the site, eliminating exposure routes, and/or reducing contaminant concentrations.

As shown in Figure 3-1, direct contact exposure pathways are associated with human and ecological receptors based on contact with shallow-zone soils defined as a depth ranging from 0 of 4.6 m (15 ft) bgs. It should be noted that the rural residential scenario that is evaluated for radiological constituents includes the evaluation of water dependent including, drinking water and irrigation. As such, the entire soil column was evaluated rather than limiting the evaluation to the 4.6 m (15 ft) bgs. Additionally, exposure point concentrations for each waste site are represented by the maximum detected concentration in the 0 to 4.6 m (15 ft) soil column, referred to as "shallow-zone soil."

The process of developing specific RAOs and PRGs for the 200-CS-1 OU is presented in the following steps:

- Develop RAOs for the soil direct contact and groundwater pathway
- Develop general-response actions
- Develop specific PRGs for 200-CS-1 OU COCs or COECs, based on the RAOs and chemical-specific ARARs.

4.2.2 Remedial-Action Objectives

Following are the RAOs to be used for the 200-CS-1 OU waste sites.

- RAO 1 – Prevent unacceptable risk to human and ecological receptors from direct exposure to soils and/or debris contaminated with nonradiological constituents at concentrations above the industrial-use criteria, as defined in WAC 173-340-745(5)(b), "Standard Method C Industrial Soil Cleanup Levels," for human health, or the evaluation criteria in WAC 173-340-7493, "Site-Specific Terrestrial Ecological Evaluation Procedures," for ecological receptors.
- RAO 2 – Prevent unacceptable risk to human and ecological receptors from direct exposure to soils and/or debris contaminated with nonradiological constituents at concentrations above the unrestricted-use criteria, as defined in WAC 173-340-740(3)(b), "Standard Method B Soil Cleanup Levels," for human health, or the evaluation criteria in WAC 173-340-7493 for ecological receptors.
- RAO 3 – Prevent unacceptable risk to human health and ecological receptors from exposure to soils and/or debris contaminated with radiological constituents by:

  - Preventing exposure to radiological constituents at concentrations that will cause a dose rate limit of 15 mrem/y above background for residents or industrial workers (EPA/540/R-97/006). A dose-rate limit of 15 mrem/y above background generally achieves the EPA excess lifetime cancer risk threshold, which ranges from 10^{-6} to 10^{-4}.

  - Protecting ecological receptors based on a dose-rate limit of 1.0 rad/d for aquatic animals and terrestrial plants and 0.1 rad/d for terrestrial animals (DOE-STD-1153-2002), which is a "to-be-considered" criterion.

- RAO 4 – Prevent migration of nonradiological hazardous chemicals through the soil column to groundwater, or reduce soil concentrations below WAC 173-340-747 groundwater protection criteria, so that no further degradation of the groundwater results from contaminants leaching from the soil.

- RAO 5 – Prevent migration of radioactive contaminants from the soil column to groundwater based on protection criteria in 40 CFR 141.66, "Maximum Contaminant Levels for Radionuclides," so that no further degradation of the groundwater results from contaminants leaching from the soil.

- RAO 6 – Prevent adverse impacts to cultural resources and threatened or endangered species, and minimize wildlife habitat disruption.

- RAO 7 – Prevent or reduce occupational health risks to workers performing remedial actions.

- RAO 8 – Ensure that appropriate ICs and monitoring requirements are established to protect future users of the remediated waste sites.

Achievement of Remedial Action Objective 1

For carcinogenic chemicals, RAO 1 will be achieved by prevention or reduction of human health carcinogenic risks from waste or contaminated soil. RAO 1 will be achieved when the *Washington Administrative Code* and CERCLA excess lifetime cancer risk is not greater than the goal of 10^{-5}, using industrial exposure assumptions and the equations in WAC 173-340-745(5)(b).

For noncarcinogenic chemicals, RAO 1 is defined as prevention or reduction of risks from direct contact with waste or contaminated soils that are greater than a hazard quotient of one, using industrial-exposure assumptions and the equations in WAC 173-340-745(5)(b).

Exposure of ecological receptors to wastes or soil contaminated with nonradiological constituents will be prevented or reduced with exceedances factors of less than one, using industrial-exposure assumptions and calculations in WAC 173-340-7493.

Achievement of Remedial Action Objective 2

For carcinogenic chemicals, RAO 2 will be achieved by prevention or reduction of human health carcinogenic risks from waste or contaminated soil. RAO 2 will be achieved when the *Washington Administrative Code* and CERCLA excess lifetime cancer risk is not greater than the goal of 10^{-5}, using residential exposure assumptions and the equations in WAC 173-340-740(3)(b).

For noncarcinogenic chemicals, RAO 2 is defined as prevention or reduction of risks from direct contact with waste or contaminated soils that are greater than a hazard quotient of one, using residential-exposure assumptions and the equations in WAC 173-340-740(3)(b).

Exposure of ecological receptors to wastes or soil contaminated with nonradiological constituents will be prevented or reduced with exceedances factors of less than one, using unrestricted-exposure assumptions and calculations in WAC 173-340-7493.

Achievement of Remedial Action Objective 3

RAO 3 will be considered achieved when DOE site workers' dose rates are not greater than 500 mrem/y for the next 50 years, and for industrial workers when dose rates caused by exposure to waste or contaminated soil are not greater than 15 mrem/y above background (generally equal to the EPA excess lifetime cancer risk of 10^{-4} to 10^{-6}) for the period from 50 to 1,000 years from the present. In addition, RAO 3 is achieved when remaining waste is located below the point of compliance (4.6 m [15 ft] bgs). For ecological receptors, exposure to wastes or soil contaminated with radionuclides will be prevented or reduced such that dose rates are not greater than 0.1 rad/d for terrestrial animals and 1.0 rad/d for aquatic animals and terrestrial plants.

Achievement of Remedial Action Objective 4

RAO 4 prevents further degradation of groundwater by hazardous chemical contamination. RAO 4 is achieved by preventing or reducing migration of contaminants through the soil column to groundwater such that concentrations reaching groundwater are not greater than the maximum contaminant levels under 40 CFR 141, "National Primary Drinking Water Regulations," and/or State of Washington drinking water standards (WAC 246-290, "Public Water Supplies" and WAC 173-340-720, "Ground Water Cleanup Standards").

Achievement of Remedial Action Objective 5

RAO 5 prevents further degradation of groundwater by radionuclide contamination. RAO 4 is achieved by preventing or reducing migration of contaminants through the soil column to groundwater, such that concentrations reaching groundwater are not greater than the maximum contaminant levels under 40 CFR 141.66.

Achievement of Remedial Action Objective 6

RAO 6 is achieved by implementing existing Hanford Site standards for protection of cultural resources and wildlife habitat and by enforcing appropriate ICs and monitoring requirements.

The DOE has integrated natural-resource concerns into Hanford Site FSs in accordance with DOE policies.

Achievement of Remedial Action Objective 7

RAO 7 will be achieved by meeting RAOs 1/2 and 3, implementing existing Hanford Site standards for protection of residents or industrial workers, and continuing to implement existing ICs and monitoring requirements.

Achievement of Remedial Action Objective 8

RAO 8 is achieved by implementing the appropriate ICs and monitoring requirements that are identified in the ROD (64 FR 61615) and OU-specific operations and maintenance plans completed by Fluor Hanford, Inc. The ICs are identified in the Sitewide IC plan (DOE/RL-2001-41).

Based on the results of the human health BRA, the groundwater impacts analysis, and the ecological risk assessment presented in Table 4-1, the specific RAOs for the 200-CS-1 OU by waste site are as follows.

216-A-29 Ditch

- RAO 1 – Prevent unacceptable risk to human and ecological receptors from direct contact exposure to soils and/or debris contaminated with nonradiological constituents listed in Table 4-1.

- RAO 3 – Prevent unacceptable dose to DOE site workers (if the radiological contamination were to be excavated) from exposure to soils contaminated with radiological constituents discussed in Section 3.4.3.5.1 and Appendix F.

- RAO 4 – Prevent migration of nonradiological hazardous chemical contaminants listed in Table 4-1 through the vadose zone to the groundwater table.

216-B-63 Trench

- There are no RAOs for the 216-B-63 Trench because there are no unacceptable risks at these locations.

216-S-10 Ditch

- RAO 2 – Prevent unacceptable risk to human and ecological receptors from direct contact exposure to soils and/or debris contaminated with nonradiological constituents listed in Table 4-1.

- RAO 4 – Prevent migration of nonradiological hazardous chemical contaminants listed in Table 4-1 through the vadose zone to the groundwater table.

216-S-10 and 216-S-11 Ponds

- There are no RAOs for the 216-S-10 or 216-S-11 Ponds, because there are no unacceptable risks at these locations.

4.3 DEVELOPMENT OF GENERAL RESPONSE ACTIONS

The following general-response actions describe various remedial approaches that will satisfy the RAOs described above.

General-response actions are broad categories of remedial measures that produce similar results when implemented. The general-response actions evaluated for the 200-CS-1 OU include ICs, monitoring, containment, in situ treatment, removal, ex situ treatment, and disposal. The identified general-response actions may be implemented individually or in combination to meet the RAOs. The general-response actions are discussed further for each grouping and subgrouping identified in Section 5.2.

4.3.1 200-CS-1 Operable Unit Soils General-Response Actions

Seven general-response actions that may satisfy the RAOs for 200-CS-1 OU soils are discussed below.

Site Controls—ICs that function as site controls are described in the Sitewide IC plan (DOE/RL-2001-41). The volume, mobility, and toxicity of the COCs are not reduced other than through natural attenuation processes.

Monitoring—Monitoring alone would not reduce volume, mobility, or toxicity of the COCs, but could be used to determine the extent of contamination above PRGs, as part of a removal, containment, or in situ treatment remedy or to measure progress of a remedy toward PRGs. Either field (in situ) or laboratory analytical techniques or both could be used to determine soil concentrations of the COCs.

Containment—Containment isolates contaminated media from release mechanisms, transport pathways, and exposure routes using surface and/or subsurface barriers, thereby reducing or eliminating exposures to receptors. Containment alone does not reduce the volume or toxicity of the contaminants.

In Situ Treatment—In situ treatment reduces the toxicity, mobility, or volume of the COCs or contaminated media using physicochemical or biological technologies. Contaminant sources may be reduced or eliminated, and contaminant-migration pathways and exposure routes may be eliminated. The contaminated soil is treated in place, without excavation.

Removal—Removal technologies reduce or eliminate contaminant sources using conventional or other types of excavation and handling of contaminated soil. Removed soil subsequently is treated, stored, or disposed of.

Ex Situ Treatment—Based on sampling results to date, ex situ treatment of removed 200-CS-1 OU soil before it is disposed of is not required to meet the ERDF waste-acceptance criteria. Therefore, ex situ treatment of 200-CS-1 OU soil is not considered further in this FS.

Disposal—Disposal involves placement of excavated material in an engineered permanent waste-management facility that serves to restrict contaminant mobility and mitigate exposure routes. The disposal option considered in this FS is the ERDF.

4.3.2 Applicable or Relevant and Appropriate Requirements and Preliminary Remediation Goals

Appendix F identifies and evaluates potential ARARs for waste-site remediation in the 200-CS-1 OU. The chemical-specific ARARs likely to be most relevant to remediation of the 200-CS-1 OU are the elements of the State of Washington regulations that implement WAC 173-340, specifically those associated with developing risk-based concentrations for cleanup (WAC 173-340-745, "Soil Cleanup Standards for Industrial Properties"). The requirements of WAC 173-340-745 help establish soil cleanup standards for nonradioactive contaminants at waste sites. The requirements of WAC 173-340-7493 establish site-specific terrestrial ecological-evaluation procedures at waste sites. Table 4-3 provides the PRGs for the 200-CS-1 OU. The PRGs are based on the listed parts of WAC 173-340.

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Table 4-1. Waste Site Risk Summary. (2 Pages)

Risk Element	216-A-29 Ditch	216-B-63 Trench	216-S-10 Ditch	216-S-10 Pond
Does the site meet human health preliminary remediation goals – chemicals?				
Are concentrations less than WAC 173-340-745[a]?	Yes	Yes	Yes	Yes
Are concentrations less than WAC 173-340-740[b]?	No	Yes	No	Yes
Nonradionuclides that are greater than WAC 173-340-740	Arsenic, Benzo(a)pyrene, Aroclor-1254	None	Benzo(a)pyrene, Aroclor-1254	None
Does the site meet human health preliminary remediation goals – radionuclides – under the industrial worker exposure scenario [without existing cover in place]?				
Does the waste site meet human health PRGs for radionuclides?	No	Yes	Yes	Yes
Dose at 0 years (mrem/yr)	49	1.4	3.5	0.75
ELCR at 0 years	5.9E-04	2.0E-05	4.9E-05	1.1E-05
Primary radionuclides that contribute dose and risk, 0 years	Cs-137	None	None	None
Dose at 150 years (mrem/yr)	12	0.17	0.29	0.19
ELCR at 150 years	6.3E-05	3.1E-06	4.0E-06	3.1E-06
Primary radionuclides that contribute dose and risk, 150 years	None	None	None	None
Dose at 1,000 years (mrem/yr)	9.3	0.65	0.66	0.73
ELCR at 1,000 years	4.0E-05	1.2E-05	1.2E-05	1.3E-05
Primary radionuclides that contribute dose and risk, 1,000 years	None	None	None	None
Does the site meet human health preliminary remediation goals – radionuclides – under the industrial worker exposure scenario? Assumes that the existing cover provides some protection.				
Does the waste site meet human health PRGs for radionuclides?	Yes	Yes	Yes	Yes
Dose at 0 years (mrem/yr)	3.9E-07	1.0E-12	2.3E-04	2.2E-13
ELCR at 0 years	6.6E-12	5.6E-17	3.3E-09	2.4E-17
Primary radionuclides that contribute dose and risk, 0 years	None	None	None	None
Dose at 150 years (mrem/yr)	2.5E-07	2.7E-11	5.4E-05	1.3E-11
ELCR at 150 years	4.8E-12	5.5E-16	1.1E-09	2.7E-16
Primary radionuclides that contribute dose and risk, 150 years	None	None	None	None
Dose at 1,000 years (mrem/year)	3.1E-07	1.6E-10	2.8E-04	7.5E-11
ELCR at 1,000 years	5.8E-12	3.2E-15	5.3E-09	1.4E-15
Primary radionuclides that contribute dose and risk, 1,000 years	None	None	None	None
Does the site meet human health preliminary remediation goals – radionuclides – under the rural residential exposure scenario? Assumes that the existing cover provides some protection.				
Does the waste site meet human health PRGs for radionuclides?	Yes	Yes	Yes	Yes
Dose at 0 years (mrem/yr)	0.017	3.0E-12	1.1	6.4E-13
ELCR at 0 years	5.8E-05	2.2E-16	1.2E-05	9.5E-17
Primary radionuclides that contribute dose and risk, 0 years	None	None	None	None
Dose at 150 years (mrem/yr)	9.1E-05	7.6E-11	0.57	3.6E-11
ELCR at 150 years	2.3E-09	1.9E-15	3.4E-06	9.0E-16
Primary radionuclides that contribute dose and risk, 150 years	None	None	None	None
Dose at 1,000 years (mrem/year)	6.6E-07	9.7E-07	1.2	5.6E-06
ELCR at 1,000 years	1.7E-08	3.3E-11	1.2E-05	5.0E-11
Primary radionuclides that contribute dose and risk, 1,000 years	None	None	None	None
Does the site meet groundwater protection preliminary remediation goals – chemicals?				
Are concentrations less than WAC 173-340-745(5)(f)[c]?	Yes	Yes	No	Yes
Nonradionuclides that are greater than WAC 173-340-745(5)(f)	None	None	Aroclor-1254	None

Table 4-1. Waste Site Risk Summary. (2 Pages)

Risk Element	216-A-29 Ditch	216-B-63 Trench	216-S-10 Ditch	216-S-10 Pond
			Does the site meet groundwater protection preliminary remediation goals – radionuclides?	
Are groundwater concentrations predicted to exceed MCLs based on RESRAD analysis?	No	No	No	No
Radionuclides predicted to reach groundwater above MCL	None	None	None	None
Groundwater protection required?	No	No	No	No
Does the site meet ecological preliminary remediation goals – chemicals?				
Are concentrations less than ecological PRGs?	No	Yes	No	Yes
Constituents that exceed PRGs	Cadmium and Silver	None	Chromium, Copper, Mercury, Zinc, and Aroclor-1254	None
Ecological protection required?	Yes	No	Yes	No
Does the site meet ecological preliminary remediation goals – radionuclides?				
Are concentrations less than ecological PRGs?	Yes	Yes	Yes	Yes
Constituents that exceed PRGs	None	None	None	None
Ecological protection required?	No	No	No	No
Does the site meet intruder exposure goals – radionuclides?				
Does the waste site meet intruder scenario goals for radionuclides after 150 years?	Yes	Yes	Yes	Yes
Does the waste site meet intruder scenario goals for radionuclides after 500 years?	Yes	Yes	Yes	Yes

NOTE: This table presents a summary of the constituents identified as primary risk contributors in Chapter 3. RESRAD input parameters are provided in Appendix B for each of the exposure scenarios evaluated in the baseline risk assessment.

[a] WAC 173-340-745, "Soil Cleanup Standards for Industrial Properties."
[b] WAC 173-340-740, ""Unrestricted Land Use Soil Cleanup Levels."
[c] WAC 173-340-747(5)(f), ""Deriving Soil Concentrations for Groundwater Protection."

Aroclor is an expired trademark.
MCL = maximum contaminant level.
PRG = preliminary remediation goal.
RESRAD = RESidual RADioactivity (dose model).

Table 4-2. Volumes of Contaminated Media.

Waste Site	Site Description	Constructed Dimensions				Contamination Depth from Risk Assessment (m [ft])	Contamination Soil Volume (m^3 [yd^3])
		Length (m [ft])	Width (bottom) (m [ft])	Depth Below Ground Surface (m [ft])	Surface Area (ha [ac])		
216-A-29 Ditch	AD-1 to B8826	143 [468]	1.83 [6]	2.59 [8.5]	0.02 [0.06]	1.2-1.5 [4-5]	517 [676]
	B8826 to Area #8	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
	Area #8 to AD-2	801 [2627]	1.83 [6]	2.59 [8.5]	0.15 [0.36]	2.3-2.6 [7.5-8.5]	2901 [3795]
216-B-63 Trench		Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
216-S-10 Ditch	SD-2 to SD-3	317 [1040]	1.83 [6]	1.83 [6]	0.06 [0.14]	0-0.9 [0-3]	2551 [3467]
	SD-3 to SD-1	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
	SD-1 to SP-1	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
216-S-10 Pond		Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Pond		Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

Table 4-3. Preliminary Remediation Goals for Contaminants of Concern (2 Pages)

Site	Contaminants of Concern	COECs for Ecological Receptors	COCs for Human Health	COCs for Groundwater Protection	Ecological Preliminary Remediation Goal[a]		Human Health Preliminary Remediation Goal[b,c]		Groundwater Preliminary Remediation Goal[d]		Background Values		
					Value	Source	Value	Source	Value	Source	Lognormal 90th Percentile Value	Lognormal 95th Percentile Value	Source
216-A-29 Ditch	Cs-137		X		N/A	N/A	19 pCi/g	d	N/A	N/A	1.05 pCi/g	1.51 pCi/g	DOE/RL-96-12, Rev.0
	Cadmium	X			14 mg/kg	WAC	N/A	N/A	N/A	N/A	1.0 mg/kg	N/A	Statewide Conc.; Ecology 94-115; Oct. 2004
	Silver	X			4.2 mg/kg	WAC	N/A	N/A	N/A	N/A	0.73 mg/kg	1.52 mg/kg	DOE/RL-92-24, V.1, Rev.4
216-S-10 Ditch	Aroclor-1254	X	X	X	260 mg/kg	Ryti et al, 2004	0.5 mg/kg	WAC[b]	0.41 mg/kg	WAC 173-340-747(5)(f)	N/A	N/A	N/A
	Benzo(a) pyrene		X		N/A	N/A	0.14 mg/kg	WAC[b]	N/A	N/A	N/A	N/A	N/A
	Chromium (total)	X			42 mg/kg	WAC	N/A	N/A	N/A	N/A	18.5 mg/kg	22.3 mg/kg	DOE/RL-92-24, V.1, Rev.4
	Copper	X			50 mg/kg	WAC	N/A	N/A	N/A	N/A	22 mg/kg	24.7 mg/kg	DOE/RL-92-24, V.1, Rev.4
	Mercury	X			0.33 mg/kg	DOE/RL-92-24, V.1, Rev.4	N/A	N/A	N/A	N/A	0.33 mg/kg	0.7 mg/kg	DOE/RL-92-24, V.1, Rev.4
	Zinc	X			86 mg/kg	WAC	N/A	N/A	N/A	N/A	67.8 mg/kg	73.3 mg/kg	DOE/RL-92-24, V.1, Rev.4

[a] WAC 173-340-7493, "Site-Specific Terrestrial Ecological Evaluation Procedures."
[b] WAC 173-340-740(3)(b), "Soil Cleanup Standards for Unrestricted Use."
[c] Reference 15 mrem/yr = industrial worker exposure scenario; 2,000 h/yr onsite, 60% indoors, 40% outdoors. Industrial land-use values generally apply to locations within the industrial exclusive area and are dependent on the nature and extent of contamination. Exposure assumptions and RESRAD input values are provided in Attachment F.
[d] WAC 173-340-747(h)(5), "Deriving a Dilution Factor from Site-Specific Estimates of Infiltration and Ground Water Flow Volume."

DOE/RL-92-24, *Hanford Site Background: Part 1, Soil Background for Nonradioactive Analytes.*
DOE/RL-96-12, *Hanford Site Background: Part 2, Soil Background for Radionuclides.*
Ecology Publication 94-115, *Natural Background Soil Metals Concentrations in Washington State.*
Ryti et al, 2004, "Preliminary Remediation Goals for Terrestrial Wildlife."

COC = contaminant of concern.
EPA = U.S. Environmental Protection Agency. EPA ecological soil screening levels are available online: http://www.epa.gov/ecotox/ecossl/
N/A = not applicable.
ORNL = Oak Ridge National Laboratory. Toxicological benchmarks are in ES/ER/TM-86/R3, *Toxicological Benchmarks for Wildlife: 1996 Revision.*
WAC = *Washington Administrative Code.*

5.0 REMEDIAL-ACTION ALTERNATIVE REEVALUATION AND REFINEMENT

Remediation alternatives are developed by assembling combinations of viable technologies or associated process options for specific media of concern. The initial process of identifying viable remedial-action alternatives consists of the following steps.

1. Define RAOs (preliminary RAOs were developed in Chapter 4.0).
2. Identify general-response actions to satisfy RAOs.
3. Identify potential technologies and process options associated with each general-response action.
4. Screen the process options to select a representative process for each type of technology, based on their effectiveness, implementability, and cost.
5. Assemble viable technologies or process options retained in Step 4 into alternatives representing a range of removal, treatment, and containment options, in addition to a no-action alternative.

After a range of suitable alternatives is developed, a detailed analysis is performed as the final step in the FS process. The detailed-analysis phase consists of refining and analyzing in detail each alternative, generally on a site-specific basis. The results of the final FS are used to select a preferred alternative.

The Implementation Plan (DOE/RL-98-28) performed steps 1 through 5 to identify viable remedial-action alternatives for contaminated soil and buried solid waste in the 200 Areas (i.e., source waste sites assigned to the Environmental Restoration Program). The remedial-action alternatives developed in the Implementation Plan are summarized below:

- No action
- ICs
- Engineered surface barriers with or without vertical barriers. Three conceptual surface-barrier designs provide a range of protective levels. Feasible vertical barriers include slurry walls and grout curtains. Dynamic compaction is provided as a foundation-improvement technique for surface barriers when needed
- Excavation and disposal with or without ex situ treatment. Feasible technologies for organic compounds include thermal processing, vapor extraction, and stabilization. Feasible technologies for radionuclides include soil washing, mechanical separation, vitrification, and stabilization. Options for both on-site and off-site disposal are provided
- Excavation, ex situ treatment, and geologic disposal of soil with transuranic radionuclides
- In situ grouting or stabilization of soil

- In situ vitrification of soil
- In situ soil-vapor extraction of volatile organic compounds
- Monitored natural attenuation.

With the Implementation Plan developing viable remedial-action alternatives, these alternatives form the basis for the future alternative review during the feasibility study process. Therefore, 200-CS-1 OU FS will limit alternative analysis to the remedial-action alternatives developed in the Implementation Plan and summarized above.

Only a limited amount of source RI has been completed in the 200 Areas and, to a large extent, waste site-specific characterization data are limited. As a result, recommendations for remedial-action alternatives in the Implementation Plan are general and cover a range of potential actions to reflect the broad range of potential contamination conditions in the 200 Areas. Alternatives are expected to require refinements or modifications based on waste site-specific characterization data collected during the RI. These refinements will be made in this FS.

Chapter 5.0 describes the conceptual site model and refinements or modifications of the above alternatives, based on site-characterization data collected during the RI that may be applicable for remediation of the vadose soil associated with the 200-CS-1 OU. Groundwater remediation will be addressed in each FS conducted for the 200-BP-5, 200-PO-1, 200-UP-1, and 200-ZP-1 Groundwater OUs remedial actions.

The 200 Areas are an operational industrial complex with numerous facilities, some of which will remain active until at least the year 2049. However, none of the waste sites in the 200-CS-1 OU are operational. Therefore, this chapter discusses only alternatives that can be implemented as final actions.

The conceptual site models developed for the 200-CS-1 OU (Sections 3.2 and 3.6) and a summary of the revised BRA were discussed in Section 3.7. Based on the conceptual site models, actions that may meet RAOs include the following:

- Removing sources
- Removing or immobilizing contaminants present in sources
- Eliminating release mechanisms
- Eliminating contaminant-migration pathways
- Eliminating exposure routes
- Controlling access by receptors.

5.1 REFINEMENT AND MODIFICATIONS OF REMEDIAL-ACTION ALTERNATIVES

This section provides additional site-specific information regarding the prescreened remedial alternatives.

5.1.1 Institutional Controls

ICs may meet RAOs by restricting access of receptors to contaminated soil or by eliminating exposure routes. The IC plan (DOE/RL-2001-41) describes the various ICs currently implemented at the Hanford Site. The methodologies and overall procedures for implementing, maintaining, and evaluating the effectiveness of ICs for the 200-CS-1 OU waste sites are discussed in the following sections. It is important to note that ICs alone would not be effective in preventing ecological exposure or migration to groundwater. As a result, ICs would be implemented with another technology that would prevent ecological exposure and/or migration to groundwater.

5.1.1.1 Waste Information Data System

The *Waste Information Data System* (WIDS) database serves as a comprehensive listing of all waste sites on the Hanford Site. The WIDS database includes entries for each OU and their respective waste sites. Additional data are compiled into each site description, along with descriptions of plant operations. Key drawing lists, references, and photographs of each waste site are provided. In addition to coding the sites within a group and providing the WIDS designation for each waste site, the boundary locations of the former geographically based OUs also are provided.

5.1.1.2 Access Control

Unauthorized access to the Hanford Site is controlled under the authority given in 42 USC 2278a, "Trespass Upon Commission Installations," as implemented by 10 CFR 860, "Trespassing on Department of Energy Property." The Hanford Site facilities require that all persons wear identification badges to enter. Any member of the general public who visits the Hanford Site must pass through visitor control, obtain a visitor pass, and be escorted by authorized personnel. RL maintains a security force responsible for controlling access to all of the Hanford Site, including the 200 Areas facilities. The access-control procedures used by the security force can be found in DOE O 470.4A, *Safeguards and Security Program.*

Sites that pose a radiological-exposure risk to personnel or visitors are physically and administratively controlled so that only trained radiation workers can access the sites, as designated under 10 CFR 835, "Occupational Radiation Protection." Worker exposure also is maintained under the as-low-as-reasonably-achievable (ALARA) program. Physical controls for accessing CERCLA sites posing radiological hazards include warning signs, fences, barriers, and boundary markers. Administrative controls include radiological work permits and personnel training.

5.1.1.3 Visible Access Restrictions

Visible access restrictions are those ICs that restrict personnel access at a specific CERCLA site. Visible access restrictions may include barriers, permanent markers, or warning signs. Warning signs are the predominant method of access restriction at the Hanford Site. They identify the location of WIDS sites to any persons who may intentionally or inadvertently enter or disturb a site. Warning signs are posted at sites when residual contamination at the sites may pose a current or future risk to human health or the environment if excavated or otherwise disturbed.

5.1.1.4 Transfer to Management by Other Department of Energy Programs or Other Federal Agencies

The ICs put in place pursuant to CERCLA will continue without modification or interruption following transfer of any part of the Hanford Site to another government program or entity. All primary documents bind the Federal government and not just a single element of that government. Neither NEPA nor other environmental laws would require any new action in connection with such an intra-DOE transfer of responsibility.

5.1.2 Monitored Natural Attenuation

Monitoring may be used in combination with other technologies to meet RAOs. Monitoring for 200-CS-1 OU waste soils could include the following:

- Initial determination of extent of contamination above PRGs
- Determination of soil COC concentrations during excavation
- Post-remedial-action characterization to determine compliance with cleanup goals
- Long-term monitoring.

Sampling and radiochemical analyses frequently are performed on the Hanford Site to determine soil concentrations. Typical analytical methods and quantitation limits for the COCs in soil are identified in sampling and analysis plans using appropriate analytical methods and quantitation limits for the COCs of interest. Sampling and radiochemical analyses are effective and implementable and are retained for further consideration.

5.1.3 Engineered Surface Barriers

Engineered surface barriers isolate wastes and minimize contaminant migration. When properly constructed and maintained, surface barriers can prevent or reduce migration of hazardous substances into the surrounding environment, eliminate or reduce direct exposure to waste, and control run-on and run-off to the site. While barriers can reduce the mobility of contaminants, they do not reduce the toxicity or volume of contaminants. Engineered surface barriers are discussed in the following paragraphs.

Barriers refer to a wide range of engineered surface-barrier technologies that potentially may meet RAOs by eliminating or controlling secondary release mechanisms, eliminating contaminant-migration pathways, or eliminating exposure routes.

Establishing barriers to prevent exposures to future workers may require approximately 1 m (3.28 ft) of clean soil over the soil area that has contamination above acceptable risk criteria within the 200-CS-1 OU boundary. For the barrier to be completely effective, the cover would have to provide a layer of clean soil approximately 1 m (3.28 ft) thick until radioactive decay has reduced the radioactive contaminants to acceptable levels. Assumptions on the depth of plant root penetration may require modification to the barrier thickness or the addition of a biological barrier.

Surface barriers would meet RAOs by covering contaminated soil areas with uncontaminated soil, rock, or other materials (e.g., asphalt, concrete, or geosynthetic materials). Vegetation may be established on the surface of soil barriers to enhance evapotranspiration (ET), reduce infiltration of water, and control soil erosion. Alternatively, the surface may be paved to allow for industrial end use or may be covered with rock armor to discourage any end use.

The cover should perform the required functions for the duration of risk. Barriers must be designed for site-specific conditions, including the following:

- Risk mitigation
- ARARs
- Waste characteristics
- Available construction materials
- Site environmental conditions, including climate and precipitation.

Technical requirements for barrier design are defined by the RAOs, the action- and chemical-specific ARARs, and the to-be-considered requirements. Functional requirements for barrier design must consider factors that include the following:

- Possibility for penetration of plant roots, burrowing animals, and insects into the soil and mobilization of waste to the surface
- End use (e.g., vehicular traffic load ratings)
- Site surface and subsurface infrastructure that may interfere with construction
- Climate, including temperature, precipitation, insulation, evaporation, and transpiration
- Potential for inadvertent human intrusion
- Subsidence of underlying materials, which can cause water ponding, increased infiltration, and potential exposure of the waste
- Stability of the subgrade and of surface and side slopes
- Wind or water erosion
- Catastrophic events, such as earthquakes, volcanoes, wildfires, or floods.

The implementability of any barrier option will be affected by 200-CS-1 OU loading controls and the presence of surface and subsurface infrastructure. Engineered barriers would not be constrained by surface infrastructure. Asphalt, concrete, and geosynthetic barriers have been installed and sealed around infrastructure.

Engineered surface-barrier options that may effectively meet the RAOs and ARARs for the 200-CS-1 OU are described below.

5.1.3.1 Prescriptive RCRA Subtitle C Barrier

This type of barrier is designed to meet performance objectives for RCRA Subtitle C landfill closures under 40 CFR 265.310, "Closure and Post-Closure Care." EPA/600/2-87/039, *Design, Construction and Maintenance of Cover Systems for Hazardous Waste, an Engineering*

Guidance Document, recommends a barrier consisting of (top to bottom) an upper vegetated soil layer, a flexible-membrane liner underlying a sand drainage layer, a compacted clay barrier, and a grading fill layer that will form the basic shape/slope of the barrier over the waste. A gas collection layer may be included if gas-generating wastes are capped. Nominal thickness of this type of barrier is 1.5 m (5 ft), and the addition of grading fill would increase the thickness at the crest. This design is known as EPA's prescriptive RCRA Subtitle C design. Figure 5-1 shows a schematic cross section of the prescriptive RCRA Subtitle C barrier.

This type of barrier is designed to be less permeable than the bottom liner of a RCRA Subtitle C landfill and meets requirements of 40 CFR 265.310. However, other types of barriers may be used if equivalent performance can be demonstrated through numerical modeling and/or site-specific large-scale lysimeter studies.

A prescriptive RCRA Subtitle C barrier potentially could meet the RAOs identified above. A prescriptive RCRA Subtitle C barrier is, therefore, technically implementable on the 200-CS-1 OU.

5.1.3.2 Evapotranspiration Barriers

ET barriers also are designed to meet the performance objectives for RCRA Subtitle C landfill closures under 40 CFR 265.310. They consist of a thick fine-grained soil layer with a vegetated surface over a grading fill layer that will form the basic shape/slope of the barrier. ET barriers are designed to manage the water balance of the capped area so that deep infiltration through the barrier to underlying contaminated soil is minimized. Precipitation onto the cover that does not run off is stored within the pores of a thick soil layer. Soil moisture stored at shallow depths in the cover profile can be removed by direct evaporation, while deeper soil moisture can be removed by cover-vegetation transpiration demand during the growing season.

The ET barrier exploits the high evaporation and transpiration demands exerted by arid and semiarid climates and native plants by storing precipitation until it can be cycled back to the atmosphere. The soil layer serves to store water during periods when plants are inactive and sustain plants during dry periods. Figure 5-2 shows a schematic cross section of a single-layer (monolithic) ET barrier, as described in ITRC, 2003, *Technical and Regulatory Guidance for Design, Installation, and Monitoring of Alternative Final Landfill Covers*.

Incorporation of coarse materials (e.g., gravel or cobbles) under the thick, fine-grained soil layer in ET barriers can further reduce infiltration to underlying contaminated soil by creating a capillary break. At soil-moisture contents below field capacity (the point where the soil no longer drains by gravity), water moves in the direction of greater capillary suction and is expressed as negative soil-moisture potential. Capillary suction is inversely proportional to both size of soil-pore space and soil-water content. Moisture potential in an open-pore, dry layer of coarse-grained gravel and/or cobble is near zero, resulting in a barrier to capillary flow between overlying and underlying finer grained layers where pressures are negative. Only when moisture-potential values in the overlying fine-grained soil approach saturation will water drain into and through a capillary break layer. The capillary break effectively increases the water storage capacity of the overlying fine-grained soil, and may allow the thickness of the ET Barrier to be reduced while maintaining the same performance possible without the capillary break.

The capillary break layer may be actively or passively vented to remove water vapor and thereby maintain a low moisture content and also may use porous materials (e.g., sandstones or pumice) to provide additional moisture storage in the event that the overlying soil reaches saturation and drains. This variation has been called a "dry barrier" in Ankeny et al., 1997, "Performance and Cost Considerations for Landfill Caps in Semi-Arid Climates." A biobarrier typically consisting of one or more layers of gravel and cobbles, also may be included; alternatively, the capillary break layer may serve as a biobarrier. Figure 5-3 shows a schematic cross section of an ET barrier incorporating a capillary break.

A variation to the ET barrier is the monofill barrier with a biobarrier should plant or animal uptake of the waste be of concern (Figure 5-4).

Several features would be incorporated into the ET barrier to protect the topsoil component from erosion. During the 1990's, under the Hanford Barrier Program, a set of studies were performed on the erosion resistance of a typical fine-grained soil at the Hanford Site. The mission of the barrier program was to identify components of a long-term (1,000 year) surface barrier design. Several of the studies concluded that to enhance resistance of a bare fine-grained soil from erosion it was advisable to blend or till 9.5 mm (3/8 in.) pea-gravel into the upper 30.5 cm (12 in.) of the surface. As a bare soil surface deflates over time, more and more of the pea-gravel becomes exposed, eventually creating a desert pavement, which would be highly resistant to erosion from wind and rain drops. These studies also determined that a mixture of 15 percent by weight 9.5 mm (3/8 in) pea-gravel and silt would be sufficient to develop a desert pavement without inhibiting native plant germination or growth or significantly reducing the water storage capacity of the soil. Also, the slope of the barrier should be maintained at approximately 2 percent as fine-grained soils are more susceptible to erosional forces when the slope is greater than 2 percent (PNL-8478, *Soil Erosion Rates Caused by Wind and Saltating Sand Stresses in a Wind Tunnel*). Native vegetation will be established on the cover surface to further assist in reducing soil loss from wind and water erosion. The barrier design includes sufficiently thick soil layers to provide performance margins against long-term wind or water erosion.

ET barriers have been demonstrated to provide infiltration control equivalent to RCRA Subtitle C barriers in arid and semi-arid conditions (ITRC 2003; EGG-WM-10974, *A Simulation Study of Moisture Movement in Proposed Barriers for the Subsurface Disposal Area*). ET barriers would effectively reduce direct radiation exposures to future workers and may reduce flux of contaminants to the groundwater sufficiently to meet RAOs. ET barriers have been shown to meet performance objectives for 40 CFR 265.310. Exposure to ecological receptors would be mitigated to varying degrees depending on the specific design. The coarse rock and gravel layers used in a capillary break design could reduce or eliminate intrusion of plant roots and burrowing insects and mammals (EDF-RWMC-523). The thick soil layers of an ET barrier lacking a capillary barrier also may reduce exposures to biota when the fill material required to form the slope and shape of the barrier is considered.

An ET barrier would require a soil layer at least 1 m (3.28 ft) to provide adequate soil-moisture storage and protection of future workers. An ET barrier would be technically implementable on the 200-CS-1 OU surface.

5.1.3.3 Hanford Barrier

The Hanford barrier, developed for the long-term isolation of Hanford Site wastes, is composed of native earthen materials, geosynthetics (used only as aides in construction), polymeric asphalt, and asphaltic concrete materials. The Hanford barrier is designed as a water-balance system for long-term (>1,000 years) survivability in semiarid to subhumid environments (PNL-10872, *Hanford Prototype-Barrier Status Report: FY 1995*; WHC-SA-2377-FP, *The Development of Surface Barriers at the Hanford Site*) and is designed to meet RCRA Subtitle C performance objectives, as wells as other requirements. As shown in Figure 5-5, the Hanford barrier is an ET barrier incorporating a capillary break, as well as other protective layers, designed to reduce infiltration, restrict plant and animal intrusion, impede accidental human intrusion, and have a total cover thickness greater than 4.6 m (15 ft) to meet DOE O 435.1 guidance. A 4.6 m (15 ft) thickness of clean soil is assumed to allow for future residential occupation without exceeding exposure limits.

Asphalt and asphaltic concrete materials are used in the Hanford barrier below the frost depth and are protected from freeze-thaw damage, ultraviolet light, salt, chemical attack, and contact with water under most conditions. These layers cannot be maintained, but functional life would be expected to be longer than when used as surface layers. Asphalt has shown to retain its physical properties for thousands of years when placed underground, below the frost line (PNL-9004, *Barrier Analogs: Long-Term Performance Issues, Preliminary Studies, and Recommendations*).

A Hanford barrier would provide adequate protection of future workers and essentially would eliminate infiltration of precipitation. A Hanford barrier is technically implementable.

5.1.4 In Situ and Ex Situ Treatment Alternative - Vitrification

In situ and ex situ treatment alternatives potentially may reduce the mobility or volume of 200-CS-1 OU COCs.

In situ and ex situ vitrification thermal treatment of soil is the process of converting materials into glass or glass-like substances at high temperatures. Vitrification is a thermal process that can be performed both in situ and ex situ. The vitrification process involves heating contaminated media to extremely high temperatures and then cooling them to form a solid mass. The vitrification process uses an electric current to melt buried soil or other solid media, including containers, at extremely high temperatures (1,600 to 2,000 °C). Contaminants are immobilized within the vitrified mass. This mass is a chemically stable, leach-resistant material similar to obsidian rock or glass. An electrical distribution system, an off-gas treatment system, and a process-control system are required for implementation. The off-gas system is required for emissions to ambient air during vitrification, because some organic constituents and inorganic contaminants may be volatilized and released because of the high temperatures involved. A vacuum hood often is placed over the treated area to collect off-gases, which then are treated before release. Vitrification reduces the volume, toxicity, and mobility of the contaminated

materials but does not affect their radioactivity. Because the treatment is entirely in situ, no off-site activities are necessary to manage, treat, store, or dispose of waste.

In situ vitrification is a proven, commercially available technology that has been used to vitrify contaminated soil to a depth of about 7.6 m (25 ft). Vitrification to deeper depths (about 12 m [40 ft]) has been achieved using a two-stage melting process. However, this process requires removal of a portion of the overburden soil while melting the lower portion of the soil column. The overburden soil is placed over the vitrified mass and vitrified as a second stage. Emerging research indicates that a single-stage melt to deeper depths may be possible in the near future.

The following are potential capabilities and limitations of vitrification.

- Capabilities:
  - Reduced leachability of immobilized inorganics and radionuclides
  - Long-term durability of the vitrified product that passes leaching tests, such as EPA's extraction, toxicity solid-waste leaching, and toxicity-characteristic leaching procedures
  - Can handle some buried objects, such as steel pipes and tanks
  - Volume reduction
  - Avoidance of excavation, processing, and disposal of soil (especially remote-handled materials) reduces potential exposures.
- Limitations:
  - Waste composition and moisture content
  - Presence of combustible materials
  - Presence of process-limiting materials
  - Volatilization of contaminants will require off-gas collection and treatment; combustible gases may be produced
  - Potential shorting caused by buried utilities and engineered structures
  - Depth limitations
  - High cost of energy
  - Highly trained operators required.

5.1.5 Soil Excavation

The COCs in 200-CS-1 OU soil may be physically removed by excavation. Excavation to prevent exposures to ecological receptors and potential migration of COCs to groundwater would require excavating to a maximum depth, based upon the RI/BRA results for the 200-CS-1 OU and backfilling with clean soil.

Several factors affect implementability of excavation technologies at the 200-CS-1 OU.

- A depth of excavation is required, along with shoring requirements for large-scale removals.
- Subsurface infrastructure may be present, including concrete valve boxes and pipe enclosures, piping, pipe supports, electrical supply, instrumentation, and cathodic protection. Excavation may expose subsurface infrastructures, which may require an engineering analysis to determine if they will remain stable or if supports will be required to hold them in place.
- Soil and debris physical characteristics, including bulk density and hardness, may inhibit excavation.
- The potential for direct radiation exposure to workers. Conventional excavation techniques and equipment generally can be used in gamma exposure fields of less than 200 mR/h. Shielded or remotely operated equipment typically is required in radiation fields greater than 200 mR/h to ensure the safety of equipment operators.
- Fugitive dust may be produced, with associated airborne contamination exposure to workers. Soil removal would require the use of engineering and administrative controls to reduce risks caused by fugitive dust emissions, worker exposure, and waste streams. Confinement of the action to as small an area as possible and containment of the excavation site in an enclosure lower these risks.

Because of the expected low direct-radiation exposures that would be encountered during excavation at 200-CS-1 OU locations, only conventional excavators are discussed.

Conventional excavators include backhoes, trackhoes (Figure 5-6), front end loaders, wheel loaders, Bobcats[1], and others. Conventional excavators could be used to remove soil contaminated at relatively lower radiation levels, as well as removing overburden above soil contaminated at higher levels and laying back excavation side slopes in preparation for contaminated soil removal. Commercially available conventional excavation equipment can be fitted with lead exterior shielding and leaded or LEXAN[2] film glass to reduce direct gamma and beta exposures to the operator. Airborne exposures can be minimized using sealed operator cabins and inlet air filtration. Protective clothing, respirators or supplied air, and dust suppression techniques in the working area can further reduce exposures.

Spraying foams or other dust suppressants onto the digface and/or equipment operating area can control fugitive-dust generation and airborne contamination generated during excavation. Fugitive dust and airborne contamination can be contained using tent-type temporary sprung

[1] Bobcat is a registered trademark of Bobcat Company, Bismark, North Dakota.

[2] LEXAN is a registered trademark of General Electric Company, New York, New York.

structures or more permanent Butler-type[3] metal buildings. Both types are commercially available.

Conventional excavators and fugitive-dust-generation and airborne-contamination controls are retained for further consideration for 200-CS-1 OU soil removal.

5.1.6 Disposal

Disposal would be used in combination with removal to meet RAOs by isolating contaminated soil in an engineered repository, thereby breaking contaminant migration and exposure pathways. All excavated soil and debris would be disposed of in the ERDF, which is assumed to be available for the duration of soil removal. Disposal containers and transportation would be provided by the ERDF operating contractor. Compliance with any applicable U.S. Department of Transportation requirements for the haul route from the 200-CS-1 OU to the ERDF is assumed to not increase scope, complexity, or cost of disposal.

5.2 SUMMARY OF RETAINED REMEDIAL ALTERNATIVES FOR 200-CS-1 OPERABLE UNIT SOIL

Based on the COCs identified in the 200-CS-1 OU soil and the above discussion on refining and modifying the alternatives identified previously in the Implementation Plan, numerous alternatives were retained for the 200-CS-1 OU soil. ICs and monitored natural attenuation, including soil sampling and analysis, were retained for further consideration. Engineered surface-barrier options retained included RCRA Subtitle C, ET, and Hanford barrier systems. Conventional excavators were identified as removal-process options. For the general-response action of disposal, the ERDF was the only process option identified.

Based on the COCs present in the 200-CS-1 OU soil and the discussion in Section 5.1, in situ vitrification thermal treatment was not retained because of low technical implementability at the 200-CS-1 OU. Excavation, ex situ treatment, and geologic disposal of soil with transuranic radionuclides were not retained because of the lack or insufficient quantities of transuranic radionuclides present in the 200-CS-1 OU soil. In situ soil-vapor extraction of volatile organic compounds was not retained, because the COCs identified at the site are not volatile, so the alternative is not applicable at the 200-CS-1 OU sites. In situ grouting or stabilization of soil was not retained, because this alternative would not reduce the exposure and risk from the radionuclides present in the 200-CS-1 OU soils.

[3] Butler is a trademark of the Butler Manufacturing Company, Kansas City, Missouri.

5.3 EVALUATION OF REMEDIAL ALTERNATIVES

Alternatives retained following the reevaluation in Section 5.1 are considered with respect to effectiveness, implementability, and relative cost in this section. No alternatives are eliminated at this stage.

Effectiveness is the most important criterion at this evaluation stage. The evaluation of effectiveness was based primarily on the following:

- The potential effectiveness of process options in handling the estimated areas or volumes of contaminated media and meeting the RAOs
- The potential impacts to worker safety, human health, and the environment during construction and implementation
- The degree to which the processes are proven and reliable with respect to the contaminants and conditions at the site.

The evaluation of implementability includes consideration of the following:

- The availability of necessary resources, skilled workers, and equipment to implement the technology
- Site accessibility and interfering infrastructure
- Potential concerns regarding implementation of the technology
- The time and cost effectiveness of implementing the technology in the physical setting associated with the waste unit.

A relative cost evaluation is provided for comparison among technologies. Relative capital and operation and maintenance costs are described as high, medium, or low. These costs are based on references applicable to the particular process option given (presented in Appendix J), prior estimates, previous experience, and engineering judgment. The costs are not intended for budgetary purposes.

Following is a summary of the process options for the 200-CS-1 OU soils.

5.3.1 Institutional Controls

Effectiveness. ICs can effectively control exposures, and RAOs would be met as long as ICs are implemented. Passive ICs (e.g., deed restrictions, permanent markers) are assumed to remain effective for the duration of risk. Active ICs (e.g., guards, fences) are assumed not to be effective after the year 2049. The effectiveness of ICs is enhanced when implemented with additional process option(s).

Implementability. ICs currently are implemented at the 200-CS-1 OU. Passive ICs are assumed to be implementable for the duration of risk; however, active ICs are assumed not to be implementable after the year 2049.

Cost. ICs have relatively low capital and operation and maintenance costs.

5.3.2 Monitored Natural Attenuation – Surface Soil Sampling

Effectiveness. Surface-soil sampling can determine the extent of COC contamination and attainment of PRGs. Soil sampling would not meet RAOs but could be used in combination with other technologies.

Implementability. With adherence to an approved health and safety plan, few implementability concerns are associated with continued monitoring of shallow soil at the 200-CS-1 OU waste sites through the year 2049. However, contaminants will remain in the 200-CS-1 OU soil above risk-based levels after the year 2049. Also, implementability of long-term soil monitoring after the year 2049 at the 200-CS-1 OU is uncertain.

Cost. Costs for soil sampling and analysis are moderate to high.

5.3.3 Engineered Surface Barriers

The RCRA, ET, and Hanford engineered surface barriers, discussed in Section 5.1 are required monitoring to demonstrate that RAOs are met. The following is an evaluation of each type of engineered surface barrier.

5.3.3.1 RCRA Subtitle C Barrier

Effectiveness. The membrane used in constructing the RCRA Subtitle C barrier is synthetic, or man-made, and may have a life expectancy of less than 100 years. Also, clay soil barriers have shown to desiccate in arid climates, such as at the Hanford Site, especially when placed near the ground surface. Once a clay layer desiccates, its performance is greatly reduced because of the preferential paths that form in the desiccation cracks (Roesler et al., 2002, "Field Hydrology and Model Predictions for Final Covers in the Alternative Cover Assessment Program"). The RCRA Subtitle C barrier would only be effective in limiting moisture infiltration if the membrane and clay barrier layers remain intact. This barrier would require a thick surface-soil layer to provide adequate soil-moisture storage to sustain plants. The overall thickness of the cover would provide a clean-soil barrier greater than a depth of 1.5 m (5 ft). The thickness of the cover, the membrane liner, and compacted clay or geosynthetic clay would deter most biointrusion. Maintenance of the vegetated soil surface of the barrier, such as filling animal burrows, would be required.

Implementability. Implementability of any barrier on the 200-CS-1 OU will not be constrained by any site features or limited by the availability of necessary equipment, materials, or skilled personnel.

The constructability of the RCRA Subtitle C barrier is considered to be moderate. Use of geosynthetic materials would make staged construction more difficult. Surface-barrier construction is similar to other types of earthwork, such as highway construction, with respect to complexity and expertise required. No specialized equipment, personnel, or services are required to implement this alternative. Construction materials are readily available at the Hanford Site or from other local sources.

Cost. A RCRA Subtitle C barrier has relatively moderate capital costs and relatively moderate operation and maintenance costs.

5.3.3.2 Evapotranspiration Barrier

Effectiveness. ET barriers have been demonstrated to provide equivalent infiltration-control performance to prescriptive RCRA Subtitle C barriers. Under arid and semi-arid climate conditions, ET barriers have shown to out-perform the prescriptive RCRA Subtitle C design and potentially help to meet RAOs. These cover types are built almost entirely using native earthen materials; therefore, service life is estimated to exceed that for prescriptive RCRA Subtitle C barriers and approach that for the Hanford barrier. The thickness of the barrier (about 1.0 m [3.3 ft]), along with the amount of grading fill that would be required to form the general shape/slope of the barrier, would typically be more than sufficient to provide a clean-soil barrier and would reduce the potential for and deter biointrusion. Should additional protection be required, a gravel/rock biobarrier may be added at the base of the profile. An ET barrier likely would retain these functions for the duration of risk for worker protection. Maintenance of the vegetated soil surface of the barrier, such as filling animal burrows, would be required.

Implementability. Implementability of any barrier on the 200-CS-1 OU will not be constrained by any site features or be limited by the availability of necessary equipment, materials, or skilled personnel.

The constructability of the ET barrier is considered high. Because geosynthetic materials are not required, this improves the ability to construct the ET barrier in stages. Surface-barrier construction is similar to other types of earthwork, such as highway construction, with respect to complexity and expertise required. No specialized equipment, personnel, or services are required to implement this alternative. Construction materials are readily available at the Hanford Site or from other local sources.

Cost. An ET barrier has relatively low capital costs and relatively low operation and maintenance costs.

5.3.3.3 Hanford Barrier

Effectiveness. A Hanford barrier would limit moisture infiltration and potentially could help to meet RAOs. The thickness of the cover (about 4.6 m [15 ft]) is more than sufficient to provide a clean-soil barrier. It would eliminate the potential for biointrusion and would meet RAOs. A Hanford barrier likely would retain these functions. Maintenance of the vegetated soil surface of the barrier, such as filling excessive animal burrows, would be required.

Implementability. Implementability of any barrier on the 200-CS-1 OU will not be constrained by any site features or be limited by the availability of necessary equipment, materials, or skilled personnel.

The constructability of a Hanford barrier is considered low to moderate because of the relatively large thickness of the barrier, volume, and variety of materials required. Surface loading produced by the 4.6 m (15-ft) thick barrier would have to be considered. Surface-barrier construction is similar to other types of earthwork, such as highway construction, with respect to complexity and expertise required. No specialized equipment, personnel, or services are required to implement this alternative. Construction materials are readily available at the Hanford Site or from other local sources.

Cost. A Hanford barrier has relatively high capital costs and relatively low operation and maintenance costs.

5.3.4 Soil Excavation

Soil excavation and backfilling with clean soil potentially could meet RAOs.

Effectiveness. Conventional excavators are effective for excavating and handling large quantities of soil, rock, or debris. They also are effective for excavating localized areas of contaminated soil. Conventional excavators would alleviate certain waste groups of inherent risks from soil contamination. Excavation, however, generally is a precursor technology for ex situ treatment and/or disposal.

Implementability. Conventional excavators are administratively feasible. Both the resources and the services required to provide excavation and earthmoving operations are readily available. Earthmoving equipment would require decontamination following remediation.

Cost. Conventional excavators generally have relatively low capital and low operation and maintenance costs.

5.3.5 Disposal

Effectiveness. Disposal alone would not meet RAOs but could help meet RAOs in combination with other technologies.

Implementability. Disposal at the ERDF is easily implemented.

Cost. Disposal at the ERDF has relatively moderate costs.

Figure 5-1. Resource Conservation and Recovery Act Subtitle C Barrier.

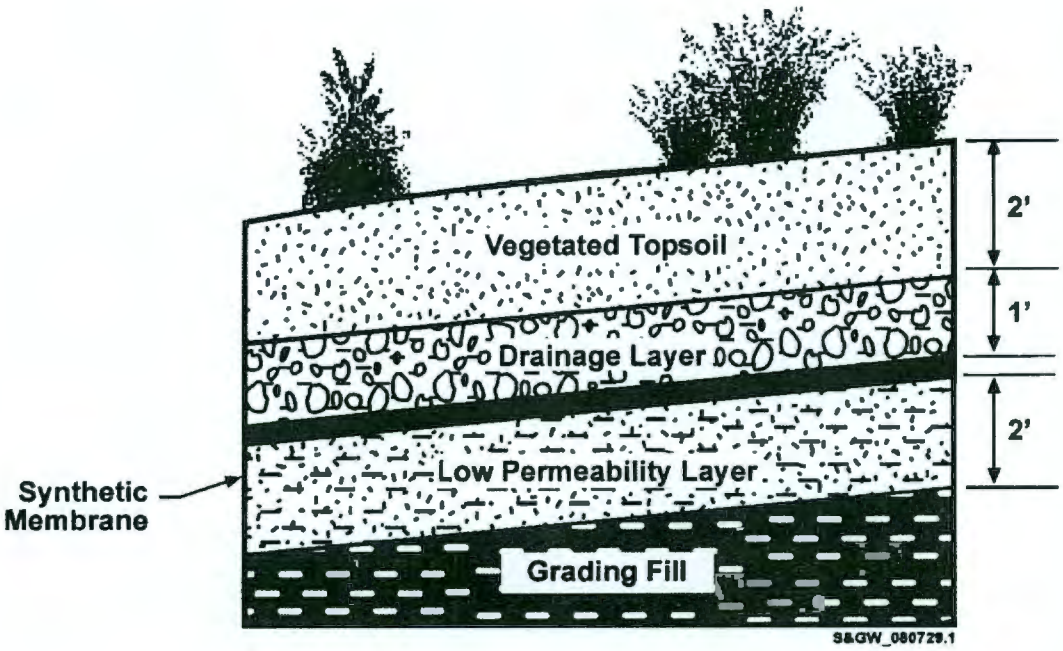


Figure 5-2. Cross Section of a Monolithic Evapotranspiration Barrier.

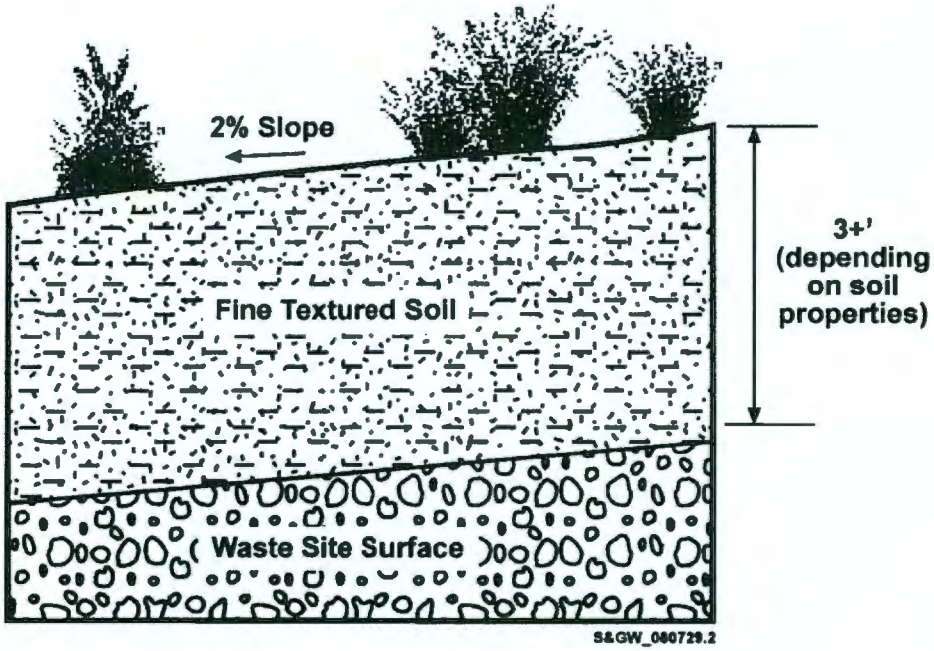


Figure 5-3. Cross Section of an Evapotranspiration Barrier Incorporating a Capillary Break.

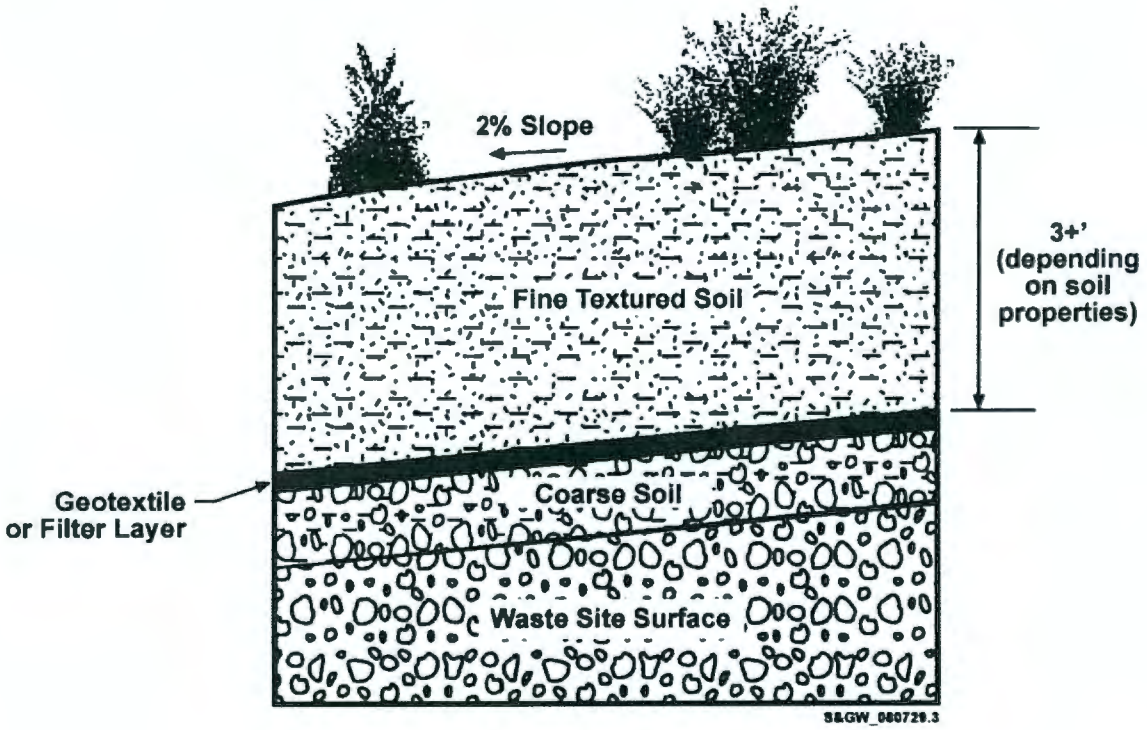


Figure 5-4. Monofill Barrier with Biobarrier Design.

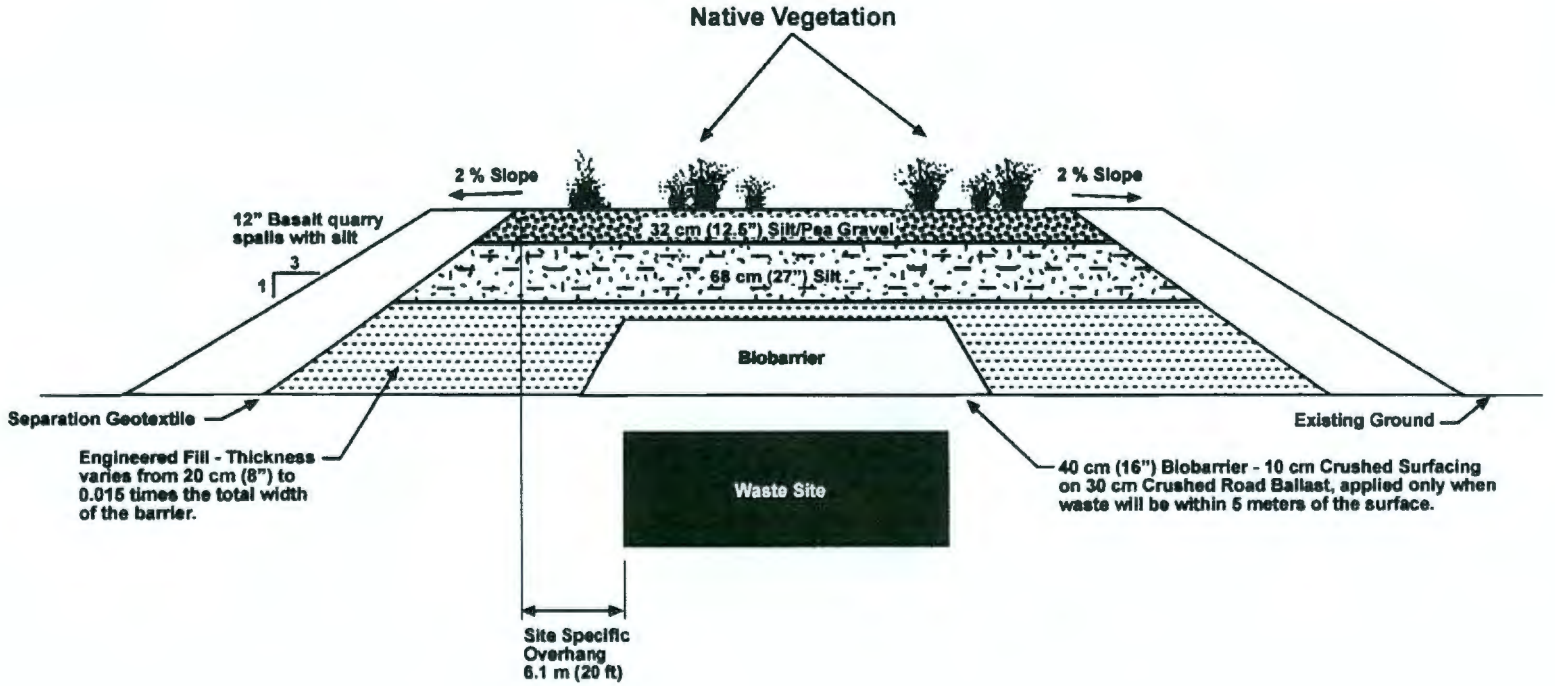


Figure 5-5. Cross Section of a Hanford Barrier.

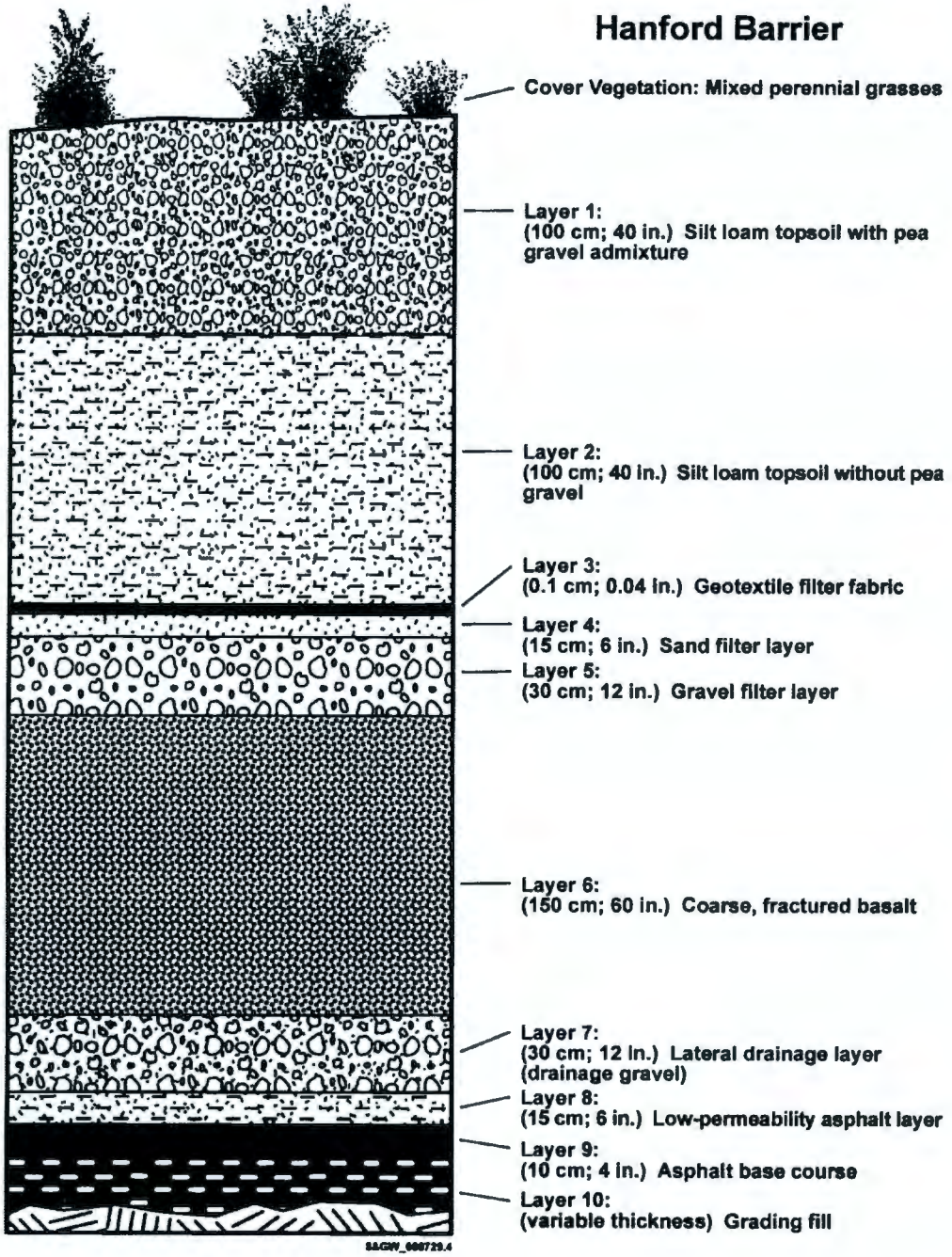


Figure 5-6. Trackhoe Excavator.

6.0 REMEDIAL-ACTION ALTERNATIVES

The EPA guidance for conducting FSs under CERCLA recommends that a limited number of technologies be carried forward from the initial technology identification and screening phase; these technologies then are grouped into remedial alternatives to address site-specific conditions. In Chapter 5.0, technologies were rescreened based on site-specific characteristics and COCs (identified in Chapter 3.0) to determine if they achieve the RAOs (identified in Chapter 4.0). In this chapter, the technologies are grouped into remedial alternatives to address site-contamination problems. Four remedial alternatives are developed and described in this chapter for the waste sites in the 200-CS-1 OU. The four remedial alternatives then are analyzed in Chapter 7.0. The applicability of these alternatives to the individual waste sites also is considered.

6.1 DEVELOPMENT OF ALTERNATIVES

Significant activities and evaluations have contributed to defining applicable technologies and process options that address the 200-CS-1 OU representative and analogous waste sites. The Implementation Plan (DOE/RL-98-28) provides initial information on identification and screening of remedial technologies for 200 Areas waste sites. The Implementation Plan, in conjunction with Chapters 4.0 and 5.0 of this FS, forms the basis for the development of remedial alternatives. The Implementation Plan also develops preliminary remedial alternatives, based on the results of technology screening for the waste sites. Remedial alternatives identified in the Implementation Plan for the 200-CS-1 OU include the following:

- No-action
- Monitored natural attenuation/ICs
- Removal, treatment, and disposal (onsite disposal)
- Containment using surface barriers.

In addition to the remedial alternatives identified in the Implementation Plan and listed above, the alternatives below also were identified in the Implementation Plan, but were not retained for further consideration following refinement, modification, and evaluation in Chapter 5.0:

- Excavation, ex situ treatment, and geologic disposal of soil with transuranic radionuclides
- In situ grouting or stabilization of soil
- In situ vitrification of soil
- In situ soil-vapor extraction of volatile organic compounds.

Evaluation of the no-action alternative is a requirement under CERCLA. The monitored natural attenuation/ICs alternative is retained and further developed in this FS for sites where existing remedial actions are in place or where contamination is expected to reach RAOs within a reasonable ICs period. The removal, treatment, and disposal alternative and the containment using surface barriers alternative also are retained and further developed in this FS. The following subsections further develop and describe the alternatives.

One important factor in the development of site-specific remedial alternatives is that radionuclides, heavy metals, and some inorganic compounds cannot be destroyed. As such,

these compounds must be physically immobilized, contained, or chemically converted to a less mobile or less toxic form to meet the RAOs.

The ICs plan (DOE/RL-2001-41) describes ICs for the current Hanford Site CERCLA response actions. The ICs plan describes how the ICs are implemented and maintained and serves as a reference for the selection of ICs in the future. ICs generally include nonengineered restrictions on activities and access to land, groundwater, surface water, waste sites, waste-disposal areas, and other areas or media that contain hazardous substances. This is to minimize the potential for human exposure to the substances. Common types of ICs include procedural restrictions for access, fencing, warning notices, permits, easements, deed notifications, leases and contracts, and land-use controls. The 200-CS-1 OU FS will identify ICs from the ICs plan that will be a part of the alternatives listed below.

6.2 DESCRIPTION OF ALTERNATIVES

This section provides a description of the selected alternatives considered for evaluation in this FS, including the following:

- Alternative 1 – No action
- Alternative 2 – Maintain existing soil cover, monitored natural attenuation, and ICs
- Alternative 3 – Removal, treatment, and disposal
- Alternative 4 – Engineered barrier.

6.2.1 Alternative 1 – No Action

40 CFR 300.430(e)(6) , "The No-Action Alternative," requires that a no-action alternative be evaluated in the FS as a baseline for comparison with other remedial alternatives. The no-action alternative represents a situation where no legal restrictions, ICs, access controls, or active remedial measures are applied to the site. Because no remedial activities would be implemented with the no-action alternative, long-term environmental risks for the 200-CS-1 OU waste sites would be essentially the same as those identified in the revised BRA, except for those associated with radionuclides from radioactive decay over time. No maintenance or other activities are instituted or continued. Because the no-action alternative assumes no further maintenance, long term monitoring actions, or remedial actions will be taken at a waste site, each site will under go a sampling process to show that this action is justified.

6.2.2 Alternative 2 – Maintain Existing Soil Cover, Monitored Natural Attenuation, and Institutional Control

This alternative takes advantage of existing soil covers and the nature of the contaminants to provide protection of human health and the environment. For the waste sites in this OU, an existing soil cover is present that is associated with the previous waste-stabilization activities. Under this alternative, the existing soil cover will be maintained to provide protection from

intrusion by human and/or biological receptors. The existing soil covers provide a barrier between human and ecological receptors and the contaminants.

WAC 173-340-745(7) identifies the points of compliance for different pathways.

- "For soil cleanup levels based on protection of groundwater, the point of compliance shall be established in the soils throughout the site."
- "For soil cleanup levels based on human exposure via direct contact or other exposure pathways where direct contact with the soil is required to complete the pathway, the point of compliance shall be established in the soils throughout the site from the ground surface to fifteen feet below the ground surface."

WAC 173-340-7490, "Terrestrial Ecological Evaluation Procedures," specifies a standard point of compliance at 4.6 m (15 ft) for ecological receptors. Based on literature searches regarding the root and burrowing depths of vegetation and animals present on the Hanford Site, a sufficient soil thickness to prevent biological intrusion generally would be 2.4 to 3.0 m (8 to 10 ft). However, most of the 200-CS-1 OU waste sites have a soil cover (i.e., surface stabilization, backfill) over the contaminated media of approximately 1 m (3.28 ft).

For this alternative, periodic surveillance and maintenance of the waste sites will be implemented for evidence of contamination and biologic intrusion. Additional surveillance and maintenance activities under this alternative include the placement of vegetation, herbicide application, activities to control deep-rooted plants; control of deep-burrowing animals; maintenance of signs and/or fencing; maintenance of the existing soil cover (including an assumed periodic addition of soil); administrative controls; and site reviews.

Contaminants remaining beneath the clean-soil cover would be allowed to attenuate naturally until remediation goals are met. Natural attenuation relies on natural processes to lower contaminant concentrations, while preventing migration of the contaminants to other media, until cleanup levels are met. Monitored natural attenuation would include sampling and/or environmental monitoring, consistent with EPA guidance (EPA/540/R-99/009, *Use of Monitored Natural Attenuation at Superfund RCRA Corrective Action and Underground Storage Tank Sites November 1997*, OSWER 9200.4-17P), to verify that contaminants are attenuating as expected and source control is being maintained. Attenuation-monitoring activities could include monitoring of the vadose zone using soil sampling and analysis methods or groundwater monitoring to verify that natural-attenuation processes are effective. The existing network of groundwater-monitoring wells in the Central Plateau is adequate for monitoring most sites, in coordination with the 200-BP-5, 200-PO-1, 200-UP-1, and 200-ZP-1 Groundwater OUs.

6.2.3 Alternative 3 – Removal, Treatment, and Disposal

This alternative will remove the soil with concentrations of contaminants that are above the cleanup levels established in the ROD and closure performance standards established in the Hanford Facility Dangerous Waste Permit containing the TSD closure plans. After the ROD is

issued, the RTD remedy would be implemented in compliance with the RL and regulator approved remedial action work plan, sampling analysis plan(s) and TSD closure plan(s). The approved work plan and sampling and analysis plan(s) will describe the implementation and verification of the RTD remedy respectively. Appendix K describes RL's proposed approach for remedial RTD remedy design and verification sampling. The remedy design and verification sampling are statistically based and developed using DOE's Visual Sampling Plan (VSP) software. RL proposes to use this software program after the ROD with the lead regulatory agency and affected/interested stakeholders in support of the DQOs process with the outcome to be represented in a sampling and analysis plan and remedial work plan for RL and regulator approval.

The VSP is a DQO based systematic planning software to determine the number and location of samples to ensure confident, statistically defensible decisions and to perform statistical and data quality assessment in support of the decision making process. VSP is currently sponsored by and in use by EPA, DOE, Department of Defense, U.S. Department of Homeland Security, and the U.S. Centers for Disease Control.

Under this alternative, contaminated soil would be removed (by conventional excavation equipment) and disposed to an appropriate facility (the ERDF). Figure 6-1shows a generalized cross-section for this alternative.

Excavated materials would be disposed at an approved disposal facility, currently envisioned as the ERDF. Precautions would be used to minimize the generation of onsite fugitive dust. By using a 1:1.5 (vertical to horizontal) side slope, shoring is not expected to be required to comply with safety requirements and to reduce the quantity of excavated soil. Based on existing information, soil and/or debris removed from the waste sites is not expected to require treatment to meet ERDF waste acceptance criteria (WCH-191, *Environmental Restoration Disposal Facility Waste Acceptance Criteria*). Additional activities, however, may be required to meet health and safety requirements during excavation, handling, transportation, and disposal. Contaminated soil and/or structures will be containerized (e.g., containers, burrito wraps, bulk shipment) on site and transported to the ERDF, located in the 200 West Area.

After the clean up levels were met, uncontaminated soil would be used to backfill the excavation. The backfill material could be found at a variety of sources, including local borrow pits and any remaining excavated material that is determined to be clean (verified as clean by meeting the PRGs). Following remediation, the site will be recontoured, resurfaced, and/or revegetated to establish natural site conditions. Maintenance of the site, including weed control (i.e., herbicide application), is required until the vegetation is sufficiently established to prevent intrusion by noxious, nonnative plants such as cheatgrass and Russian thistle. ICs are provided via 200 East and 200 West Area site-wide programs.

6.2.4 Alternative 4 – Engineered Barrier

The engineered-barrier alternative, also known as the capping alternative, consists of constructing surface barriers over contaminated waste sites to control the amount of water that infiltrates into contaminated media, to reduce or eliminate leaching of contamination to groundwater. In addition to their hydrological performance, barriers also can function as

physical barriers to prevent intrusion by human and ecological receptors and limit wind and water erosion. An additional element to the barrier alternative is monitored natural attenuation, where contamination undergoes natural processes.

The preferred barrier option for the 200-CS-1 OU is the ET Monofill Barrier (Figure 6-2). Like the RTD alternative, this alternative will provide a barrier over the soil with concentrations of contaminants that are above the cleanup levels. The barrier remedy would be implemented using the VSP for remedy design and verification sampling. The ET surface barrier relies on the water-holding capacity of a soil, the evaporation from the near surface, and the plant transpiration to control water movement through the barrier. These sites could have a variety of ET barriers; the most appropriate barrier would be determined during remedial design.

The ET Monofill Barrier limits the infiltration of precipitation (an important consideration when groundwater protection is required) and includes components that address the prevention of ecological and human intrusion.

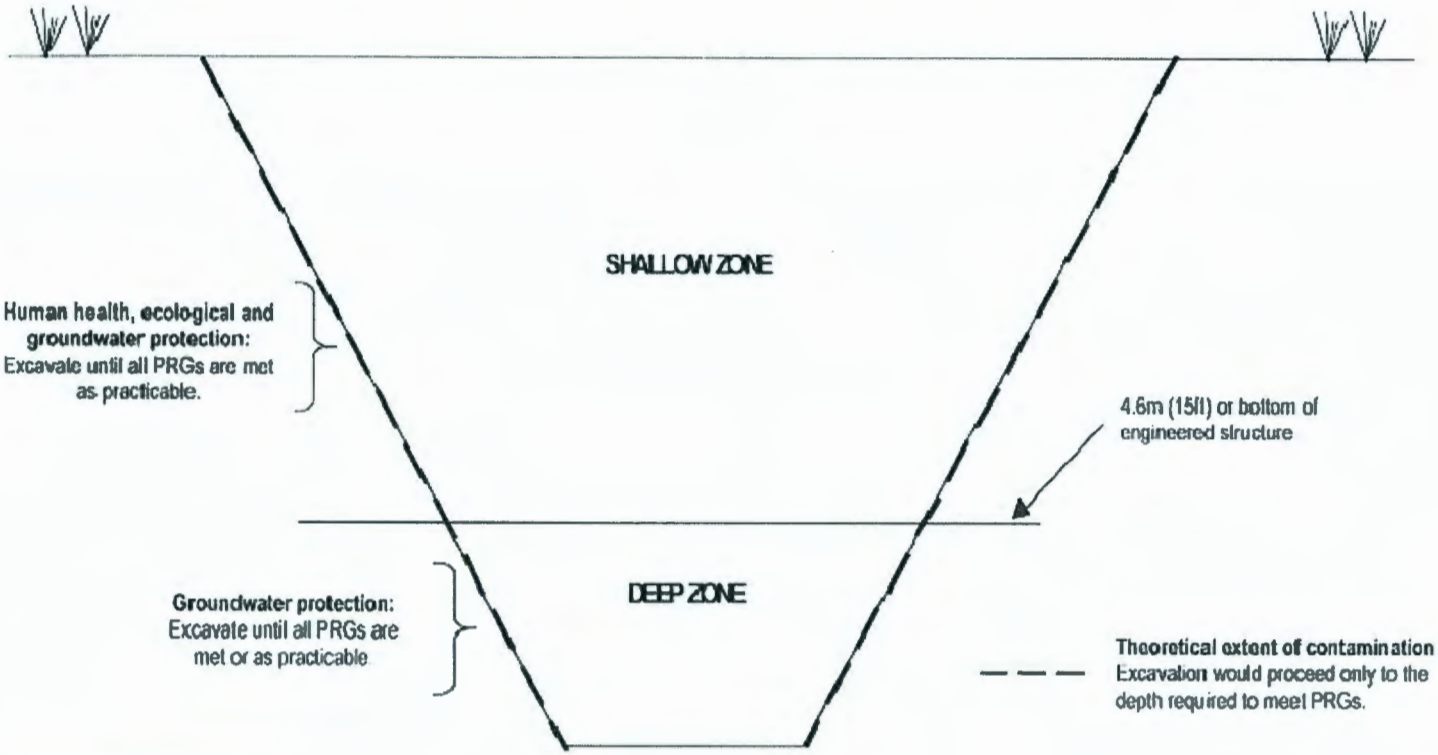
Use of an engineered-barrier alternative would require assessment of the lateral extent of contamination during the confirmatory and/or remedial-design sampling phase to properly size the barrier to ensure containment. Some degree of oversizing of the barrier beyond the footprint of the waste zone (referred to as overlap) is expected and is dependent on the barrier design used and the depth of contamination. For the purposes of this FS, an overlap of 6.1 m (20 ft) is assumed based on the performance of other Hanford Site-specific barriers. The type and availability of barrier construction materials also is a design consideration.

Barriers require surveillance and maintenance throughout their life to ensure continued protection. Performance monitoring will be conducted to ensure that the barrier is performing as designed. Performance monitoring for this alternative will be twofold. The first component is groundwater monitoring. The second component is vadose-zone monitoring, if practical. This FS assumes a robust performance monitoring activity during the first five years after construction, followed by a more focused activity in subsequent years.

6.3 INSTITUTIONAL CONTROLS

ICs will be part of Alternatives 2 through 4 as identified in Table 6-1. All ICs in the 200-CS-1 OU alternatives are described in DOE/RL-2001-41.

Figure 6-1. Generalized Removal, Treatment, and Disposal Alternative (Alternative 3).



PRG = preliminary remediation goal.

Figure 6-2. Evapotranspiration Monofill Barrier.

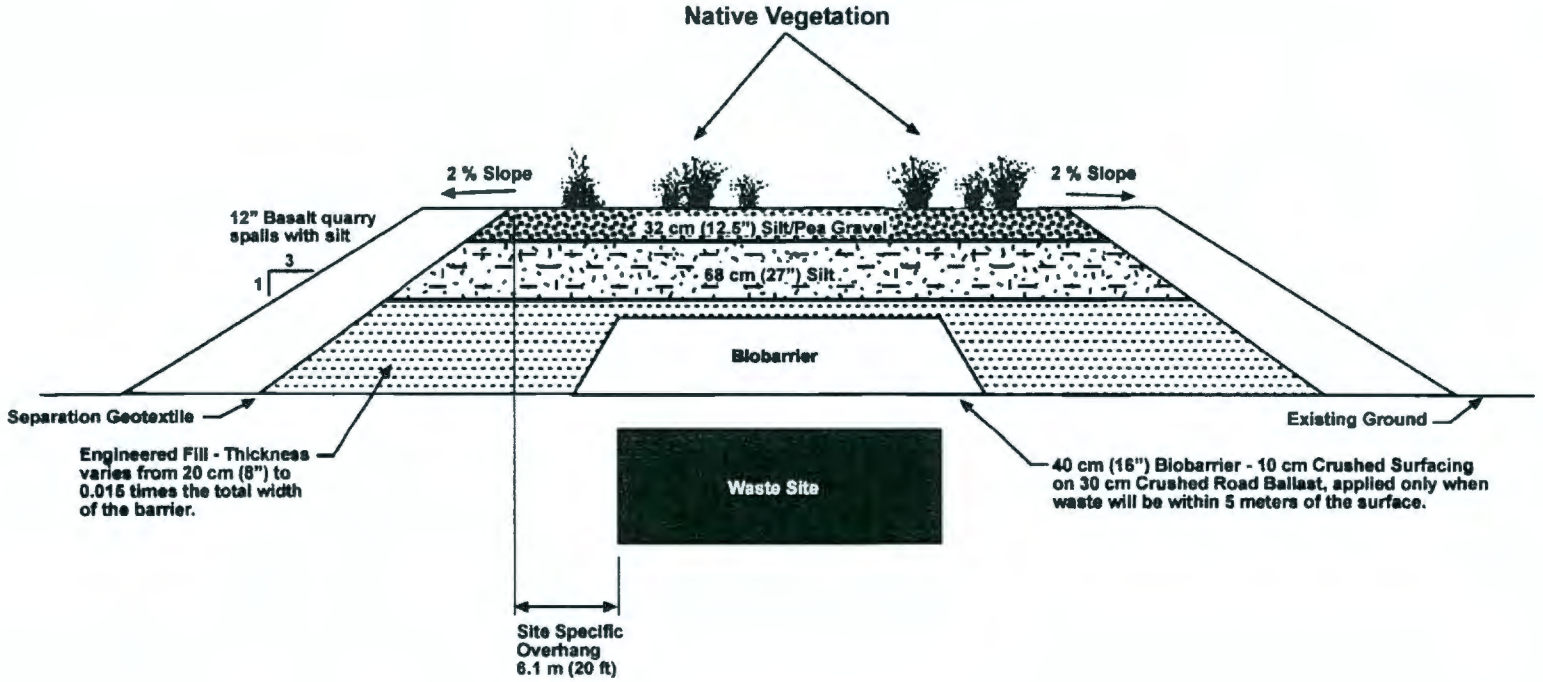


Table 6-1. Institutional Controls for 200-CS-1 Operable Unit Alternatives.

Alternative	Institutional Control	Description	Section of Institutional Control Plan [a]
No Action	Not applicable	The no-action alternative represents a situation where no legal restrictions, access controls, or active remedial measures are applied at the site.	Not applicable
MESC/MNA/ICs	Warning Signs	Radiological Control Area	3.2.2
	Entry Restrictions	Control Human Access, Adequate Training, Avoid Disturbance	3.2.3
	Land-Use Management	Land-Use And Real Property Controls	3.2.4
	Excavation Permits	Work Control Process	3.2.4.2
	Groundwater-Use Management	Restrict Well Drilling and Groundwater Use	3.2.5
	Waste Site Information	Maintain Tracking Mechanism	3.2.6
RTD [b]	Land-Use Management	Land-Use And Real Property Controls	3.2.4
	Groundwater-Use Management	Restrict Well Drilling and Groundwater Use	3.2.5
	Waste Site Information	Maintain Tracking Mechanism	3.2.6
Engineered Barrier	Warning Signs	Radiological Control Area	3.2.2
	Entry Restrictions	Control Human Access, Adequate Training, Avoid Disturbance	3.2.3
	Fencing	Prevent Unauthorized Human Access And Protect Barriers	3.2.3.2
	Land-Use Management	Land-Use And Real Property Controls	3.2.4
	Excavation Permits	Work Control Process	3.2.4.2
	Groundwater-Use Management	Restrict Well Drilling and Groundwater Use	3.2.5
	Waste Site Information Management	Maintain Tracking Mechanism	3.2.6

[a] DOE/RL-2001-41, *Sitewide Institutional Controls Plan for Hanford CERCLA Response Actions*.
[b] Nominal institutional controls are to be addressed by 200 East and 200 West Area wide programs.

MESC/MNA/ICs = maintain existing soil cover/monitored natural attenuation/institutional controls.
RTD = removal, treatment, and disposal.

7.0 DETAILED ANALYSIS OF ALTERNATIVES

This chapter presents a detailed analysis of the remedial-action alternatives described in Chapter 6.0 for the 200-CS-1 OU waste sites included in this FS. The RAOs (Chapter 4.0) are assessed for each site to determine if CERCLA evaluation criteria are met. The remedial alternatives were based on the site-specific COCs and COECs (Chapter 3.0), RAOs and the available remediation technologies are discussed in Chapter 5.0. In this chapter, the remedial alternatives are evaluated relative to the CERCLA evaluation criteria. Chapter 8.0 then will compare each alternative to provide a relative performance in relation to the CERCLA evaluation criteria.

The detailed analysis is presented by alternative. Within each alternative, the waste sites are compared with each CERCLA evaluation criterion, including compliance with ARARs. Tables 7-1 through 7-4 provide a summary of the detailed analyses for the representative waste sites and the one analogous waste site.

The sites are analyzed in the following order:

- 216-A-29 Ditch
- 216-B-63 Trench
- 216-S-10 Ditch
- 216-S-10 Pond and its analogous waste site, the 216-S-11 Pond.

Analysis of the alternatives takes into account the nature of the contaminants at each site and the assumed land use. This land use is projected to remain the same for the next 50 years, given the DOE's current commitment to vitrify waste in the tank farms. Land use for the 216-A-29 Ditch and the 216-B-63 Trench is industrial-exclusive. Land use for the 216-S-10 Pond, 216-S-11 Pond and 216-S-10 Ditch is defined as conservation/mining.

The results of the human health and ecological risk assessment identified COCs at the 216-S-10 Ditch based on the direct contact exposure pathway for unrestricted land use and protection of groundwater (Table 3-71). The results of the risk assessment also identified Cs-137 at the 216-A-29 Ditch for industrial land use (Table 3-71). No human health risks or COCs were identified at any of the remaining waste sites based on the direct contact exposure pathway under current and reasonably anticipated future land use. Additionally, the groundwater impacts analysis determined that COPCs present within the vadose zone are not predicted to impact groundwater beneath any of the 216-A-29 Ditch, 216-B-63 Trench, 216-S-10 Pond, and 216-S-11 Pond waste sites.

The results of the ERA identified COECs at the 216-A-29 Ditch and the 216-S-10 Ditch waste sites based on the protection of ecological receptors (Table 3-71). There were no ecological COECs identified at the 216-B-63 Trench or the 216-S-10 and 216-S-11 Ponds.

Table 4-2 summarizes the volumes of contaminated soil by waste site, based on the COCs and COECs identified in the BRA.

7.1 DESCRIPTION OF EVALUATION CRITERIA

The EPA has developed nine CERCLA evaluation criteria, defined in EPA/540/G-89/004, to address the statutory requirements and the technical and policy considerations important for selecting remedial alternatives. These criteria serve as the basis for conducting detailed and comparative analyses and for the subsequent selection of appropriate remedial actions.

The nine CERCLA evaluation criteria are as follows:

- Overall protection of human health and the environment
- Compliance with ARARs
- Long-term effectiveness and permanence
- Reduction of toxicity, mobility, or volume through treatment
- Short-term effectiveness
- Implementability
- Cost
- State acceptance
- Community acceptance.

The first two criteria, overall protection of human health and the environment and compliance with ARARs, are threshold criteria. Alternatives that do not protect human health and the environment, those that do not comply with ARARs (or do not justify a waiver), and those that do not meet statutory requirements are eliminated from further consideration in this FS.

The next five criteria (long-term effectiveness and permanence; reduction of toxicity, mobility, or volume through treatment; short-term effectiveness; implementability; and cost) are balancing criteria on which the remedy selection is based. The CERCLA guidance for conducting an FS lists appropriate questions to be answered when evaluating an alternative against the balancing criteria (EPA/540/G-89/004). The detailed analysis process in this section addresses these questions, providing a consistent basis for the evaluation of each alternative.

The final two criteria, State and community acceptance, are modifying criteria. The criterion of State acceptance will be addressed during the proposed plan public review and comment period. The proposed plan will identify the preferred remedy (or remedies) accepted by the Tri-Parties. The criterion of community acceptance will be evaluated following the issuance of the proposed plan for public review and comment.

In addition to the CERCLA criteria, NEPA values have been incorporated into this document. Assessment of these considerations is important for the integration of NEPA values into CERCLA documents, as called for by the memorandum DOE, 1994, *Secretarial Policy on the National Environmental Policy Act* and DOE O 451.1B, *National Environmental Policy Act Compliance Program.* Potential effects on NEPA values are discussed in this section.

7.1.1 Overall Protection of Human Health and the Environment

This criterion determines whether adequate protection of human health and the environment, including preservation of natural systems and biological diversity, is achieved through

implementation of the remedial-action alternative. Overall protection includes reducing risk to acceptable levels, either by reducing contaminant concentrations or by eliminating potential routes for exposure, and minimizing exposure threats introduced by actions during remediation. The potential for human health risks, the extent of those risks, and whether a net environmental benefit will result from implementing the remedial alternative is evaluated. This criterion also evaluates environmental protection and includes avoiding or minimizing impacts to natural, cultural, and historical resources.

This first criterion is a threshold requirement and is the primary objective of the remedial-action program. This FS addresses both human and ecological risk and groundwater impacts based on an industrial land-use for the 216-A-29 Ditch and the 216-B-63 Trench and unrestricted land use for the 216-S-10 Ditch and 216-S-10 Pond. COCs were identified only at the 216-S-10 Ditch based on the direct contact exposure pathway for unrestricted land use (Table 3-71). COCs were not identified at any of the remaining waste sites based on the direct contact exposure pathway under current and reasonably anticipated future land use. The groundwater impacts analysis determined that COPCs present within the vadose zone are not predicted to impact groundwater beneath any of the 200-CS-1 OU waste sites. COECs were identified at the 216-A-29 Ditch and the 216-S-10 Ditch waste sites based on the protection of ecological receptors. There were no ecological COECs identified at the 216-B-63 Trench or the 216-S-10 and 216-S-11 Ponds. COCs and COECs identified in the BRA are discussed in Sections 3.4, 3.5, and 3.6 and are summarized in Table 3-71.

7.1.2 Compliance with Applicable or Relevant and Appropriate Requirements

The ARARs are any appropriate standards, criteria, or limitations under any Federal environmental law or more stringent State requirement that must be either met or waived for any hazardous substance, pollutant, or contaminant that will remain on site during or after completion of a remedial action. The ARAR identification process is based on CERCLA guidance (EPA/540/2-88/002, *Technological Approaches to Cleanup of Radiologically Contaminated Superfund Sites*; EPA/540/G-89/004). Potential Federal and State chemical-, location-, and action-specific ARARs associated with remediation of the waste sites addressed in this FS are presented in Appendix I, and each alternative is assessed for compliance against these ARARs. When an ARAR cannot be met, the lead agency can request a waiver if there is a basis for justifying the waiver.

7.1.3 Long-Term Effectiveness and Permanence

This criterion addresses the results of a remedial action in terms of long-term health risks that remain at the site after RAOs are met. The primary focus of this evaluation is the extent and effectiveness of the controls that could be required to manage the long-term risk posed by treatment residuals and/or untreated wastes. The following components of the criterion are considered for each alternative.

- Magnitude of residual health risks to receptors. This factor assesses the residual health risk from untreated waste or treatment residue after remedial activities are completed.

The characteristics of the residual waste are considered to the degree that they remain hazardous, taking into account their volume, toxicity, mobility, and propensity to bioaccumulate.

- Adequacy and reliability of controls. This factor assesses the adequacy and suitability of controls used to manage treatment residues or untreated wastes that remain at the site. It also assesses the long-term reliability of management controls for providing continued protection from residues, and it includes an assessment of the potential need to replace the alternative's technical components.

7.1.4 Reduction of Toxicity, Mobility, or Volume Through Treatment

The degree to which the alternatives employ treatment or recycling that reduces toxicity, mobility, or volume will be assessed, including how the treatment is used to address the principal threats posed by the release sites. Factors that will be considered, as appropriate, include the following:

- Treatment or recycling processes that the alternatives employ and the materials that they will treat
- The amount of hazardous substances, pollutants, or contaminants that will be destroyed or recycled
- The degree of expected reduction in toxicity, mobility, or volume of the waste because of the treatment or recycling and the specification of which reductions are occurring
- The degree to which the treatment is irreversible
- The type and quantity of residuals that will remain following treatment, taking into consideration the persistence, toxicity, mobility, and propensity to bioaccumulate such hazardous substances and their constituents
- The degree to which treatment reduces the inherent hazards posed by the principal threats at the release sites.

7.1.5 Short-Term Effectiveness

This criterion evaluates the potential effects on human health and the environment during the construction and implementation phases of a remedial action until remedial response objectives are met. Under this criterion, alternatives are evaluated with respect to their effects during implementation of the remedial action. The following factors are considered for each alternative:

- Protection of the community during remedial actions from any risks that result from fugitive dust, transportation of hazardous materials, or air-quality impacts that may affect human health

- Protection of workers from threats that may be posed during remedial actions. Evaluates the effectiveness and reliability of protective measures that would be taken during construction and implementation of the remedial action

- Potential adverse environmental impacts that may result from the construction and implementation of an alternative. Evaluates the reliability of the available mitigation measures in preventing or reducing the potential impacts

- Time required to achieve the RAOs.

7.1.6 Implementability

This criterion addresses the technical and administrative feasibility of implementing an alternative and the availability of the required services and materials.

The following factors are considered for each alternative:

- Technical feasibility
  - The likelihood of technical difficulties in constructing and operating the alternative
  - The likelihood of delays because of technical problems
  - The uncertainties related to innovative technologies (e.g., failures)
- Administrative feasibility
  - The ability to coordinate activities with other offices and agencies
  - The potential for regulatory constraints to develop (e.g., as a result of uncovering buried cultural resources or encountering endangered species)
- Availability of services and materials.
  - The availability of adequate onsite or offsite treatment, storage capacity, and disposal services, if necessary
  - The availability of necessary equipment, specialists, and provisions to ensure obtaining any additional resources, if necessary.

7.1.7 Cost

This criterion considers the cost of implementing a remedial-action alternative, including capital costs, operation and maintenance costs, and monitoring costs. The cost evaluation also includes monitoring of any restoration or mitigation measures for natural, cultural, and historical resources.

The cost estimates for the purposes of this study are in present-worth costs. The cost estimates were prepared from information available at the time of this study. The actual cost of the project will depend on additional information gained during the remedial design phase, the final scope and design of the selected remedial action, the schedule of implementation, the competitive market conditions, and other variables. However, most of these factors are not expected to significantly affect the relative cost differences of alternatives.

7.1.8 State Acceptance

This criterion evaluates the technical issues and concerns that the EPA and Ecology could have regarding a remedial-action alternative. The regulatory acceptance process would involve a review and concurrence by the EPA and Ecology. This criterion will be addressed at the time that the proposed plan is published.

7.1.9 Community Acceptance

This criterion evaluates the issues and concerns that the public may have regarding a remedial-action alternative. This criterion will be addressed following public review of the proposed plan.

7.2 DETAILED ANALYSIS OF ALTERNATIVES

This section presents a detailed analysis of the alternatives evaluated under an industrial-exclusive land-use for the 216-B-3 Ditch and 16-A-29 Ditch and a conservation mining land use (unrestricted land use) for the 216-S-10 Pond and Ditch. Data obtained at the representative waste site 216-S-10 Pond were used to evaluate the analogous waste site 216-S-11 Pond.

Based on the results of the BRA presented in Chapter 3.0, COCs (radiological) and COECs are present at the 216-A-29 Ditch and COCs and COECs are present at the 216-S-10 Ditch that justify a remedial action. COCs and/or COECs for the 216-A-29 Ditch and the 216-S-10 Ditch, along with the associated depths, are presented in Tables 3-71 and 4-2.

Contaminants identified at the 216-B-63 Trench and the 216-S-10 and 216-S-11 Ponds do not justify a remedial action. Therefore, these sites do not require a cleanup response based on protection of human or ecological receptors, or protection of groundwater.

RESRAD analysis of the 216-A-29 Ditch indicates that a dose and risk are present for industrial workers should the existing soil cover not be maintained or should activities to remove and dispose of contaminated soil be undertaken. RESRAD analysis indicates that current concentrations of radiological COPCs present in the remaining waste sites would result in an annual dose rate of less than 15 mrem/yr and risks less than 10^{-4} if the cover were not maintained. Appendix F provides further details on the RESRAD modeling and analysis results.

The following detailed evaluations are applicable to the representative waste sites and the one analogous waste site.

7.2.1 Detailed Analysis of Alternative 1 – No Action

Alternative 1 is retained for detailed analysis as a baseline description of the effects of taking no action and because it is required by CERCLA regulations.

7.2.1.1 Overall Protection of Human Health and the Environment

216-A-29 Ditch – The no-action alternative would not provide overall protection of the environment for the 216-A-29 Ditch because COECs were identified for the direct contact exposure pathway for protection of ecological receptors. Additionally, the presence of Cs-137 would result in a dose rate and ELCR greater than their respective thresholds if the current stabilization cover were not maintained or if the contaminated soil were exposed during removal and treatment. COCs and COECs present at the 216-A-29 Ditch would remain in place based on a no-action approach. No measures would be taken to prevent intrusion into the contaminants; to treat the contaminated soil and reduce the toxicity and/or volume of the contaminants; or to monitor their migration.

216-B-63 Trench – At the 216-B-63 Trench, the no-action alternative would provide overall protection of human health and the environment because COCs/COECs were not identified based on the BRA.

216-S-10 Ditch – The no-action alternative would not provide overall protection of human health and the environment for the 216-S-10 Ditch because COCs and COECs were identified for the direct contact exposure pathway for protection of human and ecological receptors and protection of groundwater. COCs/COECs present at the 216-S-10 Ditch would remain in place based on a no-action approach. No measures would be taken to prevent intrusion into the contaminants; to treat the contaminated soil and reduce the toxicity and/or volume of the contaminants; or to monitor their migration.

216-S-10 Pond and 216-S-11 Pond – At the 216-S-10 Pond and 216-S-11 Pond, the no-action alternative would provide overall protection of human health and the environment because COCs/COECs were not identified based on the BRA.

7.2.1.2 Compliance with Applicable or Relevant and Appropriate Requirements

Based on a review of the ARARs presented in Appendix I several ARARs were identified as applicable to Alternative 1 and were evaluated for each of the waste sites.

Chemical-specific ARARs identified for this alternative include those related to national primary drinking water regulations under 40 CFR 141; PCB remediation, waste storage, and disposal under 40 CFR 761, "Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions;" and soil-cleanup standards for industrial properties under WAC 173-340-745(5)(b) and soil cleanup standards for unrestricted use under WAC 173-340-740(3). Action-specific ARARs identified for this alternative include those related to closure/postclosure of dangerous waste sites and dangerous waste landfills under WAC 173-303-610, "Closure and Post-Closure," and WAC 173-303-665, "Landfills," respectively.

Alternative 1 involves a no-action approach, which would not minimize or eliminate contaminants to the extent necessary to protect human health or the environment. This means that human health, ecological and/or groundwater-protection criteria would not be achieved, and no action would be taken to control the exposure pathways to the contaminants. This alternative would not meet the ARARs identified for the 216-A-29 Ditch or the 216-S-10 Ditch.

7.2.1.3 Long-Term Effectiveness and Permanence

Alternative 1 does not provide long-term engineered controls to limit exposures of human and ecological receptors to contaminated soil or downward migration of contaminants to groundwater. Therefore, there is no change to health risks estimated in the BRA. The risk for environmental protection at the 216-A-29 Ditch and the 216-S-10 Ditch is deemed unacceptable; therefore, Alternative 1 for these waste sites does not meet this criterion under CERCLA. COCs and COECs were not identified at the 216-B-63 Trench or the 216-S-10 and 216-S-11 Ponds.

Based on the results of a RESRAD analysis, the annual dose rate and risk were greater than their respective threshold criteria assuming that the cover were not maintained at the 216-A-29 Ditch; therefore, it was determined that the soil cover on the 216-A-29 Trench requires maintenance for at least 37 years to protect industrial workers. RESRAD analysis indicates that current concentrations of radiological COPCs present in the remaining waste sites would result in an annual dose rate of less than 15 mrem/yr and risks less than 10^{-4} if the cover were not maintained. Therefore, Alternative 1 for the 216-B-63 Trench and the 216-S-10 and 216-S-11 Ponds meet the long-term effectiveness criterion under CERCLA. Appendix F provides further details on the RESRAD modeling and analysis results.

7.2.1.4 Reduction of Toxicity, Mobility, or Volume Through Treatment

Reduction of toxicity, mobility, or volume would occur at the waste sites in the form of natural attenuation. Natural attenuation is a process that results in a reduction of toxicity, mobility, or volume through the natural radioactive-decay process. Radioactive decay is the only process currently available to eliminate nuclear-particle emissions. The radioactive-decay process would influence some of the contaminants identified during characterization. In addition, the heavy metals and Aroclor-1254 (a PCB) are persistent in the environment and require a long period to attenuate naturally.

In EPA/540/R-99/009, the EPA acknowledges that natural attenuation can be an appropriate treatment "where it can be demonstrated capable of achieving a site's remediation objectives within a timeframe that is reasonable compared to that offered by other methods...". Because of uncertainties in the science of natural-attenuation processes, the EPA considers source control and performance monitoring to be fundamental components of the remedy. Based on the risk assessment, Alternative 1 meets this criterion under CERCLA for the waste sites where the COCs and COECs do not justify remedial actions.

COCs and COECs are present at the 216-A-29 Ditch and the 216-S-10 Ditch. Because the no-action alternative does not use any source control or performance monitoring to reduce contaminant mobility, this alternative fails to meet this criterion under CERCLA for the 216-A-29 Ditch and the 216-S-10 Ditch.

7.2.1.5 Short-Term Effectiveness

There would be no short-term risks to the public or workers and no short-term impact on the environment from the no-action alternative, because remedial activities would not be conducted. Current environmental risks would not be mitigated as part of the no-action alternative. In this alternative, RAOs only can be fully met through natural attenuation of contaminants, which can take hundreds of years to achieve and which will not meet RAOs in the short-term time frame. This alternative meets the short-term effectiveness criterion under CERCLA for the 216-B-63 Trench and the 216-S-10 and 216-S-11 Ponds. However, this alternative does not meet the short-term effectiveness criterion under CERCLA for the 216-A-29 Ditch and the 216-S-10 Ditch.

7.2.1.6 Implementability

The no-action alternative could be implemented immediately and would not present any technical problems. Radionuclides at the waste sites addressed by this FS currently are undergoing natural attenuation by radioactive decay. Other COCs and COECs also are undergoing natural attenuation, where natural processes different than radioactive decay are involved.

7.2.1.7 Cost

The no-action alternative would involve no direct cost for maintenance or long term monitoring. A cost to verify that the decision of no action is justified is included for each waste site in the costs summarized in Table 7-1.

7.2.2 Detailed Analysis of Alternative 2 – Maintain Existing Soil Cover, Monitored Natural Attenuation, and Institutional Controls

Under this alternative, existing soil covers would be maintained to provide protection from intrusion by human and/or biological receptors. Contaminants remaining beneath the clean soil cover would be allowed to attenuate naturally until remediation goals are met. The existing soil covers would break the exposure pathway between human and ecological receptors and the contaminants. In addition to the soil covers, legal and physical barriers would be used to prevent human access to the site. Groundwater monitoring is included in this alternative.

7.2.2.1 Overall Protection of Human Health and the Environment

Alternative 2 would provide overall protection of human health and the environment for sites that demonstrate protection of groundwater (i.e., sites where current contaminant concentrations are below groundwater protection cleanup levels), and achieve human health and environmental protection through natural attenuation while ICs are in effect. Because ICs cannot be ensured for hundreds of years, the viability of this alternative to meet this criterion diminishes for sites with long-lived contaminants such as heavy metals. As discussed in Section 6.2.2, WAC 173-340-745(7) and WAC 173-340-7490 specify that the point of compliance for waste sites with COCs and/or COECs shall be established in the soils throughout the site from the ground surface to 4.6 m (15 ft)

bgs to provide protection of human health and the environment. Existing clean-soil covers at the four representative waste sites and the analogous waste site are only approximately 1 m thick and do not meet the point of compliance soil cover thickness requirement for protection of human health and the environment.

216-A-29 Ditch – One radiological COCs was identified at the 216-A-29 Ditch, along with COECs, based on protection of ecological receptors in the 0 to 4.6 m (0 to 15 ft) depth interval. As such, this alternative is not protective of the environment.

216-B-63 Trench – COCs and COECs were not identified at the 216-B-63 Trench; therefore, no remedial actions are warranted.

216-S-10 Ditch – COCs and COECs were identified at the 216-S-10 Ditch based on protection of human and ecological receptors and protection of groundwater in the 0 to 4.6 m (0 to 15 ft) depth interval. As such, this alternative is not protective of the environment.

216-S-10 Pond and 216-S-11 Pond – COCs and COECs were not identified at the 216-S-10 Pond nor at the 216-S-11 Pond; therefore, no remedial actions are warranted.

7.2.2.2 Compliance with Applicable or Relevant and Appropriate Requirements

Based on a review of the ARARs presented in Appendix I, several ARARs were identified as applicable to Alternative 2 and were evaluated for each of the waste sites.

Chemical-specific ARARs identified for this alternative include those related to national primary drinking water regulations under 40 CFR 141; PCB remediation, waste storage, and disposal under 40 CFR 761; and soil-cleanup standards for industrial properties under WAC 173-340-745(5)(b). Action-specific ARARs identified for this alternative include those related to closure/post-closure of dangerous-waste sites and dangerous-waste landfills under WAC 173-303-610 and WAC 173-303-665, respectively.

Alternative 2 involves maintaining the existing soil cover and allowing contaminants beneath the soil cover to attenuate naturally until remediation goals are met. Existing soil covers at the 216-A-29 Ditch and the 216-S-10 Ditch do not meet the 4.6 m (15 ft) minimum soil cover thickness requirement. Therefore, this alternative would not minimize or eliminate contaminants to the extent necessary to protect the environment. This means that environmental-protection criteria would not be achieved, and existing soil covers would not be sufficient to control the relevant exposure pathways to the contaminants. Therefore, this alternative would not meet the ARARs identified for the 216-A-29 Ditch and the 216-S-10 Ditch.

7.2.2.3 Long-Term Effectiveness and Permanence

Implementation of Alternative 2 does not include long-term engineered controls to limit potential exposures of human and ecological receptors to contaminated soil. Five-year reviews would be required for this alternative. ICs and monitoring are included in Alternative 2. The ICs are described in DOE/RL-2001-41. The DOE is responsible for implementation and oversight of the ICs after cleanup is completed. If the end state of the selected remedy cannot support unrestricted human use and unlimited exposure, ICs will be required to maintain protection of

human health and the environment. The adequacy and reliability of the controls is very high and is committed to by the DOE for the 200-CS-1 OU waste sites. Implementation of Alternative 2 does not provide long-term effectiveness and permanence for reducing the risk associated with the identified COCs and/or COECs at the 216-A-29 Ditch and the 216-S-10 Ditch. Alternative 2 for these waste sites does not meet this criterion under CERCLA.

Based on the results of a RESRAD analysis, it was determined that the soil cover on the 216-A-29 Ditch requires maintenance for at least 37 years to protect industrial workers. Because Alternative 2 would provide long-term maintenance of the existing soil cover at the 216-A-29 Ditch, this alternative for this waste site would meet the long-term effectiveness criterion under CERCLA for this radiological COC alone. Appendix F provides further details on the RESRAD modeling and analysis results.

7.2.2.4 Reduction of Toxicity, Mobility, or Volume Through Treatment

Reduction of toxicity, mobility, or volume would occur at the waste sites in the form of natural attenuation. Natural attenuation is a process that results in a reduction of toxicity, mobility, or volume through the natural radioactive-decay process. Radioactive decay is the only process currently available to eliminate nuclear-particle emissions. The radioactive decay process would influence some of the contaminants identified during characterization. In addition, the heavy metals and Aroclor-1254 (PCBs) are persistent in the environment and require a long period to attenuate naturally.

As stated previously, EPA acknowledges that natural attenuation can be an appropriate treatment for contaminated soil. Alternative 2 provides source control and performance monitoring to demonstrate treatment to meet EPA guidance. The length of time required for the natural attenuation process to meet PRGs at waste sites with COCs and COECs is comparable to other alternatives being considered. Therefore, this alternative for the 216-A-29 Ditch and the 216-S-10 Ditch meet this criterion under CERCLA.

7.2.2.5 Short-Term Effectiveness

The following sections provide and evaluation of the short-term effectiveness and worker risk of the potential remedial actions under consideration.

7.2.2.5.1 Remediation Worker Risk

For Alternative 2, only minimal short-term worker risks are expected, and these risks are associated with monitoring and maintenance activities. Experienced workers using appropriate safety precautions would conduct these activities. Risks would decrease over time as the chemicals decompose. As such, the risk to workers is qualitatively identified as low. Additionally, active DOE control of the 200 Areas is assumed for the foreseeable future, based on future land-use planning. There would not be any short-term risks to the public from existing DOE site-access measures.

7.2.2.5.2 Impact to Environment During Remediation

This alternative would not adversely impact the environment during implementation, because monitoring and maintenance activities are similar to existing ICs that are routinely conducted at these sites. The short-term impacts to the environment are expected to be low.

7.2.2.5.3 Time to Meet the Remedial-Action Objective

In this alternative, RAOs can be fully met only through natural attenuation of contaminants, which can take up to hundreds of years to achieve and will not meet RAOs in a short-term time frame. An example of a COC that will not naturally attenuate in a short time frame is cadmium. The current cadmium concentration will remain unchanged by any natural processes in the next few years. This alternative meets the short-term effectiveness criterion under CERCLA for the 216-B-63 Trench and the 216-S-10 and 216-S-11 Ponds. However, this alternative does not meet the short-term effectiveness criterion under CERCLA for the 216-A-29 Ditch and the 216-S-10 Ditch.

7.2.2.6 Implementability

Alternative 2 could be implemented readily and would not present technical problems. This alternative currently is being implemented through Hanford Site access controls, surface and subsurface radiation-area work and access controls, and the waste-site/radiation-area surveillance and maintenance program.

7.2.2.7 Cost

Cost estimates for Alternative 2 were developed based on existing costs for similar activities currently conducted on the Hanford Site. Details of the cost estimates are presented in Appendix J. Summarized costs for the sites are presented in Table 7-2. This alternative involves costs for activities similar to current activities. These activities involve periodic surveillance of the waste sites for evidence of contamination and biologic intrusion; emplacement of vegetation, herbicide application, or other activities to control deep-rooted plants; control of deep-burrowing animals; maintenance of signs and/or fencing; maintenance of the existing soil cover (including an assumed periodic addition of soil); administrative controls; and site reviews.

7.2.3 Detailed Analysis of Alternative 3 – Removal, Treatment, and Disposal

Under Alternative 3, contaminated soil and debris (such as concrete associated with the sites) would be excavated, removed, treated as necessary to meet disposal-facility waste-acceptance criteria, and transported for disposal at an approved on-site disposal facility that meets human health, ecological, and groundwater-protection criteria. The approved disposal facility currently is envisioned as the ERDF. Based on existing information from the waste sites, soils are not anticipated to require treatment before disposal at the ERDF. The depth and volume of contaminated soils removed depends on the categories of protection criteria that are exceeded; however, removals generally would be conducted to a maximum depth of 4.6 m (15 ft) or to the depth where the COCs/COECs are less than the concentration criteria. These depths follow the

points of compliance identified in WAC 173-340-745(7), and WAC 173-340-7490. Alternative 3 would remove contaminated soil from waste sites to a depth to meet the RAOs.

7.2.3.1 Overall Protection of Human Health and the Environment

This alternative generally provides a high degree of overall protection of human health and the environment, because contaminants are removed to meet human health and environmental-protection criteria. Removal of the contaminants provides for the most flexibility for future land use.

The contaminated soil would be placed in an approved disposal facility, thus meeting final human health and environmental-protection criteria. The ERDF was specifically established for long-term containment, and failure of this alternative is not likely. Verification sampling would be conducted to determine that the protection criteria are met by the removal activities.

The COCs/COECs measured at the greatest depth at each of the waste site is the basis for determining the excavation depths for the removal activities. The following information summarizes the depth of contamination at each waste sites, based on the presence of COCs/COECs.

216-A-29 Ditch – The COC (radiological) and COECs present at the 216-A-29 Ditch extend to a maximum depth of approximately 2.0 m (6.5 ft).

216-B-63 Trench – COCs and COECs were not identified at the 216-B-63 Trench; therefore, removal of soil from this site is not warranted.

216-S-10 Ditch – COCs and COECs present at the 216-S-10 Ditch extend to a maximum depth of approximately 0.9 m (3 ft).

216-S-10 Pond and 216-S-11 Pond – COCs and COECs were not identified at the 216-S-10 Pond and 216-S-11 Pond; therefore, removal of soil from these sites is not warranted.

7.2.3.2 Compliance with Applicable or Relevant and Appropriate Requirements

Based on a review of the ARARs presented in Appendix I, several ARARs were identified as applicable to Alternative 3 and were evaluated for each of the waste sites.

Chemical-specific ARARs identified for this alternative include those related to national primary drinking water regulations under 40 CFR 141, PCB remediation, waste storage, and disposal under 40 CFR 761, and soil cleanup standards for industrial properties under WAC 173-340-745(5)(b) and for unrestricted release under WAC 173-340-740(3). Action-specific ARARs identified for this alternative include those related to closure/postclosure of dangerous waste sites under WAC 173-303-610.

Alternative 3 involves excavating and removing contaminated soil from the waste sites and disposing of the excavated materials at an approved disposal facility. By removing the contaminated materials from the waste sites and using uncontaminated soils to backfill the excavations, contaminants would be minimized and/or eliminated to the extent necessary to

protect human health and the environment. This means that environmental-protection criteria would be achieved and relevant exposure pathways to contaminants would be controlled. Therefore, this alternative would meet the ARARs identified for the 216-A-29 Ditch and the 216-S-10 Ditch.

Other ARARs that would be applicable to this alternative include location-specific ARARs. These ARARs include regulations related to preservation of historical and archaeological sites (*Archeological and Historic Preservation Act* [1960] and *National Historic Preservation Act of 1966*) and endangered and threatened species (*Endangered Species Act of 1973*). It is anticipated that the appropriate agencies would be contacted and the appropriate archaeological and ecological surveys would be completed before any land disturbance or excavation activities begin. Therefore, this alternative would comply with these location-specific ARARs for the 216-A-29 Ditch and the 216-S-10 Ditch.

7.2.3.3 Long-Term Effectiveness and Permanence

Alternative 3 provides long-term engineered controls by excavating and disposing of contaminated soil to reduce exposures of human and ecological receptors to contaminated soil and downward migration of contaminants to groundwater. By excavating soils to depths below where the COCs/COECs are located, a high degree of long-term effectiveness and permanence is provide, because residual contamination would be removed for disposal in an engineered containment facility (i.e., the ERDF). Five-year reviews may not be required because of the removal of the contamination.

ICs and monitoring are included in Alternative 3. The implemented ICs would be identified in the ROD and are expected to be selected from the ICs described in DOE/RL-2001-41. The adequacy and reliability of the controls is very high and is committed to by DOE for the 200-CS-1 OU waste sites. Monitoring activities at the 216-S-10 Ditch would be incorporated into existing monitoring programs. Maintenance activities would include possible vegetation maintenance of the backfilled, excavated areas until vegetation is sufficiently established. Therefore, this alternative for the 216-A-29 Ditch and the 216-S-10 Ditch meets this criterion under CERCLA.

7.2.3.4 Reduction of Toxicity, Mobility, or Volume Through Treatment

Alternative 3 removes the radionuclides and chemical contaminants from the 216-A-29 Ditch and the 216-S-10 Ditch and disposes of the contaminated soil in an approved disposal facility, likely to be ERDF. Treatment is not anticipated before disposal of the contaminated soil at the ERDF. This criterion is not applicable.

7.2.3.5 Short-Term Effectiveness

7.2.3.5.1 Remediation Worker Risk

The levels of contamination at the 216-A-29 Ditch and the 216-S-10 Ditch are not expected to pose a health risk to workers when typical practices are followed from a health and safety plan. The Hanford Site has decades of experience in managing and implementing cleanup at this site and for areas much more contaminated than these specific sites. Typical practices should include

enclosed excavation equipment and water-based dust suppression. These practices limit the worker risk, with minimal impact on schedule and cost because excavation with dust suppression and health and safety controls have been proven effective in excavating soil sites. There would not be any short-term risks to the public from existing DOE site-access measures.

7.2.3.5.2 Impact to Environment During Remediation

Physical disruption of the waste sites during excavation, increased human activity, and noise affect local biological resources. However, the waste sites are located within historically disturbed industrial areas. Potential animal intrusion and biological uptake also are issues that will require control of open excavations and exposed contaminated soils at the end of each day. This control could be accomplished through placement of covers or fixatives. Overall, there should not be an adverse environmental impact from this alternative.

Transportation activities in the 200 Areas would increase as a result of bringing construction equipment to the site, transporting contaminated soils to the ERDF, and bringing clean fill to the excavated sites. Because the ERDF is located on site, minimal environmental impact is associated with the transport of contaminated soil. Air monitoring around the waste sites would be used to monitor potential air releases (e.g., contaminated soil fill-material particulates) that could affect the public and the environment.

7.2.3.5.3 Time to Achieve the Remedial-Action Objective

This alternative precludes risk to human and ecological receptors by moving the contaminated soils to the ERDF for disposal to meet RAOs. Durations for construction and excavation activities are estimated for each 200-CS-1 OU waste site below.

216-A-29 Ditch – Remediation of this site would take approximately three months.

216-S-10 Ditch – Remediation of this waste site would take approximately two and a half months.

This alternative for the 216-A-29 Ditch and the 216-S-10 Ditch meets this criterion under CERCLA.

7.2.3.6 Implementability

Excavation is a proven and implementable technology used to remove contaminated soil. The expected excavations will not require the use of more sophisticated excavating equipment or techniques, such as approach ramps, shoring, or extensive removal of clean material, to provide safe side slopes, etc. In the case that aboveground structures (e.g., vent pipes, concrete structures) are encountered, they would be removed along with the contaminated soils. To provide safe side slopes, every 0.3 m (1 ft) of excavation would require 0.5 m (1.5 ft) of side slope for a 1:1.5 vertical to horizontal ratio. It is assumed for this FS that site-specific interferences or structures will not be addressed at this time but will be addressed during remedial design.

The excavation would remove contaminated soil and sent it to ERDF.

Coordination with other agencies and local governments would be necessary after approval of the alternative. Excavation and disposal would require coordination with State agencies to assess matters relative to storm-water control and the potential for radioactive air emissions.

7.2.3.7 Cost

Costs include mobilizing personnel and equipment; monitoring, sampling, and analysis; excavating; disposing of the contaminated soil at the ERDF; backfilling with onsite resources and additional backfilling from a local stockpile; revegetating; and performing prime-contractor oversight.

Costs are based on the use of standard excavation equipment (e.g., hydraulic excavators, front-end loaders, tractor-trailers), and the assumption that a subcontractor does the work, with oversight performed by prime-contractor personnel. Details of the cost estimates are presented in Appendix J. Summarized costs for the sites are presented in Table 7-3.

7.2.4 Detailed Analysis of Alternative 4 – Engineered Barrier

Alternative 4 involves leaving the contaminated soil in place and constructing an engineering surface barrier over the soil. This alternative includes ICs such as land-use restrictions and groundwater monitoring, along with surveillance and maintenance of the barrier to ensure continued protection.

This alternative uses engineered barriers to (1) cover the contaminated waste sites, (2) control the amount of water that infiltrates into the contaminated media as a means of protecting groundwater, (3) minimizes intrusion by human and ecological receptors as a means of protecting human health and the environment, and (4) limit wind and water erosion. The type of barrier used for a waste site is dependent on the relevant exposure pathways at the site. The ET monofill barrier incorporates a biobarrier layer that prevents ecological intrusion into the contaminated soil. The RCRA Subtitle C cap does not address the ecological-intrusion performance requirement. Because ecological risks are present at two of the waste sites, the ET monofill barrier is the preferred barrier technology for the 200-CS-1 OU.

7.2.4.1 Overall Protection of Human Health and the Environment

Alternative 4 would provide overall protection of human health and the environment, as it would install a physical barrier to protect human and ecological receptors and control the amount of water that infiltrates into contaminated media thus eliminating or reducing leaching of contamination to groundwater.

216-A-29 Ditch – Alternative 4 would provide a physical barrier to minimize intrusion by human and ecological receptors. As such, this alternative is protective of the environment.

216-B-63 Trench – COCs/COECs were not identified at this site; therefore, placement of an engineering barrier is not warranted.

216-S-10 Ditch – Alternative 4 would provide a means of preventing intrusion by human and ecological receptors and control infiltration of contaminants into the groundwater. As such, this alternative is protective of human health and the environment.

216-S-10 Pond and 216-S-11 Pond – COCs/COECs were not identified at this site; therefore, placement of an engineering barrier is not warranted.

7.2.4.2 Compliance with Applicable or Relevant and Appropriate Requirements

Based on a review of the ARARs presented in Appendix I, several ARARs were identified as applicable to Alternative 4 and were evaluated for each of the waste sites.

Chemical-specific ARARs identified for this alternative include those related to national primary drinking water regulations under 40 CFR 141, PCB remediation, waste storage, and disposal under 40 CFR 761, and soil cleanup standards for industrial properties under WAC 173-340-745(5) and soil cleanup standards for unrestricted release under WAC 173-340-740 (3). Action-specific ARARs identified for this alternative include those related to closure/postclosure of dangerous waste sites and dangerous waste landfills under WAC 173-303-610 and WAC 173-303-665, respectively. Alternative 4 would comply with all ARARs for the waste sites by breaking the pathways for exposure and emplacing barriers that meet the intent of the regulations.

Other ARARs that would be applicable to this alternative include location-specific ARARs. These ARARs include regulations related to preservation of historical and archaeological sites (*Archeological and Historic Preservation Act* [1960] and *National Historic Preservation Act of 1966*) and endangered and threatened species (*Endangered Species Act of 1973*). It is anticipated that the appropriate agencies would be contacted and the appropriate archaeological and ecological surveys would be completed before any land disturbance or excavation activities began. Therefore, this alternative would comply with these location-specific ARARs for the 216-A-29 Ditch and the 216-S-10 Ditch.

7.2.4.3 Long-Term Effectiveness and Permanence

Alternative 4 would reduce risks to human health and the environment to acceptable levels by breaking exposure pathways to human and ecological receptors from contaminated soil. Chemicals and radionuclides left in place at the waste sites would be physically separated from receptors by the thickness of the barrier. Because contaminants at the waste sites have the potential to impact ecological receptors, engineered barriers would be designed to include a biobarrier over the waste site. The biobarrier would be constructed out of materials that would inhibit or eliminate exposures to ecological receptors or mobilization of contaminated soil by deeply rooting plants or burrowing animals. The monofill barrier cover would extend beyond the estimated extent of soil contamination at the 216-A-29 Ditch and the 216-S-10 Ditch on all sides to ensure that contaminated soil is adequately covered. Five-year reviews would be required, because the contaminants are left in place underneath the monofill barrier.

Monofill barriers are a well-demonstrated technology and will meet the performance specifications (RAOs). ICs, as described in DOE/RL-2001-41, and monitoring are included in Alternative 4. The adequacy and reliability of the controls is very high and is committed to by DOE for the 200-CS-1 OU waste sites. Additionally, the five-year reviews required for sites

with contaminants above PRGs would serve to evaluate the effectiveness and reliability of the barriers, and adjustments in maintenance activities could be instituted to help prevent failure.

The long-term effectiveness depends on the proper construction and maintenance of the barrier and associated ICs. Maintenance activities would include erosion repairs and possible vegetation maintenance. Subsidence is not considered a major factor in maintenance activities for these waste sites. Failure of the barrier is unlikely if maintenance and IC activities continue. Barriers would be designed and constructed to account for the appropriate time frame to reach acceptable risk levels and to minimize maintenance requirements and impacts from a lapse in the ICs. During construction, the barrier and surrounding disturbed area would be revegetated to further enhance ET, limit erosion, and blend the site area into the surrounding landscape.

Therefore, this alternative for the 216-A-29 Ditch and the 216-S-10 Ditch meets this criterion under CERCLA.

7.2.4.4 Reduction of Toxicity, Mobility, or Volume Through Treatment

Reduction of toxicity, mobility, or volume would occur through natural attenuation of contaminants at the 216-A-29 Ditch and the 216-S-10 Ditch waste sites for the non-radiological COCs and COECs. Cs-137 identified at the 216-A-29 would attenuate due to natural radiological decay processes. Alternative 4 provides the source control and performance monitoring components necessary to claim natural attenuation as treatment and would meet PRGs in a comparable amount of time as other alternatives being considered. This alternative for the 216-A-29 Ditch and the 216-S-10 Ditch meets this criterion under CERCLA.

7.2.4.5 Short-Term Effectiveness

7.2.4.5.1 Remediation Worker Risk

For Alternative 4, only minimal short-term worker risks are expected, and these risks are associated with initial groundbreaking construction activities. As soon as the initial materials are placed over the 216-A-29 Ditch and the 216-S-10 Ditch, short-term worker risks decrease when typical practices are followed from a health and safety plan. Typical practices would include water-based dust suppression. These practices limit the worker risk, with minimal impact on schedule and cost, because soil placement with dust suppression and health and safety controls has been proven effective in constructing barriers at similar soil-contamination sites. The barrier alternative would not require excavation of contaminated soils, so the risks to workers primarily would be associated with general construction activities at the borrow sites and placement of the barrier. Air monitoring would address potential air releases (e.g., barrier-material particulates) that could affect the public during construction of the surface barriers. There would not be any short-term risks to the public because of existing DOE site-access measures.

7.2.4.5.2 Impact to Environment During Remediation

Physical disruption of the waste sites during barrier construction and increased human activity and noise affect local biological resources. However, the waste sites are located within historically disturbed industrial areas, and these sites currently are poor wildlife habitats. As such, no adverse environmental impacts would occur.

7.2.4.5.3 Time to Meet the Remedial-Action Objectives

This alternative reduces risk to human or ecological receptors by providing a barrier over the contaminated soils to reduce exposure for meeting RAOs. Durations for construction activities are estimated for the waste sites below.

216-A-29 Ditch – Construction of the barrier for this waste site would take approximately three and a half months.

216-S-10 Ditch – Construction of the barrier for this waste site would take approximately two months.

This alternative for the 216-A-29 Ditch and the 216-S-10 Ditch meets this criterion under CERCLA.

7.2.4.6 Implementability

The barrier alternative is considered implementable at all waste sites. The main design feature would be to store water during the wet periods and release it back to indigenous vegetation during prolonged periods of dry weather. The monofill barrier has been used at the Hanford Site and is straightforward to construct and maintain. The existing soil covers over the waste sites would be considered a part of the overall design to minimize the cost of materials and to minimize the impact to visual aesthetics.

Construction of the barriers would follow standard procedures that have been thoroughly field tested. The barriers likely would require minor repair and possibly replacement during the restoration time frame. Monitoring the continued integrity of the barriers would be accomplished through visual inspection and would be supplemented with groundwater sampling. Implementation of the barrier alternative could require additional design data (e.g., ground-penetrating radar) and confirmatory sampling, because existing data may not be adequate for determining the lateral extent of the barriers.

Gravel, sand, and silt/loam soil used for the barriers would be transported from borrow areas located on or near the Hanford Site. Anticipated volumes of these materials are identified in Appendix J. Area C, located southeast of the 200 West Area, currently is designated as a silt-borrow location; the area has a large volume of fine-grained material. Other locations have not yet been determined. Soil most likely would come from near the waste sites or from Pit 30, which is located between the 200 East and 200 West Areas. Borrow material may occur in environmentally sensitive areas; obtaining sufficient construction material, especially for a multilayered barrier, could affect areas of ecological significance and is a consideration in evaluating the relative risk reduction gained by installing the barrier. Materials such as rip-rap that may be used in the barrier construction could be obtained on the Hanford Site or could be purchased from local dealers.

Barrier construction materials hauled to the waste sites from borrow areas and gravel pits within the Hanford Site would increase heavy equipment use and transportation activities at the sites.

7.2.4.7 Cost

Costs, shown in Table 7-4, include stabilization of the existing site; excavation or import, transportation, and placement of barrier material; compaction of the barrier; prime-contractor oversight; and confirmatory sampling. Costs are based on the use of standard equipment (e.g., hydraulic excavators, front-end loaders, dozers) and assume that a subcontractor would do the work, with oversight performed by the prime contractor. The operations and maintenance costs include site inspection/surveillance, periodic radiation-site surveys of surface soil, biotic control, maintenance of signs and markers, barrier maintenance, and site reviews. Details of the cost estimates are presented in Appendix J.

7.3 NEPA VALUES EVALUATION

The NEPA process is intended to help Federal agencies make decisions that are based on understanding environmental consequences and then take actions that protect, restore, and enhance the environment. The DOE secretarial policies and DOE O 451.1B require that CERCLA documents incorporate NEPA values, such as analysis of cumulative, offsite, ecological, and socioeconomic impacts to the extent practicable, in lieu of preparing separate NEPA documentation for CERCLA activities.

7.3.1 Description of NEPA Values

Several of the CERCLA evaluation criteria involve consideration of environmental resources, but the emphasis is frequently directed at the potential effects of chemical contaminants on living organisms. The NEPA regulations (40 CFR 1502.16, "Environmental Consequences") specify evaluation of the environmental consequences of proposed alternatives. These consequences include potential effects on transportation resources, air quality, and cultural and historical resources; noise; visual, and aesthetic effects; environmental justice; and the socioeconomic aspects of implementation. The NEPA process also involves consideration of several issues such as cumulative impacts (direct and indirect), mitigation of adversely impacted resources, and the irreversible and irretrievable commitment of resources.

NEPA-related resources and values that the DOE has considered in this evaluation include the following.

- Transportation impacts. This value considers impacts of the proposed remedial action on local traffic (e.g., traffic at the Hanford Site) and traffic in the surrounding region. Transportation impacts are considered in part under the CERCLA criteria of short-term effectiveness or implementability.

- Air quality. This value considers potential air quality concerns associated with emissions generated during the proposed remedial actions.

- Natural, cultural, and historical resources. This value considers impacts of the proposed remedial actions on wildlife, wildlife habitat, archeological sites and artifacts, and historically significant properties on the Central Plateau.

- Noise, visual, and aesthetic effects. This value considers increases in noise levels or impaired visual or aesthetic values during or after the proposed remedial actions.

- Socioeconomic impacts. This value considers impacts pertaining to employment, income, other services (e.g., water and power utilities), and the effect on the availability of services and materials of implementing the proposed remedial actions.

- Environmental justice. Environmental justice, as mandated by Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, refers to fair treatment of humans of all races, cultures, and income levels with respect to laws, policies, and government actions. This value considers whether the proposed remedial actions would have inappropriately or disproportionately high and adverse human health or environmental effects on minority or low-income populations.

- Cumulative impacts (direct and indirect). This value considers whether the proposed remedial actions could have cumulative impacts on human health or the environment when considered together with other activities on the Central Plateau, at the Hanford Site, or in the region.

- Mitigation. If adverse impacts cannot be avoided, remedial-action planning should minimize them to the extent practicable. This value identifies required mitigation activities.

- Irreversible and irretrievable commitment of resources. This value evaluates the use of nonrenewable resources for the proposed remedial actions and the effects that resource consumption would have on future generations. When a resource (e.g., energy, minerals, water, wetland) is used or destroyed and cannot be replaced within a reasonable amount of time, its use is considered irreversible.

7.3.2 Detailed Evaluations of NEPA

7.3.2.1 Transportation Impacts

Implementation of remedial action at the waste sites likely would have some short-term impacts on local traffic and traffic in the surrounding region. For Alternative 4, impacts would result from hauling cover material to the waste-site areas. For Alternative 3, impacts would result from hauling waste to the ERDF and hauling clean fill to the waste sites. For Alternatives 3 and 4, impacts could be expected from increased traffic bringing supplies, equipment, and workers to the sites. To mitigate these potential impacts, a transportation safety analysis would be performed before any transport activities began. The analysis would identify the need for specific precautions (e.g., road closures, preferred hauling times, staggered work shifts) to be taken as necessary. Increases in the workforce traffic related to waste treatment would be expected to be minor.

7.3.2.2 Air Quality

No current air-quality impacts are associated with Alternatives 1 and 2; however, potential impacts to air quality could be associated with plant or animal uptake of contaminants and wind dispersion. Potential near-term impacts to air quality associated with Alternatives 3 and 4 are expected to be minor and could be mitigated through appropriate engineering controls.

Potential air-quality impacts primarily would be associated with fugitive dust during site preparation, structure demolition, excavation, placement of backfill or barriers, and revegetation activities. Dust suppression (using water and water treated with soil fixatives) would be used to control visible fugitive dust, so neither local nor regional air quality is expected to be affected. Routine emissions from vehicles would occur.

7.3.2.3 Natural, Cultural, and Historical Resources

In all cases, remediation will be performed on sites that have been disturbed by industrial activities. Therefore, although cultural resources could be encountered with Alternatives 3 and 4 during the excavation and construction of staging areas, the probability is low. To ensure that impacts to cultural resources are avoided and/or mitigated, a cultural-resource mitigation plan would be established before remediation was begun. If cultural resources were encountered during excavation, work would be stopped in the area, and unanticipated and inadvertent discovery procedures would be followed pursuant to DOE/RL-98-10, *Hanford Cultural Resource Management Plan.*

Some short-term adverse impacts to natural resources (e.g., local wildlife) could occur during the construction and implementation phases of remedial action. Ecological surveys would be performed to identify the species present and the special precautions that should be taken to minimize adverse impacts.

7.3.2.4 Noise, Visual, and Aesthetic Effects

Alternatives 1 and 2 would have little to no impact on current noise, visual, or aesthetic site characteristics. Alternative 3 would increase noise levels and impair visual values, but the impacts would be short term during remedial actions and ultimately would improve the aesthetics by removing any remaining site structures. Likewise, Alternative 4 would increase noise levels and impair visual values in the short term during construction of the barrier. These alternatives also could have some long-term visual and aesthetic impacts, both positive and negative. Positive impacts would result from the removal of aboveground site structures. Negative impacts would be associated with the visibility and aesthetics of the barrier over large distances if they are not contoured to blend in with the surrounding area. Aesthetically, given the past disturbance in the 200 Areas and on the Central Plateau, no impacts would be expected from the alternatives.

7.3.2.5 Socioeconomic Impacts

Alternative 1 would have no socioeconomic impacts. The other alternatives would have some positive socioeconomic impacts related to the employment opportunities that would occur during the life of the remedial-action project. The labor force required to implement remedial action

would be drawn from current Hanford Site contractors and the local labor force, so the socioeconomic impacts would be expected to be minimal.

7.3.2.6 Environmental Justice

Under Alternative 3, environmental justice issues would not be a concern, because future surface uses on the Central Plateau would not be restricted beyond the Central Plateau-wide restrictions. Under Alternatives 1, 2, and 4, environmental justice impacts would be minimal, because future-use restrictions would pertain to only a small percentage of the Central Plateau, and the Central Plateau still would be under active waste-management industrial land use.

7.3.2.7 Irreversible and Irretrievable Commitment of Resources

Alternatives 3 and 4 would require some irreversible or irretrievable commitment of natural resources. All of the alternatives with the exception of Alternative 1 would result in some land-use loss. Alternatives 3 and 4 would require additional soils, including materials that could come from ecologically sensitive areas, and some energy resources. They would require a commitment of resources in the form of land-use loss in the waste-site areas until RAOs and goals were met through the natural-attenuation process. The amount of land-use loss would vary among alternatives. Alternative 2 generally would require land-use loss of the entire site surface and subsurface for the necessary attenuation period to meet RAOs. Alternative 3 generally would allow land use from the ground surface to a depth of 4.6 m (15 ft) bgs or greater following the completion and regulatory acceptance of remedial activities. Alternative 4 would allow surface use of the sites, but would not allow any subsurface site use until the end of the necessary attenuation period to meet RAOs. This use would be limited based on potential impacts to surface-barrier integrity.

For Alternative 3, the ERDF would not need to be expanded to accommodate the additional waste. The waste volumes from the aboveground structure demolition in Alternatives 3 and 4 are relatively small and are not anticipated to specifically require additional ERDF capacity.

Alternatives 3 and 4 would require an irretrievable and irreversible commitment of resources in the form of geologic materials and petroleum products (e.g., diesel fuel, gasoline). With Alternative 3, excavated material would be replaced with a stockpile of clean-soil cover removed from the site, as well as clean sand and gravel fill from onsite borrow pits (e.g., Area C borrow area). The sand and gravel for the surface-barrier alternative would come from nearby borrow pits, but the silt would need to come either from the Fitzner-Eberhardt Arid Lands Ecology Reserve or from offsite. Rip-rap or other armoring materials needed to provide intrusion protection likely would come from offsite.

7.3.2.8 Cumulative Impacts

The proposed RAOs could have impacts when considered together with impacts from past and foreseeable future actions at and near the Hanford Site. Authorized current and future activities include soil and groundwater remediation; waste management and treatment (e.g., tank farms, the Waste Treatment Plant); and surveillance, maintenance, decontamination, and decommissioning of facilities. Other Hanford Site activities that might be ongoing during remedial action at the Central Plateau waste sites include deactivation and decontamination of

reprocessing facilities and operation of the Energy Northwest reactor. Activities near the Hanford Site include a privately owned radioactive and mixed-waste treatment facility, a commercial-fuel manufacturer, a commercial low-level radioactive-waste disposal site, and a titanium reprocessing plant.

The proposed remediation alternatives would have minimal impacts on transportation; air quality; and natural, cultural, and historical resources. Noise, visual and aesthetic effects, and socioeconomic impacts also would be minimal. Therefore, cumulative impacts with respect to these values are expected to be insignificant. The most notable area for cumulative impacts is with respect to the irretrievable and irreversible commitment of resources. All of the proposed alternatives except Alternative 1 would require long-term land-use restrictions.

To varying levels, Alternatives 2, 3, and 4 would result in the loss of some land uses on the Central Plateau, but the cumulative impacts with respect to loss of land use are not expected to be significant. Alternative 3 also would require a commitment of land use as a result of the ERDF expansion on the Central Plateau. This would be in addition to numerous other Hanford Site projects that would commit land use on the Central Plateau.

Under Alternatives 3 and 4, cumulative impacts also would occur with respect to the irretrievable and irreversible commitment of geologic resources. The Central Plateau waste sites constitute only a portion of the total actions requiring material for barriers and backfill at the Hanford Site. The total quantity of geologic materials required for other Hanford Site actions currently is being identified (BHI-01551, *Alternative Fine-Grained Soil Borrow Source Study Final Report*) and may be subject to a separate NEPA evaluation. Currently, a borrow area (Area C) is being developed west of Route 240 to support barrier activities planned at the U Plant area.

7.3.2.9 Mitigation

Alternative 1 would not include mitigation. Mitigation measures under Alternative 2 would include surveillance, physical controls, and potential interim remedies. Mitigation measures taken under Alternatives 3 and 4 would include dust suppression, stockpiling clean topsoil for reuse, minimizing the size of construction areas, and planning activities to avoid nesting and breeding cycles of birds and mammals.

7.3.2.10 Summary of NEPA Evaluation

Remedial actions at the Central Plateau waste sites would result in some impacts to public health and the environment. However, the overall environmental impacts under normal operating conditions would not be very large, nor would they vary greatly among the remedial alternatives.

Table 7-1. Detailed Analysis Summary for Alternative 1 – No-Action. (2 Pages)

Waste Site	Threshold Criteria		Balancing Criteria				
	Overall Protection of Human Health and the Environment	**Compliance with ARARs**	**Long-Term Effectiveness and Permanence**	**Reduction of Toxicity, Mobility, or Volume Through Treatment**	**Short-Term Effectiveness**	**Implementability**	**Present Worth Cost in Thousands**
Representative Waste Sites							
216-A-29 Ditch	Not protective of the environment because COC (radiological) and COECs remain in place.	Does not comply.	Fails to meet criteria because there is no change in risk and no controls are implemented.	Fails to meet criteria because there is no source control or performance monitoring to demonstrate natural attenuation as treatment.	Fails to meet criteria because the time until RAOs are met is excessive.	Readily implementable.	$551
216-B-63 Trench	Meets this criterion because no COCs/COECs are present at this site.	Meets this criterion because no COCs/COECs are present at this site.	Meets this criterion because no COCs/COECs are present at this site.	Meets this criterion because no COCs/COECs are present at this site.	Meets this criterion because no COCs/COECs are present at this site.	Readily implementable.	$551
216-S-10 Ditch	Not protective of human health and the environment because COCs/COECs remain in place.	Does not comply.	Fails to meet criteria because there is no change in risk and no controls are implemented.	Fails to meet criteria because there is no source control or performance monitoring to demonstrate natural attenuation as treatment.	Fails to meet criteria because the time until RAOs are met is excessive.	Readily implementable.	$551
216-S-10 Pond	Meets this criterion because no COCs/COECs are present at this site.	Meets this criterion because no COCs/COECs are present at this site.	Meets this criterion because no COCs/COECs are present at this site.	Meets this criterion because no COCs/COECs are present at this site.	Meets this criterion because no COCs/COECs are present at this site.	Readily implementable.	$551

Table 7-1. Detailed Analysis Summary for Alternative 1 – No-Action. (2 Pages)

Waste Site	Threshold Criteria		Balancing Criteria				
	Overall Protection of Human Health and the Environment	**Compliance with ARARs**	**Long-Term Effectiveness and Permanence**	**Reduction of Toxicity, Mobility, or Volume Through Treatment**	**Short-Term Effectiveness**	**Implementability**	**Present Worth Cost in Thousands**
Waste Site Analogous to 216-S-10 Pond							
216-S-11 Pond	Meets this criterion because no COCs/COECs are present at this site.	Meets this criterion because no COCs/COECs are present at this site.	Meets this criterion because no COCs/COECs are present at this site.	Meets this criterion because no COCs/COECs are present at this site.	Meets this criterion because no COCs/COECs are present at this site.	Readily implementable.	$551

ARAR = applicable or relevant and appropriate requirement.
COC = contaminant of concern.
COEC = contaminant of ecological concern.
RAO = remedial-action alternative.

Table 7-2. Detailed Analysis Summary for Alternative 2 – Maintain Existing Soil Cover, Monitored Natural Attenuation, and Institutional Controls. (2 Pages)

Waste Site	Threshold Criteria		Balancing Criteria				
	Overall Protection of Human Health and the Environment	Compliance with ARARs	Long-Term Effectiveness and Permanence	Reduction of Toxicity, Mobility, or Volume Through Treatment	Short-Term Effectiveness	Implementability	Present Worth Cost in Thousands
Representative Waste Sites							
216-A-29 Ditch	Not protective of the environment because COC (radiological) and COECs remain in-place without sufficient soil cover.	Does not comply.	Fails to meet criteria because not effective to reduce environmental risk	Meets this criterion. Provides source control and performance monitoring; meets PRGs in comparable timeframe as other alternatives considered	Fails to meet criteria because the time until RAOs are met is excessive.	Readily implementable, including feasible monitoring approach.	$1,184
216-B-63 Trench	N/A – no COCs/COECs identified at this site; therefore, Alternative 2 is not justifiable.	N/A – no COCs/COECs identified at this site.	N/A – no COCs/COECs identified at this site.	N/A – no COCs/COECs identified at this site.	N/A – no COCs/COECs identified at this site.	N/A – no COCs/COECs identified at this site.	N/A
216-S-10 Ditch	Not protective of human health and the environment because COCs/COECs remain in place without sufficient soil cover.	Does not comply.	Fails to meet criteria because not effective to reduce environmental risk	Meets this criterion. Provides source control and performance monitoring; meets PRGs in comparable timeframe as other alternatives considered	Fails to meet criteria because the time until RAOs are met is excessive.	Readily implementable, including feasible monitoring approach.	$1,194
216-S-10 Pond	N/A – no COCs/COECs identified at this site; therefore, Alternative 2 is not justifiable.	N/A – no COCs/COECs identified at this site.	N/A – no COCs/COECs identified at this site.	N/A – no COCs/COECs identified at this site.	N/A – no COCs/COECs identified at this site.	N/A – no COCs/COECs identified at this site.	N/A

Table 7-2. Detailed Analysis Summary for Alternative 2 – Maintain Existing Soil Cover, Monitored Natural Attenuation, and Institutional Controls. (2 Pages)

Waste Site	Threshold Criteria		Balancing Criteria				
	Overall Protection of Human Health and the Environment	Compliance with ARARs	Long-Term Effectiveness and Permanence	Reduction of Toxicity, Mobility, or Volume Through Treatment	Short-Term Effectiveness	Implementability	Present Worth Cost in Thousands
Waste Site Analogous to 216-S-10 Pond							
216-S-11 Pond	N/A – no COCs/COECs identified at this site; therefore, Alternative 2 is not justifiable.	N/A – no COCs/COECs identified at this site.	N/A – no COCs/COECs identified at this site.	N/A – no COCs/COECs identified at this site.	N/A – no COCs/COECs identified at this site.	N/A – no COCs/COECs identified at this site.	N/A

ARAR = applicable or relevant and appropriate requirement.
COC = contaminant of concern.
COEC = contaminant of ecological concern.
N/A = not applicable.
RAO = remedial-action alternative.

Table 7-3. Detailed Analysis Summary for Alternative 3 – Removal, Treatment, and Disposal. (2 Pages)

Waste Site	Threshold Criteria		Balancing Criteria				
	Overall Protection of Human Health and the Environment	Compliance with ARARs	Long-Term Effectiveness and Permanence	Reduction of Toxicity, Mobility, or Volume Through Treatment	Short-Term Effectiveness	Implementability	Present Worth Cost in Thousands
Representative Waste Sites							
216-A-29 Ditch	Protective. Excavation of contaminated soil would eliminate risks to human and ecological receptors.	Complies.	Meets this criterion because engineered soil removal with institutional controls and monitoring are provided.	N/A – no treatment anticipated. Contaminated soil is removed from site.	Meets this criterion because both community and workers are protected during remedial actions with no adverse environmental impacts, and remedial response objectives will be achieved in a reasonable time frame.	Readily implementable, including feasible monitoring approach, adequate on-site disposal capacity, and available equipment and personnel.	$3,521
216-B-63 Trench	No COCs/COECs are present at this waste site; therefore, Alternative 3 is not justifiable.	N/A – no COCs/COECs identified at this site.	N/A – no COCs/COECs identified at this site.	N/A – no COCs/COECs identified at this site.	N/A – no COCs/COECs identified at this site.	N/A – no COCs/COECs identified at this site.	N/A
216-S-10 Ditch	Protective. Excavation of contaminated soil would eliminate direct contact by ecological and human receptors and potential impacts to groundwater.	Complies.	Meets this criterion because both engineered soil removal with institutional controls and monitoring are provided.	N/A – no treatment anticipated. Contaminated soil is removed from site.	Meets this criterion because both community and workers are protected during remedial actions with no adverse environmental impacts, and remedial response objectives will be achieved in a reasonable time frame.	Readily implementable, including feasible monitoring approach, adequate on-site disposal capacity, and available equipment and personnel.	$2,746

Table 7-3. Detailed Analysis Summary for Alternative 3 – Removal, Treatment, and Disposal. (2 Pages)

Waste Site	Threshold Criteria		Balancing Criteria				
	Overall Protection of Human Health and the Environment	**Compliance with ARARs**	**Long-Term Effectiveness and Permanence**	**Reduction of Toxicity, Mobility, or Volume Through Treatment**	**Short-Term Effectiveness**	**Implementability**	**Present Worth Cost in Thousands**
216-S-10 Pond	No COCs/COECs are present at this waste site; therefore, Alternative 3 is not justifiable.	N/A – no COCs/COECs identified at this site.	N/A – no COCs/COECs identified at this site.	N/A – no COCs/COECs identified at this site.	N/A – no COCs/COECs identified at this site.	N/A – no COCs/COECs identified at this site.	N/A
Waste Site Analogous to 216-S-10 Pond							
216-S-11 Pond	No COCs/COECs are present at this waste site; therefore, Alternative 3 is not justifiable.	N/A – no COCs/COECs identified at this site.	N/A – no COCs/COECs identified at this site.	N/A – no COCs/COECs identified at this site.	N/A – no COCs/COECs identified at this site.	N/A – no COCs/COECs identified at this site.	N/A

ARAR = applicable or relevant and appropriate requirement.
COC = contaminant of concern.
COEC = contaminant of ecological concern.
N/A = not applicable.

Table 7-4. Detailed Analysis Summary for Alternative 4 – Engineered Barrier. (2 Pages)

Waste Site	Threshold Criteria		Balancing Criteria				
	Overall Protection of Human Health and the Environment	Compliance with ARARs	Long-Term Effectiveness and Permanence	Reduction of Toxicity, Mobility, or Volume Through Treatment	Short-Term Effectiveness	Implementability	Present Worth Cost in Thousands
Representative Waste Sites							
216-A-29 Ditch	Protective. Controls potential exposure pathways to receptors through placement of an ET Monofill Barrier.	Complies.	Meets this criterion because long-term engineered monofill barriers plus institutional controls and monitoring are provided.	Meets this criterion. Along with barrier placement, provides source control and performance monitoring; meets PRGs in comparable timeframe as other alternatives considered.	Meets this criterion because both community and workers are protected during remedial actions with no adverse environmental impacts, and remedial response objectives will be achieved in a reasonable time frame.	Readily implementable, including feasible monitoring approach and available equipment and personnel.	$6,997
216-B-63 Trench	No COCs/COECs are present at this waste site; therefore, Alternative 4 is not justifiable.	N/A – no COCs/COECs identified at this site.	N/A – no COCs/COECs identified at this site.	N/A – no COCs/COECs identified at this site.	N/A – no COCs/COECs identified at this site.	N/A – no COCs/COECs identified at this site.	N/A
216-S-10 Ditch	Protective. Controls potential exposure pathways to receptors through placement of an ET Monofill Barrier and limits infiltration to groundwater.	Complies.	Meets this criterion because long-term engineered monofill barriers plus institutional controls and monitoring are provided.	Meets this criterion. Along with barrier placement, provides source control and performance monitoring; meets PRGs in comparable timeframe as other alternatives considered.	Meets this criterion because both community and workers are protected during remedial actions with no adverse environmental impacts, and remedial response objectives will be achieved in a reasonable time frame.	Readily implementable, including feasible monitoring approach and available equipment and personnel.	$3,186

Table 7-4. Detailed Analysis Summary for Alternative 4 – Engineered Barrier. (2 Pages)

Waste Site	Threshold Criteria		Balancing Criteria				
	Overall Protection of Human Health and the Environment	Compliance with ARARs	Long-Term Effectiveness and Permanence	Reduction of Toxicity, Mobility, or Volume Through Treatment	Short-Term Effectiveness	Implementability	Present Worth Cost in Thousands
216-S-10 Pond	No COCs/COECs are present at this waste site; therefore, Alternative 4 is not justifiable.	N/A – no COCs/COECs identified at this site.	N/A – no COCs/COECs identified at this site.	N/A – no COCs/COECs identified at this site.	N/A – no COCs/COECs identified at this site.	N/A – no COCs/COECs identified at this site.	N/A
Waste Site Analogous to 216-S-10 Pond							
216-S-11 Pond	No COCs/COECs are present at this waste site; therefore, Alternative 4 is not justifiable.	N/A – no COCs/COECs identified at this site.	N/A – no COCs/COECs identified at this site.	N/A – no COCs/COECs identified at this site.	N/A – no COCs/COECs identified at this site.	N/A – no COCs/COECs identified at this site.	N/A

ARAR = applicable or relevant and appropriate requirement.
COC = contaminant of concern.
COEC = contaminant of ecological concern.
ET = Evapotranspiration.
N/A = not applicable.

8.0 COMPARATIVE ANALYSIS

The 200-CS-1 OU remedial action alternatives, which are developed in Chapter 6.0 and analyzed in detail in Chapter 7.0, are compared in this section. The comparative analysis identifies the relative advantages and disadvantages of each alternative, so the key issues are made transparent for the risk managers (the Tri-Parties). The comparative analysis provides a measure of the relative performance of the alternatives against each evaluation criterion.

The nine CERCLA evaluation criteria, as detailed in EPA/540/G-89/004, are provided in Chapter 7.0. For the threshold criteria, the remedial action alternatives are compared relative to each other in Section 8.1. Section 8.2 discusses the remedial alternative comparisons relative to each of the five balancing evaluation criteria.

The final two modifying criteria, State and community acceptance, will be addressed in the upcoming Proposed Plan, prepared by the Tri-Parties and issued for public review and comment.

8.1 THRESHOLD CRITERIA

Threshold criteria are of greatest importance in the comparative analysis, because they reflect the key statutory mandates of CERCLA, as amended. The threshold criteria that any viable alternative must meet are as follows:

- Overall protection of human health and the environment
- Compliance with ARARs and other information to be considered.

200-CS-1 OU remedial alternatives are compared with respect to the threshold criteria below.

8.1.1 Overall Protection of Human Health and the Environment

Overall protection of human health and the environment must be met by any alternative in order for that alternative to be eligible for selection. The primary measure of this criterion is the ability of an alternative to attain RAOs for the 200-CS-1 OU waste sites and to protect groundwater. Alternatives are compared in Tables 8-1, 8-2, 8-3, 8-4, and 8-5 for the 216-A-29 Ditch, 216-B-63 Trench, 216-S-10 Ditch, 216-S-10 Pond, and 216-S-11 Pond, respectively, regarding attainment of RAOs, identified in Chapter 4.0

In Alternative 1, No Action, contaminants will remain in place with no measures taken to reduce the volume and/or toxicity of the contaminants, control the exposure pathways to ecological receptors, or prevent migration of contaminants to groundwater. Alternative 2, Maintain Existing Soil Cover, Monitored Natural Attenuation, and ICs, involves maintaining existing soil covers and allowing contaminants beneath the soil covers to attenuate naturally until remediation goals are met and providing ICs. Alternative 3 involves excavating and removing contaminated soils from the waste sites and disposing of the excavated materials at an approved disposal facility, while Alternative 4 involves leaving the contaminated waste in place and constructing an engineered surface barrier over the waste.

Risk analysis of the 216-A-29 Ditch and the 216-S-10 Ditch showed that ecological and human health pathway COCs and COECs are present at these waste sites (Table 3-71).

Alternatives 1 and 2 would not provide overall protection of human health and the environment at these sites because contaminants would remain in place with no measures taken to reduce the volume and/or toxicity of the contaminants, and with no control of the exposure pathways to ecological and human receptors. Therefore, Alternatives 1 and 2 would not achieve RAOs 1[1] and 3[2] for the 216-A-29 Ditch. Alternatives 1 and 2 also would not achieve RAOs 2[3] and 3 for the 216-S-10 Ditch.

In comparison, Alternatives 3, Removal, Treatment, and Disposal, and 4, Engineered Barrier, would provide overall protection of human health and the environment at the 216-A-29 Ditch and the 216-S-10 Ditch. Under Alternative 3, contaminated materials would be excavated to the depth required to remove COCs and COECs. The excavated materials would be removed from the waste site and disposed of at an approved waste disposal facility. Alternative 4 includes leaving the waste materials in place and installing an engineered barrier to control exposure pathways to ecological and human receptors and the downward migration of contaminants to groundwater. Alternative 1 meets the overall protection of human health and the environment for the 216-B-63 Trench, 216-S-10 Pond and the 216-S-11 Pond. COCs and COECs do not exist at the 216-B-63 Trench, or at the 216-S-10 Pond and therefore are not expected to be present at its analogous site, 216-S-11 Pond. The data does not support a need for remediation at these sites. Therefore, the need for maintenance of the existing soil cover, removal or containment of contaminated soils is not justified.

8.1.2 Compliance with Applicable or Relevant and Appropriate Requirements

ARARs are any appropriate standards, criteria, or limitations under any federal environmental law or more stringent State requirement that must be either met or waived for any hazardous substance, pollutant, or contaminant that will remain on site during or after completion of a remedial action. A comprehensive list of ARARs is provided in Appendix I.

Chemical-specific ARARs identified for Alternatives 1 through 4 include those related to national primary drinking water regulations under 40 CFR 141, PCB remediation waste storage and disposal under 40 CFR 761, and soil cleanup standards for industrial properties under WAC 173-340-745(5)(b). Action-specific ARARs identified for the four alternatives include those related to closure/post-closure of dangerous waste sites and dangerous waste landfills under WAC 173-303-610 and WAC 173-303-665, respectively.

In addition to the chemical- and action-specific ARARs, some location-specific ARARs were identified as being applicable to Alternatives 3 and 4 because these alternatives involve ground disturbance as part of the remediation activities. These ARARs include regulations

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[1] RAO 1 - Prevent unacceptable risk to human and ecological receptors from direct exposure to soil and /or debris with nonradiological contaminants at concentrations above industrial use criteria.

[2] RAO 3 – Prevent unacceptable risk to human health and ecological receptors from exposure to soils and/or debris contaminated with radiological constituents.

[3] RAO 2 – Prevent unacceptable risk to human and ecological receptors from direct exposure to soils and/or debris contaminated with nonradiological constituents at concentrations above the unrestricted-use criteria, as defined in WAC 173-340-740(3)(b), "Standard Method B Soil Cleanup Levels," for human health, or the evaluation criteria in WAC 173-340-7493 for ecological receptors.

related to preservation of historical and archaeological sites (*Archeological and Historic Preservation Act* [1960] and *National Historic Preservation Act of 1966*) and endangered and threatened species (*Endangered Species Act of 1973*).

In Alternatives 1 and 2 contaminants remain in place and naturally attenuate until remediation goals are met. A minimum soil cover of 4.6 m (15 ft) is required to provide a sufficient barrier to protect human health and the environment. Existing soil covers at the 216-A-29 Ditch and the 216-S-10 Ditch are only a few feet thick (even if maintained) and do not meet the thickness requirement for protection from nonradiological COC and COECs. Sufficient soil cover (if maintained) does exist at 216-A-29 to provide protection from the one radiological COC identified. In addition, some of the contaminants, such as heavy metals, present at the waste sites would require a long period to attenuate naturally and a sufficient barrier would not be installed to protect the environment during that time. Therefore, Alternatives 1 and 2 would not minimize or eliminate contaminants to the extent necessary to protect human health and the environment. This means that ecological and human health criteria would not be achieved in the 216-A-29 Ditch and 216-S-10 Ditch. Therefore, these alternatives would not meet the ARARs identified for the 216-A-29 Ditch and the 216-S-10 Ditch.

By removing the contaminated materials from the waste sites and using uncontaminated soils to backfill the excavations, Alternative 3 minimizes and/or eliminates contaminants to the extent necessary to protect human health and the environment. This means that ecological and human health protection criteria would be achieved and exposure pathways to contaminants would be eliminated. Therefore, this alternative would meet the ARARs identified for the 216-A-29 Ditch and the 216-S-10 Ditch.

Alternative 4 would comply with all ARARs for the 216-A-29 Ditch and the 216-S-10 Ditch by breaking the pathways for exposure and emplacing barriers that meet the substantive requirements of the regulations. In addition to the barrier, this alternative includes IC elements such as land-use restrictions.

For Alternatives 3 and 4, it is anticipated that the appropriate agencies would be contacted and the appropriate archaeological and ecological surveys would be completed prior to any land disturbance or excavation activities. Therefore, these alternatives would comply with the location-specific ARARs identified for the 216-A-29 Ditch and the 216-S-10 Ditch.

8.2 BALANCING CRITERIA

200-CS-1 OU alternatives are compared with respect to the balancing criteria in the following discussion. The primary balancing criteria to which relative advantages and disadvantages of the alternatives are compared include the following:

1. Long-term effectiveness and permanence
2. Reduction of toxicity, mobility, and volume through treatment
3. Short-term effectiveness
4. Implementability
5. Cost.

The first balancing criterion assesses the ability of the alternative to remain effective for the duration of risk. The second balancing criterion addresses the statutory preference for treatment as a principal element of the remedy and the bias against off-Site land disposal of

untreated material. Together with the third and fourth criteria, they form the basis for determining the general feasibility of each potential remedy. The final criterion addresses whether the costs associated with a potential remedy are proportional to its overall effectiveness, considering both the cleanup period and operation and maintenance requirements during and following cleanup. Therefore, it can be determined whether a potential remedy is cost effective relative to other potential remedies. Key tradeoffs among alternatives will most frequently relate to one or more of the balancing criteria.

8.2.1 Long-Term Effectiveness and Permanence

There are no risk drivers present at the 216-B-63 Trench and the 216-S-10 and 216-S-11 Ponds. Therefore, Alternative 1 for the 216-S-10 and 216-S-11 Ponds and the 216-B-63 Trench would provide long-term effectiveness and permanence. For the 216-A-29 Ditch and the 216-S-10 Ditch, Alternatives 1 and 2 would provide no long-term effectiveness or permanence, because the existing cover is only a few feet thick and insufficient to meet the thickness requirement for protection from COC and COECs. Furthermore, under Alternative 1 the existing cover would not be maintained and no controls would be implemented to reduce the remaining risk to acceptable levels at the 216-A-29 Ditch and the 216-S-10 Ditch.

Alternative 3 would provide long-term effectiveness and permanence by removing the contaminated soil from the 216-A-29 and 216-S-10 waste sites and disposing of this soil in an approved disposal facility. Currently, this disposal facility is envisioned as the ERDF, an onsite engineered facility. Five-year reviews may not be required because of the removal of the contamination. Alternative 4 would provide long-term effectiveness and permanence by providing an engineered barrier over the 216-A-29 Ditch and the 216-S-10 Ditch waste sites. Chemicals and radionuclides left in place would be physically separated from receptors by the features and properties of the barrier, and potential impacts to groundwater minimized. Five-year reviews would be required because the contaminants are left in place underneath the monofill barrier. Alternative 3 is considered more effective than Alternative 4 because as contaminated soil is removed from the waste sites to an approved disposal facility and no further maintenance is needed at the waste sites in order to keep the remedy effective. Alternatives 3 and 4 would not occur at the 216-B-63 Trench or the 216-S-10 and 216-S-11 Ponds because no COCs or COECs are identified at these sites.

8.2.2 Reduction of Toxicity, Mobility, and Volume Through Treatment

Alternative 1 would not reduce toxicity, mobility, or volume through treatment for any of the waste sites with COCs/COECs present as this alternative does not provide the source control and performance monitoring components considered necessary by the EPA to claim natural attenuation as treatment. Therefore, Alternative 1 is not appropriate for the 216-A-29 Ditch and the 216-S-10 Ditch. There are no COC/COECs present at the 216-B-63 Trench and the 216-S-10 and 216-S-11 Ponds. Therefore, Alternative 1 is appropriate for these waste sites. Alternative 3 and 4 are not applicable to the 216-B-63 Trench and the 216-S-10 and 216-S-11 Ponds as no COCs or COECs were identified.

Alternatives 2 and 4 would reduce toxicity, mobility, or volume of the COCs/COECs present at 216-A-29 Ditch and 216-S-10 Ditch through natural attenuation. Both of these alternatives

provide the source control and performance monitoring components necessary to claim natural attenuation as treatment and would meet PRGs in a comparable amount of time. Alternative 4, however, would provide greater control of contamination present at the waste site through placement of a barrier to limit access to the COCs/COECs and downward migration of contamination to the groundwater.

Alternative 3 removes the contaminated soil from the 216-A-29 Ditch and the 216-S-10 Ditch and disposes of it at an approved disposal facility, likely to be the ERDF. Treatment is not expected to be necessary prior to disposal at the ERDF. While this criterion is not applicable to this alternative, Alternative 3 does not depend on the natural attenuation process to address reduction of contaminated soils at the 216-A-29 and 2216-S-10 waste sites.

8.2.3 Short-Term Effectiveness

For Alternatives 1 and 2, RAOs can only be fully met through natural attenuation of contaminants, which can take hundreds of years to achieve and will not meet RAOs in a short-term time frame. Because there are no COCs or COECs identified at the 216-B-63 Trench and the 216-S-10 and 216-S-11 Ponds, Alternatives 1 is sufficient and meets the short-term effectiveness criterion for these waste sites. For the 216-A-29 Ditch and the 216-S-10 Ditch, Alternatives 1 and 2 would not be an effective short-term alternative because the significant amount of time required until the remedial action objectives would be met through natural attenuation at these sites.

Alternatives 3 and 4 are not applicable at the 216-B-63 Trench or the 216-S-10 and 216-S-11 Ponds because no COCs or COECs were identified. Alternatives 3 and 4 at the 216-A-29 Ditch and the 216-S-10 Ditch would protect both the community and remediation workers, would not create any adverse environmental impacts, and the RAOs would be met in a reasonably short time frame (months).

Remediation Worker Risk at the 216-A-29 Ditch and 216-S-10 Ditch

The levels of contamination at the 216-A-29 Ditch and the 216-S-10 Ditch waste sites are not expected to pose a risk to remediation workers when typical construction practices are followed from a Health and Safety Plan. For Alternative 3, typical practices should include enclosed excavation equipment and water-based dust suppression. These practices limit the remediation worker risk with minimal impact on schedule and cost because excavation with dust suppression and health and safety controls has been proven effective in excavating soil sites.

For Alternative 4, only minimal short-term remediation worker risks are expected, and these risks are associated with initial groundbreaking construction activities. As soon as the initial materials are placed over the 216-A-29 Ditch and the 216-S-10 Ditch, short-term worker risks decrease when typical construction practices are followed from a Health and Safety Plan. Typical practices should include water-based dust suppression. These practices limit the remediation worker risk with minimal impact on schedule and cost because soil placement with dust suppression and health and safety controls has been proven effective in constructing barriers at similar soil contamination sites. Alternative 4 would not require excavation of contaminated soils, so the risks to remediation workers would be less than Alternative 3 because placement of the barrier reduces worker exposure to contaminants at the 216-A-29 Ditch and the 216-S-10 Ditch.

Impact to Environment during Remediation at the 216-A-29 Ditch and 216-S-10 Ditch

During completion of Alternative 3, physical disruption of the waste sites would increase human activity and noise. Potential animal intrusion and biological uptake are also issues that will require control of open excavations and exposed contaminated soils at the end of each day. This control could be accomplished through placement of covers or fixatives. Physical disruption of the waste sites during Alternative 4 would also result in increased human activity and noise. Alternative 3 has smaller areas of disturbed surface than Alternative 4. Transportation activities due to Alternative 3 would increase as a result of bringing construction equipment to the site, transporting contaminated soils to the ERDF, and bringing clean fill to the excavated sites. Alternative 4 would have less environmental impact than Alternative 3 because the transportation of contaminated soil creates a greater environmental impact.

Time to Achieve the Remedial Action Objectives at the 216-A-29 Ditch and 216-S-10 Ditch

Alternatives 3 and 4 achieve the RAOs in the same amount of time.

8.2.4 Implementability

For all of the 200-CS-1 OU waste sites, all the applicable alternatives are readily implementable. Alternative 1 could be implemented immediately and would not present any technical problems. Alternative 2 would include a monitoring approach based on existing technology. Alternative 3 would utilize adequate on-site disposal capacity at the ERDF and would be readily implemented from available equipment and personnel plus utilize a feasible monitoring approach. Alternative 4 would be readily implemented from available equipment and personnel.

8.2.5 Cost

The present worth costs for the four alternatives increase from approximately $550,847 for Alternative 1 for all 200-CS-1 OU waste sites to $6,996,803 for Alternative 4 at the 216-A-29 Ditch.

Only verification sampling cost is associated with Alternative 1 at the 216-B-63 Trench, 216-S-10 and 216-S-11 Ponds. Alternative 3 has a lower cost than Alternative 4 for the 216-A-29 Ditch and the 216-S-10 Ditch.

Table 8-1. Comparison of 200-CS-1 Operable Unit Alternatives for the 216-A-29 Ditch with Respect to Remedial-Action Objectives.

Alternatives	RAO 1 [a]	RAO 2 [b]	RAO 3 [c]
Alternative 1—No Action	Will Not Achieve	N/A [d]	Will Not Achieve
Alternative 2—Maintain Existing Soil Cover and Monitored Natural Attenuation	Will Not Achieve	N/A [d]	Will Not Achieve
Alternative 3—Removal, Treatment, and Disposal	Will Achieve	N/A [d]	Will Achieve
Alternative 4—Engineered Barrier	Will Achieve	N/A [d]	Will Achieve

[a] Prevent unacceptable risk to human and ecological receptors from direct exposure to soil and /or debris with nonradiological contaminants at concentrations above industrial use criteria.

[b] Prevent unacceptable risk to human and ecological receptors from direct exposure to soil and /or debris with nonradiological contaminants at concentrations above unrestricted use criteria.

[c] Prevent unacceptable risk to human health and ecological receptors from exposure to soils and/or debris contaminated with radiological constituents.

[d] Not applicable because site location is planned for industrial use.

RAO = remedial-action objective.

Table 8-2. Comparison of 200-CS-1 Operable Unit Alternatives for the 216-B-63 Trench with Respect to Remedial-Action Objectives

Alternatives	RAO 1 [a]	RAO 2 [b]	RAO 3 [c]
Alternative 1—No Action	Will Achieve	N/A	Will Achieve
Alternative 2—Maintain Existing Soil Cover and Monitored Natural Attenuation	N/A [d]	N/A	N/A [d]
Alternative 3—Removal, Treatment and Disposal	N/A [d]	N/A [d]	N/A [d]
Alternative 4—Engineered Barrier	N/A [d]	N/A [d]	N/A [d]

[a] Prevent unacceptable risk to human and ecological receptors from direct exposure to soil and /or debris with nonradiological contaminants at concentrations above industrial use criteria.

[b] Prevent unacceptable risk to human and ecological receptors from direct exposure to soil and /or debris with nonradiological contaminants at concentrations above unrestricted use criteria.

[c] Prevent unacceptable risk to human health and ecological receptors from exposure to soils and/or debris contaminated with radiological constituents.

[d] Not applicable to this waste site as COCs or COECs do not exist.

RAO = remedial-action objective.

Table 8-3. Comparison of 200-CS-1 Operable Unit Alternatives for the 216-S-10 Ditch with Respect to Remedial-Action Objectives.

Alternatives	RAO 1 [a]	RAO 2 [b]	RAO 3 [c]
Alternative 1—No Action	N/A [d]	Will Not Achieve	N/A [e]
Alternative 2—Maintain Existing Soil Cover and Monitored Natural Attenuation	N/A [d]	Will Not Achieve	N/A [e]
Alternative 3—Removal, Treatment and Disposal	N/A [d]	Will Achieve	N/A [e]
Alternative 4—Engineered Barrier	N/A [d]	Will Achieve	N/A [e]

[a] Prevent unacceptable risk to human and ecological receptors from direct exposure to soil and /or debris with nonradiological contaminants at concentrations above industrial use criteria.
[b] Prevent unacceptable risk to human and ecological receptors from direct exposure to soil and /or debris with nonradiological contaminants at concentrations above unrestricted use criteria.
[c] Prevent unacceptable risk to human health and ecological receptors from exposure to soils and/or debris contaminated with radiological constituents.
[d] Not applicable because site location is planned for unrestricted release
[e] Not applicable to this waste site as radiological COCs or COECs do not exist.

`RAO = remedial-action objective.

Table 8-4. Comparison of 200-CS-1 Operable Unit Alternatives for the 216-S-10 Pond with Respect to Remedial-Action Objectives.

Alternatives	RAO 1 [a]	RAO 2 [b]	RAO 3 [c]
Alternative 1—No Action	N/A	Will Achieve	N/A [e]
Alternative 2—Maintain Existing Soil Cover and Monitored Natural Attenuation	NA [d]	NA [d]	NA [e]
Alternative 3—Removal, Treatment and Disposal	NA [d]	NA [d]	NA [e]
Alternative 4—Engineered Barrier	NA [d]	NA [d]	NA [e]

[a] Prevent unacceptable risk to human and ecological receptors from direct exposure to soil and /or debris with nonradiological contaminants at concentrations above industrial use criteria.
[b] Prevent unacceptable risk to human and ecological receptors from direct exposure to soil and /or debris with nonradiological contaminants at concentrations above unrestricted use criteria.
[c] Prevent unacceptable risk to human health and ecological receptors from exposure to soils and/or debris contaminated with radiological constituents.
[d] Not applicable to this waste site as COCs or COECs do not exist.
[e] Not applicable to this waste site as radiological COCs or COECs do not exist.

RAO` = remedial-action objective

Table 8-5. Comparison of 200-CS-1 Operable Unit Alternatives for the 216-S-11 Pond with Respect to Remedial-Action Objectives.

Alternatives	RAO 1 [a]	RAO 2 [b]	RAO 3 [c]
Alternative 1—No Action	N/A	Will Achieve	NA [e]
Alternative 2—Maintain Existing Soil Cover and Monitored Natural Attenuation	NA [d]	NA [d]	NA [e]
Alternative 3—Removal, Treatment and Disposal	NA [d]	NA [d]	NA [e]
Alternative 4—Engineered Barrier	NA [d]	NA [d]	NA [e]

[a] Prevent unacceptable risk to human and ecological receptors from direct exposure to soil and /or debris with nonradiological contaminants at concentrations above industrial use criteria.

[b] Prevent unacceptable risk to human and ecological receptors from direct exposure to soil and /or debris with nonradiological contaminants at concentrations above unrestricted use criteria.

[c] Prevent unacceptable risk to human health and ecological receptors from exposure to soils and/or debris contaminated with radiological constituents.

[d] Not applicable to this waste site as COCs or COECs do not exist.

[e] Not applicable to this waste site as radiological COCs or COECs do not exist.

RAO = remedial-action objective.

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9.0 SUMMARY AND CONCLUSIONS

This chapter summarizes the FS results, presents the path forward for the 200-CS-1 OU waste sites, and identifies recommended alternatives for remediation of these waste sites.

9.1 FEASIBILITY-STUDY SUMMARY

Four remediation alternatives were identified to address the human-health and ecological pathway risks:

- Alternative 1 – No action
- Alternative 2 – Maintain existing soil cover, monitored natural attenuation, and ICs
- Alternative 3 – Removal, treatment, and disposal
- Alternative 4 – Engineered barrier.

Alternative 1 – No-Action. 40 CFR 300 requires that a no-action alternative be evaluated as a baseline for comparison with other remedial alternatives. The no-action alternative represents a situation where no legal restrictions, ICs, access controls, or active remedial measures are applied to the site.

Alternative 2 – Maintain Existing Soil Cover and Monitored Natural Attenuation and Institutional Controls. This alternative takes advantage of existing soil covers and the nature of the contaminants to provide protection of human health and the environment. For all of the waste sites in this OU except a portion of the 216-S-10 Ditch, an existing soil cover associated with the previous waste-stabilization activities is present. Under this alternative, these existing soil covers will be maintained to provide protection from intrusion by biological receptors. ICs and monitoring would also be provided.

Alternative 3 – Removal, Treatment, and Disposal. Under this alternative, contaminated soil would be removed (by conventional excavation equipment) and disposed of at an appropriate facility (ERDF).

Alternative 4 – Engineered Barrier. The engineered barrier alternative consists of constructing surface barriers over contaminated waste sites to control the amount of water that infiltrates into contaminated media, to reduce or eliminate leaching of contamination to groundwater and receptors contacting contaminated media. The particular barrier for this alternative is the ET Monofill Barrier.

These alternatives were evaluated against the CERCLA criteria in Chapter 7.0 and then were evaluated against each other in Chapter 8.0 for relative effectiveness in meeting the criteria. Table 9-1 shows the relative ranking of remedial alternatives for the 200-CS-1 OU waste sites based on the detailed and comparative analyses presented in Chapters 7.0 and 8.0, respectively. A preferred alternative for the 200-CS-1 OU waste sites is indicated in Table 9-1 and in the Proposed Plan (DOE/RL-2005-64, *Proposed Plan for the 200-CS-1 Chemical Sewer Group Operable Unit*).

9.2 CONCLUSIONS AND PATH FORWARD

This section identifies the path forward for remedy selection for the 200-CS-1 OU waste sites, including the Proposed Plan and post-ROD sampling.

9.2.1 Proposed Plan

The final two CERCLA evaluation criteria, called modifying criteria, are state and community acceptance and are not evaluated as part of an FS. The criterion of state acceptance will be addressed by issuance of the Proposed Plan prepared to document the preferred remedial alternatives for 200-CS-1 OU waste sites. The Proposed Plan will be issued for public review after regulator acceptance of the preferred alternatives. The Proposed Plan details the recommended closure options and documents that the waste sites will be remediated in accordance with the ROD, developed following issuance of the Proposed Plan. The public comments will be responded to and those responses will be included as part of the responsiveness summary of the ROD. Depending on the significance and resolution of public comments, the proposed plan may be revised and reissued.

9.2.2 Post-Record of Decision Sampling

Additional sampling phases conducted post-ROD are meant to augment the remedial investigation data as necessary to confirm the alternative selection, support the remedial design, and provide information for final site closeout. Confirmatory sampling is conducted to confirm that the appropriate remedial alternative was selected. Design sampling is conducted to obtain data and information necessary to design the remedial alternative and refine the cost estimated for the FS. Verification sampling is conducted to verify that the remedial goals have been met by the implementation of the remedial alternative to enable site closeout.

Table 9-1. Alternatives for 200-CS-1 Operable Unit Waste Sites.

Waste Site	Alternative				Estimated cost ($ in thousands)	Justification for Suggested Alternative
	Alt. 1 – No Action	Alt. 2 - MESC/MNA/IC	Alt. 3 - RTD	Alt. 4 - Eng. Barrier		
216-A-29 Ditch			☑		$3,521	The RTD alternative is as protective of human and ecological receptors as the engineered barrier alternative and provides greater assurance of long-term effectiveness and permanence. The risk drivers are within the top 4.6 m (15 ft). Removal and disposal in the Environmental Restoration Disposal Facility represent an effective use of resources.
216-B-63 Trench	☑				$551	The no-action alternative meets the threshold and balancing criteria for overall protection of human health and the environment. The no-action alternative is readily implementable.
216-S-10 Ditch			☑		$2746	The RTD alternative is as protective of groundwater and human/ecological receptors as the engineered barrier alternative and provides greater assurance of long-term effectiveness and permanence. The risk drivers are within the top 4.6 m (15 ft). Removal and disposal in the Environmental Restoration Disposal Facility represent an effective use of resources.
216-S-10 Pond (representative site and analogous site 216-S-11 Pond)	☑				$551 and $551	The no-action alternative meets the threshold and balancing criteria for overall protection of human health and the environment. The no-action alternative is readily implementable.

IC = institutional controls.
MESC = maintain existing soil cover.
MNA = monitored natural attenuation.
Risk driver = see Section 3.7 for discussion.
RTD = removal, treatment, and disposal.
☑ = Indicates suggested alternative.

Table 9-2. Comparison of Alternatives for the 216-A-29 Ditch.

CERCLA Criteria for Evaluation	Alternatives			
	Alt. 1 – No Action	Alt. 2 – MESC/MNA/IC	Alt. 3 - RTD	Alt. 4 - Eng. Barrier
216-A-29 Ditch			☑	
Threshold Criteria				
Overall protection	☐	☐	☑	☑
Compliance with ARARs	☐	☐	☑	☑
Balancing Criteria				
Long-term effectiveness	N/A	N/A	◆	◈
Reduction in toxicity, mobility, or volume through treatment	N/A	N/A	◈	◈
Short-term effectiveness	N/A	N/A	◈	◆
Implementability	N/A	N/A	◈	◈
Cost - Total present worth(in thousands)	N/A	N/A	$3,521	$6,997

☑ = Indicates suggested alternative.
☑ = Yes, meets criterion.
☐ = No, does not meet criterion.
◆ = High: best satisfies evaluation guidelines.
◈ = Moderate: partially satisfies evaluation guidelines.
◇ = Low: least satisfies evaluation guidelines.

ARAR = applicable or relevant and appropriate requirement.
CERCLA = *Comprehensive Environmental Response, Compensation, and Liability Act of 1980.*
Eng. = engineered.
IC = institutional control.
MESC = maintain existing soil cover.
MNA = monitored natural attenuation.
N/A = not applicable.
RTD = removal, treatment, and disposal.

Table 9-3. Comparison of Alternatives for the 216-B-63 Trench.

CERCLA Criteria for Evaluation	Alternatives			
	Alt. 1 – No Action	Alt. 2 - MESC/MNA/IC	Alt. 3 - RTD	Alt. 4 - Eng. Barrier
216-B-63 Trench	☑			
Threshold Criteria				
Overall protection	☑	N/A	N/A	N/A
Compliance with ARARs	☑	N/A	N/A	N/A
Balancing Criteria				
Long-term effectiveness	◆	N/A	N/A	N/A
Reduction in toxicity, mobility, or volume through treatment	◆	N/A	N/A	N/A
Short-term effectiveness	◆	N/A	N/A	N/A
Implementability	◆	N/A	N/A	N/A
Cost - Total present worth (in thousands)	$551	N/A	N/A	N/A

☑ = Indicates suggested alternative.
☑ = Yes, meets criterion.
☐ = No, does not meet criterion.
◆ = High: best satisfies evaluation guidelines.
◈ = Moderate: partially satisfies evaluation guidelines.
◇ = Low: least satisfies evaluation guidelines.

ARAR = applicable or relevant and appropriate requirement.
CERCLA = *Comprehensive Environmental Response, Compensation, and Liability Act of 1980.*
Eng. = engineered.
IC = institutional control.
MESC = maintain existing soil cover.
MNA = monitored natural attenuation.
N/A = not applicable.
RTD = removal, treatment, and disposal.

Table 9-4. Comparison of Alternatives for the 216-S-10 Ditch.

CERCLA Criteria for Evaluation	Alternatives			
	Alt. 1 – No Action	Alt. 2 - MESC/MNA/IC	Alt. 3 - RTD	Alt. 4 - Eng. Barrier
216-S-10 Ditch			☑	
Threshold Criteria				
Overall protection	☐	☐	☑	☑
Compliance with ARARs	☐	☐	☑	☑
Balancing Criteria				
Long-term effectiveness	N/A	N/A	◆	◈
Reduction in toxicity, mobility, or volume through treatment	N/A	N/A	◈	◈
Short-term effectiveness	N/A	N/A	◈	◆
Implementability	N/A	N/A	◈	◈
Cost - Total present worth (in thousands)	N/A	N/A	$2,746	$3,186

☑ = Indicates suggested alternative.
☑ = Yes, meets criterion.
☐ = No, does not meet criterion.
◆ = High: best satisfies evaluation guidelines.
◈ = Moderate: partially satisfies evaluation guidelines.
◇ = Low: least satisfies evaluation guidelines.

ARAR = applicable or relevant and appropriate requirement.
CERCLA = *Comprehensive Environmental Response, Compensation, and Liability Act of 1980.*
Eng. = engineered.
IC = institutional control.
MESC = maintain existing soil cover.
MNA = monitored natural attenuation.
N/A = not applicable.
RTD = removal, treatment, and disposal.

Table 9-5. Comparison of Alternatives for the 216-S-10 Pond.

CERCLA Criteria for Evaluation	Alternatives			
	Alt. 1 – No Action	Alt. 2 - MESC/MNA/IC	Alt. 3 - RTD	Alt. 4 - Eng. Barrier
Representative Site 216-S-10 Pond	☑			
Threshold Criteria				
Overall protection	☑	N/A	N/A	N/A
Compliance with ARARs	☑	N/A	N/A	N/A
Balancing Criteria				
Long-term effectiveness	◆	N/A	N/A	N/A
Reduction in toxicity, mobility, or volume through treatment	◆	N/A	N/A	N/A
Short-term effectiveness	◆	N/A	N/A	N/A
Implementability	◆	N/A	N/A	N/A
Cost - Total present worth (in thousands)	$551	N/A	N/A	N/A

☑ = Indicates suggested alternative.
☑ = Yes, meets criterion.
☐ = No, does not meet criterion.
◆ = High: best satisfies evaluation guidelines.
◈ = Moderate: partially satisfies evaluation guidelines.
◇ = Low: least satisfies evaluation guidelines.

ARAR = applicable or relevant and appropriate requirement.
CERCLA = *Comprehensive Environmental Response, Compensation, and Liability Act of 1980.*
Eng. = engineered.
IC = institutional control.
MESC = maintain existing soil cover.
MNA = monitored natural attenuation.
N/A = not applicable.
RTD = removal, treatment, and disposal.

Table 9-6. Comparison of Alternatives for the 216-11 Pond.

CERCLA Criteria for Evaluation	Alternatives			
	Alt. 1 – No Action	Alt. 2 - MESC/MNA/IC	Alt. 3 - RTD	Alt. 4 - Eng. Barrier
Analogous Site 216-S-11 Pond	☑			
Threshold Criteria				
Overall protection	☑	N/A	N/A	N/A
Compliance with ARARs	☑	N/A	N/A	N/A
Balancing Criteria				
Long-term effectiveness	◆	N/A	N/A	N/A
Reduction in toxicity, mobility, or volume through treatment	◆	N/A	N/A	N/A
Short-term effectiveness	◆	N/A	N/A	N/A
Implementability	◆	N/A	N/A	N/A
Cost - Total present worth (in thousands)	$551	N/A	N/A	N/A

☑ = Indicates suggested alternative.
☑ = Yes, meets criterion.
☐ = No, does not meet criterion.
◆ = High: best satisfies evaluation guidelines.
◈ = Moderate: partially satisfies evaluation guidelines.
◇ = Low: least satisfies evaluation guidelines.

ARAR = applicable or relevant and appropriate requirement.
CERCLA = *Comprehensive Environmental Response, Compensation, and Liability Act of 1980.*
Eng. = engineered.
IC = institutional control.
MESC = maintain existing soil cover.
MNA = monitored natural attenuation.
N/A = not applicable.
RTD = removal, treatment, and disposal.

10.0 REFERENCES

10 CFR 835, "Occupational Radiation Protection," Title 10, *Code of Federal Regulations*, Part 835.

10 CFR 860, "Trespassing on Department of Energy Property," Title 10, *Code of Federal Regulations*, Part 860.

36 CFR 60, "National Register of Historic Places," Title 36, *Code of Federal Regulations*, Part 60.

36 CFR 60.4, "National Register of Historic Places," "Criteria for Evaluation," Title 36, *Code of Federal Regulations*, Part 60.

40 CFR 141, "National Primary Drinking Water Regulations," Title 40, *Code of Federal Regulations*, Part 141.

40 CFR 141.66, "National Primary Drinking Water Regulations," "Maximum Contaminant Levels for Radionuclides," Title 40, *Code of Federal Regulations*, Part 141.66.

40 CFR 1502.16, "Environmental Impact Statement," "Environmental Consequences," Title 40, *Code of Federal Regulations*, Part 1502.16.

40 CFR 265.310, "Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities," "Closure and Post-Closure Care," Title 40, *Code of Federal Regulations*, Part 265.310.

40 CFR 300, "National Oil and Hazardous Substances Pollution Contingency Plan," Appendix B, "National Priorities List," Title 40, *Code of Federal Regulations*, Part 300, Appendix B.

40 CFR 300.430(e)(6), "The No-Action Alternative," Title 40, *Code of Federal Regulations*, Part 300.430(e).

40 CFR 761, "Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions," Title 40, *Code of Federal Regulations*, Part 761.

42 USC 2278a, "Trespass Upon Commission Installations," et seq.

64 FR 61615, "Record of Decision: Hanford Comprehensive Land-Use Plan Environmental Impact Statement (HCP EIS)," *Federal Register*, Vol. 64, No. 218, pp. 61615-61625, November 12, 1999.
http://www.epa.gov/EPA-IMPACT/1999/November/Day-12/i29325.htm

Allen, H. E., ed., 2001, *Bioavailability of Metals in Terrestrial Ecosystems: Importance of Partitioning for Bioavailability to Invertebrates, Microbes, and Plants*, Society of Environmental Toxicology and Chemistry, Pensacola, Florida.

Ankeny, M. D., L. M. Coons, N. Majumdar, J. Kelsey, and M. Miller, 1997, "Performance and Cost Considerations for Landfill Caps in Semi-Arid Climates," in *Landfill Capping in the Semi-Arid West: Problems, Perspectives, and Solutions*, Idaho Falls, Idaho, May 1997.

ANL, 2007, *RESRAD*, Version 6.4, Argonne National Laboratory, Environmental Assessment Division, Argonne, Illinois. : http://web.ead.anl.gov/resrad/register2/.

Archeological and Historic Preservation Act (1960), 16 USC 469a, et seq.

ARH-2015, 1971, *Radioactive Liquid Wastes Discharged to Ground in the 200 Area During 01/01/1970 Thru 12/31/1970*, Part 3, Atlantic Richfield Hanford Company, Richland, Washington.
http://APDRMWEB.rl.gov/RIMVU/default.aspx?doctype=&id=D8604074

BHI-00176, 1995, *S Plant Aggregate Area Management Study Technical Baseline Report*, Rev. 00, Bechtel Hanford, Inc., Richland, Washington.

BHI-01177, 1998, *Borehole Summary Report for the 216-B-2-2 Ditch*, Rev. 0, Bechtel Hanford, Inc., Richland, Washington.

BHI-01276, 1999, *200-CS-1 Operable Unit DQO Summary Report*, Rev. 0, Bechtel Hanford, Inc., Richland, Washington.

BHI-01551, 2002, *Alternative Fine-Grained Soil Borrow Source Study Final Report*, Rev. 0, Bechtel Hanford, Inc., Richland, Washington.

BHI-01562, 2001, *Sampling and Analysis Instruction for the 216-A-29 Ditch for Project W-211*, Rev. 0, Bechtel Hanford, Inc., Richland, Washington.

BHI-01651, 2002, *200-CS-1 Operable Unit Test Pit Summary Report for Fiscal Year 2002*, Rev. 0, Bechtel Hanford, Inc., Richland, Washington.

BHI-062455, 1998, *Transmittal of Final Letter Report on Sampling and Analytical Activities at the 216-A-29 Ditch*, letter report, Bechtel Hanford, Inc., Richland, Washington.

BNWL-1794, 1973, *Distribution of Radioactive Jackrabbit Pellets in the Vicinity of the B-C Cribs, 200 East Area, USAEC Hanford Reservation*, Battelle Northwest Laboratories, Richland, Washington.

Census, 2001a, *Poverty Thresholds in 2000, by Size of Family and Number of Related Children Under 18 Years*, U.S. Bureau of the Census, U.S. Department of Commerce, Washington, D.C. http://www.census.gov

Census, 2001b, *Census 2000 Redistricting Data (P.L. 94-171) Summary File – Oregon*, U.S. Bureau of the Census, U.S. Department of Commerce, Washington, D.C.

Census, 2001c, *Census 2000 Redistricting Data (P.L. 94-171) Summary File –Washington*, U.S. Bureau of the Census, U.S. Department of Commerce, Washington, D.C. http://www.ofm.wa.gov/census2000/default.asp (Data accessed May 9, 2007).

Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 USC 9601, et seq.

DOE M 435.1-1, *Radioactive Waste Management Manual*, U.S. Department of Energy, Washington, D.C.

DOE O 435.1, *Radioactive Waste Management*, U.S. Department of Energy, Washington, D.C.

DOE O 451.1B, *National Environmental Policy Act Compliance Program*, U.S. Department of Energy, Washington, D.C.

DOE O 470.4A, *Safeguards and Security Program*, U.S. Department of Energy, Washington, D.C., as amended.

DOE O 5400.5, *Radiation Protection of the Public and the Environment*, U.S. Department of Energy, Washington, D.C.

DOE, 1994, *Secretarial Policy on the National Environmental Policy Act* (memorandum from H. R. O'Leary, Secretary of Energy, for Secretarial Officers and Heads of Field Elements), U.S. Department of Energy, Washington, D.C., June 13.

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. http://web.ead.anl.gov/resrad/documents/RESRAD-BIOTA_Manual_Version_1.pdf

DOE/EIS-0222-F, 1999, *Final Hanford Comprehensive Land-Use Plan Environmental Impact Statement*, U.S. Department of Energy, Washington, D.C.

DOE/RL-2001-41, 2007, *Sitewide Institutional Controls Plan for Hanford CERCLA Response Actions*, Rev. 2, U.S. Department of Energy, Richland Operations Office, Richland,

DOE/RL-2001-54, 2005, *Central Plateau Ecological Evaluation*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

DOE/RL-2002-39, 2002, *Standardized Stratigraphic Nomenclature for Post-Ringold Formation Sediments Within the Central Pasco Basin*, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

DOE/RL-2004-17, 2004, *Remedial Investigation Report for the 200-CS-1 Chemical Sewer Group Operable Unit*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

DOE/RL-2005-63, 2006, *Feasibility Study for the 200-CS-1 Chemical Sewer Group Operable Unit*, Decisional B, Reissue, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

DOE/RL-2005-64, pending, *Proposed Plan for the 200-CS-1 Chemical Sewer Group Operable Unit*, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

DOE/RL-2006-11, 2006, *Hanford Facility Dangerous Waste Closure Plan for the 216-B-63 Trench*, Draft A, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

DOE/RL-2006-12, 2006, *Hanford Facility Dangerous Waste Closure/Postclosure Plan for the 216-S-10 Pond and Ditch*, Draft A, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

DOE/RL-2007-02, 2007, *Supplemental Remedial Investigation/Feasibility Study Work Plan for the 200 Areas Central Plateau Operable Units*, Rev. 0, Vol. I, *Work Plans and Appendices*, Vol. II, *Site-Specific Field-Sampling Plan Addenda*, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

DOE/RL-2008-53, pending, *Hanford Facility Dangerous Waste Closure/Postclosure Plan for the 216-A-29 Ditch*, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

DOE/RL-92-19, 1993, *200 East Groundwater Aggregate Area Management Study Report*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

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. http://www2.hanford.gov/arpir/?content=detail&AKey=D196078863 and http://www2.hanford.gov/arpir/?content=detail&AKey=D196078869

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.

DOE/RL-96-32, 1996, *Hanford Site Biological Resources Management Plan*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington. http://www.pnl.gov/ecomon/Docs/brmap/BRMAP.html

DOE/RL-96-81, 1997, *Waste Site Grouping for 200 Areas Soil Investigations*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

DOE/RL-97-56, 1998, *Hanford Site Manhattan Project and Cold War Era Historic District Treatment Plan*, Rev. 1, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

DOE/RL-98-10, 2003, *Hanford Cultural Resources Management Plan*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

DOE/RL-98-28, 1999, *200 Areas Remedial Investigation/Feasibility Study Implementation Plan – Environmental Restoration Program*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

DOE/RL-99-44, 2000, *200-CS-1 Operable Unit RI/FS Work Plan and RCRA TSD Unit Sampling Plan*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

DOE-STD-1153-2002, 2002, *A Graded Approach for Evaluating Radiation Doses to Aquatic and Terrestrial Biota*, DOE Technical Standard, U.S. Department of Energy, Washington, D.C. http://www.eh.doe.gov/techstds/standard/std1153/1153.htm

Drummond, M. E., 1992, *The Future for Hanford: Uses and Cleanup, The Final Report of the Hanford Future Site Uses Working Group*, Richland, Washington.

Ecology Publication 94-115, 1994, *Natural Background Soil Metals Concentrations in Washington State*, Toxics Cleanup Program, Washington State Department of Ecology, Olympia, Washington.

Ecology, 2007, *Cleanup Levels & Risk Calculations (CLARC)* database. https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx

Ecology, EPA, and DOE, 1989a, *Hanford Federal Facility Agreement and Consent Order*, 2 vols., as amended, Washington State Department of Ecology, U.S. Environmental Protection Agency, and U.S. Department of Energy, Olympia, Washington. http://www.hanford.gov/?page=91&parent=0

Ecology, EPA, and DOE, 1989b, *Hanford Federal Facility Agreement and Consent Order Action Plan*, Washington State Department of Ecology, U.S. Environmental Protection Agency, and U.S. Department of Energy, Olympia, Washington.

EGG-WM-10974, 1993, *A Simulation Study of Moisture Movement in Proposed Barriers for the Subsurface Disposal Area*, Idaho National Engineering Laboratory, Idaho Falls, Idaho.

Endangered Species Act of 1973, 16 USC 1531, et seq.

EPA ECOTOX database, www.epa.gov/ecotox/ecotox_home.htm

EPA, 1991, *Risk Assessment Guidance for Superfund, Volume I: Human Health Evaluation Manual Supplemental Guidance "Standard Default Exposure Factors" Interim Final*, OSWER Directive 9285.6-03, Office of Emergency and Remedial Response, Toxics Integration Branch, U.S. Environmental Protection Agency, Washington, D.C.

EPA, 1991, *Role of the Baseline Risk Assessment in Superfund Remedy Selection Decisions*, OSWER Publication 9355.0-30, Office of Solid Waste and Emergency Response, U.S. Environmental Protection Agency, Washington, D.C.

EPA, 1992, *Supplemental Guidance to RAGS: Calculating the Concentration Term*, OSWER Publication 9285.7-081, Vol. 1, No. 1, Office of Solid Waste and Emergency Response, U.S. Environmental Protection Agency, Washington, D.C.

EPA, 1997, *Establishment of Cleanup Levels for CERCLA Sites with Radioactive Contamination*, OSWER Directive 9200.4-18, Office of Solid Waste and Emergency Response, U.S. Environmental Protection Agency, Washington, D.C.

EPA, 2002, *Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites*, OSWER 9285.6-10, Office of Emergency and Remedial Response, U.S. Environmental Protection Agency, Washington, D.C.

EPA, 2003, *Guidance for Developing Ecological Soil Screening Levels*, OSWER Directive 9285.7-55, Office of Solid Waste and Emergency Response, U.S. Environmental Protection Agency, Washington, D.C.

EPA, 2004, *Provisional Peer Reviewed Toxicity Values for Superfund (PPRTV)*, database, October 2004. Available on the Internet through the *Risk Assessment Information System* database at http://risk.lsd.ornl.gov/

EPA, 2005, *Ecological Soil Screening Levels for Antimony, Interim Final*, OSWER Directive 9285.7-61, U.S. Environmental Protection Agency, Washington, D.C. http://www.epa.gov/ecotox/ecossl/

EPA, 2005a, *Ecological Soil Screening Levels for Barium, Interim Final*, OSWER Directive 9285.7-63, U.S. Environmental Protection Agency, Washington, D.C. http://www.epa.gov/ecotox/ecossl/

EPA, 2005b, *Ecological Soil Screening Levels for Arsenic, Interim Final*, OSWER Directive 9285.7-62, U.S. Environmental Protection Agency, Washington, D.C. http://www.epa.gov/ecotox/ecossl/

EPA, 2005c, *Ecological Soil Screening Levels for Chromium, Interim Final*, OSWER Directive 9285.7-66, U.S. Environmental Protection Agency, Washington, D.C. http://www.epa.gov/ecotox/ecossl/

EPA, 2005d, *Ecological Soil Screening Level for Vanadium, Interim Final*, OSWER Directive 9285.7-75, U.S. Environmental Protection Agency, Washington, D.C. http://www.epa.gov/ecotox/ecossl/

EPA, 2006, *Ecological Soil Screening Level for Silver, Interim Final*, OSWER Directive 9285.7-77, U.S. Environmental Protection Agency, Washington, D.C. http://www.epa.gov/ecotox/ecossl/

EPA, 2007a, *Ecological Soil Screening Levels for Polycyclic Aromatic Hydrocarbons (PAHs), Interim Final*, OSWER Directive 9285.7-7i, U.S. Environmental Protection Agency, Washington, D.C. http://www.epa.gov/ecotox/ecossl/

EPA, 2007b, *Ecological Soil Screening Levels for DDT and Metabolites, Interim Final*, OSWER Directive 9285.7-57, U.S. Environmental Protection Agency, Washington, D.C. http://www.epa.gov/ecotox/ecossl/

EPA, 2007c, *Ecological Soil Screening Levels for Manganese, Interim Final*, OSWER Directive 9285.7-71, U.S. Environmental Protection Agency, Washington, D.C. http://www.epa.gov/ecotox/ecossl/

EPA/240/B-01/003, 2001, *EPA Requirements for Quality Assurance Project Plans*, EPA QA/R-5, Quality Assurance Division, U.S. Environmental Protection Agency, Washington, D.C.

EPA/402/R-96/011, 1994, *Radiation Site Cleanup Regulations: Technical Support Document for the Development of Radionuclide Cleanup Levels for Soils*, Review Draft, Office of Air and Radiation, U.S. Environmental Protection Agency, Washington, D.C.

EPA/540/1-89/002, 1989, *Risk Assessment Guidance for Superfund Volume I Human Health Evaluation Manual, (Part A) Interim Final,* OSWER 9285.7-02B, U.S. Environmental Protection Agency, Washington, D.C.

EPA/540/2-88/002, 1988, *Technological Approaches to Cleanup of Radiologically Contaminated Superfund Sites*, U.S. Environmental Protection Agency, Washington, D.C.

EPA/540/G-89/004, 1988, *Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA, Interim Final*, OSWER 9355.3-01, Office of Solid Waste and Emergency Response, U.S. Environmental Protection Agency, Washington, D.C.

EPA/540/R-97/006, 1997, *Ecological Risk Assessment Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessments Interim Final*, Office of Solid Waste and Emergency Response, U.S. Environmental Protection Agency, Washington, D.C.

EPA/540/R-99/006, 1999, *Radiation Risk Assessment At CERCLA Sites: Q&A*, OSWER Directive 9200.4-31P, Office of Emergency and Remedial Response, Office of Radiation and Indoor Air, U.S. Environmental Protection Agency, Washington, D.C.

EPA/540/R-99/009, 1999, *Use of Monitored Natural Attenuation at Superfund RCRA Corrective Action and Underground Storage Tank Sites November 1997*, OSWER 9200.4-17P, Office of Emergency and Remedial Response, U.S. Environmental Protection Agency, Washington, D.C.

EPA/600/2-87/039, 1987, *Design, Construction and Maintenance of Cover Systems for Hazardous Waste, an Engineering Guidance Document*, U.S. Environmental Protection Agency, Washington, D.C.

EPA/630/P-03/002A, 2003, *Framework for Application of the Toxicity Equivalence Methodology for Polychlorinated Dioxins, Furans and Biphenyls in Ecological Risk Assessment, (External Review Draft)*, Risk Assessment Forum, U.S. Environmental Protection Agency, Washington, D.C.

Executive Order 12898, 1994, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, William J. Clinton, February 11.

Franklin and Dyrness, 1973, *Natural Vegetation of Oregon and Washington*, General Technical Report PNW-8, U.S. Department of Agriculture, Forest Service, Pacific Northwest Forest and Range Experiment Station, Portland, Oregon.

HAB 132, 2002, "Exposure Scenarios Task Force on the 200 Area," (letter to K. Klein, H. Boston, J. Iani, and T. Fitzsimmons from T. Martin), Hanford Advisory Board Consensus Advice #132, Richland, Washington, June 7.

Hakonson, T. E., J. L. Martinez, and G. C. White, 1982, "Disturbance of a Low-Level Waste Burial Site Cover by Pocket Gophers," *Health Physics*, 42:868-871.

Hanford Environmental Information System, Hanford Site database.

Harris, S., and B. Harper, 2004, *Exposure Scenario for CTUIR Traditional Subsistence Lifeways*, Department of Natural Resources, Pendleton, Oregon.

HNF-5507, 2000, *Subsurface Conditions Description for the B-BX-BY Waste Management Area*, Rev. 0A, CH2M HILL Hanford Group, Inc., Richland, Washington.

Hoover, J., 2007, "RE: Background Value Question," (External Letter to D. Jones, TerraGraphics), Fluor Hanford, Inc., Richland, Washington, January 29.

HW-43121, 1956, *Tabulation of Radioactive Liquid Waste Disposal Facilities*, General Electric Company, Richland, Washington.

ITRC, 2003, *Technical and Regulatory Guidance for Design, Installation, and Monitoring of Alternative Final Landfill Covers*, ALT-2, Interstate Technology & Regulatory Council, Washington, D.C.

Jones, D., S. L. Domotor, K. A. Higley, D. Kocher, and G. Bilyard, 2003, "Principles and Issues in Radiological Ecological Risk Assessment," *Journal of Environmental Radioactivity*, Vol. 66, pp. 19-39.

Klaassen, C. D. (ed.), 2001, *Casarett and Doull's Toxicology: The Basic Science of Poisons*, 6th ed., Macmillan Publishing Company, New York, New York.

Klein, K. A., D. R. Einan, and M. A. Wilson, 2002, "Consensus Advice #132: Exposure Scenarios Task Force on the 200 Area" (letter to Mr. Todd Martin, Hanford Advisory Board, from Keith A. Klein, U.S. Department of Energy; David R. Einan, U.S. Environmental Protection Agency; and Michael A. Wilson, State of Washington, Department of Ecology, 02-HAB-0006), Richland, Washington, July 11.

LA-UR-05-7424, 2005, *ECORISK Database*, Release 2.2, Environmental Stewardship Division Environmental Remediation and Surveillance Program, Los Alamos National Laboratory, Los Alamos, New Mexico.

LMEA, 2007, *Resident Civilian Labor Force and Employment,* Washington State Labor Market and Economic Analysis, Olympia, Washington. http://www.workforceexplorer.com/. (Data accessed May 9, 2007.)

Looney, C., 2007, *Hanford*, Washington State University, Pullman, Washington. Data obtained online June 2007 at http://www.wsu.edu:8080/~zack/hanford.html.

MEDLINE database, www.medline.com

Migratory Bird Treaty Act (1918), 16 USC 703, et. seq.

NAS, 1989, *Recommended Dietary Allowances*, National Academy of Science, Washington, D.C.

National Environmental Policy Act of 1969, 42 USC 4321, et seq.

National Historic Preservation Act of 1966, 16 USC 470, et seq.

OFM, 2007, *2006 Population Estimates by Age, Gender, Race and Hispanic Origin, Using the Office of Management and Budget New Classifications*, Office of Financial Management, Olympia, Washington. http://www.ofm.wa.gov/pop/race/summarytables06.asp.

PNL-10872, 1995, *Hanford Prototype-Barrier Status Report: FY 1995*, Pacific Northwest Laboratory, Richland, Washington.

PNL-5506, 1986, *Hanford Site Water Table Changes 1950 through 1980 – Data Observation and Evaluation*, Pacific Northwest Laboratory, Richland, Washington.

PNL-7264, 1990, *Archaeological Survey of the 200 East and 200 West Areas, Hanford Site, Washington,* Pacific Northwest Laboratory, Richland, Washington.

PNL-8478, 1993, *Soil Erosion Rates Caused by Wind and Saltating Sand Stresses in a Wind Tunnel*, Pacific National Laboratory, Richland, Washington.

PNL-8942, 1993, *Habitat Types on the Hanford Site: Wildlife and Plant Species of Concern*, Pacific Northwest Laboratory, Richland, Washington.

PNL-9004, 1994, *Barrier Analogs: Long-Term Performance Issues, Preliminary Studies, and Recommendations*, Pacific Northwest Laboratory, Richland, Washington.

PNNL-6415, 2007, *Hanford Site National Environmental Policy Act (NEPA) Characterization,* Rev. 18, Pacific Northwest National Laboratory, Richland, Washington. http://www.pnl.gov/main/publications/external/technical_reports/PNNL-6415Rev18.pdf

PNNL-11472, 1997, *Hanford Site Environmental Report for Calendar Year 1996,* Pacific Northwest National Laboratory, Richland, Washington.

PNNL-12261, 2001, *Revised Hydrogeology for the Suprabasalt Aquifer System, 200-East Area and Vicinity, Hanford Site, Washington*, Pacific Northwest National Laboratory, Richland, Washington.

PNNL-13198, 2000, *Borehole Data Package for the 216-S-10 Pond and Ditch Well 299-W26-13,* Rev. 0, Pacific Northwest National Laboratory, Richland, Washington.

PNNL-13230, 2000, *Hanford Site Environmental Report for Calendar Year 1999*, Pacific Northwest National Laboratory, Richland, Washington.

PNNL-13788, 2002, *Hanford Site Groundwater Monitoring for Fiscal Year 2001*, Pacific Northwest National Laboratory, Richland, Washington.

PNNL-13858, 2002, *Revised Hydrogeology for the Suprabasalt Aquifer System, 200-West Area and Vicinity, Hanford Site, Washington*, Pacific Northwest National Laboratory, Richland, Washington.

PNNL-13910, 2002, *Hanford Site Environmental Report for Calendar Year 2001*, Pacific Northwest National Laboratory, Richland, Washington.

PubMed database, www.ncbi.nlm.nih.gov/PubMed

Resource Conservation and Recovery Act of 1976, 42 USC 6901, et seq.

RHO-CD-1010, 1980, *B Plant Chemical Sewer System Upgrade*, Rockwell Hanford Operations, Richland, Washington.

RHO-CD-673, 1979, *Handbook 200 Areas Waste Sites*, 3 vols., Rockwell Hanford Operations, Richland, Washington.

RHO-CD-798, 1979, *Current Status of the 200 Area Ponds*, Rockwell Hanford Operations, Richland, Washington.

Ridolfi Inc., 2007, *Yakama Nation Exposure Scenario for Hanford Site Risk Assessment*, prepared for the Yakama Nation, Richland, Washington.

Roesler, A. C., Benson, C. H, and Albright, W. H., 2002, "Field Hydrology and Model Predictions for Final Covers in the Alternative Cover Assessment Program," Geo Engineering Report No. 02-08, Geo Engineering Program, Univeristy of Wisconsin-Madison, Madison, Wisconsin.

Ryti, R. T., J. Markwiese, R. Mirenda, and L. Soholt, 2004, "Preliminary Remediation Goals for Terrestrial Wildlife," *Human and Ecological Risk Assessment* 10:1-14.

SD-496-CDR-001, 1984, *Conceptual Design Report Chemical Sewer Upgrade, 221-B Project B-496*, Rockwell Hanford Operations, Richland, Washington.

Sheppard, S. C., M. I. Sheppard, M. Gallerand, and B. Sanipelli, 2005, "Derivation of Ecotoxicity Thresholds for Uranium," *J. of Environ. Radioact.* 79:55-83.

Smith, M. R., 1994, *Evaluating the Conservation of Avian Diversity in Eastern Washington: A Geographic Analysis of Upland Breeding Birds*, M.S. Thesis, University of Washington, Seattle, Washington.

TNC, 1999, *Biodiversity Inventory and Analysis of the Hanford Site, Final Report 1994-1999*, The Nature Conservancy of Washington, Seattle, Washington.

WAC 173-160, "Minimum Standards for Construction and Maintenance of Wells," *Washington Administrative Code*, as amended, Washington State Department of Ecology, Olympia, Washington.

WAC 173-303, "Dangerous Waste Regulations," *Washington Administrative Code*, as amended, Washington State Department of Ecology, Olympia, Washington.

- 173-303-610, "Closure and Post-Closure."
- 173-303-665, "Landfills."

WAC 173-340, "Model Toxics Control Act -- Cleanup," *Washington Administrative Code*, as amended, Washington State Department of Ecology, Olympia, Washington.

- WAC 173-340-720, "Ground Water Cleanup Standards."
- 173-340-740(3), "Method B Soil Cleanup Levels for Unrestricted Land Use."
- 173-340-740(6), "Point of Compliance."

- 173-340-740, "Unrestricted Land Use Soil Cleanup Standards."
- 173-340-745, "Soil Cleanup Standards for Industrial Properties."
- 173-340-745(5), "Method C Industrial Soil Cleanup Levels."
- 173-340-745(5)(b), "Standard Method C Industrial Soil Cleanup Levels."
- 173-340-745(7), "Point of Compliance."
- 173-340-747, "Deriving Soil Concentrations for Ground Water Protection."
- 173-340-747(5), "Deriving Soil Concentrations for Groundwater Protection."
- 173-340-7490, "Terrestrial Ecological Evaluation Procedures."
- 173-340-7493, "Site-Specific Terrestrial Ecological Evaluation Procedures."
- 173-340-900, "Tables."

WAC 232-12-297, "Permanent Regulations," "Endangered, Threatened, and Sensitive Wildlife Species Classification," *Washington Administrative Code*, as amended, Washington State Department of Fish and Wildlife, Olympia, Washington.

WAC 246-290, "Public Water Supplies," *Washington Administrative Code*, as amended, Washington State Department of Health, Olympia, Washington.

Waste Information Data System Report, Hanford Site database.

WCH-191, 2007, *Environmental Restoration Disposal Facility Waste Acceptance Criteria*, Rev. 0, Washington Closure Hanford, Richland, Washington.

WHC-EP-0342, 1990, Addendum 2, *PUREX Plant Chemical Sewer Stream-Specific Report*, Westinghouse Hanford Company, Richland, Washington.

WHC-EP-0342, 1990, Addendum 6, *B Plant Chemical Sewer Stream-Specific Report*, Westinghouse Hanford Company, Richland, Washington.

WHC-EP-0342, 1990, Addendum 9, *S Plant Wastewater Stream-Specific Report*, Westinghouse Hanford Company, Richland, Washington.

WHC-SA-2377-FP, 1994, *The Development of Surface Barriers at the Hanford Site*, Westinghouse Hanford Company, Richland, Washington.

WHC-SD-EN-AP-031, 1990, *Interim-Status Groundwater Quality Assessment Program Plan for the 216-A-29 Ditch*, Rev. 0-A, Westinghouse Hanford Company, Richland, Washington.

WHC-SD-EN-TI-216, 1994, *Vegetation Communities Associated with the 100-Area and 200-Area Facilities on the Hanford Site*, Westinghouse Hanford Company, Richland, Washington.

WMP-17755, 2003, *200-CS-1 Operable Unit Field Summary Report for Fiscal Year 2003*, Rev. 0, Fluor Hanford, Inc., Richland, Washington.

WMP-20570, 2006, *Central Plateau Terrestrial Ecological Risk Assessment Data Quality Objectives Summary Report – Phase I*, Rev. 0, Fluor Hanford, Inc., Richland, Washington.

WNHP, 1998, *Washington Rare Plant Species by County*, Washington Natural Heritage Program, Washington State Department of Natural Resources, Olympia, Washington. http://www.wa.gov/dnr/htdocs/fr/nhp/plantco.html#benton

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APPENDIX A

REMEDIAL INVESTIGATION REPORT FULL APPENDIX TABLES (RIRFAT)

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216-A-29 Trench, GENORG

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Aroclor-1016 (12674-11-2) 8080_PESTPCB_GC				Aroclor-1016 (12674-11-2) 8082				Aroclor-1221 (11104-28-2) 8080_PESTPCB_GC			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	RLNP	B0P708	35	ug/kg	U	.					71	ug/kg	U	.
18591	7.298	7.298	B0P710	R	7/6/98 11:33	RLNP	B0P710	36	ug/kg	U	.					71	ug/kg	U	.
18591	7.298	7.298	B0P712	R	7/6/98 11:33	RLNP	B0P712	35	ug/kg	U	.					71	ug/kg	U	.
18591	4.30008	4.30008	B0P714		7/6/98 12:15	RLNP	B0P714	35	ug/kg	U	.					70	ug/kg	U	.
18592	2.999232	2.999232	B0P716		7/7/98 8:31	RLNP	B0P716	36	ug/kg	U	.					71	ug/kg	U	.
18592	6.99952	6.99952	B0P718		7/7/98 8:44	RLNP	B0P718	36	ug/kg	U	.					72	ug/kg	U	.
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	RLNP	B0P720	38	ug/kg	U	.					76	ug/kg	U	.
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	RLNP	B0P722	38	ug/kg	U	.					76	ug/kg	U	.
18592	12.99536	12.99536	B0P724		7/7/98 9:20	RLNP	B0P724	40	ug/kg	U	.					79	ug/kg	U	.
18592	15.99656	15.99656	B0P726		7/7/98 9:42	RLNP	B0P726	34	ug/kg	U	.					69	ug/kg	U	.
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77					38	ug/kg	U	.				
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78					34	ug/kg	U	.				
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79					34	ug/kg	U	.				
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80					35	ug/kg	U	.				
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81					40	ug/kg	U	.				
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89					34	ug/kg	U	.				
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9					2600	ug/kg	U	.				
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0					36	ug/kg	U	.				
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1					38	ug/kg	U	.				
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2					34	ug/kg	U	.				
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3					34	ug/kg	U	.				
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3					39	ug/kg	U	.				
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4					39	ug/kg	U	.				
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5					35	ug/kg	U	.				
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6					36	ug/kg	U	.				
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7					34	ug/kg	U	.				
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8					2.7	ug/kg	U	.				
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9					37	ug/kg	U	.				
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546					35	ug/kg	U	.				
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548					35	ug/kg	U	.				
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549					36	ug/kg	U	.				
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550					35	ug/kg	U	.				
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551					35	ug/kg	U	.				
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552					37	ug/kg	U	.				
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553					35	ug/kg	U	.				
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555					34	ug/kg	U	.				
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A					34	ug/kg	U	.				
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4					35	ug/kg	U	.				
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5					35	ug/kg	U	.				
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6					41	ug/kg	U	.				
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7					37	ug/kg	U	.				
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7					37	ug/kg	U	.				

216-A-29 Trench, GENORG

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Aroclor-1221 (11104-28-2) 8082				Aroclor-1232 (11141-16-5) 8080_PESTPCB_GC				Aroclor-1232 (11141-16-5) 8082			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	RLNP	B0P708					35	ug/kg	U	.				
18591	7.298	7.298	B0P710	R	7/6/98 11:33	RLNP	B0P710					36	ug/kg	U	.				
18591	7.298	7.298	B0P712	R	7/6/98 11:33	RLNP	B0P712					35	ug/kg	U	.				
18591	4.30008	4.30008	B0P714		7/6/98 12:15	RLNP	B0P714					35	ug/kg	U	.				
18592	2.999232	2.999232	B0P716		7/7/98 8:31	RLNP	B0P716					36	ug/kg	U	.				
18592	6.99952	6.99952	B0P718		7/7/98 8:44	RLNP	B0P718					36	ug/kg	U	.				
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	RLNP	B0P720					38	ug/kg	U	.				
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	RLNP	B0P722					38	ug/kg	U	.				
18592	12.99536	12.99536	B0P724		7/7/98 9:20	RLNP	B0P724					40	ug/kg	U	.				
18592	15.99656	15.99656	B0P726		7/7/98 9:42	RLNP	B0P726					34	ug/kg	U	.				
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77	76	ug/kg	U	.					38	ug/kg	U	.
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78	69	ug/kg	U	.					34	ug/kg	U	.
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79	69	ug/kg	U	.					34	ug/kg	U	.
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80	69	ug/kg	U	.					35	ug/kg	U	.
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81	81	ug/kg	U	.					40	ug/kg	U	.
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89	68	ug/kg	U	.					34	ug/kg	U	.
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9	5100	ug/kg	U	.					2600	ug/kg	U	.
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0	72	ug/kg	U	.					36	ug/kg	U	.
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1	76	ug/kg	U	.					38	ug/kg	U	.
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2	68	ug/kg	U	.					34	ug/kg	U	.
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3	68	ug/kg	U	.					34	ug/kg	U	.
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3	78	ug/kg	U	.					39	ug/kg	U	.
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4	78	ug/kg	U	.					39	ug/kg	U	.
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5	70	ug/kg	U	.					35	ug/kg	U	.
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6	72	ug/kg	U	.					36	ug/kg	U	.
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7	69	ug/kg	U	.					34	ug/kg	U	.
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8	2.7	ug/kg	U	.					2.7	ug/kg	U	.
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9	75	ug/kg	U	.					37	ug/kg	U	.
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546	70	ug/kg	U	.					35	ug/kg	U	.
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548	69	ug/kg	U	.					35	ug/kg	U	.
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549	73	ug/kg	U	.					36	ug/kg	U	.
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550	69	ug/kg	U	.					35	ug/kg	U	.
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551	69	ug/kg	U	.					35	ug/kg	U	.
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552	73	ug/kg	U	.					37	ug/kg	U	.
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553	71	ug/kg	U	.					35	ug/kg	U	.
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555	69	ug/kg	U	.					34	ug/kg	U	.
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A	34	ug/kg	U	.					34	ug/kg	U	.
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4	69	ug/kg	U	.					35	ug/kg	U	.
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5	70	ug/kg	U	.					35	ug/kg	U	.
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6	83	ug/kg	U	.					41	ug/kg	U	.
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7	74	ug/kg	U	.					37	ug/kg	U	.
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7	74	ug/kg	U	.					37	ug/kg	U	.

216-A-29 Trench, GENORG

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Aroclor-1242 (53469-21-9) 8080_PESTPCB_GC				Aroclor-1242 (53469-21-9) 8082				Aroclor-1248 (12672-29-6) 8080_PESTPCB_GC			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	RLNP	B0P708	35	ug/kg	U	.					35	ug/kg	U	.
18591	7.298	7.298	B0P710	R	7/6/98 11:33	RLNP	B0P710	36	ug/kg	U	.					36	ug/kg	U	.
18591	7.298	7.298	B0P712	R	7/6/98 11:33	RLNP	B0P712	35	ug/kg	U	.					35	ug/kg	U	.
18591	4.30008	4.30008	B0P714		7/6/98 12:15	RLNP	B0P714	35	ug/kg	U	.					35	ug/kg	U	.
18592	2.999232	2.999232	B0P716		7/7/98 8:31	RLNP	B0P716	36	ug/kg	U	.					36	ug/kg	U	.
18592	6.99952	6.99952	B0P718		7/7/98 8:44	RLNP	B0P718	36	ug/kg	U	.					36	ug/kg	U	.
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	RLNP	B0P720	38	ug/kg	U	.					38	ug/kg	U	.
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	RLNP	B0P722	38	ug/kg	U	.					38	ug/kg	U	.
18592	12.99536	12.99536	B0P724		7/7/98 9:20	RLNP	B0P724	40	ug/kg	U	.					40	ug/kg	U	.
18592	15.99656	15.99656	B0P726		7/7/98 9:42	RLNP	B0P726	34	ug/kg	U	.					34	ug/kg	U	.
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77					38	ug/kg	U	.				
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78					34	ug/kg	U	.				
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79					34	ug/kg	U	.				
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80					35	ug/kg	U	.				
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81					40	ug/kg	U	.				
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89					34	ug/kg	U	.				
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9					2600	ug/kg	U	.				
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0					36	ug/kg	U	.				
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1					38	ug/kg	U	.				
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2					34	ug/kg	U	.				
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3					34	ug/kg	U	.				
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3					39	ug/kg	U	.				
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4					39	ug/kg	U	.				
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5					35	ug/kg	U	.				
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6					36	ug/kg	U	.				
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7					34	ug/kg	U	.				
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8					2.7	ug/kg	U	.				
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9					37	ug/kg	U	.				
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546					35	ug/kg	U	.				
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548					35	ug/kg	U	.				
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549					36	ug/kg	U	.				
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550					35	ug/kg	U	.				
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551					35	ug/kg	U	.				
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552					37	ug/kg	U	.				
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553					35	ug/kg	U	.				
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555					34	ug/kg	U	.				
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A					34	ug/kg	U	.				
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4					35	ug/kg	U	.				
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5					35	ug/kg	U	.				
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6					41	ug/kg	U	.				
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7					37	ug/kg	U	.				
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7					37	ug/kg	U	.				

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Aroclor-1248 (12672-29-6) 8082				Aroclor-1254 (11097-69-1) 8080_PESTPCB_GC				Aroclor-1254 (11097-69-1) 8082			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	RLNP	B0P708					35	ug/kg	U	.				
18591	7.298	7.298	B0P710	R	7/6/98 11:33	RLNP	B0P710					36	ug/kg	U	.				
18591	7.298	7.298	B0P712	R	7/6/98 11:33	RLNP	B0P712					35	ug/kg	U	.				
18591	4.30008	4.30008	B0P714		7/6/98 12:15	RLNP	B0P714					35	ug/kg	U	.				
18592	2.999232	2.999232	B0P716		7/7/98 8:31	RLNP	B0P716					36	ug/kg	U	.				
18592	6.99952	6.99952	B0P718		7/7/98 8:44	RLNP	B0P718					36	ug/kg	U	.				
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	RLNP	B0P720					38	ug/kg	U	.				
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	RLNP	B0P722					38	ug/kg	U	.				
18592	12.99536	12.99536	B0P724		7/7/98 9:20	RLNP	B0P724					40	ug/kg	U	.				
18592	15.99656	15.99656	B0P726		7/7/98 9:42	RLNP	B0P726					34	ug/kg	U	.				
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77	38	ug/kg	U	.					38	ug/kg	U	.
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78	34	ug/kg	U	.					34	ug/kg	U	.
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79	34	ug/kg	U	.					34	ug/kg	U	.
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80	35	ug/kg	U	.					35	ug/kg	U	.
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81	40	ug/kg	U	.					40	ug/kg	U	.
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89	34	ug/kg	U	.					34	ug/kg	U	.
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9	2600	ug/kg	U	.					9400	ug/kg	.	.
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0	36	ug/kg	U	.					36	ug/kg	U	.
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1	38	ug/kg	U	.					38	ug/kg	U	.
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2	34	ug/kg	U	.					34	ug/kg	U	.
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3	34	ug/kg	U	.					34	ug/kg	U	.
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3	39	ug/kg	U	.					39	ug/kg	U	.
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4	39	ug/kg	U	.					39	ug/kg	U	.
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5	35	ug/kg	U	.					35	ug/kg	U	.
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6	36	ug/kg	U	.					36	ug/kg	U	.
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7	34	ug/kg	U	.					34	ug/kg	U	.
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8	2.7	ug/kg	U	.					6.3	ug/kg	U	.
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9	37	ug/kg	U	.					37	ug/kg	U	.
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546	35	ug/kg	U	.					50	ug/kg	U	.
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548	35	ug/kg	U	.					35	ug/kg	U	.
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549	36	ug/kg	U	.					36	ug/kg	U	.
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550	35	ug/kg	U	.					35	ug/kg	U	.
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551	35	ug/kg	U	.					50	ug/kg	U	.
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552	37	ug/kg	U	.					37	ug/kg	U	.
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553	35	ug/kg	U	.					35	ug/kg	U	.
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555	34	ug/kg	U	.					34	ug/kg	U	.
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A	34	ug/kg	U	.					34	ug/kg	U	.
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4	35	ug/kg	U	.					35	ug/kg	U	.
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5	35	ug/kg	U	.					35	ug/kg	U	.
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6	41	ug/kg	U	.					41	ug/kg	U	.
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7	37	ug/kg	U	.					37	ug/kg	U	.
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7	37	ug/kg	U	.					2500	ug/kg	.	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Aroclor-1260 (11096-82-5) 8080_PESTPCB_GC				Aroclor-1260 (11096-82-5) 8082				Aroclor-1262 (37324-23-5) 8082			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	RLNP	B0P708	35	ug/kg	U	.								
18591	7.298	7.298	B0P710	R	7/6/98 11:33	RLNP	B0P710	36	ug/kg	U	.								
18591	7.298	7.298	B0P712	R	7/6/98 11:33	RLNP	B0P712	35	ug/kg	U	.								
18591	4.30008	4.30008	B0P714		7/6/98 12:15	RLNP	B0P714	35	ug/kg	U	.								
18592	2.999232	2.999232	B0P716		7/7/98 8:31	RLNP	B0P716	36	ug/kg	U	.								
18592	6.99952	6.99952	B0P718		7/7/98 8:44	RLNP	B0P718	36	ug/kg	U	.								
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	RLNP	B0P720	38	ug/kg	U	.								
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	RLNP	B0P722	38	ug/kg	U	.								
18592	12.99536	12.99536	B0P724		7/7/98 9:20	RLNP	B0P724	40	ug/kg	U	.								
18592	15.99656	15.99656	B0P726		7/7/98 9:42	RLNP	B0P726	34	ug/kg	U	.								
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77					38	ug/kg	U	.				
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78					34	ug/kg	U	.				
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79					34	ug/kg	U	.				
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80					35	ug/kg	U	.				
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81					40	ug/kg	U	.				
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89					34	ug/kg	U	.				
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9					2600	ug/kg	U	.				
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0					36	ug/kg	U	.				
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1					38	ug/kg	U	.				
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2					34	ug/kg	U	.				
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3					34	ug/kg	U	.				
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3					39	ug/kg	U	.				
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4					39	ug/kg	U	.				
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5					35	ug/kg	U	.				
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6					36	ug/kg	U	.				
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7					34	ug/kg	U	.				
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8					6.3	ug/kg	U	.				
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9					37	ug/kg	U	.				
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546					35	ug/kg	U	.				
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548					35	ug/kg	U	.				
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549					36	ug/kg	U	.				
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550					35	ug/kg	U	.				
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551					35	ug/kg	U	.				
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552					37	ug/kg	U	.				
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553					35	ug/kg	U	.				
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555					34	ug/kg	U	.				
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A					34	ug/kg	U	.	34	ug/kg	U	.
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4					35	ug/kg	U	.				
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5					35	ug/kg	U	.				
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6					41	ug/kg	U	.				
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7					37	ug/kg	U	.				
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7					37	ug/kg	U	.				

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Aroclor-1268 (11100-14-4) 8082				Total organic carbon (TOC) 9060				Total petroleum hydrocarbons - diesel range (TPHDIESEL) WDOE TPH			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	RLNP	B0P708												
18591	7.298	7.298	B0P710	R	7/6/98 11:33	RLNP	B0P710												
18591	7.298	7.298	B0P712	R	7/6/98 11:33	RLNP	B0P712												
18591	4.30008	4.30008	B0P714		7/6/98 12:15	RLNP	B0P714												
18592	2.999232	2.999232	B0P716		7/7/98 8:31	RLNP	B0P716												
18592	6.99952	6.99952	B0P718		7/7/98 8:44	RLNP	B0P718												
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	RLNP	B0P720												
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	RLNP	B0P722												
18592	12.99536	12.99536	B0P724		7/7/98 9:20	RLNP	B0P724												
18592	15.99656	15.99656	B0P726		7/7/98 9:42	RLNP	B0P726												
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77									13800	ug/kg	U	.
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78									12400	ug/kg	U	.
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79									12300	ug/kg	U	.
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80									12400	ug/kg	U	.
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81									14600	ug/kg	U	.
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89									12300	ug/kg	U	.
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9									73600	ug/kg	U	J
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0									12800	ug/kg	U	.
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1									13700	ug/kg	U	.
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2									13700	ug/kg	U	.
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3									13700	ug/kg	U	.
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3									14200	ug/kg	U	.
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4									14000	ug/kg	U	.
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5									12600	ug/kg	U	.
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6									12900	ug/kg	U	.
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7									12400	ug/kg	U	.
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8									1400	ug/kg	U	.
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9									13500	ug/kg	U	.
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546									12600	ug/kg	U	.
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548									12500	ug/kg	U	.
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549									13100	ug/kg	U	.
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550									12500	ug/kg	U	.
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551									12500	ug/kg	U	.
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552									13200	ug/kg	U	.
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553									12700	ug/kg	U	.
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555									12400	ug/kg	U	.
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A	34	ug/kg	U	.					4900	ug/kg	U	.
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4									12500	ug/kg	U	.
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5									12600	ug/kg	U	.
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6									14900	ug/kg	U	.
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7									13200	ug/kg	U	.
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7									132000	ug/kg	U	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Total petroleum hydrocarbons - kerosene range (TPHKEROSENE)				Total petroleum hydrocarbons - motor oil (high boi (TPH/OILH)			
								WDOE TPH				WDOE TPH			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	RLNP	B0P708								
18591	7.298	7.298	B0P710	R	7/6/98 11:33	RLNP	B0P710								
18591	7.298	7.298	B0P712	R	7/6/98 11:33	RLNP	B0P712								
18591	4.30008	4.30008	B0P714		7/6/98 12:15	RLNP	B0P714								
18592	2.999232	2.999232	B0P716		7/7/98 8:31	RLNP	B0P716								
18592	6.99952	6.99952	B0P718		7/7/98 8:44	RLNP	B0P718								
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	RLNP	B0P720								
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	RLNP	B0P722								
18592	12.99536	12.99536	B0P724		7/7/98 9:20	RLNP	B0P724								
18592	15.99656	15.99656	B0P726		7/7/98 9:42	RLNP	B0P726								
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77	13800	ug/kg	U	.				
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78	12400	ug/kg	U	.				
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79	12300	ug/kg	U	.				
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80	12400	ug/kg	U	.				
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81					14.6	ug/kg	U	.
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89	12300	ug/kg	U	.				
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9					760000	ug/kg	.	J
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0	12800	ug/kg	U	.				
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1	13700	ug/kg	U	.				
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2	13700	ug/kg	U	.				
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3	13700	ug/kg	U	.				
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3	14200	ug/kg	U	.				
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4	14000	ug/kg	U	.				
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5	12600	ug/kg	U	.				
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6	12900	ug/kg	U	.				
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7	12400	ug/kg	U	.				
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8	26000	ug/kg	U	.				
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9	13500	ug/kg	U	.				
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546	12600	ug/kg	U	.				
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548	12500	ug/kg	U	.				
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549	13100	ug/kg	U	.				
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550	12500	ug/kg	U	.				
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551	12500	ug/kg	U	.				
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552	13200	ug/kg	U	.				
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553	12700	ug/kg	U	.				
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555	12400	ug/kg	U	.				
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A	4900	ug/kg	U	.				
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4	12500	ug/kg	U	.				
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5	12600	ug/kg	U	.				
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6	14900	ug/kg	U	.				
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7	13200	ug/kg	U	.				
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7	440000	ug/kg	.	.				

A-29 Trench, METAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Aluminum (7429-90-5) 6010				Antimony (7440-36-0) 6010				Arsenic (7440-38-2) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	RLNP	B0P708									2500	ug/kg	.	.
18591	7.298	7.298	B0P710	R	7/6/98 11:33	RLNP	B0P710									2600	ug/kg	.	.
18591	7.298	7.298	B0P712	R	7/6/98 11:33	RLNP	B0P712									2800	ug/kg	.	.
18591	4.30008	4.30008	B0P714		7/6/98 12:15	RLNP	B0P714									2600	ug/kg	.	.
18592	2.999232	2.999232	B0P716		7/7/98 8:31	RLNP	B0P716									3000	ug/kg	.	.
18592	6.99952	6.99952	B0P718		7/7/98 8:44	RLNP	B0P718									4000	ug/kg	.	.
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	RLNP	B0P720									3000	ug/kg	.	.
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	RLNP	B0P722									3300	ug/kg	.	.
18592	12.99536	12.99536	B0P724		7/7/98 9:20	RLNP	B0P724									2900	ug/kg	.	.
18592	15.99656	15.99656	B0P726		7/7/98 9:42	RLNP	B0P726									7200	ug/kg	.	.
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77									12200	ug/kg	.	.
10128	8.49848	9.49888	B13C77		10/30/01 8:50	TMANC	B13C77												
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78									3100	ug/kg	.	.
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	TMANC	B13C78												
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79									2200	ug/kg	.	.
10128	13.4972	14.4976	B13C79		10/30/01 9:45	TMANC	B13C79												
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80									3400	ug/kg	.	.
10128	15.99656	16.99696	B13C80		10/30/01 10:00	TMANC	B13C80												
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81	10100000	ug/kg	.	.					12100	ug/kg	.	.
10128	5.99912	6.99952	B13C81		10/30/01 8:30	TMANC	B13C81												
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89									2500	ug/kg	.	.
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	TMANC	B13C89												
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9	8370000	ug/kg	.	.					5800	ug/kg	.	.
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	TMANC	B13CK9												
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0									8700	ug/kg	.	.
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	TMANC	B13CL0												
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1									9200	ug/kg	.	.
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	TMANC	B13CL1												
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2									2400	ug/kg	.	.
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	TMANC	B13CL2												
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3									2200	ug/kg	.	.
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	TMANC	B13CL3												
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3									3800	ug/kg	.	.
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	TMANC	B13CR3												
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4									5400	ug/kg	.	.
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	TMANC	B13CR4												
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5									2400	ug/kg	.	.
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	TMANC	B13CR5												
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6									2400	ug/kg	.	.
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	TMANC	B13CR6												
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7									2200	ug/kg	.	.
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	TMANC	B13CR7												
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLRL	B13CR8												
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8									1800	ug/kg	.	.
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9	9250000	ug/kg	.	.					7700	ug/kg	.	.
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	TMANC	B13CR9												
B8826	6.49768	8.99704	B16546		4/7/03 13:40	EBRLNE	B16546												
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546									1900	ug/kg	.	.
B8826	8.99704	11.4964	B16548		4/7/03 14:15	EBRLNE	B16548												
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548									1600	ug/kg	.	.
B8826	11.99824	14.4976	B16549		4/7/03 14:50	EBRLNE	B16549												
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549									2300	ug/kg	.	.

A-29 Trench, METAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Barium (7440-39-3) 6010				Beryllium (7440-41-7) 6010				Bismuth (7440-69-9) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	RLNP	B0P708	91600	ug/kg	.	.								
18591	7.298	7.298	B0P710	R	7/6/98 11:33	RLNP	B0P710	78100	ug/kg	.	.								
18591	7.298	7.298	B0P712	R	7/6/98 11:33	RLNP	B0P712	73400	ug/kg	.	.								
18591	4.30008	4.30008	B0P714		7/6/98 12:15	RLNP	B0P714	73600	ug/kg	.	.								
18592	2.999232	2.999232	B0P716		7/7/98 8:31	RLNP	B0P716	74400	ug/kg	.	.								
18592	6.99952	6.99952	B0P718		7/7/98 8:44	RLNP	B0P718	78200	ug/kg	.	.								
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	RLNP	B0P720	77800	ug/kg	.	.								
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	RLNP	B0P722	71700	ug/kg	.	.								
18592	12.99536	12.99536	B0P724		7/7/98 9:20	RLNP	B0P724	56700	ug/kg	.	.								
18592	15.99656	15.99656	B0P726		7/7/98 9:42	RLNP	B0P726	92800	ug/kg	.	.								
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77	98500	ug/kg	.	.	510	ug/kg	.	.				
10128	8.49848	9.49888	B13C77		10/30/01 8:50	TMANC	B13C77												
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78	69200	ug/kg	.	.	440	ug/kg	.	.				
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	TMANC	B13C78												
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79	59900	ug/kg	.	.	400	ug/kg	.	.				
10128	13.4972	14.4976	B13C79		10/30/01 9:45	TMANC	B13C79												
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80	59900	ug/kg	.	.	340	ug/kg	.	.				
10128	15.99656	16.99696	B13C80		10/30/01 10:00	TMANC	B13C80												
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81	118000	ug/kg	.	.	80	ug/kg	.	.	390	ug/kg	U	.
10128	5.99912	6.99952	B13C81		10/30/01 8:30	TMANC	B13C81												
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89	64700	ug/kg	.	.	320	ug/kg	.	.				
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	TMANC	B13C89												
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9	83000	ug/kg	.	.	10	ug/kg	U	.	470	ug/kg	U	.
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	TMANC	B13CK9												
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0	87500	ug/kg	.	.	500	ug/kg	.	.				
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	TMANC	B13CL0												
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1	110000	ug/kg	.	.	550	ug/kg	.	.				
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	TMANC	B13CL1												
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2	61500	ug/kg	.	.	340	ug/kg	.	.				
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	TMANC	B13CL2												
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3	58800	ug/kg	.	.	350	ug/kg	.	.				
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	TMANC	B13CL3												
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3	61400	ug/kg	.	.	380	ug/kg	.	.				
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	TMANC	B13CR3												
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4	52000	ug/kg	.	.	480	ug/kg	.	.				
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	TMANC	B13CR4												
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5	79300	ug/kg	.	.	510	ug/kg	.	.				
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	TMANC	B13CR5												
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6	71700	ug/kg	.	.	410	ug/kg	.	.				
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	TMANC	B13CR6												
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7	59900	ug/kg	.	.	290	ug/kg	.	.				
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	TMANC	B13CR7												
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLRL	B13CR8												
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8	78300	ug/kg	.	.	430	ug/kg	B	.				
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9	99000	ug/kg	.	.	11	ug/kg	U	.	357	ug/kg	U	.
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	TMANC	B13CR9												
B8826	6.49768	8.99704	B16546		4/7/03 13:40	EBRLNE	B16546												
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546	74500	ug/kg	.	.	470	ug/kg	.	.				
B8826	8.99704	11.4964	B16548		4/7/03 14:15	EBRLNE	B16548												
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548	61800	ug/kg	.	.	510	ug/kg	.	.				
B8826	11.99824	14.4976	B16549		4/7/03 14:50	EBRLNE	B16549												
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549	93800	ug/kg	.	.	440	ug/kg	.	.				

A-29 Trench, METAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Boron (7440-42-8) 6010				Cadmium (7440-43-9) 6010				Cadmium (7440-43-9) TCLP/6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	RLNP	B0P708					440	ug/kg	B	.				
18591	7.298	7.298	B0P710	R	7/6/98 11:33	RLNP	B0P710					150	ug/kg	B	.				
18591	7.298	7.298	B0P712	R	7/6/98 11:33	RLNP	B0P712					200	ug/kg	B	.				
18591	4.30008	4.30008	B0P714		7/6/98 12:15	RLNP	B0P714					150	ug/kg	B	.				
18592	2.999232	2.999232	B0P716		7/7/98 8:31	RLNP	B0P716					180	ug/kg	B	.				
18592	6.99952	6.99952	B0P718		7/7/98 8:44	RLNP	B0P718					160	ug/kg	B	.				
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	RLNP	B0P720					200	ug/kg	B	.				
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	RLNP	B0P722					200	ug/kg	B	.				
18592	12.99536	12.99536	B0P724		7/7/98 9:20	RLNP	B0P724					2200	ug/kg	.	.				
18592	15.99656	15.99656	B0P726		7/7/98 9:42	RLNP	B0P726					320	ug/kg	B	.				
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77					300	ug/kg	.	.				
10128	8.49848	9.49888	B13C77		10/30/01 8:50	TMANC	B13C77												
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78					180	ug/kg	.	.				
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	TMANC	B13C78												
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79					150	ug/kg	.	.				
10128	13.4972	14.4976	B13C79		10/30/01 9:45	TMANC	B13C79												
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80					10	ug/kg	.	.				
10128	15.99656	16.99696	B13C80		10/30/01 10:00	TMANC	B13C80												
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81	3100	ug/kg	.	.	270	ug/kg	.	.				
10128	5.99912	6.99952	B13C81		10/30/01 8:30	TMANC	B13C81												
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89					120	ug/kg	.	.				
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	TMANC	B13C89												
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9	3400	ug/kg	.	.	28000	ug/kg	.	.	449	ug/L	.	.
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	TMANC	B13CK9												
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0					130	ug/kg	.	.				
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	TMANC	B13CL0												
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1					30	ug/kg	U	.				
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	TMANC	B13CL1												
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2					30	ug/kg	U	.				
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	TMANC	B13CL2												
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3					30	ug/kg	U	.				
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	TMANC	B13CL3												
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3					2300	ug/kg	.	.	20	ug/L	.	.
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	TMANC	B13CR3												
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4					1200	ug/kg	.	.	14.3	ug/L	.	.
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	TMANC	B13CR4												
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5					30	ug/kg	U	.				
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	TMANC	B13CR5												
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6					30	ug/kg	U	.				
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	TMANC	B13CR6												
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7					30	ug/kg	U	.				
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	TMANC	B13CR7												
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLRL	B13CR8												
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8					260	ug/kg	B	.				
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9	2600	ug/kg	.	.	153	ug/kg	.	.				
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	TMANC	B13CR9												
B8826	6.49768	8.99704	B16546		4/7/03 13:40	EBRLNE	B16546												
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546					340	ug/kg	.	.				
B8826	8.99704	11.4964	B16548		4/7/03 14:15	EBRLNE	B16548												
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548					580	ug/kg	.	.				
B8826	11.99824	14.4976	B16549		4/7/03 14:50	EBRLNE	B16549												
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549					140	ug/kg	.	.				

A-29 Trench, METAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Calcium (7440-70-2) 6010				Chromium (7440-47-3) 6010				Cobalt (7440-48-4) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	RLNP	B0P708					5600	ug/kg	.	.				
18591	7.298	7.298	B0P710	R	7/6/98 11:33	RLNP	B0P710					8000	ug/kg	.	.				
18591	7.298	7.298	B0P712	R	7/6/98 11:33	RLNP	B0P712					8000	ug/kg	.	.				
18591	4.30008	4.30008	B0P714		7/6/98 12:15	RLNP	B0P714					7300	ug/kg	.	.				
18592	2.999232	2.999232	B0P716		7/7/98 8:31	RLNP	B0P716					8200	ug/kg	.	.				
18592	6.99952	6.99952	B0P718		7/7/98 8:44	RLNP	B0P718					8400	ug/kg	.	.				
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	RLNP	B0P720					8500	ug/kg	.	.				
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	RLNP	B0P722					8200	ug/kg	.	.				
18592	12.99536	12.99536	B0P724		7/7/98 9:20	RLNP	B0P724					12000	ug/kg	.	.				
18592	15.99656	15.99656	B0P726		7/7/98 9:42	RLNP	B0P726					4600	ug/kg	.	.				
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77					9600	ug/kg	.	.				
10128	8.49848	9.49888	B13C77		10/30/01 8:50	TMANC	B13C77												
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78					4000	ug/kg	.	.				
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	TMANC	B13C78												
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79					4300	ug/kg	.	.				
10128	13.4972	14.4976	B13C79		10/30/01 9:45	TMANC	B13C79												
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80					3500	ug/kg	.	.				
10128	15.99656	16.99696	B13C80		10/30/01 10:00	TMANC	B13C80												
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81	24300000	ug/kg	.	.	11800	ug/kg	.	.				
10128	5.99912	6.99952	B13C81		10/30/01 8:30	TMANC	B13C81												
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89					3000	ug/kg	.	.				
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	TMANC	B13C89												
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9	9880000	ug/kg	.	.	36800	ug/kg	.	.				
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	TMANC	B13CK9												
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0					7800	ug/kg	.	.				
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	TMANC	B13CL0												
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1					10000	ug/kg	.	.				
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	TMANC	B13CL1												
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2					7900	ug/kg	.	.				
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	TMANC	B13CL2												
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3					4800	ug/kg	.	.				
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	TMANC	B13CL3												
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3					12000	ug/kg	.	.				
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	TMANC	B13CR3												
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4					11300	ug/kg	.	.				
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	TMANC	B13CR4												
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5					8500	ug/kg	.	.				
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	TMANC	B13CR5												
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6					9700	ug/kg	.	.				
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	TMANC	B13CR6												
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7					8900	ug/kg	.	.				
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	TMANC	B13CR7												
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLRL	B13CR8												
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8					4700	ug/kg	.	.				
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9	9350000	ug/kg	.	.	11600	ug/kg	.	.				
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	TMANC	B13CR9												
B8826	6.49768	8.99704	B16546		4/7/03 13:40	EBRLNE	B16546												
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546					5500	ug/kg	.	J				
B8826	8.99704	11.4964	B16548		4/7/03 14:15	EBRLNE	B16548												
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548					4700	ug/kg	.	J				
B8826	11.99824	14.4976	B16549		4/7/03 14:50	EBRLNE	B16549												
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549					3700	ug/kg	.	J				

A-29 Trench, METAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Copper (7440-50-8) 6010				Hexavalent Chromium (18540-29-9) 7196				Iron (7439-89-6) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	RLNP	B0P708												
18591	7.298	7.298	B0P710	R	7/6/98 11:33	RLNP	B0P710												
18591	7.298	7.298	B0P712	R	7/6/98 11:33	RLNP	B0P712												
18591	4.30008	4.30008	B0P714		7/6/98 12:15	RLNP	B0P714												
18592	2.999232	2.999232	B0P716		7/7/98 8:31	RLNP	B0P716												
18592	6.99952	6.99952	B0P718		7/7/98 8:44	RLNP	B0P718												
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	RLNP	B0P720												
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	RLNP	B0P722												
18592	12.99536	12.99536	B0P724		7/7/98 9:20	RLNP	B0P724												
18592	15.99656	15.99656	B0P726		7/7/98 9:42	RLNP	B0P726												
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77	18100	ug/kg	.	.	460	ug/kg	U	.				
10128	8.49848	9.49888	B13C77		10/30/01 8:50	TMANC	B13C77												
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78	15700	ug/kg	.	.	420	ug/kg	U	.				
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	TMANC	B13C78												
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79	13500	ug/kg	.	.	410	ug/kg	U	.				
10128	13.4972	14.4976	B13C79		10/30/01 9:45	TMANC	B13C79												
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80	12600	ug/kg	.	.	420	ug/kg	U	.				
10128	15.99656	16.99696	B13C80		10/30/01 10:00	TMANC	B13C80												
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81	19500	ug/kg	.	.	490	ug/kg	U	.	26400000	ug/kg	.	.
10128	5.99912	6.99952	B13C81		10/30/01 8:30	TMANC	B13C81												
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89	12200	ug/kg	.	.	420	ug/kg	U	.				
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	TMANC	B13C89												
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9	172000	ug/kg	.	.	3000	ug/kg	.	.	26800000	ug/kg	.	.
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	TMANC	B13CK9												
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0	16300	ug/kg	.	.	430	ug/kg	U	.				
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	TMANC	B13CL0												
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1	19400	ug/kg	.	.	460	ug/kg	U	.				
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	TMANC	B13CL1												
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2	12400	ug/kg	.	.	560	ug/kg	.	.				
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	TMANC	B13CL2												
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3	12100	ug/kg	.	.	410	ug/kg	U	.				
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	TMANC	B13CL3												
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3	29900	ug/kg	.	.	4600	ug/kg	.	.				
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	TMANC	B13CR3												
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4	30900	ug/kg	.	.	8800	ug/kg	.	.				
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	TMANC	B13CR4												
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5	12300	ug/kg	.	.	1100	ug/kg	.	.				
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	TMANC	B13CR5												
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6	11900	ug/kg	.	.	900	ug/kg	.	.				
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	TMANC	B13CR6												
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7	10500	ug/kg	.	.	520	ug/kg	.	.				
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	TMANC	B13CR7												
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLRL	B13CR8												
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8	12900	ug/kg	B	.	57	ug/kg	U	.				
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9	16600	ug/kg	.	.	450	ug/kg	U	.	26900000	ug/kg	.	.
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	TMANC	B13CR9												
B8826	6.49768	8.99704	B16546		4/7/03 13:40	EBRLNE	B16546												
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546	14600	ug/kg	.	.	420	ug/kg	U	.				
B8826	8.99704	11.4964	B16548		4/7/03 14:15	EBRLNE	B16548												
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548	13700	ug/kg	.	.	420	ug/kg	U	.				
B8826	11.99824	14.4976	B16549		4/7/03 14:50	EBRLNE	B16549												
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549	13600	ug/kg	.	.	440	ug/kg	U	.				

A-29 Trench, METAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Lead (7439-92-1) 6010				Lead (7439-92-1) TCLP/6010				Magnesium (7439-95-4) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	RLNP	B0P708	5000	ug/kg	.	.								
18591	7.298	7.298	B0P710	R	7/6/98 11:33	RLNP	B0P710	4200	ug/kg	.	.								
18591	7.298	7.298	B0P712	R	7/6/98 11:33	RLNP	B0P712	4200	ug/kg	.	.								
18591	4.30008	4.30008	B0P714		7/6/98 12:15	RLNP	B0P714	3500	ug/kg	.	.								
18592	2.999232	2.999232	B0P716		7/7/98 8:31	RLNP	B0P716	4000	ug/kg	.	.								
18592	6.99952	6.99952	B0P718		7/7/98 8:44	RLNP	B0P718	4500	ug/kg	.	.								
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	RLNP	B0P720	4300	ug/kg	.	.								
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	RLNP	B0P722	4300	ug/kg	.	.								
18592	12.99536	12.99536	B0P724		7/7/98 9:20	RLNP	B0P724	98200	ug/kg	.	.								
18592	15.99656	15.99656	B0P726		7/7/98 9:42	RLNP	B0P726	1800	ug/kg	.	.								
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77	11100	ug/kg	.	.								
10128	8.49848	9.49888	B13C77		10/30/01 8:50	TMANC	B13C77												
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78	2300	ug/kg	.	.								
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	TMANC	B13C78												
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79	2300	ug/kg	.	.								
10128	13.4972	14.4976	B13C79		10/30/01 9:45	TMANC	B13C79												
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80	1700	ug/kg	.	.								
10128	15.99656	16.99696	B13C80		10/30/01 10:00	TMANC	B13C80												
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81	11700	ug/kg	.	.								
10128	5.99912	6.99952	B13C81		10/30/01 8:30	TMANC	B13C81												
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89	2500	ug/kg	.	.								
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	TMANC	B13C89												
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9	75300	ug/kg	.	.	22.9	ug/L	.	.				
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	TMANC	B13CK9												
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0	6800	ug/kg	.	.								
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	TMANC	B13CL0												
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1	9500	ug/kg	.	.								
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	TMANC	B13CL1												
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2	2400	ug/kg	.	.								
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	TMANC	B13CL2												
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3	2400	ug/kg	.	.								
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	TMANC	B13CL3												
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3	334000	ug/kg	.	.	159	ug/L	.	.				
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	TMANC	B13CR3												
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4	390000	ug/kg	.	.	244	ug/L	.	.				
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	TMANC	B13CR4												
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5	3200	ug/kg	.	.								
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	TMANC	B13CR5												
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6	3600	ug/kg	.	.								
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	TMANC	B13CR6												
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7	3100	ug/kg	.	.								
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	TMANC	B13CR7												
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLRL	B13CR8												
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8	1300	ug/kg	.	.								
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9	7300	ug/kg	.	.								
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	TMANC	B13CR9												
B8826	6.49768	8.99704	B16546		4/7/03 13:40	EBRLNE	B16546												
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546	3700	ug/kg	.	.								
B8826	8.99704	11.4964	B16548		4/7/03 14:15	EBRLNE	B16548												
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548	2500	ug/kg	.	.								
B8826	11.99824	14.4976	B16549		4/7/03 14:50	EBRLNE	B16549												
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549	2600	ug/kg	.	.								

A-29 Trench, METAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Manganese (7439-96-5) 6010				Mercury (7439-97-6) 200.8				Mercury (7439-97-6) 7470			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	RLNP	B0P708												
18591	7.298	7.298	B0P710	R	7/6/98 11:33	RLNP	B0P710												
18591	7.298	7.298	B0P712	R	7/6/98 11:33	RLNP	B0P712												
18591	4.30008	4.30008	B0P714		7/6/98 12:15	RLNP	B0P714												
18592	2.999232	2.999232	B0P716		7/7/98 8:31	RLNP	B0P716												
18592	6.99952	6.99952	B0P718		7/7/98 8:44	RLNP	B0P718												
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	RLNP	B0P720												
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	RLNP	B0P722												
18592	12.99536	12.99536	B0P724		7/7/98 9:20	RLNP	B0P724												
18592	15.99656	15.99656	B0P726		7/7/98 9:42	RLNP	B0P726												
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77												
10128	8.49848	9.49888	B13C77		10/30/01 8:50	TMANC	B13C77												
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78												
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	TMANC	B13C78												
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79												
10128	13.4972	14.4976	B13C79		10/30/01 9:45	TMANC	B13C79												
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80												
10128	15.99656	16.99696	B13C80		10/30/01 10:00	TMANC	B13C80												
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81	454000	ug/kg	.	.								
10128	5.99912	6.99952	B13C81		10/30/01 8:30	TMANC	B13C81												
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89												
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	TMANC	B13C89												
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9	216000	ug/kg	.	.								
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	TMANC	B13CK9												
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0												
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	TMANC	B13CL0												
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1												
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	TMANC	B13CL1												
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2												
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	TMANC	B13CL2												
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3												
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	TMANC	B13CL3												
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3												
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	TMANC	B13CR3												
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4												
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	TMANC	B13CR4												
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5												
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	TMANC	B13CR5												
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6												
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	TMANC	B13CR6												
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7												
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	TMANC	B13CR7												
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLRL	B13CR8												
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8												
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9	396000	ug/kg	.	.								
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	TMANC	B13CR9												
B8826	6.49768	8.99704	B16546		4/7/03 13:40	EBRLNE	B16546												
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546												
B8826	8.99704	11.4964	B16548		4/7/03 14:15	EBRLNE	B16548												
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548												
B8826	11.99824	14.4976	B16549		4/7/03 14:50	EBRLNE	B16549												
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549												

A-29 Trench, METAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Mercury (7439-97-6) 7471				Mercury (7439-97-6) TCLP/7470				Molybdenum (7439-98-7) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	RLNP	B0P708	120	ug/kg	.	.								
18591	7.298	7.298	B0P710	R	7/6/98 11:33	RLNP	B0P710	20	ug/kg	U	.								
18591	7.298	7.298	B0P712	R	7/6/98 11:33	RLNP	B0P712	20	ug/kg	U	.								
18591	4.30008	4.30008	B0P714		7/6/98 12:15	RLNP	B0P714	20	ug/kg	U	.								
18592	2.999232	2.999232	B0P716		7/7/98 8:31	RLNP	B0P716	20	ug/kg	U	.								
18592	6.99952	6.99952	B0P718		7/7/98 8:44	RLNP	B0P718	20	ug/kg	U	.								
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	RLNP	B0P720	30	ug/kg	.	.								
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	RLNP	B0P722	50	ug/kg	.	.								
18592	12.99536	12.99536	B0P724		7/7/98 9:20	RLNP	B0P724	1700	ug/kg	.	.								
18592	15.99656	15.99656	B0P726		7/7/98 9:42	RLNP	B0P726	20	ug/kg	U	.								
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77	20	ug/kg	U	.								
10128	8.49848	9.49888	B13C77		10/30/01 8:50	TMANC	B13C77												
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78	10	ug/kg	U	.								
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	TMANC	B13C78												
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79	20	ug/kg	U	.								
10128	13.4972	14.4976	B13C79		10/30/01 9:45	TMANC	B13C79												
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80	20	ug/kg	U	.								
10128	15.99656	16.99696	B13C80		10/30/01 10:00	TMANC	B13C80												
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81	20	ug/kg	U	.					530	ug/kg	.	.
10128	5.99912	6.99952	B13C81		10/30/01 8:30	TMANC	B13C81												
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89	20	ug/kg	U	.								
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	TMANC	B13C89												
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9	5200	ug/kg	.	.	0.1	ug/L	U	.	3200	ug/kg	.	.
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	TMANC	B13CK9												
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0	150	ug/kg	.	.								
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	TMANC	B13CL0												
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1	100	ug/kg	.	.								
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	TMANC	B13CL1												
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2	40	ug/kg	.	.								
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	TMANC	B13CL2												
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3	90	ug/kg	.	.								
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	TMANC	B13CL3												
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3	2200	ug/kg	.	.	0.1	ug/L	U	.				
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	TMANC	B13CR3												
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4	4300	ug/kg	.	.	0.1	ug/L	U	.				
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	TMANC	B13CR4												
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5	20	ug/kg	U	.								
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	TMANC	B13CR5												
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6	20	ug/kg	U	.								
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	TMANC	B13CR6												
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7	20	ug/kg	U	.								
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	TMANC	B13CR7												
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLRL	B13CR8												
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8	8.7	ug/kg	B	.								
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9	19	ug/kg	U	.					572	ug/kg	.	.
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	TMANC	B13CR9												
B8826	6.49768	8.99704	B16546		4/7/03 13:40	EBRLNE	B16546												
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546	300	ug/kg	.	J								
B8826	8.99704	11.4964	B16548		4/7/03 14:15	EBRLNE	B16548												
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548	50	ug/kg	.	J								
B8826	11.99824	14.4976	B16549		4/7/03 14:50	EBRLNE	B16549												
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549	20	ug/kg	.	J								

A-29 Trench, METAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Nickel (7440-02-0) 6010				Potassium (7440-09-7) 6010				Selenium (7782-49-2) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	RLNP	B0P708									600	ug/kg	.	.
18591	7.298	7.298	B0P710	R	7/6/98 11:33	RLNP	B0P710									440	ug/kg	B	.
18591	7.298	7.298	B0P712	R	7/6/98 11:33	RLNP	B0P712									460	ug/kg	B	.
18591	4.30008	4.30008	B0P714		7/6/98 12:15	RLNP	B0P714									490	ug/kg	.	.
18592	2.999232	2.999232	B0P716		7/7/98 8:31	RLNP	B0P716									520	ug/kg	.	.
18592	6.99952	6.99952	B0P718		7/7/98 8:44	RLNP	B0P718									420	ug/kg	U	.
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	RLNP	B0P720									600	ug/kg	.	.
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	RLNP	B0P722									690	ug/kg	.	.
18592	12.99536	12.99536	B0P724		7/7/98 9:20	RLNP	B0P724									370	ug/kg	U	.
18592	15.99656	15.99656	B0P726		7/7/98 9:42	RLNP	B0P726									680	ug/kg	.	.
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77	11800	ug/kg	.	.					280	ug/kg	.	.
10128	8.49848	9.49888	B13C77		10/30/01 8:50	TMANC	B13C77												
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78	6700	ug/kg	.	.					220	ug/kg	U	.
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	TMANC	B13C78												
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79	6100	ug/kg	.	.					180	ug/kg	U	.
10128	13.4972	14.4976	B13C79		10/30/01 9:45	TMANC	B13C79												
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80	5300	ug/kg	.	.					170	ug/kg	U	.
10128	15.99656	16.99696	B13C80		10/30/01 10:00	TMANC	B13C80												
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81	12500	ug/kg	.	.	2260000	ug/kg	.	.	270	ug/kg	U	.
10128	5.99912	6.99952	B13C81		10/30/01 8:30	TMANC	B13C81												
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89	5600	ug/kg	.	.					280	ug/kg	U	.
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	TMANC	B13C89												
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9	27600	ug/kg	.	.	1650000	ug/kg	.	.	990	ug/kg	.	.
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	TMANC	B13CK9												
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0	9500	ug/kg	.	.					230	ug/kg	U	.
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	TMANC	B13CL0												
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1	12100	ug/kg	.	.					490	ug/kg	.	.
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	TMANC	B13CL1												
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2	16500	ug/kg	.	.					230	ug/kg	U	.
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	TMANC	B13CL2												
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3	7300	ug/kg	.	.					350	ug/kg	U	.
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	TMANC	B13CL3												
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3	7400	ug/kg	.	.					550	ug/kg	.	.
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	TMANC	B13CR3												
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4	8000	ug/kg	.	.					240	ug/kg	U	.
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	TMANC	B13CR4												
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5	10200	ug/kg	.	.					220	ug/kg	U	.
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	TMANC	B13CR5												
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6	9600	ug/kg	.	.					230	ug/kg	U	.
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	TMANC	B13CR6												
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7	8400	ug/kg	.	.					220	ug/kg	U	.
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	TMANC	B13CR7												
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLRL	B13CR8												
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8	6800	ug/kg	.	.					210	ug/kg	U	.
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9	11300	ug/kg	.	.	2230000	ug/kg	.	.	245	ug/kg	U	.
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	TMANC	B13CR9												
B8826	6.49768	8.99704	B16546		4/7/03 13:40	EBRLNE	B16546												
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546	7400	ug/kg	.	.					370	ug/kg	U	.
B8826	8.99704	11.4964	B16548		4/7/03 14:15	EBRLNE	B16548												
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548	7000	ug/kg	.	.					360	ug/kg	U	.
B8826	11.99824	14.4976	B16549		4/7/03 14:50	EBRLNE	B16549												
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549	5200	ug/kg	.	.					300	ug/kg	U	.

A-29 Trench, METAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Silver (7440-22-4) 6010				Sodium (7440-23-5) 6010				Thallium (7440-28-0) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	RLNP	B0P708	110	ug/kg	U	.								
18591	7.298	7.298	B0P710	R	7/6/98 11:33	RLNP	B0P710	110	ug/kg	U	.								
18591	7.298	7.298	B0P712	R	7/6/98 11:33	RLNP	B0P712	120	ug/kg	U	.								
18591	4.30008	4.30008	B0P714		7/6/98 12:15	RLNP	B0P714	110	ug/kg	U	.								
18592	2.999232	2.999232	B0P716		7/7/98 8:31	RLNP	B0P716	100	ug/kg	U	.								
18592	6.99952	6.99952	B0P718		7/7/98 8:44	RLNP	B0P718	110	ug/kg	U	.								
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	RLNP	B0P720	120	ug/kg	U	.								
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	RLNP	B0P722	110	ug/kg	U	.								
18592	12.99536	12.99536	B0P724		7/7/98 9:20	RLNP	B0P724	1400	ug/kg	.	.								
18592	15.99656	15.99656	B0P726		7/7/98 9:42	RLNP	B0P726	90	ug/kg	U	.								
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77	70	ug/kg	U	.								
10128	8.49848	9.49888	B13C77		10/30/01 8:50	TMANC	B13C77												
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78	60	ug/kg	U	.								
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	TMANC	B13C78												
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79	50	ug/kg	U	.								
10128	13.4972	14.4976	B13C79		10/30/01 9:45	TMANC	B13C79												
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80	50	ug/kg	U	.								
10128	15.99656	16.99696	B13C80		10/30/01 10:00	TMANC	B13C80												
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81	70	ug/kg	U	.	550000	ug/kg	.	.	520	ug/kg	.	.
10128	5.99912	6.99952	B13C81		10/30/01 8:30	TMANC	B13C81												
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89	60	ug/kg	U	.								
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	TMANC	B13C89												
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9	42000	ug/kg	.	.	873000	ug/kg	.	.	410	ug/kg	U	.
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	TMANC	B13CK9												
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0	60	ug/kg	U	.								
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	TMANC	B13CL0												
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1	60	ug/kg	U	.								
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	TMANC	B13CL1												
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2	60	ug/kg	U	.								
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	TMANC	B13CL2												
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3	60	ug/kg	U	.								
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	TMANC	B13CL3												
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3	6200	ug/kg	.	.								
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	TMANC	B13CR3												
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4	6800	ug/kg	.	.								
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	TMANC	B13CR4												
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5	60	ug/kg	U	.								
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	TMANC	B13CR5												
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6	60	ug/kg	U	.								
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	TMANC	B13CR6												
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7	60	ug/kg	U	.								
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	TMANC	B13CR7												
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLRL	B13CR8												
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8	100	ug/kg	U	.								
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9	67	ug/kg	U	.	427000	ug/kg	.	.	312	ug/kg	U	.
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	TMANC	B13CR9												
B8826	6.49768	8.99704	B16546		4/7/03 13:40	EBRLNE	B16546												
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546	80	ug/kg	U	.								
B8826	8.99704	11.4964	B16548		4/7/03 14:15	EBRLNE	B16548												
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548	80	ug/kg	U	.								
B8826	11.99824	14.4976	B16549		4/7/03 14:50	EBRLNE	B16549												
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549	70	ug/kg	U	.								

A-29 Trench, METAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Tin (7440-31-5) 6010				Uranium (7440-61-1) 200.8				Uranium (7440-61-1) KPA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	RLNP	B0P708												
18591	7.298	7.298	B0P710	R	7/6/98 11:33	RLNP	B0P710												
18591	7.298	7.298	B0P712	R	7/6/98 11:33	RLNP	B0P712												
18591	4.30008	4.30008	B0P714		7/6/98 12:15	RLNP	B0P714												
18592	2.999232	2.999232	B0P716		7/7/98 8:31	RLNP	B0P716												
18592	6.99952	6.99952	B0P718		7/7/98 8:44	RLNP	B0P718												
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	RLNP	B0P720												
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	RLNP	B0P722												
18592	12.99536	12.99536	B0P724		7/7/98 9:20	RLNP	B0P724												
18592	15.99656	15.99656	B0P726		7/7/98 9:42	RLNP	B0P726												
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77												
10128	8.49848	9.49888	B13C77		10/30/01 8:50	TMANC	B13C77									2670	ug/kg	.	.
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78												
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	TMANC	B13C78									1560	ug/kg	.	.
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79												
10128	13.4972	14.4976	B13C79		10/30/01 9:45	TMANC	B13C79									1140	ug/kg	.	.
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80												
10128	15.99656	16.99696	B13C80		10/30/01 10:00	TMANC	B13C80									1250	ug/kg	.	.
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81												
10128	5.99912	6.99952	B13C81		10/30/01 8:30	TMANC	B13C81									2760	ug/kg	.	.
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89												
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	TMANC	B13C89									1450	ug/kg	.	.
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9												
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	TMANC	B13CK9									778	ug/kg	.	.
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0												
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	TMANC	B13CL0									392	ug/kg	B	.
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1												
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	TMANC	B13CL1									479	ug/kg	B	.
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2												
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	TMANC	B13CL2									390	ug/kg	B	.
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3												
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	TMANC	B13CL3									319	ug/kg	B	.
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3												
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	TMANC	B13CR3									3220	ug/kg	.	.
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4												
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	TMANC	B13CR4									5280	ug/kg	.	.
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5												
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	TMANC	B13CR5									306	ug/kg	B	.
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6												
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	TMANC	B13CR6									686	ug/kg	B	.
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7												
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	TMANC	B13CR7									253	ug/kg	B	.
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLRL	B13CR8									2450	ug/kg	.	.
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8												
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9												
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	TMANC	B13CR9									321	ug/kg	.	.
B8826	6.49768	8.99704	B16546		4/7/03 13:40	EBRLNE	B16546									496	ug/kg	.	.
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546												
B8826	8.99704	11.4964	B16548		4/7/03 14:15	EBRLNE	B16548									1380	ug/kg	.	.
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548												
B8826	11.99824	14.4976	B16549		4/7/03 14:50	EBRLNE	B16549									386	ug/kg	.	.
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549												

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Vanadium (7440-62-2) 6010				Zinc (7440-66-6) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	RLNP	B0P708								
18591	7.298	7.298	B0P710	R	7/6/98 11:33	RLNP	B0P710								
18591	7.298	7.298	B0P712	R	7/6/98 11:33	RLNP	B0P712								
18591	4.30008	4.30008	B0P714		7/6/98 12:15	RLNP	B0P714								
18592	2.999232	2.999232	B0P716		7/7/98 8:31	RLNP	B0P716								
18592	6.99952	6.99952	B0P718		7/7/98 8:44	RLNP	B0P718								
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	RLNP	B0P720								
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	RLNP	B0P722								
18592	12.99536	12.99536	B0P724		7/7/98 9:20	RLNP	B0P724								
18592	15.99656	15.99656	B0P726		7/7/98 9:42	RLNP	B0P726								
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77	78000	ug/kg	.	.	58100	ug/kg	.	.
10128	8.49848	9.49888	B13C77		10/30/01 8:50	TMANC	B13C77								
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78	85500	ug/kg	.	.	55200	ug/kg	.	.
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	TMANC	B13C78								
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79	77100	ug/kg	.	.	47700	ug/kg	.	.
10128	13.4972	14.4976	B13C79		10/30/01 9:45	TMANC	B13C79								
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80	65800	ug/kg	.	.	42300	ug/kg	.	.
10128	15.99656	16.99696	B13C80		10/30/01 10:00	TMANC	B13C80								
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81	52900	ug/kg	.	.	54100	ug/kg	.	.
10128	5.99912	6.99952	B13C81		10/30/01 8:30	TMANC	B13C81								
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89	58800	ug/kg	.	.	39800	ug/kg	.	.
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	TMANC	B13C89								
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9	41300	ug/kg	.	.	224000	ug/kg	.	.
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	TMANC	B13CK9								
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0	64900	ug/kg	.	.	53800	ug/kg	.	.
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	TMANC	B13CL0								
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1	70000	ug/kg	.	.	59400	ug/kg	.	.
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	TMANC	B13CL1								
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2	62900	ug/kg	.	.	41700	ug/kg	.	.
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	TMANC	B13CL2								
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3	52600	ug/kg	.	.	37900	ug/kg	.	.
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	TMANC	B13CL3								
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3	90700	ug/kg	.	.	67300	ug/kg	.	.
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	TMANC	B13CR3								
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4	104000	ug/kg	.	.	66100	ug/kg	.	.
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	TMANC	B13CR4								
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5	70100	ug/kg	.	.	43300	ug/kg	.	.
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	TMANC	B13CR5								
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6	48700	ug/kg	.	.	40000	ug/kg	.	.
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	TMANC	B13CR6								
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7	36800	ug/kg	.	.	35700	ug/kg	.	.
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	TMANC	B13CR7								
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLRL	B13CR8								
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8	52100	ug/kg	.	.	39000	ug/kg	.	.
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9	62900	ug/kg	.	.	51100	ug/kg	.	.
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	TMANC	B13CR9								
B8826	6.49768	8.99704	B16546		4/7/03 13:40	EBRLNE	B16546								
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546	68700	ug/kg	.	.	47600	ug/kg	.	.
B8826	8.99704	11.4964	B16548		4/7/03 14:15	EBRLNE	B16548								
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548	71800	ug/kg	.	.	45600	ug/kg	.	.
B8826	11.99824	14.4976	B16549		4/7/03 14:50	EBRLNE	B16549								
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549	71700	ug/kg	.	.	43300	ug/kg	.	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Aluminum (7429-90-5) 6010				Antimony (7440-36-0) 6010				Arsenic (7440-38-2) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
B8826	14.4976	16.99696	B16550		4/7/03 15:30	EBRLNE	B16550												
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550									1800	ug/kg	.	.
B8826	19.49632	21.99568	B16551		4/8/03 8:10	EBRLNE	B16551												
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551									1600	ug/kg	.	.
B8826	24.49504	26.9944	B16552		4/8/03 9:10	EBRLNE	B16552												
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552									2300	ug/kg	.	.
B8826	49.9872	52.48	B16553		4/8/03 11:40	EBRLNE	B16553												
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553									2100	ug/kg	.	.
B8826	99.9744	101.9752	B16555		4/9/03 16:10	EBRLNE	B16555												
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555									1500	ug/kg	.	.
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A					1070	ug/kg	U	.	2420	ug/kg	UE	.
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	EBRLNE	B16FV4												
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4									2700	ug/kg	.	.
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	EBRLNE	B16FV5												
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5									2300	ug/kg	.	.
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	EBRLNE	B16FV6												
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6									6700	ug/kg	.	.
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	EBRLNE	B16FV7												
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7									2100	ug/kg	.	.
B8826	8.99704	11.4964	B16NF6		4/7/03 14:15	STLRL	B16NF6												
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	EBRLNE	B16NF7												
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7	5210000	ug/kg	.	.					5500	ug/kg	.	.

A-29 Trench, METAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Barium (7440-39-3) 6010				Beryllium (7440-41-7) 6010				Bismuth (7440-69-9) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
B8826	14.4976	16.99696	B16550		4/7/03 15:30	EBRLNE	B16550												
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550	55900	ug/kg	.	.	470	ug/kg	.	.				
B8826	19.49632	21.99568	B16551		4/8/03 8:10	EBRLNE	B16551												
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551	67800	ug/kg	.	.	580	ug/kg	.	.				
B8826	24.49504	26.9944	B16552		4/8/03 9:10	EBRLNE	B16552												
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552	107000	ug/kg	.	.	680	ug/kg	.	.				
B8826	49.9872	52.48	B16553		4/8/03 11:40	EBRLNE	B16553												
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553	110000	ug/kg	.	.	520	ug/kg	.	.				
B8826	99.9744	101.9752	B16555		4/9/03 16:10	EBRLNE	B16555												
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555	71500	ug/kg	.	.	280	ug/kg	.	.				
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A	91600	ug/kg	E	.	97	ug/kg	U	.	9700	ug/kg	U	.
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	EBRLNE	B16FV4												
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4	65200	ug/kg	.	.	240	ug/kg	.	.				
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	EBRLNE	B16FV5												
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5	66200	ug/kg	.	.	260	ug/kg	.	.				
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	EBRLNE	B16FV6												
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6	166000	ug/kg	.	.	630	ug/kg	.	.				
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	EBRLNE	B16FV7												
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7	68600	ug/kg	.	.	450	ug/kg	.	.				
B8826	8.99704	11.4964	B16NF6		4/7/03 14:15	STLRL	B16NF6												
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	EBRLNE	B16NF7												
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7	59600	ug/kg	.	.	626	ug/kg	.	.	766	ug/kg	.	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Boron (7440-42-8) 6010				Cadmium (7440-43-9) 6010				Cadmium (7440-43-9) TCLP/6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
B8826	14.4976	16.99696	B16550		4/7/03 15:30	EBRLNE	B16550												
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550					60	ug/kg	.	.				
B8826	19.49632	21.99568	B16551		4/8/03 8:10	EBRLNE	B16551												
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551					50	ug/kg	.	.				
B8826	24.49504	26.9944	B16552		4/8/03 9:10	EBRLNE	B16552												
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552					40	ug/kg	U	.				
B8826	49.9872	52.48	B16553		4/8/03 11:40	EBRLNE	B16553												
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553					50	ug/kg	.	.				
B8826	99.9744	101.9752	B16555		4/9/03 16:10	EBRLNE	B16555												
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555					10	ug/kg	.	.				
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A					3700	ug/kg	E	.				
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	EBRLNE	B16FV4												
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4					80	ug/kg	.	.				
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	EBRLNE	B16FV5												
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5					50	ug/kg	.	.				
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	EBRLNE	B16FV6												
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6					120	ug/kg	.	.				
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	EBRLNE	B16FV7												
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7					450	ug/kg	U	.				
B8826	8.99704	11.4964	B16NF6		4/7/03 14:15	STLRL	B16NF6												
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	EBRLNE	B16NF7												
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7	2100	ug/kg	.	.	5300	ug/kg	.	.				

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Calcium (7440-70-2) 6010				Chromium (7440-47-3) 6010				Cobalt (7440-48-4) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
B8826	14.4976	16.99696	B16550		4/7/03 15:30	EBRLNE	B16550												
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550					4900	ug/kg	.	J				
B8826	19.49632	21.99568	B16551		4/8/03 8:10	EBRLNE	B16551												
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551					5300	ug/kg	.	J				
B8826	24.49504	26.9944	B16552		4/8/03 9:10	EBRLNE	B16552												
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552					6600	ug/kg	.	J				
B8826	49.9872	52.48	B16553		4/8/03 11:40	EBRLNE	B16553												
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553					6900	ug/kg	.	J				
B8826	99.9744	101.9752	B16555		4/9/03 16:10	EBRLNE	B16555												
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555					6900	ug/kg	.	.				
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A					12800	ug/kg	E	.				
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	EBRLNE	B16FV4												
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4					10700	ug/kg	.	.				
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	EBRLNE	B16FV5												
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5					9000	ug/kg	.	.				
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	EBRLNE	B16FV6												
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6					36400	ug/kg	.	.				
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	EBRLNE	B16FV7												
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7					13200	ug/kg	.	.				
B8826	8.99704	11.4964	B16NF6		4/7/03 14:15	STLRL	B16NF6												
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	EBRLNE	B16NF7												
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7	6830000	ug/kg	.	.	12500	ug/kg	.	.				

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Copper (7440-50-8) 6010				Hexavalent Chromium (18540-29-9) 7196				Iron (7439-89-6) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
B8826	14.4976	16.99696	B16550		4/7/03 15:30	EBRLNE	B16550												
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550	12900	ug/kg	.	.	420	ug/kg	U	.				
B8826	19.49632	21.99568	B16551		4/8/03 8:10	EBRLNE	B16551												
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551	13800	ug/kg	.	.	420	ug/kg	U	.				
B8826	24.49504	26.9944	B16552		4/8/03 9:10	EBRLNE	B16552												
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552	14800	ug/kg	.	.	440	ug/kg	U	.				
B8826	49.9872	52.48	B16553		4/8/03 11:40	EBRLNE	B16553												
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553	12200	ug/kg	.	.	420	ug/kg	U	.				
B8826	99.9744	101.9752	B16555		4/9/03 16:10	EBRLNE	B16555												
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555	12600	ug/kg	.	.	410	ug/kg	U	.				
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A	7570	ug/kg	.	.								
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	EBRLNE	B16FV4												
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4	11700	ug/kg	.	.	420	ug/kg	U	.				
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	EBRLNE	B16FV5												
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5	8300	ug/kg	.	.	420	ug/kg	U	.				
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	EBRLNE	B16FV6												
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6	27300	ug/kg	.	.	500	ug/kg	U	.				
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	EBRLNE	B16FV7												
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7	10800	ug/kg	.	.	440	ug/kg	U	.				
B8826	8.99704	11.4964	B16NF6		4/7/03 14:15	STLRL	B16NF6					350	ug/kg	U	.				
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	EBRLNE	B16NF7												
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7	25800	ug/kg	.	.	442	ug/kg	U	.	22900000	ug/kg	.	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Lead (7439-92-1) 6010				Lead (7439-92-1) TCLP/6010				Magnesium (7439-95-4) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
B8826	14.4976	16.99696	B16550		4/7/03 15:30	EBRLNE	B16550												
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550	2400	ug/kg	.	.								
B8826	19.49632	21.99568	B16551		4/8/03 8:10	EBRLNE	B16551												
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551	2900	ug/kg	.	.								
B8826	24.49504	26.9944	B16552		4/8/03 9:10	EBRLNE	B16552												
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552	3600	ug/kg	.	.								
B8826	49.9872	52.48	B16553		4/8/03 11:40	EBRLNE	B16553												
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553	3200	ug/kg	.	.								
B8826	99.9744	101.9752	B16555		4/9/03 16:10	EBRLNE	B16555												
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555	2200	ug/kg	.	.								
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A	1260	ug/kg	U	.								
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	EBRLNE	B16FV4												
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4	3300	ug/kg	.	.								
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	EBRLNE	B16FV5												
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5	2900	ug/kg	.	.								
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	EBRLNE	B16FV6												
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6	10500	ug/kg	.	.								
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	EBRLNE	B16FV7												
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7	2700	ug/kg	.	.								
B8826	8.99704	11.4964	B16NF6		4/7/03 14:15	STLRL	B16NF6												
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	EBRLNE	B16NF7												
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7	31100	ug/kg	.	.					4310000	ug/kg	.	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Manganese (7439-96-5) 6010				Mercury (7439-97-6) 200.8				Mercury (7439-97-6) 7470			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
B8826	14.4976	16.99696	B16550		4/7/03 15:30	EBRLNE	B16550												
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550												
B8826	19.49632	21.99568	B16551		4/8/03 8:10	EBRLNE	B16551												
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551												
B8826	24.49504	26.9944	B16552		4/8/03 9:10	EBRLNE	B16552												
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552												
B8826	49.9872	52.48	B16553		4/8/03 11:40	EBRLNE	B16553												
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553												
B8826	99.9744	101.9752	B16555		4/9/03 16:10	EBRLNE	B16555												
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555												
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A	329000	ug/kg	E	.	60	ug/kg	.	.				
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	EBRLNE	B16FV4												
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4												
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	EBRLNE	B16FV5												
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5												
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	EBRLNE	B16FV6												
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6												
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	EBRLNE	B16FV7												
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7												
B8826	8.99704	11.4964	B16NF6		4/7/03 14:15	STLRL	B16NF6												
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	EBRLNE	B16NF7												
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7	263000	ug/kg	.	.					4400	ug/kg	.	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Mercury (7439-97-6) 7471				Mercury (7439-97-6) TCLP/7470				Molybdenum (7439-98-7) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
B8826	14.4976	16.99696	B16550		4/7/03 15:30	EBRLNE	B16550												
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550	10	ug/kg	U	R								
B8826	19.49632	21.99568	B16551		4/8/03 8:10	EBRLNE	B16551												
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551	20	ug/kg	U	R								
B8826	24.49504	26.9944	B16552		4/8/03 9:10	EBRLNE	B16552												
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552	20	ug/kg	U	R								
B8826	49.9872	52.48	B16553		4/8/03 11:40	EBRLNE	B16553												
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553	20	ug/kg	U	R								
B8826	99.9744	101.9752	B16555		4/9/03 16:10	EBRLNE	B16555												
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555	20	ug/kg	U	.								
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A									9700	ug/kg	U	.
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	EBRLNE	B16FV4												
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4	20	ug/kg	U	.								
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	EBRLNE	B16FV5												
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5	20	ug/kg	U	.								
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	EBRLNE	B16FV6												
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6	40	ug/kg	.	.								
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	EBRLNE	B16FV7												
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7	30	ug/kg	U	.								
B8826	8.99704	11.4964	B16NF6		4/7/03 14:15	STLRL	B16NF6												
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	EBRLNE	B16NF7												
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7									1000	ug/kg	.	.

A-29 Trench, METAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Nickel (7440-02-0) 6010				Potassium (7440-09-7) 6010				Selenium (7782-49-2) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
B8826	14.4976	16.99696	B16550		4/7/03 15:30	EBRLNE	B16550												
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550	8900	ug/kg	.	.					370	ug/kg	U	.
B8826	19.49632	21.99568	B16551		4/8/03 8:10	EBRLNE	B16551												
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551	6000	ug/kg	.	.					310	ug/kg	U	.
B8826	24.49504	26.9944	B16552		4/8/03 9:10	EBRLNE	B16552												
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552	8400	ug/kg	.	.					370	ug/kg	U	.
B8826	49.9872	52.48	B16553		4/8/03 11:40	EBRLNE	B16553												
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553	8800	ug/kg	.	.					340	ug/kg	U	.
B8826	99.9744	101.9752	B16555		4/9/03 16:10	EBRLNE	B16555												
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555	10500	ug/kg	.	.					340	ug/kg	U	.
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A	950	ug/kg	.	.					2520	ug/kg	.	.
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	EBRLNE	B16FV4												
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4	9200	ug/kg	.	.					350	ug/kg	U	.
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	EBRLNE	B16FV5												
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5	7700	ug/kg	.	.					340	ug/kg	U	.
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	EBRLNE	B16FV6												
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6	32300	ug/kg	.	.					640	ug/kg	.	.
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	EBRLNE	B16FV7												
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7	11900	ug/kg	.	.					450	ug/kg	U	.
B8826	8.99704	11.4964	B16NF6		4/7/03 14:15	STLRL	B16NF6												
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	EBRLNE	B16NF7												
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7	8400	ug/kg	.	.	990000	ug/kg	.	.	365	ug/kg	U	.

A-29 Trench, METAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Silver (7440-22-4) 6010				Sodium (7440-23-5) 6010				Thallium (7440-28-0) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
B8826	14.4976	16.99696	B16550		4/7/03 15:30	EBRLNE	B16550												
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550	80	ug/kg	U	.								
B8826	19.49632	21.99568	B16551		4/8/03 8:10	EBRLNE	B16551												
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551	70	ug/kg	U	.								
B8826	24.49504	26.9944	B16552		4/8/03 9:10	EBRLNE	B16552												
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552	80	ug/kg	U	.								
B8826	49.9872	52.48	B16553		4/8/03 11:40	EBRLNE	B16553												
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553	70	ug/kg	U	.								
B8826	99.9744	101.9752	B16555		4/9/03 16:10	EBRLNE	B16555												
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555	80	ug/kg	U	.								
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A	291	ug/kg	UE	.								
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	EBRLNE	B16FV4												
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4	80	ug/kg	U	.								
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	EBRLNE	B16FV5												
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5	80	ug/kg	U	.								
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	EBRLNE	B16FV6												
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6	100	ug/kg	U	.								
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	EBRLNE	B16FV7												
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7	900	ug/kg	U	.								
B8826	8.99704	11.4964	B16NF6		4/7/03 14:15	STLRL	B16NF6												
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	EBRLNE	B16NF7												
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7	3000	ug/kg	.	.	205000	ug/kg	.	.	365	ug/kg	U	.

A-29 Trench, METAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Tin (7440-31-5) 6010				Uranium (7440-61-1) 200.8				Uranium (7440-61-1) KPA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
B8826	14.4976	16.99696	B16550		4/7/03 15:30	EBRLNE	B16550									292	ug/kg	.	.
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550												
B8826	19.49632	21.99568	B16551		4/8/03 8:10	EBRLNE	B16551									321	ug/kg	.	.
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551												
B8826	24.49504	26.9944	B16552		4/8/03 9:10	EBRLNE	B16552									329	ug/kg	.	.
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552												
B8826	49.9872	52.48	B16553		4/8/03 11:40	EBRLNE	B16553									405	ug/kg	.	.
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553												
B8826	99.9744	101.9752	B16555		4/9/03 16:10	EBRLNE	B16555									320	ug/kg	.	.
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555												
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A	9700	ug/kg	U	.	490	ug/kg	.	.				
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	EBRLNE	B16FV4									405	ug/kg	.	.
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4												
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	EBRLNE	B16FV5									388	ug/kg	.	.
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5												
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	EBRLNE	B16FV6									959	ug/kg	.	.
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6												
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	EBRLNE	B16FV7									345	ug/kg	.	.
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7												
B8826	8.99704	11.4964	B16NF6		4/7/03 14:15	STLRL	B16NF6												
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	EBRLNE	B16NF7									908	ug/kg	.	.
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7												

A-29 Trench, METAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Vanadium (7440-62-2) 6010				Zinc (7440-66-6) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ
B8826	14.4976	16.99696	B16550		4/7/03 15:30	EBRLNE	B16550								
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550	77200	ug/kg	.	.	45700	ug/kg	.	.
B8826	19.49632	21.99568	B16551		4/8/03 8:10	EBRLNE	B16551								
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551	89300	ug/kg	.	.	47200	ug/kg	.	.
B8826	24.49504	26.9944	B16552		4/8/03 9:10	EBRLNE	B16552								
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552	94200	ug/kg	.	.	49600	ug/kg	.	.
B8826	49.9872	52.48	B16553		4/8/03 11:40	EBRLNE	B16553								
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553	72400	ug/kg	.	.	40100	ug/kg	.	.
B8826	99.9744	101.9752	B16555		4/9/03 16:10	EBRLNE	B16555								
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555	46300	ug/kg	.	.	34800	ug/kg	.	.
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A	50900	ug/kg	.	.	40900	ug/kg	E	.
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	EBRLNE	B16FV4								
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4	31700	ug/kg	.	.	30900	ug/kg	.	.
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	EBRLNE	B16FV5								
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5	33200	ug/kg	.	.	30600	ug/kg	.	.
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	EBRLNE	B16FV6								
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6	53700	ug/kg	.	.	76900	ug/kg	.	.
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	EBRLNE	B16FV7								
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7	39100	ug/kg	.	.	32000	ug/kg	.	.
B8826	8.99704	11.4964	B16NF6		4/7/03 14:15	STLRL	B16NF6								
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	EBRLNE	B16NF7								
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7	60900	ug/kg	.	.	58000	ug/kg	.	.

A-29 Trench, PHYSICAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Bulk density - dry (BULKDENSITY-DRY) D2937				Bulk density - wet (BULKDENSITY-WET) D2937				Cation Exchange Capacity (CEC) 9080			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77												
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78												
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79												
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80												
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81												
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89												
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9												
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0												
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1												
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2												
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3												
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3												
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4												
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5												
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6												
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7												
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8												
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9												
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546												
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548												
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549												
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550												
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551												
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552												
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553												
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555												
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A												
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4												
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5												
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6												
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7												
B8826	19.49632	21.99568	B16HB9		4/8/03 8:10	MAXIM	B16HB9												
B8826	149.9616	151.9624	B16HC0		4/10/03 15:10	MAXIM	B16HC0												
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7												

A-29 Trench, PHYSICAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Percent moisture (dry sample) (%MOISTURE-D) D2216				Percent moisture (wet sample) (%MOISTURE) D2216				Percent passing 1 inch sieve (PAS1IN) D422			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77												
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78												
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79												
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80												
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81												
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89												
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9												
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0												
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1												
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2												
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3												
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3												
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4												
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5												
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6												
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7												
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8												
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9												
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546												
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548												
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549												
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550												
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551												
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552												
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553												
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555												
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A												
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4												
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5												
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6												
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7												
B8826	19.49632	21.99568	B16HB9		4/8/03 8:10	MAXIM	B16HB9					4.3	%	.	.	100	%	.	.
B8826	149.9616	151.9624	B16HC0		4/10/03 15:10	MAXIM	B16HC0					4.3	%	.	.	100	%	.	.
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7												

A-29 Trench, PHYSICAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Percent passing 1.5 inch sieve (PAS1.5IN) D422				Percent passing 2 inch sieve (PAS2IN) D422				Percent passing 3 inch sieve (PAS3IN) D422			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77												
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78												
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79												
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80												
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81												
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89												
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9												
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0												
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1												
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2												
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3												
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3												
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4												
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5												
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6												
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7												
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8												
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9												
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546												
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548												
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549												
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550												
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551												
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552												
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553												
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555												
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A												
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4												
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5												
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6												
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7												
B8826	19.49632	21.99568	B16HB9		4/8/03 8:10	MAXIM	B16HB9	100	%	.	.	100	%	.	.	100	%	.	.
B8826	149.9616	151.9624	B16HC0		4/10/03 15:10	MAXIM	B16HC0	100	%	.	.	100	%	.	.	100	%	.	.
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7												

A-29 Trench, PHYSICAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Percent passing 3/4 inch sieve (PAS3/4IN) D422				Percent passing 3/8 inch sieve (PAS3/8IN) D422				Percent passing No.10 sieve (PAS#10) D422			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77												
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78												
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79												
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80												
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81												
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89												
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9												
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0												
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1												
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2												
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3												
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3												
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4												
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5												
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6												
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7												
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8												
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9												
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546												
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548												
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549												
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550												
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551												
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552												
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553												
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555												
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A												
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4												
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5												
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6												
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7												
B8826	19.49632	21.99568	B16HB9		4/8/03 8:10	MAXIM	B16HB9	100	%	.	.	100	%	.	.	98.84	%	.	.
B8826	149.9616	151.9624	B16HC0		4/10/03 15:10	MAXIM	B16HC0	100	%	.	.	100	%	.	.	93.06	%	.	.
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7												

A-29 Trench, PHYSICAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Percent passing No.100 sieve (PAS#100) D422				Percent passing No.140 sieve (PAS#140) D422				Percent passing No.20 sieve (PAS#20) D422			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77												
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78												
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79												
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80												
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81												
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89												
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9												
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0												
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1												
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2												
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3												
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3												
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4												
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5												
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6												
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7												
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8												
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9												
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546												
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548												
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549												
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550												
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551												
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552												
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553												
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555												
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A												
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4												
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5												
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6												
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7												
B8826	19.49632	21.99568	B16HB9		4/8/03 8:10	MAXIM	B16HB9	9.6	%	.	.	5.47	%	.	.	67.03	%	.	.
B8826	149.9616	151.9624	B16HC0		4/10/03 15:10	MAXIM	B16HC0	6.39	%	.	.	2.51	%	.	.	59.53	%	.	.
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7												

A-29 Trench, PHYSICAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Percent passing No.200 sieve (PAS#200) D422				Percent passing No.4 sieve (PAS#4) D422				Percent passing No.40 sieve (PAS#40) D422			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77												
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78												
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79												
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80												
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81												
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89												
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9												
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0												
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1												
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2												
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3												
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3												
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4												
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5												
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6												
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7												
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8												
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9												
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546												
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548												
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549												
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550												
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551												
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552												
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553												
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555												
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A												
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4												
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5												
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6												
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7												
B8826	19.49632	21.99568	B16HB9		4/8/03 8:10	MAXIM	B16HB9	4.57	%	.	.	100	%	.	.	22.57	%	.	.
B8826	149.9616	151.9624	B16HC0		4/10/03 15:10	MAXIM	B16HC0	1.95	%	.	.	99	%	.	.	25.37	%	.	.
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7												

A-29 Trench, PHYSICAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Percent passing No.60 sieve (PAS#60) D422				pH Measurement (PH) 150.1				pH Measurement (PH) 9040			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77												
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78												
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79												
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80												
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81												
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89												
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9												
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0												
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1												
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2												
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3												
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3												
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4												
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5												
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6												
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7												
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8												
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9												
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546												
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548												
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549												
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550												
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551												
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552												
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553												
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555												
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A					7.968	pH	.	.				
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4												
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5												
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6												
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7												
B8826	19.49632	21.99568	B16HB9		4/8/03 8:10	MAXIM	B16HB9	13.61	%	.	.								
B8826	149.9616	151.9624	B16HC0		4/10/03 15:10	MAXIM	B16HC0	12.58	%	.	.								
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7									8.42	pH	.	.

A-29 Trench, PHYSICAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	pH Measurement (PH) 9045				Specific Gravity (SPECGVTY) D854			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77	8.4	pH	.	.				
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78	9.1	pH	.	.				
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79	9	pH	.	.				
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80	9	pH	.	.				
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81	8.3	pH	.	.				
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89	9	pH	.	.				
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9	6.5	pH	.	.				
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0	7.9	pH	.	.				
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1	8.4	pH	.	.				
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2	8.9	pH	.	.				
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3	9	pH	.	.				
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3	6.5	pH	.	.				
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4	6.6	pH	.	.				
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5	8.4	pH	.	.				
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6	8.3	pH	.	.				
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7	8.9	pH	.	.				
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8	9.3	pH	.	.				
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9	8.1	pH	.	.				
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546	9.3	pH	.	J				
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548	8.4	pH	.	J				
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549	7.7	pH	.	J				
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550	9.1	pH	.	J				
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551	9.3	pH	.	J				
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552	9	pH	.	J				
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553	8.9	pH	.	J				
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555	9	pH	.	.				
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A								
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4	9.5	pH	.	.				
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5	9.3	pH	.	.				
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6	9	pH	.	.				
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7	8.8	pH	.	.				
B8826	19.49632	21.99568	B16HB9		4/8/03 8:10	MAXIM	B16HB9								
B8826	149.9616	151.9624	B16HC0		4/10/03 15:10	MAXIM	B16HC0								
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7								

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Actinium-228 (14331-83-0) GEA				Americium-241 (14596-10-2) Eichrom/Plate/AEA				Americium-241 (14596-10-2) GEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	TMANC	B0P708									7.30E-02	pCi/g	U	.
18591	7.298	7.298	B0P710	R	7/6/98 11:33	TMANC	B0P710									4.40E-02	pCi/g	U	.
18591	7.298	7.298	B0P712	R	7/6/98 11:33	TMANC	B0P712									4.20E-02	pCi/g	U	.
18591	4.30008	4.30008	B0P714		7/6/98 12:15	TMANC	B0P714									9.70E-02	pCi/g	U	.
18592	2.999232	2.999232	B0P716		7/7/98 8:31	TMANC	B0P716									4.90E-02	pCi/g	U	.
18592	6.99952	6.99952	B0P718		7/7/98 8:44	TMANC	B0P718									4.20E-02	pCi/g	U	.
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	TMANC	B0P720									0.11	pCi/g	U	.
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	TMANC	B0P722									5.80E-02	pCi/g	U	.
18592	12.99536	12.99536	B0P724		7/7/98 9:20	TMANC	B0P724									9.60E-02	pCi/g	.	.
18592	15.99656	15.99656	B0P726		7/7/98 9:42	TMANC	B0P726									7.60E-02	pCi/g	U	.
10128	8.49848	9.49888	B13C77		10/30/01 8:50	TMANC	B13C77									0.17	pCi/g	U	.
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	TMANC	B13C78									0.13	pCi/g	U	.
10128	13.4972	14.4976	B13C79		10/30/01 9:45	TMANC	B13C79									2.80E-02	pCi/g	U	.
10128	15.99656	16.99696	B13C80		10/30/01 10:00	TMANC	B13C80									8.50E-02	pCi/g	U	.
10128	5.99912	6.99952	B13C81		10/30/01 8:30	TMANC	B13C81									9.90E-02	pCi/g	U	.
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	TMANC	B13C89									0.21	pCi/g	U	.
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	TMANC	B13CK9									2.22	pCi/g	.	.
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	TMANC	B13CL0									0.17	pCi/g	U	.
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	TMANC	B13CL1									0.18	pCi/g	U	.
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	TMANC	B13CL2									8.90E-02	pCi/g	U	.
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	TMANC	B13CL3									3.30E-02	pCi/g	U	.
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	TMANC	B13CR3									0.68	pCi/g	.	.
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	TMANC	B13CR4									0.64	pCi/g	U	.
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	TMANC	B13CR5									0.15	pCi/g	U	.
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	TMANC	B13CR6									3.80E-02	pCi/g	U	.
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	TMANC	B13CR7									0.14	pCi/g	U	.
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLRL	B13CR8					-1.43E-03	pCi/g	U	.	2.82E-02	pCi/g	U	.
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	TMANC	B13CR9									9.00E-02	pCi/g	U	.
B8826	6.49768	8.99704	B16546		4/7/03 13:40	EBRLNE	B16546									0.54	pCi/g	U	.
B8826	8.99704	11.4964	B16548		4/7/03 14:15	EBRLNE	B16548									0.17	pCi/g	U	.
B8826	11.99824	14.4976	B16549		4/7/03 14:50	EBRLNE	B16549									0.1	pCi/g	U	.
B8826	14.4976	16.99696	B16550		4/7/03 15:30	EBRLNE	B16550									5.00E-02	pCi/g	U	.
B8826	19.49632	21.99568	B16551		4/8/03 8:10	EBRLNE	B16551									0.17	pCi/g	U	.
B8826	24.49504	26.9944	B16552		4/8/03 9:10	EBRLNE	B16552									6.10E-02	pCi/g	U	.
B8826	49.9872	52.48	B16553		4/8/03 11:40	EBRLNE	B16553									3.60E-02	pCi/g	U	.
B8826	99.9744	101.9752	B16555		4/9/03 16:10	EBRLNE	B16555									0.32	pCi/g	U	.
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A	0.429	pCi/g	.	.					7.35E-02	pCi/g	U	.
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	EBRLNE	B16FV4									8.30E-02	pCi/g	U	.
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	EBRLNE	B16FV5									0.29	pCi/g	U	.
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	EBRLNE	B16FV6									0.17	pCi/g	U	.
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	EBRLNE	B16FV7									5.70E-02	pCi/g	U	.
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	EBRLNE	B16NF7									77	pCi/g	U	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Americium-241 (14596-10-2) IX/Plate/AEA				Americium-241 (14596-10-2) IX/Prec/AEA				Antimony-125 (14234-35-6) GEA				Barium-133 (13981-41-4) GEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	TMANC	B0P708																
18591	7.298	7.298	B0P710	R	7/6/98 11:33	TMANC	B0P710																
18591	7.298	7.298	B0P712	R	7/6/98 11:33	TMANC	B0P712																
18591	4.30008	4.30008	B0P714		7/6/98 12:15	TMANC	B0P714																
18592	2.999232	2.999232	B0P716		7/7/98 8:31	TMANC	B0P716																
18592	6.99952	6.99952	B0P718		7/7/98 8:44	TMANC	B0P718																
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	TMANC	B0P720																
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	TMANC	B0P722																
18592	12.99536	12.99536	B0P724		7/7/98 9:20	TMANC	B0P724																
18592	15.99656	15.99656	B0P726		7/7/98 9:42	TMANC	B0P726																
10128	8.49848	9.49888	B13C77		10/30/01 8:50	TMANC	B13C77	0.102	pCi/g	U	.												
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	TMANC	B13C78	2.20E-02	pCi/g	U	.												
10128	13.4972	14.4976	B13C79		10/30/01 9:45	TMANC	B13C79	2.50E-02	pCi/g	U	.												
10128	15.99656	16.99696	B13C80		10/30/01 10:00	TMANC	B13C80	-2.60E-02	pCi/g	U	.												
10128	5.99912	6.99952	B13C81		10/30/01 8:30	TMANC	B13C81	2.50E-02	pCi/g	U	.					6.10E-02	pCi/g	U	.	3.20E-02	pCi/g	U	.
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	TMANC	B13C89	4.90E-02	pCi/g	U	.												
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	TMANC	B13CK9	1.9	pCi/g	.	.					1.67	pCi/g	.	.	0.3	pCi/g	U	.
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	TMANC	B13CL0	3.80E-02	pCi/g	J	.												
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	TMANC	B13CL1	0.002	pCi/g	U	.												
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	TMANC	B13CL2	8.00E-03	pCi/g	U	.												
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	TMANC	B13CL3	2.10E-02	pCi/g	UJ	.												
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	TMANC	B13CR3	0.772	pCi/g	J	.												
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	TMANC	B13CR4	0.539	pCi/g	J	.												
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	TMANC	B13CR5	0.023	pCi/g	U	.												
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	TMANC	B13CR6	1.30E-02	pCi/g	U	.												
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	TMANC	B13CR7	4.00E-02	pCi/g	U	.												
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLRL	B13CR8																
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	TMANC	B13CR9	5.60E-02	pCi/g	U	.					5.60E-02	pCi/g	U	.	3.00E-02	pCi/g	U	.
B8826	6.49768	8.99704	B16546		4/7/03 13:40	EBRLNE	B16546	1.6	pCi/g	.	.												
B8826	8.99704	11.4964	B16548		4/7/03 14:15	EBRLNE	B16548	0.438	pCi/g	U	.												
B8826	11.99824	14.4976	B16549		4/7/03 14:50	EBRLNE	B16549	-6.90E-02	pCi/g	U	.												
B8826	14.4976	16.99696	B16550		4/7/03 15:30	EBRLNE	B16550	-0.121	pCi/g	U	.												
B8826	19.49632	21.99568	B16551		4/8/03 8:10	EBRLNE	B16551	-0.135	pCi/g	U	.												
B8826	24.49504	26.9944	B16552		4/8/03 9:10	EBRLNE	B16552	6.60E-02	pCi/g	U	.												
B8826	49.9872	52.48	B16553		4/8/03 11:40	EBRLNE	B16553	-0.13	pCi/g	U	.												
B8826	99.9744	101.9752	B16555		4/9/03 16:10	EBRLNE	B16555	3.40E-02	pCi/g	U	.												
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A					3.20E-02	pCi/g	.	.	-1.70E-03	pCi/g	U	.				
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	EBRLNE	B16FV4	0	pCi/g	U	.												
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	EBRLNE	B16FV5	0	pCi/g	U	.												
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	EBRLNE	B16FV6	0	pCi/g	U	.												
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	EBRLNE	B16FV7	-3.30E-02	pCi/g	U	.												
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	EBRLNE	B16NF7	145	pCi/g	.	.					0.16	pCi/g	U	.	6.70E-02	pCi/g	U	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Bismuth-212 (14913-49-6) GEA				Bismuth-214 (14733-03-0) GEA				Carbon-14 (14762-75-5) CombOx/LSC				Cerium-144 (14762-78-8) GEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	TMANC	B0P708																
18591	7.298	7.298	B0P710	R	7/6/98 11:33	TMANC	B0P710																
18591	7.298	7.298	B0P712	R	7/6/98 11:33	TMANC	B0P712																
18591	4.30008	4.30008	B0P714		7/6/98 12:15	TMANC	B0P714																
18592	2.999232	2.999232	B0P716		7/7/98 8:31	TMANC	B0P716																
18592	6.99952	6.99952	B0P718		7/7/98 8:44	TMANC	B0P718																
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	TMANC	B0P720																
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	TMANC	B0P722																
18592	12.99536	12.99536	B0P724		7/7/98 9:20	TMANC	B0P724																
18592	15.99656	15.99656	B0P726		7/7/98 9:42	TMANC	B0P726																
10128	8.49848	9.49888	B13C77		10/30/01 8:50	TMANC	B13C77																
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	TMANC	B13C78																
10128	13.4972	14.4976	B13C79		10/30/01 9:45	TMANC	B13C79																
10128	15.99656	16.99696	B13C80		10/30/01 10:00	TMANC	B13C80																
10128	5.99912	6.99952	B13C81		10/30/01 8:30	TMANC	B13C81									-0.983	pCi/g	U	.				
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	TMANC	B13C89																
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	TMANC	B13CK9									0.406	pCi/g	U	.				
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	TMANC	B13CL0																
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	TMANC	B13CL1																
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	TMANC	B13CL2																
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	TMANC	B13CL3																
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	TMANC	B13CR3																
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	TMANC	B13CR4																
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	TMANC	B13CR5																
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	TMANC	B13CR6																
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	TMANC	B13CR7																
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLRL	B13CR8																
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	TMANC	B13CR9									-0.164	pCi/g	U	.				
B8826	6.49768	8.99704	B16546		4/7/03 13:40	EBRLNE	B16546																
B8826	8.99704	11.4964	B16548		4/7/03 14:15	EBRLNE	B16548																
B8826	11.99824	14.4976	B16549		4/7/03 14:50	EBRLNE	B16549																
B8826	14.4976	16.99696	B16550		4/7/03 15:30	EBRLNE	B16550																
B8826	19.49632	21.99568	B16551		4/8/03 8:10	EBRLNE	B16551																
B8826	24.49504	26.9944	B16552		4/8/03 9:10	EBRLNE	B16552																
B8826	49.9872	52.48	B16553		4/8/03 11:40	EBRLNE	B16553																
B8826	99.9744	101.9752	B16555		4/9/03 16:10	EBRLNE	B16555																
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A	0.282	pCi/g	.	.	0.392	pCi/g	.	.					-4.12E-02	pCi/g	U	.
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	EBRLNE	B16FV4																
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	EBRLNE	B16FV5																
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	EBRLNE	B16FV6																
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	EBRLNE	B16FV7																
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	EBRLNE	B16NF7									2.49	pCi/g	U	.				

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Cesium-134 (13967-70-9) GEA				Cesium-137 (10045-97-3) GEA				Cobalt-60 (10198-40-0) GEA				Curium-242 (15510-73-3) IX/Plate/AEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	TMANC	B0P708					0.6	pCi/g	.	.	0.019	pCi/g	U	.				
18591	7.298	7.298	B0P710	R	7/6/98 11:33	TMANC	B0P710					0.29	pCi/g	.	.	0.012	pCi/g	U	.				
18591	7.298	7.298	B0P712	R	7/6/98 11:33	TMANC	B0P712					0.35	pCi/g	.	.	2.90E-02	pCi/g	U	.				
18591	4.30008	4.30008	B0P714		7/6/98 12:15	TMANC	B0P714					0.078	pCi/g	.	.	0.027	pCi/g	U	.				
18592	2.999232	2.999232	B0P716		7/7/98 8:31	TMANC	B0P716					6.80E-02	pCi/g	.	.	1.30E-02	pCi/g	U	.				
18592	6.99952	6.99952	B0P718		7/7/98 8:44	TMANC	B0P718					5.80E-02	pCi/g	.	.	3.00E-02	pCi/g	U	.				
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	TMANC	B0P720					2	pCi/g	.	.	2.80E-02	pCi/g	U	.				
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	TMANC	B0P722					1.9	pCi/g	.	.	1.50E-02	pCi/g	U	.				
18592	12.99536	12.99536	B0P724		7/7/98 9:20	TMANC	B0P724					0.57	pCi/g	.	.	2.90E-02	pCi/g	U	.				
18592	15.99656	15.99656	B0P726		7/7/98 9:42	TMANC	B0P726					0.02	pCi/g	U	.	2.20E-02	pCi/g	U	.				
10128	8.49848	9.49888	B13C77		10/30/01 8:50	TMANC	B13C77					0.047	pCi/g	U	.	5.10E-02	pCi/g	U	.				
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	TMANC	B13C78					3.70E-02	pCi/g	U	.	4.60E-02	pCi/g	U	.				
10128	13.4972	14.4976	B13C79		10/30/01 9:45	TMANC	B13C79					8.00E-03	pCi/g	U	.	9.00E-03	pCi/g	U	.				
10128	15.99656	16.99696	B13C80		10/30/01 10:00	TMANC	B13C80					1.10E-02	pCi/g	U	.	1.30E-02	pCi/g	U	.				
10128	5.99912	6.99952	B13C81		10/30/01 8:30	TMANC	B13C81	5.00E-02	pCi/g	U	.	0.027	pCi/g	U	.	3.30E-02	pCi/g	U	.	0	pCi/g	U	.
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	TMANC	B13C89					2.50E-02	pCi/g	U	.	2.90E-02	pCi/g	U	.				
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	TMANC	B13CK9	9.70E-02	pCi/g	U	.	98.4	pCi/g	.	.	6.70E-02	pCi/g	U	.	0	pCi/g	U	.
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	TMANC	B13CL0					4.20E-02	pCi/g	U	.	5.40E-02	pCi/g	U	.				
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	TMANC	B13CL1					4.60E-02	pCi/g	U	.	0.055	pCi/g	U	.				
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	TMANC	B13CL2					0.02	pCi/g	U	.	2.10E-02	pCi/g	U	.				
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	TMANC	B13CL3					2.20E-02	pCi/g	U	.	2.50E-02	pCi/g	U	.				
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	TMANC	B13CR3					4.13	pCi/g	.	.	5.10E-02	pCi/g	U	.				
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	TMANC	B13CR4					4.94	pCi/g	.	.	3.80E-02	pCi/g	U	.				
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	TMANC	B13CR5					0.047	pCi/g	U	.	5.80E-02	pCi/g	U	.				
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	TMANC	B13CR6					2.60E-02	pCi/g	U	.	2.50E-02	pCi/g	U	.				
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	TMANC	B13CR7					4.30E-02	pCi/g	U	.	5.20E-02	pCi/g	U	.				
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLRL	B13CR8					-1.25E-02	pCi/g	U	.	-0.00462	pCi/g	U	.				
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	TMANC	B13CR9	0.039	pCi/g	U	.	0.219	pCi/g	.	.	2.60E-02	pCi/g	U	.	0	pCi/g	U	.
B8826	6.49768	8.99704	B16546		4/7/03 13:40	EBRLNE	B16546					0.275	pCi/g	.	.	2.90E-02	pCi/g	U	.				
B8826	8.99704	11.4964	B16548		4/7/03 14:15	EBRLNE	B16548					0.177	pCi/g	.	.	3.50E-02	pCi/g	U	.				
B8826	11.99824	14.4976	B16549		4/7/03 14:50	EBRLNE	B16549					0.483	pCi/g	.	.	0.047	pCi/g	U	.				
B8826	14.4976	16.99696	B16550		4/7/03 15:30	EBRLNE	B16550					0.02	pCi/g	U	.	0.024	pCi/g	U	.				
B8826	19.49632	21.99568	B16551		4/8/03 8:10	EBRLNE	B16551					3.40E-02	pCi/g	U	.	3.50E-02	pCi/g	U	.				
B8826	24.49504	26.9944	B16552		4/8/03 9:10	EBRLNE	B16552					7.30E-02	pCi/g	U	.	2.90E-02	pCi/g	U	.				
B8826	49.9872	52.48	B16553		4/8/03 11:40	EBRLNE	B16553					6.00E-02	pCi/g	U	.	4.20E-02	pCi/g	U	.				
B8826	99.9744	101.9752	B16555		4/9/03 16:10	EBRLNE	B16555					0.062	pCi/g	U	.	8.80E-02	pCi/g	U	.				
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A	2.32E-02	pCi/g	U	.	0.138	pCi/g	.	.	6.12E-04	pCi/g	U	.				
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	EBRLNE	B16FV4					8.30E-02	pCi/g	U	.	9.70E-02	pCi/g	U	.				
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	EBRLNE	B16FV5					7.00E-02	pCi/g	U	.	8.80E-02	pCi/g	U	.				
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	EBRLNE	B16FV6					0.063	pCi/g	U	.	7.90E-02	pCi/g	U	.				
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	EBRLNE	B16FV7					5.90E-02	pCi/g	U	.	7.10E-02	pCi/g	U	.				
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	EBRLNE	B16NF7	0.055	pCi/g	U	.	12.9	pCi/g	.	.	4.80E-02	pCi/g	U	.	0.31	pCi/g	U	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Curium-242 (15510-73-3) IX/Prec/AEA				Curium-243/244 (CM-243/244) IX/Plate/AEA				Curium-244 (13981-15-2) IX/Prec/AEA				Europium-152 (14683-23-9) GEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	TMANC	B0P708													4.50E-02	pCi/g	U	.
18591	7.298	7.298	B0P710	R	7/6/98 11:33	TMANC	B0P710													0.027	pCi/g	U	.
18591	7.298	7.298	B0P712	R	7/6/98 11:33	TMANC	B0P712													0.062	pCi/g	U	.
18591	4.30008	4.30008	B0P714		7/6/98 12:15	TMANC	B0P714													5.60E-02	pCi/g	U	.
18592	2.999232	2.999232	B0P716		7/7/98 8:31	TMANC	B0P716													2.90E-02	pCi/g	U	.
18592	6.99952	6.99952	B0P718		7/7/98 8:44	TMANC	B0P718													0.062	pCi/g	U	.
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	TMANC	B0P720													7.00E-02	pCi/g	U	.
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	TMANC	B0P722													4.00E-02	pCi/g	U	.
18592	12.99536	12.99536	B0P724		7/7/98 9:20	TMANC	B0P724													6.00E-02	pCi/g	U	.
18592	15.99656	15.99656	B0P726		7/7/98 9:42	TMANC	B0P726													4.60E-02	pCi/g	U	.
10128	8.49848	9.49888	B13C77		10/30/01 8:50	TMANC	B13C77													0.12	pCi/g	U	.
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	TMANC	B13C78													9.10E-02	pCi/g	U	.
10128	13.4972	14.4976	B13C79		10/30/01 9:45	TMANC	B13C79													0.019	pCi/g	U	.
10128	15.99656	16.99696	B13C80		10/30/01 10:00	TMANC	B13C80													0.027	pCi/g	U	.
10128	5.99912	6.99952	B13C81		10/30/01 8:30	TMANC	B13C81													0.062	pCi/g	U	.
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	TMANC	B13C89													6.50E-02	pCi/g	U	.
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	TMANC	B13CK9													0.79	pCi/g	U	.
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	TMANC	B13CL0													0.12	pCi/g	U	.
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	TMANC	B13CL1													0.13	pCi/g	U	.
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	TMANC	B13CL2													5.30E-02	pCi/g	U	.
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	TMANC	B13CL3													6.10E-02	pCi/g	U	.
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	TMANC	B13CR3													0.15	pCi/g	U	.
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	TMANC	B13CR4													0.12	pCi/g	U	.
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	TMANC	B13CR5													0.11	pCi/g	U	.
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	TMANC	B13CR6													6.60E-02	pCi/g	U	.
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	TMANC	B13CR7													9.70E-02	pCi/g	U	.
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLRL	B13CR8													-0.0144	pCi/g	U	.
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	TMANC	B13CR9													6.10E-02	pCi/g	U	.
B8826	6.49768	8.99704	B16546		4/7/03 13:40	EBRLNE	B16546													0.063	pCi/g	U	.
B8826	8.99704	11.4964	B16548		4/7/03 14:15	EBRLNE	B16548													7.60E-02	pCi/g	U	.
B8826	11.99824	14.4976	B16549		4/7/03 14:50	EBRLNE	B16549													0.1	pCi/g	U	.
B8826	14.4976	16.99696	B16550		4/7/03 15:30	EBRLNE	B16550													5.20E-02	pCi/g	U	.
B8826	19.49632	21.99568	B16551		4/8/03 8:10	EBRLNE	B16551													8.70E-02	pCi/g	U	.
B8826	24.49504	26.9944	B16552		4/8/03 9:10	EBRLNE	B16552													0.063	pCi/g	U	.
B8826	49.9872	52.48	B16553		4/8/03 11:40	EBRLNE	B16553													9.10E-02	pCi/g	U	.
B8826	99.9744	101.9752	B16555		4/9/03 16:10	EBRLNE	B16555													0.16	pCi/g	U	.
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A													-2.17E-02	pCi/g	U	.
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	EBRLNE	B16FV4													0.19	pCi/g	U	.
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	EBRLNE	B16FV5													0.18	pCi/g	U	.
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	EBRLNE	B16FV6													0.15	pCi/g	U	.
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	EBRLNE	B16FV7													0.14	pCi/g	U	.
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	EBRLNE	B16NF7					0.258	pCi/g	U	.					0.16	pCi/g	U	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Europium-154 (15585-10-1) GEA				Europium-155 (14391-16-3) GEA				Gross alpha (12587-46-1) 900				Gross alpha (12587-46-1) 9310			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	TMANC	B0P708	6.40E-02	pCi/g	U	.	3.80E-02	pCi/g	U	.	6.8	pCi/g	J	.				
18591	7.298	7.298	B0P710	R	7/6/98 11:33	TMANC	B0P710	0.039	pCi/g	U	.	3.80E-02	pCi/g	U	.	5.7	pCi/g	J	.				
18591	7.298	7.298	B0P712	R	7/6/98 11:33	TMANC	B0P712	0.1	pCi/g	U	.	4.50E-02	pCi/g	U	.	9.5	pCi/g	J	.				
18591	4.30008	4.30008	B0P714		7/6/98 12:15	TMANC	B0P714	8.90E-02	pCi/g	U	.	6.40E-02	pCi/g	U	.	6.4	pCi/g	J	.				
18592	2.999232	2.999232	B0P716		7/7/98 8:31	TMANC	B0P716	4.20E-02	pCi/g	U	.	2.90E-02	pCi/g	U	.	7.5	pCi/g	J	.				
18592	6.99952	6.99952	B0P718		7/7/98 8:44	TMANC	B0P718	0.1	pCi/g	U	.	5.80E-02	pCi/g	U	.	7	pCi/g	J	.				
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	TMANC	B0P720	8.90E-02	pCi/g	U	.	7.00E-02	pCi/g	U	.	7.2	pCi/g	J	.				
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	TMANC	B0P722	4.80E-02	pCi/g	U	.	5.00E-02	pCi/g	J	.	11	pCi/g	.	.				
18592	12.99536	12.99536	B0P724		7/7/98 9:20	TMANC	B0P724	9.20E-02	pCi/g	U	.	5.20E-02	pCi/g	U	.	3.2	pCi/g	U	.				
18592	15.99656	15.99656	B0P726		7/7/98 9:42	TMANC	B0P726	0.063	pCi/g	U	.	5.10E-02	pCi/g	U	.	6.2	pCi/g	J	.				
10128	8.49848	9.49888	B13C77		10/30/01 8:50	TMANC	B13C77	0.17	pCi/g	U	.	0.13	pCi/g	U	.	11.7	pCi/g	.	.				
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	TMANC	B13C78	0.14	pCi/g	U	.	0.11	pCi/g	U	.	3.44	pCi/g	U	.				
10128	13.4972	14.4976	B13C79		10/30/01 9:45	TMANC	B13C79	0.031	pCi/g	U	.	0.039	pCi/g	U	.	5.64	pCi/g	J	.				
10128	15.99656	16.99696	B13C80		10/30/01 10:00	TMANC	B13C80	4.00E-02	pCi/g	U	.	4.80E-02	pCi/g	U	.	4.08	pCi/g	U	.				
10128	5.99912	6.99952	B13C81		10/30/01 8:30	TMANC	B13C81	0.11	pCi/g	U	.	8.10E-02	pCi/g	U	.	9.54	pCi/g	J	.				
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	TMANC	B13C89	0.11	pCi/g	U	.	0.094	pCi/g	U	.	2.97	pCi/g	U	.				
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	TMANC	B13CK9	0.27	pCi/g	U	.	0.52	pCi/g	U	.	27.9	pCi/g	.	.				
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	TMANC	B13CL0	0.18	pCi/g	U	.	0.13	pCi/g	U	.	5.16	pCi/g	J	.				
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	TMANC	B13CL1	0.18	pCi/g	U	.	0.14	pCi/g	U	.	6.88	pCi/g	J	.				
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	TMANC	B13CL2	7.50E-02	pCi/g	U	.	6.50E-02	pCi/g	U	.	3.47	pCi/g	J	.				
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	TMANC	B13CL3	7.90E-02	pCi/g	U	.	0.055	pCi/g	U	.	4.04	pCi/g	J	.				
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	TMANC	B13CR3	0.17	pCi/g	U	.	9.30E-02	pCi/g	U	.	8	pCi/g	J	.				
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	TMANC	B13CR4	0.12	pCi/g	U	.	0.14	pCi/g	U	.	6.19	pCi/g	J	.				
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	TMANC	B13CR5	0.17	pCi/g	U	.	0.11	pCi/g	U	.	3.91	pCi/g	J	.				
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	TMANC	B13CR6	9.70E-02	pCi/g	U	.	6.00E-02	pCi/g	U	.	6.7	pCi/g	J	.				
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	TMANC	B13CR7	0.18	pCi/g	U	.	0.11	pCi/g	U	.	3.54	pCi/g	J	.				
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLRL	B13CR8	-3.67E-02	pCi/g	U	.	0.0161	pCi/g	U	.					13.2	pCi/g	.	.
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	TMANC	B13CR9	9.70E-02	pCi/g	U	.	7.50E-02	pCi/g	U	.	7.2	pCi/g	J	.				
B8826	6.49768	8.99704	B16546		4/7/03 13:40	EBRLNE	B16546	8.30E-02	pCi/g	U	.	5.10E-02	pCi/g	U	.	13.9	pCi/g	.	.				
B8826	8.99704	11.4964	B16548		4/7/03 14:15	EBRLNE	B16548	0.1	pCi/g	U	.	8.00E-02	pCi/g	U	.	8.26	pCi/g	.	.				
B8826	11.99824	14.4976	B16549		4/7/03 14:50	EBRLNE	B16549	0.14	pCi/g	U	.	9.80E-02	pCi/g	U	.	5.19	pCi/g	.	.				
B8826	14.4976	16.99696	B16550		4/7/03 15:30	EBRLNE	B16550	7.10E-02	pCi/g	U	.	4.80E-02	pCi/g	U	.	4.77	pCi/g	.	.				
B8826	19.49632	21.99568	B16551		4/8/03 8:10	EBRLNE	B16551	0.11	pCi/g	U	.	0.1	pCi/g	U	.	7.34	pCi/g	.	.				
B8826	24.49504	26.9944	B16552		4/8/03 9:10	EBRLNE	B16552	8.90E-02	pCi/g	U	.	5.70E-02	pCi/g	U	.	5.78	pCi/g	.	.				
B8826	49.9872	52.48	B16553		4/8/03 11:40	EBRLNE	B16553	0.12	pCi/g	U	.	6.90E-02	pCi/g	U	.	6.8	pCi/g	.	.				
B8826	99.9744	101.9752	B16555		4/9/03 16:10	EBRLNE	B16555	0.23	pCi/g	U	.	0.17	pCi/g	U	.	5.24	pCi/g	.	.				
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A	5.61E-03	pCi/g	U	.	2.37E-02	pCi/g	U	.								
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	EBRLNE	B16FV4	0.26	pCi/g	U	.	0.16	pCi/g	U	.	6.2	pCi/g	.	.				
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	EBRLNE	B16FV5	0.22	pCi/g	U	.	0.2	pCi/g	U	.	4.51	pCi/g	.	.				
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	EBRLNE	B16FV6	0.24	pCi/g	U	.	0.15	pCi/g	U	.	8.18	pCi/g	.	.				
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	EBRLNE	B16FV7	0.2	pCi/g	U	.	0.11	pCi/g	U	.	0.6	pCi/g	U	.				
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	EBRLNE	B16NF7	0.14	pCi/g	U	.	0.11	pCi/g	U	.	777	pCi/g	.	.				

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Gross alpha (12587-46-1) GPC				Gross beta (12587-47-2) 900				Gross beta (12587-47-2) 9310				Gross beta (12587-47-2) GPC			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	TMANC	B0P708					13	pCi/g	.	.								
18591	7.298	7.298	B0P710	R	7/6/98 11:33	TMANC	B0P710					15	pCi/g	.	.								
18591	7.298	7.298	B0P712	R	7/6/98 11:33	TMANC	B0P712					9.9	pCi/g	J	.								
18591	4.30008	4.30008	B0P714		7/6/98 12:15	TMANC	B0P714					7.8	pCi/g	J	.								
18592	2.999232	2.999232	B0P716		7/7/98 8:31	TMANC	B0P716					3.5	pCi/g	U	.								
18592	6.99952	6.99952	B0P718		7/7/98 8:44	TMANC	B0P718					15	pCi/g	.	.								
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	TMANC	B0P720					13	pCi/g	.	.								
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	TMANC	B0P722					12	pCi/g	.	.								
18592	12.99536	12.99536	B0P724		7/7/98 9:20	TMANC	B0P724					9.9	pCi/g	J	.								
18592	15.99656	15.99656	B0P726		7/7/98 9:42	TMANC	B0P726					10	pCi/g	.	.								
10128	8.49848	9.49888	B13C77		10/30/01 8:50	TMANC	B13C77					18.6	pCi/g	.	.								
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	TMANC	B13C78					11.5	pCi/g	J	.								
10128	13.4972	14.4976	B13C79		10/30/01 9:45	TMANC	B13C79					9.09	pCi/g	J	.								
10128	15.99656	16.99696	B13C80		10/30/01 10:00	TMANC	B13C80					4.79	pCi/g	U	.								
10128	5.99912	6.99952	B13C81		10/30/01 8:30	TMANC	B13C81					18.3	pCi/g	.	.								
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	TMANC	B13C89					6.45	pCi/g	U	.								
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	TMANC	B13CK9					78.2	pCi/g	.	.								
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	TMANC	B13CL0					16	pCi/g	.	.								
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	TMANC	B13CL1					18.5	pCi/g	.	.								
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	TMANC	B13CL2					13.1	pCi/g	J	.								
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	TMANC	B13CL3					8.95	pCi/g	J	.								
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	TMANC	B13CR3					15.2	pCi/g	.	.								
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	TMANC	B13CR4					12.9	pCi/g	J	.								
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	TMANC	B13CR5					15.7	pCi/g	.	.								
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	TMANC	B13CR6					11.3	pCi/g	J	.								
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	TMANC	B13CR7					11.2	pCi/g	J	.								
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLRL	B13CR8									23.4	pCi/g	.	.				
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	TMANC	B13CR9					16.3	pCi/g	.	.								
B8826	6.49768	8.99704	B16546		4/7/03 13:40	EBRLNE	B16546					13.4	pCi/g	.	.								
B8826	8.99704	11.4964	B16548		4/7/03 14:15	EBRLNE	B16548					13.8	pCi/g	.	.								
B8826	11.99824	14.4976	B16549		4/7/03 14:50	EBRLNE	B16549					13.1	pCi/g	.	.								
B8826	14.4976	16.99696	B16550		4/7/03 15:30	EBRLNE	B16550					12.8	pCi/g	.	.								
B8826	19.49632	21.99568	B16551		4/8/03 8:10	EBRLNE	B16551					9.15	pCi/g	.	.								
B8826	24.49504	26.9944	B16552		4/8/03 9:10	EBRLNE	B16552					13.1	pCi/g	.	.								
B8826	49.9872	52.48	B16553		4/8/03 11:40	EBRLNE	B16553					12.3	pCi/g	.	.								
B8826	99.9744	101.9752	B16555		4/9/03 16:10	EBRLNE	B16555					10.2	pCi/g	.	.								
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A	0.56	pCi/g	U	.									1.2	pCi/g	.	.
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	EBRLNE	B16FV4					17.6	pCi/g	.	.								
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	EBRLNE	B16FV5					15.6	pCi/g	.	.								
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	EBRLNE	B16FV6					23.6	pCi/g	.	.								
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	EBRLNE	B16FV7					12.8	pCi/g	.	.								
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	EBRLNE	B16NF7					-2.03	pCi/g	U	.								

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Iodine-129 (15046-84-1) GEA				Lead-212 (15092-94-1) GEA				Lead-214 (15067-28-4) GEA				Neptunium-237 (13994-20-2) IX/Prec/AEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	TMANC	B0P708																
18591	7.298	7.298	B0P710	R	7/6/98 11:33	TMANC	B0P710																
18591	7.298	7.298	B0P712	R	7/6/98 11:33	TMANC	B0P712																
18591	4.30008	4.30008	B0P714		7/6/98 12:15	TMANC	B0P714																
18592	2.999232	2.999232	B0P716		7/7/98 8:31	TMANC	B0P716																
18592	6.99952	6.99952	B0P718		7/7/98 8:44	TMANC	B0P718																
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	TMANC	B0P720																
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	TMANC	B0P722																
18592	12.99536	12.99536	B0P724		7/7/98 9:20	TMANC	B0P724																
18592	15.99656	15.99656	B0P726		7/7/98 9:42	TMANC	B0P726																
10128	8.49848	9.49888	B13C77		10/30/01 8:50	TMANC	B13C77																
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	TMANC	B13C78																
10128	13.4972	14.4976	B13C79		10/30/01 9:45	TMANC	B13C79																
10128	15.99656	16.99696	B13C80		10/30/01 10:00	TMANC	B13C80																
10128	5.99912	6.99952	B13C81		10/30/01 8:30	TMANC	B13C81																
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	TMANC	B13C89																
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	TMANC	B13CK9																
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	TMANC	B13CL0																
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	TMANC	B13CL1																
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	TMANC	B13CL2																
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	TMANC	B13CL3																
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	TMANC	B13CR3																
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	TMANC	B13CR4																
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	TMANC	B13CR5																
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	TMANC	B13CR6																
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	TMANC	B13CR7																
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLRL	B13CR8																
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	TMANC	B13CR9																
B8826	6.49768	8.99704	B16546		4/7/03 13:40	EBRLNE	B16546																
B8826	8.99704	11.4964	B16548		4/7/03 14:15	EBRLNE	B16548																
B8826	11.99824	14.4976	B16549		4/7/03 14:50	EBRLNE	B16549																
B8826	14.4976	16.99696	B16550		4/7/03 15:30	EBRLNE	B16550																
B8826	19.49632	21.99568	B16551		4/8/03 8:10	EBRLNE	B16551																
B8826	24.49504	26.9944	B16552		4/8/03 9:10	EBRLNE	B16552																
B8826	49.9872	52.48	B16553		4/8/03 11:40	EBRLNE	B16553																
B8826	99.9744	101.9752	B16555		4/9/03 16:10	EBRLNE	B16555																
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A					0.445	pCi/g	.	.	0.432	pCi/g	.	.	2.40E-03	pCi/g	U	.
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	EBRLNE	B16FV4																
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	EBRLNE	B16FV5																
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	EBRLNE	B16FV6																
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	EBRLNE	B16FV7																
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	EBRLNE	B16NF7																

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Neptunium-237 (13994-20-2) LX/Plate/AEA				Nickel-63 (13981-37-8) LSC				Niobium-94 (14681-63-1) GEA				Plutonium-238 (13981-16-3) IX/Prec/AEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	TMANC	B0P708																
18591	7.298	7.298	B0P710	R	7/6/98 11:33	TMANC	B0P710																
18591	7.298	7.298	B0P712	R	7/6/98 11:33	TMANC	B0P712																
18591	4.30008	4.30008	B0P714		7/6/98 12:15	TMANC	B0P714																
18592	2.999232	2.999232	B0P716		7/7/98 8:31	TMANC	B0P716																
18592	6.99952	6.99952	B0P718		7/7/98 8:44	TMANC	B0P718																
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	TMANC	B0P720																
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	TMANC	B0P722																
18592	12.99536	12.99536	B0P724		7/7/98 9:20	TMANC	B0P724																
18592	15.99656	15.99656	B0P726		7/7/98 9:42	TMANC	B0P726																
10128	8.49848	9.49888	B13C77		10/30/01 8:50	TMANC	B13C77	1.50E-02	pCi/g	U	.												
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	TMANC	B13C78	5.00E-03	pCi/g	U	.												
10128	13.4972	14.4976	B13C79		10/30/01 9:45	TMANC	B13C79	1.10E-02	pCi/g	U	.												
10128	15.99656	16.99696	B13C80		10/30/01 10:00	TMANC	B13C80	6.00E-03	pCi/g	U	.												
10128	5.99912	6.99952	B13C81		10/30/01 8:30	TMANC	B13C81	2.80E-02	pCi/g	U	.												
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	TMANC	B13C89	0.01	pCi/g	U	.												
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	TMANC	B13CK9	1.80E-02	pCi/g	U	.												
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	TMANC	B13CL0	2.60E-02	pCi/g	U	.												
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	TMANC	B13CL1	7.30E-02	pCi/g	U	.												
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	TMANC	B13CL2	0.124	pCi/g	J	.												
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	TMANC	B13CL3	0	pCi/g	U	.												
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	TMANC	B13CR3	2.90E-02	pCi/g	U	.												
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	TMANC	B13CR4	0	pCi/g	U	.												
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	TMANC	B13CR5	0	pCi/g	U	.												
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	TMANC	B13CR6	0	pCi/g	U	.												
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	TMANC	B13CR7	7.00E-03	pCi/g	U	.												
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLRL	B13CR8	1.28E-02	pCi/g	U	.												
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	TMANC	B13CR9	-3.00E-03	pCi/g	U	.												
B8826	6.49768	8.99704	B16546		4/7/03 13:40	EBRLNE	B16546	6.90E-02	pCi/g	U	.												
B8826	8.99704	11.4964	B16548		4/7/03 14:15	EBRLNE	B16548	3.70E-02	pCi/g	U	.												
B8826	11.99824	14.4976	B16549		4/7/03 14:50	EBRLNE	B16549	0.014	pCi/g	U	.												
B8826	14.4976	16.99696	B16550		4/7/03 15:30	EBRLNE	B16550	3.40E-02	pCi/g	U	.	0.588	pCi/g	U	.								
B8826	19.49632	21.99568	B16551		4/8/03 8:10	EBRLNE	B16551	0	pCi/g	U	.	0.027	pCi/g	U	.								
B8826	24.49504	26.9944	B16552		4/8/03 9:10	EBRLNE	B16552	-0.031	pCi/g	U	.	-0.412	pCi/g	U	.								
B8826	49.9872	52.48	B16553		4/8/03 11:40	EBRLNE	B16553	0	pCi/g	U	.	-0.269	pCi/g	U	.								
B8826	99.9744	101.9752	B16555		4/9/03 16:10	EBRLNE	B16555	0	pCi/g	U	.	0.228	pCi/g	U	.								
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A									-8.95E-04	pCi/g	U	.	-0.024	pCi/g	U	.
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	EBRLNE	B16FV4	0.031	pCi/g	U	.	0.29	pCi/g	U	.								
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	EBRLNE	B16FV5	3.80E-02	pCi/g	U	.	0.458	pCi/g	U	.								
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	EBRLNE	B16FV6	3.50E-02	pCi/g	U	.	-0.437	pCi/g	U	.								
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	EBRLNE	B16FV7	1.80E-02	pCi/g	U	.	-0.113	pCi/g	U	.								
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	EBRLNE	B16NF7	1.88	pCi/g	U	.												

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Plutonium-238 (13981-16-3) Sep/Plate/AEA				Plutonium-239/240 (PU-239/240) IX/Prec/AEA				Plutonium-239/240 (PU-239/240) Sep/Plate/AEA				Plutonium-241 (14119-32-5) IX/LSC			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	TMANC	B0P708																
18591	7.298	7.298	B0P710	R	7/6/98 11:33	TMANC	B0P710																
18591	7.298	7.298	B0P712	R	7/6/98 11:33	TMANC	B0P712																
18591	4.30008	4.30008	B0P714		7/6/98 12:15	TMANC	B0P714																
18592	2.999232	2.999232	B0P716		7/7/98 8:31	TMANC	B0P716																
18592	6.99952	6.99952	B0P718		7/7/98 8:44	TMANC	B0P718																
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	TMANC	B0P720																
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	TMANC	B0P722																
18592	12.99536	12.99536	B0P724		7/7/98 9:20	TMANC	B0P724																
18592	15.99656	15.99656	B0P726		7/7/98 9:42	TMANC	B0P726																
10128	8.49848	9.49888	B13C77		10/30/01 8:50	TMANC	B13C77	3.00E-03	pCi/g	U	.					0.024	pCi/g	U	.				
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	TMANC	B13C78	-4.00E-03	pCi/g	U	.					0	pCi/g	U	.				
10128	13.4972	14.4976	B13C79		10/30/01 9:45	TMANC	B13C79	-5.00E-03	pCi/g	U	.					0	pCi/g	U	.				
10128	15.99656	16.99696	B13C80		10/30/01 10:00	TMANC	B13C80	0	pCi/g	U	.					5.20E-02	pCi/g	U	.				
10128	5.99912	6.99952	B13C81		10/30/01 8:30	TMANC	B13C81	0	pCi/g	U	.					0	pCi/g	U	.				
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	TMANC	B13C89	0	pCi/g	U	.					0	pCi/g	U	.				
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	TMANC	B13CK9	0.303	pCi/g	J	.					25.8	pCi/g	.	.				
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	TMANC	B13CL0	4.00E-03	pCi/g	U	.					4.60E-02	pCi/g	J	.				
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	TMANC	B13CL1	6.00E-03	pCi/g	U	.					0.124	pCi/g	J	.				
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	TMANC	B13CL2	-3.00E-03	pCi/g	U	.					2.90E-02	pCi/g	U	.				
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	TMANC	B13CL3	5.00E-03	pCi/g	U	.					2.60E-02	pCi/g	J	.				
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	TMANC	B13CR3	5.60E-02	pCi/g	J	.					5.07	pCi/g	.	.				
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	TMANC	B13CR4	0.055	pCi/g	U	.					3.31	pCi/g	.	.				
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	TMANC	B13CR5	9.70E-02	pCi/g	U	.					0.024	pCi/g	U	.				
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	TMANC	B13CR6	0	pCi/g	U	.					0	pCi/g	U	.				
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	TMANC	B13CR7	0	pCi/g	U	.					0	pCi/g	U	.				
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLRL	B13CR8	-0.000794	pCi/g	U	.					0.00911	pCi/g	U	.				
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	TMANC	B13CR9	4.00E-03	pCi/g	U	.					4.00E-03	pCi/g	U	.				
B8826	6.49768	8.99704	B16546		4/7/03 13:40	EBRLNE	B16546	0.162	pCi/g	U	.					7.1	pCi/g	.	.				
B8826	8.99704	11.4964	B16548		4/7/03 14:15	EBRLNE	B16548	6.50E-02	pCi/g	U	.					2.12	pCi/g	.	.				
B8826	11.99824	14.4976	B16549		4/7/03 14:50	EBRLNE	B16549	7.30E-02	pCi/g	U	.					0.145	pCi/g	U	.				
B8826	14.4976	16.99696	B16550		4/7/03 15:30	EBRLNE	B16550	3.60E-02	pCi/g	U	.					0.328	pCi/g	.	.				
B8826	19.49632	21.99568	B16551		4/8/03 8:10	EBRLNE	B16551	2.20E-02	pCi/g	U	.					2.20E-02	pCi/g	U	.				
B8826	24.49504	26.9944	B16552		4/8/03 9:10	EBRLNE	B16552	0	pCi/g	U	.					0	pCi/g	U	.				
B8826	49.9872	52.48	B16553		4/8/03 11:40	EBRLNE	B16553	0	pCi/g	U	.					4.00E-02	pCi/g	U	.				
B8826	99.9744	101.9752	B16555		4/9/03 16:10	EBRLNE	B16555	1.50E-02	pCi/g	U	.					0	pCi/g	U	.				
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A					0.15	pCi/g	.	.								
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	EBRLNE	B16FV4	0	pCi/g	U	.					1.50E-02	pCi/g	U	.				
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	EBRLNE	B16FV5	0	pCi/g	U	.					0	pCi/g	U	.				
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	EBRLNE	B16FV6	0	pCi/g	U	.					2.90E-02	pCi/g	U	.				
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	EBRLNE	B16FV7	-4.90E-02	pCi/g	U	.					0.024	pCi/g	U	.				
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	EBRLNE	B16NF7	15.7	pCi/g	.	.					667	pCi/g	.	.				

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Potassium-40 (13966-00-2) GEA				Radium-224 (13233-32-4) GEA				Radium-226 (13982-63-3) GEA				Radium-228 (15262-20-1) GEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	TMANC	B0P708	10	pCi/g	.	.					0.37	pCi/g	.	.	0.6	pCi/g	.	.
18591	7.298	7.298	B0P710	R	7/6/98 11:33	TMANC	B0P710	14	pCi/g	.	.					0.53	pCi/g	.	.	0.77	pCi/g	.	.
18591	7.298	7.298	B0P712	R	7/6/98 11:33	TMANC	B0P712	14	pCi/g	.	.					0.54	pCi/g	.	.	0.78	pCi/g	.	.
18591	4.30008	4.30008	B0P714		7/6/98 12:15	TMANC	B0P714	14	pCi/g	.	.					0.55	pCi/g	.	.	0.83	pCi/g	.	.
18592	2.999232	2.999232	B0P716		7/7/98 8:31	TMANC	B0P716	12	pCi/g	.	.					0.5	pCi/g	.	.	0.66	pCi/g	.	.
18592	6.99952	6.99952	B0P718		7/7/98 8:44	TMANC	B0P718	15	pCi/g	.	.					0.7	pCi/g	.	.	0.89	pCi/g	.	.
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	TMANC	B0P720	14	pCi/g	.	.					0.57	pCi/g	.	.	0.81	pCi/g	.	.
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	TMANC	B0P722	14	pCi/g	.	.					0.57	pCi/g	.	.	0.84	pCi/g	.	.
18592	12.99536	12.99536	B0P724		7/7/98 9:20	TMANC	B0P724	11	pCi/g	.	.					0.44	pCi/g	.	.	0.58	pCi/g	.	.
18592	15.99656	15.99656	B0P726		7/7/98 9:42	TMANC	B0P726	9.3	pCi/g	.	.					0.35	pCi/g	.	.	0.55	pCi/g	.	.
10128	8.49848	9.49888	B13C77		10/30/01 8:50	TMANC	B13C77	13.5	pCi/g	.	.					0.895	pCi/g	.	.	0.965	pCi/g	.	.
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	TMANC	B13C78	9.54	pCi/g	.	.					0.356	pCi/g	.	.	0.414	pCi/g	.	.
10128	13.4972	14.4976	B13C79		10/30/01 9:45	TMANC	B13C79	9.92	pCi/g	.	.					0.334	pCi/g	.	.	0.488	pCi/g	.	.
10128	15.99656	16.99696	B13C80		10/30/01 10:00	TMANC	B13C80	9.64	pCi/g	.	.					0.367	pCi/g	.	.	0.57	pCi/g	.	.
10128	5.99912	6.99952	B13C81		10/30/01 8:30	TMANC	B13C81	16	pCi/g	.	.					0.788	pCi/g	.	.	1.11	pCi/g	.	.
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	TMANC	B13C89	10.2	pCi/g	.	.					0.354	pCi/g	.	.	0.599	pCi/g	.	.
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	TMANC	B13CK9	10.4	pCi/g	.	.					0.788	pCi/g	.	.	0.662	pCi/g	.	.
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	TMANC	B13CL0	12.8	pCi/g	.	.					0.662	pCi/g	.	.	0.858	pCi/g	.	.
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	TMANC	B13CL1	13	pCi/g	.	.					0.735	pCi/g	.	.	0.834	pCi/g	.	.
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	TMANC	B13CL2	11.2	pCi/g	.	.					0.411	pCi/g	.	.	0.614	pCi/g	.	.
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	TMANC	B13CL3	12.1	pCi/g	.	.					0.415	pCi/g	.	.	0.577	pCi/g	.	.
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	TMANC	B13CR3	9.66	pCi/g	.	.					0.591	pCi/g	.	.	0.662	pCi/g	.	.
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	TMANC	B13CR4	11.4	pCi/g	.	.					0.608	pCi/g	.	.	0.878	pCi/g	.	.
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	TMANC	B13CR5	9.62	pCi/g	.	.					0.509	pCi/g	.	.	0.606	pCi/g	.	.
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	TMANC	B13CR6	13.3	pCi/g	.	.					0.506	pCi/g	.	.	0.704	pCi/g	.	.
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	TMANC	B13CR7	10.5	pCi/g	.	.					0.334	pCi/g	.	.	0.496	pCi/g	.	.
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLRL	B13CR8													0.653	pCi/g	.	.
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	TMANC	B13CR9	14	pCi/g	.	.					0.667	pCi/g	.	.	0.89	pCi/g	.	.
B8826	6.49768	8.99704	B16546		4/7/03 13:40	EBRLNE	B16546	9.43	pCi/g	.	.					0.288	pCi/g	.	.	0.461	pCi/g	.	.
B8826	8.99704	11.4964	B16548		4/7/03 14:15	EBRLNE	B16548	7.77	pCi/g	.	.					0.299	pCi/g	.	.	0.444	pCi/g	.	.
B8826	11.99824	14.4976	B16549		4/7/03 14:50	EBRLNE	B16549	6.63	pCi/g	.	.					0.406	pCi/g	.	.	0.437	pCi/g	.	.
B8826	14.4976	16.99696	B16550		4/7/03 15:30	EBRLNE	B16550	8.17	pCi/g	.	.					0.266	pCi/g	.	.	0.457	pCi/g	.	.
B8826	19.49632	21.99568	B16551		4/8/03 8:10	EBRLNE	B16551	7.66	pCi/g	.	.					0.333	pCi/g	.	.	0.359	pCi/g	.	.
B8826	24.49504	26.9944	B16552		4/8/03 9:10	EBRLNE	B16552	8.62	pCi/g	.	.					0.349	pCi/g	.	.	0.55	pCi/g	.	.
B8826	49.9872	52.48	B16553		4/8/03 11:40	EBRLNE	B16553	9.28	pCi/g	.	.					0.191	pCi/g	.	.	0.344	pCi/g	.	.
B8826	99.9744	101.9752	B16555		4/9/03 16:10	EBRLNE	B16555	8.84	pCi/g	.	.					0.266	pCi/g	.	.	0.442	pCi/g	.	.
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A									0.392	pCi/g	.	.	0.429	pCi/g	.	.
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	EBRLNE	B16FV4	11.7	pCi/g	.	.					0.35	pCi/g	.	.	0.613	pCi/g	.	.
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	EBRLNE	B16FV5	11.5	pCi/g	.	.					0.38	pCi/g	U	.	0.456	pCi/g	.	.
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	EBRLNE	B16FV6	13.9	pCi/g	.	.					0.514	pCi/g	.	.	1.04	pCi/g	.	.
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	EBRLNE	B16FV7	8.47	pCi/g	.	.					0.302	pCi/g	.	.	0.348	pCi/g	.	.
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	EBRLNE	B16NF7	11	pCi/g	.	.					0.465	pCi/g	.	.	0.658	pCi/g	.	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Ruthenium-103 (13968-53-1) GEA				Ruthenium-106 (13967-48-1) GEA				Selenium-79 (15758-45-9) IX/LSC				Sodium-22 (13966-32-0) GEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	TMANC	B0P708																
18591	7.298	7.298	B0P710	R	7/6/98 11:33	TMANC	B0P710																
18591	7.298	7.298	B0P712	R	7/6/98 11:33	TMANC	B0P712																
18591	4.30008	4.30008	B0P714		7/6/98 12:15	TMANC	B0P714																
18592	2.999232	2.999232	B0P716		7/7/98 8:31	TMANC	B0P716																
18592	6.99952	6.99952	B0P718		7/7/98 8:44	TMANC	B0P718																
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	TMANC	B0P720																
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	TMANC	B0P722																
18592	12.99536	12.99536	B0P724		7/7/98 9:20	TMANC	B0P724																
18592	15.99656	15.99656	B0P726		7/7/98 9:42	TMANC	B0P726																
10128	8.49848	9.49888	B13C77		10/30/01 8:50	TMANC	B13C77																
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	TMANC	B13C78																
10128	13.4972	14.4976	B13C79		10/30/01 9:45	TMANC	B13C79																
10128	15.99656	16.99696	B13C80		10/30/01 10:00	TMANC	B13C80																
10128	5.99912	6.99952	B13C81		10/30/01 8:30	TMANC	B13C81													3.60E-02	pCi/g	U	.
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	TMANC	B13C89																
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	TMANC	B13CK9													9.50E-02	pCi/g	U	.
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	TMANC	B13CL0																
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	TMANC	B13CL1																
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	TMANC	B13CL2																
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	TMANC	B13CL3																
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	TMANC	B13CR3																
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	TMANC	B13CR4																
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	TMANC	B13CR5																
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	TMANC	B13CR6																
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	TMANC	B13CR7																
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLRL	B13CR8																
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	TMANC	B13CR9													3.40E-02	pCi/g	U	.
B8826	6.49768	8.99704	B16546		4/7/03 13:40	EBRLNE	B16546																
B8826	8.99704	11.4964	B16548		4/7/03 14:15	EBRLNE	B16548																
B8826	11.99824	14.4976	B16549		4/7/03 14:50	EBRLNE	B16549																
B8826	14.4976	16.99696	B16550		4/7/03 15:30	EBRLNE	B16550																
B8826	19.49632	21.99568	B16551		4/8/03 8:10	EBRLNE	B16551																
B8826	24.49504	26.9944	B16552		4/8/03 9:10	EBRLNE	B16552																
B8826	49.9872	52.48	B16553		4/8/03 11:40	EBRLNE	B16553																
B8826	99.9744	101.9752	B16555		4/9/03 16:10	EBRLNE	B16555																
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A	6.89E-04	pCi/g	U	.	-2.34E-02	pCi/g	U	.								
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	EBRLNE	B16FV4																
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	EBRLNE	B16FV5																
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	EBRLNE	B16FV6																
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	EBRLNE	B16FV7																
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	EBRLNE	B16NF7													4.80E-02	pCi/g	U	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Strontium-90 (10098-97-2) Sep/GPC				Technetium-99 (14133-76-7) IX/LSC				Technetium-99 (14133-76-7) Sep/GPC				Technetium-99 (14133-76-7) TEVA/LSC			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	TMANC	B0P708																
18591	7.298	7.298	B0P710	R	7/6/98 11:33	TMANC	B0P710																
18591	7.298	7.298	B0P712	R	7/6/98 11:33	TMANC	B0P712																
18591	4.30008	4.30008	B0P714		7/6/98 12:15	TMANC	B0P714																
18592	2.999232	2.999232	B0P716		7/7/98 8:31	TMANC	B0P716																
18592	6.99952	6.99952	B0P718		7/7/98 8:44	TMANC	B0P718																
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	TMANC	B0P720																
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	TMANC	B0P722																
18592	12.99536	12.99536	B0P724		7/7/98 9:20	TMANC	B0P724																
18592	15.99656	15.99656	B0P726		7/7/98 9:42	TMANC	B0P726																
10128	8.49848	9.49888	B13C77		10/30/01 8:50	TMANC	B13C77																
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	TMANC	B13C78																
10128	13.4972	14.4976	B13C79		10/30/01 9:45	TMANC	B13C79																
10128	15.99656	16.99696	B13C80		10/30/01 10:00	TMANC	B13C80																
10128	5.99912	6.99952	B13C81		10/30/01 8:30	TMANC	B13C81																
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	TMANC	B13C89																
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	TMANC	B13CK9																
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	TMANC	B13CL0																
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	TMANC	B13CL1																
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	TMANC	B13CL2																
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	TMANC	B13CL3																
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	TMANC	B13CR3																
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	TMANC	B13CR4																
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	TMANC	B13CR5																
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	TMANC	B13CR6																
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	TMANC	B13CR7																
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLRL	B13CR8																
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	TMANC	B13CR9																
B8826	6.49768	8.99704	B16546		4/7/03 13:40	EBRLNE	B16546																
B8826	8.99704	11.4964	B16548		4/7/03 14:15	EBRLNE	B16548																
B8826	11.99824	14.4976	B16549		4/7/03 14:50	EBRLNE	B16549																
B8826	14.4976	16.99696	B16550		4/7/03 15:30	EBRLNE	B16550									0.115	pCi/g	U	.				
B8826	19.49632	21.99568	B16551		4/8/03 8:10	EBRLNE	B16551									1.80E-02	pCi/g	U	.				
B8826	24.49504	26.9944	B16552		4/8/03 9:10	EBRLNE	B16552									-0.019	pCi/g	U	.				
B8826	49.9872	52.48	B16553		4/8/03 11:40	EBRLNE	B16553									0.147	pCi/g	U	.				
B8826	99.9744	101.9752	B16555		4/9/03 16:10	EBRLNE	B16555									0.34	pCi/g	U	.				
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A																
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	EBRLNE	B16FV4									0.232	pCi/g	U	.				
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	EBRLNE	B16FV5									0.158	pCi/g	U	.				
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	EBRLNE	B16FV6									0.45	pCi/g	U	.				
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	EBRLNE	B16FV7									0.462	pCi/g	U	.				
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	EBRLNE	B16NF7																

A-29, RAD1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Thallium-208 (14913-50-9) GEA				Thorium-228 (14274-82-9) GEA				Thorium-228 (14274-82-9) IX/Plate/AEA				Thorium-228 (14274-82-9) IX/Prec/AEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	TMANC	B0P708					0.55	pCi/g	.	.								
18591	7.298	7.298	B0P710	R	7/6/98 11:33	TMANC	B0P710					0.71	pCi/g	.	.								
18591	7.298	7.298	B0P712	R	7/6/98 11:33	TMANC	B0P712					0.74	pCi/g	.	.								
18591	4.30008	4.30008	B0P714		7/6/98 12:15	TMANC	B0P714					0.72	pCi/g	.	.								
18592	2.999232	2.999232	B0P716		7/7/98 8:31	TMANC	B0P716					0.64	pCi/g	.	.								
18592	6.99952	6.99952	B0P718		7/7/98 8:44	TMANC	B0P718					1.1	pCi/g	.	.								
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	TMANC	B0P720					0.73	pCi/g	.	.								
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	TMANC	B0P722					0.73	pCi/g	.	.								
18592	12.99536	12.99536	B0P724		7/7/98 9:20	TMANC	B0P724					0.56	pCi/g	.	.								
18592	15.99656	15.99656	B0P726		7/7/98 9:42	TMANC	B0P726					0.5	pCi/g	.	.								
10128	8.49848	9.49888	B13C77		10/30/01 8:50	TMANC	B13C77					0.969	pCi/g	.	.	0.795	pCi/g	.	.				
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	TMANC	B13C78					0.521	pCi/g	.	.	0.184	pCi/g	U	.				
10128	13.4972	14.4976	B13C79		10/30/01 9:45	TMANC	B13C79					0.46	pCi/g	.	.	0.48	pCi/g	.	.				
10128	15.99656	16.99696	B13C80		10/30/01 10:00	TMANC	B13C80					0.458	pCi/g	.	.	0.356	pCi/g	U	.				
10128	5.99912	6.99952	B13C81		10/30/01 8:30	TMANC	B13C81					0.954	pCi/g	.	.	0.796	pCi/g	U	.				
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	TMANC	B13C89					0.484	pCi/g	.	.	0.352	pCi/g	U	.				
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	TMANC	B13CK9					0.386	pCi/g	.	.	1	pCi/g	.	.				
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	TMANC	B13CL0					0.764	pCi/g	.	.	0.738	pCi/g	.	.				
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	TMANC	B13CL1					0.959	pCi/g	.	.	0.785	pCi/g	U	.				
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	TMANC	B13CL2					0.494	pCi/g	.	.	0.621	pCi/g	.	.				
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	TMANC	B13CL3					0.652	pCi/g	.	.	-0.14	pCi/g	U	.				
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	TMANC	B13CR3					0.868	pCi/g	.	.	0.51	pCi/g	U	.				
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	TMANC	B13CR4					0.7	pCi/g	.	.	0.568	pCi/g	U	.				
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	TMANC	B13CR5					0.604	pCi/g	.	.	0.599	pCi/g	.	.				
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	TMANC	B13CR6					0.831	pCi/g	.	.	0.691	pCi/g	.	.				
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	TMANC	B13CR7					0.518	pCi/g	.	.	0.322	pCi/g	.	.				
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLRL	B13CR8													1.14	pCi/g	.	.
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	TMANC	B13CR9					0.78	pCi/g	.	.	0.641	pCi/g	.	.				
B8826	6.49768	8.99704	B16546		4/7/03 13:40	EBRLNE	B16546					0.457	pCi/g	.	.	0.635	pCi/g	.	.				
B8826	8.99704	11.4964	B16548		4/7/03 14:15	EBRLNE	B16548					0.362	pCi/g	.	.	1.04	pCi/g	.	.				
B8826	11.99824	14.4976	B16549		4/7/03 14:50	EBRLNE	B16549					0.373	pCi/g	.	.	0.45	pCi/g	.	.				
B8826	14.4976	16.99696	B16550		4/7/03 15:30	EBRLNE	B16550					0.364	pCi/g	.	.	0.368	pCi/g	.	.				
B8826	19.49632	21.99568	B16551		4/8/03 8:10	EBRLNE	B16551					0.372	pCi/g	.	.	0.352	pCi/g	.	.				
B8826	24.49504	26.9944	B16552		4/8/03 9:10	EBRLNE	B16552					0.496	pCi/g	.	.	0.672	pCi/g	.	.				
B8826	49.9872	52.48	B16553		4/8/03 11:40	EBRLNE	B16553					0.349	pCi/g	.	.	0.535	pCi/g	U	.				
B8826	99.9744	101.9752	B16555		4/9/03 16:10	EBRLNE	B16555					0.404	pCi/g	.	.	0.948	pCi/g	.	.				
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A	0.136	pCi/g	.	.												
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	EBRLNE	B16FV4					0.501	pCi/g	.	.	0.571	pCi/g	.	.				
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	EBRLNE	B16FV5					0.294	pCi/g	.	.	0.431	pCi/g	.	.				
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	EBRLNE	B16FV6					0.866	pCi/g	.	.	0.914	pCi/g	.	.				
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	EBRLNE	B16FV7					0.442	pCi/g	.	.	0.264	pCi/g	U	.				
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	EBRLNE	B16NF7					0.666	pCi/g	.	.	1.38	pCi/g	U	.				

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Thorium-230 (14269-63-7) IX/Plate/AEA				Thorium-230 (14269-63-7) IX/Prec/AEA				Thorium-232 (TH-232) GEA				Thorium-232 (TH-232) IX/Plate/AEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	TMANC	B0P708									0.6	pCi/g	.	.				
18591	7.298	7.298	B0P710	R	7/6/98 11:33	TMANC	B0P710									0.77	pCi/g	.	.				
18591	7.298	7.298	B0P712	R	7/6/98 11:33	TMANC	B0P712									0.78	pCi/g	.	.				
18591	4.30008	4.30008	B0P714		7/6/98 12:15	TMANC	B0P714									0.83	pCi/g	.	.				
18592	2.999232	2.999232	B0P716		7/7/98 8:31	TMANC	B0P716									0.66	pCi/g	.	.				
18592	6.99952	6.99952	B0P718		7/7/98 8:44	TMANC	B0P718									0.89	pCi/g	.	.				
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	TMANC	B0P720									0.81	pCi/g	.	.				
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	TMANC	B0P722									0.84	pCi/g	.	.				
18592	12.99536	12.99536	B0P724		7/7/98 9:20	TMANC	B0P724									0.58	pCi/g	.	.				
18592	15.99656	15.99656	B0P726		7/7/98 9:42	TMANC	B0P726									0.55	pCi/g	.	.				
10128	8.49848	9.49888	B13C77		10/30/01 8:50	TMANC	B13C77	0.589	pCi/g	U	.					0.965	pCi/g	.	.	0.786	pCi/g	J	.
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	TMANC	B13C78	-4.60E-02	pCi/g	U	.					0.414	pCi/g	.	.	0.553	pCi/g	J	.
10128	13.4972	14.4976	B13C79		10/30/01 9:45	TMANC	B13C79	0.109	pCi/g	U	.					0.488	pCi/g	.	.	0.304	pCi/g	J	.
10128	15.99656	16.99696	B13C80		10/30/01 10:00	TMANC	B13C80	0.194	pCi/g	U	.					0.57	pCi/g	.	.	0.517	pCi/g	J	.
10128	5.99912	6.99952	B13C81		10/30/01 8:30	TMANC	B13C81	0.66	pCi/g	J	.					1.11	pCi/g	.	.	0.991	pCi/g	J	.
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	TMANC	B13C89	0.466	pCi/g	U	.					0.599	pCi/g	.	.	0.524	pCi/g	U	.
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	TMANC	B13CK9	0.423	pCi/g	J	.					0.662	pCi/g	.	.	0.56	pCi/g	J	.
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	TMANC	B13CL0	0.688	pCi/g	J	.					0.858	pCi/g	.	.	0.706	pCi/g	J	.
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	TMANC	B13CL1	0.465	pCi/g	U	.					0.834	pCi/g	.	.	0.465	pCi/g	U	.
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	TMANC	B13CL2	0.442	pCi/g	J	.					0.614	pCi/g	.	.	0.417	pCi/g	J	.
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	TMANC	B13CL3	4.60E-02	pCi/g	U	.					0.577	pCi/g	.	.	9.20E-02	pCi/g	U	.
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	TMANC	B13CR3	0.362	pCi/g	U	.					0.662	pCi/g	.	.	0.326	pCi/g	J	.
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	TMANC	B13CR4	0.304	pCi/g	U	.					0.878	pCi/g	.	.	0.477	pCi/g	J	.
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	TMANC	B13CR5	0.446	pCi/g	U	.					0.606	pCi/g	.	.	0.335	pCi/g	J	.
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	TMANC	B13CR6	0.501	pCi/g	J	.					0.704	pCi/g	.	.	0.706	pCi/g	J	.
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	TMANC	B13CR7	0.81	pCi/g	J	.					0.496	pCi/g	.	.	0.298	pCi/g	J	.
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLRL	B13CR8					0.883	pCi/g	.	.								
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	TMANC	B13CR9	0.524	pCi/g	J	.					0.89	pCi/g	.	.	0.842	pCi/g	J	.
B8826	6.49768	8.99704	B16546		4/7/03 13:40	EBRLNE	B16546	0.948	pCi/g	.	.					0.461	pCi/g	.	.	0.474	pCi/g	.	.
B8826	8.99704	11.4964	B16548		4/7/03 14:15	EBRLNE	B16548	1.49	pCi/g	.	.					0.444	pCi/g	.	.	0.574	pCi/g	.	.
B8826	11.99824	14.4976	B16549		4/7/03 14:50	EBRLNE	B16549	1.02	pCi/g	.	.					0.437	pCi/g	.	.	0.448	pCi/g	.	.
B8826	14.4976	16.99696	B16550		4/7/03 15:30	EBRLNE	B16550	0.33	pCi/g	U	.					0.457	pCi/g	.	.	0.66	pCi/g	.	.
B8826	19.49632	21.99568	B16551		4/8/03 8:10	EBRLNE	B16551	0.381	pCi/g	.	.					0.359	pCi/g	.	.	0.413	pCi/g	.	.
B8826	24.49504	26.9944	B16552		4/8/03 9:10	EBRLNE	B16552	0.386	pCi/g	.	.					0.55	pCi/g	.	.	0.668	pCi/g	.	.
B8826	49.9872	52.48	B16553		4/8/03 11:40	EBRLNE	B16553	1.6	pCi/g	.	.					0.344	pCi/g	.	.	0.456	pCi/g	U	.
B8826	99.9744	101.9752	B16555		4/9/03 16:10	EBRLNE	B16555	0.218	pCi/g	U	.					0.442	pCi/g	.	.	0.146	pCi/g	U	.
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A																
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	EBRLNE	B16FV4	0.57	pCi/g	.	.					0.613	pCi/g	.	.	1.07	pCi/g	.	.
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	EBRLNE	B16FV5	0.53	pCi/g	.	.					0.456	pCi/g	.	.	0.563	pCi/g	.	.
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	EBRLNE	B16FV6	0.598	pCi/g	.	.					1.04	pCi/g	.	.	0.85	pCi/g	.	.
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	EBRLNE	B16FV7	0.263	pCi/g	U	.					0.348	pCi/g	.	.	0.263	pCi/g	U	.
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	EBRLNE	B16NF7	3.22	pCi/g	U	.					0.658	pCi/g	.	.	1.84	pCi/g	U	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Thorium-232 (TH-232) IX/Prec/AEA				Thorium-234 (15065-10-8) GEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	TMANC	B0P708								
18591	7.298	7.298	B0P710	R	7/6/98 11:33	TMANC	B0P710								
18591	7.298	7.298	B0P712	R	7/6/98 11:33	TMANC	B0P712								
18591	4.30008	4.30008	B0P714		7/6/98 12:15	TMANC	B0P714								
18592	2.999232	2.999232	B0P716		7/7/98 8:31	TMANC	B0P716								
18592	6.99952	6.99952	B0P718		7/7/98 8:44	TMANC	B0P718								
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	TMANC	B0P720								
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	TMANC	B0P722								
18592	12.99536	12.99536	B0P724		7/7/98 9:20	TMANC	B0P724								
18592	15.99656	15.99656	B0P726		7/7/98 9:42	TMANC	B0P726								
10128	8.49848	9.49888	B13C77		10/30/01 8:50	TMANC	B13C77								
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	TMANC	B13C78								
10128	13.4972	14.4976	B13C79		10/30/01 9:45	TMANC	B13C79								
10128	15.99656	16.99696	B13C80		10/30/01 10:00	TMANC	B13C80								
10128	5.99912	6.99952	B13C81		10/30/01 8:30	TMANC	B13C81								
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	TMANC	B13C89								
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	TMANC	B13CK9								
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	TMANC	B13CL0								
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	TMANC	B13CL1								
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	TMANC	B13CL2								
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	TMANC	B13CL3								
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	TMANC	B13CR3								
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	TMANC	B13CR4								
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	TMANC	B13CR5								
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	TMANC	B13CR6								
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	TMANC	B13CR7								
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLRL	B13CR8	1.22	pCi/g	.	.				
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	TMANC	B13CR9								
B8826	6.49768	8.99704	B16546		4/7/03 13:40	EBRLNE	B16546								
B8826	8.99704	11.4964	B16548		4/7/03 14:15	EBRLNE	B16548								
B8826	11.99824	14.4976	B16549		4/7/03 14:50	EBRLNE	B16549								
B8826	14.4976	16.99696	B16550		4/7/03 15:30	EBRLNE	B16550								
B8826	19.49632	21.99568	B16551		4/8/03 8:10	EBRLNE	B16551								
B8826	24.49504	26.9944	B16552		4/8/03 9:10	EBRLNE	B16552								
B8826	49.9872	52.48	B16553		4/8/03 11:40	EBRLNE	B16553								
B8826	99.9744	101.9752	B16555		4/9/03 16:10	EBRLNE	B16555								
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A					0.696	pCi/g	U	.
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	EBRLNE	B16FV4								
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	EBRLNE	B16FV5								
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	EBRLNE	B16FV6								
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	EBRLNE	B16FV7								
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	EBRLNE	B16NF7								

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Tin-113 (13966-06-8) GEA				Tin-126 (15832-50-5) GEA				Total beta radiostrontium (SR-RAD) Sep/GPC			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	TMANC	B0P708									0.32	pCi/g	J	.
18591	7.298	7.298	B0P710	R	7/6/98 11:33	TMANC	B0P710									9.00E-03	pCi/g	U	.
18591	7.298	7.298	B0P712	R	7/6/98 11:33	TMANC	B0P712									-7.10E-02	pCi/g	U	.
18591	4.30008	4.30008	B0P714		7/6/98 12:15	TMANC	B0P714									5.00E-03	pCi/g	U	.
18592	2.999232	2.999232	B0P716		7/7/98 8:31	TMANC	B0P716									-6.80E-02	pCi/g	U	.
18592	6.99952	6.99952	B0P718		7/7/98 8:44	TMANC	B0P718									2.10E-02	pCi/g	U	.
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	TMANC	B0P720									-1.50E-02	pCi/g	U	.
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	TMANC	B0P722									-2.10E-02	pCi/g	U	.
18592	12.99536	12.99536	B0P724		7/7/98 9:20	TMANC	B0P724									0.13	pCi/g	U	.
18592	15.99656	15.99656	B0P726		7/7/98 9:42	TMANC	B0P726									0.27	pCi/g	J	.
10128	8.49848	9.49888	B13C77		10/30/01 8:50	TMANC	B13C77									-2.10E-02	pCi/g	U	.
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	TMANC	B13C78									0.103	pCi/g	U	.
10128	13.4972	14.4976	B13C79		10/30/01 9:45	TMANC	B13C79									9.70E-02	pCi/g	U	.
10128	15.99656	16.99696	B13C80		10/30/01 10:00	TMANC	B13C80									-4.90E-02	pCi/g	U	.
10128	5.99912	6.99952	B13C81		10/30/01 8:30	TMANC	B13C81					6.50E-02	pCi/g	U	.	-5.80E-02	pCi/g	U	.
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	TMANC	B13C89									0.016	pCi/g	U	.
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	TMANC	B13CK9					0.31	pCi/g	U	.	0.739	pCi/g	J	.
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	TMANC	B13CL0									0.129	pCi/g	U	.
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	TMANC	B13CL1									0.285	pCi/g	J	.
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	TMANC	B13CL2									0.272	pCi/g	J	.
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	TMANC	B13CL3									0.197	pCi/g	U	.
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	TMANC	B13CR3									4.00E-03	pCi/g	U	.
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	TMANC	B13CR4									5.30E-02	pCi/g	U	.
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	TMANC	B13CR5									0.386	pCi/g	J	.
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	TMANC	B13CR6									0.363	pCi/g	J	.
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	TMANC	B13CR7									0.115	pCi/g	U	.
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLRL	B13CR8									0.779	pCi/g	.	.
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	TMANC	B13CR9					5.80E-02	pCi/g	U	.	3.80E-02	pCi/g	U	.
B8826	6.49768	8.99704	B16546		4/7/03 13:40	EBRLNE	B16546									0.35	pCi/g	.	.
B8826	8.99704	11.4964	B16548		4/7/03 14:15	EBRLNE	B16548									0.516	pCi/g	.	.
B8826	11.99824	14.4976	B16549		4/7/03 14:50	EBRLNE	B16549									0.078	pCi/g	U	.
B8826	14.4976	16.99696	B16550		4/7/03 15:30	EBRLNE	B16550									0.316	pCi/g	.	.
B8826	19.49632	21.99568	B16551		4/8/03 8:10	EBRLNE	B16551									-2.90E-02	pCi/g	U	.
B8826	24.49504	26.9944	B16552		4/8/03 9:10	EBRLNE	B16552									1.10E-02	pCi/g	U	.
B8826	49.9872	52.48	B16553		4/8/03 11:40	EBRLNE	B16553									-9.60E-02	pCi/g	U	.
B8826	99.9744	101.9752	B16555		4/9/03 16:10	EBRLNE	B16555									-8.00E-02	pCi/g	U	.
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A	-2.21E-03	pCi/g	U	.	0.12	pCi/g	U	.	0.39	pCi/g	.	.
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	EBRLNE	B16FV4									-5.40E-02	pCi/g	U	.
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	EBRLNE	B16FV5									-9.20E-02	pCi/g	U	.
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	EBRLNE	B16FV6									0.102	pCi/g	U	.
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	EBRLNE	B16FV7									-2.20E-02	pCi/g	U	.
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	EBRLNE	B16NF7					7.20E-02	pCi/g	U	.	0.162	pCi/g	U	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Tritium (10028-17-8) 906				Uranium-233/234 (U-233/234) Sep/Plate/AEA				Uranium-234 (13966-29-5) IX/Plate/AEA				Uranium-234 (13966-29-5) Sep/Plate/AEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	TMANC	B0P708																
18591	7.298	7.298	B0P710	R	7/6/98 11:33	TMANC	B0P710																
18591	7.298	7.298	B0P712	R	7/6/98 11:33	TMANC	B0P712																
18591	4.30008	4.30008	B0P714		7/6/98 12:15	TMANC	B0P714																
18592	2.999232	2.999232	B0P716		7/7/98 8:31	TMANC	B0P716																
18592	6.99952	6.99952	B0P718		7/7/98 8:44	TMANC	B0P718																
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	TMANC	B0P720																
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	TMANC	B0P722																
18592	12.99536	12.99536	B0P724		7/7/98 9:20	TMANC	B0P724																
18592	15.99656	15.99656	B0P726		7/7/98 9:42	TMANC	B0P726																
10128	8.49848	9.49888	B13C77		10/30/01 8:50	TMANC	B13C77																
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	TMANC	B13C78																
10128	13.4972	14.4976	B13C79		10/30/01 9:45	TMANC	B13C79																
10128	15.99656	16.99696	B13C80		10/30/01 10:00	TMANC	B13C80																
10128	5.99912	6.99952	B13C81		10/30/01 8:30	TMANC	B13C81					0.774	pCi/g	J	.								
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	TMANC	B13C89																
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	TMANC	B13CK9					1.19	pCi/g	.	.								
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	TMANC	B13CL0																
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	TMANC	B13CL1																
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	TMANC	B13CL2																
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	TMANC	B13CL3																
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	TMANC	B13CR3					1.79	pCi/g	.	.								
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	TMANC	B13CR4					2.31	pCi/g	.	.								
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	TMANC	B13CR5																
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	TMANC	B13CR6																
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	TMANC	B13CR7																
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLRL	B13CR8									0.964	pCi/g	.	.				
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	TMANC	B13CR9					0.33	pCi/g	J	.								
B8826	6.49768	8.99704	B16546		4/7/03 13:40	EBRLNE	B16546																
B8826	8.99704	11.4964	B16548		4/7/03 14:15	EBRLNE	B16548																
B8826	11.99824	14.4976	B16549		4/7/03 14:50	EBRLNE	B16549																
B8826	14.4976	16.99696	B16550		4/7/03 15:30	EBRLNE	B16550	2.60E-02	pCi/g	U	.												
B8826	19.49632	21.99568	B16551		4/8/03 8:10	EBRLNE	B16551	8.30E-02	pCi/g	U	.												
B8826	24.49504	26.9944	B16552		4/8/03 9:10	EBRLNE	B16552	0.144	pCi/g	U	.												
B8826	49.9872	52.48	B16553		4/8/03 11:40	EBRLNE	B16553	0.101	pCi/g	U	.												
B8826	99.9744	101.9752	B16555		4/9/03 16:10	EBRLNE	B16555	-3.20E-02	pCi/g	U	.												
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A																
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	EBRLNE	B16FV4	6.00E-03	pCi/g	U	.												
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	EBRLNE	B16FV5	0.221	pCi/g	.	.												
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	EBRLNE	B16FV6	7.05	pCi/g	.	.												
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	EBRLNE	B16FV7	1.63	pCi/g	.	.												
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	EBRLNE	B16NF7																

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Uranium-235 (15117-96-1) GEA				Uranium-235 (15117-96-1) IX/Plate/AEA				Uranium-235 (15117-96-1) Sep/Plate/AEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	TMANC	B0P708												
18591	7.298	7.298	B0P710	R	7/6/98 11:33	TMANC	B0P710												
18591	7.298	7.298	B0P712	R	7/6/98 11:33	TMANC	B0P712												
18591	4.30008	4.30008	B0P714		7/6/98 12:15	TMANC	B0P714												
18592	2.999232	2.999232	B0P716		7/7/98 8:31	TMANC	B0P716												
18592	6.99952	6.99952	B0P718		7/7/98 8:44	TMANC	B0P718												
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	TMANC	B0P720												
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	TMANC	B0P722												
18592	12.99536	12.99536	B0P724		7/7/98 9:20	TMANC	B0P724												
18592	15.99656	15.99656	B0P726		7/7/98 9:42	TMANC	B0P726												
10128	8.49848	9.49888	B13C77		10/30/01 8:50	TMANC	B13C77	0.18	pCi/g	U	.								
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	TMANC	B13C78	0.14	pCi/g	U	.								
10128	13.4972	14.4976	B13C79		10/30/01 9:45	TMANC	B13C79	3.30E-02	pCi/g	U	.								
10128	15.99656	16.99696	B13C80		10/30/01 10:00	TMANC	B13C80	4.80E-02	pCi/g	U	.								
10128	5.99912	6.99952	B13C81		10/30/01 8:30	TMANC	B13C81	0.11	pCi/g	U	.					2.60E-02	pCi/g	U	.
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	TMANC	B13C89	0.12	pCi/g	U	.								
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	TMANC	B13CK9	0.78	pCi/g	U	.					0.439	pCi/g	J	.
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	TMANC	B13CL0	0.17	pCi/g	U	.								
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	TMANC	B13CL1	0.18	pCi/g	U	.								
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	TMANC	B13CL2	9.10E-02	pCi/g	U	.								
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	TMANC	B13CL3	8.70E-02	pCi/g	U	.								
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	TMANC	B13CR3	0.17	pCi/g	U	.					5.30E-02	pCi/g	U	.
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	TMANC	B13CR4	0.19	pCi/g	U	.					0.027	pCi/g	U	.
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	TMANC	B13CR5	0.15	pCi/g	U	.								
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	TMANC	B13CR6	0.094	pCi/g	U	.								
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	TMANC	B13CR7	0.15	pCi/g	U	.								
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLRL	B13CR8					6.14E-02	pCi/g	.	.				
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	TMANC	B13CR9	0.1	pCi/g	U	.					0	pCi/g	U	.
B8826	6.49768	8.99704	B16546		4/7/03 13:40	EBRLNE	B16546	8.60E-02	pCi/g	U	.								
B8826	8.99704	11.4964	B16548		4/7/03 14:15	EBRLNE	B16548	0.12	pCi/g	U	.								
B8826	11.99824	14.4976	B16549		4/7/03 14:50	EBRLNE	B16549	0.17	pCi/g	U	.								
B8826	14.4976	16.99696	B16550		4/7/03 15:30	EBRLNE	B16550	7.10E-02	pCi/g	U	.								
B8826	19.49632	21.99568	B16551		4/8/03 8:10	EBRLNE	B16551	0.13	pCi/g	U	.								
B8826	24.49504	26.9944	B16552		4/8/03 9:10	EBRLNE	B16552	0.22	pCi/g	U	.								
B8826	49.9872	52.48	B16553		4/8/03 11:40	EBRLNE	B16553	0.12	pCi/g	U	.								
B8826	99.9744	101.9752	B16555		4/9/03 16:10	EBRLNE	B16555	0.26	pCi/g	U	.								
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A	8.30E-02	pCi/g	.	.								
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	EBRLNE	B16FV4	0.26	pCi/g	U	.								
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	EBRLNE	B16FV5	0.27	pCi/g	U	.								
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	EBRLNE	B16FV6	0.22	pCi/g	U	.								
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	EBRLNE	B16FV7	0.18	pCi/g	U	.								
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	EBRLNE	B16NF7	0.19	pCi/g	U	.								

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Uranium-238 (U-238) GEA				Uranium-238 (U-238) IX/Plate/AEA				Uranium-238 (U-238) Sep/Plate/AEA				Zinc-65 (13982-39-3) GEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	TMANC	B0P708	2.2	pCi/g	U	.												
18591	7.298	7.298	B0P710	R	7/6/98 11:33	TMANC	B0P710	1.4	pCi/g	U	.												
18591	7.298	7.298	B0P712	R	7/6/98 11:33	TMANC	B0P712	3.4	pCi/g	U	.												
18591	4.30008	4.30008	B0P714		7/6/98 12:15	TMANC	B0P714	3.1	pCi/g	U	.												
18592	2.999232	2.999232	B0P716		7/7/98 8:31	TMANC	B0P716	1.6	pCi/g	U	.												
18592	6.99952	6.99952	B0P718		7/7/98 8:44	TMANC	B0P718	3.4	pCi/g	U	.												
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	TMANC	B0P720	2.9	pCi/g	U	.												
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	TMANC	B0P722	1.8	pCi/g	U	.												
18592	12.99536	12.99536	B0P724		7/7/98 9:20	TMANC	B0P724	3.3	pCi/g	U	.												
18592	15.99656	15.99656	B0P726		7/7/98 9:42	TMANC	B0P726	2.4	pCi/g	U	.												
10128	8.49848	9.49888	B13C77		10/30/01 8:50	TMANC	B13C77	6.4	pCi/g	U	.												
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	TMANC	B13C78	5.1	pCi/g	U	.												
10128	13.4972	14.4976	B13C79		10/30/01 9:45	TMANC	B13C79	1.1	pCi/g	U	.												
10128	15.99656	16.99696	B13C80		10/30/01 10:00	TMANC	B13C80	1.4	pCi/g	U	.												
10128	5.99912	6.99952	B13C81		10/30/01 8:30	TMANC	B13C81	3.9	pCi/g	U	.					0.495	pCi/g	J	.				
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	TMANC	B13C89	3.3	pCi/g	U	.												
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	TMANC	B13CK9	9.4	pCi/g	U	.					0.726	pCi/g	J	.				
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	TMANC	B13CL0	6.2	pCi/g	U	.												
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	TMANC	B13CL1	6.9	pCi/g	U	.												
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	TMANC	B13CL2	2.8	pCi/g	U	.												
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	TMANC	B13CL3	3.2	pCi/g	U	.												
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	TMANC	B13CR3	5.6	pCi/g	U	.					1.81	pCi/g	.	.				
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	TMANC	B13CR4	4.7	pCi/g	U	.					1.71	pCi/g	.	.				
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	TMANC	B13CR5	6.2	pCi/g	U	.												
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	TMANC	B13CR6	3.4	pCi/g	U	.												
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	TMANC	B13CR7	6.2	pCi/g	U	.												
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLRL	B13CR8					0.938	pCi/g	.	.								
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	TMANC	B13CR9	3.2	pCi/g	U	.					0.557	pCi/g	J	.				
B8826	6.49768	8.99704	B16546		4/7/03 13:40	EBRLNE	B16546	3.1	pCi/g	U	.												
B8826	8.99704	11.4964	B16548		4/7/03 14:15	EBRLNE	B16548	3.6	pCi/g	U	.												
B8826	11.99824	14.4976	B16549		4/7/03 14:50	EBRLNE	B16549	5	pCi/g	U	.												
B8826	14.4976	16.99696	B16550		4/7/03 15:30	EBRLNE	B16550	2.7	pCi/g	U	.												
B8826	19.49632	21.99568	B16551		4/8/03 8:10	EBRLNE	B16551	4.4	pCi/g	U	.												
B8826	24.49504	26.9944	B16552		4/8/03 9:10	EBRLNE	B16552	3.1	pCi/g	U	.												
B8826	49.9872	52.48	B16553		4/8/03 11:40	EBRLNE	B16553	4.5	pCi/g	U	.												
B8826	99.9744	101.9752	B16555		4/9/03 16:10	EBRLNE	B16555	8.3	pCi/g	U	.												
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A													4.08E-02	pCi/g	U	.
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	EBRLNE	B16FV4	10	pCi/g	U	.												
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	EBRLNE	B16FV5	8	pCi/g	U	.												
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	EBRLNE	B16FV6	8.8	pCi/g	U	.												
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	EBRLNE	B16FV7	7.1	pCi/g	U	.												
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	EBRLNE	B16NF7	5.4	pCi/g	U	.												

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	1,2,4-Trichlorobenzene (120-82-1) 8270				1,2-Dichlorobenzene (95-50-1) 8270				1,3-Dichlorobenzene (541-73-1) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	RLNP	B0P708	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
18591	7.298	7.298	B0P710	R	7/6/98 11:33	RLNP	B0P710	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
18591	7.298	7.298	B0P712	R	7/6/98 11:33	RLNP	B0P712	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
18591	4.30008	4.30008	B0P714		7/6/98 12:15	RLNP	B0P714	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
18592	2.999232	2.999232	B0P716		7/7/98 8:31	RLNP	B0P716	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
18592	6.99952	6.99952	B0P718		7/7/98 8:44	RLNP	B0P718	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	RLNP	B0P720	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	RLNP	B0P722	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
18592	12.99536	12.99536	B0P724		7/7/98 9:20	RLNP	B0P724	400	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.
18592	15.99656	15.99656	B0P726		7/7/98 9:42	RLNP	B0P726	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81	400	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9	2600	ug/kg	U	.	2600	ug/kg	U	.	2600	ug/kg	U	.
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3	400	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4	390	ug/kg	U	.	390	ug/kg	U	.	390	ug/kg	U	.
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8												
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A	300	ug/kg	U	.								
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6	410	ug/kg	U	.	410	ug/kg	U	.	410	ug/kg	U	.
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7	740	ug/kg	U	.	740	ug/kg	U	.	740	ug/kg	U	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	1,4-Dichlorobenzene (106-46-7) 8270				2,4,5-Trichlorophenol (95-95-4) 8270				2,4,6-Trichlorophenol (88-06-2) 8270				2,4-Dichlorophenol (120-83-2) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	RLNP	B0P708	350	ug/kg	U	.	880	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
18591	7.298	7.298	B0P710	R	7/6/98 11:33	RLNP	B0P710	360	ug/kg	U	.	890	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
18591	7.298	7.298	B0P712	R	7/6/98 11:33	RLNP	B0P712	350	ug/kg	U	.	880	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
18591	4.30008	4.30008	B0P714		7/6/98 12:15	RLNP	B0P714	350	ug/kg	U	.	880	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
18592	2.999232	2.999232	B0P716		7/7/98 8:31	RLNP	B0P716	360	ug/kg	U	.	900	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
18592	6.99952	6.99952	B0P718		7/7/98 8:44	RLNP	B0P718	360	ug/kg	U	.	900	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	RLNP	B0P720	380	ug/kg	U	.	950	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	RLNP	B0P722	380	ug/kg	U	.	940	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
18592	12.99536	12.99536	B0P724		7/7/98 9:20	RLNP	B0P724	400	ug/kg	U	.	990	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.
18592	15.99656	15.99656	B0P726		7/7/98 9:42	RLNP	B0P726	340	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77	380	ug/kg	U	.	960	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78	350	ug/kg	U	.	860	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79	340	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80	350	ug/kg	U	.	870	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81	400	ug/kg	U	.	1000	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89	340	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9	2600	ug/kg	U	.	6400	ug/kg	U	.	2600	ug/kg	U	.	2600	ug/kg	U	.
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0	360	ug/kg	U	.	890	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1	380	ug/kg	U	.	950	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2	340	ug/kg	U	.	850	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3	340	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3	400	ug/kg	U	.	990	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4	390	ug/kg	U	.	980	ug/kg	U	.	390	ug/kg	U	.	390	ug/kg	U	.
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5	350	ug/kg	U	.	880	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6	360	ug/kg	U	.	900	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7	340	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8																
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9	380	ug/kg	U	.	940	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546	350	ug/kg	U	.	880	ug/kg	U	J	350	ug/kg	U	J	350	ug/kg	U	.
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548	350	ug/kg	U	.	860	ug/kg	U	J	350	ug/kg	U	J	350	ug/kg	U	.
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549	360	ug/kg	U	.	910	ug/kg	U	J	360	ug/kg	U	J	360	ug/kg	U	.
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550	350	ug/kg	U	.	860	ug/kg	U	J	350	ug/kg	U	J	350	ug/kg	U	.
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551	350	ug/kg	U	.	860	ug/kg	U	J	350	ug/kg	U	J	350	ug/kg	U	.
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552	370	ug/kg	U	.	920	ug/kg	U	J	370	ug/kg	U	J	370	ug/kg	U	.
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553	350	ug/kg	U	.	880	ug/kg	U	J	350	ug/kg	U	J	350	ug/kg	U	.
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555	340	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A	330	ug/kg	U	.												
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4	350	ug/kg	U	.	860	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5	350	ug/kg	U	.	870	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6	410	ug/kg	U	.	1000	ug/kg	U	.	410	ug/kg	U	.	410	ug/kg	U	.
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7	370	ug/kg	U	.	920	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7	740	ug/kg	U	.	1800	ug/kg	U	.	740	ug/kg	U	.	740	ug/kg	U	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	2,4-Dimethylphenol (105-67-9) 8270				2,4-Dinitrophenol (51-28-5) 8270				2,4-Dinitrotoluene (121-14-2) 8270				2,6-Dinitrotoluene (606-20-2) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	RLNP	B0P708	350	ug/kg	U	.	880	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
18591	7.298	7.298	B0P710	R	7/6/98 11:33	RLNP	B0P710	360	ug/kg	U	.	890	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
18591	7.298	7.298	B0P712	R	7/6/98 11:33	RLNP	B0P712	350	ug/kg	U	.	880	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
18591	4.30008	4.30008	B0P714		7/6/98 12:15	RLNP	B0P714	350	ug/kg	U	.	880	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
18592	2.999232	2.999232	B0P716		7/7/98 8:31	RLNP	B0P716	360	ug/kg	U	.	900	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
18592	6.99952	6.99952	B0P718		7/7/98 8:44	RLNP	B0P718	360	ug/kg	U	.	900	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	RLNP	B0P720	380	ug/kg	U	.	950	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	RLNP	B0P722	380	ug/kg	U	.	940	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
18592	12.99536	12.99536	B0P724		7/7/98 9:20	RLNP	B0P724	400	ug/kg	U	.	990	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.
18592	15.99656	15.99656	B0P726		7/7/98 9:42	RLNP	B0P726	340	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77	380	ug/kg	U	.	960	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78	350	ug/kg	U	.	860	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79	340	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80	350	ug/kg	U	.	870	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81	400	ug/kg	U	.	1000	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89	340	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9	2600	ug/kg	U	.	6400	ug/kg	U	.	2600	ug/kg	U	.	2600	ug/kg	U	.
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0	360	ug/kg	U	.	890	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1	380	ug/kg	U	.	950	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2	340	ug/kg	U	.	850	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3	340	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3	400	ug/kg	U	.	990	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4	390	ug/kg	U	.	980	ug/kg	U	.	390	ug/kg	U	.	390	ug/kg	U	.
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5	350	ug/kg	U	.	880	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6	360	ug/kg	U	.	900	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7	340	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8																
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9	380	ug/kg	U	.	940	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546	350	ug/kg	U	.	880	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548	350	ug/kg	U	.	860	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549	360	ug/kg	U	.	910	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550	350	ug/kg	U	.	860	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551	350	ug/kg	U	.	860	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552	370	ug/kg	U	.	920	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553	350	ug/kg	U	.	880	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555	340	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A									69	ug/kg	U	.				
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4	350	ug/kg	U	.	860	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5	350	ug/kg	U	.	870	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6	410	ug/kg	U	.	1000	ug/kg	U	.	410	ug/kg	U	.	410	ug/kg	U	.
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7	370	ug/kg	U	.	920	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7	740	ug/kg	U	.	1800	ug/kg	U	.	740	ug/kg	U	.	740	ug/kg	U	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	2-Chloronaphthalene (91-58-7) 8270				2-Chlorophenol (95-57-8) 8270				2-Methylnaphthalene (91-57-6) 8270				2-Methylphenol (cresol, o-) (95-48-7) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	RLNP	B0P708	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
18591	7.298	7.298	B0P710	R	7/6/98 11:33	RLNP	B0P710	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
18591	7.298	7.298	B0P712	R	7/6/98 11:33	RLNP	B0P712	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
18591	4.30008	4.30008	B0P714		7/6/98 12:15	RLNP	B0P714	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
18592	2.999232	2.999232	B0P716		7/7/98 8:31	RLNP	B0P716	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
18592	6.99952	6.99952	B0P718		7/7/98 8:44	RLNP	B0P718	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	RLNP	B0P720	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	RLNP	B0P722	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
18592	12.99536	12.99536	B0P724		7/7/98 9:20	RLNP	B0P724	400	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.
18592	15.99656	15.99656	B0P726		7/7/98 9:42	RLNP	B0P726	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81	400	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9	2600	ug/kg	U	.	2600	ug/kg	U	.	2600	ug/kg	U	.	2600	ug/kg	U	.
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3	400	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4	390	ug/kg	U	.	390	ug/kg	U	.	390	ug/kg	U	.	390	ug/kg	U	.
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8																
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A					150	ug/kg	U	.								
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6	410	ug/kg	U	.	410	ug/kg	U	.	410	ug/kg	U	.	410	ug/kg	U	.
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7	740	ug/kg	U	.	740	ug/kg	U	.	740	ug/kg	U	.	740	ug/kg	U	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	2-Nitroaniline (88-74-4) 8270				2-Nitrophenol (88-75-5) 8270				3,3'-Dichlorobenzidine (91-94-1) 8270				3-Nitroaniline (99-09-2) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	RLNP	B0P708	880	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	880	ug/kg	U	.
18591	7.298	7.298	B0P710	R	7/6/98 11:33	RLNP	B0P710	890	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.	890	ug/kg	U	.
18591	7.298	7.298	B0P712	R	7/6/98 11:33	RLNP	B0P712	880	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	880	ug/kg	U	.
18591	4.30008	4.30008	B0P714		7/6/98 12:15	RLNP	B0P714	880	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	880	ug/kg	U	.
18592	2.999232	2.999232	B0P716		7/7/98 8:31	RLNP	B0P716	900	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.	900	ug/kg	U	.
18592	6.99952	6.99952	B0P718		7/7/98 8:44	RLNP	B0P718	900	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.	900	ug/kg	U	.
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	RLNP	B0P720	950	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.	950	ug/kg	U	.
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	RLNP	B0P722	940	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.	940	ug/kg	U	.
18592	12.99536	12.99536	B0P724		7/7/98 9:20	RLNP	B0P724	990	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.	990	ug/kg	U	.
18592	15.99656	15.99656	B0P726		7/7/98 9:42	RLNP	B0P726	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	860	ug/kg	U	.
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77	960	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.	960	ug/kg	U	.
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78	860	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	860	ug/kg	U	.
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	860	ug/kg	U	.
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80	870	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	870	ug/kg	U	.
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81	1000	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.	1000	ug/kg	U	.
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	860	ug/kg	U	.
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9	6400	ug/kg	U	.	2600	ug/kg	U	.	2600	ug/kg	U	.	6400	ug/kg	U	.
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0	890	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.	890	ug/kg	U	.
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1	950	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.	950	ug/kg	U	.
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2	850	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	850	ug/kg	U	.
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	860	ug/kg	U	.
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3	990	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.	990	ug/kg	U	.
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4	980	ug/kg	U	.	390	ug/kg	U	.	390	ug/kg	U	.	980	ug/kg	U	.
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5	880	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	880	ug/kg	U	.
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6	900	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.	900	ug/kg	U	.
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	860	ug/kg	U	.
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8																
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9	940	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.	940	ug/kg	U	.
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546	880	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	880	ug/kg	U	.
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548	860	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	860	ug/kg	U	.
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549	910	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.	910	ug/kg	U	.
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550	860	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	860	ug/kg	U	.
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551	860	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	860	ug/kg	U	.
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552	920	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.	920	ug/kg	U	.
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553	880	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	880	ug/kg	U	.
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	860	ug/kg	U	.
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A					180	ug/kg	U	.								
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4	860	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	860	ug/kg	U	.
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5	870	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	870	ug/kg	U	.
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6	1000	ug/kg	U	.	410	ug/kg	U	.	410	ug/kg	U	.	1000	ug/kg	U	.
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7	920	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.	920	ug/kg	U	.
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7	1800	ug/kg	U	.	740	ug/kg	U	.	740	ug/kg	U	.	1800	ug/kg	U	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	4,6-Dinitro-2-methylphenol (534-52-1) 8270				4-Bromophenylphenyl ether (101-55-3) 8270				4-Chloro-3-methylphenol (59-50-7) 8270				4-Chloroaniline (106-47-8) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	RLNP	B0P708	880	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
18591	7.298	7.298	B0P710	R	7/6/98 11:33	RLNP	B0P710	890	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
18591	7.298	7.298	B0P712	R	7/6/98 11:33	RLNP	B0P712	880	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
18591	4.30008	4.30008	B0P714		7/6/98 12:15	RLNP	B0P714	880	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
18592	2.999232	2.999232	B0P716		7/7/98 8:31	RLNP	B0P716	900	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
18592	6.99952	6.99952	B0P718		7/7/98 8:44	RLNP	B0P718	900	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	RLNP	B0P720	950	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	RLNP	B0P722	940	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
18592	12.99536	12.99536	B0P724		7/7/98 9:20	RLNP	B0P724	990	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.
18592	15.99656	15.99656	B0P726		7/7/98 9:42	RLNP	B0P726	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77	960	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78	860	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80	870	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81	1000	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9	6400	ug/kg	U	.	2600	ug/kg	U	.	2600	ug/kg	U	.	2600	ug/kg	U	.
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0	890	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1	950	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2	850	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3	990	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4	980	ug/kg	U	.	390	ug/kg	U	.	390	ug/kg	U	.	390	ug/kg	U	.
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5	880	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6	900	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8																
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9	940	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546	880	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548	860	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549	910	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550	860	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551	860	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552	920	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553	880	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A									69	ug/kg	U	.				
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4	860	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5	870	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6	1000	ug/kg	U	.	410	ug/kg	U	.	410	ug/kg	U	.	410	ug/kg	U	.
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7	920	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7	1800	ug/kg	U	.	740	ug/kg	U	.	740	ug/kg	U	.	740	ug/kg	U	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	4-Chlorophenylphenyl ether (7005-72-3) 8270				4-Methylphenol (cresol, p-) (106-44-5) 8270				4-Nitroaniline (100-01-6) 8270				4-Nitrophenol (100-02-7) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	RLNP	B0P708	350	ug/kg	U	.	350	ug/kg	U	.	880	ug/kg	U	.	880	ug/kg	U	.
18591	7.298	7.298	B0P710	R	7/6/98 11:33	RLNP	B0P710	360	ug/kg	U	.	360	ug/kg	U	.	890	ug/kg	U	.	890	ug/kg	U	.
18591	7.298	7.298	B0P712	R	7/6/98 11:33	RLNP	B0P712	350	ug/kg	U	.	350	ug/kg	U	.	880	ug/kg	U	.	880	ug/kg	U	.
18591	4.30008	4.30008	B0P714		7/6/98 12:15	RLNP	B0P714	350	ug/kg	U	.	350	ug/kg	U	.	880	ug/kg	U	.	880	ug/kg	U	.
18592	2.999232	2.999232	B0P716		7/7/98 8:31	RLNP	B0P716	360	ug/kg	U	.	360	ug/kg	U	.	900	ug/kg	U	.	900	ug/kg	U	.
18592	6.99952	6.99952	B0P718		7/7/98 8:44	RLNP	B0P718	360	ug/kg	U	.	360	ug/kg	U	.	900	ug/kg	U	.	900	ug/kg	U	.
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	RLNP	B0P720	380	ug/kg	U	.	380	ug/kg	U	.	950	ug/kg	U	.	950	ug/kg	U	.
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	RLNP	B0P722	380	ug/kg	U	.	380	ug/kg	U	.	940	ug/kg	U	.	940	ug/kg	U	.
18592	12.99536	12.99536	B0P724		7/7/98 9:20	RLNP	B0P724	400	ug/kg	U	.	400	ug/kg	U	.	990	ug/kg	U	.	990	ug/kg	U	.
18592	15.99656	15.99656	B0P726		7/7/98 9:42	RLNP	B0P726	340	ug/kg	U	.	340	ug/kg	U	.	860	ug/kg	U	.	860	ug/kg	U	.
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77	380	ug/kg	U	.	380	ug/kg	U	.	960	ug/kg	U	.	960	ug/kg	U	.
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78	350	ug/kg	U	.	350	ug/kg	U	.	860	ug/kg	U	.	860	ug/kg	U	.
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79	340	ug/kg	U	.	340	ug/kg	U	.	860	ug/kg	U	.	860	ug/kg	U	.
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80	350	ug/kg	U	.	350	ug/kg	U	.	870	ug/kg	U	.	870	ug/kg	U	.
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81	400	ug/kg	U	.	400	ug/kg	U	.	1000	ug/kg	U	.	1000	ug/kg	U	.
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89	340	ug/kg	U	.	340	ug/kg	U	.	860	ug/kg	U	.	860	ug/kg	U	.
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9	2600	ug/kg	U	.	2600	ug/kg	U	.	6400	ug/kg	U	.	6400	ug/kg	U	.
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0	360	ug/kg	U	.	360	ug/kg	U	.	890	ug/kg	U	.	890	ug/kg	U	.
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1	380	ug/kg	U	.	380	ug/kg	U	.	950	ug/kg	U	.	950	ug/kg	U	.
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2	340	ug/kg	U	.	340	ug/kg	U	.	850	ug/kg	U	.	850	ug/kg	U	.
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3	340	ug/kg	U	.	340	ug/kg	U	.	860	ug/kg	U	.	860	ug/kg	U	.
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3	400	ug/kg	U	.	400	ug/kg	U	.	990	ug/kg	U	.	990	ug/kg	U	.
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4	390	ug/kg	U	.	390	ug/kg	U	.	980	ug/kg	U	.	980	ug/kg	U	.
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5	350	ug/kg	U	.	350	ug/kg	U	.	880	ug/kg	U	.	880	ug/kg	U	.
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6	360	ug/kg	U	.	360	ug/kg	U	.	900	ug/kg	U	.	900	ug/kg	U	.
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7	340	ug/kg	U	.	340	ug/kg	U	.	860	ug/kg	U	.	860	ug/kg	U	.
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8																
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9	380	ug/kg	U	.	380	ug/kg	U	.	940	ug/kg	U	.	940	ug/kg	U	.
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546	350	ug/kg	U	.	350	ug/kg	U	.	880	ug/kg	U	.	880	ug/kg	U	.
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548	350	ug/kg	U	.	350	ug/kg	U	.	860	ug/kg	U	.	860	ug/kg	U	.
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549	360	ug/kg	U	.	360	ug/kg	U	.	910	ug/kg	U	.	910	ug/kg	U	.
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550	350	ug/kg	U	.	350	ug/kg	U	.	860	ug/kg	U	.	860	ug/kg	U	.
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551	350	ug/kg	U	.	350	ug/kg	U	.	860	ug/kg	U	.	860	ug/kg	U	.
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552	370	ug/kg	U	.	370	ug/kg	U	.	920	ug/kg	U	.	920	ug/kg	U	.
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553	350	ug/kg	U	.	350	ug/kg	U	.	880	ug/kg	U	.	880	ug/kg	U	.
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555	340	ug/kg	U	.	340	ug/kg	U	.	860	ug/kg	U	.	860	ug/kg	U	.
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A																
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4	350	ug/kg	U	.	350	ug/kg	U	.	860	ug/kg	U	.	860	ug/kg	U	.
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5	350	ug/kg	U	.	350	ug/kg	U	.	870	ug/kg	U	.	870	ug/kg	U	.
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6	410	ug/kg	U	.	410	ug/kg	U	.	1000	ug/kg	U	.	1000	ug/kg	U	.
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7	370	ug/kg	U	.	370	ug/kg	U	.	920	ug/kg	U	.	920	ug/kg	U	.
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7	740	ug/kg	U	.	740	ug/kg	U	.	1800	ug/kg	U	.	1800	ug/kg	U	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Acenaphthene (83-32-9) 8270				Acenaphthylene (208-96-8) 8270				Anthracene (120-12-7) 8270				Benzo(a)anthracene (56-55-3) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	RLNP	B0P708	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
18591	7.298	7.298	B0P710	R	7/6/98 11:33	RLNP	B0P710	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
18591	7.298	7.298	B0P712	R	7/6/98 11:33	RLNP	B0P712	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
18591	4.30008	4.30008	B0P714		7/6/98 12:15	RLNP	B0P714	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
18592	2.999232	2.999232	B0P716		7/7/98 8:31	RLNP	B0P716	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
18592	6.99952	6.99952	B0P718		7/7/98 8:44	RLNP	B0P718	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	RLNP	B0P720	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	RLNP	B0P722	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
18592	12.99536	12.99536	B0P724		7/7/98 9:20	RLNP	B0P724	400	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.
18592	15.99656	15.99656	B0P726		7/7/98 9:42	RLNP	B0P726	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81	400	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.	34	ug/kg	J	.
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9	2600	ug/kg	U	.	2600	ug/kg	U	.	2600	ug/kg	U	.	180	ug/kg	J	.
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3	400	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4	390	ug/kg	U	.	390	ug/kg	U	.	390	ug/kg	U	.	390	ug/kg	U	.
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8																
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A	69	ug/kg	U	.												
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6	410	ug/kg	U	.	410	ug/kg	U	.	410	ug/kg	U	.	410	ug/kg	U	.
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7	740	ug/kg	U	.	740	ug/kg	U	.	740	ug/kg	U	.	740	ug/kg	U	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Benzo(a)pyrene (50-32-8) 8270				Benzo(b)fluoranthene (205-99-2) 8270				Benzo(ghi)perylene (191-24-2) 8270				Benzo(k)fluoranthene (207-08-9) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	RLNP	B0P708	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
18591	7.298	7.298	B0P710	R	7/6/98 11:33	RLNP	B0P710	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
18591	7.298	7.298	B0P712	R	7/6/98 11:33	RLNP	B0P712	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
18591	4.30008	4.30008	B0P714		7/6/98 12:15	RLNP	B0P714	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
18592	2.999232	2.999232	B0P716		7/7/98 8:31	RLNP	B0P716	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
18592	6.99952	6.99952	B0P718		7/7/98 8:44	RLNP	B0P718	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	RLNP	B0P720	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	RLNP	B0P722	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
18592	12.99536	12.99536	B0P724		7/7/98 9:20	RLNP	B0P724	400	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.
18592	15.99656	15.99656	B0P726		7/7/98 9:42	RLNP	B0P726	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81	22	ug/kg	J	.	37	ug/kg	J	.	400	ug/kg	U	.	400	ug/kg	U	.
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9	160	ug/kg	J	.	240	ug/kg	J	.	2600	ug/kg	U	.	2600	ug/kg	U	.
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3	400	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4	390	ug/kg	U	.	390	ug/kg	U	.	390	ug/kg	U	.	390	ug/kg	U	.
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8																
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A																
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6	410	ug/kg	U	.	410	ug/kg	U	.	410	ug/kg	U	.	410	ug/kg	U	.
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7	740	ug/kg	U	.	740	ug/kg	U	.	740	ug/kg	U	.	740	ug/kg	U	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Bis(2-chloro-1-methylethyl)ether (108-60-1) 8270				Bis(2-Chloroethoxy)methane (111-91-1) 8270				Bis(2-chloroethyl) ether (111-44-4) 8270				Bis(2-ethylhexyl) phthalate (117-81-7) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	RLNP	B0P708	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
18591	7.298	7.298	B0P710	R	7/6/98 11:33	RLNP	B0P710	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
18591	7.298	7.298	B0P712	R	7/6/98 11:33	RLNP	B0P712	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
18591	4.30008	4.30008	B0P714		7/6/98 12:15	RLNP	B0P714	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
18592	2.999232	2.999232	B0P716		7/7/98 8:31	RLNP	B0P716	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
18592	6.99952	6.99952	B0P718		7/7/98 8:44	RLNP	B0P718	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	RLNP	B0P720	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	RLNP	B0P722	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.	19.316	ug/kg	J	.
18592	12.99536	12.99536	B0P724		7/7/98 9:20	RLNP	B0P724	400	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.
18592	15.99656	15.99656	B0P726		7/7/98 9:42	RLNP	B0P726	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	52	ug/kg	J	.
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81	400	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9	2600	ug/kg	U	.	2600	ug/kg	U	.	2600	ug/kg	U	.	6200	ug/kg		.
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	27	ug/kg	J	.
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3	400	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4	390	ug/kg	U	.	390	ug/kg	U	.	390	ug/kg	U	.	24	ug/kg	J	.
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8													38	ug/kg	U	.
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.	47	ug/kg	J	.
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	140	ug/kg	J	.
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	470	ug/kg		.
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A																
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6	410	ug/kg	U	.	410	ug/kg	U	.	410	ug/kg	U	.	410	ug/kg	U	.
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7	740	ug/kg	U	.	740	ug/kg	U	.	740	ug/kg	U	.	220.69	ug/kg	J	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Butyl Stearate (123-95-5) 8270				Butylbenzylphthalate (85-68-7) 8270				Carbazole (86-74-8) 8270				Chrysene (218-01-9) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	RLNP	B0P708					350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
18591	7.298	7.298	B0P710	R	7/6/98 11:33	RLNP	B0P710					360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
18591	7.298	7.298	B0P712	R	7/6/98 11:33	RLNP	B0P712					350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
18591	4.30008	4.30008	B0P714		7/6/98 12:15	RLNP	B0P714					350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
18592	2.999232	2.999232	B0P716		7/7/98 8:31	RLNP	B0P716					360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
18592	6.99952	6.99952	B0P718		7/7/98 8:44	RLNP	B0P718					360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	RLNP	B0P720					380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	RLNP	B0P722					380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
18592	12.99536	12.99536	B0P724		7/7/98 9:20	RLNP	B0P724					400	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.
18592	15.99656	15.99656	B0P726		7/7/98 9:42	RLNP	B0P726					340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77					380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78					350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79					340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80					350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81					400	ug/kg	U	.	400	ug/kg	U	.	40	ug/kg	J	.
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89					340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9					290	ug/kg	J	.	2600	ug/kg	U	.	210	ug/kg	J	.
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0					360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1					380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2					340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3					340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3					400	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4					390	ug/kg	U	.	390	ug/kg	U	.	390	ug/kg	U	.
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5					350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6					360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7					340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8																
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9					380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546					350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548					350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549					360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550					350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551					350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552					370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553					350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555					340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A																
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4					350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5					350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6					410	ug/kg	U	.	410	ug/kg	U	.	410	ug/kg	U	.
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7					370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7					121.882	ug/kg	J	.	740	ug/kg	U	.	740	ug/kg	U	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Decane (124-18-5) 8270				Dibenz(a,h)anthracene (53-70-3) 8270				Dibenzofuran (132-64-9) 8270				Diethylphthalate (84-66-2) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	RLNP	B0P708					350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
18591	7.298	7.298	B0P710	R	7/6/98 11:33	RLNP	B0P710					360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
18591	7.298	7.298	B0P712	R	7/6/98 11:33	RLNP	B0P712					350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
18591	4.30008	4.30008	B0P714		7/6/98 12:15	RLNP	B0P714					350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
18592	2.999232	2.999232	B0P716		7/7/98 8:31	RLNP	B0P716					360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
18592	6.99952	6.99952	B0P718		7/7/98 8:44	RLNP	B0P718					360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	RLNP	B0P720					380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	RLNP	B0P722					380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
18592	12.99536	12.99536	B0P724		7/7/98 9:20	RLNP	B0P724					400	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.
18592	15.99656	15.99656	B0P726		7/7/98 9:42	RLNP	B0P726					340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77					380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78					350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79					340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80					350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81					400	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89					340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9					2600	ug/kg	U	.	2600	ug/kg	U	.	2600	ug/kg	U	.
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0					360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1					380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2					340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3					340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3					400	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4					390	ug/kg	U	.	390	ug/kg	U	.	390	ug/kg	U	.
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5					350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6					360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7					340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8																
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9					380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546					350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548					350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549					360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550					350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551					350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552					370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553					350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555					340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A	250	ug/kg	U	.									330	ug/kg	JB	.
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4					350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5					350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6					410	ug/kg	U	.	410	ug/kg	U	.	410	ug/kg	U	.
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7					370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7					740	ug/kg	U	.	740	ug/kg	U	.	740	ug/kg	U	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Dimethyl phthalate (131-11-3) 8270				Di-n-butylphthalate (84-74-2) 8270				Di-n-octylphthalate (117-84-0) 8270				Eicosane (112-95-8) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	RLNP	B0P708	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.				
18591	7.298	7.298	B0P710	R	7/6/98 11:33	RLNP	B0P710	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.				
18591	7.298	7.298	B0P712	R	7/6/98 11:33	RLNP	B0P712	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.				
18591	4.30008	4.30008	B0P714		7/6/98 12:15	RLNP	B0P714	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.				
18592	2.999232	2.999232	B0P716		7/7/98 8:31	RLNP	B0P716	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.				
18592	6.99952	6.99952	B0P718		7/7/98 8:44	RLNP	B0P718	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.				
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	RLNP	B0P720	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.				
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	RLNP	B0P722	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.				
18592	12.99536	12.99536	B0P724		7/7/98 9:20	RLNP	B0P724	400	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.				
18592	15.99656	15.99656	B0P726		7/7/98 9:42	RLNP	B0P726	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.				
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.				
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.				
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.				
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.				
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81	400	ug/kg	U	.	220	ug/kg	J	.	400	ug/kg	U	.				
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.				
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9	2600	ug/kg	U	.	2740.8	ug/kg	.	.	2600	ug/kg	U	.				
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.				
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.				
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.				
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3	340	ug/kg	U	.	25	ug/kg	J	.	340	ug/kg	U	.				
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3	400	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.				
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4	390	ug/kg	U	.	390	ug/kg	U	.	390	ug/kg	U	.				
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.				
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.				
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.				
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8																
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.				
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.				
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.				
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.				
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.				
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.				
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.				
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.				
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.				
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A																
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.				
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.				
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6	410	ug/kg	U	.	410	ug/kg	U	.	410	ug/kg	U	.				
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.				
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7	740	ug/kg	U	.	88.357	ug/kg	J	.	740	ug/kg	U	.				

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Fluoranthene (206-44-0) 8270				Fluorene (86-73-7) 8270				Hexachlorobenzene (118-74-1) 8270				Hexachlorobutadiene (87-68-3) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	RLNP	B0P708	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
18591	7.298	7.298	B0P710	R	7/6/98 11:33	RLNP	B0P710	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
18591	7.298	7.298	B0P712	R	7/6/98 11:33	RLNP	B0P712	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
18591	4.30008	4.30008	B0P714		7/6/98 12:15	RLNP	B0P714	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
18592	2.999232	2.999232	B0P716		7/7/98 8:31	RLNP	B0P716	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
18592	6.99952	6.99952	B0P718		7/7/98 8:44	RLNP	B0P718	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	RLNP	B0P720	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	RLNP	B0P722	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
18592	12.99536	12.99536	B0P724		7/7/98 9:20	RLNP	B0P724	400	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.
18592	15.99656	15.99656	B0P726		7/7/98 9:42	RLNP	B0P726	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81	120	ug/kg	J	.	400	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9	370	ug/kg	J	.	2600	ug/kg	U	.	2600	ug/kg	U	.	2600	ug/kg	U	.
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3	400	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4	390	ug/kg	U	.	390	ug/kg	U	.	390	ug/kg	U	.	390	ug/kg	U	.
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8																
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A																
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6	410	ug/kg	U	.	410	ug/kg	U	.	410	ug/kg	U	.	410	ug/kg	U	.
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7	740	ug/kg	U	.	740	ug/kg	U	.	740	ug/kg	U	.	740	ug/kg	U	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Hexachlorocyclopentadiene (77-47-4) 8270				Hexachloroethane (67-72-1) 8270				Hexadecanoic acid (9CI) (57-10-3) 8270				Hexadecanoic acid, butyl ester (111-06-8) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	RLNP	B0P708	350	ug/kg	U	.	350	ug/kg	U	.								
18591	7.298	7.298	B0P710	R	7/6/98 11:33	RLNP	B0P710	360	ug/kg	U	.	360	ug/kg	U	.								
18591	7.298	7.298	B0P712	R	7/6/98 11:33	RLNP	B0P712	350	ug/kg	U	.	350	ug/kg	U	.								
18591	4.30008	4.30008	B0P714		7/6/98 12:15	RLNP	B0P714	350	ug/kg	U	.	350	ug/kg	U	.								
18592	2.999232	2.999232	B0P716		7/7/98 8:31	RLNP	B0P716	360	ug/kg	U	.	360	ug/kg	U	.								
18592	6.99952	6.99952	B0P718		7/7/98 8:44	RLNP	B0P718	360	ug/kg	U	.	360	ug/kg	U	.								
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	RLNP	B0P720	380	ug/kg	U	.	380	ug/kg	U	.								
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	RLNP	B0P722	380	ug/kg	U	.	380	ug/kg	U	.								
18592	12.99536	12.99536	B0P724		7/7/98 9:20	RLNP	B0P724	400	ug/kg	U	.	400	ug/kg	U	.								
18592	15.99656	15.99656	B0P726		7/7/98 9:42	RLNP	B0P726	340	ug/kg	U	.	340	ug/kg	U	.								
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77	380	ug/kg	U	.	380	ug/kg	U	.								
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78	350	ug/kg	U	.	350	ug/kg	U	.								
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79	340	ug/kg	U	.	340	ug/kg	U	.								
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80	350	ug/kg	U	.	350	ug/kg	U	.								
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81	400	ug/kg	U	.	400	ug/kg	U	.								
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89	340	ug/kg	U	.	340	ug/kg	U	.								
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9	2600	ug/kg	U	.	2600	ug/kg	U	.								
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0	360	ug/kg	U	.	360	ug/kg	U	.								
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1	380	ug/kg	U	.	380	ug/kg	U	.								
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2	340	ug/kg	U	.	340	ug/kg	U	.								
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3	340	ug/kg	U	.	340	ug/kg	U	.								
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3	400	ug/kg	U	.	400	ug/kg	U	.								
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4	390	ug/kg	U	.	390	ug/kg	U	.								
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5	350	ug/kg	U	.	350	ug/kg	U	.								
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6	360	ug/kg	U	.	360	ug/kg	U	.								
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7	340	ug/kg	U	.	340	ug/kg	U	.								
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8																
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9	380	ug/kg	U	.	380	ug/kg	U	.								
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546	350	ug/kg	U	.	350	ug/kg	U	.								
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548	350	ug/kg	U	.	350	ug/kg	U	.								
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549	360	ug/kg	U	.	360	ug/kg	U	.								
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550	350	ug/kg	U	.	350	ug/kg	U	.								
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551	350	ug/kg	U	.	350	ug/kg	U	.								
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552	370	ug/kg	U	.	370	ug/kg	U	.								
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553	350	ug/kg	U	.	350	ug/kg	U	.								
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555	340	ug/kg	U	.	340	ug/kg	U	.								
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A																
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4	350	ug/kg	U	.	350	ug/kg	U	.								
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5	350	ug/kg	U	.	350	ug/kg	U	.								
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6	410	ug/kg	U	.	410	ug/kg	U	.								
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7	370	ug/kg	U	.	370	ug/kg	U	.								
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7	740	ug/kg	U	.	740	ug/kg	U	.								

A-29, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Indeno(1,2,3-cd)pyrene (193-39-5) 8270				Isophorone (78-59-1) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	RLNP	B0P708	350	ug/kg	U	.	350	ug/kg	U	.
18591	7.298	7.298	B0P710	R	7/6/98 11:33	RLNP	B0P710	360	ug/kg	U	.	360	ug/kg	U	.
18591	7.298	7.298	B0P712	R	7/6/98 11:33	RLNP	B0P712	350	ug/kg	U	.	350	ug/kg	U	.
18591	4.30008	4.30008	B0P714		7/6/98 12:15	RLNP	B0P714	350	ug/kg	U	.	350	ug/kg	U	.
18592	2.999232	2.999232	B0P716		7/7/98 8:31	RLNP	B0P716	360	ug/kg	U	.	360	ug/kg	U	.
18592	6.99952	6.99952	B0P718		7/7/98 8:44	RLNP	B0P718	360	ug/kg	U	.	360	ug/kg	U	.
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	RLNP	B0P720	380	ug/kg	U	.	380	ug/kg	U	.
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	RLNP	B0P722	380	ug/kg	U	.	380	ug/kg	U	.
18592	12.99536	12.99536	B0P724		7/7/98 9:20	RLNP	B0P724	400	ug/kg	U	.	400	ug/kg	U	.
18592	15.99656	15.99656	B0P726		7/7/98 9:42	RLNP	B0P726	340	ug/kg	U	.	340	ug/kg	U	.
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77	380	ug/kg	U	.	380	ug/kg	U	.
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78	350	ug/kg	U	.	350	ug/kg	U	.
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79	340	ug/kg	U	.	340	ug/kg	U	.
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80	350	ug/kg	U	.	350	ug/kg	U	.
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81	400	ug/kg	U	.	400	ug/kg	U	.
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89	340	ug/kg	U	.	340	ug/kg	U	.
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9	2600	ug/kg	U	.	2600	ug/kg	U	.
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0	360	ug/kg	U	.	360	ug/kg	U	.
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1	380	ug/kg	U	.	380	ug/kg	U	.
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2	340	ug/kg	U	.	340	ug/kg	U	.
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3	340	ug/kg	U	.	340	ug/kg	U	.
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3	400	ug/kg	U	.	400	ug/kg	U	.
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4	390	ug/kg	U	.	390	ug/kg	U	.
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5	350	ug/kg	U	.	350	ug/kg	U	.
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6	360	ug/kg	U	.	360	ug/kg	U	.
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7	340	ug/kg	U	.	340	ug/kg	U	.
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8								
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9	380	ug/kg	U	.	380	ug/kg	U	.
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546	350	ug/kg	U	.	350	ug/kg	U	.
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548	350	ug/kg	U	.	350	ug/kg	U	.
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549	360	ug/kg	U	.	360	ug/kg	U	.
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550	350	ug/kg	U	.	350	ug/kg	U	.
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551	350	ug/kg	U	.	350	ug/kg	U	.
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552	370	ug/kg	U	.	370	ug/kg	U	.
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553	350	ug/kg	U	.	350	ug/kg	U	.
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555	340	ug/kg	U	.	340	ug/kg	U	.
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A								
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4	350	ug/kg	U	.	350	ug/kg	U	.
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5	350	ug/kg	U	.	350	ug/kg	U	.
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6	410	ug/kg	U	.	410	ug/kg	U	.
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7	370	ug/kg	U	.	370	ug/kg	U	.
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7	740	ug/kg	U	.	740	ug/kg	U	.

A-29, SVOA2

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Mesityl oxide (141-79-7) 8270				Naphthalene (91-20-3) 8270				n-Butyl benzenesulfonamide (3622-84-2) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	RLNP	B0P708					350	ug/kg	U	.				
18591	7.298	7.298	B0P710	R	7/6/98 11:33	RLNP	B0P710					360	ug/kg	U	.				
18591	7.298	7.298	B0P712	R	7/6/98 11:33	RLNP	B0P712					350	ug/kg	U	.				
18591	4.30008	4.30008	B0P714		7/6/98 12:15	RLNP	B0P714					350	ug/kg	U	.				
18592	2.999232	2.999232	B0P716		7/7/98 8:31	RLNP	B0P716					360	ug/kg	U	.				
18592	6.99952	6.99952	B0P718		7/7/98 8:44	RLNP	B0P718					360	ug/kg	U	.				
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	RLNP	B0P720					380	ug/kg	U	.				
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	RLNP	B0P722					380	ug/kg	U	.				
18592	12.99536	12.99536	B0P724		7/7/98 9:20	RLNP	B0P724					400	ug/kg	U	.				
18592	15.99656	15.99656	B0P726		7/7/98 9:42	RLNP	B0P726					340	ug/kg	U	.				
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77					380	ug/kg	U	.				
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78					350	ug/kg	U	.				
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79					340	ug/kg	U	.				
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80					350	ug/kg	U	.				
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81					400	ug/kg	U	.				
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89					340	ug/kg	U	.				
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9					2600	ug/kg	U	.				
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0					360	ug/kg	U	.				
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1					380	ug/kg	U	.				
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2					340	ug/kg	U	.				
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3					340	ug/kg	U	.				
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3					400	ug/kg	U	.				
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4					390	ug/kg	U	.				
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5					350	ug/kg	U	.				
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6					360	ug/kg	U	.				
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7					340	ug/kg	U	.				
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8												
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9					380	ug/kg	U	.				
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546					350	ug/kg	U	.				
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548					350	ug/kg	U	.				
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549					360	ug/kg	U	.				
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550					350	ug/kg	U	.				
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551					350	ug/kg	U	.				
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552					370	ug/kg	U	.				
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553					350	ug/kg	U	.				
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555					340	ug/kg	U	.				
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A	ug/kg	JN		.					4400	ug/kg	BJ	.
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4					350	ug/kg	U	.				
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5					350	ug/kg	U	.				
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6					410	ug/kg	U	.				
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7					370	ug/kg	U	.				
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7					740	ug/kg	U	.				

A-29, SVOA2

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Nitrobenzene (98-95-3) 8270				n-Nitrosodi-n-dipropylamine (621-64-7) 8270				n-Nitrosodiphenylamine (86-30-6) 8270				Octadecanoic acid (57-11-4) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	RLNP	B0P708	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.				
18591	7.298	7.298	B0P710	R	7/6/98 11:33	RLNP	B0P710	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.				
18591	7.298	7.298	B0P712	R	7/6/98 11:33	RLNP	B0P712	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.				
18591	4.30008	4.30008	B0P714		7/6/98 12:15	RLNP	B0P714	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.				
18592	2.999232	2.999232	B0P716		7/7/98 8:31	RLNP	B0P716	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.				
18592	6.99952	6.99952	B0P718		7/7/98 8:44	RLNP	B0P718	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.				
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	RLNP	B0P720	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.				
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	RLNP	B0P722	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.				
18592	12.99536	12.99536	B0P724		7/7/98 9:20	RLNP	B0P724	400	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.				
18592	15.99656	15.99656	B0P726		7/7/98 9:42	RLNP	B0P726	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.				
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.				
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.				
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.				
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.				
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81	400	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.				
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.				
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9	2600	ug/kg	U	.	2600	ug/kg	U	.	2600	ug/kg	U	.				
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.				
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.				
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.				
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.				
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3	400	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.				
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4	390	ug/kg	U	.	390	ug/kg	U	.	390	ug/kg	U	.				
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.				
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.				
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.				
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8																
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.				
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.				
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.				
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.				
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.				
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.				
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.				
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.				
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.				
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A					69	ug/kg	U	.								
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.				
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.				
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6	410	ug/kg	U	.	410	ug/kg	U	.	410	ug/kg	U	.				
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.				
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7	740	ug/kg	U	.	740	ug/kg	U	.	740	ug/kg	U	.				

A-29, SVOA2

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Pentachlorophenol (87-86-5) 8270				Phenanthrene (85-01-8) 8270				Phenol (108-95-2) 8270				Pyrene (129-00-0) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	RLNP	B0P708	880	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
18591	7.298	7.298	B0P710	R	7/6/98 11:33	RLNP	B0P710	890	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
18591	7.298	7.298	B0P712	R	7/6/98 11:33	RLNP	B0P712	880	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
18591	4.30008	4.30008	B0P714		7/6/98 12:15	RLNP	B0P714	880	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
18592	2.999232	2.999232	B0P716		7/7/98 8:31	RLNP	B0P716	900	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
18592	6.99952	6.99952	B0P718		7/7/98 8:44	RLNP	B0P718	900	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	RLNP	B0P720	950	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	RLNP	B0P722	940	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
18592	12.99536	12.99536	B0P724		7/7/98 9:20	RLNP	B0P724	990	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.
18592	15.99656	15.99656	B0P726		7/7/98 9:42	RLNP	B0P726	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77	960	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78	860	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80	870	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81	1000	ug/kg	U	.	150	ug/kg	J	.	400	ug/kg	U	.	99	ug/kg	J	.
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9	6400	ug/kg	U	.	370	ug/kg	J	.	2600	ug/kg	U	.	350	ug/kg	J	.
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0	890	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1	950	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2	850	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3	990	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.	400	ug/kg	U	.
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4	980	ug/kg	U	.	390	ug/kg	U	.	390	ug/kg	U	.	390	ug/kg	U	.
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5	880	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6	900	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8																
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9	940	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546	880	ug/kg	U	J	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548	860	ug/kg	U	J	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549	910	ug/kg	U	J	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550	860	ug/kg	U	J	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551	860	ug/kg	U	J	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552	920	ug/kg	U	J	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553	880	ug/kg	U	J	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A	310	ug/kg	U	.					100	ug/kg	U	.	69	ug/kg	U	.
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4	860	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5	870	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6	1000	ug/kg	U	.	410	ug/kg	U	.	410	ug/kg	U	.	410	ug/kg	U	.
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7	920	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7	1800	ug/kg	U	.	740	ug/kg	U	.	740	ug/kg	U	.	740	ug/kg	U	.

A-29, SVOA2

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Tributyl phosphate (126-73-8) 8270			
								Conc	Units	Q	VQ
18591	10.29592	10.29592	B0P708		7/6/98 11:33	RLNP	B0P708				
18591	7.298	7.298	B0P710	R	7/6/98 11:33	RLNP	B0P710				
18591	7.298	7.298	B0P712	R	7/6/98 11:33	RLNP	B0P712				
18591	4.30008	4.30008	B0P714		7/6/98 12:15	RLNP	B0P714				
18592	2.999232	2.999232	B0P716		7/7/98 8:31	RLNP	B0P716				
18592	6.99952	6.99952	B0P718		7/7/98 8:44	RLNP	B0P718				
18592	9.99744	9.99744	B0P720	R	7/7/98 8:56	RLNP	B0P720				
18592	9.99744	9.99744	B0P722	R	7/7/98 8:56	RLNP	B0P722				
18592	12.99536	12.99536	B0P724		7/7/98 9:20	RLNP	B0P724				
18592	15.99656	15.99656	B0P726		7/7/98 9:42	RLNP	B0P726				
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77	380	ug/kg	U	.
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78	350	ug/kg	U	.
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79	340	ug/kg	U	.
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80	350	ug/kg	U	.
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81	400	ug/kg	U	.
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89	340	ug/kg	U	.
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9	310	ug/kg	J	.
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0	360	ug/kg	U	.
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1	380	ug/kg	U	.
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2	340	ug/kg	U	.
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3	340	ug/kg	U	.
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3	400	ug/kg	U	.
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4	390	ug/kg	U	.
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5	350	ug/kg	U	.
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6	360	ug/kg	U	.
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7	340	ug/kg	U	.
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8				
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9	380	ug/kg	U	.
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546	350	ug/kg	U	.
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548	350	ug/kg	U	.
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549	360	ug/kg	U	.
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550	350	ug/kg	U	.
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551	350	ug/kg	U	.
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552	370	ug/kg	U	.
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553	350	ug/kg	U	.
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555	340	ug/kg	U	.
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A	69	ug/kg	U	.
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4	350	ug/kg	U	.
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5	350	ug/kg	U	.
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6	410	ug/kg	U	.
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7	370	ug/kg	U	.
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7	543.205	ug/kg	J	.

A-29, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	1,1,1-Trichloroethane (71-55-6) 8260				1,1,2,2-Tetrachloroethane (79-34-5) 8260				1,1,2-Trichloroethane (79-00-5) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9	8	ug/kg	U	.	8	ug/kg	U	.	8	ug/kg	U	.
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8	0.46	ug/kg	U	.	0.46	ug/kg	U	.	0.45	ug/kg	U	.
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A	1.9	ug/kg	U	.	1.9	ug/kg	U	.	1.9	ug/kg	U	.
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.

A-29, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	1,1-Dichloroethane (75-34-3) 8260				1,1-Dichloroethene (75-35-4) 8260				1,2,4-Trimethylbenzene (95-63-6) 8260				1,2-Dichloroethane (107-06-2) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77	6	ug/kg	U	.	6	ug/kg	U	.					6	ug/kg	U	.
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78	5	ug/kg	U	.	5	ug/kg	U	.					5	ug/kg	U	.
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79	5	ug/kg	U	.	5	ug/kg	U	.					5	ug/kg	U	.
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80	6	ug/kg	U	.	6	ug/kg	U	.					6	ug/kg	U	.
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81	6	ug/kg	U	.	6	ug/kg	U	.					6	ug/kg	U	.
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89	6	ug/kg	U	.	6	ug/kg	U	.					6	ug/kg	U	.
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9	8	ug/kg	U	.	8	ug/kg	U	.					13	ug/kg	.	.
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0	5	ug/kg	U	.	5	ug/kg	U	.					5	ug/kg	U	.
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1	6	ug/kg	U	.	6	ug/kg	U	.					6	ug/kg	U	.
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2	5	ug/kg	U	.	5	ug/kg	U	.					5	ug/kg	U	.
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3	5	ug/kg	U	.	5	ug/kg	U	.					5	ug/kg	U	.
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3	6	ug/kg	U	.	6	ug/kg	U	.					5	ug/kg	U	.
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4	6	ug/kg	U	.	6	ug/kg	U	.					6	ug/kg	U	.
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5	6	ug/kg	U	.	6	ug/kg	U	.					6	ug/kg	U	.
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6	6	ug/kg	U	.	6	ug/kg	U	.					6	ug/kg	U	.
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7	6	ug/kg	U	.	6	ug/kg	U	.					6	ug/kg	U	.
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8	0.4	ug/kg	U	.	1.4	ug/kg	U	.					0.45	ug/kg	U	.
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9	6	ug/kg	U	.	6	ug/kg	U	.					6	ug/kg	U	.
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546	6	ug/kg	U	.	6	ug/kg	U	.					6	ug/kg	U	.
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548	5	ug/kg	U	.	5	ug/kg	U	.					5	ug/kg	U	.
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549	6	ug/kg	U	.	6	ug/kg	U	.					6	ug/kg	U	.
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550	6	ug/kg	U	.	6	ug/kg	U	.					6	ug/kg	U	.
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551	5	ug/kg	U	.	5	ug/kg	U	.					5	ug/kg	U	.
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552	6	ug/kg	U	.	6	ug/kg	U	.					6	ug/kg	U	.
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553	6	ug/kg	U	.	6	ug/kg	U	.					6	ug/kg	U	.
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555	6	ug/kg	U	.	6	ug/kg	U	.					6	ug/kg	U	.
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A	1.9	ug/kg	U	.	1.9	ug/kg	U	.					1.9	ug/kg	U	.
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4	6	ug/kg	U	.	6	ug/kg	U	.					6	ug/kg	U	.
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5	6	ug/kg	U	.	6	ug/kg	U	.					6	ug/kg	U	.
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6	6	ug/kg	U	.	6	ug/kg	U	.					6	ug/kg	U	.
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7	6	ug/kg	U	.	6	ug/kg	U	.					6	ug/kg	U	.
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7	6	ug/kg	U	.	6	ug/kg	U	.					6	ug/kg	U	.

A-29, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	1,2-Dichloroethene (Total) (540-59-0) 8260				1,2-Dichloropropane (78-87-5) 8260				1,4-Dichlorobenzene (106-46-7) 8260				1,4-Dioxane (123-91-1) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77	6	ug/kg	U	.	6	ug/kg	U	.								
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78	5	ug/kg	U	.	5	ug/kg	U	.								
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79	5	ug/kg	U	.	5	ug/kg	U	.								
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80	6	ug/kg	U	.	6	ug/kg	U	.								
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81	6	ug/kg	U	.	6	ug/kg	U	.								
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89	6	ug/kg	U	.	6	ug/kg	U	.								
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9	8	ug/kg	U	.	8	ug/kg	U	.								
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0	5	ug/kg	U	.	5	ug/kg	U	.								
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1	6	ug/kg	U	.	6	ug/kg	U	.								
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2	5	ug/kg	U	.	5	ug/kg	U	.								
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3	5	ug/kg	U	.	5	ug/kg	U	.								
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3	6	ug/kg	U	.	6	ug/kg	U	.								
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4	6	ug/kg	U	.	6	ug/kg	U	.								
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5	6	ug/kg	U	.	6	ug/kg	U	.								
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6	6	ug/kg	U	.	6	ug/kg	U	.								
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7	6	ug/kg	U	.	6	ug/kg	U	.								
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8	0.87	ug/kg	U	.	0.22	ug/kg	U	.								
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9	6	ug/kg	U	.	6	ug/kg	U	.								
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546	6	ug/kg	U	.	6	ug/kg	U	.								
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548	5	ug/kg	U	.	5	ug/kg	U	.								
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549	6	ug/kg	U	.	6	ug/kg	U	.								
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550	6	ug/kg	U	.	6	ug/kg	U	.								
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551	5	ug/kg	U	.	5	ug/kg	U	.								
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552	6	ug/kg	U	.	6	ug/kg	U	.								
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553	6	ug/kg	U	.	6	ug/kg	U	.								
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555	6	ug/kg	U	.	6	ug/kg	U	.								
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A	1.9	ug/kg	U	.	1.9	ug/kg	U	.								
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4	6	ug/kg	U	.	6	ug/kg	U	.								
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5	6	ug/kg	U	.	6	ug/kg	U	.								
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6	6	ug/kg	U	.	6	ug/kg	U	.								
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7	6	ug/kg	U	.	6	ug/kg	U	.								
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7	6	ug/kg	U	.	6	ug/kg	U	.								

A-29, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	1-Butanol (71-36-3) 8260				1-Propanol (71-23-8) 8015				2-Butanone (78-93-3) 8260				2-Ethyl-1-hexanol (104-76-7) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77					5500	ug/kg	U	.	12	ug/kg	U	.				
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78					4800	ug/kg	U	.	9	ug/kg	U	.				
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79					5500	ug/kg	U	.	10	ug/kg	U	.				
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80					5000	ug/kg	U	.	11	ug/kg	U	.				
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81					6000	ug/kg	U	.	12	ug/kg	U	.				
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89					5000	ug/kg	U	.	11	ug/kg	U	.				
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9					8000	ug/kg	U	.	16	ug/kg	U	.				
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0					6000	ug/kg	U	.	10	ug/kg	U	.				
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1					5500	ug/kg	U	.	11	ug/kg	U	.				
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2					5500	ug/kg	U	.	10	ug/kg	U	.				
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3					4800	ug/kg	U	.	10	ug/kg	U	.				
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3					6000	ug/kg	U	.	13	ug/kg	U	.				
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4					5500	ug/kg	U	.	12	ug/kg	U	.				
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5					5000	ug/kg	U	.	11	ug/kg	U	.				
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6					5500	ug/kg	U	.	11	ug/kg	U	.				
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7					5500	ug/kg	U	.	11	ug/kg	U	.				
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8					5200	ug/kg	U	.	7	ug/kg	U	.				
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9					6000	ug/kg	U	.	12	ug/kg	U	.				
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546					24000	ug/kg	U	.	11	ug/kg	U	.				
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548					24000	ug/kg	U	.	10	ug/kg	U	.				
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549					25000	ug/kg	U	.	11	ug/kg	U	.				
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550					24000	ug/kg	U	.	11	ug/kg	U	.				
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551					22000	ug/kg	U	.	9	ug/kg	U	.				
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552					26000	ug/kg	U	.	12	ug/kg	U	.				
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553					25000	ug/kg	U	.	11	ug/kg	U	.				
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555					23000	ug/kg	U	.	11	ug/kg	U	.				
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A					5000	ug/kg	U	.	1.9	ug/kg	U	.				
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4					21000	ug/kg	U	.	11	ug/kg	U	.				
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5					24000	ug/kg	U	.	11	ug/kg	U	.				
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6					30000	ug/kg	U	.	11	ug/kg	U	.				
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7					5500	ug/kg	U	.	2	ug/kg	J	.				
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7					26000	ug/kg	U	.	12	ug/kg	U	.				

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	2-Ethyl-1-hexanol (104-76-7) 8270				2-Hexanone (591-78-6) 8260				2-Pentanone, 4-Methyl (108-10-1) 8260				Acetone (67-64-1) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77					12	ug/kg	U	.	12	ug/kg	U	.	12	ug/kg	U	.
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78					9	ug/kg	U	.	9	ug/kg	U	.	9	ug/kg	U	.
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79					10	ug/kg	U	.	10	ug/kg	U	.	10	ug/kg	U	.
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80					11	ug/kg	U	.	11	ug/kg	U	.	11	ug/kg	U	.
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81					12	ug/kg	U	.	12	ug/kg	U	.	12	ug/kg	U	.
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89					11	ug/kg	U	.	11	ug/kg	U	.	11	ug/kg	U	.
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9					16	ug/kg	U	.	16	ug/kg	U	.	16	ug/kg	U	.
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0					10	ug/kg	U	.	10	ug/kg	U	.	10	ug/kg	U	.
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1					11	ug/kg	U	.	11	ug/kg	U	.	11	ug/kg	U	.
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2					10	ug/kg	U	.	10	ug/kg	U	.	10	ug/kg	U	.
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3					10	ug/kg	U	.	10	ug/kg	U	.	10	ug/kg	U	.
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3					13	ug/kg	U	.	13	ug/kg	U	.	30	ug/kg	.	.
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4					12	ug/kg	U	.	12	ug/kg	U	.	13	ug/kg	.	.
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5					11	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	J	.
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6					11	ug/kg	U	.	11	ug/kg	U	.	11	ug/kg	U	.
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7					11	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	J	.
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8					1.7	ug/kg	U	.	1.3	ug/kg	U	.	7.8	ug/kg	JB	.
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9					12	ug/kg	U	.	12	ug/kg	U	.	6.438	ug/kg	J	.
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546					11	ug/kg	U	.	11	ug/kg	U	.	11	ug/kg	U	.
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548					10	ug/kg	U	.	10	ug/kg	U	.	10	ug/kg	U	.
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549					11	ug/kg	U	.	11	ug/kg	U	.	11	ug/kg	U	.
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550					11	ug/kg	U	.	11	ug/kg	U	.	11	ug/kg	U	.
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551					9	ug/kg	U	.	9	ug/kg	U	.	9	ug/kg	U	.
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552					12	ug/kg	U	.	12	ug/kg	U	.	12	ug/kg	U	.
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553					11	ug/kg	U	.	11	ug/kg	U	.	11	ug/kg	U	.
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555					11	ug/kg	U	.	11	ug/kg	U	.	11	ug/kg	U	.
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A					1.9	ug/kg	U	.	1.9	ug/kg	U	.	1.9	ug/kg	U	.
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4					11	ug/kg	U	.	11	ug/kg	U	.	11	ug/kg	U	.
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5					11	ug/kg	U	.	11	ug/kg	U	.	14	ug/kg	.	.
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6					11	ug/kg	U	.	11	ug/kg	U	.	11	ug/kg	U	.
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7					11	ug/kg	U	.	11	ug/kg	U	.	8	ug/kg	J	.
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7					12	ug/kg	U	.	12	ug/kg	U	.	12	ug/kg	U	.

A-29, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Benzene (71-43-2) 8260				Bromodichloromethane (75-27-4) 8260				Bromoform (75-25-2) 8260				Bromomethane (74-83-9) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	12	ug/kg	U	.
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	9	ug/kg	U	.
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	12	ug/kg	U	.
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9	8	ug/kg	U	.	8	ug/kg	U	.	8	ug/kg	U	.	16	ug/kg	U	.
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	13	ug/kg	U	.
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	12	ug/kg	U	.
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8	0.39	ug/kg	U	.	0.47	ug/kg	U	.	0.65	ug/kg	U	.	0.63	ug/kg	U	.
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	12	ug/kg	U	.
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	9	ug/kg	U	.
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	12	ug/kg	U	.
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A	1.9	ug/kg	U	.	1.9	ug/kg	U	.	1.9	ug/kg	U	.	1.9	ug/kg	U	.
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	12	ug/kg	U	.

A-29, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Carbon disulfide (75-15-0) 8260				Carbon tetrachloride (56-23-5) 8260				Chlorobenzene (108-90-7) 8260				Chloroethane (75-00-3) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	12	ug/kg	U	.
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	9	ug/kg	U	.
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	12	ug/kg	U	.
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9	8	ug/kg	U	.	8	ug/kg	U	.	8	ug/kg	U	.	16	ug/kg	U	.
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	13	ug/kg	U	.
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	12	ug/kg	U	.
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8	0.48	ug/kg	U	.	0.68	ug/kg	U	.	0.36	ug/kg	U	.	2.3	ug/kg	U	.
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	12	ug/kg	U	.
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	9	ug/kg	U	.
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	12	ug/kg	U	.
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A	1.9	ug/kg	U	.	1.9	ug/kg	U	.	1.9	ug/kg	U	.	1.9	ug/kg	U	.
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	12	ug/kg	U	.

A-29, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Chloroform (67-66-3) 8260				Chloromethane (74-87-3) 8260				cis-1,2-Dichloroethylene (156-59-2) 8260				cis-1,3-Dichloropropene (10061-01-5) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77	6	ug/kg	U	.	12	ug/kg	U	.					6	ug/kg	U	.
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78	5	ug/kg	U	.	9	ug/kg	U	.					5	ug/kg	U	.
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79	5	ug/kg	U	.	10	ug/kg	U	.					5	ug/kg	U	.
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80	6	ug/kg	U	.	11	ug/kg	U	.					6	ug/kg	U	.
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81	6	ug/kg	U	.	12	ug/kg	U	.					6	ug/kg	U	.
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89	6	ug/kg	U	.	11	ug/kg	U	.					6	ug/kg	U	.
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9	8	ug/kg	U	.	16	ug/kg	U	.					8	ug/kg	U	.
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0	5	ug/kg	U	.	10	ug/kg	U	.					5	ug/kg	U	.
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1	6	ug/kg	U	.	11	ug/kg	U	.					6	ug/kg	U	.
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2	5	ug/kg	U	.	10	ug/kg	U	.					5	ug/kg	U	.
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3	5	ug/kg	U	.	10	ug/kg	U	.					5	ug/kg	U	.
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3	6	ug/kg	U	.	13	ug/kg	U	.					6	ug/kg	U	.
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4	6	ug/kg	U	.	12	ug/kg	U	.					6	ug/kg	U	.
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5	6	ug/kg	U	.	11	ug/kg	U	.					6	ug/kg	U	.
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6	6	ug/kg	U	.	11	ug/kg	U	.					6	ug/kg	U	.
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7	6	ug/kg	U	.	11	ug/kg	U	.					6	ug/kg	U	.
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8	0.25	ug/kg	U	.	0.81	ug/kg	U	.					0.54	ug/kg	U	.
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9	6	ug/kg	U	.	12	ug/kg	U	.					6	ug/kg	U	.
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546	6	ug/kg	U	.	11	ug/kg	U	.					6	ug/kg	U	.
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548	5	ug/kg	U	.	10	ug/kg	U	.					5	ug/kg	U	.
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549	6	ug/kg	U	.	11	ug/kg	U	.					6	ug/kg	U	.
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550	6	ug/kg	U	.	11	ug/kg	U	.					6	ug/kg	U	.
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551	5	ug/kg	U	.	9	ug/kg	U	.					5	ug/kg	U	.
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552	6	ug/kg	U	.	12	ug/kg	U	.					6	ug/kg	U	.
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553	6	ug/kg	U	.	11	ug/kg	U	.					6	ug/kg	U	.
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555	6	ug/kg	U	.	11	ug/kg	U	.					6	ug/kg	U	.
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A	1.9	ug/kg	U	.	1.9	ug/kg	U	.					1.9	ug/kg	U	.
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4	6	ug/kg	U	.	11	ug/kg	U	.					6	ug/kg	U	.
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5	6	ug/kg	U	.	11	ug/kg	U	.					6	ug/kg	U	.
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6	6	ug/kg	U	.	11	ug/kg	U	.					6	ug/kg	U	.
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7	6	ug/kg	U	.	11	ug/kg	U	.					6	ug/kg	U	.
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7	6	ug/kg	U	.	12	ug/kg	U	.					6	ug/kg	U	.

A-29, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Dibromochloromethane (124-48-1) 8260				Diethyl ether (60-29-7) 8260				Ethanol (64-17-5) 8015				Ethyl cyanide (107-12-0) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77	6	ug/kg	U	.					5500	ug/kg	U	.				
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78	5	ug/kg	U	.					4800	ug/kg	U	.				
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79	5	ug/kg	U	.					5500	ug/kg	U	.				
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80	6	ug/kg	U	.					5000	ug/kg	U	.				
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81	6	ug/kg	U	.					6000	ug/kg	U	.				
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89	6	ug/kg	U	.					5000	ug/kg	U	.				
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9	8	ug/kg	U	.					8000	ug/kg	U	.				
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0	5	ug/kg	U	.					6000	ug/kg	U	.				
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1	6	ug/kg	U	.					5500	ug/kg	U	.				
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2	5	ug/kg	U	.					5500	ug/kg	U	.				
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3	5	ug/kg	U	.					4800	ug/kg	U	.				
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3	6	ug/kg	U	.					6000	ug/kg	U	.				
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4	6	ug/kg	U	.					5500	ug/kg	U	.				
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5	6	ug/kg	U	.					5000	ug/kg	U	.				
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6	6	ug/kg	U	.					5500	ug/kg	U	.				
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7	6	ug/kg	U	.					5500	ug/kg	U	.				
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8	0.4	ug/kg	U	.					5200	ug/kg	U	.				
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9	6	ug/kg	U	.					6000	ug/kg	U	.				
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546	6	ug/kg	U	.					24000	ug/kg	U	.				
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548	5	ug/kg	U	.					24000	ug/kg	U	.				
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549	6	ug/kg	U	.					25000	ug/kg	U	.				
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550	6	ug/kg	U	.					24000	ug/kg	U	.				
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551	5	ug/kg	U	.					22000	ug/kg	U	.				
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552	6	ug/kg	U	.					26000	ug/kg	U	.				
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553	6	ug/kg	U	.					25000	ug/kg	U	.				
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555	6	ug/kg	U	.					23000	ug/kg	U	.				
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A	1.9	ug/kg	U	.					5000	ug/kg	U	.				
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4	6	ug/kg	U	.					21000	ug/kg	U	.				
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5	6	ug/kg	U	.					24000	ug/kg	U	.				
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6	6	ug/kg	U	.					30000	ug/kg	U	.				
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7	6	ug/kg	U	.					5500	ug/kg	U	.				
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7	6	ug/kg	U	.					26000	ug/kg	U	.				

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Ethylbenzene (100-41-4) 8260				Methylene chloride (75-09-2) 8260				Styrene (100-42-5) 8260				Tetrachloroethene (127-18-4) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77	6	ug/kg	U	.	9	ug/kg	B	.	6	ug/kg	U	.	6	ug/kg	U	.
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78	5	ug/kg	U	.	5	ug/kg	B	.	5	ug/kg	U	.	5	ug/kg	U	.
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79	5	ug/kg	U	.	5	ug/kg	B	.	5	ug/kg	U	.	5	ug/kg	U	.
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80	6	ug/kg	U	.	6	ug/kg	B	.	6	ug/kg	U	.	6	ug/kg	U	.
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81	6	ug/kg	U	.	12	ug/kg	B	.	6	ug/kg	U	.	6	ug/kg	U	.
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89	6	ug/kg	U	.	6	ug/kg	B	.	6	ug/kg	U	.	6	ug/kg	U	.
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9	8	ug/kg	U	.	78	ug/kg	B	.	8	ug/kg	U	.	6	ug/kg	J	.
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0	5	ug/kg	U	.	6	ug/kg	B	.	5	ug/kg	U	.	5	ug/kg	U	.
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1	6	ug/kg	U	.	9	ug/kg	B	.	6	ug/kg	U	.	6	ug/kg	U	.
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2	5	ug/kg	U	.	6	ug/kg	B	.	5	ug/kg	U	.	5	ug/kg	U	.
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3	5	ug/kg	U	.	7	ug/kg	B	.	5	ug/kg	U	.	5	ug/kg	U	.
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3	6	ug/kg	U	.	24	ug/kg	B	.	6	ug/kg	U	.	6	ug/kg	U	.
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4	6	ug/kg	U	.	20	ug/kg	B	.	6	ug/kg	U	.	6	ug/kg	U	.
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5	6	ug/kg	U	.	11	ug/kg	B	.	6	ug/kg	U	.	6	ug/kg	U	.
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6	6	ug/kg	U	.	10	ug/kg	B	.	6	ug/kg	U	.	6	ug/kg	U	.
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7	6	ug/kg	U	.	10	ug/kg	B	.	6	ug/kg	U	.	6	ug/kg	U	.
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8	0.93	ug/kg	U	.	7.5	ug/kg	B	.	0.39	ug/kg	U	.	0.38	ug/kg	U	.
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9	6	ug/kg	U	.	17.093	ug/kg	B	.	6	ug/kg	U	.	6	ug/kg	U	.
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548	5	ug/kg	U	.	2	ug/kg	J	.	5	ug/kg	U	.	5	ug/kg	U	.
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552	6	ug/kg	U	.	2	ug/kg	J	.	6	ug/kg	U	.	6	ug/kg	U	.
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553	6	ug/kg	U	.	3	ug/kg	J	.	6	ug/kg	U	.	6	ug/kg	U	.
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555	6	ug/kg	U	.	2	ug/kg	J	.	6	ug/kg	U	.	6	ug/kg	U	.
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A	1.9	ug/kg	U	.	1.9	ug/kg	U	.	1.9	ug/kg	U	.	1.9	ug/kg	U	.
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6	6	ug/kg	U	.	36	ug/kg	.	.	6	ug/kg	U	.	6	ug/kg	U	.
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7	6	ug/kg	U	.	9	ug/kg	B	.	6	ug/kg	U	.	6	ug/kg	U	.
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Tetrahydrofuran (109-99-9) 8260				Toluene (108-88-3) 8260				trans-1,2-Dichloroethylene (156-60-5) 8260				trans-1,3-Dichloropropene (10061-02-6) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77					6	ug/kg	U	.					6	ug/kg	U	.
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78					5	ug/kg	U	.					5	ug/kg	U	.
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79					5	ug/kg	U	.					5	ug/kg	U	.
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80					6	ug/kg	U	.					6	ug/kg	U	.
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81					6	ug/kg	U	.					6	ug/kg	U	.
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89					6	ug/kg	U	.					6	ug/kg	U	.
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9					8	ug/kg	U	.					8	ug/kg	U	.
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0					5	ug/kg	U	.					5	ug/kg	U	.
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1					6	ug/kg	U	.					6	ug/kg	U	.
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2					5	ug/kg	U	.					5	ug/kg	U	.
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3					5	ug/kg	U	.					5	ug/kg	U	.
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3					6	ug/kg	U	.					6	ug/kg	U	.
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4					6	ug/kg	U	.					6	ug/kg	U	.
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5					6	ug/kg	U	.					6	ug/kg	U	.
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6					6	ug/kg	U	.					6	ug/kg	U	.
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7					6	ug/kg	U	.					6	ug/kg	U	.
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8					0.57	ug/kg	U	.					0.32	ug/kg	U	.
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9					6	ug/kg	U	.					6	ug/kg	U	.
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546					6	ug/kg	U	.					6	ug/kg	U	.
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548					5	ug/kg	U	.					5	ug/kg	U	.
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549					6	ug/kg	U	.					6	ug/kg	U	.
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550					6	ug/kg	U	.					6	ug/kg	U	.
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551					5	ug/kg	U	.					5	ug/kg	U	.
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552					6	ug/kg	U	.					6	ug/kg	U	.
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553					6	ug/kg	U	.					6	ug/kg	U	.
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555					6	ug/kg	U	.					6	ug/kg	U	.
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A					1.9	ug/kg	U	.					1.9	ug/kg	U	.
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4					6	ug/kg	U	.					6	ug/kg	U	.
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5					6	ug/kg	U	.					6	ug/kg	U	.
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6					1	ug/kg	J	.					6	ug/kg	U	.
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7					6	ug/kg	U	.					6	ug/kg	U	.
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7					6	ug/kg	U	.					6	ug/kg	U	.

A-29, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Trichloroethene (79-01-6) 8260				Vinyl chloride (75-01-4) 8260				Xylenes (total) (1330-20-7) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77	6	ug/kg	U	.	12	ug/kg	U	.	6	ug/kg	U	.
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78	5	ug/kg	U	.	9	ug/kg	U	.	5	ug/kg	U	.
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79	5	ug/kg	U	.	10	ug/kg	U	.	5	ug/kg	U	.
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81	6	ug/kg	U	.	12	ug/kg	U	.	6	ug/kg	U	.
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9	8	ug/kg	U	.	16	ug/kg	U	.	8	ug/kg	U	.
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0	5	ug/kg	U	.	10	ug/kg	U	.	5	ug/kg	U	.
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2	5	ug/kg	U	.	10	ug/kg	U	.	5	ug/kg	U	.
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3	5	ug/kg	U	.	10	ug/kg	U	.	5	ug/kg	U	.
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3	6	ug/kg	U	.	13	ug/kg	U	.	6	ug/kg	U	.
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4	6	ug/kg	U	.	12	ug/kg	U	.	6	ug/kg	U	.
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8	0.32	ug/kg	U	.	0.83	ug/kg	U	.	1.1	ug/kg	U	.
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9	6	ug/kg	U	.	12	ug/kg	U	.	6	ug/kg	U	.
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548	5	ug/kg	U	.	10	ug/kg	U	.	5	ug/kg	U	.
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551	5	ug/kg	U	.	9	ug/kg	U	.	5	ug/kg	U	.
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552	6	ug/kg	U	.	12	ug/kg	U	.	6	ug/kg	U	.
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A	1.9	ug/kg	U	.	1.9	ug/kg	U	.	1.9	ug/kg	U	.
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7	6	ug/kg	U	.	12	ug/kg	U	.	6	ug/kg	U	.

A-29, WETCHEM

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Ammonia (7664-41-7) 350.1				Ammonia (7664-41-7) 350.3				Ammonium ion (14798-03-9) 300.7_CATIONS_IC			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77					4010	ug/kg	U	.				
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78					4010	ug/kg	U	.				
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79					3890	ug/kg	U	.				
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80					3770	ug/kg	U	.				
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81					14100	ug/kg	.	.				
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89					4010	ug/kg	U	.				
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9					41700	ug/kg	.	.				
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0					3890	ug/kg	U	.				
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1					4010	ug/kg	U	.				
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2					2670	ug/kg	U	.				
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3					2920	ug/kg	U	.				
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3					4130	ug/kg	U	.				
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4					3770	ug/kg	U	.				
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5					3280	ug/kg	U	.				
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6					3280	ug/kg	U	.				
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7					3040	ug/kg	U	.				
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8	170	ug/kg	U	.								
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9					3280	ug/kg	U	.				
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546					6320	ug/kg	U	.				
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548					6690	ug/kg	.	.				
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549					6320	ug/kg	U	.				
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550					7660	ug/kg	.	.				
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551					6200	ug/kg	U	.				
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552					6570	ug/kg	U	.				
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553					6320	ug/kg	U	.				
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555					5470	ug/kg	U	.				
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A									258	ug/kg	U	.
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4					5960	ug/kg	U	.				
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5					3890	ug/kg	U	.				
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6					6810	ug/kg	U	.				
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7					3770	ug/kg	U	.				
B8826	8.99704	11.4964	B16NF6		4/7/03 14:15	STLSL	B16NF6												
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7					15100	ug/kg	.	.				

A-29, WETCHEM

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Bromide (24959-67-9) 300				Chloride (16887-00-6) 300				Cyanide (57-12-5) 335.2			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77					4300	ug/kg	.	.				
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78					2200	ug/kg	.	.				
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79					2500	ug/kg	.	.				
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80					3000	ug/kg	.	.				
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81					6600	ug/kg	.	.				
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89					2500	ug/kg	.	.				
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9					226000	ug/kg	.	.				
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0					2800	ug/kg	.	.				
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1					2200	ug/kg	.	.				
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2					2400	ug/kg	.	.				
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3					3100	ug/kg	.	.				
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3					5400	ug/kg	.	.				
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4					5400	ug/kg	.	.				
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5					3700	ug/kg	.	.				
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6					4900	ug/kg	.	.				
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7					2000	ug/kg	.	.				
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8					2000	ug/kg	B	.				
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9					2800	ug/kg	.	.				
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546					1800	ug/kg	.	.				
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548					1700	ug/kg	.	.				
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549					2800	ug/kg	.	.				
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550					1300	ug/kg	U	.				
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551					3000	ug/kg	.	.				
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552					4300	ug/kg	.	.				
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553					2500	ug/kg	.	.				
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555					1300	ug/kg	U	.				
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A	2250	ug/kg	U	.	700	ug/kg	U	.	180	ug/kg	U	.
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4					1300	ug/kg	U	.				
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5					1300	ug/kg	U	.				
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6					1600	ug/kg	U	.				
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7					1800	ug/kg	.	.				
B8826	8.99704	11.4964	B16NF6		4/7/03 14:15	STLSL	B16NF6												
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7					5410	ug/kg	.	.				

A-29, WETCHEM

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Cyanide (57-12-5) 9010				Fluoride (16984-48-8) 300				Hydrazine (302-01-2) D1385			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77	460	ug/kg	U	.	2900	ug/kg	U	.	1100	ug/kg	U	.
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78	350	ug/kg	U	.	2600	ug/kg	U	.	1000	ug/kg	U	.
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79	400	ug/kg	U	.	2600	ug/kg	U	.	1000	ug/kg	U	.
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80	460	ug/kg	U	.	2600	ug/kg	U	.	1000	ug/kg	U	.
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81	530	ug/kg	U	.	3000	ug/kg	U	.	1200	ug/kg	U	.
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89	440	ug/kg	U	.	2600	ug/kg	U	.	1000	ug/kg	U	.
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9	720	ug/kg	U	.	19200	ug/kg	U	.	1500	ug/kg	U	.
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0	480	ug/kg	U	.	2700	ug/kg	U	.	1100	ug/kg	U	.
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1	540	ug/kg	U	.	2900	ug/kg	U	.	1100	ug/kg	U	.
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2	410	ug/kg	U	.	2600	ug/kg	U	.	1000	ug/kg	U	.
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3	410	ug/kg	U	.	2600	ug/kg	U	.	1000	ug/kg	U	.
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3	570	ug/kg	U	.	3000	ug/kg	U	.	1200	ug/kg	U	.
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4	540	ug/kg	U	.	2900	ug/kg	U	.	1200	ug/kg	U	.
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5	480	ug/kg	U	.	2600	ug/kg	U	.	1100	ug/kg	U	.
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6	440	ug/kg	U	.	2700	ug/kg	U	.	1100	ug/kg	U	.
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7	340	ug/kg	U	.	2600	ug/kg	U	.	1000	ug/kg	U	.
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8	130	ug/kg	U	.	730	ug/kg	B	.				
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9	500	ug/kg	U	.	2800	ug/kg	U	.	1100	ug/kg	U	.
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546	460	ug/kg	U	.	1300	ug/kg	U	.				
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548	520	ug/kg	U	.	1300	ug/kg	U	.				
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549	550	ug/kg	U	.	1400	ug/kg	U	.				
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550	520	ug/kg	U	.	1300	ug/kg	U	.				
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551	520	ug/kg	U	.	1300	ug/kg	U	.				
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552	550	ug/kg	U	.	1400	ug/kg	U	.				
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553	520	ug/kg	U	.	1300	ug/kg	U	.				
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555	500	ug/kg	U	.	1300	ug/kg	U	.				
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A					5260	ug/kg	B	.				
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4	500	ug/kg	U	.	1300	ug/kg	U	.				
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5	440	ug/kg	U	.	1300	ug/kg	U	.				
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6	590	ug/kg	U	.	1600	ug/kg	U	.				
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7	340	ug/kg	U	.	1400	ug/kg	U	.				
B8826	8.99704	11.4964	B16NF6		4/7/03 14:15	STLSL	B16NF6												
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7	520	ug/kg	U	.	1380	ug/kg	U	.				

A-29, WETCHEM

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Nitrate (14797-55-8) 300				Nitrite (14797-65-0) 300				Nitrogen in Nitrite and Nitrate (NO2+NO3-N) 353.1			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77	156000	ug/kg	.	.	1430	ug/kg	U	.				
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78	22400	ug/kg	.	.	1300	ug/kg	U	.				
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79	23500	ug/kg	.	.	1290	ug/kg	U	.				
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80	33800	ug/kg	.	.	1310	ug/kg	U	.				
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81	300000	ug/kg	.	.	1520	ug/kg	U	.				
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89	23300	ug/kg	.	.	1300	ug/kg	U	.				
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9	927000	ug/kg	.	.	9620	ug/kg	U	.				
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0	36000	ug/kg	.	.	1350	ug/kg	U	.				
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1	26600	ug/kg	.	.	1430	ug/kg	U	.				
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2	9940	ug/kg	.	.	1290	ug/kg	U	.				
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3	9520	ug/kg	.	.	1280	ug/kg	U	.				
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3	238000	ug/kg	.	.	1480	ug/kg	U	.				
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4	181000	ug/kg	.	.	1470	ug/kg	U	.				
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5	62200	ug/kg	.	.	1320	ug/kg	U	.				
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6	64500	ug/kg	.	.	1360	ug/kg	U	.				
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7	1290	ug/kg	U	.	1290	ug/kg	U	.				
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8	49100	ug/kg	.	.	69	ug/kg	U	.	17100	ug/kg	.	.
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9	107000	ug/kg	.	.	1410	ug/kg	U	.				
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546	7710	ug/kg	.	.	1310	ug/kg	U	.				
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548	3860	ug/kg	.	.	1300	ug/kg	U	.				
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549	14600	ug/kg	.	.	1360	ug/kg	U	.				
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550	1800	ug/kg	.	.	1300	ug/kg	U	.				
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551	1300	ug/kg	U	.	1300	ug/kg	U	.				
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552	26600	ug/kg	.	.	1370	ug/kg	U	.				
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553	14100	ug/kg	.	.	1320	ug/kg	U	.				
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555	1290	ug/kg	U	.	1290	ug/kg	U	.				
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A	5840	ug/kg	.	.	1480	ug/kg	U	.				
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4	1300	ug/kg	U	.	1300	ug/kg	U	.				
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5	1310	ug/kg	U	.	1310	ug/kg	U	.				
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6	1550	ug/kg	U	.	2700	ug/kg	.	.				
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7	1380	ug/kg	U	.	1380	ug/kg	U	.				
B8826	8.99704	11.4964	B16NF6		4/7/03 14:15	STLSL	B16NF6									4700	ug/kg	.	.
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7	119000	ug/kg	.	.	1380	ug/kg	U	.				

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Nitrogen in Nitrite and Nitrate (NO2+NO3-N) 353.2				Phosphate (14265-44-2) 300				Sulfate (14808-79-8) 300			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77	39000	ug/kg	.	.	1400	ug/kg	U	.	31100	ug/kg	.	.
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78	5100	ug/kg	.	.	1300	ug/kg	U	.	6400	ug/kg	.	.
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79	6000	ug/kg	.	.	1300	ug/kg	U	.	8300	ug/kg	.	.
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80	7900	ug/kg	.	.	1300	ug/kg	U	.	6900	ug/kg	.	.
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81	69600	ug/kg	.	.	1500	ug/kg	U	.	61700	ug/kg	.	.
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89	5900	ug/kg	.	.	1300	ug/kg	U	.	6500	ug/kg	.	.
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9	210000	ug/kg	.	.	9600	ug/kg	U	.	2970000	ug/kg	.	.
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0	7600	ug/kg	.	.	1300	ug/kg	U	.	35200	ug/kg	.	.
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1	6200	ug/kg	.	.	1400	ug/kg	U	.	14600	ug/kg	.	.
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2	2900	ug/kg	.	.	1300	ug/kg	U	.	7800	ug/kg	.	.
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3	2700	ug/kg	.	.	1300	ug/kg	U	.	6100	ug/kg	.	.
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3	40600	ug/kg	.	.	1500	ug/kg	U	.	240000	ug/kg	.	.
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4	42300	ug/kg	.	.	1500	ug/kg	U	.	260000	ug/kg	.	.
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5	13900	ug/kg	.	.	1300	ug/kg	U	.	26600	ug/kg	.	.
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6	11100	ug/kg	.	.	1400	ug/kg	U	.	7500	ug/kg	.	.
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7	190	ug/kg	U	.	1300	ug/kg	U	.	1300	ug/kg	U	.
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8					370	ug/kg	U	.	18500	ug/kg	.	.
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9	30700	ug/kg	.	.	1400	ug/kg	U	.	15200	ug/kg	.	.
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546	2500	ug/kg	.	.	1300	ug/kg	U	.	34300	ug/kg	.	.
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548	1000	ug/kg	.	.	1300	ug/kg	U	.	38700	ug/kg	.	.
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549	3900	ug/kg	.	.	1400	ug/kg	U	.	134000	ug/kg	.	.
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550	850	ug/kg	.	.	1300	ug/kg	U	.	15500	ug/kg	.	.
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551	300	ug/kg	.	.	1300	ug/kg	U	.	5200	ug/kg	.	.
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552	6000	ug/kg	.	.	1400	ug/kg	U	.	46200	ug/kg	.	.
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553	3400	ug/kg	.	.	1300	ug/kg	U	.	11800	ug/kg	.	.
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555	200	ug/kg	U	.	1300	ug/kg	U	.	1300	ug/kg	.	.
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A					1990	ug/kg	U	.	34400	ug/kg	.	.
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4	180	ug/kg	U	.	1300	ug/kg	U	.	1700	ug/kg	.	.
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5	220	ug/kg	U	.	1300	ug/kg	U	.	3800	ug/kg	.	.
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6	300	ug/kg	.	.	1600	ug/kg	U	.	28500	ug/kg	.	.
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7	230	ug/kg	U	.	1400	ug/kg	U	.	5300	ug/kg	.	.
B8826	8.99704	11.4964	B16NF6		4/7/03 14:15	STLSL	B16NF6												
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7	25700	ug/kg	.	.	1380	ug/kg	U	.	251000	ug/kg	.	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Sulfide (18496-25-8) 9030			
								Conc	Units	Q	VQ
10128	8.49848	9.49888	B13C77		10/30/01 8:50	RLNP	B13C77	40500	ug/kg	U	.
10128	10.99784	11.99824	B13C78	R	10/30/01 9:10	RLNP	B13C78	29700	ug/kg	U	.
10128	13.4972	14.4976	B13C79		10/30/01 9:45	RLNP	B13C79	29600	ug/kg	U	.
10128	15.99656	16.99696	B13C80		10/30/01 10:00	RLNP	B13C80	38100	ug/kg	U	.
10128	5.99912	6.99952	B13C81		10/30/01 8:30	RLNP	B13C81	46400	ug/kg	U	.
10128	10.99784	11.99824	B13C89	R	10/30/01 9:01	RLNP	B13C89	41300	ug/kg	U	.
10132	3.99832	4.99872	B13CK9		10/31/01 7:50	RLNP	B13CK9	61200	ug/kg	U	.
10132	6.49768	7.49808	B13CL0		10/31/01 8:05	RLNP	B13CL0	43000	ug/kg	U	.
10132	8.99704	9.99744	B13CL1		10/31/01 8:20	RLNP	B13CL1	39900	ug/kg	U	.
10132	11.4964	12.4968	B13CL2		10/31/01 8:35	RLNP	B13CL2	35200	ug/kg	U	.
10132	13.99576	14.99616	B13CL3		10/31/01 8:45	RLNP	B13CL3	40700	ug/kg	U	.
10136	7.49808	8.49848	B13CR3	R	11/1/01 8:40	RLNP	B13CR3	50100	ug/kg	U	.
10136	7.49808	8.49848	B13CR4	R	11/1/01 8:40	RLNP	B13CR4	48600	ug/kg	U	.
10136	9.99744	10.99784	B13CR5	S	11/1/01 9:10	RLNP	B13CR5	50100	ug/kg	U	.
10136	12.99536	13.99576	B13CR6		11/1/01 9:30	RLNP	B13CR6	51800	ug/kg	U	.
10136	14.99616	15.99656	B13CR7		11/1/01 9:45	RLNP	B13CR7	38600	ug/kg	U	.
10136	9.99744	10.99784	B13CR8	S	11/1/01 9:10	STLSL	B13CR8	7300	ug/kg	U	.
10136	4.99872	5.99912	B13CR9		11/1/01 8:15	RLNP	B13CR9	45200	ug/kg	U	.
B8826	6.49768	8.99704	B16546		4/7/03 13:40	RLNP	B16546	44600	ug/kg	U	J
B8826	8.99704	11.4964	B16548		4/7/03 14:15	RLNP	B16548	50800	ug/kg	U	J
B8826	11.99824	14.4976	B16549		4/7/03 14:50	RLNP	B16549	42500	ug/kg	U	J
B8826	14.4976	16.99696	B16550		4/7/03 15:30	RLNP	B16550	41400	ug/kg	U	J
B8826	19.49632	21.99568	B16551		4/8/03 8:10	RLNP	B16551	40900	ug/kg	U	J
B8826	24.49504	26.9944	B16552		4/8/03 9:10	RLNP	B16552	38400	ug/kg	U	J
B8826	49.9872	52.48	B16553		4/8/03 11:40	RLNP	B16553	26000	ug/kg	U	J
B8826	99.9744	101.9752	B16555		4/9/03 16:10	RLNP	B16555	28200	ug/kg	U	.
B8826	8.99704	11.4964	B16FN6-A		4/7/03 14:15	WSCF	B16FN6-A				
B8826	149.9616	151.9624	B16FV4		4/10/03 15:10	RLNP	B16FV4	22100	ug/kg	U	.
B8826	199.9488	201.9496	B16FV5		4/14/03 8:30	RLNP	B16FV5	25200	ug/kg	U	.
B8826	259.94	261.9408	B16FV6		4/15/03 16:00	RLNP	B16FV6	58400	ug/kg	.	.
B8826	271.9448	273.9456	B16FV7		4/17/03 15:10	RLNP	B16FV7	27500	ug/kg	U	.
B8826	8.99704	11.4964	B16NF6		4/7/03 14:15	STLSL	B16NF6	7000	ug/kg	U	.
B8826	3.99832	6.49768	B16NF7		4/7/03 12:30	RLNP	B16NF7	41000	ug/kg	U	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Aroclor-1016 (12674-11-2) 8080_PESTPCB_GC				Aroclor-1016 (12674-11-2) 8082				Aroclor-1221 (11104-28-2) 8080_PESTPCB_GC			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2	33	ug/kg	U	.					33	ug/kg	U	.
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5	36	ug/kg	U	R					36	ug/kg	U	R
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8	39	ug/kg	U	R					39	ug/kg	U	R
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1	35	ug/kg	U	R					35	ug/kg	U	R
299-E33-333	15.49472	17.99408	B0MJD4		12/30/97 14:25	QTESSL	B0MJD4												
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7	34	ug/kg	U	R					34	ug/kg	U	R
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0	34	ug/kg	U	R					34	ug/kg	U	R
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3	36	ug/kg	U	R					36	ug/kg	U	R
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6	34	ug/kg	U	.					34	ug/kg	U	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9	34	ug/kg	U	.					34	ug/kg	U	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1	34	ug/kg	U	R					34	ug/kg	U	R
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4	34	ug/kg	U	R					34	ug/kg	U	R
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7	34	ug/kg	U	J					34	ug/kg	U	J
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0	35	ug/kg	U	J					35	ug/kg	U	J
299-E33-333	176.45416	178.9568	B0MJK3		1/5/98 15:25	QTESSL	B0MJK3												
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6	36	ug/kg	U	J					36	ug/kg	U	J
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72					36	ug/kg	U	.				
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73					35	ug/kg	U	.				
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82					2.7	ug/kg	U	.				
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7					35	ug/kg	U	.				
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8					34	ug/kg	U	.				
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9					34	ug/kg	U	.				
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0					34	ug/kg	U	.				
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1					34	ug/kg	U	.				
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2					34	ug/kg	U	.				
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9					34	ug/kg	U	J				
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0					35	ug/kg	U	J				
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1					35	ug/kg	U	J				
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2					35	ug/kg	U	J				
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1					35	ug/kg	U	.				
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2					35	ug/kg	U	.				
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3					35	ug/kg	U	J				
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4					13	ug/kg	U	.				
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528					34	ug/kg	U	.				
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529					34	ug/kg	U	.				
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530					34	ug/kg	U	.				
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531					34	ug/kg	U	.				
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532					34	ug/kg	U	.				
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533					34	ug/kg	U	.				
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534					34	ug/kg	U	.				
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535					34	ug/kg	U	.				
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536					34	ug/kg	U	.				
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5					36	ug/kg	U	.				
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A					30	ug/kg	U	.				

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Aroclor-1221 (11104-28-2) 8082				Aroclor-1232 (11141-16-5) 8080_PESTPCB_GC				Aroclor-1232 (11141-16-5) 8082			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2					33	ug/kg	U	.				
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5					36	ug/kg	U	R				
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8					39	ug/kg	U	R				
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1					35	ug/kg	U	R				
299-E33-333	15.49472	17.99408	B0MJD4		12/30/97 14:25	QTESSL	B0MJD4												
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7					34	ug/kg	U	R				
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0					34	ug/kg	U	R				
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3					36	ug/kg	U	R				
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6					34	ug/kg	U	.				
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9					34	ug/kg	U	.				
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1					34	ug/kg	U	R				
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4					34	ug/kg	U	R				
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7					34	ug/kg	U	J				
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0					35	ug/kg	U	J				
299-E33-333	176.45416	178.9568	B0MJK3		1/5/98 15:25	QTESSL	B0MJK3												
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6					36	ug/kg	U	J				
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72	72	ug/kg	U	.					36	ug/kg	U	.
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73	71	ug/kg	U	.					35	ug/kg	U	.
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82	2.7	ug/kg	U	.					2.7	ug/kg	U	.
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7	69	ug/kg	U	.					35	ug/kg	U	.
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8	69	ug/kg	U	.					34	ug/kg	U	.
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9	69	ug/kg	U	.					34	ug/kg	U	.
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0	68	ug/kg	U	.					34	ug/kg	U	.
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1	69	ug/kg	U	.					34	ug/kg	U	.
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2	68	ug/kg	U	.					34	ug/kg	U	.
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9	69	ug/kg	U	J					34	ug/kg	U	J
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0	69	ug/kg	U	J					35	ug/kg	U	J
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1	69	ug/kg	U	J					35	ug/kg	U	J
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2	70	ug/kg	U	J					35	ug/kg	U	J
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1	69	ug/kg	U	.					35	ug/kg	U	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2	70	ug/kg	U	.					35	ug/kg	U	.
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3	70	ug/kg	U	J					35	ug/kg	U	J
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4	13	ug/kg	U	.					13	ug/kg	U	.
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528	68	ug/kg	U	.					34	ug/kg	U	.
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529	69	ug/kg	U	.					34	ug/kg	U	.
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530	69	ug/kg	U	.					34	ug/kg	U	.
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531	69	ug/kg	U	.					34	ug/kg	U	.
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532	69	ug/kg	U	.					34	ug/kg	U	.
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533	69	ug/kg	U	.					34	ug/kg	U	.
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534	68	ug/kg	U	.					34	ug/kg	U	.
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535	68	ug/kg	U	.					34	ug/kg	U	.
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536	69	ug/kg	U	.					34	ug/kg	U	.
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5	73	ug/kg	U	.					36	ug/kg	U	.
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A	30	ug/kg	U	.					30	ug/kg	U	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Aroclor-1242 (53469-21-9) 8080_PESTPCB_GC				Aroclor-1242 (53469-21-9) 8082				Aroclor-1248 (12672-29-6) 8080_PESTPCB_GC			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2	33	ug/kg	U	.					33	ug/kg	U	.
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5	36	ug/kg	U	R					36	ug/kg	U	R
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8	39	ug/kg	U	R					39	ug/kg	U	R
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1	35	ug/kg	U	R					35	ug/kg	U	R
299-E33-333	15.49472	17.99408	B0MJD4		12/30/97 14:25	QTESSL	B0MJD4												
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7	34	ug/kg	U	R					34	ug/kg	U	R
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0	34	ug/kg	U	R					34	ug/kg	U	R
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3	36	ug/kg	U	R					36	ug/kg	U	R
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6	34	ug/kg	U	.					34	ug/kg	U	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9	34	ug/kg	U	.					34	ug/kg	U	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1	34	ug/kg	U	R					34	ug/kg	U	R
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4	34	ug/kg	U	R					34	ug/kg	U	R
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7	34	ug/kg	U	J					34	ug/kg	U	J
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0	35	ug/kg	U	J					35	ug/kg	U	J
299-E33-333	176.45416	178.9568	B0MJK3		1/5/98 15:25	QTESSL	B0MJK3												
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6	36	ug/kg	U	J					36	ug/kg	U	J
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72					36	ug/kg	U	.				
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73					35	ug/kg	U	.				
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82					2.7	ug/kg	U	.				
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7					35	ug/kg	U	.				
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8					34	ug/kg	U	.				
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9					34	ug/kg	U	.				
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0					34	ug/kg	U	.				
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1					34	ug/kg	U	.				
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2					34	ug/kg	U	.				
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9					34	ug/kg	U	J				
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0					35	ug/kg	U	J				
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1					35	ug/kg	U	J				
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2					35	ug/kg	U	J				
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1					35	ug/kg	U	.				
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2					35	ug/kg	U	.				
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3					35	ug/kg	U	J				
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4					13	ug/kg	U	.				
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528					34	ug/kg	U	.				
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529					34	ug/kg	U	.				
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530					34	ug/kg	U	.				
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531					34	ug/kg	U	.				
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532					34	ug/kg	U	.				
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533					34	ug/kg	U	.				
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534					34	ug/kg	U	.				
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535					34	ug/kg	U	.				
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536					34	ug/kg	U	.				
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5					36	ug/kg	U	.				
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A					30	ug/kg	U	.				

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Aroclor-1248 (12672-29-6) 8082				Aroclor-1254 (11097-69-1) 8080_PESTPCB_GC				Aroclor-1254 (11097-69-1) 8082			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2					33	ug/kg	U	.				
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5					36	ug/kg	U	R				
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8					39	ug/kg	U	R				
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1					35	ug/kg	U	R				
299-E33-333	15.49472	17.99408	B0MJD4		12/30/97 14:25	QTESSL	B0MJD4												
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7					34	ug/kg	U	R				
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0					34	ug/kg	U	R				
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3					36	ug/kg	U	R				
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6					34	ug/kg	U	.				
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9					34	ug/kg	U	.				
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1					34	ug/kg	U	R				
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4					34	ug/kg	U	R				
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7					34	ug/kg	U	J				
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0					35	ug/kg	U	J				
299-E33-333	176.45416	178.9568	B0MJK3		1/5/98 15:25	QTESSL	B0MJK3												
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6					36	ug/kg	U	J				
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72	36	ug/kg	U	.					36	ug/kg	U	.
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73	35	ug/kg	U	.					35	ug/kg	U	.
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82	2.7	ug/kg	U	.					6.4	ug/kg	U	.
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7	35	ug/kg	U	.					35	ug/kg	U	.
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8	34	ug/kg	U	.					34	ug/kg	U	.
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9	34	ug/kg	U	.					34	ug/kg	U	.
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0	34	ug/kg	U	.					34	ug/kg	U	.
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1	34	ug/kg	U	.					34	ug/kg	U	.
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2	34	ug/kg	U	.					34	ug/kg	U	.
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9	34	ug/kg	U	J					34	ug/kg	U	J
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0	35	ug/kg	U	J					35	ug/kg	U	J
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1	35	ug/kg	U	J					35	ug/kg	U	J
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2	35	ug/kg	U	J					35	ug/kg	U	J
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1	35	ug/kg	U	.					35	ug/kg	U	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2	35	ug/kg	U	.					35	ug/kg	U	.
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3	35	ug/kg	U	J					35	ug/kg	U	J
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4	13	ug/kg	U	.					7.5	ug/kg	U	.
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528	34	ug/kg	U	.					34	ug/kg	U	.
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529	34	ug/kg	U	.					34	ug/kg	U	.
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530	34	ug/kg	U	.					34	ug/kg	U	.
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531	34	ug/kg	U	.					34	ug/kg	U	.
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532	34	ug/kg	U	.					34	ug/kg	U	.
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533	34	ug/kg	U	.					34	ug/kg	U	.
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534	34	ug/kg	U	.					34	ug/kg	U	.
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535	34	ug/kg	U	.					34	ug/kg	U	.
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536	34	ug/kg	U	.					34	ug/kg	U	.
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5	36	ug/kg	U	.					77	ug/kg	.	.
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A	30	ug/kg	U	.					30	ug/kg	U	.

B-63 Ditch, GENORG

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Aroclor-1260 (11096-82-5) 8080_PESTPCB_GC				Aroclor-1260 (11096-82-5) 8082				Aroclor-1262 (37324-23-5) 8082			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2	33	ug/kg	U	.								
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5	9200	ug/kg	.	J								
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8	150	ug/kg	.	J								
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1	1100	ug/kg	.	J								
299-E33-333	15.49472	17.99408	B0MJD4		12/30/97 14:25	QTESSL	B0MJD4												
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7	34	ug/kg	U	R								
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0	34	ug/kg	U	R								
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3	36	ug/kg	U	R								
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6	34	ug/kg	U	.								
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9	34	ug/kg	U	.								
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1	34	ug/kg	U	R								
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4	34	ug/kg	U	R								
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7	34	ug/kg	U	J								
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0	35	ug/kg	U	J								
299-E33-333	176.45416	178.9568	B0MJK3		1/5/98 15:25	QTESSL	B0MJK3												
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6	36	ug/kg	U	J								
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72					36	ug/kg	U	.				
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73					35	ug/kg	U	.				
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82					6.4	ug/kg	U	.				
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7					35	ug/kg	U	.				
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8					34	ug/kg	U	.				
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9					34	ug/kg	U	.				
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0					34	ug/kg	U	.				
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1					34	ug/kg	U	.				
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2					34	ug/kg	U	.				
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9					34	ug/kg	U	J				
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0					35	ug/kg	U	J				
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1					35	ug/kg	U	J				
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2					35	ug/kg	U	J				
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1					35	ug/kg	U	.				
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2					35	ug/kg	U	.				
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3					35	ug/kg	U	J				
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4					7.5	ug/kg	U	.				
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528					34	ug/kg	U	.				
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529					34	ug/kg	U	.				
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530					34	ug/kg	U	.				
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531					34	ug/kg	U	.				
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532					34	ug/kg	U	.				
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533					34	ug/kg	U	.				
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534					34	ug/kg	U	.				
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535					34	ug/kg	U	.				
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536					34	ug/kg	U	.				
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5					36	ug/kg	U	.				
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A					30	ug/kg	U	.	30	ug/kg	U	.

B-63 Ditch, GENORG

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Aroclor-1268 (11100-14-4) 8082				Total organic carbon (TOC) 9060				Total petroleum hydrocarbons - diesel range (TPHDIESEL) WDOE TPH			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2												
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5												
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8												
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1												
299-E33-333	15.49472	17.99408	B0MJD4		12/30/97 14:25	QTESSL	B0MJD4					206000	ug/kg	.	.				
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7												
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0												
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3												
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6												
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9												
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1					342000	ug/kg	.	.				
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4												
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7												
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0					297000	ug/kg	.	.				
299-E33-333	176.45416	178.9568	B0MJK3		1/5/98 15:25	QTESSL	B0MJK3					367000	ug/kg	.	.				
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6												
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72									13000	ug/kg	U	.
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73									12800	ug/kg	U	.
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82									1400	ug/kg	U	.
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7									12500	ug/kg	U	.
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8									12400	ug/kg	U	.
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9									12400	ug/kg	U	.
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0									12300	ug/kg	U	.
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1									12400	ug/kg	U	.
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2									12300	ug/kg	U	.
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9									12400	ug/kg	U	.
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0									12500	ug/kg	U	.
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1									12500	ug/kg	U	.
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2									12600	ug/kg	U	.
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1									12500	ug/kg	U	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2									12500	ug/kg	U	.
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3									12500	ug/kg	U	.
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4									1400	ug/kg	U	.
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528									12200	ug/kg	U	.
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529									12400	ug/kg	U	.
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530									12400	ug/kg	U	.
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531									12400	ug/kg	U	.
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532									12400	ug/kg	U	.
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533									12400	ug/kg	U	.
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534									12300	ug/kg	U	.
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535									12300	ug/kg	U	.
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536									12400	ug/kg	U	.
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5									13100	ug/kg	U	.
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A	30	ug/kg	U	.					3700	ug/kg	U	.

B-63 Ditch, GENORG

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Total petroleum hydrocarbons - kerosene range (TPHKEROSENE) WDOE TPH				Total petroleum hydrocarbons - motor oil (high boi (TPH/OILH) WDOE TPH			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2								
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5								
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8								
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1								
299-E33-333	15.49472	17.99408	B0MJD4		12/30/97 14:25	QTESSL	B0MJD4								
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7								
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0								
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3								
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6								
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9								
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1								
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4								
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7								
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0								
299-E33-333	176.45416	178.9568	B0MJK3		1/5/98 15:25	QTESSL	B0MJK3								
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6								
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72	13000	ug/kg	U	.				
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73	12800	ug/kg	U	.				
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82	27000	ug/kg	U	.				
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7	12500	ug/kg	U	.				
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8	12400	ug/kg	U	.				
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9	12400	ug/kg	U	.				
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0	12300	ug/kg	U	.				
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1	12400	ug/kg	U	.				
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2	12300	ug/kg	U	.				
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9	12400	ug/kg	U	.				
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0	12500	ug/kg	U	.				
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1	12500	ug/kg	U	.				
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2	12600	ug/kg	U	.				
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1	12500	ug/kg	U	.				
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2	12500	ug/kg	U	.				
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3	12500	ug/kg	U	.				
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4	26000	ug/kg	U	.				
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528	12200	ug/kg	U	.				
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529	12400	ug/kg	U	.				
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530	12400	ug/kg	U	.				
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531	12400	ug/kg	U	.				
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532	12400	ug/kg	U	.				
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533	12400	ug/kg	U	.				
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534	12300	ug/kg	U	.				
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535	12300	ug/kg	U	.				
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536	12400	ug/kg	U	.				
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5	13100	ug/kg	U	.				
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A	3700	ug/kg	U	.				

B-63 Ditch, METAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Aluminum (7429-90-5) 6010				Antimony (7440-36-0) 6010				Arsenic (7440-38-2) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESRL	B0MJC2												
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2	5710000	ug/kg	.	J	5000	ug/kg	BN	J	2600	ug/kg	.	.
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESRL	B0MJC5												
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5	6320000	ug/kg	.	J	4700	ug/kg	UN	J	3000	ug/kg	.	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESRL	B0MJC8												
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8	7090000	ug/kg	.	J	5000	ug/kg	UN	J	1900	ug/kg	.	.
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESRL	B0MJD1												
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1	5510000	ug/kg	.	J	4500	ug/kg	UN	J	2000	ug/kg	.	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESRL	B0MJD7												
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7	4420000	ug/kg	.	J	4400	ug/kg	UN	J	1400	ug/kg	.	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESRL	B0MJF0												
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0	4300000	ug/kg	.	J	4400	ug/kg	UN	J	1600	ug/kg	.	.
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESRL	B0MJF3												
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3	6290000	ug/kg	.	J	4600	ug/kg	UN	J	3500	ug/kg	.	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESRL	B0MJF6												
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6	6090000	ug/kg	.	J	4400	ug/kg	UN	J	3700	ug/kg	.	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESRL	B0MJF9												
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9	6980000	ug/kg	.	J	4400	ug/kg	UN	J	3700	ug/kg	.	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESRL	B0MJJ1												
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1	5660000	ug/kg	.	J	4400	ug/kg	UN	J	3400	ug/kg	.	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESRL	B0MJJ4												
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4	4520000	ug/kg	.	J	4400	ug/kg	UN	J	2700	ug/kg	.	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESRL	B0MJJ7												
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7	4930000	ug/kg	.	J	4300	ug/kg	UN	J	2600	ug/kg	.	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESRL	B0MJK0												
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0	6850000	ug/kg	.	J	4500	ug/kg	UN	J	3300	ug/kg	.	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESRL	B0MJK6												
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6	3530000	ug/kg	.	J	4600	ug/kg	UN	J	720	ug/kg	B	J
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72	6750000	ug/kg	.	.					3000	ug/kg	.	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	TMANC	B13D72												
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73									3600	ug/kg	.	.
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	TMANC	B13D73												
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLRL	B13D82												
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82									3300	ug/kg	.	.
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	EBRLNE	B15XJ7												
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7									1600	ug/kg	.	.
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	EBRLNE	B15XJ8												
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8									1600	ug/kg	.	.
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	EBRLNE	B15XJ9												
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9									2200	ug/kg	.	.
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	EBRLNE	B15XK0												
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0									1400	ug/kg	.	.
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	EBRLNE	B15XK1												
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1									1900	ug/kg	.	.
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	EBRLNE	B15XK2												
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2									4500	ug/kg	.	.
14076	9.49888	10.496	B15XK9		11/12/02 10:10	EBRLNE	B15XK9												
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9									3400	ug/kg	.	.
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	EBRLNE	B15XL0												
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0									1700	ug/kg	.	.
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	EBRLNE	B15XL1												
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1									2100	ug/kg	.	.
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	EBRLNE	B15XL2												
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2									1800	ug/kg	.	.
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	EBRLNE	B15XM1												
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1	4640000	ug/kg	.	.					3700	ug/kg	.	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	EBRLNE	B15XM2												
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2	6340000	ug/kg	.	.					3700	ug/kg	.	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Barium (7440-39-3) 6010				Beryllium (7440-41-7) 6010				Bismuth (7440-69-9) 6010				Boron (7440-42-8) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESRL	B0MJC2																
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2	58100	ug/kg	.	.	540	ug/kg	.	.	27500	ug/kg	.	.	5100	ug/kg	B	.
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESRL	B0MJC5																
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5	89400	ug/kg	.	.	700	ug/kg	.	.	37100	ug/kg	.	.	6300	ug/kg	B	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESRL	B0MJC8																
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8	72600	ug/kg	.	.	570	ug/kg	B	.	36500	ug/kg	.	.	5500	ug/kg	B	.
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESRL	B0MJD1																
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1	73100	ug/kg	.	.	560	ug/kg	.	.	31000	ug/kg	.	.	5400	ug/kg	B	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESRL	B0MJD7																
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7	58900	ug/kg	.	.	360	ug/kg	B	.	21900	ug/kg	.	.	3400	ug/kg	B	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESRL	B0MJF0																
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0	40400	ug/kg	.	.	340	ug/kg	B	.	22300	ug/kg	.	.	2800	ug/kg	B	.
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESRL	B0MJF3																
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3	61200	ug/kg	.	.	420	ug/kg	B	.	23000	ug/kg	.	.	4900	ug/kg	B	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESRL	B0MJF6																
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6	55500	ug/kg	.	.	370	ug/kg	B	.	20100	ug/kg	B	.	5000	ug/kg	B	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESRL	B0MJF9																
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9	52000	ug/kg	.	.	380	ug/kg	B	.	26200	ug/kg	.	.	4700	ug/kg	B	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESRL	B0MJJ1																
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1	47300	ug/kg	.	.	400	ug/kg	B	.	22300	ug/kg	.	.	3600	ug/kg	B	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESRL	B0MJJ4																
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4	33700	ug/kg	.	.	340	ug/kg	B	.	19100	ug/kg	B	.	3500	ug/kg	B	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESRL	B0MJJ7																
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7	43100	ug/kg	.	.	300	ug/kg	B	.	19300	ug/kg	B	.	2900	ug/kg	B	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESRL	B0MJK0																
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0	61700	ug/kg	.	.	420	ug/kg	B	.	23500	ug/kg	.	.	4900	ug/kg	B	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESRL	B0MJK6																
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6	31300	ug/kg	.	.	230	ug/kg	B	.	12400	ug/kg	B	.	3000	ug/kg	B	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72	68700	ug/kg	.	.	390	ug/kg	.	.	330	ug/kg	U	.	5800	ug/kg	.	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	TMANC	B13D72																
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73	96900	ug/kg	.	.	500	ug/kg	.	.								
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	TMANC	B13D73																
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLRL	B13D82																
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82	95700	ug/kg	.	.	470	ug/kg	B	.								
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	EBRLNE	B15XJ7																
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7	49800	ug/kg	.	.	270	ug/kg	.	.								
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	EBRLNE	B15XJ8																
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8	48000	ug/kg	.	.	230	ug/kg	.	.								
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	EBRLNE	B15XJ9																
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9	46100	ug/kg	.	.	230	ug/kg	.	.								
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	EBRLNE	B15XK0																
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0	46500	ug/kg	.	.	180	ug/kg	.	.								
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	EBRLNE	B15XK1																
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1	43900	ug/kg	.	.	250	ug/kg	.	.								
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	EBRLNE	B15XK2																
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2	43100	ug/kg	.	.	170	ug/kg	.	.								
14076	9.49888	10.496	B15XK9		11/12/02 10:10	EBRLNE	B15XK9																
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9	77400	ug/kg	.	.	380	ug/kg	.	.								
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	EBRLNE	B15XL0																
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0	73700	ug/kg	.	.	330	ug/kg	.	.								
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	EBRLNE	B15XL1																
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1	66700	ug/kg	.	.	240	ug/kg	.	.								
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	EBRLNE	B15XL2																
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2	80700	ug/kg	.	.	380	ug/kg	.	.								
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	EBRLNE	B15XM1																
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1	61900	ug/kg	.	.	290	ug/kg	.	.	620	ug/kg	.	.	950	ug/kg	.	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	EBRLNE	B15XM2																
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2	84400	ug/kg	.	.	280	ug/kg	.	.	620	ug/kg	U	.	2500	ug/kg	.	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Cadmium (7440-43-9) 6010				Cadmium (7440-43-9) TCLP/6010				Calcium (7440-70-2) 6010				Chromium (7440-47-3) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESRL	B0MJC2																
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2	330	ug/kg	UN	.					5430000	ug/kg	.	.	9700	ug/kg	.	.
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESRL	B0MJC5																
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5	360	ug/kg	UN	.					8760000	ug/kg	.	.	8500	ug/kg	.	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESRL	B0MJC8																
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8	390	ug/kg	UN	.					5220000	ug/kg	.	.	9400	ug/kg	.	.
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESRL	B0MJD1																
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1	350	ug/kg	UN	.					5850000	ug/kg	.	.	9600	ug/kg	.	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESRL	B0MJD7																
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7	340	ug/kg	UN	.					6510000	ug/kg	.	.	7500	ug/kg	.	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESRL	B0MJF0																
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0	340	ug/kg	UN	.					5840000	ug/kg	.	.	6200	ug/kg	.	.
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESRL	B0MJF3																
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3	360	ug/kg	UN	.					8110000	ug/kg	.	.	11200	ug/kg	.	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESRL	B0MJF6																
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6	340	ug/kg	UN	.					9130000	ug/kg	.	.	9500	ug/kg	.	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESRL	B0MJF9																
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9	340	ug/kg	UN	.					7830000	ug/kg	.	.	14000	ug/kg	.	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESRL	B0MJJ1																
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1	340	ug/kg	UN	.					16100000	ug/kg	.	.	10200	ug/kg	.	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESRL	B0MJJ4																
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4	340	ug/kg	UN	.					7410000	ug/kg	.	.	8100	ug/kg	.	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESRL	B0MJJ7																
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7	340	ug/kg	UN	.					5260000	ug/kg	.	.	9100	ug/kg	.	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESRL	B0MJK0																
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0	350	ug/kg	UN	.					7810000	ug/kg	.	.	15700	ug/kg	.	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESRL	B0MJK6																
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6	360	ug/kg	UN	.					2920000	ug/kg	.	.	7800	ug/kg	.	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72	270	ug/kg	.	.					6590000	ug/kg	.	.	8300	ug/kg	.	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	TMANC	B13D72																
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73	250	ug/kg	.	.									7900	ug/kg	.	.
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	TMANC	B13D73																
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLRL	B13D82																
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82	21	ug/kg	U	.									4300	ug/kg	.	.
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	EBRLNE	B15XJ7																
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7	40	ug/kg	U	.									7200	ug/kg	.	.
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	EBRLNE	B15XJ8																
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8	40	ug/kg	U	.									5200	ug/kg	.	.
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	EBRLNE	B15XJ9																
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9	40	ug/kg	U	.									4900	ug/kg	.	.
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	EBRLNE	B15XK0																
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0	40	ug/kg	.	.									9000	ug/kg	.	.
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	EBRLNE	B15XK1																
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1	80	ug/kg	.	.									6200	ug/kg	.	.
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	EBRLNE	B15XK2																
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2	30	ug/kg	U	.									7600	ug/kg	.	.
14076	9.49888	10.496	B15XK9		11/12/02 10:10	EBRLNE	B15XK9																
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9	40	ug/kg	U	.									11400	ug/kg	.	.
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	EBRLNE	B15XL0																
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0	180	ug/kg	.	.									7200	ug/kg	.	.
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	EBRLNE	B15XL1																
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1	40	ug/kg	.	.									8200	ug/kg	.	.
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	EBRLNE	B15XL2																
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2	40	ug/kg	U	.									7100	ug/kg	.	.
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	EBRLNE	B15XM1																
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1	200	ug/kg	.	.					6050000	ug/kg	.	.	5500	ug/kg	.	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	EBRLNE	B15XM2																
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2	220	ug/kg	.	.					4500000	ug/kg	.	.	9500	ug/kg	.	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Cobalt (7440-48-4) 6010				Copper (7440-50-8) 6010				Hexavalent Chromium (18540-29-9) 7196				Iron (7439-89-6) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESRL	B0MJC2																
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2	8700	ug/kg	.	.	13000	ug/kg	.	.					20000000	ug/kg	.	J
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESRL	B0MJC5																
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5	11400	ug/kg	.	.	14600	ug/kg	.	.					25000000	ug/kg	.	J
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESRL	B0MJC8																
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8	9400	ug/kg	.	.	13100	ug/kg	.	.					21900000	ug/kg	.	J
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESRL	B0MJD1																
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1	9800	ug/kg	.	.	14900	ug/kg	.	.					22000000	ug/kg	.	J
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESRL	B0MJD7																
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7	5700	ug/kg	.	.	8900	ug/kg	.	.					13400000	ug/kg	.	J
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESRL	B0MJF0																
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0	5400	ug/kg	.	.	13900	ug/kg	.	.					12500000	ug/kg	.	J
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESRL	B0MJF3																
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3	5900	ug/kg	.	.	10100	ug/kg	.	.					14800000	ug/kg	.	J
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESRL	B0MJF6																
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6	5100	ug/kg	B	.	8900	ug/kg	.	.					13500000	ug/kg	.	J
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESRL	B0MJF9																
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9	6800	ug/kg	.	.	10500	ug/kg	.	.					15800000	ug/kg	.	J
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESRL	B0MJJ1																
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1	5100	ug/kg	B	.	11200	ug/kg	.	.					13900000	ug/kg	.	J
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESRL	B0MJJ4																
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4	4100	ug/kg	B	.	7300	ug/kg	.	.					12400000	ug/kg	.	J
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESRL	B0MJJ7																
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7	5500	ug/kg	.	.	10500	ug/kg	.	.					12900000	ug/kg	.	J
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESRL	B0MJK0																
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0	7200	ug/kg	.	.	14800	ug/kg	.	.					16700000	ug/kg	.	J
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESRL	B0MJK6																
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6	4600	ug/kg	B	.	6700	ug/kg	.	.					8930000	ug/kg	.	J
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72					12900	ug/kg	.	.	4400	ug/kg	U	.	22400000	ug/kg	.	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	TMANC	B13D72																
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73					15900	ug/kg	.	.	430	ug/kg	U	.				
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	TMANC	B13D73																
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLRL	B13D82																
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82					15600	ug/kg	.	.	57	ug/kg	U	.				
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	EBRLNE	B15XJ7																
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7					11200	ug/kg	.	.	420	ug/kg	U	.				
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	EBRLNE	B15XJ8																
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8					11900	ug/kg	.	.	410	ug/kg	U	.				
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	EBRLNE	B15XJ9																
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9					10500	ug/kg	.	.	410	ug/kg	U	.				
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	EBRLNE	B15XK0																
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0					11400	ug/kg	.	.	410	ug/kg	U	.				
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	EBRLNE	B15XK1																
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1					10900	ug/kg	.	.	410	ug/kg	U	.				
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	EBRLNE	B15XK2																
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2					12000	ug/kg	.	.	410	ug/kg	U	.				
14076	9.49888	10.496	B15XK9		11/12/02 10:10	EBRLNE	B15XK9																
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9					14200	ug/kg	.	.	450	ug/kg	.	.				
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	EBRLNE	B15XL0																
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0					30600	ug/kg	.	.	420	ug/kg	U	.				
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	EBRLNE	B15XL1																
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1					13400	ug/kg	.	.	420	ug/kg	U	.				
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	EBRLNE	B15XL2																
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2					12200	ug/kg	.	.	420	ug/kg	U	.				
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	EBRLNE	B15XM1																
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1					15200	ug/kg	.	.	420	ug/kg	U	.	28400000	ug/kg	.	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	EBRLNE	B15XM2																
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2					14900	ug/kg	.	.	420	ug/kg	U	.	21000000	ug/kg	.	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Lead (7439-92-1) 6010				Lead (7439-92-1) TCLP/6010				Magnesium (7439-95-4) 6010				Manganese (7439-96-5) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESRL	B0MJC2																
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2	4700	ug/kg	.	.					3780000	ug/kg	.	.	277000	ug/kg	.	J
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESRL	B0MJC5																
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5	7500	ug/kg	.	.					4390000	ug/kg	.	.	356000	ug/kg	.	J
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESRL	B0MJC8																
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8	3900	ug/kg	.	.					4600000	ug/kg	.	.	320000	ug/kg	.	J
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESRL	B0MJD1																
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1	6900	ug/kg	.	.					3730000	ug/kg	.	.	315000	ug/kg	.	J
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESRL	B0MJD7																
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7	2500	ug/kg	.	.					3160000	ug/kg	.	.	208000	ug/kg	.	J
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESRL	B0MJF0																
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0	2700	ug/kg	.	.					2920000	ug/kg	.	.	183000	ug/kg	.	J
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESRL	B0MJF3																
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3	4800	ug/kg	.	.					4690000	ug/kg	.	.	330000	ug/kg	.	J
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESRL	B0MJF6																
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6	4100	ug/kg	.	.					5110000	ug/kg	.	.	254000	ug/kg	.	J
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESRL	B0MJF9																
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9	3300	ug/kg	.	.					5600000	ug/kg	.	.	233000	ug/kg	.	J
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESRL	B0MJJ1																
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1	2900	ug/kg	.	.					4820000	ug/kg	.	.	229000	ug/kg	.	J
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESRL	B0MJJ4																
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4	3000	ug/kg	.	.					3890000	ug/kg	.	.	191000	ug/kg	.	J
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESRL	B0MJJ7																
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7	2400	ug/kg	.	.					3970000	ug/kg	.	.	199000	ug/kg	.	J
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESRL	B0MJK0																
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0	3300	ug/kg	.	.					5230000	ug/kg	.	.	274000	ug/kg	.	J
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESRL	B0MJK6																
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6	1400	ug/kg	.	.					2300000	ug/kg	.	.	147000	ug/kg	.	J
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72	4500	ug/kg	.	.									315000	ug/kg	.	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	TMANC	B13D72																
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73	3800	ug/kg	.	.												
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	TMANC	B13D73																
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLRL	B13D82																
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82	1300	ug/kg	.	.												
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	EBRLNE	B15XJ7																
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7	2600	ug/kg	.	.												
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	EBRLNE	B15XJ8																
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8	2500	ug/kg	.	.												
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	EBRLNE	B15XJ9																
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9	2600	ug/kg	.	.												
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	EBRLNE	B15XK0																
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0	2500	ug/kg	.	.												
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	EBRLNE	B15XK1																
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1	2500	ug/kg	.	.												
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	EBRLNE	B15XK2																
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2	2300	ug/kg	.	.												
14076	9.49888	10.496	B15XK9		11/12/02 10:10	EBRLNE	B15XK9																
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9	5500	ug/kg	.	.												
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	EBRLNE	B15XL0																
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0	6300	ug/kg	.	.												
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	EBRLNE	B15XL1																
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1	2900	ug/kg	.	.												
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	EBRLNE	B15XL2																
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2	3100	ug/kg	.	.												
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	EBRLNE	B15XM1																
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1	3000	ug/kg	.	.					4930000	ug/kg	.	.	410000	ug/kg	.	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	EBRLNE	B15XM2																
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2	6000	ug/kg	.	.					4280000	ug/kg	.	.	350000	ug/kg	.	.

B-63 Ditch, METAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Mercury (7439-97-6) 200.8				Mercury (7439-97-6) 7470				Mercury (7439-97-6) 7471				Mercury (7439-97-6) TCLP/7470			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESRL	B0MJC2																
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2									20	ug/kg	U	.				
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESRL	B0MJC5																
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5									140	ug/kg	.	.				
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESRL	B0MJC8																
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8									20	ug/kg	U	.				
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESRL	B0MJD1																
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1									150	ug/kg	.	.				
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESRL	B0MJD7																
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7									20	ug/kg	U	.				
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESRL	B0MJF0																
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0									20	ug/kg	U	.				
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESRL	B0MJF3																
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3									20	ug/kg	U	.				
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESRL	B0MJF6																
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6									20	ug/kg	U	.				
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESRL	B0MJF9																
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9									20	ug/kg	U	.				
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESRL	B0MJJ1																
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1									20	ug/kg	U	.				
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESRL	B0MJJ4																
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4									20	ug/kg	U	.				
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESRL	B0MJJ7																
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7									20	ug/kg	U	.				
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESRL	B0MJK0																
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0									20	ug/kg	U	.				
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESRL	B0MJK6																
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6									20	ug/kg	U	.				
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72									20	ug/kg	U	.				
10142	4.99872	5.99912	B13D72		11/2/01 7:30	TMANC	B13D72																
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73									20	ug/kg	U	.				
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	TMANC	B13D73																
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLRL	B13D82																
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82									23	ug/kg	B	.				
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	EBRLNE	B15XJ7																
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7									20	ug/kg	U	.				
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	EBRLNE	B15XJ8																
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8									20	ug/kg	U	.				
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	EBRLNE	B15XJ9																
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9									10	ug/kg	U	.				
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	EBRLNE	B15XK0																
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0									20	ug/kg	U	.				
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	EBRLNE	B15XK1																
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1									20	ug/kg	U	.				
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	EBRLNE	B15XK2																
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2									10	ug/kg	U	.				
14076	9.49888	10.496	B15XK9		11/12/02 10:10	EBRLNE	B15XK9																
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9									30	ug/kg	.	.				
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	EBRLNE	B15XL0																
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0									70	ug/kg	.	.				
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	EBRLNE	B15XL1																
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1									10	ug/kg	U	.				
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	EBRLNE	B15XL2																
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2									10	ug/kg	U	.				
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	EBRLNE	B15XM1																
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1									10	ug/kg	U	.				
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	EBRLNE	B15XM2																
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2									20	ug/kg	U	.				

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Molybdenum (7439-98-7) 6010				Nickel (7440-02-0) 6010				Potassium (7440-09-7) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESRL	B0MJC2												
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2					9600	ug/kg	.	.	1210000	ug/kg	.	.
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESRL	B0MJC5												
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5					10200	ug/kg	.	.	1090000	ug/kg	.	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESRL	B0MJC8												
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8					12800	ug/kg	.	.	1110000	ug/kg	.	.
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESRL	B0MJD1												
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1					10200	ug/kg	.	.	950000	ug/kg	.	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESRL	B0MJD7												
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7					7500	ug/kg	.	.	773000	ug/kg	.	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESRL	B0MJF0												
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0					6300	ug/kg	.	.	668000	ug/kg	.	.
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESRL	B0MJF3												
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3					12900	ug/kg	.	.	1380000	ug/kg	.	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESRL	B0MJF6												
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6					9000	ug/kg	.	.	1320000	ug/kg	.	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESRL	B0MJF9												
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9					14600	ug/kg	.	.	1050000	ug/kg	.	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESRL	B0MJJ1												
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1					13000	ug/kg	.	.	972000	ug/kg	.	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESRL	B0MJJ4												
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4					7900	ug/kg	.	.	1010000	ug/kg	.	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESRL	B0MJJ7												
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7					13900	ug/kg	.	.	870000	ug/kg	.	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESRL	B0MJK0												
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0					15000	ug/kg	.	.	1490000	ug/kg	.	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESRL	B0MJK6												
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6					7000	ug/kg	.	.	579000	ug/kg	.	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72	550	ug/kg	.	.	9100	ug/kg	.	.	1740000	ug/kg	.	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	TMANC	B13D72												
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73					10000	ug/kg	.	.				
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	TMANC	B13D73												
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLRL	B13D82												
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82					7800	ug/kg	.	.				
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	EBRLNE	B15XJ7												
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7					7500	ug/kg	.	.				
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	EBRLNE	B15XJ8												
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8					6000	ug/kg	.	.				
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	EBRLNE	B15XJ9												
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9					10400	ug/kg	.	.				
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	EBRLNE	B15XK0												
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0					9100	ug/kg	.	.				
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	EBRLNE	B15XK1												
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1					9900	ug/kg	.	.				
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	EBRLNE	B15XK2												
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2					13200	ug/kg	.	.				
14076	9.49888	10.496	B15XK9		11/12/02 10:10	EBRLNE	B15XK9												
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9					11700	ug/kg	.	.				
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	EBRLNE	B15XL0												
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0					10800	ug/kg	.	.				
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	EBRLNE	B15XL1												
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1					8600	ug/kg	.	.				
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	EBRLNE	B15XL2												
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2					8400	ug/kg	.	.				
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	EBRLNE	B15XM1												
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1	340	ug/kg	.	.	8100	ug/kg	.	.	729000	ug/kg	.	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	EBRLNE	B15XM2												
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2	400	ug/kg	.	.	10100	ug/kg	.	.	1650000	ug/kg	.	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Selenium (7782-49-2) 6010				Silver (7440-22-4) 6010				Sodium (7440-23-5) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESRL	B0MJC2												
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2	450	ug/kg	B	.	730	ug/kg	B	.	302000	ug/kg	BE	.
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESRL	B0MJC5												
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5	320	ug/kg	B	.	860	ug/kg	B	.	494000	ug/kg	BE	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESRL	B0MJC8												
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8	450	ug/kg	B	.	710	ug/kg	U	.	671000	ug/kg	E	.
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESRL	B0MJD1												
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1	230	ug/kg	U	.	630	ug/kg	U	.	374000	ug/kg	BE	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESRL	B0MJD7												
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7	230	ug/kg	U	.	620	ug/kg	U	.	281000	ug/kg	BE	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESRL	B0MJF0												
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0	360	ug/kg	B	.	620	ug/kg	U	.	271000	ug/kg	BE	.
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESRL	B0MJF3												
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3	240	ug/kg	U	.	650	ug/kg	U	.	231000	ug/kg	BE	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESRL	B0MJF6												
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6	500	ug/kg	B	.	790	ug/kg	B	.	122000	ug/kg	BE	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESRL	B0MJF9												
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9	260	ug/kg	B	.	620	ug/kg	U	.	151000	ug/kg	BE	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESRL	B0MJJ1												
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1	260	ug/kg	B	.	620	ug/kg	B	.	252000	ug/kg	BE	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESRL	B0MJJ4												
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4	230	ug/kg	U	.	610	ug/kg	U	.	229000	ug/kg	BE	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESRL	B0MJJ7												
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7	320	ug/kg	B	.	610	ug/kg	U	.	151000	ug/kg	BE	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESRL	B0MJK0												
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0	420	ug/kg	B	.	640	ug/kg	U	.	226000	ug/kg	BE	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESRL	B0MJK6												
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6	240	ug/kg	U	.	650	ug/kg	U	.	265000	ug/kg	BE	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72	220	ug/kg	U	.	60	ug/kg	U	.	457000	ug/kg	.	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	TMANC	B13D72												
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73	750	ug/kg	.	.	60	ug/kg	U	.				
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	TMANC	B13D73												
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLRL	B13D82												
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82	210	ug/kg	U	.	110	ug/kg	U	.				
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	EBRLNE	B15XJ7												
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7	370	ug/kg	U	.	140	ug/kg	U	.				
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	EBRLNE	B15XJ8												
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8	360	ug/kg	U	.	130	ug/kg	U	.				
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	EBRLNE	B15XJ9												
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9	360	ug/kg	U	.	130	ug/kg	U	.				
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	EBRLNE	B15XK0												
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0	370	ug/kg	U	.	140	ug/kg	U	.				
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	EBRLNE	B15XK1												
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1	390	ug/kg	U	.	140	ug/kg	U	.				
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	EBRLNE	B15XK2												
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2	270	ug/kg	U	.	100	ug/kg	U	.				
14076	9.49888	10.496	B15XK9		11/12/02 10:10	EBRLNE	B15XK9												
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9	380	ug/kg	U	.	140	ug/kg	U	.				
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	EBRLNE	B15XL0												
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0	350	ug/kg	U	.	130	ug/kg	U	.				
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	EBRLNE	B15XL1												
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1	340	ug/kg	U	.	130	ug/kg	U	.				
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	EBRLNE	B15XL2												
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2	390	ug/kg	U	.	140	ug/kg	U	.				
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	EBRLNE	B15XM1												
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1	420	ug/kg	U	.	130	ug/kg	U	.	252000	ug/kg	.	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	EBRLNE	B15XM2												
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2	400	ug/kg	.	.	150	ug/kg	U	.	145000	ug/kg	.	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Thallium (7440-28-0) 6010				Tin (7440-31-5) 6010				Uranium (7440-61-1) 200.8				Uranium (7440-61-1) KPA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESRL	B0MJC2													1360	ug/kg	.	.
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2					3500	ug/kg	UN	J								
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESRL	B0MJC5													2310	ug/kg	.	.
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5					3800	ug/kg	UN	J								
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESRL	B0MJC8													1870	ug/kg	.	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8					4100	ug/kg	UN	J								
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESRL	B0MJD1													2380	ug/kg	.	.
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1					3700	ug/kg	UN	J								
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESRL	B0MJD7													1540	ug/kg	.	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7					3600	ug/kg	UN	J								
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESRL	B0MJF0													1390	ug/kg	.	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0					3600	ug/kg	UN	J								
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESRL	B0MJF3													2200	ug/kg	.	.
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3					3800	ug/kg	UN	J								
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESRL	B0MJF6													1780	ug/kg	.	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6					3600	ug/kg	UN	J								
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESRL	B0MJF9													1700	ug/kg	.	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9					3600	ug/kg	UN	J								
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESRL	B0MJJ1													1910	ug/kg	.	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1					3600	ug/kg	UN	J								
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESRL	B0MJJ4													2070	ug/kg	.	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4					3600	ug/kg	UN	J								
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESRL	B0MJJ7													1400	ug/kg	.	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7					3600	ug/kg	UN	J								
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESRL	B0MJK0													1970	ug/kg	.	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0					3700	ug/kg	UN	J								
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESRL	B0MJK6													1460	ug/kg	.	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6					3800	ug/kg	UN	J								
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72	290	ug/kg	U	.												
10142	4.99872	5.99912	B13D72		11/2/01 7:30	TMANC	B13D72													247	ug/kg	.	.
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73																
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	TMANC	B13D73													612	ug/kg	.	.
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLRL	B13D82													1860	ug/kg	.	.
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82																
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	EBRLNE	B15XJ7													244	ug/kg	.	.
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7																
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	EBRLNE	B15XJ8													625	ug/kg	.	.
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8																
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	EBRLNE	B15XJ9													349	ug/kg	.	.
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9																
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	EBRLNE	B15XK0													336	ug/kg	.	.
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0																
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	EBRLNE	B15XK1													341	ug/kg	.	.
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1																
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	EBRLNE	B15XK2													486	ug/kg	.	.
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2																
14076	9.49888	10.496	B15XK9		11/12/02 10:10	EBRLNE	B15XK9													584	ug/kg	.	.
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9																
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	EBRLNE	B15XL0													749	ug/kg	.	.
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0																
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	EBRLNE	B15XL1													452	ug/kg	.	.
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1																
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	EBRLNE	B15XL2													487	ug/kg	.	.
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2																
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	EBRLNE	B15XM1													833	ug/kg	.	.
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1	530	ug/kg	.	.												
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	EBRLNE	B15XM2													216	ug/kg	.	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2	590	ug/kg	U	.												

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Vanadium (7440-62-2) 6010				Zinc (7440-66-6) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESRL	B0MJC2								
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2	47300	ug/kg	.	.	36800	ug/kg	E	.
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESRL	B0MJC5								
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5	70200	ug/kg	.	.	58100	ug/kg	E	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESRL	B0MJC8								
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8	51500	ug/kg	.	.	41200	ug/kg	E	.
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESRL	B0MJD1								
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1	60400	ug/kg	.	.	52000	ug/kg	E	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESRL	B0MJD7								
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7	30000	ug/kg	.	.	26900	ug/kg	E	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESRL	B0MJF0								
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0	31000	ug/kg	.	.	25200	ug/kg	E	.
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESRL	B0MJF3								
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3	27500	ug/kg	.	.	33400	ug/kg	E	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESRL	B0MJF6								
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6	22700	ug/kg	.	.	29000	ug/kg	E	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESRL	B0MJF9								
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9	32100	ug/kg	.	.	33000	ug/kg	E	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESRL	B0MJJ1								
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1	26500	ug/kg	.	.	28300	ug/kg	E	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESRL	B0MJJ4								
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4	23700	ug/kg	.	.	28500	ug/kg	E	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESRL	B0MJJ7								
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7	28100	ug/kg	.	.	24700	ug/kg	E	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESRL	B0MJK0								
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0	37700	ug/kg	.	.	33200	ug/kg	E	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESRL	B0MJK6								
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6	22900	ug/kg	.	.	18500	ug/kg	E	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72	58100	ug/kg	.	.	41400	ug/kg	.	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	TMANC	B13D72								
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73	78000	ug/kg	.	.	54700	ug/kg	.	.
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	TMANC	B13D73								
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLRL	B13D82								
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82	86900	ug/kg	.	.	60300	ug/kg	.	.
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	EBRLNE	B15XJ7								
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7	46700	ug/kg	.	.	37800	ug/kg	.	.
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	EBRLNE	B15XJ8								
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8	35400	ug/kg	.	.	33300	ug/kg	.	.
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	EBRLNE	B15XJ9								
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9	40100	ug/kg	.	.	30600	ug/kg	.	.
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	EBRLNE	B15XK0								
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0	31200	ug/kg	.	.	30000	ug/kg	.	.
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	EBRLNE	B15XK1								
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1	39800	ug/kg	.	.	35600	ug/kg	.	.
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	EBRLNE	B15XK2								
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2	29300	ug/kg	.	.	24700	ug/kg	.	.
14076	9.49888	10.496	B15XK9		11/12/02 10:10	EBRLNE	B15XK9								
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9	57700	ug/kg	.	.	48200	ug/kg	.	.
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	EBRLNE	B15XL0								
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0	74100	ug/kg	.	.	80800	ug/kg	.	.
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	EBRLNE	B15XL1								
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1	67300	ug/kg	.	.	43100	ug/kg	.	.
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	EBRLNE	B15XL2								
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2	64200	ug/kg	.	.	45200	ug/kg	.	.
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	EBRLNE	B15XM1								
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1	81600	ug/kg	.	.	48700	ug/kg	.	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	EBRLNE	B15XM2								
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2	52600	ug/kg	.	.	46100	ug/kg	.	.

B-63 Ditch, METAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Aluminum (7429-90-5) 6010				Antimony (7440-36-0) 6010				Arsenic (7440-38-2) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	EBRLNE	B15XM3												
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3									3800	ug/kg	.	.
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLRL	B15XM4									3300	ug/kg	.	.
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4									3300	ug/kg	.	.
B8827	12.4968	14.4976	B16528		3/24/03 11:50	EBRLNE	B16528												
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528									2200	ug/kg	.	.
B8827	14.99616	16.99696	B16529		3/24/03 12:20	EBRLNE	B16529												
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529									1600	ug/kg	.	.
B8827	14.99616	16.99696	B16530		3/24/03 12:20	EBRLNE	B16530												
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530									5100	ug/kg	.	.
B8827	17.49552	18.99448	B16531		3/24/03 13:57	EBRLNE	B16531												
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531									1300	ug/kg	.	.
B8827	19.49632	21.49384	B16532		3/24/03 14:30	EBRLNE	B16532												
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532									2300	ug/kg	.	.
B8827	22.9928	24.9936	B16533		3/24/03 15:14	EBRLNE	B16533												
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533									2300	ug/kg	.	.
B8827	27.99152	29.99232	B16534		3/24/03 15:53	EBRLNE	B16534												
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534									2400	ug/kg	.	.
B8827	52.972	54.9728	B16535		3/25/03 9:35	EBRLNE	B16535												
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535									2700	ug/kg	.	.
B8827	100.9584	102.9592	B16536		3/25/03 15:30	EBRLNE	B16536												
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536									4200	ug/kg	.	.
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	EBRLNE	B16FW5												
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5	5530000	ug/kg	.	.					2500	ug/kg	.	.
B8827	17.49552	18.99448	B16HB4		3/24/03 13:57	STLRL	B16HB4												
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A					3330	ug/kg	UE	.	3010	ug/kg	U	.

B-63 Ditch, METAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Barium (7440-39-3) 6010				Beryllium (7440-41-7) 6010				Bismuth (7440-69-9) 6010				Boron (7440-42-8) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	EBRLNE	B15XM3																
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3	89600	ug/kg	.	.	320	ug/kg	.	.								
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLRL	B15XM4	85500	ug/kg	.	.	280	ug/kg	B	.								
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4	85500	ug/kg	.	.	280	ug/kg	B	.								
B8827	12.4968	14.4976	B16528		3/24/03 11:50	EBRLNE	B16528																
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528	76900	ug/kg	.	.	713	ug/kg	.	.								
B8827	14.99616	16.99696	B16529		3/24/03 12:20	EBRLNE	B16529																
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529	53300	ug/kg	.	.	614	ug/kg	.	.								
B8827	14.99616	16.99696	B16530		3/24/03 12:20	EBRLNE	B16530																
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530	60500	ug/kg	.	.	693	ug/kg	.	.								
B8827	17.49552	18.99448	B16531		3/24/03 13:57	EBRLNE	B16531																
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531	52700	ug/kg	.	.	540	ug/kg	.	.								
B8827	19.49632	21.49384	B16532		3/24/03 14:30	EBRLNE	B16532																
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532	52600	ug/kg	.	.	608	ug/kg	.	.								
B8827	22.9928	24.9936	B16533		3/24/03 15:14	EBRLNE	B16533																
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533	60000	ug/kg	.	.	510	ug/kg	.	.								
B8827	27.99152	29.99232	B16534		3/24/03 15:53	EBRLNE	B16534																
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534	34700	ug/kg	.	.	375	ug/kg	.	.								
B8827	52.972	54.9728	B16535		3/25/03 9:35	EBRLNE	B16535																
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535	43900	ug/kg	.	.	338	ug/kg	.	.								
B8827	100.9584	102.9592	B16536		3/25/03 15:30	EBRLNE	B16536																
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536	43000	ug/kg	.	.	341	ug/kg	.	.								
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	EBRLNE	B16FW5																
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5	81100	ug/kg	.	.	657	ug/kg	.	.	752	ug/kg	.	.	1200	ug/kg	.	.
B8827	17.49552	18.99448	B16HB4		3/24/03 13:57	STLRL	B16HB4																
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A	61700	ug/kg	.	.	913	ug/kg	.	.	3060	ug/kg	U	.				

B-63 Ditch, METAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Cadmium (7440-43-9) 6010				Cadmium (7440-43-9) TCLP/6010				Calcium (7440-70-2) 6010				Chromium (7440-47-3) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	EBRLNE	B15XM3																
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3	60	ug/kg	.	.									11700	ug/kg	.	.
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLRL	B15XM4	280	ug/kg	U	.									8400	ug/kg	.	.
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4	280	ug/kg	U	.									8400	ug/kg	.	.
B8827	12.4968	14.4976	B16528		3/24/03 11:50	EBRLNE	B16528																
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528	117	ug/kg	.	.									21900	ug/kg	.	.
B8827	14.99616	16.99696	B16529		3/24/03 12:20	EBRLNE	B16529																
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529	131	ug/kg	.	.									11200	ug/kg	.	.
B8827	14.99616	16.99696	B16530		3/24/03 12:20	EBRLNE	B16530																
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530	116	ug/kg	.	.									14700	ug/kg	.	.
B8827	17.49552	18.99448	B16531		3/24/03 13:57	EBRLNE	B16531																
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531	108	ug/kg	.	.									7300	ug/kg	.	.
B8827	19.49632	21.49384	B16532		3/24/03 14:30	EBRLNE	B16532																
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532	72	ug/kg	.	.									14700	ug/kg	.	.
B8827	22.9928	24.9936	B16533		3/24/03 15:14	EBRLNE	B16533																
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533	97	ug/kg	.	.									10200	ug/kg	.	.
B8827	27.99152	29.99232	B16534		3/24/03 15:53	EBRLNE	B16534																
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534	103	ug/kg	.	.									5500	ug/kg	.	.
B8827	52.972	54.9728	B16535		3/25/03 9:35	EBRLNE	B16535																
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535	137	ug/kg	.	.									11700	ug/kg	.	.
B8827	100.9584	102.9592	B16536		3/25/03 15:30	EBRLNE	B16536																
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536	131	ug/kg	.	.									11900	ug/kg	.	.
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	EBRLNE	B16FW5																
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5	40	ug/kg	U	.					3390000	ug/kg	.	.	7800	ug/kg	.	.
B8827	17.49552	18.99448	B16HB4		3/24/03 13:57	STLRL	B16HB4																
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A	2420	ug/kg	.	.									16500	ug/kg	.	.

B-63 Ditch, METAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Cobalt (7440-48-4) 6010				Copper (7440-50-8) 6010				Hexavalent Chromium (18540-29-9) 7196				Iron (7439-89-6) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	EBRLNE	B15XM3																
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3					15400	ug/kg	.	.	420	ug/kg	U	.				
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLRL	B15XM4					15700	ug/kg	.	.	57	ug/kg	U	.				
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4					15700	ug/kg	.	.	57	ug/kg	U	.				
B8827	12.4968	14.4976	B16528		3/24/03 11:50	EBRLNE	B16528																
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528					13300	ug/kg	.	.	408	ug/kg	U	.				
B8827	14.99616	16.99696	B16529		3/24/03 12:20	EBRLNE	B16529																
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529					11000	ug/kg	.	.	412	ug/kg	U	.				
B8827	14.99616	16.99696	B16530		3/24/03 12:20	EBRLNE	B16530																
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530					12100	ug/kg	.	.	412	ug/kg	U	.				
B8827	17.49552	18.99448	B16531		3/24/03 13:57	EBRLNE	B16531																
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531					9800	ug/kg	.	.	412	ug/kg	U	.				
B8827	19.49632	21.49384	B16532		3/24/03 14:30	EBRLNE	B16532																
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532					12400	ug/kg	.	.	414	ug/kg	U	.				
B8827	22.9928	24.9936	B16533		3/24/03 15:14	EBRLNE	B16533																
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533					12200	ug/kg	.	.	413	ug/kg	U	.				
B8827	27.99152	29.99232	B16534		3/24/03 15:53	EBRLNE	B16534																
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534					10800	ug/kg	.	.	411	ug/kg	U	.				
B8827	52.972	54.9728	B16535		3/25/03 9:35	EBRLNE	B16535																
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535					9100	ug/kg	.	.	411	ug/kg	U	.				
B8827	100.9584	102.9592	B16536		3/25/03 15:30	EBRLNE	B16536																
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536					11000	ug/kg	.	.	412	ug/kg	U	.				
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	EBRLNE	B16FW5																
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5					16400	ug/kg	.	.	436	ug/kg	U	.	21800000	ug/kg	.	.
B8827	17.49552	18.99448	B16HB4		3/24/03 13:57	STLRL	B16HB4									483	ug/kg	.	.				
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A					10700	ug/kg	.	.								

B-63 Ditch, METAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Lead (7439-92-1) 6010				Lead (7439-92-1) TCLP/6010				Magnesium (7439-95-4) 6010				Manganese (7439-96-5) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	EBRLNE	B15XM3																
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3	5800	ug/kg	.	.												
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLRL	B15XM4	4900	ug/kg	.	.												
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4	4900	ug/kg	.	.												
B8827	12.4968	14.4976	B16528		3/24/03 11:50	EBRLNE	B16528																
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528	3600	ug/kg	.	.												
B8827	14.99616	16.99696	B16529		3/24/03 12:20	EBRLNE	B16529																
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529	2400	ug/kg	.	.												
B8827	14.99616	16.99696	B16530		3/24/03 12:20	EBRLNE	B16530																
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530	2500	ug/kg	.	.												
B8827	17.49552	18.99448	B16531		3/24/03 13:57	EBRLNE	B16531																
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531	2400	ug/kg	.	.												
B8827	19.49632	21.49384	B16532		3/24/03 14:30	EBRLNE	B16532																
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532	3200	ug/kg	.	.												
B8827	22.9928	24.9936	B16533		3/24/03 15:14	EBRLNE	B16533																
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533	3200	ug/kg	.	.												
B8827	27.99152	29.99232	B16534		3/24/03 15:53	EBRLNE	B16534																
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534	2800	ug/kg	.	.												
B8827	52.972	54.9728	B16535		3/25/03 9:35	EBRLNE	B16535																
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535	2900	ug/kg	.	.												
B8827	100.9584	102.9592	B16536		3/25/03 15:30	EBRLNE	B16536																
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536	2800	ug/kg	.	.												
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	EBRLNE	B16FW5																
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5	5740	ug/kg	.	.					3650000	ug/kg	.	.	365000	ug/kg	.	.
B8827	17.49552	18.99448	B16HB4		3/24/03 13:57	STLRL	B16HB4																
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A	3060	ug/kg	U	.									239000	ug/kg	.	.

B-63 Ditch, METAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Mercury (7439-97-6) 200.8				Mercury (7439-97-6) 7470				Mercury (7439-97-6) 7471				Mercury (7439-97-6) TCLP/7470			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	EBRLNE	B15XM3																
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3									20	ug/kg	U	.				
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLRL	B15XM4									47	ug/kg	.	.				
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4									47	ug/kg	.	.				
B8827	12.4968	14.4976	B16528		3/24/03 11:50	EBRLNE	B16528																
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528									15	ug/kg	U	.				
B8827	14.99616	16.99696	B16529		3/24/03 12:20	EBRLNE	B16529																
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529									16	ug/kg	U	.				
B8827	14.99616	16.99696	B16530		3/24/03 12:20	EBRLNE	B16530																
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530									15	ug/kg	U	.				
B8827	17.49552	18.99448	B16531		3/24/03 13:57	EBRLNE	B16531																
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531									14	ug/kg	U	.				
B8827	19.49632	21.49384	B16532		3/24/03 14:30	EBRLNE	B16532																
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532									16	ug/kg	U	.				
B8827	22.9928	24.9936	B16533		3/24/03 15:14	EBRLNE	B16533																
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533									14	ug/kg	U	.				
B8827	27.99152	29.99232	B16534		3/24/03 15:53	EBRLNE	B16534																
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534									16	ug/kg	U	.				
B8827	52.972	54.9728	B16535		3/25/03 9:35	EBRLNE	B16535																
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535									14	ug/kg	U	.				
B8827	100.9584	102.9592	B16536		3/25/03 15:30	EBRLNE	B16536																
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536									15	ug/kg	U	.				
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	EBRLNE	B16FW5																
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5					108	ug/kg	.	.								
B8827	17.49552	18.99448	B16HB4		3/24/03 13:57	STLRL	B16HB4																
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A	50	ug/kg	U	.												

B-63 Ditch, METAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Molybdenum (7439-98-7) 6010				Nickel (7440-02-0) 6010				Potassium (7440-09-7) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	EBRLNE	B15XM3												
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3					11600	ug/kg	.	.				
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLRL	B15XM4					8900	ug/kg	.	.				
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4					8900	ug/kg	.	.				
B8827	12.4968	14.4976	B16528		3/24/03 11:50	EBRLNE	B16528												
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528					15000	ug/kg	.	.				
B8827	14.99616	16.99696	B16529		3/24/03 12:20	EBRLNE	B16529												
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529					8200	ug/kg	.	.				
B8827	14.99616	16.99696	B16530		3/24/03 12:20	EBRLNE	B16530												
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530					10800	ug/kg	.	.				
B8827	17.49552	18.99448	B16531		3/24/03 13:57	EBRLNE	B16531												
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531					7100	ug/kg	.	.				
B8827	19.49632	21.49384	B16532		3/24/03 14:30	EBRLNE	B16532												
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532					21000	ug/kg	.	.				
B8827	22.9928	24.9936	B16533		3/24/03 15:14	EBRLNE	B16533												
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533					8400	ug/kg	.	.				
B8827	27.99152	29.99232	B16534		3/24/03 15:53	EBRLNE	B16534												
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534					6300	ug/kg	.	.				
B8827	52.972	54.9728	B16535		3/25/03 9:35	EBRLNE	B16535												
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535					9200	ug/kg	.	.				
B8827	100.9584	102.9592	B16536		3/25/03 15:30	EBRLNE	B16536												
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536					15000	ug/kg	.	.				
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	EBRLNE	B16FW5												
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5	231	ug/kg	.	.	7700	ug/kg	.	.	1040000	ug/kg	.	.
B8827	17.49552	18.99448	B16HB4		3/24/03 13:57	STLRL	B16HB4												
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A	1000	ug/kg	U	.	2890	ug/kg	.	.				

B-63 Ditch, METAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Selenium (7782-49-2) 6010				Silver (7440-22-4) 6010				Sodium (7440-23-5) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	EBRLNE	B15XM3												
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3	390	ug/kg	U	.	140	ug/kg	U	.				
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLRL	B15XM4	240	ug/kg	B	.	650	ug/kg	U	.				
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4	240	ug/kg	B	.	650	ug/kg	U	.				
B8827	12.4968	14.4976	B16528		3/24/03 11:50	EBRLNE	B16528												
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528	360	ug/kg	U	.	80	ug/kg	U	.				
B8827	14.99616	16.99696	B16529		3/24/03 12:20	EBRLNE	B16529												
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529	364	ug/kg	U	.	81	ug/kg	U	.				
B8827	14.99616	16.99696	B16530		3/24/03 12:20	EBRLNE	B16530												
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530	356	ug/kg	U	.	79	ug/kg	U	.				
B8827	17.49552	18.99448	B16531		3/24/03 13:57	EBRLNE	B16531												
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531	320	ug/kg	U	.	71	ug/kg	U	.				
B8827	19.49632	21.49384	B16532		3/24/03 14:30	EBRLNE	B16532												
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532	358	ug/kg	U	.	80	ug/kg	U	.				
B8827	22.9928	24.9936	B16533		3/24/03 15:14	EBRLNE	B16533												
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533	368	ug/kg	U	.	82	ug/kg	U	.				
B8827	27.99152	29.99232	B16534		3/24/03 15:53	EBRLNE	B16534												
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534	359	ug/kg	U	.	80	ug/kg	U	.				
B8827	52.972	54.9728	B16535		3/25/03 9:35	EBRLNE	B16535												
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535	333	ug/kg	U	.	74	ug/kg	U	.				
B8827	100.9584	102.9592	B16536		3/25/03 15:30	EBRLNE	B16536												
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536	363	ug/kg	U	.	81	ug/kg	U	.				
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	EBRLNE	B16FW5												
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5	410	ug/kg	.	.	352	ug/kg	.	.	120000	ug/kg	.	.
B8827	17.49552	18.99448	B16HB4		3/24/03 13:57	STLRL	B16HB4												
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A	3370	ug/kg	U	.	1440	ug/kg	UE	.				

B-63 Ditch, METAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Thallium (7440-28-0) 6010				Tin (7440-31-5) 6010				Uranium (7440-61-1) 200.8				Uranium (7440-61-1) KPA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	EBRLNE	B15XM3													557	ug/kg	.	.
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3																
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLRL	B15XM4													1620	ug/kg	.	.
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4													1620	ug/kg	.	.
B8827	12.4968	14.4976	B16528		3/24/03 11:50	EBRLNE	B16528													427	ug/kg	.	.
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528																
B8827	14.99616	16.99696	B16529		3/24/03 12:20	EBRLNE	B16529													364	ug/kg	.	.
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529																
B8827	14.99616	16.99696	B16530		3/24/03 12:20	EBRLNE	B16530													416	ug/kg	.	.
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530																
B8827	17.49552	18.99448	B16531		3/24/03 13:57	EBRLNE	B16531													384	ug/kg	.	.
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531																
B8827	19.49632	21.49384	B16532		3/24/03 14:30	EBRLNE	B16532													532	ug/kg	.	.
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532																
B8827	22.9928	24.9936	B16533		3/24/03 15:14	EBRLNE	B16533													396	ug/kg	.	.
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533																
B8827	27.99152	29.99232	B16534		3/24/03 15:53	EBRLNE	B16534													435	ug/kg	.	.
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534																
B8827	52.972	54.9728	B16535		3/25/03 9:35	EBRLNE	B16535													423	ug/kg	.	.
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535																
B8827	100.9584	102.9592	B16536		3/25/03 15:30	EBRLNE	B16536													372	ug/kg	.	.
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536																
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	EBRLNE	B16FW5													340	ug/kg	B	.
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5	360	ug/kg	U	.												
B8827	17.49552	18.99448	B16HB4		3/24/03 13:57	STLRL	B16HB4																
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A					1570	ug/kg	UE	.	350	ug/kg	.	.				

B-63 Ditch, METAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Vanadium (7440-62-2) 6010				Zinc (7440-66-6) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	EBRLNE	B15XM3								
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3	58700	ug/kg	.	.	49700	ug/kg	.	.
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLRL	B15XM4	59400	ug/kg	.	.	48900	ug/kg	.	.
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4	59400	ug/kg	.	.	48900	ug/kg	.	.
B8827	12.4968	14.4976	B16528		3/24/03 11:50	EBRLNE	B16528								
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528	51300	ug/kg	.	.	44800	ug/kg	.	.
B8827	14.99616	16.99696	B16529		3/24/03 12:20	EBRLNE	B16529								
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529	54400	ug/kg	.	.	36700	ug/kg	.	.
B8827	14.99616	16.99696	B16530		3/24/03 12:20	EBRLNE	B16530								
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530	59200	ug/kg	.	.	44400	ug/kg	.	.
B8827	17.49552	18.99448	B16531		3/24/03 13:57	EBRLNE	B16531								
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531	51100	ug/kg	.	.	36500	ug/kg	.	.
B8827	19.49632	21.49384	B16532		3/24/03 14:30	EBRLNE	B16532								
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532	50000	ug/kg	.	.	41400	ug/kg	.	.
B8827	22.9928	24.9936	B16533		3/24/03 15:14	EBRLNE	B16533								
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533	41000	ug/kg	.	.	37700	ug/kg	.	.
B8827	27.99152	29.99232	B16534		3/24/03 15:53	EBRLNE	B16534								
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534	34700	ug/kg	.	.	29600	ug/kg	.	.
B8827	52.972	54.9728	B16535		3/25/03 9:35	EBRLNE	B16535								
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535	30900	ug/kg	.	.	30500	ug/kg	.	.
B8827	100.9584	102.9592	B16536		3/25/03 15:30	EBRLNE	B16536								
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536	32300	ug/kg	.	.	30900	ug/kg	.	.
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	EBRLNE	B16FW5								
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5	57500	ug/kg	.	.	45300	ug/kg	.	.
B8827	17.49552	18.99448	B16HB4		3/24/03 13:57	STLRL	B16HB4								
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A	33300	ug/kg	.	.	32100	ug/kg	.	.

B-63, PHYSICAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Bulk density - dry (BULKDENSITY-DRY) D2937				Bulk density - wet (BULKDENSITY-WET) D2937				Cation Exchange Capacity (CEC) 9080			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2												
299-E33-333	3.99832	6.49768	B0MJC4		12/29/97 15:25	MSAI	B0MJC4									7.83	mEQ/100g	.	.
299-E33-333	3.99832	6.49768	B0MJC4		12/29/97 15:25	RLNP	B0MJC4									7.83	mEQ/100g	.	.
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5												
299-E33-333	7.99664	10.496	B0MJC7		12/29/97 16:05	MSAI	B0MJC7									9.27	mEQ/100g	.	.
299-E33-333	7.99664	10.496	B0MJC7		12/29/97 16:05	RLNP	B0MJC7									9.27	mEQ/100g	.	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8												
299-E33-333	10.496	12.99536	B0MJD0		12/30/97 9:20	MSAI	B0MJD0									6.27	mEQ/100g	U	.
299-E33-333	10.496	12.99536	B0MJD0		12/30/97 9:20	RLNP	B0MJD0									6.27	mEQ/100g	U	.
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1												
299-E33-333	12.99536	15.49472	B0MJD3		12/30/97 12:40	MSAI	B0MJD3									7.01	mEQ/100g	.	.
299-E33-333	12.99536	15.49472	B0MJD3		12/30/97 12:40	RLNP	B0MJD3									7.01	mEQ/100g	.	.
299-E33-333	15.49472	17.99408	B0MJD4		12/30/97 14:25	QTESSL	B0MJD4												
299-E33-333	15.49472	17.99408	B0MJD6		12/30/97 14:25	MSAI	B0MJD6	1772	kg/m3	.	.	1840	kg/m3	.	.	6.24	mEQ/100g	U	.
299-E33-333	15.49472	17.99408	B0MJD6		12/30/97 14:25	RLNP	B0MJD6	1772	kg/m3	.	.	1840	kg/m3	.	.	6.24	mEQ/100g	U	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7												
299-E33-333	19.99488	21.99568	B0MJD9		12/31/97 9:30	MSAI	B0MJD9									7.33	mEQ/100g	.	.
299-E33-333	19.99488	21.99568	B0MJD9		12/31/97 9:30	RLNP	B0MJD9									7.33	mEQ/100g	.	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0												
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3												
299-E33-333	29.99232	31.99312	B0MJF5		12/31/97 11:15	MSAI	B0MJF5									11.9	mEQ/100g	.	.
299-E33-333	29.99232	31.99312	B0MJF5		12/31/97 11:15	RLNP	B0MJF5									11.9	mEQ/100g	.	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6												
299-E33-333	74.9808	76.9816	B0MJF8		1/2/98 15:00	MSAI	B0MJF8									6.34	mEQ/100g	.	.
299-E33-333	74.9808	76.9816	B0MJF8		1/2/98 15:00	RLNP	B0MJF8									6.34	mEQ/100g	.	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9												
299-E33-333	99.9744	101.9752	B0MJH1		1/3/98 9:42	MSAI	B0MJH1	1450	kg/m3	.	.	1500	kg/m3	.	.	6.19	mEQ/100g	U	.
299-E33-333	99.9744	101.9752	B0MJH1		1/3/98 9:42	RLNP	B0MJH1	1450	kg/m3	.	.	1500	kg/m3	.	.	6.19	mEQ/100g	U	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1												
299-E33-333	39.9832	41.984	B0MJJ3		12/31/97 13:05	MSAI	B0MJJ3									6.2	mEQ/100g	U	.
299-E33-333	39.9832	41.984	B0MJJ3		12/31/97 13:05	RLNP	B0MJJ3									6.2	mEQ/100g	U	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4												
299-E33-333	49.9872	51.988	B0MJJ6		12/31/97 14:20	MSAI	B0MJJ6									6.14	mEQ/100g	U	.
299-E33-333	49.9872	51.988	B0MJJ6		12/31/97 14:20	RLNP	B0MJJ6									6.14	mEQ/100g	U	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7												
299-E33-333	149.9616	151.9624	B0MJJ9		1/5/98 10:25	MSAI	B0MJJ9									6.16	mEQ/100g	U	.
299-E33-333	149.9616	151.9624	B0MJJ9		1/5/98 10:25	RLNP	B0MJJ9									6.16	mEQ/100g	U	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0												
299-E33-333	173.9712	178.9568	B0MJK2	R	1/5/98 15:10	MSAI	B0MJK2	1540	kg/m3	.	.	1670	kg/m3	.	.	6.49	mEQ/100g	U	.
299-E33-333	173.9712	178.9568	B0MJK2	R	1/5/98 15:10	RLNP	B0MJK2	1540	kg/m3	.	.	1670	kg/m3	.	.	6.49	mEQ/100g	U	.
299-E33-333	176.45416	178.9568	B0MJK3		1/5/98 15:25	QTESSL	B0MJK3												
299-E33-333	173.9712	178.9568	B0MJK5	R	1/5/98 15:25	MSAI	B0MJK5	1350	kg/m3	.	.	1450	kg/m3	.	.	6.42	mEQ/100g	U	.
299-E33-333	173.9712	178.9568	B0MJK5	R	1/5/98 15:25	RLNP	B0MJK5	1350	kg/m3	.	.	1450	kg/m3	.	.	6.42	mEQ/100g	U	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6												
299-E33-333	251.9368	253.9376	B0MJK8		1/7/98 16:00	MSAI	B0MJK8									6.44	mEQ/100g	U	.
299-E33-333	251.9368	253.9376	B0MJK8		1/7/98 16:00	RLNP	B0MJK8									6.44	mEQ/100g	U	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72												
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73												
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82												
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7												
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8												
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9												
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0												
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1												
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2												
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9												
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0												
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1												

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Percent moisture (dry sample) (%MOISTURE-D) D2216				Percent moisture (wet sample) (%MOISTURE) D2216				Percent passing 1 inch sieve (PAS1IN) D422			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2												
299-E33-333	3.99832	6.49768	B0MJC4		12/29/97 15:25	MSAI	B0MJC4	6.8	%	.	.	6.43	%	.	.	83.9	%	.	.
299-E33-333	3.99832	6.49768	B0MJC4		12/29/97 15:25	RLNP	B0MJC4	6.8	%	.	.	6.43	%	.	.	83.9	%	.	.
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5												
299-E33-333	7.99664	10.496	B0MJC7		12/29/97 16:05	MSAI	B0MJC7	9.4	%	.	.	8.59	%	.	.	88.7	%	.	.
299-E33-333	7.99664	10.496	B0MJC7		12/29/97 16:05	RLNP	B0MJC7	9.4	%	.	.	8.59	%	.	.	88.7	%	.	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8												
299-E33-333	10.496	12.99536	B0MJD0		12/30/97 9:20	MSAI	B0MJD0	4.5	%	.	.	4.3	%	.	.	96	%	.	.
299-E33-333	10.496	12.99536	B0MJD0		12/30/97 9:20	RLNP	B0MJD0	4.5	%	.	.	4.3	%	.	.	96	%	.	.
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1												
299-E33-333	12.99536	15.49472	B0MJD3		12/30/97 12:40	MSAI	B0MJD3	3.7	%	.	.	3.55	%	.	.	87	%	.	.
299-E33-333	12.99536	15.49472	B0MJD3		12/30/97 12:40	RLNP	B0MJD3	3.7	%	.	.	3.55	%	.	.	87	%	.	.
299-E33-333	15.49472	17.99408	B0MJD4		12/30/97 14:25	QTESSL	B0MJD4												
299-E33-333	15.49472	17.99408	B0MJD6		12/30/97 14:25	MSAI	B0MJD6	4	%	.	.	3.8	%	.	.	94.9	%	.	.
299-E33-333	15.49472	17.99408	B0MJD6		12/30/97 14:25	RLNP	B0MJD6	4	%	.	.	3.8	%	.	.	94.9	%	.	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7												
299-E33-333	19.99488	21.99568	B0MJD9		12/31/97 9:30	MSAI	B0MJD9	3.4	%	.	.	3.26	%	.	.	87.4	%	.	.
299-E33-333	19.99488	21.99568	B0MJD9		12/31/97 9:30	RLNP	B0MJD9	3.4	%	.	.	3.26	%	.	.	87.4	%	.	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0												
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3												
299-E33-333	29.99232	31.99312	B0MJF5		12/31/97 11:15	MSAI	B0MJF5	11	%	.	.	9.89	%	.	.	100	%	.	.
299-E33-333	29.99232	31.99312	B0MJF5		12/31/97 11:15	RLNP	B0MJF5	11	%	.	.	9.89	%	.	.	100	%	.	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6												
299-E33-333	74.9808	76.9816	B0MJF8		1/2/98 15:00	MSAI	B0MJF8	3.3	%	.	.	3.21	%	.	.	100	%	.	.
299-E33-333	74.9808	76.9816	B0MJF8		1/2/98 15:00	RLNP	B0MJF8	3.3	%	.	.	3.21	%	.	.	100	%	.	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9												
299-E33-333	99.9744	101.9752	B0MJH1		1/3/98 9:42	MSAI	B0MJH1	3.1	%	.	.	2.97	%	.	.	100	%	.	.
299-E33-333	99.9744	101.9752	B0MJH1		1/3/98 9:42	RLNP	B0MJH1	3.1	%	.	.	2.97	%	.	.	100	%	.	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1												
299-E33-333	39.9832	41.984	B0MJJ3		12/31/97 13:05	MSAI	B0MJJ3	3.4	%	.	.	3.31	%	.	.	100	%	.	.
299-E33-333	39.9832	41.984	B0MJJ3		12/31/97 13:05	RLNP	B0MJJ3	3.4	%	.	.	3.31	%	.	.	100	%	.	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4												
299-E33-333	49.9872	51.988	B0MJJ6		12/31/97 14:20	MSAI	B0MJJ6	2.4	%	.	.	2.33	%	.	.	100	%	.	.
299-E33-333	49.9872	51.988	B0MJJ6		12/31/97 14:20	RLNP	B0MJJ6	2.4	%	.	.	2.33	%	.	.	100	%	.	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7												
299-E33-333	149.9616	151.9624	B0MJJ9		1/5/98 10:25	MSAI	B0MJJ9	2.7	%	.	.	2.63	%	.	.	100	%	.	.
299-E33-333	149.9616	151.9624	B0MJJ9		1/5/98 10:25	RLNP	B0MJJ9	2.7	%	.	.	2.63	%	.	.	100	%	.	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0												
299-E33-333	173.9712	178.9568	B0MJK2	R	1/5/98 15:10	MSAI	B0MJK2	8.1	%	.	.	7.52	%	.	.	100	%	.	.
299-E33-333	173.9712	178.9568	B0MJK2	R	1/5/98 15:10	RLNP	B0MJK2	8.1	%	.	.	7.52	%	.	.	100	%	.	.
299-E33-333	176.45416	178.9568	B0MJK3		1/5/98 15:25	QTESSL	B0MJK3												
299-E33-333	173.9712	178.9568	B0MJK5	R	1/5/98 15:25	MSAI	B0MJK5	7.1	%	.	.	6.63	%	.	.	100	%	.	.
299-E33-333	173.9712	178.9568	B0MJK5	R	1/5/98 15:25	RLNP	B0MJK5	7.1	%	.	.	6.63	%	.	.	100	%	.	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6												
299-E33-333	251.9368	253.9376	B0MJK8		1/7/98 16:00	MSAI	B0MJK8	7.3	%	.	.	6.77	%	.	.	79.6	%	.	.
299-E33-333	251.9368	253.9376	B0MJK8		1/7/98 16:00	RLNP	B0MJK8	7.3	%	.	.	6.77	%	.	.	79.6	%	.	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72												
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73												
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82												
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7												
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8												
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9												
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0												
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1												
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2												
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9												
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0												
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1												

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Percent passing 1.5 inch sieve (PAS1.5IN) D422				Percent passing 2 inch sieve (PAS2IN) D422				Percent passing 3 inch sieve (PAS3IN) D422			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2												
299-E33-333	3.99832	6.49768	B0MJC4		12/29/97 15:25	MSAI	B0MJC4	100	%	.	.	100	%	.	.	100	%	.	.
299-E33-333	3.99832	6.49768	B0MJC4		12/29/97 15:25	RLNP	B0MJC4	100	%	.	.	100	%	.	.	100	%	.	.
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5												
299-E33-333	7.99664	10.496	B0MJC7		12/29/97 16:05	MSAI	B0MJC7	100	%	.	.	100	%	.	.	100	%	.	.
299-E33-333	7.99664	10.496	B0MJC7		12/29/97 16:05	RLNP	B0MJC7	100	%	.	.	100	%	.	.	100	%	.	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8												
299-E33-333	10.496	12.99536	B0MJD0		12/30/97 9:20	MSAI	B0MJD0	100	%	.	.	100	%	.	.	100	%	.	.
299-E33-333	10.496	12.99536	B0MJD0		12/30/97 9:20	RLNP	B0MJD0	100	%	.	.	100	%	.	.	100	%	.	.
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1												
299-E33-333	12.99536	15.49472	B0MJD3		12/30/97 12:40	MSAI	B0MJD3	100	%	.	.	100	%	.	.	100	%	.	.
299-E33-333	12.99536	15.49472	B0MJD3		12/30/97 12:40	RLNP	B0MJD3	100	%	.	.	100	%	.	.	100	%	.	.
299-E33-333	15.49472	17.99408	B0MJD4		12/30/97 14:25	QTESSL	B0MJD4												
299-E33-333	15.49472	17.99408	B0MJD6		12/30/97 14:25	MSAI	B0MJD6	100	%	.	.	100	%	.	.	100	%	.	.
299-E33-333	15.49472	17.99408	B0MJD6		12/30/97 14:25	RLNP	B0MJD6	100	%	.	.	100	%	.	.	100	%	.	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7												
299-E33-333	19.99488	21.99568	B0MJD9		12/31/97 9:30	MSAI	B0MJD9	100	%	.	.	100	%	.	.	100	%	.	.
299-E33-333	19.99488	21.99568	B0MJD9		12/31/97 9:30	RLNP	B0MJD9	100	%	.	.	100	%	.	.	100	%	.	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0												
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3												
299-E33-333	29.99232	31.99312	B0MJF5		12/31/97 11:15	MSAI	B0MJF5	100	%	.	.	100	%	.	.	100	%	.	.
299-E33-333	29.99232	31.99312	B0MJF5		12/31/97 11:15	RLNP	B0MJF5	100	%	.	.	100	%	.	.	100	%	.	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6												
299-E33-333	74.9808	76.9816	B0MJF8		1/2/98 15:00	MSAI	B0MJF8	100	%	.	.	100	%	.	.	100	%	.	.
299-E33-333	74.9808	76.9816	B0MJF8		1/2/98 15:00	RLNP	B0MJF8	100	%	.	.	100	%	.	.	100	%	.	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9												
299-E33-333	99.9744	101.9752	B0MJH1		1/3/98 9:42	MSAI	B0MJH1	100	%	.	.	100	%	.	.	100	%	.	.
299-E33-333	99.9744	101.9752	B0MJH1		1/3/98 9:42	RLNP	B0MJH1	100	%	.	.	100	%	.	.	100	%	.	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1												
299-E33-333	39.9832	41.984	B0MJJ3		12/31/97 13:05	MSAI	B0MJJ3	100	%	.	.	100	%	.	.	100	%	.	.
299-E33-333	39.9832	41.984	B0MJJ3		12/31/97 13:05	RLNP	B0MJJ3	100	%	.	.	100	%	.	.	100	%	.	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4												
299-E33-333	49.9872	51.988	B0MJJ6		12/31/97 14:20	MSAI	B0MJJ6	100	%	.	.	100	%	.	.	100	%	.	.
299-E33-333	49.9872	51.988	B0MJJ6		12/31/97 14:20	RLNP	B0MJJ6	100	%	.	.	100	%	.	.	100	%	.	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7												
299-E33-333	149.9616	151.9624	B0MJJ9		1/5/98 10:25	MSAI	B0MJJ9	100	%	.	.	100	%	.	.	100	%	.	.
299-E33-333	149.9616	151.9624	B0MJJ9		1/5/98 10:25	RLNP	B0MJJ9	100	%	.	.	100	%	.	.	100	%	.	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0												
299-E33-333	173.9712	178.9568	B0MJK2	R	1/5/98 15:10	MSAI	B0MJK2	100	%	.	.	100	%	.	.	100	%	.	.
299-E33-333	173.9712	178.9568	B0MJK2	R	1/5/98 15:10	RLNP	B0MJK2	100	%	.	.	100	%	.	.	100	%	.	.
299-E33-333	176.45416	178.9568	B0MJK3		1/5/98 15:25	QTESSL	B0MJK3												
299-E33-333	173.9712	178.9568	B0MJK5	R	1/5/98 15:25	MSAI	B0MJK5	100	%	.	.	100	%	.	.	100	%	.	.
299-E33-333	173.9712	178.9568	B0MJK5	R	1/5/98 15:25	RLNP	B0MJK5	100	%	.	.	100	%	.	.	100	%	.	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6												
299-E33-333	251.9368	253.9376	B0MJK8		1/7/98 16:00	MSAI	B0MJK8	100	%	.	.	100	%	.	.	100	%	.	.
299-E33-333	251.9368	253.9376	B0MJK8		1/7/98 16:00	RLNP	B0MJK8	100	%	.	.	100	%	.	.	100	%	.	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72												
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73												
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82												
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7												
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8												
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9												
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0												
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1												
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2												
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9												
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0												
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1												

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Percent passing 3/4 inch sieve (PAS3/4IN) D422				Percent passing 3/8 inch sieve (PAS3/8IN) D422				Percent passing No.10 sieve (PAS#10) D422			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2												
299-E33-333	3.99832	6.49768	B0MJC4		12/29/97 15:25	MSAI	B0MJC4	80.1	%	.	.	70.2	%	.	.	55.8	%	.	.
299-E33-333	3.99832	6.49768	B0MJC4		12/29/97 15:25	RLNP	B0MJC4	80.1	%	.	.	70.2	%	.	.	55.8	%	.	.
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5												
299-E33-333	7.99664	10.496	B0MJC7		12/29/97 16:05	MSAI	B0MJC7	82.4	%	.	.	77	%	.	.	70.5	%	.	.
299-E33-333	7.99664	10.496	B0MJC7		12/29/97 16:05	RLNP	B0MJC7	82.4	%	.	.	77	%	.	.	70.5	%	.	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8												
299-E33-333	10.496	12.99536	B0MJD0		12/30/97 9:20	MSAI	B0MJD0	93.4	%	.	.	74.4	%	.	.	44.4	%	.	.
299-E33-333	10.496	12.99536	B0MJD0		12/30/97 9:20	RLNP	B0MJD0	93.4	%	.	.	74.4	%	.	.	44.4	%	.	.
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1												
299-E33-333	12.99536	15.49472	B0MJD3		12/30/97 12:40	MSAI	B0MJD3	77.5	%	.	.	61.4	%	.	.	32.8	%	.	.
299-E33-333	12.99536	15.49472	B0MJD3		12/30/97 12:40	RLNP	B0MJD3	77.5	%	.	.	61.4	%	.	.	32.8	%	.	.
299-E33-333	15.49472	17.99408	B0MJD4		12/30/97 14:25	QTESSL	B0MJD4												
299-E33-333	15.49472	17.99408	B0MJD6		12/30/97 14:25	MSAI	B0MJD6	92.5	%	.	.	73	%	.	.	30.3	%	.	.
299-E33-333	15.49472	17.99408	B0MJD6		12/30/97 14:25	RLNP	B0MJD6	92.5	%	.	.	73	%	.	.	30.3	%	.	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7												
299-E33-333	19.99488	21.99568	B0MJD9		12/31/97 9:30	MSAI	B0MJD9	79.3	%	.	.	67.5	%	.	.	35.5	%	.	.
299-E33-333	19.99488	21.99568	B0MJD9		12/31/97 9:30	RLNP	B0MJD9	79.3	%	.	.	67.5	%	.	.	35.5	%	.	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0												
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3												
299-E33-333	29.99232	31.99312	B0MJF5		12/31/97 11:15	MSAI	B0MJF5	100	%	.	.	99	%	.	.	94.1	%	.	.
299-E33-333	29.99232	31.99312	B0MJF5		12/31/97 11:15	RLNP	B0MJF5	100	%	.	.	99	%	.	.	94.1	%	.	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6												
299-E33-333	74.9808	76.9816	B0MJF8		1/2/98 15:00	MSAI	B0MJF8	100	%	.	.	100	%	.	.	96.8	%	.	.
299-E33-333	74.9808	76.9816	B0MJF8		1/2/98 15:00	RLNP	B0MJF8	100	%	.	.	100	%	.	.	96.8	%	.	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9												
299-E33-333	99.9744	101.9752	B0MJH1		1/3/98 9:42	MSAI	B0MJH1	100	%	.	.	100	%	.	.	87.6	%	.	.
299-E33-333	99.9744	101.9752	B0MJH1		1/3/98 9:42	RLNP	B0MJH1	100	%	.	.	100	%	.	.	87.6	%	.	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1												
299-E33-333	39.9832	41.984	B0MJJ3		12/31/97 13:05	MSAI	B0MJJ3	100	%	.	.	99.3	%	.	.	97.5	%	.	.
299-E33-333	39.9832	41.984	B0MJJ3		12/31/97 13:05	RLNP	B0MJJ3	100	%	.	.	99.3	%	.	.	97.5	%	.	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4												
299-E33-333	49.9872	51.988	B0MJJ6		12/31/97 14:20	MSAI	B0MJJ6	100	%	.	.	100	%	.	.	98.1	%	.	.
299-E33-333	49.9872	51.988	B0MJJ6		12/31/97 14:20	RLNP	B0MJJ6	100	%	.	.	100	%	.	.	98.1	%	.	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7												
299-E33-333	149.9616	151.9624	B0MJJ9		1/5/98 10:25	MSAI	B0MJJ9	100	%	.	.	100	%	.	.	96.4	%	.	.
299-E33-333	149.9616	151.9624	B0MJJ9		1/5/98 10:25	RLNP	B0MJJ9	100	%	.	.	100	%	.	.	96.4	%	.	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0												
299-E33-333	173.9712	178.9568	B0MJK2	R	1/5/98 15:10	MSAI	B0MJK2	100	%	.	.	100	%	.	.	98.6	%	.	.
299-E33-333	173.9712	178.9568	B0MJK2	R	1/5/98 15:10	RLNP	B0MJK2	100	%	.	.	100	%	.	.	98.6	%	.	.
299-E33-333	176.45416	178.9568	B0MJK3		1/5/98 15:25	QTESSL	B0MJK3												
299-E33-333	173.9712	178.9568	B0MJK5	R	1/5/98 15:25	MSAI	B0MJK5	100	%	.	.	100	%	.	.	96.8	%	.	.
299-E33-333	173.9712	178.9568	B0MJK5	R	1/5/98 15:25	RLNP	B0MJK5	100	%	.	.	100	%	.	.	96.8	%	.	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6												
299-E33-333	251.9368	253.9376	B0MJK8		1/7/98 16:00	MSAI	B0MJK8	70.8	%	.	.	48.2	%	.	.	22.9	%	.	.
299-E33-333	251.9368	253.9376	B0MJK8		1/7/98 16:00	RLNP	B0MJK8	70.8	%	.	.	48.2	%	.	.	22.9	%	.	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72												
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73												
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82												
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7												
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8												
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9												
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0												
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1												
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2												
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9												
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0												
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1												

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Percent passing No.100 sieve (PAS#100) D422				Percent passing No.140 sieve (PAS#140) D422				Percent passing No.20 sieve (PAS#20) D422			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2												
299-E33-333	3.99832	6.49768	B0MJC4		12/29/97 15:25	MSAI	B0MJC4												
299-E33-333	3.99832	6.49768	B0MJC4		12/29/97 15:25	RLNP	B0MJC4												
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5												
299-E33-333	7.99664	10.496	B0MJC7		12/29/97 16:05	MSAI	B0MJC7												
299-E33-333	7.99664	10.496	B0MJC7		12/29/97 16:05	RLNP	B0MJC7												
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8												
299-E33-333	10.496	12.99536	B0MJD0		12/30/97 9:20	MSAI	B0MJD0												
299-E33-333	10.496	12.99536	B0MJD0		12/30/97 9:20	RLNP	B0MJD0												
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1												
299-E33-333	12.99536	15.49472	B0MJD3		12/30/97 12:40	MSAI	B0MJD3												
299-E33-333	12.99536	15.49472	B0MJD3		12/30/97 12:40	RLNP	B0MJD3												
299-E33-333	15.49472	17.99408	B0MJD4		12/30/97 14:25	QTESSL	B0MJD4												
299-E33-333	15.49472	17.99408	B0MJD6		12/30/97 14:25	MSAI	B0MJD6												
299-E33-333	15.49472	17.99408	B0MJD6		12/30/97 14:25	RLNP	B0MJD6												
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7												
299-E33-333	19.99488	21.99568	B0MJD9		12/31/97 9:30	MSAI	B0MJD9												
299-E33-333	19.99488	21.99568	B0MJD9		12/31/97 9:30	RLNP	B0MJD9												
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0												
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3												
299-E33-333	29.99232	31.99312	B0MJF5		12/31/97 11:15	MSAI	B0MJF5												
299-E33-333	29.99232	31.99312	B0MJF5		12/31/97 11:15	RLNP	B0MJF5												
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6												
299-E33-333	74.9808	76.9816	B0MJF8		1/2/98 15:00	MSAI	B0MJF8												
299-E33-333	74.9808	76.9816	B0MJF8		1/2/98 15:00	RLNP	B0MJF8												
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9												
299-E33-333	99.9744	101.9752	B0MJH1		1/3/98 9:42	MSAI	B0MJH1												
299-E33-333	99.9744	101.9752	B0MJH1		1/3/98 9:42	RLNP	B0MJH1												
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1												
299-E33-333	39.9832	41.984	B0MJJ3		12/31/97 13:05	MSAI	B0MJJ3												
299-E33-333	39.9832	41.984	B0MJJ3		12/31/97 13:05	RLNP	B0MJJ3												
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4												
299-E33-333	49.9872	51.988	B0MJJ6		12/31/97 14:20	MSAI	B0MJJ6												
299-E33-333	49.9872	51.988	B0MJJ6		12/31/97 14:20	RLNP	B0MJJ6												
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7												
299-E33-333	149.9616	151.9624	B0MJJ9		1/5/98 10:25	MSAI	B0MJJ9												
299-E33-333	149.9616	151.9624	B0MJJ9		1/5/98 10:25	RLNP	B0MJJ9												
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0												
299-E33-333	173.9712	178.9568	B0MJK2	R	1/5/98 15:10	MSAI	B0MJK2												
299-E33-333	173.9712	178.9568	B0MJK2	R	1/5/98 15:10	RLNP	B0MJK2												
299-E33-333	176.45416	178.9568	B0MJK3		1/5/98 15:25	QTESSL	B0MJK3												
299-E33-333	173.9712	178.9568	B0MJK5	R	1/5/98 15:25	MSAI	B0MJK5												
299-E33-333	173.9712	178.9568	B0MJK5	R	1/5/98 15:25	RLNP	B0MJK5												
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6												
299-E33-333	251.9368	253.9376	B0MJK8		1/7/98 16:00	MSAI	B0MJK8												
299-E33-333	251.9368	253.9376	B0MJK8		1/7/98 16:00	RLNP	B0MJK8												
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72												
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73												
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82												
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7												
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8												
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9												
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0												
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1												
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2												
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9												
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0												
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1												

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Percent passing No.200 sieve (PAS#200)				Percent passing No.4 sieve (PAS#4)				Percent passing No.40 sieve (PAS#40)			
								D422				D422				D422			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2												
299-E33-333	3.99832	6.49768	B0MJC4		12/29/97 15:25	MSAI	B0MJC4	16.8	%	.	.	64.2	%	.	.	42.2	%	.	.
299-E33-333	3.99832	6.49768	B0MJC4		12/29/97 15:25	RLNP	B0MJC4	16.8	%	.	.	64.2	%	.	.	42.2	%	.	.
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5												
299-E33-333	7.99664	10.496	B0MJC7		12/29/97 16:05	MSAI	B0MJC7	9.2	%	.	.	74	%	.	.	35	%	.	.
299-E33-333	7.99664	10.496	B0MJC7		12/29/97 16:05	RLNP	B0MJC7	9.2	%	.	.	74	%	.	.	35	%	.	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8												
299-E33-333	10.496	12.99536	B0MJD0		12/30/97 9:20	MSAI	B0MJD0	5.1	%	.	.	62.3	%	.	.	14.9	%	.	.
299-E33-333	10.496	12.99536	B0MJD0		12/30/97 9:20	RLNP	B0MJD0	5.1	%	.	.	62.3	%	.	.	14.9	%	.	.
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1												
299-E33-333	12.99536	15.49472	B0MJD3		12/30/97 12:40	MSAI	B0MJD3	3	%	.	.	50.2	%	.	.	8.7	%	.	.
299-E33-333	12.99536	15.49472	B0MJD3		12/30/97 12:40	RLNP	B0MJD3	3	%	.	.	50.2	%	.	.	8.7	%	.	.
299-E33-333	15.49472	17.99408	B0MJD4		12/30/97 14:25	QTESSL	B0MJD4												
299-E33-333	15.49472	17.99408	B0MJD6		12/30/97 14:25	MSAI	B0MJD6	1.7	%	.	.	50.1	%	.	.	4.7	%	.	.
299-E33-333	15.49472	17.99408	B0MJD6		12/30/97 14:25	RLNP	B0MJD6	1.7	%	.	.	50.1	%	.	.	4.7	%	.	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7												
299-E33-333	19.99488	21.99568	B0MJD9		12/31/97 9:30	MSAI	B0MJD9	1.9	%	.	.	56.7	%	.	.	6.7	%	.	.
299-E33-333	19.99488	21.99568	B0MJD9		12/31/97 9:30	RLNP	B0MJD9	1.9	%	.	.	56.7	%	.	.	6.7	%	.	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0												
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3												
299-E33-333	29.99232	31.99312	B0MJF5		12/31/97 11:15	MSAI	B0MJF5	16.5	%	.	.	97.4	%	.	.	53.7	%	.	.
299-E33-333	29.99232	31.99312	B0MJF5		12/31/97 11:15	RLNP	B0MJF5	16.5	%	.	.	97.4	%	.	.	53.7	%	.	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6												
299-E33-333	74.9808	76.9816	B0MJF8		1/2/98 15:00	MSAI	B0MJF8	5.2	%	.	.	100	%	.	.	43.8	%	.	.
299-E33-333	74.9808	76.9816	B0MJF8		1/2/98 15:00	RLNP	B0MJF8	5.2	%	.	.	100	%	.	.	43.8	%	.	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9												
299-E33-333	99.9744	101.9752	B0MJH1		1/3/98 9:42	MSAI	B0MJH1	6	%	.	.	95.5	%	.	.	37.7	%	.	.
299-E33-333	99.9744	101.9752	B0MJH1		1/3/98 9:42	RLNP	B0MJH1	6	%	.	.	95.5	%	.	.	37.7	%	.	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1												
299-E33-333	39.9832	41.984	B0MJJ3		12/31/97 13:05	MSAI	B0MJJ3	2.7	%	.	.	98.9	%	.	.	13.9	%	.	.
299-E33-333	39.9832	41.984	B0MJJ3		12/31/97 13:05	RLNP	B0MJJ3	2.7	%	.	.	98.9	%	.	.	13.9	%	.	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4												
299-E33-333	49.9872	51.988	B0MJJ6		12/31/97 14:20	MSAI	B0MJJ6	3	%	.	.	100	%	.	.	18.7	%	.	.
299-E33-333	49.9872	51.988	B0MJJ6		12/31/97 14:20	RLNP	B0MJJ6	3	%	.	.	100	%	.	.	18.7	%	.	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7												
299-E33-333	149.9616	151.9624	B0MJJ9		1/5/98 10:25	MSAI	B0MJJ9	6	%	.	.	100	%	.	.	26	%	.	.
299-E33-333	149.9616	151.9624	B0MJJ9		1/5/98 10:25	RLNP	B0MJJ9	6	%	.	.	100	%	.	.	26	%	.	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0												
299-E33-333	173.9712	178.9568	B0MJK2	R	1/5/98 15:10	MSAI	B0MJK2	14.9	%	.	.	100	%	.	.	55.3	%	.	.
299-E33-333	173.9712	178.9568	B0MJK2	R	1/5/98 15:10	RLNP	B0MJK2	14.9	%	.	.	100	%	.	.	55.3	%	.	.
299-E33-333	176.45416	178.9568	B0MJK3		1/5/98 15:25	QTESSL	B0MJK3												
299-E33-333	173.9712	178.9568	B0MJK5	R	1/5/98 15:25	MSAI	B0MJK5	16.4	%	.	.	100	%	.	.	50	%	.	.
299-E33-333	173.9712	178.9568	B0MJK5	R	1/5/98 15:25	RLNP	B0MJK5	16.4	%	.	.	100	%	.	.	50	%	.	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6												
299-E33-333	251.9368	253.9376	B0MJK8		1/7/98 16:00	MSAI	B0MJK8	5.9	%	.	.	34.6	%	.	.	11.7	%	.	.
299-E33-333	251.9368	253.9376	B0MJK8		1/7/98 16:00	RLNP	B0MJK8	5.9	%	.	.	34.6	%	.	.	11.7	%	.	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72												
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73												
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82												
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7												
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8												
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9												
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0												
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1												
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2												
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9												
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0												
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1												

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Percent passing No.60 sieve (PAS#60) D422				pH Measurement (PH) 150.1				pH Measurement (PH) 9040			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2												
299-E33-333	3.99832	6.49768	B0MJC4		12/29/97 15:25	MSAI	B0MJC4												
299-E33-333	3.99832	6.49768	B0MJC4		12/29/97 15:25	RLNP	B0MJC4												
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5												
299-E33-333	7.99664	10.496	B0MJC7		12/29/97 16:05	MSAI	B0MJC7												
299-E33-333	7.99664	10.496	B0MJC7		12/29/97 16:05	RLNP	B0MJC7												
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8												
299-E33-333	10.496	12.99536	B0MJD0		12/30/97 9:20	MSAI	B0MJD0												
299-E33-333	10.496	12.99536	B0MJD0		12/30/97 9:20	RLNP	B0MJD0												
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1												
299-E33-333	12.99536	15.49472	B0MJD3		12/30/97 12:40	MSAI	B0MJD3												
299-E33-333	12.99536	15.49472	B0MJD3		12/30/97 12:40	RLNP	B0MJD3												
299-E33-333	15.49472	17.99408	B0MJD4		12/30/97 14:25	QTESSL	B0MJD4												
299-E33-333	15.49472	17.99408	B0MJD6		12/30/97 14:25	MSAI	B0MJD6												
299-E33-333	15.49472	17.99408	B0MJD6		12/30/97 14:25	RLNP	B0MJD6												
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7												
299-E33-333	19.99488	21.99568	B0MJD9		12/31/97 9:30	MSAI	B0MJD9												
299-E33-333	19.99488	21.99568	B0MJD9		12/31/97 9:30	RLNP	B0MJD9												
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0												
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3												
299-E33-333	29.99232	31.99312	B0MJF5		12/31/97 11:15	MSAI	B0MJF5												
299-E33-333	29.99232	31.99312	B0MJF5		12/31/97 11:15	RLNP	B0MJF5												
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6												
299-E33-333	74.9808	76.9816	B0MJF8		1/2/98 15:00	MSAI	B0MJF8												
299-E33-333	74.9808	76.9816	B0MJF8		1/2/98 15:00	RLNP	B0MJF8												
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9												
299-E33-333	99.9744	101.9752	B0MJH1		1/3/98 9:42	MSAI	B0MJH1												
299-E33-333	99.9744	101.9752	B0MJH1		1/3/98 9:42	RLNP	B0MJH1												
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1												
299-E33-333	39.9832	41.984	B0MJJ3		12/31/97 13:05	MSAI	B0MJJ3												
299-E33-333	39.9832	41.984	B0MJJ3		12/31/97 13:05	RLNP	B0MJJ3												
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4												
299-E33-333	49.9872	51.988	B0MJJ6		12/31/97 14:20	MSAI	B0MJJ6												
299-E33-333	49.9872	51.988	B0MJJ6		12/31/97 14:20	RLNP	B0MJJ6												
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7												
299-E33-333	149.9616	151.9624	B0MJJ9		1/5/98 10:25	MSAI	B0MJJ9												
299-E33-333	149.9616	151.9624	B0MJJ9		1/5/98 10:25	RLNP	B0MJJ9												
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0												
299-E33-333	173.9712	178.9568	B0MJK2	R	1/5/98 15:10	MSAI	B0MJK2												
299-E33-333	173.9712	178.9568	B0MJK2	R	1/5/98 15:10	RLNP	B0MJK2												
299-E33-333	176.45416	178.9568	B0MJK3		1/5/98 15:25	QTESSL	B0MJK3												
299-E33-333	173.9712	178.9568	B0MJK5	R	1/5/98 15:25	MSAI	B0MJK5												
299-E33-333	173.9712	178.9568	B0MJK5	R	1/5/98 15:25	RLNP	B0MJK5												
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6												
299-E33-333	251.9368	253.9376	B0MJK8		1/7/98 16:00	MSAI	B0MJK8												
299-E33-333	251.9368	253.9376	B0MJK8		1/7/98 16:00	RLNP	B0MJK8												
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72												
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73												
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82												
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7									8.4	pH	.	.
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8									9	pH	.	.
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9									8.9	pH	.	.
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0									9	pH	.	.
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1									8.9	pH	.	.
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2									9	pH	.	.
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9									8.1	pH	.	J
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0									8.1	pH	.	J
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1									8.5	pH	.	J

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	pH Measurement (PH) 9045				Specific Gravity (SPECGVTY) D854			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2	8.17	pH	.	J				
299-E33-333	3.99832	6.49768	B0MJC4		12/29/97 15:25	MSAI	B0MJC4					2.51	unitless	.	.
299-E33-333	3.99832	6.49768	B0MJC4		12/29/97 15:25	RLNP	B0MJC4					2.51	unitless	.	.
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5	8.27	pH	.	J				
299-E33-333	7.99664	10.496	B0MJC7		12/29/97 16:05	MSAI	B0MJC7					2.56	unitless	.	.
299-E33-333	7.99664	10.496	B0MJC7		12/29/97 16:05	RLNP	B0MJC7					2.56	unitless	.	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8	8.74	pH	.	J				
299-E33-333	10.496	12.99536	B0MJD0		12/30/97 9:20	MSAI	B0MJD0					2.43	unitless	.	.
299-E33-333	10.496	12.99536	B0MJD0		12/30/97 9:20	RLNP	B0MJD0					2.43	unitless	.	.
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1	8.44	pH	.	J				
299-E33-333	12.99536	15.49472	B0MJD3		12/30/97 12:40	MSAI	B0MJD3					2.57	unitless	.	.
299-E33-333	12.99536	15.49472	B0MJD3		12/30/97 12:40	RLNP	B0MJD3					2.57	unitless	.	.
299-E33-333	15.49472	17.99408	B0MJD4		12/30/97 14:25	QTESSL	B0MJD4	8.4	pH	.	J				
299-E33-333	15.49472	17.99408	B0MJD6		12/30/97 14:25	MSAI	B0MJD6					2.57	unitless	.	.
299-E33-333	15.49472	17.99408	B0MJD6		12/30/97 14:25	RLNP	B0MJD6					2.57	unitless	.	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7	8.32	pH	.	J				
299-E33-333	19.99488	21.99568	B0MJD9		12/31/97 9:30	MSAI	B0MJD9					2.61	unitless	.	.
299-E33-333	19.99488	21.99568	B0MJD9		12/31/97 9:30	RLNP	B0MJD9					2.61	unitless	.	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0	8.45	pH	.	J				
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3	8.18	pH	.	J				
299-E33-333	29.99232	31.99312	B0MJF5		12/31/97 11:15	MSAI	B0MJF5					2.38	unitless	.	.
299-E33-333	29.99232	31.99312	B0MJF5		12/31/97 11:15	RLNP	B0MJF5					2.38	unitless	.	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6	8.46	pH	.	J				
299-E33-333	74.9808	76.9816	B0MJF8		1/2/98 15:00	MSAI	B0MJF8					2.6	unitless	.	.
299-E33-333	74.9808	76.9816	B0MJF8		1/2/98 15:00	RLNP	B0MJF8					2.6	unitless	.	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9	8.52	pH	.	J				
299-E33-333	99.9744	101.9752	B0MJH1		1/3/98 9:42	MSAI	B0MJH1					2.56	unitless	.	.
299-E33-333	99.9744	101.9752	B0MJH1		1/3/98 9:42	RLNP	B0MJH1					2.56	unitless	.	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1	8.19	pH	.	J				
299-E33-333	39.9832	41.984	B0MJJ3		12/31/97 13:05	MSAI	B0MJJ3					2.55	unitless	.	.
299-E33-333	39.9832	41.984	B0MJJ3		12/31/97 13:05	RLNP	B0MJJ3					2.55	unitless	.	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4	8.19	pH	.	J				
299-E33-333	49.9872	51.988	B0MJJ6		12/31/97 14:20	MSAI	B0MJJ6					2.61	unitless	.	.
299-E33-333	49.9872	51.988	B0MJJ6		12/31/97 14:20	RLNP	B0MJJ6					2.61	unitless	.	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7	8.48	pH	.	J				
299-E33-333	149.9616	151.9624	B0MJJ9		1/5/98 10:25	MSAI	B0MJJ9					2.63	unitless	.	.
299-E33-333	149.9616	151.9624	B0MJJ9		1/5/98 10:25	RLNP	B0MJJ9					2.63	unitless	.	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0	8.42	pH	.	J				
299-E33-333	173.9712	178.9568	B0MJK2	R	1/5/98 15:10	MSAI	B0MJK2					2.1	unitless	.	.
299-E33-333	173.9712	178.9568	B0MJK2	R	1/5/98 15:10	RLNP	B0MJK2					2.1	unitless	.	.
299-E33-333	176.45416	178.9568	B0MJK3		1/5/98 15:25	QTESSL	B0MJK3	8.43	pH	.	J				
299-E33-333	173.9712	178.9568	B0MJK5	R	1/5/98 15:25	MSAI	B0MJK5					2.64	unitless	.	.
299-E33-333	173.9712	178.9568	B0MJK5	R	1/5/98 15:25	RLNP	B0MJK5					2.64	unitless	.	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6	8.36	pH	.	J				
299-E33-333	251.9368	253.9376	B0MJK8		1/7/98 16:00	MSAI	B0MJK8					2.46	unitless	.	.
299-E33-333	251.9368	253.9376	B0MJK8		1/7/98 16:00	RLNP	B0MJK8					2.46	unitless	.	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72	8.5	pH	.	.				
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73	8.8	pH	.	.				
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82	9.5	pH	.	.				
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7								
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8								
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9								
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0								
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1								
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2								
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9								
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0								
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1								

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Bulk density - dry (BULKDENSITY-DRY) D2937				Bulk density - wet (BULKDENSITY-WET) D2937				Cation Exchange Capacity (CEC) 9080			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2												
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1												
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2												
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3												
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4												
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528												
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529												
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530												
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531												
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532												
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533												
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534												
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535												
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536												
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5												
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A												
B8827	19.49632	21.49384	B16HB7		3/24/03 14:30	MAXIM	B16HB7												
B8827	52.972	54.9728	B16HB8		3/25/03 9:35	MAXIM	B16HB8												

B-63, PHYSICAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Percent moisture (dry sample) (%MOISTURE D)				Percent moisture (wet sample) (%MOISTURE)				Percent passing 1 inch sieve (PAS1IN)			
								D2216				D2216				D422			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2												
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1												
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2												
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3												
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4												
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528												
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529												
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530												
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531												
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532												
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533												
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534												
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535												
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536												
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5												
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A												
B8827	19.49632	21.49384	B16HB7		3/24/03 14:30	MAXIM	B16HB7					3.4	%	.	.	97.16	%	.	.
B8827	52.972	54.9728	B16HB8		3/25/03 9:35	MAXIM	B16HB8					2.6	%	.	.	100	%	.	.

B-63, PHYSICAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Percent passing 1.5 inch sieve (PAS1.5IN) D422				Percent passing 2 inch sieve (PAS2IN) D422				Percent passing 3 inch sieve (PAS3IN) D422			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2												
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1												
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2												
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3												
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4												
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528												
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529												
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530												
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531												
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532												
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533												
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534												
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535												
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536												
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5												
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A												
B8827	19.49632	21.49384	B16HB7		3/24/03 14:30	MAXIM	B16HB7	100	%	.	.	100	%	.	.	100	%	.	.
B8827	52.972	54.9728	B16HB8		3/25/03 9:35	MAXIM	B16HB8	100	%	.	.	100	%	.	.	100	%	.	.

B-63, PHYSICAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Percent passing 3/4 inch sieve (PAS3/4IN) D422				Percent passing 3/8 inch sieve (PAS3/8IN) D422				Percent passing No.10 sieve (PAS#10) D422			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2												
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1												
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2												
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3												
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4												
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528												
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529												
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530												
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531												
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532												
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533												
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534												
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535												
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536												
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5												
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A												
B8827	19.49632	21.49384	B16HB7		3/24/03 14:30	MAXIM	B16HB7	93.95	%	.	.	77.55	%	.	.	43.02	%	.	.
B8827	52.972	54.9728	B16HB8		3/25/03 9:35	MAXIM	B16HB8	100	%	.	.	100	%	.	.	93.89	%	.	.

B-63, PHYSICAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Percent passing No.100 sieve (PAS#100) D422				Percent passing No.140 sieve (PAS#140) D422				Percent passing No.20 sieve (PAS#20) D422			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2												
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1												
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2												
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3												
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4												
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528												
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529												
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530												
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531												
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532												
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533												
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534												
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535												
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536												
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5												
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A												
B8827	19.49632	21.49384	B16HB7		3/24/03 14:30	MAXIM	B16HB7	14.78	%	.	.	11.46	%	.	.	30.12	%	.	.
B8827	52.972	54.9728	B16HB8		3/25/03 9:35	MAXIM	B16HB8	3.88	%	.	.	2.9	%	.	.	44.85	%	.	.

B-63, PHYSICAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Percent passing No.200 sieve (PAS#200) D422				Percent passing No.4 sieve (PAS#4) D422				Percent passing No.40 sieve (PAS#40) D422			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2												
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1												
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2												
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3												
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4												
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528												
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529												
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530												
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531												
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532												
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533												
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534												
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535												
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536												
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5												
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A												
B8827	19.49632	21.49384	B16HB7		3/24/03 14:30	MAXIM	B16HB7	8.13	%	.	.	62.47	%	.	.	22.91	%	.	.
B8827	52.972	54.9728	B16HB8		3/25/03 9:35	MAXIM	B16HB8	2.17	%	.	.	99.78	%	.	.	10.99	%	.	.

B-63, PHYSICAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Percent passing No.60 sieve (PAS#60)				pH Measurement (PH)				pH Measurement (PH)			
								D422				150.1				9040	9040	9040	9040
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2									8.4	pH	.	J
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1									8.8	pH	.	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2												
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3									8	pH	.	J
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4												
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528									9.21	pH	.	.
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529									9.28	pH	.	.
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530									9.3	pH	.	.
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531									9.19	pH	.	.
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532									9.09	pH	.	.
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533									9.36	pH	.	.
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534									9.26	pH	.	.
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535									9.42	pH	.	.
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536									9.37	pH	.	.
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5									8.43	pH	.	.
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A					8.969	pH	.	.				
B8827	19.49632	21.49384	B16HB7		3/24/03 14:30	MAXIM	B16HB7	17.7	%	.	.								
B8827	52.972	54.9728	B16HB8		3/25/03 9:35	MAXIM	B16HB8	5.83	%	.	.								

B-63, PHYSICAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	pH Measurement (PH) 9045				Specific Gravity (SPECGVTY) D854			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2								
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1								
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2	8.2	pH	.	.				
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3								
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4	8.2	pH	.	.				
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528								
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529								
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530								
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531								
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532								
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533								
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534								
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535								
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536								
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5								
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A								
B8827	19.49632	21.49384	B16HB7		3/24/03 14:30	MAXIM	B16HB7								
B8827	52.972	54.9728	B16HB8		3/25/03 9:35	MAXIM	B16HB8								

B-63, WETCHEM

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Ammonia (7664-41-7) 350.1				Ammonia (7664-41-7) 350.3				Ammonium ion (14798-03-9) 300.7_CATIONS_IC			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2	648	ug/kg	.	.								
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5	665	ug/kg	U	.								
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8	714	ug/kg	U	.								
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1	636	ug/kg	U	.								
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7	630	ug/kg	U	.								
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0	629	ug/kg	U	.								
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3	652	ug/kg	U	.								
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6	629	ug/kg	U	.								
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9	620	ug/kg	U	.								
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1	625	ug/kg	U	.								
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4	623	ug/kg	U	.								
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7	619	ug/kg	U	.								
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0	644	ug/kg	U	.								
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6	654	ug/kg	U	.								
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72					5350	ug/kg	.	.				
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73					3160	ug/kg	U	.				
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82	170	ug/kg	U	.								
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7					5590	ug/kg	U	.				
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8					5230	ug/kg	U	.				
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9					5710	ug/kg	U	.				
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0					5350	ug/kg	U	.				
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1					5710	ug/kg	U	.				
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2					6080	ug/kg	U	.				
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9					6010	ug/kg	U	.				
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0					5960	ug/kg	U	.				
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1					5590	ug/kg	U	.				
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2					5590	ug/kg	U	.				
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1					5470	ug/kg	U	.				
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2					6200	ug/kg	U	.				
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3					6080	ug/kg	U	.				
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4	146	ug/kg	U	.								
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528					5420	ug/kg	U	.				
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529					5420	ug/kg	.	.				
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530					9990	ug/kg	.	.				
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531					6180	ug/kg	U	.				
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532					6130	ug/kg	U	.				
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533					5480	ug/kg	U	.				
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534					6210	ug/kg	U	.				
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535					5000	ug/kg	U	.				
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536					5090	ug/kg	U	.				
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5					6230	ug/kg	U	.				
B8827	17.49552	18.99448	B16HB4		3/24/03 13:57	STLSL	B16HB4												
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A									60	ug/kg	BX	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Bromide (24959-67-9) 300				Chloride (16887-00-6) 300				Cyanide (57-12-5) 335.2			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2												
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5												
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8												
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1												
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7												
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0												
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3												
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6												
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9												
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1												
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4												
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7												
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0												
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6												
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72					17900	ug/kg	.	.				
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73					3100	ug/kg	.	.				
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82					3600	ug/kg	.	.				
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7					2100	ug/kg	.	.				
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8					1600	ug/kg	.	.				
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9					1700	ug/kg	.	.				
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0					2200	ug/kg	.	.				
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1					2300	ug/kg	.	.				
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2					1300	ug/kg	U	.				
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9					4100	ug/kg	.	.				
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0					2300	ug/kg	.	.				
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1					3400	ug/kg	.	.				
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2					3100	ug/kg	.	.				
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1					2200	ug/kg	.	.				
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2					4300	ug/kg	.	.				
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3					7000	ug/kg	.	.				
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4					2300	ug/kg	.	.				
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528					3150	ug/kg	.	.				
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529					2310	ug/kg	.	.				
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530					2040	ug/kg	.	.				
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531					2130	ug/kg	.	.				
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532					3750	ug/kg	.	.				
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533					2740	ug/kg	.	.				
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534					3030	ug/kg	.	.				
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535					3750	ug/kg	.	.				
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536					2740	ug/kg	.	.				
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5					7380	ug/kg	.	.				
B8827	17.49552	18.99448	B16HB4		3/24/03 13:57	STLSL	B16HB4												
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A	450	ug/kg	U	.	784	ug/kg	B	.	200	ug/kg	U	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Cyanide (57-12-5) 9010				Fluoride (16984-48-8) 300				Hydrazine (302-01-2) D1385			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2												
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5	548	ug/kg	U	J								
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8	588	ug/kg	U	J								
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1	527	ug/kg	U	J								
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7	517	ug/kg	U	J								
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0	517	ug/kg	U	J								
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3	539	ug/kg	U	J								
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6	517	ug/kg	U	.								
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9	514	ug/kg	U	.								
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1	517	ug/kg	U	J								
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4	512	ug/kg	U	J								
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7	510	ug/kg	U	J								
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0	529	ug/kg	U	J								
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6	538	ug/kg	U	.								
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72	480	ug/kg	U	.	5500	ug/kg	U	.	1100	ug/kg	U	.
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73	440	ug/kg	U	.	2700	ug/kg	U	.	1100	ug/kg	U	.
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82	130	ug/kg	U	.	760	ug/kg	B	.				
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7	270	ug/kg	U	.	1300	ug/kg	U	.				
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8	320	ug/kg	U	.	1300	ug/kg	U	.				
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9	270	ug/kg	U	.	1300	ug/kg	U	.				
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0	360	ug/kg	U	.	1300	ug/kg	U	.				
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1	320	ug/kg	U	.	1300	ug/kg	U	.				
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2	300	ug/kg	U	.	1300	ug/kg	U	.				
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9	480	ug/kg	U	.	1300	ug/kg	U	.				
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0	400	ug/kg	U	.	1300	ug/kg	U	.				
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1	390	ug/kg	U	.	1300	ug/kg	U	.				
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2	440	ug/kg	U	.	1300	ug/kg	U	.				
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1	320	ug/kg	U	.	1300	ug/kg	U	.				
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2	380	ug/kg	U	.	1300	ug/kg	U	.				
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3	570	ug/kg	U	.	1300	ug/kg	U	.				
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4	130	ug/kg	U	.	690	ug/kg	B	.				
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528	324	ug/kg	U	.	1280	ug/kg	U	.				
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529	445	ug/kg	U	.	1290	ug/kg	U	.				
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530	428	ug/kg	U	.	1290	ug/kg	U	.				
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531	405	ug/kg	U	.	1290	ug/kg	U	.				
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532	348	ug/kg	U	.	1300	ug/kg	U	.				
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533	458	ug/kg	U	.	1290	ug/kg	U	.				
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534	393	ug/kg	U	.	1280	ug/kg	U	.				
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535	362	ug/kg	U	.	1280	ug/kg	U	.				
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536	406	ug/kg	U	.	1290	ug/kg	U	.				
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5	475	ug/kg	U	.	1360	ug/kg	U	.				
B8827	17.49552	18.99448	B16HB4		3/24/03 13:57	STLSL	B16HB4												
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A					263	ug/kg	BE	.				

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Nitrate (14797-55-8) 300				Nitrite (14797-65-0) 300				Nitrogen in Nitrite and Nitrate (NO2+NO3-N) 353.1			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2	158000	ug/kg	.	J	1250	ug/kg	.	.	32400	ug/kg	.	J
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5	138000	ug/kg	.	J	703	ug/kg	U	.	26700	ug/kg	.	J
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8	57500	ug/kg	.	J	759	ug/kg	U	.	11700	ug/kg	.	J
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1	59800	ug/kg	.	J	686	ug/kg	U	.	11800	ug/kg	.	J
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7	18000	ug/kg	.	.	677	ug/kg	U	.	3480	ug/kg	.	J
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0	18400	ug/kg	.	.	627	ug/kg	U	.	3340	ug/kg	.	J
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3	26600	ug/kg	.	.	703	ug/kg	U	.	4980	ug/kg	.	J
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6	916	ug/kg	U	.	680	ug/kg	U	.	517	ug/kg	U	J
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9	899	ug/kg	U	.	667	ug/kg	U	.	510	ug/kg	U	J
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1	1510	ug/kg	.	.	657	ug/kg	U	.	514	ug/kg	U	J
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4	868	ug/kg	U	.	644	ug/kg	U	.	512	ug/kg	U	J
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7	903	ug/kg	U	.	670	ug/kg	U	.	509	ug/kg	U	J
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0	912	ug/kg	U	.	677	ug/kg	U	.	529	ug/kg	U	J
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6	1130	ug/kg	.	.	703	ug/kg	U	.	539	ug/kg	U	J
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72	833000	ug/kg	.	.	2730	ug/kg	U	.				
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73	44000	ug/kg	.	.	1330	ug/kg	U	.				
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82	43400	ug/kg	.	.	69	ug/kg	U	.	9400	ug/kg	.	.
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7	9400	ug/kg	.	.	1300	ug/kg	U	.				
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8	13000	ug/kg	.	.	1290	ug/kg	U	.				
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9	12700	ug/kg	.	.	1290	ug/kg	U	.				
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0	11300	ug/kg	.	.	1280	ug/kg	U	.				
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1	13900	ug/kg	.	.	1290	ug/kg	U	.				
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2	1730	ug/kg	.	.	1280	ug/kg	U	.				
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9	203000	ug/kg	.	.	1290	ug/kg	U	.				
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0	30900	ug/kg	.	.	1300	ug/kg	U	.				
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1	26600	ug/kg	.	.	1300	ug/kg	U	.				
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2	35700	ug/kg	.	.	1320	ug/kg	U	.				
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1	27400	ug/kg	.	.	1300	ug/kg	U	.				
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2	232000	ug/kg	.	.	1310	ug/kg	U	.				
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3	278000	ug/kg	.	.	1300	ug/kg	U	.				
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4	147000	ug/kg	.	.	821	ug/kg	.	.	27300	ug/kg	.	.
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528	12300	ug/kg	.	.	1280	ug/kg	U	.				
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529	4830	ug/kg	.	.	1290	ug/kg	U	.				
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530	3800	ug/kg	.	.	1290	ug/kg	U	.				
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531	5290	ug/kg	.	.	1290	ug/kg	U	.				
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532	8500	ug/kg	.	.	1300	ug/kg	U	.				
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533	7390	ug/kg	.	.	1290	ug/kg	U	.				
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534	7030	ug/kg	.	.	1280	ug/kg	U	.				
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535	1280	ug/kg	U	.	1280	ug/kg	U	.				
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536	1290	ug/kg	U	.	1290	ug/kg	U	.				
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5	114000	ug/kg	.	.	1360	ug/kg	U	.				
B8827	17.49552	18.99448	B16HB4		3/24/03 13:57	STLSL	B16HB4									2300	ug/kg	.	.
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A	5270	ug/kg	.	.	296	ug/kg	U	.				

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Nitrogen in Nitrite and Nitrate (NO2+NO3-N) 353.2				Phosphate (14265-44-2) 300				Sulfate (14808-79-8) 300			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2									32200	ug/kg	.	.
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5									43300	ug/kg	.	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8									18800	ug/kg	.	.
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1									26000	ug/kg	.	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7									8880	ug/kg	.	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0									9110	ug/kg	.	.
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3									13600	ug/kg	.	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6									5170	ug/kg	U	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9									5070	ug/kg	U	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1									5010	ug/kg	U	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4									4910	ug/kg	U	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7									5100	ug/kg	U	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0									10100	ug/kg	.	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6									18400	ug/kg	.	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72	230000	ug/kg	.	.	5300	ug/kg	.	.	76200	ug/kg	.	.
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73	9500	ug/kg	.	.	1300	ug/kg	U	.	13500	ug/kg	.	.
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82					2900	ug/kg	B	.	12300	ug/kg	.	.
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7	2400	ug/kg	.	.	1300	ug/kg	U	.	5600	ug/kg	.	.
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8	3500	ug/kg	.	.	1300	ug/kg	U	.	4600	ug/kg	.	.
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9	3500	ug/kg	.	.	1300	ug/kg	U	.	4000	ug/kg	.	.
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0	3300	ug/kg	.	.	1300	ug/kg	U	.	2700	ug/kg	.	.
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1	3300	ug/kg	.	.	1300	ug/kg	U	.	16000	ug/kg	.	.
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2	510	ug/kg	.	.	1300	ug/kg	U	.	3300	ug/kg	.	.
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9	49800	ug/kg	.	.	2900	ug/kg	.	.	41700	ug/kg	.	.
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0	7600	ug/kg	.	.	4200	ug/kg	.	.	6400	ug/kg	.	.
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1	6600	ug/kg	.	.	1700	ug/kg	.	.	26200	ug/kg	.	.
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2	8500	ug/kg	.	.	1300	ug/kg	U	.	2800	ug/kg	.	.
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1	7700	ug/kg	.	.	1800	ug/kg	.	.	11600	ug/kg	.	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2	62400	ug/kg	.	.	6400	ug/kg	.	.	31600	ug/kg	.	.
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3	85600	ug/kg	.	.	2300	ug/kg	.	.	51600	ug/kg	.	.
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4					830	ug/kg	U	.	25700	ug/kg	.	.
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528	2840	ug/kg	.	.	1390	ug/kg	.	.	20800	ug/kg	.	.
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529	1360	ug/kg	.	.	1290	ug/kg	U	.	12100	ug/kg	.	.
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530	1320	ug/kg	.	.	1290	ug/kg	U	.	10800	ug/kg	.	.
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531	1810	ug/kg	.	.	1290	ug/kg	U	.	12300	ug/kg	.	.
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532	2550	ug/kg	.	.	1300	ug/kg	U	.	9170	ug/kg	.	.
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533	1780	ug/kg	.	.	1290	ug/kg	U	.	5980	ug/kg	.	.
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534	1950	ug/kg	.	.	1280	ug/kg	U	.	5410	ug/kg	.	.
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535	260	ug/kg	.	.	1280	ug/kg	U	.	3720	ug/kg	.	.
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536	367	ug/kg	.	.	1290	ug/kg	U	.	7060	ug/kg	.	.
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5	22000	ug/kg	.	.	4750	ug/kg	.	.	64700	ug/kg	.	.
B8827	17.49552	18.99448	B16HB4		3/24/03 13:57	STLSL	B16HB4												
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A					399	ug/kg	UE	.	13100	ug/kg	.	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Sulfide (18496-25-8) 9030			
								Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2				
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5				
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8				
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1				
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7				
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0				
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3				
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6				
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9				
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1				
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4				
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7				
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0				
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6				
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72	43400	ug/kg	U	.
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73	39300	ug/kg	U	.
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82	7400	ug/kg	U	.
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7	23900	ug/kg	U	.
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8	43800	ug/kg	.	.
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9	22100	ug/kg	U	.
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0	19900	ug/kg	U	.
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1	20600	ug/kg	U	.
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2	27900	ug/kg	U	.
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9	20100	ug/kg	U	.
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0	22200	ug/kg	U	.
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1	21400	ug/kg	U	.
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2	21700	ug/kg	U	.
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1	29500	ug/kg	U	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2	23200	ug/kg	U	.
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3	12200	ug/kg	U	.
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4	7300	ug/kg	U	.
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528	21700	ug/kg	U	.
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529	21400	ug/kg	U	.
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530	27900	ug/kg	U	.
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531	32300	ug/kg	U	.
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532	38800	ug/kg	.	.
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533	30700	ug/kg	U	.
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534	32400	ug/kg	U	.
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535	31600	ug/kg	U	.
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536	33600	ug/kg	U	.
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5	22100	ug/kg	U	.
B8827	17.49552	18.99448	B16HB4		3/24/03 13:57	STLSL	B16HB4	7200	ug/kg	U	.
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A				

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Actinium-228 (14331-83-0) GEA				Americium-241 (14596-10-2) Eichrom/Plate/AEA				Americium-241 (14596-10-2) GEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESRL	B0MJC2												
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESRL	B0MJC5									0.589	pCi/g	.	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESRL	B0MJC8												
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESRL	B0MJD1												
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESRL	B0MJD7												
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESRL	B0MJF0												
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESRL	B0MJF3												
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESRL	B0MJF6												
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESRL	B0MJF9												
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESRL	B0MJJ1												
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESRL	B0MJJ4												
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESRL	B0MJJ7												
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESRL	B0MJK0												
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESRL	B0MJK6												
10142	4.99872	5.99912	B13D72		11/2/01 7:30	TMANC	B13D72									5.30E-02	pCi/g	U	.
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	TMANC	B13D73									0.27	pCi/g	U	.
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLRL	B13D82					6.91E-03	pCi/g	U	.	2.59E-02	pCi/g	U	.
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	EBRLNE	B15XJ7									0.14	pCi/g	U	.
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	EBRLNE	B15XJ8									8.20E-02	pCi/g	U	.
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	EBRLNE	B15XJ9									0.14	pCi/g	U	.
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	EBRLNE	B15XK0									0.14	pCi/g	U	.
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	EBRLNE	B15XK1									0.22	pCi/g	U	.
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	EBRLNE	B15XK2									8.50E-02	pCi/g	U	.
14076	9.49888	10.496	B15XK9		11/12/02 10:10	EBRLNE	B15XK9									0.35	pCi/g	U	.
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	EBRLNE	B15XL0									8.00E-02	pCi/g	U	.
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	EBRLNE	B15XL1									3.70E-02	pCi/g	U	.
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	EBRLNE	B15XL2									8.40E-02	pCi/g	U	.
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	EBRLNE	B15XM1									0.27	pCi/g	U	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	EBRLNE	B15XM2									0.13	pCi/g	U	.
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	EBRLNE	B15XM3									0.34	pCi/g	U	.
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLRL	B15XM4					3.45E-02	pCi/g	.	.	2.09E-02	pCi/g	U	.
B8827	12.4968	14.4976	B16528		3/24/03 11:50	EBRLNE	B16528									0.21	pCi/g	U	.
B8827	14.99616	16.99696	B16529		3/24/03 12:20	EBRLNE	B16529									0.2	pCi/g	U	.
B8827	14.99616	16.99696	B16530		3/24/03 12:20	EBRLNE	B16530									0.18	pCi/g	U	.
B8827	17.49552	18.99448	B16531		3/24/03 13:57	EBRLNE	B16531									0.32	pCi/g	U	.
B8827	19.49632	21.49384	B16532		3/24/03 14:30	EBRLNE	B16532									0.46	pCi/g	U	.
B8827	22.9928	24.9936	B16533		3/24/03 15:14	EBRLNE	B16533									0.33	pCi/g	U	.
B8827	27.99152	29.99232	B16534		3/24/03 15:53	EBRLNE	B16534									0.17	pCi/g	U	.
B8827	52.972	54.9728	B16535		3/25/03 9:35	EBRLNE	B16535									0.31	pCi/g	U	.
B8827	100.9584	102.9592	B16536		3/25/03 15:30	EBRLNE	B16536									0.39	pCi/g	U	.
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	EBRLNE	B16FW5									0.16	pCi/g	U	.
B8827	17.49552	18.99448	B16HB4		3/24/03 13:57	STLRL	B16HB4												
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A	0.44	pCi/g	.	.					1.62E-02	pCi/g	U	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Americium-241 (14596-10-2) IX/Plate/AEA				Americium-241 (14596-10-2) IX/Prec/AEA				Antimony-125 (14234-35-6) GEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESRL	B0MJC2					8.76E-03	pCi/g	U	.				
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESRL	B0MJC5					1.66	pCi/g	U	.				
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESRL	B0MJC8					6.15E-02	pCi/g	J	.				
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESRL	B0MJD1					1.49	pCi/g	U	.				
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESRL	B0MJD7					2.95E-02	pCi/g	J	.				
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESRL	B0MJF0					4.08E-03	pCi/g	U	.				
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESRL	B0MJF3					4.19E-03	pCi/g	U	.				
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESRL	B0MJF6					8.29E-03	pCi/g	U	.				
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESRL	B0MJF9					0.0146	pCi/g	UJ	.				
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESRL	B0MJJ1					4.84E-03	pCi/g	U	.				
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESRL	B0MJJ4					8.31E-03	pCi/g	U	.				
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESRL	B0MJJ7					1.05E-02	pCi/g	U	.				
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESRL	B0MJK0					-7.13E-04	pCi/g	U	.				
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESRL	B0MJK6					0.0161	pCi/g	UJ	.				
10142	4.99872	5.99912	B13D72		11/2/01 7:30	TMANC	B13D72	7.50E-02	pCi/g	U	.					9.30E-02	pCi/g	U	.
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	TMANC	B13D73	0	pCi/g	U	.								
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLRL	B13D82												
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	EBRLNE	B15XJ7	0	pCi/g	U	.								
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	EBRLNE	B15XJ8	0.031	pCi/g	U	.								
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	EBRLNE	B15XJ9	2.90E-02	pCi/g	U	.								
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	EBRLNE	B15XK0	2.60E-02	pCi/g	U	.								
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	EBRLNE	B15XK1	3.80E-02	pCi/g	U	.								
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	EBRLNE	B15XK2	0	pCi/g	U	.								
14076	9.49888	10.496	B15XK9		11/12/02 10:10	EBRLNE	B15XK9	3.50E-02	pCi/g	U	.								
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	EBRLNE	B15XL0	3.50E-02	pCi/g	U	.								
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	EBRLNE	B15XL1	5.60E-02	pCi/g	U	.								
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	EBRLNE	B15XL2	-0.181	pCi/g	U	.								
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	EBRLNE	B15XM1	0.108	pCi/g	U	.					7.20E-02	pCi/g	U	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	EBRLNE	B15XM2	0.102	pCi/g	U	.					0.12	pCi/g	U	.
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	EBRLNE	B15XM3	0.159	pCi/g	U	.								
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLRL	B15XM4												
B8827	12.4968	14.4976	B16528		3/24/03 11:50	EBRLNE	B16528	0	pCi/g	U	.								
B8827	14.99616	16.99696	B16529		3/24/03 12:20	EBRLNE	B16529	3.30E-02	pCi/g	U	.								
B8827	14.99616	16.99696	B16530		3/24/03 12:20	EBRLNE	B16530	0	pCi/g	U	.								
B8827	17.49552	18.99448	B16531		3/24/03 13:57	EBRLNE	B16531	3.00E-02	pCi/g	U	.								
B8827	19.49632	21.49384	B16532		3/24/03 14:30	EBRLNE	B16532	3.00E-02	pCi/g	U	.								
B8827	22.9928	24.9936	B16533		3/24/03 15:14	EBRLNE	B16533	6.80E-02	pCi/g	U	.								
B8827	27.99152	29.99232	B16534		3/24/03 15:53	EBRLNE	B16534	-3.30E-02	pCi/g	U	.								
B8827	52.972	54.9728	B16535		3/25/03 9:35	EBRLNE	B16535	0.124	pCi/g	U	.								
B8827	100.9584	102.9592	B16536		3/25/03 15:30	EBRLNE	B16536	0.197	pCi/g	U	.								
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	EBRLNE	B16FW5	3.20E-02	pCi/g	U	.					9.20E-02	pCi/g	U	.
B8827	17.49552	18.99448	B16HB4		3/24/03 13:57	STLRL	B16HB4												
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A					0.014	pCi/g	U	.	-1.93E-03	pCi/g	U	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Barium-133 (13981-41-4) GEA				Bismuth-212 (14913-49-6) GEA				Bismuth-214 (14733-03-0) GEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESRL	B0MJC2												
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESRL	B0MJC5												
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESRL	B0MJC8												
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESRL	B0MJD1												
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESRL	B0MJD7												
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESRL	B0MJF0												
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESRL	B0MJF3												
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESRL	B0MJF6												
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESRL	B0MJF9												
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESRL	B0MJJ1												
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESRL	B0MJJ4												
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESRL	B0MJJ7												
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESRL	B0MJK0												
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESRL	B0MJK6												
10142	4.99872	5.99912	B13D72		11/2/01 7:30	TMANC	B13D72	4.40E-02	pCi/g	U	.								
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	TMANC	B13D73												
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLRL	B13D82												
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	EBRLNE	B15XJ7												
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	EBRLNE	B15XJ8												
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	EBRLNE	B15XJ9												
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	EBRLNE	B15XK0												
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	EBRLNE	B15XK1												
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	EBRLNE	B15XK2												
14076	9.49888	10.496	B15XK9		11/12/02 10:10	EBRLNE	B15XK9												
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	EBRLNE	B15XL0												
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	EBRLNE	B15XL1												
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	EBRLNE	B15XL2												
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	EBRLNE	B15XM1	3.20E-02	pCi/g	U	.								
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	EBRLNE	B15XM2	0.055	pCi/g	U	.								
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	EBRLNE	B15XM3												
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLRL	B15XM4												
B8827	12.4968	14.4976	B16528		3/24/03 11:50	EBRLNE	B16528												
B8827	14.99616	16.99696	B16529		3/24/03 12:20	EBRLNE	B16529												
B8827	14.99616	16.99696	B16530		3/24/03 12:20	EBRLNE	B16530												
B8827	17.49552	18.99448	B16531		3/24/03 13:57	EBRLNE	B16531												
B8827	19.49632	21.49384	B16532		3/24/03 14:30	EBRLNE	B16532												
B8827	22.9928	24.9936	B16533		3/24/03 15:14	EBRLNE	B16533												
B8827	27.99152	29.99232	B16534		3/24/03 15:53	EBRLNE	B16534												
B8827	52.972	54.9728	B16535		3/25/03 9:35	EBRLNE	B16535												
B8827	100.9584	102.9592	B16536		3/25/03 15:30	EBRLNE	B16536												
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	EBRLNE	B16FW5	4.00E-02	pCi/g	U	.								
B8827	17.49552	18.99448	B16HB4		3/24/03 13:57	STLRL	B16HB4												
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A					0.276	pCi/g	.	.	0.311	pCi/g	.	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Carbon-14 (14762-75-5) CombOx/LSC				Cerium-144 (14762-78-8) GEA				Cesium-134 (13967-70-9) GEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESRL	B0MJC2												
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESRL	B0MJC5												
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESRL	B0MJC8												
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESRL	B0MJD1												
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESRL	B0MJD7												
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESRL	B0MJF0												
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESRL	B0MJF3												
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESRL	B0MJF6												
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESRL	B0MJF9												
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESRL	B0MJJ1												
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESRL	B0MJJ4												
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESRL	B0MJJ7												
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESRL	B0MJK0												
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESRL	B0MJK6												
10142	4.99872	5.99912	B13D72		11/2/01 7:30	TMANC	B13D72	-0.621	pCi/g	U	.					5.00E-02	pCi/g	U	.
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	TMANC	B13D73												
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLRL	B13D82												
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	EBRLNE	B15XJ7												
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	EBRLNE	B15XJ8												
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	EBRLNE	B15XJ9												
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	EBRLNE	B15XK0												
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	EBRLNE	B15XK1												
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	EBRLNE	B15XK2												
14076	9.49888	10.496	B15XK9		11/12/02 10:10	EBRLNE	B15XK9												
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	EBRLNE	B15XL0												
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	EBRLNE	B15XL1												
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	EBRLNE	B15XL2												
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	EBRLNE	B15XM1	-1.39	pCi/g	U	.					8.20E-02	pCi/g	U	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	EBRLNE	B15XM2	-0.58	pCi/g	U	.					4.80E-02	pCi/g	U	.
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	EBRLNE	B15XM3												
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLRL	B15XM4												
B8827	12.4968	14.4976	B16528		3/24/03 11:50	EBRLNE	B16528												
B8827	14.99616	16.99696	B16529		3/24/03 12:20	EBRLNE	B16529												
B8827	14.99616	16.99696	B16530		3/24/03 12:20	EBRLNE	B16530												
B8827	17.49552	18.99448	B16531		3/24/03 13:57	EBRLNE	B16531												
B8827	19.49632	21.49384	B16532		3/24/03 14:30	EBRLNE	B16532												
B8827	22.9928	24.9936	B16533		3/24/03 15:14	EBRLNE	B16533												
B8827	27.99152	29.99232	B16534		3/24/03 15:53	EBRLNE	B16534												
B8827	52.972	54.9728	B16535		3/25/03 9:35	EBRLNE	B16535												
B8827	100.9584	102.9592	B16536		3/25/03 15:30	EBRLNE	B16536												
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	EBRLNE	B16FW5	-1.8	pCi/g	U	.					5.10E-02	pCi/g	U	.
B8827	17.49552	18.99448	B16HB4		3/24/03 13:57	STLRL	B16HB4												
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A					7.32E-03	pCi/g	U	.	1.79E-02	pCi/g	U	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Cesium-137 (10045-97-3) GEA				Cobalt-60 (10198-40-0) GEA				Curium-242 (15510-73-3) 1X/Plate/AEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESRL	B0MJC2	0.393	pCi/g	.	.	-8.01E-03	pCi/g	U	.				
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESRL	B0MJC5	71.4	pCi/g	.	.	-2.07E-03	pCi/g	U	.				
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESRL	B0MJC8	6.3	pCi/g	.	.	-1.03E-03	pCi/g	U	.				
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESRL	B0MJD1	100	pCi/g	.	.	-1.59E-03	pCi/g	U	.				
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESRL	B0MJD7	-0.00106	pCi/g	U	.	1.07E-02	pCi/g	U	.				
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESRL	B0MJF0	-5.44E-03	pCi/g	U	.	-1.97E-02	pCi/g	U	.				
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESRL	B0MJF3	-0.0129	pCi/g	U	.	-0.00175	pCi/g	U	.				
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESRL	B0MJF6	-1.71E-02	pCi/g	U	.	5.81E-03	pCi/g	U	.				
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESRL	B0MJF9	-5.37E-03	pCi/g	U	.	7.32E-03	pCi/g	U	.				
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESRL	B0MJJ1	-4.55E-03	pCi/g	U	.	0.00297	pCi/g	U	.				
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESRL	B0MJJ4	-6.68E-03	pCi/g	U	.	-8.95E-03	pCi/g	U	.				
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESRL	B0MJJ7	4.95E-03	pCi/g	U	.	0.00181	pCi/g	U	.				
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESRL	B0MJK0	-7.89E-03	pCi/g	U	.	-7.49E-04	pCi/g	U	.				
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESRL	B0MJK6	6.49E-03	pCi/g	U	.	0.0063	pCi/g	U	.				
10142	4.99872	5.99912	B13D72		11/2/01 7:30	TMANC	B13D72	0.817	pCi/g	.	.	4.80E-02	pCi/g	U	.	0	pCi/g	U	.
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	TMANC	B13D73	3.40E-02	pCi/g	U	.	3.60E-02	pCi/g	U	.				
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLRL	B13D82	7.56E-03	pCi/g	U	.	2.01E-03	pCi/g	U	.				
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	EBRLNE	B15XJ7	3.50E-02	pCi/g	U	.	0.047	pCi/g	U	.				
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	EBRLNE	B15XJ8	0.024	pCi/g	U	.	2.50E-02	pCi/g	U	.				
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	EBRLNE	B15XJ9	0.039	pCi/g	U	.	4.60E-02	pCi/g	U	.				
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	EBRLNE	B15XK0	3.70E-02	pCi/g	U	.	4.50E-02	pCi/g	U	.				
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	EBRLNE	B15XK1	3.00E-02	pCi/g	U	.	3.40E-02	pCi/g	U	.				
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	EBRLNE	B15XK2	2.50E-02	pCi/g	U	.	0.027	pCi/g	U	.				
14076	9.49888	10.496	B15XK9		11/12/02 10:10	EBRLNE	B15XK9	2.62	pCi/g	.	.	8.20E-02	pCi/g	U	.				
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	EBRLNE	B15XL0	2.2	pCi/g	.	.	8.00E-02	pCi/g	U	.				
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	EBRLNE	B15XL1	0.508	pCi/g	.	.	2.80E-02	pCi/g	U	.				
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	EBRLNE	B15XL2	2.60E-02	pCi/g	U	.	2.80E-02	pCi/g	U	.				
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	EBRLNE	B15XM1	3.20E-02	pCi/g	U	.	3.40E-02	pCi/g	U	.	0.027	pCi/g	U	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	EBRLNE	B15XM2	3.2	pCi/g	.	.	3.50E-02	pCi/g	U	.	0	pCi/g	U	.
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	EBRLNE	B15XM3	2.56	pCi/g	.	.	9.80E-02	pCi/g	U	.				
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLRL	B15XM4	3.56	pCi/g	.	.	7.33E-03	pCi/g	U	.				
B8827	12.4968	14.4976	B16528		3/24/03 11:50	EBRLNE	B16528	8.20E-02	pCi/g	U	.	0.1	pCi/g	U	.				
B8827	14.99616	16.99696	B16529		3/24/03 12:20	EBRLNE	B16529	7.60E-02	pCi/g	U	.	8.50E-02	pCi/g	U	.				
B8827	14.99616	16.99696	B16530		3/24/03 12:20	EBRLNE	B16530	7.00E-02	pCi/g	U	.	7.60E-02	pCi/g	U	.				
B8827	17.49552	18.99448	B16531		3/24/03 13:57	EBRLNE	B16531	0.055	pCi/g	U	.	6.10E-02	pCi/g	U	.				
B8827	19.49632	21.49384	B16532		3/24/03 14:30	EBRLNE	B16532	8.30E-02	pCi/g	U	.	7.60E-02	pCi/g	U	.				
B8827	22.9928	24.9936	B16533		3/24/03 15:14	EBRLNE	B16533	5.40E-02	pCi/g	U	.	0.055	pCi/g	U	.				
B8827	27.99152	29.99232	B16534		3/24/03 15:53	EBRLNE	B16534	6.90E-02	pCi/g	U	.	7.60E-02	pCi/g	U	.				
B8827	52.972	54.9728	B16535		3/25/03 9:35	EBRLNE	B16535	5.80E-02	pCi/g	U	.	6.40E-02	pCi/g	U	.				
B8827	100.9584	102.9592	B16536		3/25/03 15:30	EBRLNE	B16536	6.70E-02	pCi/g	U	.	7.30E-02	pCi/g	U	.				
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	EBRLNE	B16FW5	1.32	pCi/g	.	.	5.00E-02	pCi/g	U	.	0	pCi/g	U	.
B8827	17.49552	18.99448	B16HB4		3/24/03 13:57	STLRL	B16HB4												
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A	5.74E-04	pCi/g	U	.	2.11E-03	pCi/g	U	.				

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Curium-242 (15510-73-3) IX/Prec/AEA				Curium-243/244 (CM-243/244) IX/Plate/AEA				Curium-244 (13981-15-2) IX/Prec/AEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESRL	B0MJC2	0.0166	pCi/g	U	.					4.22E-03	pCi/g	U	.
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESRL	B0MJC5	-4.18E-02	pCi/g	U	.					0.433	pCi/g	U	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESRL	B0MJC8	-2.41E-03	pCi/g	U	.					-0.00101	pCi/g	U	.
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESRL	B0MJD1	-3.91E-02	pCi/g	U	.					-3.26E-02	pCi/g	U	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESRL	B0MJD7	5.07E-03	pCi/g	U	.					-0.000339	pCi/g	U	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESRL	B0MJF0	5.33E-03	pCi/g	U	.					0.00445	pCi/g	U	.
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESRL	B0MJF3	-4.38E-04	pCi/g	U	.					-7.33E-04	pCi/g	U	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESRL	B0MJF6	-4.11E-04	pCi/g	U	.					0	pCi/g	U	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESRL	B0MJF9	-2.18E-03	pCi/g	U	.					3.04E-03	pCi/g	U	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESRL	B0MJJ1	5.35E-03	pCi/g	U	.					8.95E-03	pCi/g	U	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESRL	B0MJJ4	4.99E-03	pCi/g	U	.					0	pCi/g	U	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESRL	B0MJJ7	-5.88E-04	pCi/g	U	.					0.012	pCi/g	U	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESRL	B0MJK0	0.0101	pCi/g	U	.					4.48E-03	pCi/g	U	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESRL	B0MJK6	0	pCi/g	U	.					-3.23E-04	pCi/g	U	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	TMANC	B13D72												
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	TMANC	B13D73												
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLRL	B13D82												
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	EBRLNE	B15XJ7												
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	EBRLNE	B15XJ8												
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	EBRLNE	B15XJ9												
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	EBRLNE	B15XK0												
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	EBRLNE	B15XK1												
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	EBRLNE	B15XK2												
14076	9.49888	10.496	B15XK9		11/12/02 10:10	EBRLNE	B15XK9												
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	EBRLNE	B15XL0												
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	EBRLNE	B15XL1												
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	EBRLNE	B15XL2												
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	EBRLNE	B15XM1					-2.20E-02	pCi/g	U	.				
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	EBRLNE	B15XM2					-3.40E-02	pCi/g	U	.				
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	EBRLNE	B15XM3												
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLRL	B15XM4												
B8827	12.4968	14.4976	B16528		3/24/03 11:50	EBRLNE	B16528												
B8827	14.99616	16.99696	B16529		3/24/03 12:20	EBRLNE	B16529												
B8827	14.99616	16.99696	B16530		3/24/03 12:20	EBRLNE	B16530												
B8827	17.49552	18.99448	B16531		3/24/03 13:57	EBRLNE	B16531												
B8827	19.49632	21.49384	B16532		3/24/03 14:30	EBRLNE	B16532												
B8827	22.9928	24.9936	B16533		3/24/03 15:14	EBRLNE	B16533												
B8827	27.99152	29.99232	B16534		3/24/03 15:53	EBRLNE	B16534												
B8827	52.972	54.9728	B16535		3/25/03 9:35	EBRLNE	B16535												
B8827	100.9584	102.9592	B16536		3/25/03 15:30	EBRLNE	B16536												
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	EBRLNE	B16FW5					0	pCi/g	U	.				
B8827	17.49552	18.99448	B16HB4		3/24/03 13:57	STLRL	B16HB4												
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A												

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Europium-152 (14683-23-9) GEA				Europium-154 (15585-10-1) GEA				Europium-155 (14391-16-3) GEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESRL	B0MJC2	-5.40E-03	pCi/g	U	.	-5.47E-02	pCi/g	U	.	3.71E-02	pCi/g	U	.
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESRL	B0MJC5	-8.27E-02	pCi/g	U	.	1.29	pCi/g	.	.	0.987	pCi/g	U	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESRL	B0MJC8	-3.38E-02	pCi/g	U	.	2.73E-02	pCi/g	U	.	0.0751	pCi/g	U	.
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESRL	B0MJD1	-0.0969	pCi/g	U	.	0.774	pCi/g	.	.	0.672	pCi/g	U	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESRL	B0MJD7	-0.0195	pCi/g	U	.	5.00E-03	pCi/g	U	.	0.0212	pCi/g	U	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESRL	B0MJF0	-1.74E-02	pCi/g	U	.	-0.00496	pCi/g	U	.	3.58E-02	pCi/g	U	.
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESRL	B0MJF3	-0.00109	pCi/g	U	.	2.83E-03	pCi/g	U	.	3.19E-02	pCi/g	U	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESRL	B0MJF6	-6.95E-02	pCi/g	U	.	3.12E-02	pCi/g	U	.	0.0327	pCi/g	U	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESRL	B0MJF9	-0.0123	pCi/g	U	.	-3.06E-02	pCi/g	U	.	1.70E-02	pCi/g	U	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESRL	B0MJJ1	4.32E-03	pCi/g	U	.	2.74E-02	pCi/g	U	.	3.62E-02	pCi/g	U	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESRL	B0MJJ4	-0.0143	pCi/g	U	.	2.76E-03	pCi/g	U	.	5.02E-02	pCi/g	U	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESRL	B0MJJ7	7.54E-03	pCi/g	U	.	3.84E-03	pCi/g	U	.	3.74E-02	pCi/g	U	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESRL	B0MJK0	-3.73E-03	pCi/g	U	.	4.49E-03	pCi/g	U	.	0.0567	pCi/g	U	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESRL	B0MJK6	-9.18E-03	pCi/g	U	.	-6.09E-02	pCi/g	U	.	2.72E-02	pCi/g	U	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	TMANC	B13D72	0.1	pCi/g	U	.	0.15	pCi/g	U	.	7.10E-02	pCi/g	U	.
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	TMANC	B13D73	7.70E-02	pCi/g	U	.	0.12	pCi/g	U	.	0.13	pCi/g	U	.
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLRL	B13D82	-2.54E-02	pCi/g	U	.	-0.0144	pCi/g	U	.	2.84E-04	pCi/g	U	.
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	EBRLNE	B15XJ7	9.90E-02	pCi/g	U	.	0.13	pCi/g	U	.	9.90E-02	pCi/g	U	.
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	EBRLNE	B15XJ8	5.80E-02	pCi/g	U	.	8.60E-02	pCi/g	U	.	6.70E-02	pCi/g	U	.
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	EBRLNE	B15XJ9	9.70E-02	pCi/g	U	.	0.14	pCi/g	U	.	0.1	pCi/g	U	.
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	EBRLNE	B15XK0	9.70E-02	pCi/g	U	.	0.14	pCi/g	U	.	9.80E-02	pCi/g	U	.
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	EBRLNE	B15XK1	0.078	pCi/g	U	.	0.12	pCi/g	U	.	0.1	pCi/g	U	.
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	EBRLNE	B15XK2	6.10E-02	pCi/g	U	.	0.094	pCi/g	U	.	7.10E-02	pCi/g	U	.
14076	9.49888	10.496	B15XK9		11/12/02 10:10	EBRLNE	B15XK9	0.24	pCi/g	U	.	0.28	pCi/g	U	.	0.21	pCi/g	U	.
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	EBRLNE	B15XL0	0.2	pCi/g	U	.	0.25	pCi/g	U	.	0.16	pCi/g	U	.
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	EBRLNE	B15XL1	6.40E-02	pCi/g	U	.	9.30E-02	pCi/g	U	.	5.90E-02	pCi/g	U	.
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	EBRLNE	B15XL2	0.063	pCi/g	U	.	0.1	pCi/g	U	.	6.80E-02	pCi/g	U	.
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	EBRLNE	B15XM1	8.80E-02	pCi/g	U	.	0.13	pCi/g	U	.	0.13	pCi/g	U	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	EBRLNE	B15XM2	0.11	pCi/g	U	.	0.13	pCi/g	U	.	0.1	pCi/g	U	.
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	EBRLNE	B15XM3	0.23	pCi/g	U	.	0.27	pCi/g	U	.	0.23	pCi/g	U	.
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLRL	B15XM4	-3.65E-02	pCi/g	U	.	-2.94E-02	pCi/g	U	.	5.00E-02	pCi/g	U	.
B8827	12.4968	14.4976	B16528		3/24/03 11:50	EBRLNE	B16528	0.21	pCi/g	U	.	0.23	pCi/g	U	.	0.19	pCi/g	U	.
B8827	14.99616	16.99696	B16529		3/24/03 12:20	EBRLNE	B16529	0.19	pCi/g	U	.	0.3	pCi/g	U	.	0.18	pCi/g	U	.
B8827	14.99616	16.99696	B16530		3/24/03 12:20	EBRLNE	B16530	0.2	pCi/g	U	.	0.27	pCi/g	U	.	0.17	pCi/g	U	.
B8827	17.49552	18.99448	B16531		3/24/03 13:57	EBRLNE	B16531	0.15	pCi/g	U	.	0.18	pCi/g	U	.	0.18	pCi/g	U	.
B8827	19.49632	21.49384	B16532		3/24/03 14:30	EBRLNE	B16532	0.22	pCi/g	U	.	0.27	pCi/g	U	.	0.26	pCi/g	U	.
B8827	22.9928	24.9936	B16533		3/24/03 15:14	EBRLNE	B16533	0.17	pCi/g	U	.	0.22	pCi/g	U	.	0.18	pCi/g	U	.
B8827	27.99152	29.99232	B16534		3/24/03 15:53	EBRLNE	B16534	0.16	pCi/g	U	.	0.23	pCi/g	U	.	0.16	pCi/g	U	.
B8827	52.972	54.9728	B16535		3/25/03 9:35	EBRLNE	B16535	0.15	pCi/g	U	.	0.19	pCi/g	U	.	0.17	pCi/g	U	.
B8827	100.9584	102.9592	B16536		3/25/03 15:30	EBRLNE	B16536	0.19	pCi/g	U	.	0.23	pCi/g	U	.	0.22	pCi/g	U	.
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	EBRLNE	B16FW5	0.1	pCi/g	U	.	0.11	pCi/g	U	.	0.11	pCi/g	U	.
B8827	17.49552	18.99448	B16HB4		3/24/03 13:57	STLRL	B16HB4												
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A	-0.0172	pCi/g	U	.	7.40E-03	pCi/g	U	.	2.49E-02	pCi/g	U	.

B-63, RAD1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Gross alpha (12587-46-1) 900				Gross alpha (12587-46-1) 9310				Gross alpha (12587-46-1) GPC			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESRL	B0MJC2									11.1	pCi/g	.	.
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESRL	B0MJC5									12.1	pCi/g	.	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESRL	B0MJC8									11.1	pCi/g	.	.
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESRL	B0MJD1									9.76	pCi/g	J	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESRL	B0MJD7									2.06	pCi/g	U	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESRL	B0MJF0									3.58	pCi/g	U	.
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESRL	B0MJF3									6	pCi/g	J	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESRL	B0MJF6									9.14	pCi/g	J	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESRL	B0MJF9									9.76	pCi/g	J	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESRL	B0MJJ1									5.28	pCi/g	J	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESRL	B0MJJ4									8.32	pCi/g	J	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESRL	B0MJJ7									2.96	pCi/g	U	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESRL	B0MJK0									7.52	pCi/g	J	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESRL	B0MJK6									7.17	pCi/g	J	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	TMANC	B13D72	2.23	pCi/g	U	.								
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	TMANC	B13D73	2.42	pCi/g	U	.								
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLRL	B13D82					6.12	pCi/g	.	.				
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	EBRLNE	B15XJ7	2.65	pCi/g	U	.								
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	EBRLNE	B15XJ8	5.35	pCi/g	.	.								
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	EBRLNE	B15XJ9	3.37	pCi/g	U	.								
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	EBRLNE	B15XK0	4.1	pCi/g	.	.								
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	EBRLNE	B15XK1	4.51	pCi/g	.	.								
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	EBRLNE	B15XK2	8.11	pCi/g	.	.								
14076	9.49888	10.496	B15XK9		11/12/02 10:10	EBRLNE	B15XK9	5.44	pCi/g	.	.								
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	EBRLNE	B15XL0	4.68	pCi/g	U	.								
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	EBRLNE	B15XL1	3.73	pCi/g	U	.								
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	EBRLNE	B15XL2	3.88	pCi/g	U	.								
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	EBRLNE	B15XM1	1.12	pCi/g	U	.								
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	EBRLNE	B15XM2	6.19	pCi/g	.	.								
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	EBRLNE	B15XM3	7.5	pCi/g	.	.								
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLRL	B15XM4					8.04	pCi/g	.	.				
B8827	12.4968	14.4976	B16528		3/24/03 11:50	EBRLNE	B16528	3.97	pCi/g	.	.								
B8827	14.99616	16.99696	B16529		3/24/03 12:20	EBRLNE	B16529	2.72	pCi/g	U	.								
B8827	14.99616	16.99696	B16530		3/24/03 12:20	EBRLNE	B16530	1.3	pCi/g	U	.								
B8827	17.49552	18.99448	B16531		3/24/03 13:57	EBRLNE	B16531	4.98	pCi/g	.	.								
B8827	19.49632	21.49384	B16532		3/24/03 14:30	EBRLNE	B16532	4.79	pCi/g	.	.								
B8827	22.9928	24.9936	B16533		3/24/03 15:14	EBRLNE	B16533	4.39	pCi/g	.	.								
B8827	27.99152	29.99232	B16534		3/24/03 15:53	EBRLNE	B16534	4.54	pCi/g	U	.								
B8827	52.972	54.9728	B16535		3/25/03 9:35	EBRLNE	B16535	4.17	pCi/g	U	.								
B8827	100.9584	102.9592	B16536		3/25/03 15:30	EBRLNE	B16536	1.35	pCi/g	U	.								
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	EBRLNE	B16FW5	4.66	pCi/g	U	.								
B8827	17.49552	18.99448	B16HB4		3/24/03 13:57	STLRL	B16HB4												
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A									1.1	pCi/g	.	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Gross beta (12587-47-2) 900				Gross beta (12587-47-2) 9310				Gross beta (12587-47-2) GPC			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESRL	B0MJC2									26.4	pCi/g	.	.
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESRL	B0MJC5									10000	pCi/g	.	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESRL	B0MJC8									279	pCi/g	.	.
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESRL	B0MJD1									13900	pCi/g	.	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESRL	B0MJD7									22	pCi/g	.	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESRL	B0MJF0									21.4	pCi/g	.	.
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESRL	B0MJF3									25.7	pCi/g	.	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESRL	B0MJF6									32.6	pCi/g	.	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESRL	B0MJF9									29.9	pCi/g	.	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESRL	B0MJJ1									28.1	pCi/g	.	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESRL	B0MJJ4									24.5	pCi/g	.	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESRL	B0MJJ7									27.4	pCi/g	.	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESRL	B0MJK0									18.8	pCi/g	.	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESRL	B0MJK6									21.5	pCi/g	.	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	TMANC	B13D72	22.2	pCi/g	.	.								
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	TMANC	B13D73	55.8	pCi/g	.	.								
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLRL	B13D82					126	pCi/g	.	.				
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	EBRLNE	B15XJ7	17.2	pCi/g	.	.								
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	EBRLNE	B15XJ8	18.2	pCi/g	.	.								
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	EBRLNE	B15XJ9	16.5	pCi/g	.	.								
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	EBRLNE	B15XK0	14.6	pCi/g	.	.								
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	EBRLNE	B15XK1	12.4	pCi/g	.	.								
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	EBRLNE	B15XK2	18.4	pCi/g	.	.								
14076	9.49888	10.496	B15XK9		11/12/02 10:10	EBRLNE	B15XK9	19.1	pCi/g	.	.								
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	EBRLNE	B15XL0	10.2	pCi/g	.	.								
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	EBRLNE	B15XL1	13.4	pCi/g	.	.								
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	EBRLNE	B15XL2	15.6	pCi/g	.	.								
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	EBRLNE	B15XM1	62.6	pCi/g	.	.								
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	EBRLNE	B15XM2	18	pCi/g	.	.								
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	EBRLNE	B15XM3	21.7	pCi/g	.	.								
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLRL	B15XM4					33.2	pCi/g	.	.				
B8827	12.4968	14.4976	B16528		3/24/03 11:50	EBRLNE	B16528	18.2	pCi/g	.	.								
B8827	14.99616	16.99696	B16529		3/24/03 12:20	EBRLNE	B16529	18.1	pCi/g	.	.								
B8827	14.99616	16.99696	B16530		3/24/03 12:20	EBRLNE	B16530	14.4	pCi/g	.	.								
B8827	17.49552	18.99448	B16531		3/24/03 13:57	EBRLNE	B16531	14.1	pCi/g	.	.								
B8827	19.49632	21.49384	B16532		3/24/03 14:30	EBRLNE	B16532	18.1	pCi/g	.	.								
B8827	22.9928	24.9936	B16533		3/24/03 15:14	EBRLNE	B16533	18.2	pCi/g	.	.								
B8827	27.99152	29.99232	B16534		3/24/03 15:53	EBRLNE	B16534	12.3	pCi/g	.	.								
B8827	52.972	54.9728	B16535		3/25/03 9:35	EBRLNE	B16535	19.1	pCi/g	.	.								
B8827	100.9584	102.9592	B16536		3/25/03 15:30	EBRLNE	B16536	15.3	pCi/g	.	.								
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	EBRLNE	B16FW5	19.2	pCi/g	.	.								
B8827	17.49552	18.99448	B16HB4		3/24/03 13:57	STLRL	B16HB4												
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A									2.3	pCi/g	.	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Iodine-129 (15046-84-1) GEA				Lead-212 (15092-94-1) GEA				Lead-214 (15067-28-4) GEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESRL	B0MJC2	-6.34E-03	pCi/g	U	.								
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESRL	B0MJC5	-0.338	pCi/g	U	.								
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESRL	B0MJC8	-5.71E-02	pCi/g	U	.								
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESRL	B0MJD1	0.688	pCi/g	U	.								
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESRL	B0MJD7	0.328	pCi/g	U	.								
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESRL	B0MJF0	4.52E-04	pCi/g	U	.								
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESRL	B0MJF3	-0.0144	pCi/g	U	.								
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESRL	B0MJF6	-3.91E-02	pCi/g	U	.								
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESRL	B0MJF9	-5.63E-02	pCi/g	U	.								
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESRL	B0MJJ1	-0.0104	pCi/g	U	.								
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESRL	B0MJJ4	3.20E-02	pCi/g	U	.								
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESRL	B0MJJ7	-1.19E-02	pCi/g	U	.								
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESRL	B0MJK0	-2.48E-02	pCi/g	U	.								
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESRL	B0MJK6	4.23E-02	pCi/g	U	.								
10142	4.99872	5.99912	B13D72		11/2/01 7:30	TMANC	B13D72												
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	TMANC	B13D73												
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLRL	B13D82												
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	EBRLNE	B15XJ7												
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	EBRLNE	B15XJ8												
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	EBRLNE	B15XJ9												
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	EBRLNE	B15XK0												
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	EBRLNE	B15XK1												
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	EBRLNE	B15XK2												
14076	9.49888	10.496	B15XK9		11/12/02 10:10	EBRLNE	B15XK9												
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	EBRLNE	B15XL0												
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	EBRLNE	B15XL1												
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	EBRLNE	B15XL2												
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	EBRLNE	B15XM1												
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	EBRLNE	B15XM2												
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	EBRLNE	B15XM3												
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLRL	B15XM4												
B8827	12.4968	14.4976	B16528		3/24/03 11:50	EBRLNE	B16528												
B8827	14.99616	16.99696	B16529		3/24/03 12:20	EBRLNE	B16529												
B8827	14.99616	16.99696	B16530		3/24/03 12:20	EBRLNE	B16530												
B8827	17.49552	18.99448	B16531		3/24/03 13:57	EBRLNE	B16531												
B8827	19.49632	21.49384	B16532		3/24/03 14:30	EBRLNE	B16532												
B8827	22.9928	24.9936	B16533		3/24/03 15:14	EBRLNE	B16533												
B8827	27.99152	29.99232	B16534		3/24/03 15:53	EBRLNE	B16534												
B8827	52.972	54.9728	B16535		3/25/03 9:35	EBRLNE	B16535												
B8827	100.9584	102.9592	B16536		3/25/03 15:30	EBRLNE	B16536												
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	EBRLNE	B16FW5												
B8827	17.49552	18.99448	B16HB4		3/24/03 13:57	STLRL	B16HB4												
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A					0.443	pCi/g	.	.	0.362	pCi/g	.	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Neptunium-237 (13994-20-2) IX/Prec/AEA				Neptunium-237 (13994-20-2) LX/Plate/AEA				Nickel-63 (13981-37-8) LSC			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESRL	B0MJC2					-0.00124	pCi/g	U	.				
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESRL	B0MJC5					0.256	pCi/g	U	.				
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESRL	B0MJC8					-8.76E-03	pCi/g	U	.				
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESRL	B0MJD1					0	pCi/g	U	.				
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESRL	B0MJD7					4.47E-02	pCi/g	UJ	.				
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESRL	B0MJF0					0.0114	pCi/g	U	.				
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESRL	B0MJF3					0.0155	pCi/g	U	.				
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESRL	B0MJF6					1.56E-02	pCi/g	U	.				
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESRL	B0MJF9					-2.51E-03	pCi/g	U	.				
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESRL	B0MJJ1					0.016	pCi/g	U	.				
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESRL	B0MJJ4					4.55E-02	pCi/g	UJ	.				
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESRL	B0MJJ7					0.0147	pCi/g	U	.				
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESRL	B0MJK0					-0.00329	pCi/g	U	.				
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESRL	B0MJK6					0.0149	pCi/g	U	.				
10142	4.99872	5.99912	B13D72		11/2/01 7:30	TMANC	B13D72					0.023	pCi/g	U	.				
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	TMANC	B13D73					0	pCi/g	U	.				
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLRL	B13D82					-0.000562	pCi/g	U	.				
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	EBRLNE	B15XJ7					4.10E-02	pCi/g	U	.				
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	EBRLNE	B15XJ8					0	pCi/g	U	.				
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	EBRLNE	B15XJ9					0	pCi/g	U	.				
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	EBRLNE	B15XK0					0.101	pCi/g	U	.	-0.179	pCi/g	U	.
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	EBRLNE	B15XK1					-4.40E-02	pCi/g	U	.	-0.724	pCi/g	U	.
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	EBRLNE	B15XK2					-4.40E-02	pCi/g	U	.	-0.283	pCi/g	U	.
14076	9.49888	10.496	B15XK9		11/12/02 10:10	EBRLNE	B15XK9					0.027	pCi/g	U	.				
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	EBRLNE	B15XL0					1.30E-02	pCi/g	U	.				
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	EBRLNE	B15XL1					2.80E-02	pCi/g	U	.				
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	EBRLNE	B15XL2					9.00E-03	pCi/g	U	.	0.706	pCi/g	U	.
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	EBRLNE	B15XM1					6.00E-03	pCi/g	U	.				
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	EBRLNE	B15XM2					0	pCi/g	U	.				
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	EBRLNE	B15XM3					5.40E-02	pCi/g	.	.				
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLRL	B15XM4					0	pCi/g	U	.				
B8827	12.4968	14.4976	B16528		3/24/03 11:50	EBRLNE	B16528					3.50E-02	pCi/g	.	.				
B8827	14.99616	16.99696	B16529		3/24/03 12:20	EBRLNE	B16529					6.00E-03	pCi/g	U	.				
B8827	14.99616	16.99696	B16530		3/24/03 12:20	EBRLNE	B16530					3.00E-02	pCi/g	.	.				
B8827	17.49552	18.99448	B16531		3/24/03 13:57	EBRLNE	B16531					0.016	pCi/g	U	.	7.4	pCi/g	.	.
B8827	19.49632	21.49384	B16532		3/24/03 14:30	EBRLNE	B16532					0.023	pCi/g	U	.	15.1	pCi/g	.	.
B8827	22.9928	24.9936	B16533		3/24/03 15:14	EBRLNE	B16533					3.00E-02	pCi/g	U	.	4.18	pCi/g	.	.
B8827	27.99152	29.99232	B16534		3/24/03 15:53	EBRLNE	B16534					7.00E-03	pCi/g	U	.	5.68	pCi/g	.	.
B8827	52.972	54.9728	B16535		3/25/03 9:35	EBRLNE	B16535					7.00E-03	pCi/g	U	.	2.85	pCi/g	.	.
B8827	100.9584	102.9592	B16536		3/25/03 15:30	EBRLNE	B16536					0.024	pCi/g	U	.	5.49	pCi/g	.	.
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	EBRLNE	B16FW5					4.80E-02	pCi/g	U	.				
B8827	17.49552	18.99448	B16HB4		3/24/03 13:57	STLRL	B16HB4									23	pCi/g	.	.
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A	-7.90E-04	pCi/g	U	.								

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Niobium-94 (14681-63-1) GEA				Plutonium-238 (13981-16-3) IX/Prec/AEA				Plutonium-238 (13981-16-3) Sep/Plate/AEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESRL	B0MJC2									0	pCi/g	U	.
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESRL	B0MJC5									-0.121	pCi/g	U	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESRL	B0MJC8									-8.60E-04	pCi/g	U	.
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESRL	B0MJD1									0.431	pCi/g	U	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESRL	B0MJD7									2.13E-02	pCi/g	U	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESRL	B0MJF0									-1.30E-03	pCi/g	U	.
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESRL	B0MJF3									4.37E-03	pCi/g	U	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESRL	B0MJF6									0	pCi/g	U	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESRL	B0MJF9									0.00545	pCi/g	U	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESRL	B0MJJ1									-0.00141	pCi/g	U	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESRL	B0MJJ4									-1.36E-03	pCi/g	U	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESRL	B0MJJ7									-0.000457	pCi/g	U	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESRL	B0MJK0									-4.65E-04	pCi/g	U	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESRL	B0MJK6									-4.25E-04	pCi/g	U	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	TMANC	B13D72									0	pCi/g	U	.
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	TMANC	B13D73									6.00E-03	pCi/g	U	.
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLRL	B13D82									5.60E-03	pCi/g	U	.
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	EBRLNE	B15XJ7									0.063	pCi/g	U	.
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	EBRLNE	B15XJ8									3.40E-02	pCi/g	U	.
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	EBRLNE	B15XJ9									0.063	pCi/g	U	.
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	EBRLNE	B15XK0									0	pCi/g	U	.
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	EBRLNE	B15XK1									0	pCi/g	U	.
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	EBRLNE	B15XK2									0	pCi/g	U	.
14076	9.49888	10.496	B15XK9		11/12/02 10:10	EBRLNE	B15XK9									-8.00E-03	pCi/g	U	.
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	EBRLNE	B15XL0									-0.023	pCi/g	U	.
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	EBRLNE	B15XL1									0	pCi/g	U	.
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	EBRLNE	B15XL2									0	pCi/g	U	.
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	EBRLNE	B15XM1									0	pCi/g	U	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	EBRLNE	B15XM2									0	pCi/g	U	.
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	EBRLNE	B15XM3									0	pCi/g	U	.
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLRL	B15XM4									0	pCi/g	U	.
B8827	12.4968	14.4976	B16528		3/24/03 11:50	EBRLNE	B16528									0	pCi/g	U	.
B8827	14.99616	16.99696	B16529		3/24/03 12:20	EBRLNE	B16529									0.012	pCi/g	U	.
B8827	14.99616	16.99696	B16530		3/24/03 12:20	EBRLNE	B16530									0	pCi/g	U	.
B8827	17.49552	18.99448	B16531		3/24/03 13:57	EBRLNE	B16531									-1.30E-02	pCi/g	U	.
B8827	19.49632	21.49384	B16532		3/24/03 14:30	EBRLNE	B16532									1.30E-02	pCi/g	U	.
B8827	22.9928	24.9936	B16533		3/24/03 15:14	EBRLNE	B16533									0	pCi/g	U	.
B8827	27.99152	29.99232	B16534		3/24/03 15:53	EBRLNE	B16534									6.10E-02	pCi/g	U	.
B8827	52.972	54.9728	B16535		3/25/03 9:35	EBRLNE	B16535									0	pCi/g	U	.
B8827	100.9584	102.9592	B16536		3/25/03 15:30	EBRLNE	B16536									4.50E-02	pCi/g	U	.
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	EBRLNE	B16FW5									8.50E-02	pCi/g	U	.
B8827	17.49552	18.99448	B16HB4		3/24/03 13:57	STLRL	B16HB4												
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A	2.76E-03	pCi/g	U	.	8.10E-02	pCi/g	.	.				

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Plutonium-239/240 (PU-239/240) IX/Prec/AEA				Plutonium-239/240 (PU-239/240) Sep/Plate/AEA				Plutonium-241 (14119-32-5) IX/LSC			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESRL	B0MJC2					9.14E-03	pCi/g	U	.	-0.235	pCi/g	U	.
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESRL	B0MJC5					0.348	pCi/g	U	.	32.2	pCi/g	U	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESRL	B0MJC8					1.07E-02	pCi/g	U	.	0.999	pCi/g	U	.
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESRL	B0MJD1					4.97	pCi/g	.	.	61.6	pCi/g	U	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESRL	B0MJD7					-4.25E-04	pCi/g	U	.	0.465	pCi/g	U	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESRL	B0MJF0					6.16E-03	pCi/g	U	.	0.224	pCi/g	U	.
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESRL	B0MJF3					0	pCi/g	U	.	-6.44E-03	pCi/g	U	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESRL	B0MJF6					0	pCi/g	U	.	-0.316	pCi/g	U	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESRL	B0MJF9					4.54E-03	pCi/g	U	.	0.252	pCi/g	U	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESRL	B0MJJ1					0	pCi/g	U	.	0.591	pCi/g	U	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESRL	B0MJJ4					-1.36E-03	pCi/g	U	.	-0.602	pCi/g	U	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESRL	B0MJJ7					5.25E-03	pCi/g	U	.	0.255	pCi/g	U	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESRL	B0MJK0					0	pCi/g	U	.	-1.31	pCi/g	U	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESRL	B0MJK6					5.31E-03	pCi/g	U	.	7.91E-02	pCi/g	U	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	TMANC	B13D72					-0.014	pCi/g	U	.				
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	TMANC	B13D73					-9.00E-03	pCi/g	U	.				
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLRL	B13D82					0	pCi/g	U	.				
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	EBRLNE	B15XJ7					0	pCi/g	U	.				
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	EBRLNE	B15XJ8					0	pCi/g	U	.				
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	EBRLNE	B15XJ9					0	pCi/g	U	.				
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	EBRLNE	B15XK0					0	pCi/g	U	.				
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	EBRLNE	B15XK1					0	pCi/g	U	.				
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	EBRLNE	B15XK2					0	pCi/g	U	.				
14076	9.49888	10.496	B15XK9		11/12/02 10:10	EBRLNE	B15XK9					6.40E-02	pCi/g	U	.				
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	EBRLNE	B15XL0					-8.00E-03	pCi/g	U	.				
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	EBRLNE	B15XL1					0	pCi/g	U	.				
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	EBRLNE	B15XL2					0	pCi/g	U	.				
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	EBRLNE	B15XM1					-0.024	pCi/g	U	.				
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	EBRLNE	B15XM2					-5.90E-02	pCi/g	U	.				
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	EBRLNE	B15XM3					0	pCi/g	U	.				
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLRL	B15XM4					-0.00297	pCi/g	U	.				
B8827	12.4968	14.4976	B16528		3/24/03 11:50	EBRLNE	B16528					0	pCi/g	U	.				
B8827	14.99616	16.99696	B16529		3/24/03 12:20	EBRLNE	B16529					-6.00E-03	pCi/g	U	.				
B8827	14.99616	16.99696	B16530		3/24/03 12:20	EBRLNE	B16530					6.00E-03	pCi/g	U	.				
B8827	17.49552	18.99448	B16531		3/24/03 13:57	EBRLNE	B16531					0	pCi/g	U	.				
B8827	19.49632	21.49384	B16532		3/24/03 14:30	EBRLNE	B16532					-1.30E-02	pCi/g	U	.				
B8827	22.9928	24.9936	B16533		3/24/03 15:14	EBRLNE	B16533					3.40E-02	pCi/g	U	.				
B8827	27.99152	29.99232	B16534		3/24/03 15:53	EBRLNE	B16534					0	pCi/g	U	.				
B8827	52.972	54.9728	B16535		3/25/03 9:35	EBRLNE	B16535					0	pCi/g	U	.				
B8827	100.9584	102.9592	B16536		3/25/03 15:30	EBRLNE	B16536					0	pCi/g	U	.				
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	EBRLNE	B16FW5					0	pCi/g	U	.				
B8827	17.49552	18.99448	B16HB4		3/24/03 13:57	STLRL	B16HB4												
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A	2.60E-02	pCi/g	.	.								

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Potassium-40 (13966-00-2) GEA				Radium-224 (13233-32-4) GEA				Radium-226 (13982-63-3) GEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESRL	B0MJC2	15	pCi/g	.	.	0.91	pCi/g	.	.	0.762	pCi/g	.	.
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESRL	B0MJC5	12	pCi/g	.	.	0.64	pCi/g	.	.	0.552	pCi/g	.	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESRL	B0MJC8	13.7	pCi/g	.	.	0.69	pCi/g	.	.	0.563	pCi/g	.	.
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESRL	B0MJD1	11.3	pCi/g	.	.	0.626	pCi/g	.	.	0.431	pCi/g	U	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESRL	B0MJD7	14	pCi/g	.	.	0.52	pCi/g	.	.	0.444	pCi/g	.	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESRL	B0MJF0	14.7	pCi/g	.	.	0.589	pCi/g	.	.	0.516	pCi/g	.	.
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESRL	B0MJF3	16.8	pCi/g	.	.	0.742	pCi/g	.	.	0.607	pCi/g	.	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESRL	B0MJF6	18.4	pCi/g	.	.	0.625	pCi/g	.	.	0.524	pCi/g	.	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESRL	B0MJF9	16.5	pCi/g	.	.	0.619	pCi/g	.	.	0.534	pCi/g	.	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESRL	B0MJJ1	17.1	pCi/g	.	.	0.625	pCi/g	.	.	0.514	pCi/g	.	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESRL	B0MJJ4	16.5	pCi/g	.	.	0.632	pCi/g	.	.	0.527	pCi/g	.	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESRL	B0MJJ7	15	pCi/g	.	.	0.532	pCi/g	.	.	0.426	pCi/g	.	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESRL	B0MJK0	14.3	pCi/g	.	.	0.636	pCi/g	.	.	0.609	pCi/g	.	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESRL	B0MJK6	14.2	pCi/g	.	.	0.632	pCi/g	.	.	0.67	pCi/g	.	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	TMANC	B13D72	11.2	pCi/g	.	.					0.544	pCi/g	.	.
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	TMANC	B13D73	10.4	pCi/g	.	.					0.333	pCi/g	.	.
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLRL	B13D82												
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	EBRLNE	B15XJ7	10.9	pCi/g	.	.					0.469	pCi/g	.	.
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	EBRLNE	B15XJ8	12.7	pCi/g	.	.					0.446	pCi/g	.	.
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	EBRLNE	B15XJ9	12.8	pCi/g	.	.					0.462	pCi/g	.	.
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	EBRLNE	B15XK0	12.9	pCi/g	.	.					0.426	pCi/g	.	.
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	EBRLNE	B15XK1	12.7	pCi/g	.	.					0.495	pCi/g	.	.
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	EBRLNE	B15XK2	13.2	pCi/g	.	.					0.386	pCi/g	.	.
14076	9.49888	10.496	B15XK9		11/12/02 10:10	EBRLNE	B15XK9	11	pCi/g	.	.					0.49	pCi/g	.	.
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	EBRLNE	B15XL0	9.48	pCi/g	.	.					0.392	pCi/g	.	.
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	EBRLNE	B15XL1	12.2	pCi/g	.	.					0.423	pCi/g	.	.
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	EBRLNE	B15XL2	11.7	pCi/g	.	.					0.374	pCi/g	.	.
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	EBRLNE	B15XM1	11	pCi/g	.	.					0.449	pCi/g	.	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	EBRLNE	B15XM2	12.9	pCi/g	.	.					0.606	pCi/g	.	.
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	EBRLNE	B15XM3	9.8	pCi/g	.	.					0.414	pCi/g	.	.
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLRL	B15XM4												
B8827	12.4968	14.4976	B16528		3/24/03 11:50	EBRLNE	B16528	8.3	pCi/g	.	.					0.3	pCi/g	U	.
B8827	14.99616	16.99696	B16529		3/24/03 12:20	EBRLNE	B16529	8.25	pCi/g	.	.					0.18	pCi/g	U	.
B8827	14.99616	16.99696	B16530		3/24/03 12:20	EBRLNE	B16530	7.34	pCi/g	.	.					0.409	pCi/g	.	.
B8827	17.49552	18.99448	B16531		3/24/03 13:57	EBRLNE	B16531	8.69	pCi/g	.	.					0.3	pCi/g	.	.
B8827	19.49632	21.49384	B16532		3/24/03 14:30	EBRLNE	B16532	9.74	pCi/g	.	.					0.454	pCi/g	.	.
B8827	22.9928	24.9936	B16533		3/24/03 15:14	EBRLNE	B16533	8.7	pCi/g	.	.					0.323	pCi/g	.	.
B8827	27.99152	29.99232	B16534		3/24/03 15:53	EBRLNE	B16534	10.2	pCi/g	.	.					0.372	pCi/g	.	.
B8827	52.972	54.9728	B16535		3/25/03 9:35	EBRLNE	B16535	12.9	pCi/g	.	.					0.371	pCi/g	.	.
B8827	100.9584	102.9592	B16536		3/25/03 15:30	EBRLNE	B16536	11.1	pCi/g	.	.					0.38	pCi/g	.	.
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	EBRLNE	B16FW5	13.7	pCi/g	.	.					0.443	pCi/g	.	.
B8827	17.49552	18.99448	B16HB4		3/24/03 13:57	STLRL	B16HB4												
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A									0.311	pCi/g	.	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Radium-228 (15262-20-1) GEA				Ruthenium-103 (13968-53-1) GEA				Ruthenium-106 (13967-48-1) GEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESRL	B0MJC2	0.917	pCi/g	.	.								
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESRL	B0MJC5	0.696	pCi/g	.	.								
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESRL	B0MJC8	0.741	pCi/g	.	.								
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESRL	B0MJD1	0.629	pCi/g	.	.								
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESRL	B0MJD7	0.487	pCi/g	.	.								
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESRL	B0MJF0	0.609	pCi/g	.	.								
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESRL	B0MJF3	0.745	pCi/g	.	.								
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESRL	B0MJF6	0.688	pCi/g	.	.								
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESRL	B0MJF9	0.665	pCi/g	.	.								
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESRL	B0MJJ1	0.585	pCi/g	.	.								
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESRL	B0MJJ4	0.732	pCi/g	.	.								
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESRL	B0MJJ7	0.532	pCi/g	.	.								
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESRL	B0MJK0	0.625	pCi/g	.	.								
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESRL	B0MJK6	0.792	pCi/g	.	.								
10142	4.99872	5.99912	B13D72		11/2/01 7:30	TMANC	B13D72	0.692	pCi/g	.	.								
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	TMANC	B13D73	0.66	pCi/g	.	.								
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLRL	B13D82	0.728	pCi/g	.	.								
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	EBRLNE	B15XJ7	0.492	pCi/g	.	.								
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	EBRLNE	B15XJ8	0.533	pCi/g	.	.								
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	EBRLNE	B15XJ9	0.556	pCi/g	.	.								
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	EBRLNE	B15XK0	0.63	pCi/g	.	.								
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	EBRLNE	B15XK1	0.591	pCi/g	.	.								
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	EBRLNE	B15XK2	0.603	pCi/g	.	.								
14076	9.49888	10.496	B15XK9		11/12/02 10:10	EBRLNE	B15XK9	0.724	pCi/g	.	.								
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	EBRLNE	B15XL0	0.504	pCi/g	.	.								
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	EBRLNE	B15XL1	0.687	pCi/g	.	.								
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	EBRLNE	B15XL2	0.532	pCi/g	.	.								
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	EBRLNE	B15XM1	0.777	pCi/g	.	.								
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	EBRLNE	B15XM2	0.827	pCi/g	.	.								
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	EBRLNE	B15XM3	0.699	pCi/g	.	.								
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLRL	B15XM4	0.824	pCi/g	.	.								
B8827	12.4968	14.4976	B16528		3/24/03 11:50	EBRLNE	B16528	0.71	pCi/g	U	.								
B8827	14.99616	16.99696	B16529		3/24/03 12:20	EBRLNE	B16529	0.487	pCi/g	.	.								
B8827	14.99616	16.99696	B16530		3/24/03 12:20	EBRLNE	B16530	0.47	pCi/g	U	.								
B8827	17.49552	18.99448	B16531		3/24/03 13:57	EBRLNE	B16531	0.534	pCi/g	.	.								
B8827	19.49632	21.49384	B16532		3/24/03 14:30	EBRLNE	B16532	0.526	pCi/g	.	.								
B8827	22.9928	24.9936	B16533		3/24/03 15:14	EBRLNE	B16533	0.522	pCi/g	.	.								
B8827	27.99152	29.99232	B16534		3/24/03 15:53	EBRLNE	B16534	0.483	pCi/g	.	.								
B8827	52.972	54.9728	B16535		3/25/03 9:35	EBRLNE	B16535	0.493	pCi/g	.	.								
B8827	100.9584	102.9592	B16536		3/25/03 15:30	EBRLNE	B16536	0.635	pCi/g	.	.								
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	EBRLNE	B16FW5	0.602	pCi/g	.	.								
B8827	17.49552	18.99448	B16HB4		3/24/03 13:57	STLRL	B16HB4												
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A	0.44	pCi/g	.	.	2.36E-03	pCi/g	U	.	-7.83E-03	pCi/g	U	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Selenium-79 (15758-45-9) IX/LSC				Sodium-22 (13966-32-0) GEA				Strontium-90 (10098-97-2) Sep/GPC			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESRL	B0MJC2	-0.991	pCi/g	U	.					0.11	pCi/g	U	.
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESRL	B0MJC5	-23.7	pCi/g	U	.					3780	pCi/g	.	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESRL	B0MJC8	-0.442	pCi/g	U	.					86.7	pCi/g	.	.
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESRL	B0MJD1	-17.7	pCi/g	U	.					4710	pCi/g	.	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESRL	B0MJD7	0.178	pCi/g	U	.					9.37E-02	pCi/g	U	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESRL	B0MJF0	0.101	pCi/g	U	.					7.79E-02	pCi/g	U	.
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESRL	B0MJF3	-0.496	pCi/g	U	.					2.44E-02	pCi/g	U	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESRL	B0MJF6	-1.38	pCi/g	U	.					5.53E-02	pCi/g	U	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESRL	B0MJF9	-0.369	pCi/g	U	.					-0.0184	pCi/g	U	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESRL	B0MJJ1	-0.376	pCi/g	U	.					1.63E-02	pCi/g	U	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESRL	B0MJJ4	-0.328	pCi/g	U	.					2.03E-02	pCi/g	U	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESRL	B0MJJ7	-0.386	pCi/g	U	.					1.45E-02	pCi/g	U	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESRL	B0MJK0	-0.635	pCi/g	U	.					1.10E-02	pCi/g	U	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESRL	B0MJK6	0.0402	pCi/g	U	.					3.34E-03	pCi/g	U	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	TMANC	B13D72					5.00E-02	pCi/g	U	.				
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	TMANC	B13D73												
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLRL	B13D82												
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	EBRLNE	B15XJ7												
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	EBRLNE	B15XJ8												
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	EBRLNE	B15XJ9												
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	EBRLNE	B15XK0												
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	EBRLNE	B15XK1												
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	EBRLNE	B15XK2												
14076	9.49888	10.496	B15XK9		11/12/02 10:10	EBRLNE	B15XK9												
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	EBRLNE	B15XL0												
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	EBRLNE	B15XL1												
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	EBRLNE	B15XL2												
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	EBRLNE	B15XM1					4.40E-02	pCi/g	U	.				
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	EBRLNE	B15XM2					4.30E-02	pCi/g	U	.				
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	EBRLNE	B15XM3												
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLRL	B15XM4												
B8827	12.4968	14.4976	B16528		3/24/03 11:50	EBRLNE	B16528												
B8827	14.99616	16.99696	B16529		3/24/03 12:20	EBRLNE	B16529												
B8827	14.99616	16.99696	B16530		3/24/03 12:20	EBRLNE	B16530												
B8827	17.49552	18.99448	B16531		3/24/03 13:57	EBRLNE	B16531												
B8827	19.49632	21.49384	B16532		3/24/03 14:30	EBRLNE	B16532												
B8827	22.9928	24.9936	B16533		3/24/03 15:14	EBRLNE	B16533												
B8827	27.99152	29.99232	B16534		3/24/03 15:53	EBRLNE	B16534												
B8827	52.972	54.9728	B16535		3/25/03 9:35	EBRLNE	B16535												
B8827	100.9584	102.9592	B16536		3/25/03 15:30	EBRLNE	B16536												
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	EBRLNE	B16FW5					3.80E-02	pCi/g	U	.				
B8827	17.49552	18.99448	B16HB4		3/24/03 13:57	STLRL	B16HB4												
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A												

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Technetium-99 (14133-76-7) IX/LSC				Technetium-99 (14133-76-7) Sep/GPC				Technetium-99 (14133-76-7) TEVA/LSC			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESRL	B0MJC2	-0.338	pCi/g	U	.								
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESRL	B0MJC5	-28.2	pCi/g	U	.								
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESRL	B0MJC8	0.193	pCi/g	U	.								
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESRL	B0MJD1	-15.3	pCi/g	U	.								
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESRL	B0MJD7	-0.111	pCi/g	U	.								
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESRL	B0MJF0	-0.212	pCi/g	U	.								
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESRL	B0MJF3	-0.256	pCi/g	U	.								
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESRL	B0MJF6	0.241	pCi/g	U	.								
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESRL	B0MJF9	-0.525	pCi/g	U	.								
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESRL	B0MJJ1	-0.45	pCi/g	U	.								
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESRL	B0MJJ4	-0.633	pCi/g	U	.								
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESRL	B0MJJ7	0.323	pCi/g	U	.								
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESRL	B0MJK0	0.18	pCi/g	U	.								
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESRL	B0MJK6	0.494	pCi/g	U	.								
10142	4.99872	5.99912	B13D72		11/2/01 7:30	TMANC	B13D72												
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	TMANC	B13D73												
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLRL	B13D82												
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	EBRLNE	B15XJ7												
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	EBRLNE	B15XJ8												
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	EBRLNE	B15XJ9												
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	EBRLNE	B15XK0					0.577	pCi/g	U	.				
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	EBRLNE	B15XK1					0.506	pCi/g	U	.				
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	EBRLNE	B15XK2					0.51	pCi/g	U	.				
14076	9.49888	10.496	B15XK9		11/12/02 10:10	EBRLNE	B15XK9												
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	EBRLNE	B15XL0												
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	EBRLNE	B15XL1												
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	EBRLNE	B15XL2					0.515	pCi/g	U	.				
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	EBRLNE	B15XM1												
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	EBRLNE	B15XM2												
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	EBRLNE	B15XM3												
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLRL	B15XM4												
B8827	12.4968	14.4976	B16528		3/24/03 11:50	EBRLNE	B16528												
B8827	14.99616	16.99696	B16529		3/24/03 12:20	EBRLNE	B16529												
B8827	14.99616	16.99696	B16530		3/24/03 12:20	EBRLNE	B16530												
B8827	17.49552	18.99448	B16531		3/24/03 13:57	EBRLNE	B16531					0.406	pCi/g	.	.				
B8827	19.49632	21.49384	B16532		3/24/03 14:30	EBRLNE	B16532					0.238	pCi/g	U	.				
B8827	22.9928	24.9936	B16533		3/24/03 15:14	EBRLNE	B16533					0.224	pCi/g	U	.				
B8827	27.99152	29.99232	B16534		3/24/03 15:53	EBRLNE	B16534					0.303	pCi/g	U	.				
B8827	52.972	54.9728	B16535		3/25/03 9:35	EBRLNE	B16535					2.90E-02	pCi/g	U	.				
B8827	100.9584	102.9592	B16536		3/25/03 15:30	EBRLNE	B16536					0.33	pCi/g	U	.				
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	EBRLNE	B16FW5												
B8827	17.49552	18.99448	B16HB4		3/24/03 13:57	STLRL	B16HB4									0.444	pCi/g	U	.
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A												

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Thallium-208 (14913-50-9) GEA				Thorium-228 (14274-82-9) GEA				Thorium-228 (14274-82-9) IX/Plate/AEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESRL	B0MJC2												
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESRL	B0MJC5												
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESRL	B0MJC8												
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESRL	B0MJD1												
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESRL	B0MJD7												
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESRL	B0MJF0												
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESRL	B0MJF3												
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESRL	B0MJF6												
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESRL	B0MJF9												
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESRL	B0MJJ1												
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESRL	B0MJJ4												
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESRL	B0MJJ7												
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESRL	B0MJK0												
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESRL	B0MJK6												
10142	4.99872	5.99912	B13D72		11/2/01 7:30	TMANC	B13D72					0.831	pCi/g	.	.	0.33	pCi/g	.	.
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	TMANC	B13D73					0.543	pCi/g	.	.	0.451	pCi/g	.	.
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLRL	B13D82												
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	EBRLNE	B15XJ7					0.516	pCi/g	.	.	0.11	pCi/g	U	.
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	EBRLNE	B15XJ8					0.573	pCi/g	.	.	0.448	pCi/g	.	.
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	EBRLNE	B15XJ9					0.546	pCi/g	.	.	0.482	pCi/g	U	.
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	EBRLNE	B15XK0					0.496	pCi/g	.	.	0.442	pCi/g	.	.
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	EBRLNE	B15XK1					0.564	pCi/g	.	.	0.258	pCi/g	U	.
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	EBRLNE	B15XK2					0.606	pCi/g	.	.	0.667	pCi/g	.	.
14076	9.49888	10.496	B15XK9		11/12/02 10:10	EBRLNE	B15XK9					0.696	pCi/g	.	.	0.447	pCi/g	.	.
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	EBRLNE	B15XL0					0.558	pCi/g	.	.	0.306	pCi/g	U	.
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	EBRLNE	B15XL1					0.564	pCi/g	.	.	0.308	pCi/g	.	.
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	EBRLNE	B15XL2					0.57	pCi/g	.	.	0.414	pCi/g	.	J
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	EBRLNE	B15XM1					0.568	pCi/g	.	.	0.325	pCi/g	.	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	EBRLNE	B15XM2					0.975	pCi/g	.	.	0.496	pCi/g	.	.
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	EBRLNE	B15XM3					0.73	pCi/g	.	.	0.777	pCi/g	.	J
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLRL	B15XM4												
B8827	12.4968	14.4976	B16528		3/24/03 11:50	EBRLNE	B16528					0.366	pCi/g	.	.	0.255	pCi/g	U	.
B8827	14.99616	16.99696	B16529		3/24/03 12:20	EBRLNE	B16529					0.417	pCi/g	.	.	0.347	pCi/g	.	.
B8827	14.99616	16.99696	B16530		3/24/03 12:20	EBRLNE	B16530					0.293	pCi/g	.	.	0.579	pCi/g	.	.
B8827	17.49552	18.99448	B16531		3/24/03 13:57	EBRLNE	B16531					0.414	pCi/g	.	.	0.408	pCi/g	.	.
B8827	19.49632	21.49384	B16532		3/24/03 14:30	EBRLNE	B16532					0.434	pCi/g	.	.	0.686	pCi/g	.	.
B8827	22.9928	24.9936	B16533		3/24/03 15:14	EBRLNE	B16533					0.366	pCi/g	.	.	0.67	pCi/g	.	.
B8827	27.99152	29.99232	B16534		3/24/03 15:53	EBRLNE	B16534					0.479	pCi/g	.	.	0.503	pCi/g	.	.
B8827	52.972	54.9728	B16535		3/25/03 9:35	EBRLNE	B16535					0.465	pCi/g	.	.	0.905	pCi/g	.	.
B8827	100.9584	102.9592	B16536		3/25/03 15:30	EBRLNE	B16536					0.457	pCi/g	.	.	0.562	pCi/g	.	.
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	EBRLNE	B16FW5					0.44	pCi/g	.	.	0.376	pCi/g	.	.
B8827	17.49552	18.99448	B16HB4		3/24/03 13:57	STLRL	B16HB4												
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A	0.14	pCi/g	.	.								

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Thorium-228 (14274-82-9) IX/Prec/AEA				Thorium-230 (14269-63-7) IX/Plate/AEA				Thorium-230 (14269-63-7) IX/Prec/AEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESRL	B0MJC2	0.733	pCi/g	.	.					0.565	pCi/g	J	.
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESRL	B0MJC5	1.24	pCi/g	U	.					2.67	pCi/g	J	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESRL	B0MJC8	0.931	pCi/g	.	.					0.689	pCi/g	J	.
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESRL	B0MJD1	2.17	pCi/g	U	.					-4.54E-02	pCi/g	U	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESRL	B0MJD7	0.528	pCi/g	.	.					0.489	pCi/g	J	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESRL	B0MJF0	-2.05E-03	pCi/g	U	.					3.65E-02	pCi/g	J	.
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESRL	B0MJF3	0.975	pCi/g	.	.					0.811	pCi/g	J	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESRL	B0MJF6	0.994	pCi/g	.	.					0.614	pCi/g	J	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESRL	B0MJF9	1.47	pCi/g	.	.					0.629	pCi/g	J	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESRL	B0MJJ1	0.873	pCi/g	.	.					0.586	pCi/g	J	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESRL	B0MJJ4	0.857	pCi/g	.	.					0.511	pCi/g	J	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESRL	B0MJJ7	0.562	pCi/g	.	.					0.426	pCi/g	J	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESRL	B0MJK0	0.735	pCi/g	.	.					0.691	pCi/g	J	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESRL	B0MJK6	0.551	pCi/g	.	.					0.47	pCi/g	J	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	TMANC	B13D72					0.464	pCi/g	J	.				
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	TMANC	B13D73					0.806	pCi/g	J	.				
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLRL	B13D82	0.819	pCi/g	.	.					0.851	pCi/g	.	.
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	EBRLNE	B15XJ7					0.256	pCi/g	U	.				
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	EBRLNE	B15XJ8					0.298	pCi/g	.	.				
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	EBRLNE	B15XJ9					0.321	pCi/g	U	.				
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	EBRLNE	B15XK0					0.294	pCi/g	.	.				
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	EBRLNE	B15XK1					1.33	pCi/g	.	.				
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	EBRLNE	B15XK2					0.932	pCi/g	.	.				
14076	9.49888	10.496	B15XK9		11/12/02 10:10	EBRLNE	B15XK9					0.548	pCi/g	.	.				
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	EBRLNE	B15XL0					0.169	pCi/g	U	.				
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	EBRLNE	B15XL1					0.786	pCi/g	.	.				
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	EBRLNE	B15XL2					0.523	pCi/g	.	J				
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	EBRLNE	B15XM1					0.364	pCi/g	.	.				
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	EBRLNE	B15XM2					0.401	pCi/g	.	.				
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	EBRLNE	B15XM3					0.713	pCi/g	.	J				
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLRL	B15XM4	0.865	pCi/g	.	.					0.55	pCi/g	.	.
B8827	12.4968	14.4976	B16528		3/24/03 11:50	EBRLNE	B16528					1.48	pCi/g	.	.				
B8827	14.99616	16.99696	B16529		3/24/03 12:20	EBRLNE	B16529					7.00E-03	pCi/g	U	.				
B8827	14.99616	16.99696	B16530		3/24/03 12:20	EBRLNE	B16530					0.116	pCi/g	U	.				
B8827	17.49552	18.99448	B16531		3/24/03 13:57	EBRLNE	B16531					0.489	pCi/g	.	.				
B8827	19.49632	21.49384	B16532		3/24/03 14:30	EBRLNE	B16532					1.13	pCi/g	.	.				
B8827	22.9928	24.9936	B16533		3/24/03 15:14	EBRLNE	B16533					0.512	pCi/g	.	.				
B8827	27.99152	29.99232	B16534		3/24/03 15:53	EBRLNE	B16534					1.73	pCi/g	.	.				
B8827	52.972	54.9728	B16535		3/25/03 9:35	EBRLNE	B16535					0.821	pCi/g	.	.				
B8827	100.9584	102.9592	B16536		3/25/03 15:30	EBRLNE	B16536					0.936	pCi/g	.	.				
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	EBRLNE	B16FW5					0.837	pCi/g	.	.				
B8827	17.49552	18.99448	B16HB4		3/24/03 13:57	STLRL	B16HB4												
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A												

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Thorium-232 (TH-232) GEA				Thorium-232 (TH-232) IX/Plate/AEA				Thorium-232 (TH-232) IX/Prec/AEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESRL	B0MJC2									0.743	pCi/g	J	.
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESRL	B0MJC5									0	pCi/g	U	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESRL	B0MJC8									0.888	pCi/g	J	.
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESRL	B0MJD1									1.14	pCi/g	U	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESRL	B0MJD7									0.535	pCi/g	J	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESRL	B0MJF0									0	pCi/g	U	.
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESRL	B0MJF3									1.02	pCi/g	J	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESRL	B0MJF6									0.928	pCi/g	J	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESRL	B0MJF9									1.03	pCi/g	J	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESRL	B0MJJ1									0.791	pCi/g	J	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESRL	B0MJJ4									0.938	pCi/g	J	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESRL	B0MJJ7									0.657	pCi/g	J	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESRL	B0MJK0									0.683	pCi/g	J	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESRL	B0MJK6									0.485	pCi/g	J	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	TMANC	B13D72	0.692	pCi/g	.	.	0.355	pCi/g	J	.				
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	TMANC	B13D73	0.66	pCi/g	.	.	0.358	pCi/g	J	.				
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLRL	B13D82									0.88	pCi/g	.	.
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	EBRLNE	B15XJ7	0.492	pCi/g	.	.	0.438	pCi/g	.	.				
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	EBRLNE	B15XJ8	0.533	pCi/g	.	.	0.335	pCi/g	.	.				
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	EBRLNE	B15XJ9	0.556	pCi/g	.	.	0.375	pCi/g	U	.				
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	EBRLNE	B15XK0	0.63	pCi/g	.	.	0.478	pCi/g	.	.				
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	EBRLNE	B15XK1	0.591	pCi/g	.	.	0.429	pCi/g	.	.				
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	EBRLNE	B15XK2	0.603	pCi/g	.	.	0.844	pCi/g	.	.				
14076	9.49888	10.496	B15XK9		11/12/02 10:10	EBRLNE	B15XK9	0.724	pCi/g	.	.	0.856	pCi/g	.	.				
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	EBRLNE	B15XL0	0.504	pCi/g	.	.	0.407	pCi/g	.	.				
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	EBRLNE	B15XL1	0.687	pCi/g	.	.	0.342	pCi/g	.	.				
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	EBRLNE	B15XL2	0.532	pCi/g	.	.	0.301	pCi/g	.	J				
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	EBRLNE	B15XM1	0.777	pCi/g	.	.	0.85	pCi/g	.	.				
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	EBRLNE	B15XM2	0.827	pCi/g	.	.	0.587	pCi/g	.	.				
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	EBRLNE	B15XM3	0.699	pCi/g	.	.	0.62	pCi/g	.	J				
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLRL	B15XM4									0.822	pCi/g	.	.
B8827	12.4968	14.4976	B16528		3/24/03 11:50	EBRLNE	B16528	0.71	pCi/g	U	.	0.339	pCi/g	.	.				
B8827	14.99616	16.99696	B16529		3/24/03 12:20	EBRLNE	B16529	0.487	pCi/g	.	.	0.359	pCi/g	.	.				
B8827	14.99616	16.99696	B16530		3/24/03 12:20	EBRLNE	B16530	0.47	pCi/g	U	.	0.347	pCi/g	.	.				
B8827	17.49552	18.99448	B16531		3/24/03 13:57	EBRLNE	B16531	0.534	pCi/g	.	.	0.122	pCi/g	U	.				
B8827	19.49632	21.49384	B16532		3/24/03 14:30	EBRLNE	B16532	0.526	pCi/g	.	.	0.322	pCi/g	.	.				
B8827	22.9928	24.9936	B16533		3/24/03 15:14	EBRLNE	B16533	0.522	pCi/g	.	.	0.63	pCi/g	.	.				
B8827	27.99152	29.99232	B16534		3/24/03 15:53	EBRLNE	B16534	0.483	pCi/g	.	.	0.503	pCi/g	.	.				
B8827	52.972	54.9728	B16535		3/25/03 9:35	EBRLNE	B16535	0.493	pCi/g	.	.	0.534	pCi/g	.	.				
B8827	100.9584	102.9592	B16536		3/25/03 15:30	EBRLNE	B16536	0.635	pCi/g	.	.	0.748	pCi/g	.	.				
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	EBRLNE	B16FW5	0.602	pCi/g	.	.	0.462	pCi/g	.	.				
B8827	17.49552	18.99448	B16HB4		3/24/03 13:57	STLRL	B16HB4												
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A												

B-63, RAD1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Thorium-234 (15065-10-8) GEA			
								Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESRL	B0MJC2				
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESRL	B0MJC5				
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESRL	B0MJC8				
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESRL	B0MJD1				
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESRL	B0MJD7				
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESRL	B0MJF0				
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESRL	B0MJF3				
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESRL	B0MJF6				
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESRL	B0MJF9				
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESRL	B0MJJ1				
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESRL	B0MJJ4				
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESRL	B0MJJ7				
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESRL	B0MJK0				
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESRL	B0MJK6				
10142	4.99872	5.99912	B13D72		11/2/01 7:30	TMANC	B13D72				
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	TMANC	B13D73				
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLRL	B13D82				
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	EBRLNE	B15XJ7				
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	EBRLNE	B15XJ8				
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	EBRLNE	B15XJ9				
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	EBRLNE	B15XK0				
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	EBRLNE	B15XK1				
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	EBRLNE	B15XK2				
14076	9.49888	10.496	B15XK9		11/12/02 10:10	EBRLNE	B15XK9				
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	EBRLNE	B15XL0				
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	EBRLNE	B15XL1				
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	EBRLNE	B15XL2				
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	EBRLNE	B15XM1				
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	EBRLNE	B15XM2				
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	EBRLNE	B15XM3				
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLRL	B15XM4				
B8827	12.4968	14.4976	B16528		3/24/03 11:50	EBRLNE	B16528				
B8827	14.99616	16.99696	B16529		3/24/03 12:20	EBRLNE	B16529				
B8827	14.99616	16.99696	B16530		3/24/03 12:20	EBRLNE	B16530				
B8827	17.49552	18.99448	B16531		3/24/03 13:57	EBRLNE	B16531				
B8827	19.49632	21.49384	B16532		3/24/03 14:30	EBRLNE	B16532				
B8827	22.9928	24.9936	B16533		3/24/03 15:14	EBRLNE	B16533				
B8827	27.99152	29.99232	B16534		3/24/03 15:53	EBRLNE	B16534				
B8827	52.972	54.9728	B16535		3/25/03 9:35	EBRLNE	B16535				
B8827	100.9584	102.9592	B16536		3/25/03 15:30	EBRLNE	B16536				
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	EBRLNE	B16FW5				
B8827	17.49552	18.99448	B16HB4		3/24/03 13:57	STLRL	B16HB4				
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A	0.289	pCi/g	U	.

B-63, RAD2

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Tin-113 (13966-06-8) GEA				Tin-126 (15832-50-5) GEA				Total beta radiostrontium (SR-RAD) Sep/GPC			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESRL	B0MJC2												
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESRL	B0MJC5												
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESRL	B0MJC8												
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESRL	B0MJD1												
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESRL	B0MJD7												
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESRL	B0MJF0												
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESRL	B0MJF3												
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESRL	B0MJF6												
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESRL	B0MJF9												
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESRL	B0MJJ1												
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESRL	B0MJJ4												
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESRL	B0MJJ7												
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESRL	B0MJK0												
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESRL	B0MJK6												
10142	4.99872	5.99912	B13D72		11/2/01 7:30	TMANC	B13D72					4.80E-02	pCi/g	U	.	3.93	pCi/g	.	.
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	TMANC	B13D73									24.6	pCi/g	.	.
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLRL	B13D82									29.5	pCi/g	.	.
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	EBRLNE	B15XJ7									0.26	pCi/g	.	.
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	EBRLNE	B15XJ8									-2.20E-02	pCi/g	U	.
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	EBRLNE	B15XJ9									-0.147	pCi/g	U	.
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	EBRLNE	B15XK0									-1.30E-02	pCi/g	U	.
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	EBRLNE	B15XK1									-8.00E-03	pCi/g	U	.
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	EBRLNE	B15XK2									-7.20E-02	pCi/g	U	.
14076	9.49888	10.496	B15XK9		11/12/02 10:10	EBRLNE	B15XK9									0.437	pCi/g	.	.
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	EBRLNE	B15XL0									0.637	pCi/g	.	.
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	EBRLNE	B15XL1									1.66	pCi/g	.	.
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	EBRLNE	B15XL2									3.21	pCi/g	.	.
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	EBRLNE	B15XM1					0.1	pCi/g	U	.	24	pCi/g	.	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	EBRLNE	B15XM2					7.50E-02	pCi/g	U	.	0.384	pCi/g	.	.
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	EBRLNE	B15XM3									0.89	pCi/g	.	.
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLRL	B15XM4									0.576	pCi/g	.	.
B8827	12.4968	14.4976	B16528		3/24/03 11:50	EBRLNE	B16528									7.1	pCi/g	.	.
B8827	14.99616	16.99696	B16529		3/24/03 12:20	EBRLNE	B16529									2.74	pCi/g	.	.
B8827	14.99616	16.99696	B16530		3/24/03 12:20	EBRLNE	B16530									2.92	pCi/g	.	.
B8827	17.49552	18.99448	B16531		3/24/03 13:57	EBRLNE	B16531									1.83	pCi/g	.	.
B8827	19.49632	21.49384	B16532		3/24/03 14:30	EBRLNE	B16532									1.35	pCi/g	.	.
B8827	22.9928	24.9936	B16533		3/24/03 15:14	EBRLNE	B16533									3.30E-02	pCi/g	U	.
B8827	27.99152	29.99232	B16534		3/24/03 15:53	EBRLNE	B16534									-0.128	pCi/g	U	.
B8827	52.972	54.9728	B16535		3/25/03 9:35	EBRLNE	B16535									8.00E-03	pCi/g	U	.
B8827	100.9584	102.9592	B16536		3/25/03 15:30	EBRLNE	B16536									-0.031	pCi/g	U	.
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	EBRLNE	B16FW5					8.80E-02	pCi/g	U	.	1.12	pCi/g	.	.
B8827	17.49552	18.99448	B16HB4		3/24/03 13:57	STLRL	B16HB4												
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A	0.000388	pCi/g	U	.	0.108	pCi/g	U	.	1.2	pCi/g	.	.

B-63, RAD2

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Tritium (10028-17-8) 906				Uranium-233/234 (U-233/234) Sep/Plate/AEA				Uranium-234 (13966-29-5) IX/Plate/AEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESRL	B0MJC2												
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESRL	B0MJC5												
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESRL	B0MJC8												
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESRL	B0MJD1												
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESRL	B0MJD7												
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESRL	B0MJF0												
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESRL	B0MJF3												
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESRL	B0MJF6												
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESRL	B0MJF9												
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESRL	B0MJJ1												
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESRL	B0MJJ4												
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESRL	B0MJJ7												
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESRL	B0MJK0												
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESRL	B0MJK6												
10142	4.99872	5.99912	B13D72		11/2/01 7:30	TMANC	B13D72					0.36	pCi/g	J	.				
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	TMANC	B13D73												
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLRL	B13D82									0.748	pCi/g	.	.
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	EBRLNE	B15XJ7												
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	EBRLNE	B15XJ8												
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	EBRLNE	B15XJ9												
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	EBRLNE	B15XK0	5.40E-02	pCi/g	U	.								
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	EBRLNE	B15XK1	4.40E-02	pCi/g	U	.								
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	EBRLNE	B15XK2	5.00E-02	pCi/g	U	.								
14076	9.49888	10.496	B15XK9		11/12/02 10:10	EBRLNE	B15XK9												
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	EBRLNE	B15XL0												
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	EBRLNE	B15XL1												
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	EBRLNE	B15XL2	0.33	pCi/g	.	.								
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	EBRLNE	B15XM1												
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	EBRLNE	B15XM2												
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	EBRLNE	B15XM3												
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLRL	B15XM4									0.533	pCi/g	.	.
B8827	12.4968	14.4976	B16528		3/24/03 11:50	EBRLNE	B16528												
B8827	14.99616	16.99696	B16529		3/24/03 12:20	EBRLNE	B16529												
B8827	14.99616	16.99696	B16530		3/24/03 12:20	EBRLNE	B16530												
B8827	17.49552	18.99448	B16531		3/24/03 13:57	EBRLNE	B16531	0.024	pCi/g	U	.								
B8827	19.49632	21.49384	B16532		3/24/03 14:30	EBRLNE	B16532	3.80E-02	pCi/g	U	.								
B8827	22.9928	24.9936	B16533		3/24/03 15:14	EBRLNE	B16533	4.40E-02	pCi/g	U	.								
B8827	27.99152	29.99232	B16534		3/24/03 15:53	EBRLNE	B16534	3.60E-02	pCi/g	U	.								
B8827	52.972	54.9728	B16535		3/25/03 9:35	EBRLNE	B16535	-2.10E-02	pCi/g	U	.								
B8827	100.9584	102.9592	B16536		3/25/03 15:30	EBRLNE	B16536	0.13	pCi/g	U	.								
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	EBRLNE	B16FW5												
B8827	17.49552	18.99448	B16HB4		3/24/03 13:57	STLRL	B16HB4	4.40E-02	pCi/g	.	.								
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A												

B-63, RAD2

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Uranium-234 (13966-29-5) Sep/Plate/AEA				Uranium-235 (15117-96-1) GEA				Uranium-235 (15117-96-1) IX/Plate/AEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESRL	B0MJC2												
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESRL	B0MJC5												
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESRL	B0MJC8												
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESRL	B0MJD1	0.388	pCi/g	U	.								
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESRL	B0MJD7												
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESRL	B0MJF0												
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESRL	B0MJF3												
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESRL	B0MJF6					5.93E-02	pCi/g	U	.				
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESRL	B0MJF9					1.96E-02	pCi/g	U	.				
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESRL	B0MJJ1												
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESRL	B0MJJ4												
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESRL	B0MJJ7												
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESRL	B0MJK0												
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESRL	B0MJK6												
10142	4.99872	5.99912	B13D72		11/2/01 7:30	TMANC	B13D72					0.13	pCi/g	U	.				
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	TMANC	B13D73					0.15	pCi/g	U	.				
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLRL	B13D82									0.0332	pCi/g	U	.
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	EBRLNE	B15XJ7					0.16	pCi/g	U	.				
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	EBRLNE	B15XJ8					9.80E-02	pCi/g	U	.				
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	EBRLNE	B15XJ9					0.16	pCi/g	U	.				
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	EBRLNE	B15XK0					0.15	pCi/g	U	.				
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	EBRLNE	B15XK1					0.14	pCi/g	U	.				
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	EBRLNE	B15XK2					0.1	pCi/g	U	.				
14076	9.49888	10.496	B15XK9		11/12/02 10:10	EBRLNE	B15XK9					0.34	pCi/g	U	.				
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	EBRLNE	B15XL0					0.27	pCi/g	U	.				
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	EBRLNE	B15XL1					9.70E-02	pCi/g	U	.				
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	EBRLNE	B15XL2					0.1	pCi/g	U	.				
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	EBRLNE	B15XM1					0.17	pCi/g	U	.				
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	EBRLNE	B15XM2					0.15	pCi/g	U	.				
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	EBRLNE	B15XM3					0.34	pCi/g	U	.				
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLRL	B15XM4									8.70E-03	pCi/g	U	.
B8827	12.4968	14.4976	B16528		3/24/03 11:50	EBRLNE	B16528					0.32	pCi/g	U	.				
B8827	14.99616	16.99696	B16529		3/24/03 12:20	EBRLNE	B16529					0.28	pCi/g	U	.				
B8827	14.99616	16.99696	B16530		3/24/03 12:20	EBRLNE	B16530					0.29	pCi/g	U	.				
B8827	17.49552	18.99448	B16531		3/24/03 13:57	EBRLNE	B16531					0.24	pCi/g	U	.				
B8827	19.49632	21.49384	B16532		3/24/03 14:30	EBRLNE	B16532					0.35	pCi/g	U	.				
B8827	22.9928	24.9936	B16533		3/24/03 15:14	EBRLNE	B16533					0.25	pCi/g	U	.				
B8827	27.99152	29.99232	B16534		3/24/03 15:53	EBRLNE	B16534					0.26	pCi/g	U	.				
B8827	52.972	54.9728	B16535		3/25/03 9:35	EBRLNE	B16535					0.24	pCi/g	U	.				
B8827	100.9584	102.9592	B16536		3/25/03 15:30	EBRLNE	B16536					0.3	pCi/g	U	.				
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	EBRLNE	B16FW5					0.16	pCi/g	U	.				
B8827	17.49552	18.99448	B16HB4		3/24/03 13:57	STLRL	B16HB4												
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A					5.84E-02	pCi/g	U	.				

B-63, RAD2

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Uranium-235 (15117-96-1) Sep/Plate/AEA				Uranium-238 (U-238) GEA				Uranium-238 (U-238) IX/Plate/AEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESRL	B0MJC2					0.652	pCi/g	.	.				
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESRL	B0MJC5												
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESRL	B0MJC8												
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESRL	B0MJD1	-0.148	pCi/g	U	.								
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESRL	B0MJD7					0.609	pCi/g	.	.				
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESRL	B0MJF0					0.576	pCi/g	.	.				
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESRL	B0MJF3												
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESRL	B0MJF6					0.366	pCi/g	.	.				
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESRL	B0MJF9												
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESRL	B0MJJ1												
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESRL	B0MJJ4												
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESRL	B0MJJ7					0.588	pCi/g	.	.				
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESRL	B0MJK0					0.412	pCi/g	.	.				
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESRL	B0MJK6					0.653	pCi/g	.	.				
10142	4.99872	5.99912	B13D72		11/2/01 7:30	TMANC	B13D72	0.024	pCi/g	U	.	4.8	pCi/g	U	.				
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	TMANC	B13D73					4.4	pCi/g	U	.				
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLRL	B13D82									0.93	pCi/g	.	.
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	EBRLNE	B15XJ7					5.1	pCi/g	U	.				
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	EBRLNE	B15XJ8					3	pCi/g	U	.				
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	EBRLNE	B15XJ9					4.6	pCi/g	U	.				
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	EBRLNE	B15XK0					5.2	pCi/g	U	.				
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	EBRLNE	B15XK1					4.2	pCi/g	U	.				
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	EBRLNE	B15XK2					3.3	pCi/g	U	.				
14076	9.49888	10.496	B15XK9		11/12/02 10:10	EBRLNE	B15XK9					10	pCi/g	U	.				
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	EBRLNE	B15XL0					9.9	pCi/g	U	.				
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	EBRLNE	B15XL1					3.8	pCi/g	U	.				
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	EBRLNE	B15XL2					3.4	pCi/g	U	.				
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	EBRLNE	B15XM1					4.3	pCi/g	U	.				
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	EBRLNE	B15XM2					3.9	pCi/g	U	.				
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	EBRLNE	B15XM3					10	pCi/g	U	.				
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLRL	B15XM4									0.455	pCi/g	.	.
B8827	12.4968	14.4976	B16528		3/24/03 11:50	EBRLNE	B16528					10	pCi/g	U	.				
B8827	14.99616	16.99696	B16529		3/24/03 12:20	EBRLNE	B16529					7.2	pCi/g	U	.				
B8827	14.99616	16.99696	B16530		3/24/03 12:20	EBRLNE	B16530					10	pCi/g	U	.				
B8827	17.49552	18.99448	B16531		3/24/03 13:57	EBRLNE	B16531					7.6	pCi/g	U	.				
B8827	19.49632	21.49384	B16532		3/24/03 14:30	EBRLNE	B16532					11	pCi/g	U	.				
B8827	22.9928	24.9936	B16533		3/24/03 15:14	EBRLNE	B16533					6.5	pCi/g	U	.				
B8827	27.99152	29.99232	B16534		3/24/03 15:53	EBRLNE	B16534					9	pCi/g	U	.				
B8827	52.972	54.9728	B16535		3/25/03 9:35	EBRLNE	B16535					7	pCi/g	U	.				
B8827	100.9584	102.9592	B16536		3/25/03 15:30	EBRLNE	B16536					9.9	pCi/g	U	.				
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	EBRLNE	B16FW5					4.8	pCi/g	U	.				
B8827	17.49552	18.99448	B16HB4		3/24/03 13:57	STLRL	B16HB4												
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A												

B-63, RAD2

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Uranium-238 (U-238) Sep/Plate/AEA				Zinc-65 (13982-39-3) GEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESRL	B0MJC2								
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESRL	B0MJC5								
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESRL	B0MJC8								
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESRL	B0MJD1	1.81	pCi/g	U	.				
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESRL	B0MJD7								
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESRL	B0MJF0								
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESRL	B0MJF3								
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESRL	B0MJF6								
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESRL	B0MJF9								
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESRL	B0MJJ1								
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESRL	B0MJJ4								
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESRL	B0MJJ7								
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESRL	B0MJK0								
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESRL	B0MJK6								
10142	4.99872	5.99912	B13D72		11/2/01 7:30	TMANC	B13D72	0.36	pCi/g	J	.				
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	TMANC	B13D73								
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLRL	B13D82								
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	EBRLNE	B15XJ7								
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	EBRLNE	B15XJ8								
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	EBRLNE	B15XJ9								
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	EBRLNE	B15XK0								
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	EBRLNE	B15XK1								
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	EBRLNE	B15XK2								
14076	9.49888	10.496	B15XK9		11/12/02 10:10	EBRLNE	B15XK9								
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	EBRLNE	B15XL0								
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	EBRLNE	B15XL1								
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	EBRLNE	B15XL2								
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	EBRLNE	B15XM1								
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	EBRLNE	B15XM2								
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	EBRLNE	B15XM3								
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLRL	B15XM4								
B8827	12.4968	14.4976	B16528		3/24/03 11:50	EBRLNE	B16528								
B8827	14.99616	16.99696	B16529		3/24/03 12:20	EBRLNE	B16529								
B8827	14.99616	16.99696	B16530		3/24/03 12:20	EBRLNE	B16530								
B8827	17.49552	18.99448	B16531		3/24/03 13:57	EBRLNE	B16531								
B8827	19.49632	21.49384	B16532		3/24/03 14:30	EBRLNE	B16532								
B8827	22.9928	24.9936	B16533		3/24/03 15:14	EBRLNE	B16533								
B8827	27.99152	29.99232	B16534		3/24/03 15:53	EBRLNE	B16534								
B8827	52.972	54.9728	B16535		3/25/03 9:35	EBRLNE	B16535								
B8827	100.9584	102.9592	B16536		3/25/03 15:30	EBRLNE	B16536								
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	EBRLNE	B16FW5								
B8827	17.49552	18.99448	B16HB4		3/24/03 13:57	STLRL	B16HB4								
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A					-5.70E-03	pCi/g	U	.

B-63, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	1,2,4-Trichlorobenzene (120-82-1) 8270				1,2-Dichlorobenzene (95-50-1) 8270				1,3-Dichlorobenzene (541-73-1) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2	330	ug/kg	U	.	330	ug/kg	U	.	330	ug/kg	U	.
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8	390	ug/kg	U	.	390	ug/kg	U	.	390	ug/kg	U	.
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82												
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4												
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5	730	ug/kg	U	.	730	ug/kg	U	.	730	ug/kg	U	.
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A	300	ug/kg	U	.								

B-63, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	1,4-Dichlorobenzene (106-46-7) 8270				2,4,5-Trichlorophenol (95-95-4) 8270				2,4,6-Trichlorophenol (88-06-2) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2	330	ug/kg	U	.	330	ug/kg	U	.	330	ug/kg	U	.
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8	390	ug/kg	U	.	390	ug/kg	U	.	390	ug/kg	U	.
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72	360	ug/kg	U	.	910	ug/kg	U	.	360	ug/kg	U	.
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73	350	ug/kg	U	.	890	ug/kg	U	.	350	ug/kg	U	.
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82												
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7	350	ug/kg	U	.	870	ug/kg	U	.	350	ug/kg	U	.
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8	340	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9	340	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0	340	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1	340	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2	340	ug/kg	U	.	850	ug/kg	U	.	340	ug/kg	U	.
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9	340	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0	350	ug/kg	U	.	870	ug/kg	U	.	350	ug/kg	U	.
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1	350	ug/kg	U	.	870	ug/kg	U	.	350	ug/kg	U	.
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2	350	ug/kg	U	.	880	ug/kg	U	.	350	ug/kg	U	.
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1	350	ug/kg	U	.	860	ug/kg	U	.	350	ug/kg	U	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2	350	ug/kg	U	.	870	ug/kg	U	.	350	ug/kg	U	.
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3	350	ug/kg	U	.	870	ug/kg	U	.	350	ug/kg	U	.
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4												
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528	340	ug/kg	U	.	850	ug/kg	U	.	340	ug/kg	U	.
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529	340	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530	340	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531	340	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532	350	ug/kg	U	.	860	ug/kg	U	.	350	ug/kg	U	.
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533	340	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534	340	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535	340	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536	340	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5	730	ug/kg	U	.	1800	ug/kg	U	.	730	ug/kg	U	.
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A	320	ug/kg	U	.								

B-63, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	2,4-Dichlorophenol (120-83-2) 8270				2,4-Dimethylphenol (105-67-9) 8270				2,4-Dinitrophenol (51-28-5) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2	330	ug/kg	U	.	330	ug/kg	U	.	1600	ug/kg	U	.
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5	360	ug/kg	U	.	360	ug/kg	U	.	1800	ug/kg	U	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8	390	ug/kg	U	.	390	ug/kg	U	.	1900	ug/kg	U	.
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1	350	ug/kg	U	.	350	ug/kg	U	.	1700	ug/kg	U	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7	340	ug/kg	U	.	340	ug/kg	U	.	1600	ug/kg	U	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0	340	ug/kg	U	.	340	ug/kg	U	.	1700	ug/kg	U	.
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3	350	ug/kg	U	.	350	ug/kg	U	.	1700	ug/kg	U	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6	340	ug/kg	U	.	340	ug/kg	U	.	1600	ug/kg	U	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9	340	ug/kg	U	.	340	ug/kg	U	.	1600	ug/kg	U	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1	340	ug/kg	U	.	340	ug/kg	U	.	1600	ug/kg	U	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4	340	ug/kg	U	.	340	ug/kg	U	.	1600	ug/kg	U	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7	340	ug/kg	U	.	340	ug/kg	U	.	1600	ug/kg	U	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0	350	ug/kg	U	.	350	ug/kg	U	.	1700	ug/kg	U	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6	350	ug/kg	U	.	350	ug/kg	U	.	1700	ug/kg	U	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72	360	ug/kg	U	.	360	ug/kg	U	.	910	ug/kg	U	.
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73	350	ug/kg	U	.	350	ug/kg	U	.	890	ug/kg	U	.
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82												
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7	350	ug/kg	U	.	350	ug/kg	U	.	870	ug/kg	U	.
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8	340	ug/kg	U	.	340	ug/kg	U	.	860	ug/kg	U	.
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9	340	ug/kg	U	.	340	ug/kg	U	.	860	ug/kg	U	.
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0	340	ug/kg	U	.	340	ug/kg	U	.	860	ug/kg	U	.
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1	340	ug/kg	U	.	340	ug/kg	U	.	860	ug/kg	U	.
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2	340	ug/kg	U	.	340	ug/kg	U	.	850	ug/kg	U	.
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9	340	ug/kg	U	.	340	ug/kg	U	.	860	ug/kg	U	.
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0	350	ug/kg	U	.	350	ug/kg	U	.	870	ug/kg	U	.
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1	350	ug/kg	U	.	350	ug/kg	U	.	870	ug/kg	U	.
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2	350	ug/kg	U	.	350	ug/kg	U	.	880	ug/kg	U	.
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1	350	ug/kg	U	.	350	ug/kg	U	.	860	ug/kg	U	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2	350	ug/kg	U	.	350	ug/kg	U	.	870	ug/kg	U	.
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3	350	ug/kg	U	.	350	ug/kg	U	.	870	ug/kg	U	.
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4												
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528	340	ug/kg	U	.	340	ug/kg	U	.	850	ug/kg	U	.
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529	340	ug/kg	U	.	340	ug/kg	U	.	860	ug/kg	U	.
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530	340	ug/kg	U	.	340	ug/kg	U	.	860	ug/kg	U	.
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531	340	ug/kg	U	.	340	ug/kg	U	.	860	ug/kg	U	.
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532	350	ug/kg	U	.	350	ug/kg	U	.	860	ug/kg	U	.
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533	340	ug/kg	U	.	340	ug/kg	U	.	860	ug/kg	U	.
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534	340	ug/kg	U	.	340	ug/kg	U	.	860	ug/kg	U	.
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535	340	ug/kg	U	.	340	ug/kg	U	.	860	ug/kg	U	.
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536	340	ug/kg	U	.	340	ug/kg	U	.	860	ug/kg	U	.
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5	730	ug/kg	U	.	730	ug/kg	U	.	1800	ug/kg	U	.
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A												

B-63, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	2,4-Dinitrotoluene (121-14-2) 8270				2,6-Dinitrotoluene (606-20-2) 8270				2-Chloronaphthalene (91-58-7) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2	330	ug/kg	U	.	330	ug/kg	U	.	330	ug/kg	U	.
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8	390	ug/kg	U	.	390	ug/kg	U	.	390	ug/kg	U	.
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82												
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4												
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5	730	ug/kg	U	.	730	ug/kg	U	.	730	ug/kg	U	.
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A	69	ug/kg	U	.								

B-63, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	2-Chlorophenol (95-57-8) 8270				2-Methylnaphthalene (91-57-6) 8270				2-Methylphenol (cresol, o-) (95-48-7) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2	330	ug/kg	U	.	330	ug/kg	U	.	330	ug/kg	U	.
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8	390	ug/kg	U	.	390	ug/kg	U	.	390	ug/kg	U	.
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82												
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4												
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5	730	ug/kg	U	.	730	ug/kg	U	.	730	ug/kg	U	.
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A	150	ug/kg	U	.								

B-63, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	2-Nitroaniline (88-74-4) 8270				2-Nitrophenol (88-75-5) 8270				3,3'-Dichlorobenzidine (91-94-1) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2	1600	ug/kg	U	.	330	ug/kg	U	.	1600	ug/kg	U	.
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5	1800	ug/kg	U	.	360	ug/kg	U	.	1800	ug/kg	U	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8	1900	ug/kg	U	.	390	ug/kg	U	.	1900	ug/kg	U	.
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1	1700	ug/kg	U	.	350	ug/kg	U	.	1700	ug/kg	U	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7	1600	ug/kg	U	.	340	ug/kg	U	.	1600	ug/kg	U	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0	1700	ug/kg	U	.	340	ug/kg	U	.	1700	ug/kg	U	.
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3	1700	ug/kg	U	.	350	ug/kg	U	.	1700	ug/kg	U	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6	1600	ug/kg	U	.	340	ug/kg	U	.	1600	ug/kg	U	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9	1600	ug/kg	U	.	340	ug/kg	U	.	1600	ug/kg	U	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1	1600	ug/kg	U	.	340	ug/kg	U	.	1600	ug/kg	U	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4	1600	ug/kg	U	.	340	ug/kg	U	.	1600	ug/kg	U	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7	1600	ug/kg	U	.	340	ug/kg	U	.	1600	ug/kg	U	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0	1700	ug/kg	U	.	350	ug/kg	U	.	1700	ug/kg	U	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6	1700	ug/kg	U	.	350	ug/kg	U	.	1700	ug/kg	U	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72	910	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73	890	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82												
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7	870	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2	850	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0	870	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1	870	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2	880	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1	860	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2	870	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3	870	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4												
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528	850	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532	860	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5	1800	ug/kg	U	.	730	ug/kg	U	.	730	ug/kg	U	.
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A												

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	3-Nitroaniline (99-09-2) 8270				4,6-Dinitro-2-methylphenol (534-52-1) 8270				4-Bromophenylphenyl ether (101-55-3) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2	1600	ug/kg	U	.	1600	ug/kg	U	.	330	ug/kg	U	.
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5	1800	ug/kg	U	.	1800	ug/kg	U	.	360	ug/kg	U	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8	1900	ug/kg	U	.	1900	ug/kg	U	.	390	ug/kg	U	.
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1	1700	ug/kg	U	.	1700	ug/kg	U	.	350	ug/kg	U	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7	1600	ug/kg	U	.	1600	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0	1700	ug/kg	U	.	1700	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3	1700	ug/kg	U	.	1700	ug/kg	U	.	350	ug/kg	U	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6	1600	ug/kg	U	.	1600	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9	1600	ug/kg	U	.	1600	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1	1600	ug/kg	U	.	1600	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4	1600	ug/kg	U	.	1600	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7	1600	ug/kg	U	.	1600	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0	1700	ug/kg	U	.	1700	ug/kg	U	.	350	ug/kg	U	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6	1700	ug/kg	U	.	1700	ug/kg	U	.	350	ug/kg	U	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72	910	ug/kg	U	.	910	ug/kg	U	.	360	ug/kg	U	.
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73	890	ug/kg	U	.	890	ug/kg	U	.	350	ug/kg	U	.
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82												
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7	870	ug/kg	U	.	870	ug/kg	U	.	350	ug/kg	U	.
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8	860	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9	860	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0	860	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1	860	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2	850	ug/kg	U	.	850	ug/kg	U	.	340	ug/kg	U	.
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9	860	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0	870	ug/kg	U	.	870	ug/kg	U	.	350	ug/kg	U	.
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1	870	ug/kg	U	.	870	ug/kg	U	.	350	ug/kg	U	.
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2	880	ug/kg	U	.	880	ug/kg	U	.	350	ug/kg	U	.
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1	860	ug/kg	U	.	860	ug/kg	U	.	350	ug/kg	U	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2	870	ug/kg	U	.	870	ug/kg	U	.	350	ug/kg	U	.
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3	870	ug/kg	U	.	870	ug/kg	U	.	350	ug/kg	U	.
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4												
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528	850	ug/kg	U	.	850	ug/kg	U	.	340	ug/kg	U	.
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529	860	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530	860	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531	860	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532	860	ug/kg	U	.	860	ug/kg	U	.	350	ug/kg	U	.
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533	860	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534	860	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535	860	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536	860	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5	1800	ug/kg	U	.	1800	ug/kg	U	.	730	ug/kg	U	.
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A												

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	4-Chloro-3-methylphenol (59-50-7) 8270				4-Chloroaniline (106-47-8) 8270				4-Chlorophenylphenyl ether (7005-72-3) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2	330	ug/kg	U	.	330	ug/kg	U	.	330	ug/kg	U	.
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8	390	ug/kg	U	.	390	ug/kg	U	.	390	ug/kg	U	.
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82												
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4												
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5	730	ug/kg	U	.	730	ug/kg	U	.	730	ug/kg	U	.
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A	69	ug/kg	U	.								

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	4-Methylphenol (cresol, p-) (106-44-5) 8270				4-Nitroaniline (100-01-6) 8270				4-Nitrophenol (100-02-7) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2	330	ug/kg	U	.	1600	ug/kg	U	.	1600	ug/kg	U	.
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5	360	ug/kg	U	.	1800	ug/kg	U	.	1800	ug/kg	U	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8	390	ug/kg	U	.	1900	ug/kg	U	.	1900	ug/kg	U	.
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1	350	ug/kg	U	.	1700	ug/kg	U	.	1700	ug/kg	U	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7	340	ug/kg	U	.	1600	ug/kg	U	.	1600	ug/kg	U	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0	340	ug/kg	U	.	1700	ug/kg	U	.	1700	ug/kg	U	.
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3	350	ug/kg	U	.	1700	ug/kg	U	.	1700	ug/kg	U	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6	340	ug/kg	U	.	1600	ug/kg	U	.	1600	ug/kg	U	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9	340	ug/kg	U	.	1600	ug/kg	U	.	1600	ug/kg	U	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1	340	ug/kg	U	.	1600	ug/kg	U	.	1600	ug/kg	U	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4	340	ug/kg	U	.	1600	ug/kg	U	.	1600	ug/kg	U	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7	340	ug/kg	U	.	1600	ug/kg	U	.	1600	ug/kg	U	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0	350	ug/kg	U	.	1700	ug/kg	U	.	1700	ug/kg	U	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6	350	ug/kg	U	.	1700	ug/kg	U	.	1700	ug/kg	U	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72	360	ug/kg	U	.	910	ug/kg	U	.	910	ug/kg	U	.
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73	350	ug/kg	U	.	890	ug/kg	U	.	890	ug/kg	U	.
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82												
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7	350	ug/kg	U	.	870	ug/kg	U	.	870	ug/kg	U	.
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8	340	ug/kg	U	.	860	ug/kg	U	.	860	ug/kg	U	.
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9	340	ug/kg	U	.	860	ug/kg	U	.	860	ug/kg	U	.
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0	340	ug/kg	U	.	860	ug/kg	U	.	860	ug/kg	U	.
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1	340	ug/kg	U	.	860	ug/kg	U	.	860	ug/kg	U	.
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2	340	ug/kg	U	.	850	ug/kg	U	.	850	ug/kg	U	.
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9	340	ug/kg	U	.	860	ug/kg	U	.	860	ug/kg	U	.
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0	350	ug/kg	U	.	870	ug/kg	U	.	870	ug/kg	U	.
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1	350	ug/kg	U	.	870	ug/kg	U	.	870	ug/kg	U	.
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2	350	ug/kg	U	.	880	ug/kg	U	.	880	ug/kg	U	.
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1	350	ug/kg	U	.	860	ug/kg	U	.	860	ug/kg	U	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2	350	ug/kg	U	.	870	ug/kg	U	.	870	ug/kg	U	.
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3	350	ug/kg	U	.	870	ug/kg	U	.	870	ug/kg	U	.
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4												
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528	340	ug/kg	U	.	850	ug/kg	U	.	850	ug/kg	U	.
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529	340	ug/kg	U	.	860	ug/kg	U	.	860	ug/kg	U	.
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530	340	ug/kg	U	.	860	ug/kg	U	.	860	ug/kg	U	.
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531	340	ug/kg	U	.	860	ug/kg	U	.	860	ug/kg	U	.
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532	350	ug/kg	U	.	860	ug/kg	U	.	860	ug/kg	U	.
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533	340	ug/kg	U	.	860	ug/kg	U	.	860	ug/kg	U	.
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534	340	ug/kg	U	.	860	ug/kg	U	.	860	ug/kg	U	.
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535	340	ug/kg	U	.	860	ug/kg	U	.	860	ug/kg	U	.
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536	340	ug/kg	U	.	860	ug/kg	U	.	860	ug/kg	U	.
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5	730	ug/kg	U	.	1800	ug/kg	U	.	1800	ug/kg	U	.
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A									670	ug/kg	U	.

B-63, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Acenaphthene (83-32-9) 8270				Acenaphthylene (208-96-8) 8270				Anthracene (120-12-7) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2	330	ug/kg	U	.	330	ug/kg	U	.	330	ug/kg	U	.
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8	390	ug/kg	U	.	390	ug/kg	U	.	390	ug/kg	U	.
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82												
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4												
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5	730	ug/kg	U	.	730	ug/kg	U	.	730	ug/kg	U	.
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A	69	ug/kg	U	.								

B-63, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Benzo(a)anthracene (56-55-3) 8270				Benzo(a)pyrene (50-32-8) 8270				Benzo(b)fluoranthene (205-99-2) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2	330	ug/kg	U	.	330	ug/kg	U	.	330	ug/kg	U	.
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8	390	ug/kg	U	.	390	ug/kg	U	.	390	ug/kg	U	.
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82												
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4												
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5	730	ug/kg	U	.	730	ug/kg	U	.	730	ug/kg	U	.
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A												

B-63, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Benzo(ghi)perylene (191-24-2) 8270				Benzo(k)fluoranthene (207-08-9) 8270				Bis(2-chloro-1-methylethyl)ether (108-60-1) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2	330	ug/kg	U	.	330	ug/kg	U	.	330	ug/kg	U	.
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8	390	ug/kg	U	.	390	ug/kg	U	.	390	ug/kg	U	.
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82												
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4												
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5	730	ug/kg	U	.	730	ug/kg	U	.	730	ug/kg	U	.
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A												

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Bis(2-Chloroethoxy)methane (111-91-1) 8270				Bis(2-chloroethyl) ether (111-44-4) 8270				Bis(2-ethylhexyl) phthalate (117-81-7) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2	330	ug/kg	U	.	330	ug/kg	U	.	330	ug/kg	BJ	U
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5	360	ug/kg	U	.	360	ug/kg	U	.	330	ug/kg	BJ	U
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8	390	ug/kg	U	.	390	ug/kg	U	.	330	ug/kg	BJ	U
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1	350	ug/kg	U	.	350	ug/kg	U	.	330	ug/kg	BJ	U
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6	340	ug/kg	U	.	340	ug/kg	U	.	330	ug/kg	BJ	U
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9	340	ug/kg	U	.	340	ug/kg	U	.	330	ug/kg	BJ	U
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7	340	ug/kg	U	.	340	ug/kg	U	.	330	ug/kg	BJ	U
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0	350	ug/kg	U	.	350	ug/kg	U	.	330	ug/kg	BJ	U
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6	350	ug/kg	U	.	350	ug/kg	U	.	330	ug/kg	BJ	U
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82									39	ug/kg	U	.
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7	350	ug/kg	U	.	350	ug/kg	U	.	21	ug/kg	J	.
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0	340	ug/kg	U	.	340	ug/kg	U	.	23	ug/kg	J	.
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1	340	ug/kg	U	.	340	ug/kg	U	.	21	ug/kg	J	.
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2	340	ug/kg	U	.	340	ug/kg	U	.	54	ug/kg	J	.
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4												
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5	730	ug/kg	U	.	730	ug/kg	U	.	730	ug/kg	U	.
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A												

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Butyl Stearate (123-95-5) 8270				Butylbenzylphthalate (85-68-7) 8270				Carbazole (86-74-8) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2					330	ug/kg	U	.	330	ug/kg	U	.
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5					360	ug/kg	U	.	360	ug/kg	U	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8					390	ug/kg	U	.	390	ug/kg	U	.
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1					350	ug/kg	U	.	350	ug/kg	U	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7					340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0					340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3					350	ug/kg	U	.	350	ug/kg	U	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6					230	ug/kg	J	.	340	ug/kg	U	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9					220	ug/kg	J	.	340	ug/kg	U	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1					340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4					340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7					340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0					230	ug/kg	J	.	350	ug/kg	U	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6					240	ug/kg	J	.	350	ug/kg	U	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72					360	ug/kg	U	.	360	ug/kg	U	.
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73					350	ug/kg	U	.	350	ug/kg	U	.
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82												
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7					350	ug/kg	U	.	350	ug/kg	U	.
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8					340	ug/kg	U	.	340	ug/kg	U	.
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9					340	ug/kg	U	.	340	ug/kg	U	.
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0					340	ug/kg	U	.	340	ug/kg	U	.
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1					340	ug/kg	U	.	340	ug/kg	U	.
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2					340	ug/kg	U	.	340	ug/kg	U	.
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9					340	ug/kg	U	.	340	ug/kg	U	.
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0					350	ug/kg	U	.	350	ug/kg	U	.
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1					350	ug/kg	U	.	350	ug/kg	U	.
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2					350	ug/kg	U	.	350	ug/kg	U	.
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1					350	ug/kg	U	.	350	ug/kg	U	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2					350	ug/kg	U	.	350	ug/kg	U	.
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3					350	ug/kg	U	.	350	ug/kg	U	.
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4												
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528					340	ug/kg	U	.	340	ug/kg	U	.
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529					340	ug/kg	U	.	340	ug/kg	U	.
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530					340	ug/kg	U	.	340	ug/kg	U	.
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531					340	ug/kg	U	.	340	ug/kg	U	.
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532					350	ug/kg	U	.	350	ug/kg	U	.
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533					340	ug/kg	U	.	340	ug/kg	U	.
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534					340	ug/kg	U	.	340	ug/kg	U	.
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535					340	ug/kg	U	.	340	ug/kg	U	.
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536					340	ug/kg	U	.	340	ug/kg	U	.
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5					730	ug/kg	U	.	730	ug/kg	U	.
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A												

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Chrysene (218-01-9) 8270				Decane (124-18-5) 8270				Dibenz(a,h)anthracene (53-70-3) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2	330	ug/kg	U	.					330	ug/kg	U	.
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5	360	ug/kg	U	.					360	ug/kg	U	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8	390	ug/kg	U	.					390	ug/kg	U	.
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1	350	ug/kg	U	.					350	ug/kg	U	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7	340	ug/kg	U	.					340	ug/kg	U	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0	340	ug/kg	U	.					340	ug/kg	U	.
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3	350	ug/kg	U	.					350	ug/kg	U	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6	340	ug/kg	U	.					340	ug/kg	U	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9	340	ug/kg	U	.					340	ug/kg	U	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1	340	ug/kg	U	.					340	ug/kg	U	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4	340	ug/kg	U	.					340	ug/kg	U	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7	340	ug/kg	U	.					340	ug/kg	U	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0	350	ug/kg	U	.					350	ug/kg	U	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6	350	ug/kg	U	.					350	ug/kg	U	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72	360	ug/kg	U	.					360	ug/kg	U	.
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73	350	ug/kg	U	.					350	ug/kg	U	.
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82												
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7	350	ug/kg	U	.					350	ug/kg	U	.
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8	340	ug/kg	U	.					340	ug/kg	U	.
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9	340	ug/kg	U	.					340	ug/kg	U	.
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0	340	ug/kg	U	.					340	ug/kg	U	.
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1	340	ug/kg	U	.					340	ug/kg	U	.
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2	340	ug/kg	U	.					340	ug/kg	U	.
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9	340	ug/kg	U	.					340	ug/kg	U	.
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0	350	ug/kg	U	.					350	ug/kg	U	.
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1	350	ug/kg	U	.					350	ug/kg	U	.
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2	350	ug/kg	U	.					350	ug/kg	U	.
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1	350	ug/kg	U	.					350	ug/kg	U	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2	350	ug/kg	U	.					350	ug/kg	U	.
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3	350	ug/kg	U	.					350	ug/kg	U	.
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4												
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528	340	ug/kg	U	.					340	ug/kg	U	.
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529	340	ug/kg	U	.					340	ug/kg	U	.
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530	340	ug/kg	U	.					340	ug/kg	U	.
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531	340	ug/kg	U	.					340	ug/kg	U	.
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532	350	ug/kg	U	.					350	ug/kg	U	.
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533	340	ug/kg	U	.					340	ug/kg	U	.
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534	340	ug/kg	U	.					340	ug/kg	U	.
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535	340	ug/kg	U	.					340	ug/kg	U	.
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536	340	ug/kg	U	.					340	ug/kg	U	.
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5	730	ug/kg	U	.					730	ug/kg	U	.
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A												

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Dibenzofuran (132-64-9) 8270				Diethylphthalate (84-66-2) 8270				Dimethyl phthalate (131-11-3) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2	330	ug/kg	U	.	330	ug/kg	U	.	330	ug/kg	U	.
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8	390	ug/kg	U	.	390	ug/kg	U	.	390	ug/kg	U	.
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82												
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4												
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5	730	ug/kg	U	.	730	ug/kg	U	.	730	ug/kg	U	.
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A					210	ug/kg	JN	.				

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Di-n-butylphthalate (84-74-2) 8270				Di-n-octylphthalate (117-84-0) 8270				Eicosane (112-95-8) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2	330	ug/kg	U	.	330	ug/kg	U	.				
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5	360	ug/kg	U	.	360	ug/kg	U	.				
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8	390	ug/kg	U	.	390	ug/kg	U	.				
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1	350	ug/kg	U	.	52	ug/kg	J	.				
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7	340	ug/kg	U	.	340	ug/kg	U	.				
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0	340	ug/kg	U	.	340	ug/kg	U	.				
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3	350	ug/kg	U	.	350	ug/kg	U	.				
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6	340	ug/kg	U	.	340	ug/kg	U	.				
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9	340	ug/kg	U	.	340	ug/kg	U	.				
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1	340	ug/kg	U	.	340	ug/kg	U	.				
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4	340	ug/kg	U	.	340	ug/kg	U	.				
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7	340	ug/kg	U	.	340	ug/kg	U	.				
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0	350	ug/kg	U	.	350	ug/kg	U	.				
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6	350	ug/kg	U	.	350	ug/kg	U	.				
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72	360	ug/kg	U	.	360	ug/kg	U	.				
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73	350	ug/kg	U	.	350	ug/kg	U	.				
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82												
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7	350	ug/kg	U	.	350	ug/kg	U	.				
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8	340	ug/kg	U	.	340	ug/kg	U	.				
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9	340	ug/kg	U	.	340	ug/kg	U	.				
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0	340	ug/kg	U	.	340	ug/kg	U	.				
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1	340	ug/kg	U	.	340	ug/kg	U	.				
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2	340	ug/kg	U	.	340	ug/kg	U	.				
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9	340	ug/kg	U	.	340	ug/kg	U	.				
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0	350	ug/kg	U	.	350	ug/kg	U	.				
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1	350	ug/kg	U	.	350	ug/kg	U	.				
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2	350	ug/kg	U	.	350	ug/kg	U	.				
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1	350	ug/kg	U	.	350	ug/kg	U	.				
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2	350	ug/kg	U	.	350	ug/kg	U	.				
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3	350	ug/kg	U	.	350	ug/kg	U	.				
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4												
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528	340	ug/kg	U	.	340	ug/kg	U	.				
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529	340	ug/kg	U	.	340	ug/kg	U	.				
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530	340	ug/kg	U	.	340	ug/kg	U	.				
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531	340	ug/kg	U	.	340	ug/kg	U	.				
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532	350	ug/kg	U	.	350	ug/kg	U	.				
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533	340	ug/kg	U	.	340	ug/kg	U	.				
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534	340	ug/kg	U	.	340	ug/kg	U	.				
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535	340	ug/kg	U	.	340	ug/kg	U	.				
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536	21	ug/kg	J	.	340	ug/kg	U	.				
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5	730	ug/kg	U	.	730	ug/kg	U	.				
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A												

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Fluoranthene (206-44-0) 8270				Fluorene (86-73-7) 8270				Hexachlorobenzene (118-74-1) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2	330	ug/kg	U	.	330	ug/kg	U	.	330	ug/kg	U	.
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8	390	ug/kg	U	.	390	ug/kg	U	.	390	ug/kg	U	.
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82												
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4												
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5	730	ug/kg	U	.	730	ug/kg	U	.	730	ug/kg	U	.
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A												

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Hexachlorobutadiene (87-68-3) 8270				Hexachlorocyclopentadiene (77-47-4) 8270				Hexachloroethane (67-72-1) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2	330	ug/kg	U	.	1600	ug/kg	U	.	330	ug/kg	U	.
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5	360	ug/kg	U	.	1800	ug/kg	U	.	360	ug/kg	U	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8	390	ug/kg	U	.	1900	ug/kg	U	.	390	ug/kg	U	.
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1	350	ug/kg	U	.	1700	ug/kg	U	.	350	ug/kg	U	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7	340	ug/kg	U	.	1600	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0	340	ug/kg	U	.	1700	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3	350	ug/kg	U	.	1700	ug/kg	U	.	350	ug/kg	U	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6	340	ug/kg	U	.	1600	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9	340	ug/kg	U	.	1600	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1	340	ug/kg	U	.	1600	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4	340	ug/kg	U	.	1600	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7	340	ug/kg	U	.	1600	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0	350	ug/kg	U	.	1700	ug/kg	U	.	350	ug/kg	U	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6	350	ug/kg	U	.	1700	ug/kg	U	.	350	ug/kg	U	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82												
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4												
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5	730	ug/kg	U	.	730	ug/kg	U	.	730	ug/kg	U	.
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A												

B-63, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Hexadecanoic acid (9CI) (57-10-3) 8270				Hexadecanoic acid, butyl ester (111-06-8) 8270				Indeno(1,2,3-cd)pyrene (193-39-5) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2									330	ug/kg	U	.
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5									360	ug/kg	U	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8									390	ug/kg	U	.
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1									350	ug/kg	U	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7									340	ug/kg	U	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0									340	ug/kg	U	.
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3									350	ug/kg	U	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6	560	ug/kg	BJN	.					340	ug/kg	U	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9	450	ug/kg	BJN	.					340	ug/kg	U	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1									340	ug/kg	U	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4									340	ug/kg	U	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7	380	ug/kg	BJN	.					340	ug/kg	U	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0	560	ug/kg	BJN	.					350	ug/kg	U	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6	740	ug/kg	BJN	.					350	ug/kg	U	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72									360	ug/kg	U	.
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73									350	ug/kg	U	.
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82												
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7									350	ug/kg	U	.
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8									340	ug/kg	U	.
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9									340	ug/kg	U	.
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0									340	ug/kg	U	.
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1									340	ug/kg	U	.
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2									340	ug/kg	U	.
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9									340	ug/kg	U	.
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0									350	ug/kg	U	.
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1									350	ug/kg	U	.
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2									350	ug/kg	U	.
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1									350	ug/kg	U	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2									350	ug/kg	U	.
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3									350	ug/kg	U	.
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4												
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528									340	ug/kg	U	.
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529									340	ug/kg	U	.
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530									340	ug/kg	U	.
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531									340	ug/kg	U	.
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532									350	ug/kg	U	.
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533									340	ug/kg	U	.
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534									340	ug/kg	U	.
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535									340	ug/kg	U	.
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536									340	ug/kg	U	.
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5									730	ug/kg	U	.
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A												

B-63, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Isophorone (78-59-1) 8270			
								Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2	330	ug/kg	U	.
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5	360	ug/kg	U	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8	390	ug/kg	U	.
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1	350	ug/kg	U	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7	340	ug/kg	U	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0	340	ug/kg	U	.
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3	350	ug/kg	U	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6	340	ug/kg	U	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9	340	ug/kg	U	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1	340	ug/kg	U	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4	340	ug/kg	U	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7	340	ug/kg	U	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0	350	ug/kg	U	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6	350	ug/kg	U	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72	360	ug/kg	U	.
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73	350	ug/kg	U	.
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82				
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7	350	ug/kg	U	.
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8	340	ug/kg	U	.
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9	340	ug/kg	U	.
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0	340	ug/kg	U	.
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1	340	ug/kg	U	.
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2	340	ug/kg	U	.
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9	340	ug/kg	U	.
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0	350	ug/kg	U	.
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1	350	ug/kg	U	.
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2	350	ug/kg	U	.
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1	350	ug/kg	U	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2	350	ug/kg	U	.
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3	350	ug/kg	U	.
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4				
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528	340	ug/kg	U	.
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529	340	ug/kg	U	.
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530	340	ug/kg	U	.
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531	340	ug/kg	U	.
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532	350	ug/kg	U	.
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533	340	ug/kg	U	.
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534	340	ug/kg	U	.
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535	340	ug/kg	U	.
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536	340	ug/kg	U	.
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5	730	ug/kg	U	.
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A				

B-63, SVOA2

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Mesityl oxide (141-79-7) 8270				Naphthalene (91-20-3) 8270				n-Butyl benzenesulfonamide (3622-84-2) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2					330	ug/kg	U	.				
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5					360	ug/kg	U	.				
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8					390	ug/kg	U	.				
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1					350	ug/kg	U	.				
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7					340	ug/kg	U	.				
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0					340	ug/kg	U	.				
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3					350	ug/kg	U	.				
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6					340	ug/kg	U	.				
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9					340	ug/kg	U	.				
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1					340	ug/kg	U	.				
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4					340	ug/kg	U	.				
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7					340	ug/kg	U	.				
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0					350	ug/kg	U	.				
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6					350	ug/kg	U	.				
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72					360	ug/kg	U	.				
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73					350	ug/kg	U	.				
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82												
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7					350	ug/kg	U	.				
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8					340	ug/kg	U	.				
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9					340	ug/kg	U	.				
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0					340	ug/kg	U	.				
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1					340	ug/kg	U	.				
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2					340	ug/kg	U	.				
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9					340	ug/kg	U	.				
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0					350	ug/kg	U	.				
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1					350	ug/kg	U	.				
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2					350	ug/kg	U	.				
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1					350	ug/kg	U	.				
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2					350	ug/kg	U	.				
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3					350	ug/kg	U	.				
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4												
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528					340	ug/kg	U	.				
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529					340	ug/kg	U	.				
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530					340	ug/kg	U	.				
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531					340	ug/kg	U	.				
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532					350	ug/kg	U	.				
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533					340	ug/kg	U	.				
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534					340	ug/kg	U	.				
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535					340	ug/kg	U	.				
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536					340	ug/kg	U	.				
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5					730	ug/kg	U	.				
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A												

B-63, SVOA2

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Nitrobenzene (98-95-3) 8270				n-Nitrosodi-n-dipropylamine (621-64-7) 8270				n-Nitrosodiphenylamine (86-30-6) 8270				Octadecanoic acid (57-11-4) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2	330	ug/kg	U	.	330	ug/kg	U	.	330	ug/kg	U	.				
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.				
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8	390	ug/kg	U	.	390	ug/kg	U	.	390	ug/kg	U	.				
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.				
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.				
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.				
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.				
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	91	ug/kg	JN	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.				
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.				
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.				
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.				
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	86	ug/kg	JN	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	140	ug/kg	JN	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.				
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.				
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82																
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.				
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.				
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.				
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.				
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.				
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.				
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.				
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.				
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.				
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.				
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.				
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.				
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.				
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4																
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.				
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.				
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.				
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.				
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.				
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.				
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.				
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.				
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.				
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5	730	ug/kg	U	.	730	ug/kg	U	.	730	ug/kg	U	.				
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A					69	ug/kg	U	.								

B-63, SVOA2

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Pentachlorophenol (87-86-5) 8270				Phenanthrene (85-01-8) 8270				Phenol (108-95-2) 8270				Pyrene (129-00-0) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2	1600	ug/kg	U	.	330	ug/kg	U	.	330	ug/kg	U	.	330	ug/kg	U	.
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5	1800	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8	1900	ug/kg	U	.	390	ug/kg	U	.	390	ug/kg	U	.	390	ug/kg	U	.
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1	1700	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7	1600	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0	1700	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3	1700	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6	1600	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9	1600	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1	1600	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4	1600	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7	1600	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0	1700	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6	1700	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72	910300	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73	890	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82																
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7	870	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2	850	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0	870	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1	870	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2	880	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1	860	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2	870	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3	870	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4																
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528	850	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532	860	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5	1800	ug/kg	U	.	730	ug/kg	U	.	730	ug/kg	U	.	730	ug/kg	U	.
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A	310	ug/kg	U	.					100	ug/kg	U	.	69	ug/kg	U	.

B-63, SVOA2

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Tributyl phosphate (126-73-8) 8270			
								Conc	Units	Q	VQ
299-E33-333	3.99832	6.49768	B0MJC2		12/29/97 14:30	QTESSL	B0MJC2	660	ug/kg	U	.
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5	720	ug/kg	U	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8	770	ug/kg	U	.
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1	690	ug/kg	U	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7	680	ug/kg	U	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0	690	ug/kg	U	.
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3	710	ug/kg	U	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6	680	ug/kg	U	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9	680	ug/kg	U	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1	680	ug/kg	U	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4	670	ug/kg	U	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7	680	ug/kg	U	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0	680	ug/kg	U	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6	710	ug/kg	U	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72	360	ug/kg	U	.
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73	350	ug/kg	U	.
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82				
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7	350	ug/kg	U	.
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8	340	ug/kg	U	.
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9	340	ug/kg	U	.
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0	340	ug/kg	U	.
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1	340	ug/kg	U	.
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2	340	ug/kg	U	.
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9	340	ug/kg	U	.
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0	350	ug/kg	U	.
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1	350	ug/kg	U	.
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2	350	ug/kg	U	.
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1	350	ug/kg	U	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2	350	ug/kg	U	.
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3	350	ug/kg	U	.
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4	350	ug/kg	U	.
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528	340	ug/kg	U	.
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529	340	ug/kg	U	.
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530	340	ug/kg	U	.
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531	340	ug/kg	U	.
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532	350	ug/kg	U	.
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533	340	ug/kg	U	.
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534	340	ug/kg	U	.
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535	340	ug/kg	U	.
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536	340	ug/kg	U	.
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5	730	ug/kg	U	.
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A	69	ug/kg	U	.

B-63, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	1,1,1-Trichloroethane (71-55-6) 8260				1,1,2,2-Tetrachloroethane (79-34-5) 8260				1,1,2-Trichloroethane (79-00-5) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8	6	ug/kg	U	J	6	ug/kg	U	J	6	ug/kg	U	J
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82	0.47	ug/kg	U	.	0.47	ug/kg	U	.	0.46	ug/kg	U	.
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4	1.5	ug/kg	U	.	2.2	ug/kg	U	.	3.3	ug/kg	U	.
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A	1.6	ug/kg	U	.	1.6	ug/kg	U	.	1.6	ug/kg	U	.

B-63, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	1,1-Dichloroethane (75-34-3) 8260				1,1-Dichloroethene (75-35-4) 8260				1,2,4-Trimethylbenzene (95-63-6) 8260				1,2-Dichloroethane (107-06-2) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5	5	ug/kg	U	.	5	ug/kg	U	.					5	ug/kg	U	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8	6	ug/kg	U	J	6	ug/kg	U	J					6	ug/kg	U	J
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1	5	ug/kg	U	.	5	ug/kg	U	.					5	ug/kg	U	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7	5	ug/kg	U	.	5	ug/kg	U	.					5	ug/kg	U	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0	5	ug/kg	U	.	5	ug/kg	U	.					5	ug/kg	U	.
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3	5	ug/kg	U	.	5	ug/kg	U	.					5	ug/kg	U	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6	5	ug/kg	U	.	5	ug/kg	U	.					5	ug/kg	U	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9	5	ug/kg	U	.	5	ug/kg	U	.					5	ug/kg	U	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1	5	ug/kg	U	.	5	ug/kg	U	.					5	ug/kg	U	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4	5	ug/kg	U	.	5	ug/kg	U	.					5	ug/kg	U	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	JN	.	5	ug/kg	U	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0	5	ug/kg	U	.	5	ug/kg	U	.					5	ug/kg	U	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6	5	ug/kg	U	.	5	ug/kg	U	.					5	ug/kg	U	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72	6	ug/kg	U	.	6	ug/kg	U	.					6	ug/kg	U	.
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73	5	ug/kg	U	.	5	ug/kg	U	.					5	ug/kg	U	.
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82	0.4	ug/kg	U	.	1.4	ug/kg	U	.					0.46	ug/kg	U	.
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7	5	ug/kg	U	.	5	ug/kg	U	.					5	ug/kg	U	.
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8	5	ug/kg	U	.	5	ug/kg	U	.					5	ug/kg	U	.
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9	6	ug/kg	U	.	6	ug/kg	U	.					6	ug/kg	U	.
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0	5	ug/kg	U	.	5	ug/kg	U	.					5	ug/kg	U	.
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1	6	ug/kg	U	.	6	ug/kg	U	.					6	ug/kg	U	.
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2	5	ug/kg	U	.	5	ug/kg	U	.					5	ug/kg	U	.
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9	6	ug/kg	U	.	6	ug/kg	U	.					6	ug/kg	U	.
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0	6	ug/kg	U	.	6	ug/kg	U	.					6	ug/kg	U	.
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1	5	ug/kg	U	.	5	ug/kg	U	.					5	ug/kg	U	.
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2	6	ug/kg	U	.	6	ug/kg	U	.					6	ug/kg	U	.
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1	6	ug/kg	U	.	6	ug/kg	U	.					6	ug/kg	U	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2	6	ug/kg	U	.	6	ug/kg	U	.					6	ug/kg	U	.
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3	6	ug/kg	U	.	6	ug/kg	U	.					6	ug/kg	U	.
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4	1.4	ug/kg	U	.	1.6	ug/kg	U	.					1.4	ug/kg	U	.
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528	6	ug/kg	U	.	6	ug/kg	U	.					6	ug/kg	U	.
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529	5	ug/kg	U	.	5	ug/kg	U	.					5	ug/kg	U	.
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530	6	ug/kg	U	.	6	ug/kg	U	.					6	ug/kg	U	.
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531	6	ug/kg	U	.	6	ug/kg	U	.					6	ug/kg	U	.
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532	6	ug/kg	U	.	6	ug/kg	U	.					6	ug/kg	U	.
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533	6	ug/kg	U	.	6	ug/kg	U	.					6	ug/kg	U	.
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534	6	ug/kg	U	.	6	ug/kg	U	.					6	ug/kg	U	.
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535	6	ug/kg	U	.	6	ug/kg	U	.					6	ug/kg	U	.
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536	6	ug/kg	U	.	6	ug/kg	U	.					6	ug/kg	U	.
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5	6	ug/kg	U	.	6	ug/kg	U	.					6	ug/kg	U	.
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A	1.6	ug/kg	U	.	1.6	ug/kg	U	.					1.6	ug/kg	U	.

B-63, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	1,2-Dichloroethene (Total) (540-59-0) 8260				1,2-Dichloropropane (78-87-5) 8260				1,4-Dichlorobenzene (106-46-7) 8260				1,4-Dioxane (123-91-1) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5	5	ug/kg	U	.	5	ug/kg	U	.								
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8	6	ug/kg	U	J	6	ug/kg	U	J								
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1	5	ug/kg	U	.	5	ug/kg	U	.								
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7	5	ug/kg	U	.	5	ug/kg	U	.								
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0	5	ug/kg	U	.	5	ug/kg	U	.								
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3	5	ug/kg	U	.	5	ug/kg	U	.								
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6	5	ug/kg	U	.	5	ug/kg	U	.								
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9	5	ug/kg	U	.	5	ug/kg	U	.								
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1	5	ug/kg	U	.	5	ug/kg	U	.								
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4	5	ug/kg	U	.	5	ug/kg	U	.								
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7	5	ug/kg	U	.	5	ug/kg	U	.								
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0	5	ug/kg	U	.	5	ug/kg	U	.								
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6	5	ug/kg	U	.	5	ug/kg	U	.								
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72	6	ug/kg	U	.	6	ug/kg	U	.								
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73	5	ug/kg	U	.	5	ug/kg	U	.								
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82	0.88	ug/kg	U	.	0.22	ug/kg	U	.								
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7	5	ug/kg	U	.	5	ug/kg	U	.								
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8	5	ug/kg	U	.	5	ug/kg	U	.								
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9	6	ug/kg	U	.	6	ug/kg	U	.								
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0	5	ug/kg	U	.	5	ug/kg	U	.								
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1	6	ug/kg	U	.	6	ug/kg	U	.								
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2	5	ug/kg	U	.	5	ug/kg	U	.								
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9	6	ug/kg	U	.	6	ug/kg	U	.								
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0	6	ug/kg	U	.	6	ug/kg	U	.								
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1	5	ug/kg	U	.	5	ug/kg	U	.								
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2	6	ug/kg	U	.	6	ug/kg	U	.								
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1	6	ug/kg	U	.	6	ug/kg	U	.								
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2	6	ug/kg	U	.	6	ug/kg	U	.								
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3	6	ug/kg	U	.	6	ug/kg	U	.								
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4	2.9	ug/kg	U	.	1.2	ug/kg	U	.								
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528	6	ug/kg	U	.	6	ug/kg	U	.								
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529	5	ug/kg	U	.	5	ug/kg	U	.								
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530	6	ug/kg	U	.	6	ug/kg	U	.								
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531	6	ug/kg	U	.	6	ug/kg	U	.								
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532	6	ug/kg	U	.	6	ug/kg	U	.								
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533	6	ug/kg	U	.	6	ug/kg	U	.								
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534	6	ug/kg	U	.	6	ug/kg	U	.								
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535	6	ug/kg	U	.	6	ug/kg	U	.								
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536	6	ug/kg	U	.	6	ug/kg	U	.								
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5	6	ug/kg	U	.	6	ug/kg	U	.								
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A	1.6	ug/kg	U	.	1.6	ug/kg	U	.								

B-63, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	1-Butanol (71-36-3) 8260				1-Propanol (71-23-8) 8015				2-Butanone (78-93-3) 8260				2-Ethyl-1-hexanol (104-76-7) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5	220	ug/kg	U	.					22	ug/kg	U	.				
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8	240	ug/kg	U	J					24	ug/kg	U	J				
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1	210	ug/kg	U	.					21	ug/kg	U	.	6	ug/kg	JN	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7	210	ug/kg	U	.					21	ug/kg	U	.				
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0	210	ug/kg	U	.					21	ug/kg	U	.				
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3	220	ug/kg	U	.					22	ug/kg	U	.	6	ug/kg	JN	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6	210	ug/kg	U	.					21	ug/kg	U	.				
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9	210	ug/kg	U	.					21	ug/kg	U	.				
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1	210	ug/kg	U	.					21	ug/kg	U	.				
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4	200	ug/kg	U	.					20	ug/kg	U	.				
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7	200	ug/kg	U	.					20	ug/kg	U	.				
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0	210	ug/kg	U	.					21	ug/kg	U	.				
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6	220	ug/kg	U	.					22	ug/kg	U	.	12	ug/kg	JN	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72					5500	ug/kg	U	.	11	ug/kg	U	.				
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73					5500	ug/kg	U	.	10	ug/kg	U	.				
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82					5300	ug/kg	U	.	7.1	ug/kg	U	.				
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7					22000	ug/kg	U	.	10	ug/kg	U	.				
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8					27000	ug/kg	U	.	10	ug/kg	U	.				
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9					23000	ug/kg	U	.	11	ug/kg	U	.				
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0					26000	ug/kg	U	.	10	ug/kg	U	.				
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1					28000	ug/kg	U	.	11	ug/kg	U	.				
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2					20000	ug/kg	U	.	9	ug/kg	U	.				
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9					23000	ug/kg	U	.	11	ug/kg	U	.				
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0					23000	ug/kg	U	.	11	ug/kg	U	.				
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1					22000	ug/kg	U	.	10	ug/kg	U	.				
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2					25000	ug/kg	U	.	11	ug/kg	U	.				
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1					26000	ug/kg	U	.	11	ug/kg	U	.				
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2					24000	ug/kg	U	.	12	ug/kg	U	.				
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3					26000	ug/kg	U	.	11	ug/kg	U	.				
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4					52000	ug/kg	U	.	8.8	ug/kg	U	.				
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528					24000	ug/kg	U	.	11	ug/kg	U	.				
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529					26000	ug/kg	U	.	10	ug/kg	U	.				
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530					24000	ug/kg	U	.	11	ug/kg	U	.				
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531					24000	ug/kg	U	.	11	ug/kg	U	.				
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532					23000	ug/kg	U	.	11	ug/kg	U	.				
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533					25000	ug/kg	U	.	11	ug/kg	U	.				
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534					26000	ug/kg	U	.	11	ug/kg	U	.				
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535					22000	ug/kg	U	.	11	ug/kg	U	.				
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536					25000	ug/kg	U	.	11	ug/kg	U	.				
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5					24000	ug/kg	U	.	11	ug/kg	U	.				
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A					5000	ug/kg	U	.	1.6	ug/kg	U	.				

B-63, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	2-Ethyl-1-hexanol (104-76-7) 8270				2-Hexanone (591-78-6) 8260				2-Pentanone, 4-Methyl (108-10-1) 8260				Acetone (67-64-1) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5					22	ug/kg	U	.	22	ug/kg	U	.	12	ug/kg	BJ	U
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8					24	ug/kg	U	J	24	ug/kg	U	J	24	ug/kg	U	J
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1					21	ug/kg	U	.	21	ug/kg	U	.	21	ug/kg	U	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7					21	ug/kg	U	.	21	ug/kg	U	.	24	ug/kg	B	U
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0					21	ug/kg	U	.	21	ug/kg	U	.	36	ug/kg	B	U
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3					22	ug/kg	U	.	22	ug/kg	U	.	40	ug/kg	B	U
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6					21	ug/kg	U	.	21	ug/kg	U	.	17	ug/kg	BJ	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9					21	ug/kg	U	.	21	ug/kg	U	.	17	ug/kg	BJ	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1					21	ug/kg	U	.	21	ug/kg	U	.	14	ug/kg	BJ	U
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4					20	ug/kg	U	.	20	ug/kg	U	.	25	ug/kg	B	U
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7					20	ug/kg	U	.	20	ug/kg	U	.	20	ug/kg	U	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0					21	ug/kg	U	.	21	ug/kg	U	.	18	ug/kg	BJ	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6	240	ug/kg	JN	.	22	ug/kg	U	.	22	ug/kg	U	.	22	ug/kg	B	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72					11	ug/kg	U	.	11	ug/kg	U	.	66	ug/kg	.	.
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73					10	ug/kg	U	.	10	ug/kg	U	.	2	ug/kg	J	.
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82					1.8	ug/kg	U	.	1.3	ug/kg	U	.	10	ug/kg	J	.
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7					10	ug/kg	U	.	10	ug/kg	U	.	5	ug/kg	J	.
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8					10	ug/kg	U	.	10	ug/kg	U	.	5	ug/kg	J	.
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9					11	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	J	.
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0					10	ug/kg	U	.	10	ug/kg	U	.	5	ug/kg	J	.
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1					11	ug/kg	U	.	11	ug/kg	U	.	5	ug/kg	J	.
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2					9	ug/kg	U	.	9	ug/kg	U	.	5	ug/kg	J	.
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9					11	ug/kg	U	.	11	ug/kg	U	.	11	ug/kg	U	.
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0					11	ug/kg	U	.	11	ug/kg	U	.	11	ug/kg	U	.
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1					10	ug/kg	U	.	10	ug/kg	U	.	10	ug/kg	U	.
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2					11	ug/kg	U	.	11	ug/kg	U	.	11	ug/kg	U	.
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1					11	ug/kg	U	.	11	ug/kg	U	.	11	ug/kg	U	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2					12	ug/kg	U	.	12	ug/kg	U	.	6	ug/kg	JB	.
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3					11	ug/kg	U	.	11	ug/kg	U	.	11	ug/kg	U	.
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4					9.1	ug/kg	U	.	3.7	ug/kg	U	.	17	ug/kg	JB	.
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528					11	ug/kg	U	.	11	ug/kg	U	.	11	ug/kg	U	.
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529					10	ug/kg	U	.	10	ug/kg	U	.	10	ug/kg	U	.
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530					11	ug/kg	U	.	11	ug/kg	U	.	11	ug/kg	U	.
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531					11	ug/kg	U	.	11	ug/kg	U	.	11	ug/kg	U	.
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532					11	ug/kg	U	.	11	ug/kg	U	.	11	ug/kg	U	.
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533					11	ug/kg	U	.	11	ug/kg	U	.	11	ug/kg	U	.
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534					11	ug/kg	U	.	11	ug/kg	U	.	11	ug/kg	U	.
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535					11	ug/kg	U	.	11	ug/kg	U	.	11	ug/kg	U	.
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536					11	ug/kg	U	.	11	ug/kg	U	.	11	ug/kg	U	.
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5					11	ug/kg	U	.	11	ug/kg	U	.	11	ug/kg	U	.
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A					1.6	ug/kg	U	.	1.6	ug/kg	U	.	1.6	ug/kg	U	.

B-63, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Benzene (71-43-2) 8260				Bromodichloromethane (75-27-4) 8260				Bromoform (75-25-2) 8260				Bromomethane (74-83-9) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	11	ug/kg	U	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8	6	ug/kg	U	J	6	ug/kg	U	J	6	ug/kg	U	J	12	ug/kg	U	J
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	11	ug/kg	U	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	11	ug/kg	U	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	11	ug/kg	U	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72	8	ug/kg	.	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82	0.39	ug/kg	U	.	0.48	ug/kg	U	.	0.66	ug/kg	U	.	0.64	ug/kg	U	.
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	9	ug/kg	U	.
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	12	ug/kg	U	.
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4	0.73	ug/kg	U	.	0.73	ug/kg	U	.	1.3	ug/kg	U	.	5.4	ug/kg	U	.
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A	1.6	ug/kg	U	.	1.6	ug/kg	U	.	1.6	ug/kg	U	.	1.6	ug/kg	U	.

B-63, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Carbon disulfide (75-15-0) 8260				Carbon tetrachloride (56-23-5) 8260				Chlorobenzene (108-90-7) 8260				Chloroethane (75-00-3) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	11	ug/kg	U	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8	6	ug/kg	U	J	6	ug/kg	U	J	6	ug/kg	U	J	12	ug/kg	U	J
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	11	ug/kg	U	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	11	ug/kg	U	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	11	ug/kg	U	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82	0.49	ug/kg	U	.	0.69	ug/kg	U	.	0.36	ug/kg	U	.	2.3	ug/kg	U	.
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	9	ug/kg	U	.
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	12	ug/kg	U	.
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4	1.7	ug/kg	U	.	1.3	ug/kg	U	.	1.4	ug/kg	U	.	2.8	ug/kg	U	.
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A	1.6	ug/kg	U	.	1.6	ug/kg	U	.	1.6	ug/kg	U	.	1.6	ug/kg	U	.

B-63, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Chloroform (67-66-3) 8260				Chloromethane (74-87-3) 8260				cis-1,2-Dichloroethylene (156-59-2) 8260				cis-1,3-Dichloropropene (10061-01-5) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5	5	ug/kg	U	.	11	ug/kg	U	.					5	ug/kg	U	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8	6	ug/kg	U	J	12	ug/kg	U	J					6	ug/kg	U	J
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1	5	ug/kg	U	.	10	ug/kg	U	.					5	ug/kg	U	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7	5	ug/kg	U	.	10	ug/kg	U	.					5	ug/kg	U	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0	5	ug/kg	U	.	10	ug/kg	U	.					5	ug/kg	U	.
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3	5	ug/kg	U	.	11	ug/kg	U	.					5	ug/kg	U	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6	5	ug/kg	U	.	10	ug/kg	U	.					5	ug/kg	U	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9	5	ug/kg	U	.	10	ug/kg	U	.					5	ug/kg	U	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1	5	ug/kg	U	.	10	ug/kg	U	.					5	ug/kg	U	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4	5	ug/kg	U	.	10	ug/kg	U	.					5	ug/kg	U	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7	5	ug/kg	U	.	10	ug/kg	U	.					5	ug/kg	U	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0	5	ug/kg	U	.	11	ug/kg	U	.					5	ug/kg	U	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6	5	ug/kg	U	.	11	ug/kg	U	.					5	ug/kg	U	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72	6	ug/kg	U	.	11	ug/kg	U	.					6	ug/kg	U	.
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73	5	ug/kg	U	.	10	ug/kg	U	.					5	ug/kg	U	.
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82	0.26	ug/kg	U	.	0.82	ug/kg	U	.					0.55	ug/kg	U	.
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7	5	ug/kg	U	.	10	ug/kg	U	.					5	ug/kg	U	.
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8	5	ug/kg	U	.	10	ug/kg	U	.					5	ug/kg	U	.
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9	6	ug/kg	U	.	11	ug/kg	U	.					6	ug/kg	U	.
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0	5	ug/kg	U	.	10	ug/kg	U	.					5	ug/kg	U	.
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1	6	ug/kg	U	.	11	ug/kg	U	.					6	ug/kg	U	.
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2	5	ug/kg	U	.	9	ug/kg	U	.					5	ug/kg	U	.
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9	6	ug/kg	U	.	11	ug/kg	U	.					6	ug/kg	U	.
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0	6	ug/kg	U	.	11	ug/kg	U	.					6	ug/kg	U	.
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1	5	ug/kg	U	.	10	ug/kg	U	.					5	ug/kg	U	.
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2	6	ug/kg	U	.	11	ug/kg	U	.					6	ug/kg	U	.
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1	6	ug/kg	U	.	11	ug/kg	U	.					6	ug/kg	U	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2	6	ug/kg	U	.	12	ug/kg	U	.					6	ug/kg	U	.
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3	6	ug/kg	U	.	11	ug/kg	U	.					6	ug/kg	U	.
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4	1.2	ug/kg	U	.	5	ug/kg	U	.					2.3	ug/kg	U	.
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528	6	ug/kg	U	.	11	ug/kg	U	.					6	ug/kg	U	.
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529	5	ug/kg	U	.	10	ug/kg	U	.					5	ug/kg	U	.
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530	6	ug/kg	U	.	11	ug/kg	U	.					6	ug/kg	U	.
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531	6	ug/kg	U	.	11	ug/kg	U	.					6	ug/kg	U	.
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532	6	ug/kg	U	.	11	ug/kg	U	.					6	ug/kg	U	.
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533	6	ug/kg	U	.	11	ug/kg	U	.					6	ug/kg	U	.
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534	6	ug/kg	U	.	11	ug/kg	U	.					6	ug/kg	U	.
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535	6	ug/kg	U	.	11	ug/kg	U	.					6	ug/kg	U	.
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536	6	ug/kg	U	.	11	ug/kg	U	.					6	ug/kg	U	.
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5	6	ug/kg	U	.	11	ug/kg	U	.					6	ug/kg	U	.
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A	1.6	ug/kg	U	.	1.6	ug/kg	U	.					1.6	ug/kg	U	.

B-63, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Dibromochloromethane (124-48-1) 8260				Diethyl ether (60-29-7) 8260				Ethanol (64-17-5) 8015				Ethyl cyanide (107-12-0) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5	5	ug/kg	U	.	11	ug/kg	U	.								
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8	6	ug/kg	U	J	12	ug/kg	U	J								
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1	5	ug/kg	U	.	10	ug/kg	U	.								
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7	5	ug/kg	U	.	10	ug/kg	U	.								
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0	5	ug/kg	U	.	10	ug/kg	U	.								
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3	5	ug/kg	U	.	11	ug/kg	U	.								
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6	5	ug/kg	U	.	10	ug/kg	U	.								
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9	5	ug/kg	U	.	10	ug/kg	U	.								
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1	5	ug/kg	U	.	10	ug/kg	U	.								
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4	5	ug/kg	U	.	10	ug/kg	U	.								
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7	5	ug/kg	U	.	10	ug/kg	U	.								
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0	5	ug/kg	U	.	11	ug/kg	U	.								
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6	5	ug/kg	U	.	11	ug/kg	U	.								
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72	6	ug/kg	U	.					5500	ug/kg	U	.				
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73	5	ug/kg	U	.					5500	ug/kg	U	.				
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82	0.4	ug/kg	U	.					5300	ug/kg	U	.				
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7	5	ug/kg	U	.					22000	ug/kg	U	.				
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8	5	ug/kg	U	.					27000	ug/kg	U	.				
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9	6	ug/kg	U	.					23000	ug/kg	U	.				
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0	5	ug/kg	U	.					26000	ug/kg	U	.				
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1	6	ug/kg	U	.					28000	ug/kg	U	.				
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2	5	ug/kg	U	.					20000	ug/kg	U	.				
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9	6	ug/kg	U	.					23000	ug/kg	U	.				
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0	6	ug/kg	U	.					23000	ug/kg	U	.				
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1	5	ug/kg	U	.					22000	ug/kg	U	.				
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2	6	ug/kg	U	.					25000	ug/kg	U	.				
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1	6	ug/kg	U	.					26000	ug/kg	U	.				
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2	6	ug/kg	U	.					24000	ug/kg	U	.				
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3	6	ug/kg	U	.					26000	ug/kg	U	.				
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4	1.8	ug/kg	U	.					6200	ug/kg	U	.				
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528	6	ug/kg	U	.					24000	ug/kg	U	.				
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529	5	ug/kg	U	.					26000	ug/kg	U	.				
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530	6	ug/kg	U	.					24000	ug/kg	U	.				
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531	6	ug/kg	U	.					24000	ug/kg	U	.				
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532	6	ug/kg	U	.					23000	ug/kg	U	.				
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533	6	ug/kg	U	.					25000	ug/kg	U	.				
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534	6	ug/kg	U	.					26000	ug/kg	U	.				
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535	6	ug/kg	U	.					22000	ug/kg	U	.				
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536	6	ug/kg	U	.					25000	ug/kg	U	.				
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5	6	ug/kg	U	.					24000	ug/kg	U	.				
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A	1.6	ug/kg	U	.					5000	ug/kg	U	.				

B-63, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Ethylbenzene (100-41-4) 8260				Methylene chloride (75-09-2) 8260				Styrene (100-42-5) 8260				Tetrachloroethene (127-18-4) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5	5	ug/kg	U	.	10	ug/kg	BJ	U	5	ug/kg	U	.	5	ug/kg	U	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8	6	ug/kg	U	J	10	ug/kg	U	J	6	ug/kg	U	J	6	ug/kg	U	J
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1	5	ug/kg	U	.	10	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7	5	ug/kg	U	.	2	ug/kg	J	.	5	ug/kg	U	.	5	ug/kg	U	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0	5	ug/kg	U	.	2	ug/kg	J	.	5	ug/kg	U	.	5	ug/kg	U	.
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3	5	ug/kg	U	.	2	ug/kg	J	.	5	ug/kg	U	.	5	ug/kg	U	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1	5	ug/kg	U	.	2	ug/kg	J	.	5	ug/kg	U	.	5	ug/kg	U	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4	5	ug/kg	U	.	3	ug/kg	J	.	5	ug/kg	U	.	5	ug/kg	U	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0	5	ug/kg	U	.	2	ug/kg	BJ	.	5	ug/kg	U	.	5	ug/kg	U	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72	6	ug/kg	U	.	14	ug/kg	B	.	6	ug/kg	U	.	6	ug/kg	U	.
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73	5	ug/kg	U	.	12	ug/kg	B	.	5	ug/kg	U	.	5	ug/kg	U	.
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82	0.95	ug/kg	U	.	11	ug/kg	B	.	0.39	ug/kg	U	.	0.38	ug/kg	U	.
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9	6	ug/kg	U	.	11	ug/kg	.	.	6	ug/kg	U	.	6	ug/kg	U	.
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0	6	ug/kg	U	.	13	ug/kg	.	.	6	ug/kg	U	.	6	ug/kg	U	.
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1	5	ug/kg	U	.	12	ug/kg	.	.	5	ug/kg	U	.	5	ug/kg	U	.
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2	6	ug/kg	U	.	16	ug/kg	.	.	6	ug/kg	U	.	6	ug/kg	U	.
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1	6	ug/kg	U	.	11	ug/kg	.	.	6	ug/kg	U	.	6	ug/kg	U	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2	6	ug/kg	U	.	1	ug/kg	J	.	6	ug/kg	U	.	6	ug/kg	U	.
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3	6	ug/kg	U	.	13.23	ug/kg	.	.	6	ug/kg	U	.	6	ug/kg	U	.
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4	3.9	ug/kg	U	.	27	ug/kg	B	.	1.9	ug/kg	U	.	5.4	ug/kg	U	.
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528	6	ug/kg	U	.	14.471	ug/kg	B	.	6	ug/kg	U	.	6	ug/kg	U	.
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529	5	ug/kg	U	.	14.753	ug/kg	B	.	5	ug/kg	U	.	5	ug/kg	U	.
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530	6	ug/kg	U	.	16.061	ug/kg	B	.	6	ug/kg	U	.	6	ug/kg	U	.
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531	6	ug/kg	U	.	9.601	ug/kg	B	.	6	ug/kg	U	.	6	ug/kg	U	.
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532	6	ug/kg	U	.	7.617	ug/kg	.	.	6	ug/kg	U	.	6	ug/kg	U	.
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533	6	ug/kg	U	.	5.953	ug/kg	.	.	6	ug/kg	U	.	6	ug/kg	U	.
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534	6	ug/kg	U	.	10.191	ug/kg	.	.	6	ug/kg	U	.	6	ug/kg	U	.
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535	6	ug/kg	U	.	9.47	ug/kg	.	.	6	ug/kg	U	.	6	ug/kg	U	.
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536	6	ug/kg	U	.	12.953	ug/kg	.	.	6	ug/kg	U	.	6	ug/kg	U	.
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5	6	ug/kg	U	.	18.427	ug/kg	B	.	6	ug/kg	U	.	6	ug/kg	U	.
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A	1.6	ug/kg	U	.	1.6	ug/kg	U	.	1.6	ug/kg	U	.	1.6	ug/kg	U	.

B-63, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Tetrahydrofuran (109-99-9) 8260				Toluene (108-88-3) 8260				trans-1,2-Dichloroethylene (156-60-5) 8260				trans-1,3-Dichloropropene (10061-02-6) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5					5	ug/kg	U	.					5	ug/kg	U	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8					6	ug/kg	U	J					6	ug/kg	U	J
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1					5	ug/kg	U	.					5	ug/kg	U	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7					5	ug/kg	U	.					5	ug/kg	U	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0					5	ug/kg	U	.					5	ug/kg	U	.
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3					5	ug/kg	U	.					5	ug/kg	U	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6					5	ug/kg	U	.					5	ug/kg	U	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9					5	ug/kg	U	.					5	ug/kg	U	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1					5	ug/kg	U	.					5	ug/kg	U	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4					5	ug/kg	U	.					5	ug/kg	U	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7					2	ug/kg	J	.					5	ug/kg	U	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0					5	ug/kg	U	.					5	ug/kg	U	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6					5	ug/kg	U	.					5	ug/kg	U	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72					6	ug/kg	U	.					6	ug/kg	U	.
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73					5	ug/kg	U	.					5	ug/kg	U	.
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82					0.57	ug/kg	U	.					0.33	ug/kg	U	.
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7					5	ug/kg	U	.					5	ug/kg	U	.
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8					5	ug/kg	U	.					5	ug/kg	U	.
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9					6	ug/kg	U	.					6	ug/kg	U	.
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0					5	ug/kg	U	.					5	ug/kg	U	.
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1					6	ug/kg	U	.					6	ug/kg	U	.
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2					5	ug/kg	U	.					5	ug/kg	U	.
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9					6	ug/kg	U	.					6	ug/kg	U	.
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0					6	ug/kg	U	.					6	ug/kg	U	.
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1					5	ug/kg	U	.					5	ug/kg	U	.
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2					6	ug/kg	U	.					6	ug/kg	U	.
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1					6	ug/kg	U	.					6	ug/kg	U	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2					3	ug/kg	J	.					6	ug/kg	U	.
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3					1.78	ug/kg	J	.					6	ug/kg	U	.
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4					1.3	ug/kg	U	.					4.2	ug/kg	U	.
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528					6	ug/kg	U	.					6	ug/kg	U	.
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529					5	ug/kg	U	.					5	ug/kg	U	.
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530					6	ug/kg	U	.					6	ug/kg	U	.
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531					6	ug/kg	U	.					6	ug/kg	U	.
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532					6	ug/kg	U	.					6	ug/kg	U	.
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533					6	ug/kg	U	.					6	ug/kg	U	.
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534					6	ug/kg	U	.					6	ug/kg	U	.
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535					6	ug/kg	U	.					6	ug/kg	U	.
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536					6	ug/kg	U	.					6	ug/kg	U	.
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5					6	ug/kg	U	.					6	ug/kg	U	.
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A					1.6	ug/kg	U	.					1.6	ug/kg	U	.

B-63, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Trichloroethene (79-01-6) 8260				Vinyl chloride (75-01-4) 8260				Xylenes (total) (1330-20-7) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-E33-333	7.99664	10.496	B0MJC5		12/29/97 16:05	QTESSL	B0MJC5	5	ug/kg	U	.	11	ug/kg	U	.	5	ug/kg	U	.
299-E33-333	10.496	12.99536	B0MJC8		12/30/97 9:20	QTESSL	B0MJC8	6	ug/kg	U	J	12	ug/kg	U	J	6	ug/kg	U	J
299-E33-333	12.99536	15.49472	B0MJD1		12/30/97 12:40	QTESSL	B0MJD1	5	ug/kg	U	.	10	ug/kg	U	.	5	ug/kg	U	.
299-E33-333	19.99488	22.49424	B0MJD7	R	12/31/97 9:30	QTESSL	B0MJD7	5	ug/kg	U	.	10	ug/kg	U	.	5	ug/kg	U	.
299-E33-333	19.99488	21.99568	B0MJF0	R	12/31/97 9:30	QTESSL	B0MJF0	5	ug/kg	U	.	10	ug/kg	U	.	5	ug/kg	U	.
299-E33-333	29.99232	32.49168	B0MJF3		12/31/97 11:15	QTESSL	B0MJF3	5	ug/kg	U	.	11	ug/kg	U	.	5	ug/kg	U	.
299-E33-333	74.9808	77.4736	B0MJF6		1/2/98 15:00	QTESSL	B0MJF6	5	ug/kg	U	.	10	ug/kg	U	.	5	ug/kg	U	.
299-E33-333	99.9744	102.47376	B0MJF9		1/3/98 9:42	QTESSL	B0MJF9	5	ug/kg	U	.	10	ug/kg	U	.	5	ug/kg	U	.
299-E33-333	39.9832	41.984	B0MJJ1		12/31/97 13:05	QTESSL	B0MJJ1	5	ug/kg	U	.	10	ug/kg	U	.	5	ug/kg	U	.
299-E33-333	49.9872	51.988	B0MJJ4		12/31/97 14:20	QTESSL	B0MJJ4	5	ug/kg	U	.	10	ug/kg	U	.	5	ug/kg	U	.
299-E33-333	149.9616	151.9624	B0MJJ7		1/5/98 10:25	QTESSL	B0MJJ7	5	ug/kg	U	.	10	ug/kg	U	.	8	ug/kg	.	.
299-E33-333	173.9712	178.9568	B0MJK0		1/5/98 15:10	QTESSL	B0MJK0	5	ug/kg	U	.	11	ug/kg	U	.	5	ug/kg	U	.
299-E33-333	251.43496	253.9376	B0MJK6		1/7/98 16:00	QTESSL	B0MJK6	5	ug/kg	U	.	11	ug/kg	U	.	5	ug/kg	U	.
10142	4.99872	5.99912	B13D72		11/2/01 7:30	RLNP	B13D72	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
10142	7.49808	8.49848	B13D73	S	11/2/01 7:30	RLNP	B13D73	5	ug/kg	U	.	10	ug/kg	U	.	5	ug/kg	U	.
10142	7.49808	8.49848	B13D82	S	11/2/01 7:45	STLSL	B13D82	0.33	ug/kg	U	.	0.84	ug/kg	U	.	1.1	ug/kg	U	.
10142	7.99664	9.49888	B15XJ7		11/11/02 10:07	RLNP	B15XJ7	5	ug/kg	U	.	10	ug/kg	U	.	5	ug/kg	U	.
10142	10.99784	11.99824	B15XJ8		11/11/02 10:25	RLNP	B15XJ8	5	ug/kg	U	.	10	ug/kg	U	.	5	ug/kg	U	.
10142	13.4972	14.4976	B15XJ9		11/11/02 10:45	RLNP	B15XJ9	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
10142	15.99656	16.99696	B15XK0		11/11/02 11:00	RLNP	B15XK0	5	ug/kg	U	.	10	ug/kg	U	.	5	ug/kg	U	.
10142	19.99488	20.99528	B15XK1		11/11/02 11:25	RLNP	B15XK1	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
10142	23.9932	24.9936	B15XK2		11/11/02 11:50	RLNP	B15XK2	5	ug/kg	U	.	9	ug/kg	U	.	5	ug/kg	U	.
14076	9.49888	10.496	B15XK9		11/12/02 10:10	RLNP	B15XK9	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
14076	11.99824	12.99536	B15XL0		11/12/02 10:36	RLNP	B15XL0	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
14076	14.4976	15.49472	B15XL1		11/12/02 10:55	RLNP	B15XL1	5	ug/kg	U	.	10	ug/kg	U	.	5	ug/kg	U	.
14076	16.99696	17.99408	B15XL2		11/12/02 11:20	RLNP	B15XL2	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
10142	5.99912	6.99952	B15XM1		11/11/02 9:30	RLNP	B15XM1	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
14076	6.99952	7.99664	B15XM2		11/12/02 9:40	RLNP	B15XM2	6	ug/kg	U	.	12	ug/kg	U	.	6	ug/kg	U	.
14076	9.49888	10.496	B15XM3	R	11/12/02 10:15	RLNP	B15XM3	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
14076	9.49888	10.496	B15XM4	S	11/12/02 10:10	STLSL	B15XM4	1.2	ug/kg	U	.	4.2	ug/kg	U	.	5.1	ug/kg	U	.
B8827	12.4968	14.4976	B16528		3/24/03 11:50	RLNP	B16528	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
B8827	14.99616	16.99696	B16529		3/24/03 12:20	RLNP	B16529	5	ug/kg	U	.	10	ug/kg	U	.	5	ug/kg	U	.
B8827	14.99616	16.99696	B16530		3/24/03 12:20	RLNP	B16530	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
B8827	17.49552	18.99448	B16531		3/24/03 13:57	RLNP	B16531	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
B8827	19.49632	21.49384	B16532		3/24/03 14:30	RLNP	B16532	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
B8827	22.9928	24.9936	B16533		3/24/03 15:14	RLNP	B16533	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
B8827	27.99152	29.99232	B16534		3/24/03 15:53	RLNP	B16534	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
B8827	52.972	54.9728	B16535		3/25/03 9:35	RLNP	B16535	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
B8827	100.9584	102.9592	B16536		3/25/03 15:30	RLNP	B16536	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
B8827	9.99744	12.99536	B16FW5		3/24/03 11:11	RLNP	B16FW5	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
B8827	17.49552	18.99448	B16HB4-A		3/24/03 13:57	WSCF	B16HB4-A	1.6	ug/kg	U	.	1.6	ug/kg	U	.	1.6	ug/kg	U	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Aroclor-1016 (12674-11-2) 8080_PESTPCB_GC				Aroclor-1016 (12674-11-2) 8082				Aroclor-1221 (11104-28-2) 8080_PESTPCB_GC			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84					35	ug/kg	U	.				
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85					370	ug/kg	U	.				
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0					180	ug/kg	U	.				
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1					35	ug/kg	U	.				
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2					36	ug/kg	U	.				
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3					34	ug/kg	U	.				
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4					34	ug/kg	U	.				
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6					35	ug/kg	U	.				
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7					34	ug/kg	U	.				
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8					35	ug/kg	U	.				
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9					34	ug/kg	U	.				
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8					35	ug/kg	U	.				
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9					13	ug/kg	U	.				
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2					34	ug/kg	U	.				
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538					35	ug/kg	U	.				
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539					35	ug/kg	U	.				
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540					37	ug/kg	U	.				
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541					35	ug/kg	U	.				
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542					38	ug/kg	U	.				
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543					36	ug/kg	U	.				
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544					36	ug/kg	U	.				
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545					34	ug/kg	U	.				
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547					35	ug/kg	U	.				
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A					51	ug/kg	U	.				
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0					38	ug/kg	U	.				
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1					38	ug/kg	U	.				

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Aroclor-1221 (11104-28-2) 8082				Aroclor-1232 (11141-16-5) 8080_PESTPCB_GC				Aroclor-1232 (11141-16-5) 8082			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	69	ug/kg	U	.					35	ug/kg	U	.
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	740	ug/kg	U	.					370	ug/kg	U	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0	360	ug/kg	U	.					180	ug/kg	U	.
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1	69	ug/kg	U	.					35	ug/kg	U	.
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2	72	ug/kg	U	.					36	ug/kg	U	.
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3	69	ug/kg	U	.					34	ug/kg	U	.
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4	69	ug/kg	U	.					34	ug/kg	U	.
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6	70	ug/kg	U	.					35	ug/kg	U	.
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7	69	ug/kg	U	.					34	ug/kg	U	.
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8	70	ug/kg	U	.					35	ug/kg	U	.
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9	68	ug/kg	U	.					34	ug/kg	U	.
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8	70	ug/kg	U	.					35	ug/kg	U	.
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9	13	ug/kg	U	.					13	ug/kg	U	.
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	68	ug/kg	U	.					34	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538	70	ug/kg	U	.					35	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539	70	ug/kg	U	.					35	ug/kg	U	.
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540	74	ug/kg	U	.					37	ug/kg	U	.
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541	69	ug/kg	U	.					35	ug/kg	U	.
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542	76	ug/kg	U	.					38	ug/kg	U	.
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543	71	ug/kg	U	.					36	ug/kg	U	.
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544	71	ug/kg	U	.					36	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545	69	ug/kg	U	.					34	ug/kg	U	.
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547	70	ug/kg	U	.					35	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A	51	ug/kg	U	.					51	ug/kg	U	.
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0	76	ug/kg	U	.					38	ug/kg	U	.
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1	76	ug/kg	U	.					38	ug/kg	U	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Aroclor-1242 (53469-21-9) 8080_PESTPCB_GC				Aroclor-1242 (53469-21-9) 8082				Aroclor-1248 (12672-29-6) 8080_PESTPCB_GC			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84					35	ug/kg	U	.				
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85					370	ug/kg	U	.				
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0					180	ug/kg	U	.				
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1					35	ug/kg	U	.				
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2					36	ug/kg	U	.				
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3					34	ug/kg	U	.				
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4					34	ug/kg	U	.				
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6					35	ug/kg	U	.				
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7					34	ug/kg	U	.				
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8					35	ug/kg	U	.				
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9					34	ug/kg	U	.				
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8					35	ug/kg	U	.				
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9					13	ug/kg	U	.				
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2					34	ug/kg	U	.				
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538					35	ug/kg	U	.				
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539					35	ug/kg	U	.				
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540					37	ug/kg	U	.				
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541					35	ug/kg	U	.				
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542					38	ug/kg	U	.				
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543					36	ug/kg	U	.				
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544					36	ug/kg	U	.				
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545					34	ug/kg	U	.				
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547					35	ug/kg	U	.				
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A					51	ug/kg	U	.				
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0					38	ug/kg	U	.				
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1					38	ug/kg	U	.				

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Aroclor-1248 (12672-29-6) 8082				Aroclor-1254 (11097-69-1) 8080_PESTPCB_GC				Aroclor-1254 (11097-69-1) 8082			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	35	ug/kg	U	.					35	ug/kg	U	.
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	370	ug/kg	U	.					3700	ug/kg	.	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0	180	ug/kg	U	.					1100	ug/kg	.	.
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1	35	ug/kg	U	.					35	ug/kg	U	.
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2	36	ug/kg	U	.					36	ug/kg	U	.
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3	34	ug/kg	U	.					34	ug/kg	U	.
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4	34	ug/kg	U	.					34	ug/kg	U	.
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6	35	ug/kg	U	.					35	ug/kg	U	.
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7	34	ug/kg	U	.					34	ug/kg	U	.
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8	35	ug/kg	U	.					35	ug/kg	U	.
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9	34	ug/kg	U	.					34	ug/kg	U	.
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8	35	ug/kg	U	.					35	ug/kg	U	.
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9	13	ug/kg	U	.					7.5	ug/kg	U	.
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	34	ug/kg	U	.					34	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538	35	ug/kg	U	.					35	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539	35	ug/kg	U	.					35	ug/kg	U	.
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540	37	ug/kg	U	.					37	ug/kg	U	.
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541	35	ug/kg	U	.					35	ug/kg	U	.
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542	38	ug/kg	U	.					38	ug/kg	U	.
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543	36	ug/kg	U	.					36	ug/kg	U	.
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544	36	ug/kg	U	.					36	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545	34	ug/kg	U	.					34	ug/kg	U	.
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547	35	ug/kg	U	.					170	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A	51	ug/kg	U	.					51	ug/kg	U	.
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0	38	ug/kg	U	.					38	ug/kg	U	.
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1	38	ug/kg	U	.					38	ug/kg	U	.

S-10 Ditch, GENORG

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Aroclor-1260 (11096-82-5) 8080_PESTPCB_GC				Aroclor-1260 (11096-82-5) 8082				Aroclor-1262 (37324-23-5) 8082			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84					35	ug/kg	U	.				
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85					370	ug/kg	U	.				
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0					180	ug/kg	U	.				
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1					35	ug/kg	U	.				
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2					36	ug/kg	U	.				
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3					34	ug/kg	U	.				
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4					34	ug/kg	U	.				
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6					35	ug/kg	U	.				
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7					34	ug/kg	U	.				
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8					35	ug/kg	U	.				
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9					34	ug/kg	U	.				
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8					35	ug/kg	U	.				
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9					7.5	ug/kg	U	.				
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2					34	ug/kg	U	.				
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538					35	ug/kg	U	.				
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539					35	ug/kg	U	.				
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540					37	ug/kg	U	.				
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541					35	ug/kg	U	.				
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542					38	ug/kg	U	.				
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543					36	ug/kg	U	.				
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544					36	ug/kg	U	.				
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545					34	ug/kg	U	.				
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547					35	ug/kg	U	.				
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A					51	ug/kg	U	.	51	ug/kg	U	.
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0					38	ug/kg	U	.				
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1					38	ug/kg	U	.				

S-10 Ditch, GENORG

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Aroclor-1268 (11100-14-4) 8082				Total organic carbon (TOC) 9060				Total petroleum hydrocarbons - diesel range (TPHDIESEL) WDOE TPH			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84									12500	ug/kg	U	.
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85									31000	ug/kg	.	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0									13000	ug/kg	U	.
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1									12500	ug/kg	U	.
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2									13000	ug/kg	U	.
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3									12400	ug/kg	U	.
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4									12300	ug/kg	U	.
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6									12600	ug/kg	U	.
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7									12300	ug/kg	U	.
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8									12500	ug/kg	U	.
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9									12300	ug/kg	U	.
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8									12600	ug/kg	U	.
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9									1400	ug/kg	U	.
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2									12300	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538									12500	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539									12700	ug/kg	U	.
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540									13200	ug/kg	U	.
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541									12500	ug/kg	U	.
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542									13700	ug/kg	U	.
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543									12800	ug/kg	U	.
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544									12800	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545									12400	ug/kg	U	.
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547									12600	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A	51	ug/kg	U	.					5100	ug/kg	U	.
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0									13700	ug/kg	U	.
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1									13600	ug/kg	U	.

S-10 Ditch, GENORG

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Total petroleum hydrocarbons - kerosene range (TPHKEROSENE)				Total petroleum hydrocarbons - motor oil (high boi (TPH/OILH)			
								WDOE TPH				WDOE TPH			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	12500	ug/kg	U	.				
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	13300	ug/kg	U	.				
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0	13000	ug/kg	U	.				
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1	12500	ug/kg	U	.				
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2	13000	ug/kg	U	.				
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3	12400	ug/kg	U	.				
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4	12300	ug/kg	U	.				
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6	12600	ug/kg	U	.				
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7	12300	ug/kg	U	.				
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8	12500	ug/kg	U	.				
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9	12300	ug/kg	U	.				
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8	12600	ug/kg	U	.				
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9	26000	ug/kg	U	.				
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	12300	ug/kg	U	.				
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538	12500	ug/kg	U	.				
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539	12700	ug/kg	U	.				
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540	13200	ug/kg	U	.				
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541	12500	ug/kg	U	.				
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542	13700	ug/kg	U	.				
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543	12800	ug/kg	U	.				
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544	12800	ug/kg	U	.				
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545	12400	ug/kg	U	.				
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547	12600	ug/kg	U	.				
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A								
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0	13700	ug/kg	U	.				
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1	13600	ug/kg	U	.				

S-10 Ditch, METAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Aluminum (7429-90-5) 6010				Antimony (7440-36-0) 6010				Arsenic (7440-38-2) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	EBRLNE	B15Y84												
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	5970000	ug/kg	.	.					2900	ug/kg	.	.
14119	0	1.499616	B15Y85		11/20/02 13:25	EBRLNE	B15Y85												
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	10800000	ug/kg	.	.					2500	ug/kg	.	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	EBRLNE	B15YB0												
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0									3800	ug/kg	.	.
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	EBRLNE	B15YB1												
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1									3700	ug/kg	.	.
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	EBRLNE	B15YB2												
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2									5300	ug/kg	.	.
14117	10.496	11.4964	B15YB3		11/21/02 11:50	EBRLNE	B15YB3												
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3									2600	ug/kg	.	.
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	EBRLNE	B15YB4												
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4									2400	ug/kg	.	.
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	EBRLNE	B15YB6												
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6									5500	ug/kg	.	.
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	EBRLNE	B15YB7												
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7									3100	ug/kg	.	.
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	EBRLNE	B15YB8												
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8									3000	ug/kg	.	.
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	EBRLNE	B15YB9												
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9									2500	ug/kg	.	.
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	EBRLNE	B15YF8												
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8									4900	ug/kg	.	.
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLRL	B15YF9												
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9									3800	ug/kg	.	.
14117	2.999232	3.99832	B160N2		11/21/02 11:20	EBRLNE	B160N2												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	5920000	ug/kg	.	.					3700	ug/kg	.	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	EBRLNE	B16538												
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538									5200	ug/kg	.	.
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	EBRLNE	B16539												
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539									4600	ug/kg	.	.
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	EBRLNE	B16540												
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540									6500	ug/kg	.	.
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	EBRLNE	B16541												
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541									6400	ug/kg	.	.
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	EBRLNE	B16542												
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542									6700	ug/kg	.	.
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	EBRLNE	B16543												
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543									2300	ug/kg	.	.
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	EBRLNE	B16544												
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544									1000	ug/kg	.	.
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	EBRLNE	B16545												
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545									3000	ug/kg	.	.
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	EBRLNE	B16547												
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547									3000	ug/kg	.	.
299-W26-14	24.9936	26.9944	B16HB6		3/7/03 8:45	STLRL	B16HB6												
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A					0.074	ug/kg	UE	.	2380	ug/kg	.	.
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	EBRLNE	B16KB0												
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0									3800	ug/kg	.	.

S-10 Ditch, METAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Barium (7440-39-3) 6010				Beryllium (7440-41-7) 6010				Bismuth (7440-69-9) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	EBRLNE	B15Y84												
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	77600	ug/kg	.	.	380	ug/kg	B	.	580	ug/kg	U	.
14119	0	1.499616	B15Y85		11/20/02 13:25	EBRLNE	B15Y85												
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	88300	ug/kg	.	.	390	ug/kg	B	.	2000	ug/kg	B	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	EBRLNE	B15YB0												
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0	72500	ug/kg	.	.	140	ug/kg	.	.				
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	EBRLNE	B15YB1												
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1	75900	ug/kg	.	.	110	ug/kg	.	.				
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	EBRLNE	B15YB2												
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2	105000	ug/kg	.	.	190	ug/kg	.	.				
14117	10.496	11.4964	B15YB3		11/21/02 11:50	EBRLNE	B15YB3												
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3	70100	ug/kg	.	.	200	ug/kg	.	.				
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	EBRLNE	B15YB4												
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4	98400	ug/kg	.	.	190	ug/kg	.	.				
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	EBRLNE	B15YB6												
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6	87500	ug/kg	.	.	250	ug/kg	.	.				
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	EBRLNE	B15YB7												
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7	88800	ug/kg	.	.	180	ug/kg	.	.				
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	EBRLNE	B15YB8												
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8	69900	ug/kg	.	.	200	ug/kg	.	.				
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	EBRLNE	B15YB9												
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9	55000	ug/kg	.	.	150	ug/kg	.	.				
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	EBRLNE	B15YF8												
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8	75300	ug/kg	.	.	230	ug/kg	.	.				
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLRL	B15YF9												
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9	88900	ug/kg	.	.	220	ug/kg	B	.				
14117	2.999232	3.99832	B160N2		11/21/02 11:20	EBRLNE	B160N2												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	120000	ug/kg	.	.	460	ug/kg	B	.	580	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	EBRLNE	B16538												
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538	89200	ug/kg	.	.	221	ug/kg	.	.				
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	EBRLNE	B16539												
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539	97700	ug/kg	.	.	288	ug/kg	.	.				
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	EBRLNE	B16540												
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540	114000	ug/kg	.	.	469	ug/kg	.	.				
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	EBRLNE	B16541												
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541	77800	ug/kg	.	.	350	ug/kg	.	.				
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	EBRLNE	B16542												
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542	112000	ug/kg	.	.	620	ug/kg	.	.				
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	EBRLNE	B16543												
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543	95100	ug/kg	.	.	470	ug/kg	.	.				
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	EBRLNE	B16544												
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544	81700	ug/kg	.	.	270	ug/kg	.	.				
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	EBRLNE	B16545												
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545	70000	ug/kg	.	.	197	ug/kg	.	.				
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	EBRLNE	B16547												
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547	68500	ug/kg	.	.	500	ug/kg	.	.				
299-W26-14	24.9936	26.9944	B16HB6		3/7/03 8:45	STLRL	B16HB6												
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A	54600	ug/kg	.	.	653	ug/kg	.	.	0.594	ug/kg	.	.
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	EBRLNE	B16KB0												
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0	104000	ug/kg	.	.	400	ug/kg	.	.				

S-10 Ditch, METAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Boron (7440-42-8) 6010				Cadmium (7440-43-9) 6010				Cadmium (7440-43-9) TCLP/6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	EBRLNE	B15Y84												
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	1500	ug/kg	B	.	130	ug/kg	B	.				
14119	0	1.499616	B15Y85		11/20/02 13:25	EBRLNE	B15Y85												
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	1500	ug/kg	B	.	480	ug/kg	B	.				
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	EBRLNE	B15YB0												
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0					410	ug/kg	.	.				
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	EBRLNE	B15YB1												
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1					170	ug/kg	.	.				
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	EBRLNE	B15YB2												
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2					180	ug/kg	.	.				
14117	10.496	11.4964	B15YB3		11/21/02 11:50	EBRLNE	B15YB3												
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3					110	ug/kg	.	.				
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	EBRLNE	B15YB4												
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4					100	ug/kg	.	.				
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	EBRLNE	B15YB6												
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6					80	ug/kg	.	.				
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	EBRLNE	B15YB7												
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7					80	ug/kg	.	.				
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	EBRLNE	B15YB8												
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8					40	ug/kg	.	.				
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	EBRLNE	B15YB9												
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9					40	ug/kg	U	.				
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	EBRLNE	B15YF8												
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8					30	ug/kg	U	.				
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLRL	B15YF9												
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9					280	ug/kg	U	.				
14117	2.999232	3.99832	B160N2		11/21/02 11:20	EBRLNE	B160N2												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	780	ug/kg	B	.	40	ug/kg	U	.				
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	EBRLNE	B16538												
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538					41	ug/kg	U	.				
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	EBRLNE	B16539												
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539					51	ug/kg	.	.				
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	EBRLNE	B16540												
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540					54	ug/kg	.	.				
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	EBRLNE	B16541												
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541					40	ug/kg	U	.				
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	EBRLNE	B16542												
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542					50	ug/kg	U	.				
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	EBRLNE	B16543												
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543					40	ug/kg	U	.				
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	EBRLNE	B16544												
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544					40	ug/kg	U	.				
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	EBRLNE	B16545												
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545					33	ug/kg	U	.				
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	EBRLNE	B16547												
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547					290	ug/kg	.	.				
299-W26-14	24.9936	26.9944	B16HB6		3/7/03 8:45	STLRL	B16HB6												
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A					2260	ug/kg	.	.				
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	EBRLNE	B16KB0												
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0					40	ug/kg	U	.				

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Calcium (7440-70-2) 6010				Chromium (7440-47-3) 6010				Cobalt (7440-48-4) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	EBRLNE	B15Y84												
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	3400000	ug/kg	.	.	36400	ug/kg	.	.				
14119	0	1.499616	B15Y85		11/20/02 13:25	EBRLNE	B15Y85												
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	2690000	ug/kg	.	.	815000	ug/kg	.	.				
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	EBRLNE	B15YB0												
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0					287000	ug/kg	.	.				
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	EBRLNE	B15YB1												
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1					9800	ug/kg	.	.				
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	EBRLNE	B15YB2												
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2					10300	ug/kg	.	.				
14117	10.496	11.4964	B15YB3		11/21/02 11:50	EBRLNE	B15YB3												
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3					8900	ug/kg	.	.				
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	EBRLNE	B15YB4												
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4					8200	ug/kg	.	.				
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	EBRLNE	B15YB6												
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6					10600	ug/kg	.	.				
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	EBRLNE	B15YB7												
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7					7300	ug/kg	.	.				
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	EBRLNE	B15YB8												
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8					11300	ug/kg	.	.				
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	EBRLNE	B15YB9												
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9					7500	ug/kg	.	.				
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	EBRLNE	B15YF8												
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8					10600	ug/kg	.	.				
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLRL	B15YF9												
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9					8400	ug/kg	.	.				
14117	2.999232	3.99832	B160N2		11/21/02 11:20	EBRLNE	B160N2												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	3880000	ug/kg	.	.	18400	ug/kg	.	.				
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	EBRLNE	B16538												
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538					8300	ug/kg	.	.				
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	EBRLNE	B16539												
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539					8700	ug/kg	.	.				
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	EBRLNE	B16540												
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540					14100	ug/kg	.	.				
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	EBRLNE	B16541												
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541					16500	ug/kg	.	.				
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	EBRLNE	B16542												
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542					23500	ug/kg	.	.				
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	EBRLNE	B16543												
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543					12000	ug/kg	.	.				
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	EBRLNE	B16544												
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544					29800	ug/kg	.	.				
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	EBRLNE	B16545												
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545					8100	ug/kg	.	.				
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	EBRLNE	B16547												
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547					4300	ug/kg	.	J				
299-W26-14	24.9936	26.9944	B16HB6		3/7/03 8:45	STLRL	B16HB6												
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A					14000	ug/kg	.	.				
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	EBRLNE	B16KB0												
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0					23900	ug/kg	.	.				

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Copper (7440-50-8) 6010				Hexavalent Chromium (18540-29-9) 7196				Iron (7439-89-6) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	EBRLNE	B15Y84												
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	13000	ug/kg	.	.	1090	ug/kg	.	.	24100000	ug/kg	.	.
14119	0	1.499616	B15Y85		11/20/02 13:25	EBRLNE	B15Y85												
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	244000	ug/kg	.	.	6820	ug/kg	.	.	28800000	ug/kg	.	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	EBRLNE	B15YB0												
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0	66400	ug/kg	.	.	14100	ug/kg	.	.				
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	EBRLNE	B15YB1												
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1	14000	ug/kg	.	.	416	ug/kg	U	.				
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	EBRLNE	B15YB2												
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2	16900	ug/kg	.	.	435	ug/kg	U	.				
14117	10.496	11.4964	B15YB3		11/21/02 11:50	EBRLNE	B15YB3												
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3	15300	ug/kg	.	.	413	ug/kg	U	.				
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	EBRLNE	B15YB4												
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4	12800	ug/kg	.	.	412	ug/kg	U	.				
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	EBRLNE	B15YB6												
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6	15600	ug/kg	.	.	421	ug/kg	U	.				
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	EBRLNE	B15YB7												
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7	14100	ug/kg	.	.	411	ug/kg	U	.				
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	EBRLNE	B15YB8												
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8	12900	ug/kg	.	.	418	ug/kg	U	.				
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	EBRLNE	B15YB9												
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9	12100	ug/kg	.	.	411	ug/kg	U	.				
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	EBRLNE	B15YF8												
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8	14100	ug/kg	.	.	420	ug/kg	U	.				
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLRL	B15YF9												
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9	15400	ug/kg	.	.	57	ug/kg	U	.				
14117	2.999232	3.99832	B160N2		11/21/02 11:20	EBRLNE	B160N2												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	13600	ug/kg	.	.	411	ug/kg	U	.	24500000	ug/kg	.	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	EBRLNE	B16538												
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538	15200	ug/kg	.	.	418	ug/kg	U	.				
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	EBRLNE	B16539												
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539	13900	ug/kg	.	.	422	ug/kg	U	.				
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	EBRLNE	B16540												
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540	16900	ug/kg	.	.	441	ug/kg	U	.				
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	EBRLNE	B16541												
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541	12000	ug/kg	.	.	420	ug/kg	U	.				
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	EBRLNE	B16542												
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542	19500	ug/kg	.	.	470	ug/kg	.	.				
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	EBRLNE	B16543												
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543	18500	ug/kg	.	.	1800	ug/kg	.	.				
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	EBRLNE	B16544												
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544	13600	ug/kg	.	.	430	ug/kg	U	.				
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	EBRLNE	B16545												
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545	11600	ug/kg	.	.	412	ug/kg	U	.				
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	EBRLNE	B16547												
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547	12900	ug/kg	.	.	420	ug/kg	U	.				
299-W26-14	24.9936	26.9944	B16HB6		3/7/03 8:45	STLRL	B16HB6					350	ug/kg	U	.				
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A	16800	ug/kg	.	.								
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	EBRLNE	B16KB0												
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0	19400	ug/kg	.	.	460	ug/kg	U	.				

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Lead (7439-92-1) 6010				Lead (7439-92-1) TCLP/6010				Magnesium (7439-95-4) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	EBRLNE	B15Y84												
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	4300	ug/kg	.	.					4250000	ug/kg	.	.
14119	0	1.499616	B15Y85		11/20/02 13:25	EBRLNE	B15Y85												
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	30000	ug/kg	.	.					3810000	ug/kg	.	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	EBRLNE	B15YB0												
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0	8300	ug/kg	.	.								
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	EBRLNE	B15YB1												
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1	3800	ug/kg	.	.								
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	EBRLNE	B15YB2												
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2	7000	ug/kg	.	.								
14117	10.496	11.4964	B15YB3		11/21/02 11:50	EBRLNE	B15YB3												
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3	2600	ug/kg	.	.								
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	EBRLNE	B15YB4												
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4	2700	ug/kg	.	.								
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	EBRLNE	B15YB6												
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6	4500	ug/kg	.	.								
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	EBRLNE	B15YB7												
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7	3300	ug/kg	.	.								
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	EBRLNE	B15YB8												
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8	3400	ug/kg	.	.								
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	EBRLNE	B15YB9												
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9	2300	ug/kg	.	.								
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	EBRLNE	B15YF8												
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8	3400	ug/kg	.	.								
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLRL	B15YF9												
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9	2800	ug/kg	.	.								
14117	2.999232	3.99832	B160N2		11/21/02 11:20	EBRLNE	B160N2												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	4500	ug/kg	.	.					4370000	ug/kg	.	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	EBRLNE	B16538												
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538	5400	ug/kg	.	.								
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	EBRLNE	B16539												
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539	4700	ug/kg	.	.								
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	EBRLNE	B16540												
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540	7000	ug/kg	.	.								
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	EBRLNE	B16541												
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541	6400	ug/kg	.	.								
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	EBRLNE	B16542												
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542	8900	ug/kg	.	.								
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	EBRLNE	B16543												
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543	4200	ug/kg	.	.								
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	EBRLNE	B16544												
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544	3900	ug/kg	.	.								
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	EBRLNE	B16545												
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545	2700	ug/kg	.	.								
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	EBRLNE	B16547												
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547	5400	ug/kg	.	.								
299-W26-14	24.9936	26.9944	B16HB6		3/7/03 8:45	STLRL	B16HB6												
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A	68	ug/kg	U	.								
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	EBRLNE	B16KB0												
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0	7000	ug/kg	.	.								

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Manganese (7439-96-5) 6010				Mercury (7439-97-6) 200.8				Mercury (7439-97-6) 7470			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	EBRLNE	B15Y84												
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	240000	ug/kg	.	.								
14119	0	1.499616	B15Y85		11/20/02 13:25	EBRLNE	B15Y85												
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	237000	ug/kg	.	.								
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	EBRLNE	B15YB0												
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0												
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	EBRLNE	B15YB1												
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1												
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	EBRLNE	B15YB2												
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2												
14117	10.496	11.4964	B15YB3		11/21/02 11:50	EBRLNE	B15YB3												
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3												
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	EBRLNE	B15YB4												
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4												
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	EBRLNE	B15YB6												
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6												
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	EBRLNE	B15YB7												
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7												
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	EBRLNE	B15YB8												
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8												
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	EBRLNE	B15YB9												
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9												
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	EBRLNE	B15YF8												
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8												
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLRL	B15YF9												
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	EBRLNE	B160N2												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	451000	ug/kg	.	.								
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	EBRLNE	B16538												
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538												
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	EBRLNE	B16539												
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539												
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	EBRLNE	B16540												
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540												
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	EBRLNE	B16541												
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541												
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	EBRLNE	B16542												
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542												
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	EBRLNE	B16543												
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543												
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	EBRLNE	B16544												
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544												
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	EBRLNE	B16545												
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545												
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	EBRLNE	B16547												
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547												
299-W26-14	24.9936	26.9944	B16HB6		3/7/03 8:45	STLRL	B16HB6												
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A	257000	ug/kg	E	.	100	ug/kg	U	.				
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	EBRLNE	B16KB0												
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0												

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Mercury (7439-97-6) 7471				Mercury (7439-97-6) TCLP/7470				Molybdenum (7439-98-7) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	EBRLNE	B15Y84												
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	100	ug/kg	.	.					320	ug/kg	B	.
14119	0	1.499616	B15Y85		11/20/02 13:25	EBRLNE	B15Y85												
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	4300	ug/kg	.	.					880	ug/kg	B	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	EBRLNE	B15YB0												
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0	940	ug/kg	.	.								
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	EBRLNE	B15YB1												
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1	20	ug/kg	U	.								
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	EBRLNE	B15YB2												
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2	30	ug/kg	.	.								
14117	10.496	11.4964	B15YB3		11/21/02 11:50	EBRLNE	B15YB3												
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3	20	ug/kg	U	.								
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	EBRLNE	B15YB4												
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4	20	ug/kg	U	.								
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	EBRLNE	B15YB6												
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6	30	ug/kg	U	.								
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	EBRLNE	B15YB7												
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7	10	ug/kg	U	.								
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	EBRLNE	B15YB8												
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8	20	ug/kg	U	.								
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	EBRLNE	B15YB9												
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9	10	ug/kg	U	.								
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	EBRLNE	B15YF8												
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8	30	ug/kg	U	.								
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLRL	B15YF9												
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9	44	ug/kg	.	.								
14117	2.999232	3.99832	B160N2		11/21/02 11:20	EBRLNE	B160N2												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	120	ug/kg	.	.					270	ug/kg	B	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	EBRLNE	B16538												
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538	16	ug/kg	U	.								
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	EBRLNE	B16539												
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539	15	ug/kg	U	.								
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	EBRLNE	B16540												
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540	16	ug/kg	.	.								
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	EBRLNE	B16541												
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541	20	ug/kg	U	.								
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	EBRLNE	B16542												
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542	20	ug/kg	U	.								
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	EBRLNE	B16543												
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543	20	ug/kg	U	.								
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	EBRLNE	B16544												
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544	20	ug/kg	U	.								
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	EBRLNE	B16545												
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545	16	ug/kg	.	.								
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	EBRLNE	B16547												
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547	110	ug/kg	.	J								
299-W26-14	24.9936	26.9944	B16HB6		3/7/03 8:45	STLRL	B16HB6												
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A									342	ug/kg	.	.
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	EBRLNE	B16KB0												
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0	20	ug/kg	U	.								

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Nickel (7440-02-0) 6010				Potassium (7440-09-7) 6010				Selenium (7782-49-2) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	EBRLNE	B15Y84												
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	8800	ug/kg	.	.	721000	ug/kg	.	.	380	ug/kg	U	.
14119	0	1.499616	B15Y85		11/20/02 13:25	EBRLNE	B15Y85												
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	20300	ug/kg	.	.	673000	ug/kg	.	.	400	ug/kg	U	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	EBRLNE	B15YB0												
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0	11500	ug/kg	.	.					340	ug/kg	U	.
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	EBRLNE	B15YB1												
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1	9800	ug/kg	.	.					370	ug/kg	U	.
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	EBRLNE	B15YB2												
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2	10800	ug/kg	.	.					390	ug/kg	U	.
14117	10.496	11.4964	B15YB3		11/21/02 11:50	EBRLNE	B15YB3												
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3	10300	ug/kg	.	.					360	ug/kg	U	.
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	EBRLNE	B15YB4												
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4	10300	ug/kg	.	.					370	ug/kg	U	.
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	EBRLNE	B15YB6												
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6	11200	ug/kg	.	.					400	ug/kg	U	.
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	EBRLNE	B15YB7												
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7	9700	ug/kg	.	.					380	ug/kg	U	.
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	EBRLNE	B15YB8												
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8	11800	ug/kg	.	.					380	ug/kg	U	.
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	EBRLNE	B15YB9												
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9	8700	ug/kg	.	.					360	ug/kg	U	.
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	EBRLNE	B15YF8												
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8	13800	ug/kg	.	.					440	ug/kg	.	.
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLRL	B15YF9												
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9	16300	ug/kg	.	.					220	ug/kg	B	.
14117	2.999232	3.99832	B160N2		11/21/02 11:20	EBRLNE	B160N2												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	8600	ug/kg	.	.	856000	ug/kg	.	.	380	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	EBRLNE	B16538												
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538	11300	ug/kg	.	.					581	ug/kg	.	.
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	EBRLNE	B16539												
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539	11100	ug/kg	.	.					450	ug/kg	.	.
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	EBRLNE	B16540												
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540	15900	ug/kg	.	.					397	ug/kg	U	.
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	EBRLNE	B16541												
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541	14400	ug/kg	.	.					320	ug/kg	U	.
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	EBRLNE	B16542												
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542	19400	ug/kg	.	.					410	ug/kg	U	.
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	EBRLNE	B16543												
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543	12400	ug/kg	.	.					380	ug/kg	U	.
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	EBRLNE	B16544												
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544	20500	ug/kg	.	.					370	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	EBRLNE	B16545												
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545	9800	ug/kg	.	.					294	ug/kg	U	.
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	EBRLNE	B16547												
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547	6600	ug/kg	.	.					370	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16HB6		3/7/03 8:45	STLRL	B16HB6												
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A	5430	ug/kg	.	.					1900	ug/kg	.	.
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	EBRLNE	B16KB0												
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0	20800	ug/kg	.	.					400	ug/kg	U	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Silver (7440-22-4) 6010				Sodium (7440-23-5) 6010				Thallium (7440-28-0) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	EBRLNE	B15Y84												
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	450	ug/kg	B	.	158000	ug/kg	B	.	680	ug/kg	B	.
14119	0	1.499616	B15Y85		11/20/02 13:25	EBRLNE	B15Y85												
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	30400	ug/kg	.	.	176000	ug/kg	B	.	990	ug/kg	B	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	EBRLNE	B15YB0												
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0	28400	ug/kg	.	.								
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	EBRLNE	B15YB1												
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1	140	ug/kg	.	.								
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	EBRLNE	B15YB2												
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2	140	ug/kg	.	.								
14117	10.496	11.4964	B15YB3		11/21/02 11:50	EBRLNE	B15YB3												
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3	130	ug/kg	U	.								
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	EBRLNE	B15YB4												
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4	130	ug/kg	U	.								
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	EBRLNE	B15YB6												
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6	150	ug/kg	U	.								
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	EBRLNE	B15YB7												
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7	140	ug/kg	U	.								
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	EBRLNE	B15YB8												
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8	140	ug/kg	U	.								
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	EBRLNE	B15YB9												
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9	130	ug/kg	U	.								
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	EBRLNE	B15YF8												
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8	120	ug/kg	U	.								
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLRL	B15YF9												
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9	650	ug/kg	U	.								
14117	2.999232	3.99832	B160N2		11/21/02 11:20	EBRLNE	B160N2												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	680	ug/kg	B	.	129000	ug/kg	B	.	590	ug/kg	B	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	EBRLNE	B16538												
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538	82	ug/kg	U	.								
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	EBRLNE	B16539												
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539	83	ug/kg	U	.								
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	EBRLNE	B16540												
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540	88	ug/kg	U	.								
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	EBRLNE	B16541												
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541	70	ug/kg	U	.								
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	EBRLNE	B16542												
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542	90	ug/kg	U	.								
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	EBRLNE	B16543												
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543	80	ug/kg	U	.								
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	EBRLNE	B16544												
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544	80	ug/kg	U	.								
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	EBRLNE	B16545												
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545	65	ug/kg	U	.								
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	EBRLNE	B16547												
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547	80	ug/kg	U	.								
299-W26-14	24.9936	26.9944	B16HB6		3/7/03 8:45	STLRL	B16HB6												
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A	82	ug/kg	E	.								
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	EBRLNE	B16KB0												
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0	90	ug/kg	U	.								

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Tin (7440-31-5) 6010				Uranium (7440-61-1) 200.8				Uranium (7440-61-1) KPA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	EBRLNE	B15Y84									596	ug/kg	.	.
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84												
14119	0	1.499616	B15Y85		11/20/02 13:25	EBRLNE	B15Y85									36	ug/kg	.	.
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85												
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	EBRLNE	B15YB0									199	ug/kg	.	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0												
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	EBRLNE	B15YB1									386	ug/kg	.	.
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1												
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	EBRLNE	B15YB2									416	ug/kg	.	.
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2												
14117	10.496	11.4964	B15YB3		11/21/02 11:50	EBRLNE	B15YB3									248	ug/kg	.	.
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3												
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	EBRLNE	B15YB4									285	ug/kg	.	.
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4												
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	EBRLNE	B15YB6									311	ug/kg	.	.
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6												
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	EBRLNE	B15YB7									221	ug/kg	.	.
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7												
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	EBRLNE	B15YB8									332	ug/kg	.	.
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8												
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	EBRLNE	B15YB9									269	ug/kg	.	.
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9												
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	EBRLNE	B15YF8									379	ug/kg	.	.
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8												
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLRL	B15YF9									1490	ug/kg	.	.
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	EBRLNE	B160N2									557	ug/kg	.	.
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2												
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	EBRLNE	B16538									801	ug/kg	.	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538												
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	EBRLNE	B16539									474	ug/kg	.	.
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539												
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	EBRLNE	B16540									579	ug/kg	.	.
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540												
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	EBRLNE	B16541									615	ug/kg	.	.
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541												
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	EBRLNE	B16542									833	ug/kg	.	.
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542												
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	EBRLNE	B16543									261	ug/kg	.	.
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543												
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	EBRLNE	B16544									316	ug/kg	.	.
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544												
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	EBRLNE	B16545									451	ug/kg	.	.
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545												
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	EBRLNE	B16547									458	ug/kg	.	.
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547												
299-W26-14	24.9936	26.9944	B16HB6		3/7/03 8:45	STLRL	B16HB6												
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A	35	ug/kg	UE	.	380	ug/kg	.	.				
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	EBRLNE	B16KB0									724	ug/kg	.	.
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0												

S-10 Ditch, METAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Vanadium (7440-62-2) 6010				Zinc (7440-66-6) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	EBRLNE	B15Y84								
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	66000	ug/kg	.	.	47200	ug/kg	.	.
14119	0	1.499616	B15Y85		11/20/02 13:25	EBRLNE	B15Y85								
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	69300	ug/kg	.	.	506000	ug/kg	.	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	EBRLNE	B15YB0								
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0	80400	ug/kg	.	.	121000	ug/kg	.	.
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	EBRLNE	B15YB1								
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1	84100	ug/kg	.	.	54700	ug/kg	.	.
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	EBRLNE	B15YB2								
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2	79400	ug/kg	.	.	58300	ug/kg	.	.
14117	10.496	11.4964	B15YB3		11/21/02 11:50	EBRLNE	B15YB3								
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3	76700	ug/kg	.	.	49300	ug/kg	.	.
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	EBRLNE	B15YB4								
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4	71700	ug/kg	.	.	48800	ug/kg	.	.
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	EBRLNE	B15YB6								
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6	86400	ug/kg	.	.	54900	ug/kg	.	.
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	EBRLNE	B15YB7								
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7	86500	ug/kg	.	.	52400	ug/kg	.	.
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	EBRLNE	B15YB8								
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8	75300	ug/kg	.	.	51400	ug/kg	.	.
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	EBRLNE	B15YB9								
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9	75200	ug/kg	.	.	48100	ug/kg	.	.
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	EBRLNE	B15YF8								
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8	87500	ug/kg	.	.	54800	ug/kg	.	.
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLRL	B15YF9								
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9	82700	ug/kg	.	.	53700	ug/kg	.	.
14117	2.999232	3.99832	B160N2		11/21/02 11:20	EBRLNE	B160N2								
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	61000	ug/kg	.	.	44800	ug/kg	.	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	EBRLNE	B16538								
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538	78300	ug/kg	.	.	55200	ug/kg	.	.
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	EBRLNE	B16539								
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539	79600	ug/kg	.	.	57200	ug/kg	.	.
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	EBRLNE	B16540								
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540	70500	ug/kg	.	.	61000	ug/kg	.	.
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	EBRLNE	B16541								
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541	34400	ug/kg	.	.	42300	ug/kg	.	.
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	EBRLNE	B16542								
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542	40500	ug/kg	.	.	53500	ug/kg	.	.
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	EBRLNE	B16543								
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543	131000	ug/kg	.	.	69900	ug/kg	.	.
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	EBRLNE	B16544								
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544	40100	ug/kg	.	.	46800	ug/kg	.	.
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	EBRLNE	B16545								
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545	71000	ug/kg	.	.	45400	ug/kg	.	.
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	EBRLNE	B16547								
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547	69400	ug/kg	.	.	48300	ug/kg	.	.
299-W26-14	24.9936	26.9944	B16HB6		3/7/03 8:45	STLRL	B16HB6								
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A	26100	ug/kg	.	.	31800	ug/kg	.	.
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	EBRLNE	B16KB0								
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0	37400	ug/kg	.	.	51000	ug/kg	.	.

S-10 Ditch, METAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Aluminum (7429-90-5) 6010				Antimony (7440-36-0) 6010				Arsenic (7440-38-2) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	EBRLNE	B16KB1												
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1									2200	ug/kg	.	.

S-10 Ditch, METAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Barium (7440-39-3) 6010				Beryllium (7440-41-7) 6010				Bismuth (7440-69-9) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	EBRLNE	B16KB1												
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1	111000	ug/kg			610	ug/kg						

S-10 Ditch, METAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Boron (7440-42-8) 6010				Cadmium (7440-43-9) 6010				Cadmium (7440-43-9) TCLP/6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	EBRLNE	B16KB1												
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1					40	ug/kg	U	.				

S-10 Ditch, METAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Calcium (7440-70-2) 6010				Chromium (7440-47-3) 6010				Cobalt (7440-48-4) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	EBRLNE	B16KB1												
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1					18500	ug/kg	.	.				

S-10 Ditch, METAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Copper (7440-50-8) 6010				Hexavalent Chromium (18540-29-9) 7196				Iron (7439-89-6) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	EBRLNE	B16KB1												
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1	20000	ug/kg		.	450	ug/kg	U	.				

S-10 Ditch, METAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Lead (7439-92-1) 6010				Lead (7439-92-1) TCLP/6010				Magnesium (7439-95-4) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	EBRLNE	B16KB1												
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1	4500	ug/kg		.								

S-10 Ditch, METAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Manganese (7439-96-5)				Mercury (7439-97-6)				Mercury (7439-97-6)			
								6010				200.8				7470	7470	7470	7470
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	EBRLNE	B16KB1												
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1												

S-10 Ditch, METAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Mercury (7439-97-6) 7471				Mercury (7439-97-6) TCLP/7470				Molybdenum (7439-98-7) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	EBRLNE	B16KB1												
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1	20	ug/kg	U	.								

S-10 Ditch, METAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Nickel (7440-02-0) 6010				Potassium (7440-09-7) 6010				Selenium (7782-49-2) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	EBRLNE	B16KB1												
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1	15600	ug/kg		.					370	ug/kg	U	.

S-10 Ditch, METAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Silver (7440-22-4) 6010				Sodium (7440-23-5) 6010				Thallium (7440-28-0) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	EBRLNE	B16KB1												
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1	80	ug/kg	U	.								

S-10 Ditch, METAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Tin (7440-31-5) 6010				Uranium (7440-61-1) 200.8				Uranium (7440-61-1) KPA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	EBRLNE	B16KB1									398	ug/kg	.	.
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1												

S-10 Ditch, METAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Vanadium (7440-62-2) 6010				Zinc (7440-66-6) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	EBRLNE	B16KB1								
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1	120000	ug/kg	.	.	76000	ug/kg	.	.

S-10 Ditch, PHYSICAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Bulk density - dry (BULKDENSITY-DRY) D2937				Bulk density - wet (BULKDENSITY-WET) D2937				Cation Exchange Capacity (CEC) 9080			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84												
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85												
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0												
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1												
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2												
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3												
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4												
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6												
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7												
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8												
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9												
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8												
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2												
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538												
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539												
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540												
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541												
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542												
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543												
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544												
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545												
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547												
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A												
299-W26-14	134.972	136.9728	B16HC1		3/11/03 10:45	MAXIM	B16HC1												
299-W26-14	134.972	136.9728	B16HC2		3/12/03 12:00	MAXIM	B16HC2												
299-W26-14	184.9592	186.96	B16HC3		3/17/03 10:30	MAXIM	B16HC3												
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0												
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1												

S-10 Ditch, PHYSICAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Percent moisture (dry sample) (%MOISTURE-D) D2216				Percent moisture (wet sample) (%MOISTURE) D2216				Percent passing 1 inch sieve (PAS1IN) D422			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84												
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85												
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0												
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1												
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2												
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3												
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4												
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6												
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7												
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8												
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9												
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8												
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2												
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538												
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539												
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540												
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541												
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542												
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543												
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544												
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545												
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547												
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A												
299-W26-14	134.972	136.9728	B16HC1		3/11/03 10:45	MAXIM	B16HC1					3.9	%	.	.				
299-W26-14	134.972	136.9728	B16HC2		3/12/03 12:00	MAXIM	B16HC2					10.2	%	.	.				
299-W26-14	184.9592	186.96	B16HC3		3/17/03 10:30	MAXIM	B16HC3					14.3	%	.	.				
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0												
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1												

S-10 Ditch, PHYSICAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Percent passing 1.5 inch sieve (PAS1.5IN) D422				Percent passing 2 inch sieve (PAS2IN) D422				Percent passing 3 inch sieve (PAS3IN) D422			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84												
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85												
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0												
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1												
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2												
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3												
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4												
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6												
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7												
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8												
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9												
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8												
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2												
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538												
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539												
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540												
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541												
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542												
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543												
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544												
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545												
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547												
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A												
299-W26-14	134.972	136.9728	B16HC1		3/11/03 10:45	MAXIM	B16HC1												
299-W26-14	134.972	136.9728	B16HC2		3/12/03 12:00	MAXIM	B16HC2												
299-W26-14	184.9592	186.96	B16HC3		3/17/03 10:30	MAXIM	B16HC3												
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0												
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1												

S-10 Ditch, PHYSICAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Percent passing 3/4 inch sieve (PAS3/4IN) D422				Percent passing 3/8 inch sieve (PAS3/8IN) D422				Percent passing No.10 sieve (PAS#10) D422			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84												
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85												
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0												
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1												
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2												
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3												
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4												
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6												
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7												
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8												
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9												
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8												
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2												
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538												
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539												
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540												
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541												
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542												
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543												
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544												
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545												
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547												
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A												
299-W26-14	134.972	136.9728	B16HC1		3/11/03 10:45	MAXIM	B16HC1												
299-W26-14	134.972	136.9728	B16HC2		3/12/03 12:00	MAXIM	B16HC2												
299-W26-14	184.9592	186.96	B16HC3		3/17/03 10:30	MAXIM	B16HC3												
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0												
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1												

S-10 Ditch, PHYSICAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Percent passing No.100 sieve (PAS#100) D422				Percent passing No.140 sieve (PAS#140) D422				Percent passing No.20 sieve (PAS#20) D422			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84												
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85												
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0												
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1												
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2												
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3												
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4												
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6												
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7												
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8												
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9												
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8												
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2												
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538												
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539												
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540												
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541												
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542												
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543												
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544												
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545												
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547												
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A												
299-W26-14	134.972	136.9728	B16HC1		3/11/03 10:45	MAXIM	B16HC1												
299-W26-14	134.972	136.9728	B16HC2		3/12/03 12:00	MAXIM	B16HC2												
299-W26-14	184.9592	186.96	B16HC3		3/17/03 10:30	MAXIM	B16HC3												
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0												
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1												

S-10 Ditch, PHYSICAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Percent passing No.200 sieve (PAS#200) D422				Percent passing No.4 sieve (PAS#4) D422				Percent passing No.40 sieve (PAS#40) D422			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84												
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85												
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0												
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1												
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2												
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3												
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4												
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6												
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7												
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8												
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9												
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8												
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2												
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538												
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539												
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540												
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541												
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542												
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543												
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544												
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545												
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547												
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A												
299-W26-14	134.972	136.9728	B16HC1		3/11/03 10:45	MAXIM	B16HC1												
299-W26-14	134.972	136.9728	B16HC2		3/12/03 12:00	MAXIM	B16HC2												
299-W26-14	184.9592	186.96	B16HC3		3/17/03 10:30	MAXIM	B16HC3												
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0												
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1												

S-10 Ditch, PHYSICAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Percent passing No.60 sieve (PAS#60) D422				pH Measurement (PH) 150.1				pH Measurement (PH) 9040			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84												
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85												
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0												
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1												
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2												
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3												
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4												
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6												
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7												
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8												
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9												
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8												
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2												
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538												
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539												
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540												
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541												
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542												
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543												
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544												
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545												
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547												
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A					9.334	pH	.	.				
299-W26-14	134.972	136.9728	B16HC1		3/11/03 10:45	MAXIM	B16HC1												
299-W26-14	134.972	136.9728	B16HC2		3/12/03 12:00	MAXIM	B16HC2												
299-W26-14	184.9592	186.96	B16HC3		3/17/03 10:30	MAXIM	B16HC3												
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0												
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1												

S-10 Ditch, PHYSICAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	pH Measurement (PH) 9045				Specific Gravity (SPECGVTY) D854			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	7.38	pH	.	.				
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	6	pH	.	.				
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0	6.81	pH	.	.				
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1	7.91	pH	.	.				
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2	7.96	pH	.	.				
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3	8.94	pH	.	.				
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4	8.92	pH	.	.				
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6	8.97	pH	.	.				
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7	8.66	pH	.	.				
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8	8.82	pH	.	.				
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9	9.12	pH	.	.				
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8	8.93	pH	.	.				
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9	8.5	pH	.	.				
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	8.44	pH	.	.				
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538	8.93	pH	.	.				
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539	9.11	pH	.	.				
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540	9.24	pH	.	.				
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541	9.2	pH	.	.				
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542	9.3	pH	.	.				
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543	8.5	pH	.	.				
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544	8.5	pH	.	.				
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545	9.29	pH	.	.				
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547	9.4	pH	.	J				
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A								
299-W26-14	134.972	136.9728	B16HC1		3/11/03 10:45	MAXIM	B16HC1								
299-W26-14	134.972	136.9728	B16HC2		3/12/03 12:00	MAXIM	B16HC2								
299-W26-14	184.9592	186.96	B16HC3		3/17/03 10:30	MAXIM	B16HC3								
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0	8.9	pH	.	.				
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1	8.6	pH	.	.				

S-10 Ditch, RAD1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Actinium-228 (14331-83-0) GEA				Americium-241 (14596-10-2) Eichrom/Plate/AEA				Americium-241 (14596-10-2) GEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	EBRLNE	B15Y84									0.15	pCi/g	U	.
14119	0	1.499616	B15Y85		11/20/02 13:25	EBRLNE	B15Y85									0.37	pCi/g	U	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	EBRLNE	B15YB0									6.10E-02	pCi/g	U	.
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	EBRLNE	B15YB1									8.80E-02	pCi/g	U	.
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	EBRLNE	B15YB2									0.1	pCi/g	U	.
14117	10.496	11.4964	B15YB3		11/21/02 11:50	EBRLNE	B15YB3									9.70E-02	pCi/g	U	.
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	EBRLNE	B15YB4									7.40E-02	pCi/g	U	.
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	EBRLNE	B15YB6									0.16	pCi/g	U	.
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	EBRLNE	B15YB7									3.60E-02	pCi/g	U	.
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	EBRLNE	B15YB8									8.50E-02	pCi/g	U	.
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	EBRLNE	B15YB9									0.23	pCi/g	U	.
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	EBRLNE	B15YF8									0.1	pCi/g	U	.
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLRL	B15YF9					0.253	pCi/g	.	.	-2.79E-03	pCi/g	U	.
14117	2.999232	3.99832	B160N2		11/21/02 11:20	EBRLNE	B160N2									0.25	pCi/g	U	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	EBRLNE	B16538									2.50E-02	pCi/g	U	.
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	EBRLNE	B16539									0.14	pCi/g	U	.
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	EBRLNE	B16540									0.25	pCi/g	U	.
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	EBRLNE	B16541									0.26	pCi/g	U	.
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	EBRLNE	B16542									0.14	pCi/g	U	.
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	EBRLNE	B16543									0.25	pCi/g	U	.
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	EBRLNE	B16544									0.11	pCi/g	U	.
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	EBRLNE	B16545									8.50E-02	pCi/g	U	.
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	EBRLNE	B16547									1.1	pCi/g	U	.
299-W26-14	24.9936	26.9944	B16HB6		3/7/03 8:45	STLRL	B16HB6												
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A	0.51	pCi/g	.	.					7.20E-02	pCi/g	U	.
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	EBRLNE	B16KB0									0.13	pCi/g	U	.
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	EBRLNE	B16KB1									0.25	pCi/g	U	.

S-10 Ditch, RAD1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Americium-241 (14596-10-2) IX/Plate/AEA				Americium-241 (14596-10-2) IX/Prec/AEA				Antimony-125 (14234-35-6) GEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	EBRLNE	B15Y84	0.024	pCi/g	U	.					9.20E-02	pCi/g	U	.
14119	0	1.499616	B15Y85		11/20/02 13:25	EBRLNE	B15Y85	0.412	pCi/g	.	.					0.17	pCi/g	U	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	EBRLNE	B15YB0	0.108	pCi/g	U	.								
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	EBRLNE	B15YB1	-5.80E-02	pCi/g	U	.								
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	EBRLNE	B15YB2	0	pCi/g	U	.								
14117	10.496	11.4964	B15YB3		11/21/02 11:50	EBRLNE	B15YB3	0	pCi/g	U	.								
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	EBRLNE	B15YB4	0	pCi/g	U	.								
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	EBRLNE	B15YB6	0.039	pCi/g	U	.								
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	EBRLNE	B15YB7	0.17	pCi/g	U	.								
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	EBRLNE	B15YB8	-2.60E-02	pCi/g	U	.								
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	EBRLNE	B15YB9	7.20E-02	pCi/g	U	.								
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	EBRLNE	B15YF8	2.10E-02	pCi/g	U	.								
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLRL	B15YF9												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	EBRLNE	B160N2	0.02	pCi/g	U	.					7.70E-02	pCi/g	U	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	EBRLNE	B16538	3.00E-02	pCi/g	U	.								
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	EBRLNE	B16539	-0.031	pCi/g	U	.								
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	EBRLNE	B16540	3.20E-02	pCi/g	U	.								
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	EBRLNE	B16541	-2.80E-02	pCi/g	U	.								
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	EBRLNE	B16542	0	pCi/g	U	.								
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	EBRLNE	B16543	7.70E-02	pCi/g	U	.								
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	EBRLNE	B16544	0.109	pCi/g	U	.								
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	EBRLNE	B16545	2.80E-02	pCi/g	U	.								
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	EBRLNE	B16547	1.84	pCi/g	.	.								
299-W26-14	24.9936	26.9944	B16HB6		3/7/03 8:45	STLRL	B16HB6												
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A					0.02	pCi/g	U	.	2.37E-02	pCi/g	U	.
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	EBRLNE	B16KB0	-9.50E-02	pCi/g	U	.								
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	EBRLNE	B16KB1	8.70E-02	pCi/g	U	.								

S-10 Ditch, RAD1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Barium-133 (13981-41-4) GEA				Bismuth-212 (14913-49-6) GEA				Bismuth-214 (14733-03-0) GEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	EBRLNE	B15Y84	4.10E-02	pCi/g	U	.								
14119	0	1.499616	B15Y85		11/20/02 13:25	EBRLNE	B15Y85	6.00E-02	pCi/g	U	.								
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	EBRLNE	B15YB0												
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	EBRLNE	B15YB1												
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	EBRLNE	B15YB2												
14117	10.496	11.4964	B15YB3		11/21/02 11:50	EBRLNE	B15YB3												
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	EBRLNE	B15YB4												
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	EBRLNE	B15YB6												
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	EBRLNE	B15YB7												
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	EBRLNE	B15YB8												
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	EBRLNE	B15YB9												
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	EBRLNE	B15YF8												
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLRL	B15YF9												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	EBRLNE	B160N2	2.90E-02	pCi/g	U	.								
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	EBRLNE	B16538												
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	EBRLNE	B16539												
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	EBRLNE	B16540												
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	EBRLNE	B16541												
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	EBRLNE	B16542												
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	EBRLNE	B16543												
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	EBRLNE	B16544												
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	EBRLNE	B16545												
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	EBRLNE	B16547												
299-W26-14	24.9936	26.9944	B16HB6		3/7/03 8:45	STLRL	B16HB6												
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A					0.321	pCi/g	.	.	0.426	pCi/g	.	.
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	EBRLNE	B16KB0												
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	EBRLNE	B16KB1												

S-10 Ditch, RAD1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Carbon-14 (14762-75-5) CombOx/LSC				Cerium-144 (14762-78-8) GEA				Cesium-134 (13967-70-9) GEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	EBRLNE	B15Y84	0.76	pCi/g	U	.					0.055	pCi/g	U	.
14119	0	1.499616	B15Y85		11/20/02 13:25	EBRLNE	B15Y85	1.05	pCi/g	U	.					4.40E-02	pCi/g	U	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	EBRLNE	B15YB0												
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	EBRLNE	B15YB1												
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	EBRLNE	B15YB2												
14117	10.496	11.4964	B15YB3		11/21/02 11:50	EBRLNE	B15YB3												
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	EBRLNE	B15YB4												
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	EBRLNE	B15YB6												
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	EBRLNE	B15YB7												
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	EBRLNE	B15YB8												
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	EBRLNE	B15YB9												
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	EBRLNE	B15YF8												
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLRL	B15YF9												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	EBRLNE	B160N2	1.48	pCi/g	U	.					6.60E-02	pCi/g	U	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	EBRLNE	B16538												
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	EBRLNE	B16539												
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	EBRLNE	B16540												
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	EBRLNE	B16541												
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	EBRLNE	B16542												
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	EBRLNE	B16543												
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	EBRLNE	B16544												
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	EBRLNE	B16545												
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	EBRLNE	B16547												
299-W26-14	24.9936	26.9944	B16HB6		3/7/03 8:45	STLRL	B16HB6												
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A					7.27E-02	pCi/g	U	.	2.48E-02	pCi/g	U	.
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	EBRLNE	B16KB0												
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	EBRLNE	B16KB1												

S-10 Ditch, RAD1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Cesium-137 (10045-97-3) GEA				Cobalt-60 (10198-40-0) GEA				Curium-242 (15510-73-3) IX/Plate/AEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	EBRLNE	B15Y84	0.155	pCi/g	.	.	5.10E-02	pCi/g	U	.	2.60E-02	pCi/g	U	.
14119	0	1.499616	B15Y85		11/20/02 13:25	EBRLNE	B15Y85	9.13	pCi/g	.	.	4.10E-02	pCi/g	U	.	1.50E-02	pCi/g	U	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	EBRLNE	B15YB0	0.792	pCi/g	.	.	2.80E-02	pCi/g	U	.				
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	EBRLNE	B15YB1	2.60E-02	pCi/g	U	.	2.80E-02	pCi/g	U	.				
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	EBRLNE	B15YB2	3.00E-02	pCi/g	U	.	3.20E-02	pCi/g	U	.				
14117	10.496	11.4964	B15YB3		11/21/02 11:50	EBRLNE	B15YB3	0.027	pCi/g	U	.	3.20E-02	pCi/g	U	.				
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	EBRLNE	B15YB4	2.20E-02	pCi/g	U	.	2.60E-02	pCi/g	U	.				
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	EBRLNE	B15YB6	0.047	pCi/g	U	.	4.80E-02	pCi/g	U	.				
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	EBRLNE	B15YB7	0.027	pCi/g	U	.	2.90E-02	pCi/g	U	.				
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	EBRLNE	B15YB8	2.50E-02	pCi/g	U	.	2.80E-02	pCi/g	U	.				
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	EBRLNE	B15YB9	3.40E-02	pCi/g	U	.	3.70E-02	pCi/g	U	.				
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	EBRLNE	B15YF8	3.40E-02	pCi/g	U	.	0.031	pCi/g	U	.				
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLRL	B15YF9	6.68E-03	pCi/g	U	.	8.96E-03	pCi/g	U	.				
14117	2.999232	3.99832	B160N2		11/21/02 11:20	EBRLNE	B160N2	4.60E-02	pCi/g	.	.	4.30E-02	pCi/g	U	.	1.30E-02	pCi/g	U	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	EBRLNE	B16538	2.10E-02	pCi/g	U	.	2.20E-02	pCi/g	U	.				
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	EBRLNE	B16539	0.02	pCi/g	U	.	2.10E-02	pCi/g	U	.				
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	EBRLNE	B16540	0.1	pCi/g	U	.	0.11	pCi/g	U	.				
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	EBRLNE	B16541	9.50E-02	pCi/g	U	.	0.13	pCi/g	U	.				
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	EBRLNE	B16542	8.80E-02	pCi/g	U	.	0.062	pCi/g	U	.				
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	EBRLNE	B16543	6.10E-02	pCi/g	U	.	0.078	pCi/g	U	.				
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	EBRLNE	B16544	4.90E-02	pCi/g	U	.	5.20E-02	pCi/g	U	.				
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	EBRLNE	B16545	2.20E-02	pCi/g	U	.	2.60E-02	pCi/g	U	.				
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	EBRLNE	B16547	0.307	pCi/g	.	.	2.80E-02	pCi/g	U	.				
299-W26-14	24.9936	26.9944	B16HB6		3/7/03 8:45	STLRL	B16HB6												
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A	8.37E-03	pCi/g	U	.	8.19E-03	pCi/g	U	.				
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	EBRLNE	B16KB0	0.12	pCi/g	U	.	0.14	pCi/g	U	.				
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	EBRLNE	B16KB1	6.40E-02	pCi/g	U	.	8.40E-02	pCi/g	U	.				

S-10 Ditch, RAD1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Curium-242 (15510-73-3) IX/Prec/AEA				Curium-243/244 (CM-243/244) IX/Plate/AEA				Curium-244 (13981-15-2) IX/Prec/AEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	EBRLNE	B15Y84					0.016	pCi/g	U	.				
14119	0	1.499616	B15Y85		11/20/02 13:25	EBRLNE	B15Y85					0	pCi/g	U	.				
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	EBRLNE	B15YB0												
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	EBRLNE	B15YB1												
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	EBRLNE	B15YB2												
14117	10.496	11.4964	B15YB3		11/21/02 11:50	EBRLNE	B15YB3												
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	EBRLNE	B15YB4												
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	EBRLNE	B15YB6												
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	EBRLNE	B15YB7												
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	EBRLNE	B15YB8												
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	EBRLNE	B15YB9												
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	EBRLNE	B15YF8												
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLRL	B15YF9												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	EBRLNE	B160N2					0.02	pCi/g	U	.				
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	EBRLNE	B16538												
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	EBRLNE	B16539												
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	EBRLNE	B16540												
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	EBRLNE	B16541												
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	EBRLNE	B16542												
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	EBRLNE	B16543												
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	EBRLNE	B16544												
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	EBRLNE	B16545												
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	EBRLNE	B16547												
299-W26-14	24.9936	26.9944	B16HB6		3/7/03 8:45	STLRL	B16HB6												
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A												
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	EBRLNE	B16KB0												
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	EBRLNE	B16KB1												

S-10 Ditch, RAD1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Europium-152 (14683-23-9) GEA				Europium-154 (15585-10-1) GEA				Europium-155 (14391-16-3) GEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	EBRLNE	B15Y84	0.11	pCi/g	U	.	0.16	pCi/g	U	.	0.11	pCi/g	U	.
14119	0	1.499616	B15Y85		11/20/02 13:25	EBRLNE	B15Y85	0.16	pCi/g	U	.	0.12	pCi/g	U	.	0.16	pCi/g	U	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	EBRLNE	B15YB0	7.30E-02	pCi/g	U	.	9.30E-02	pCi/g	U	.	6.10E-02	pCi/g	U	.
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	EBRLNE	B15YB1	6.70E-02	pCi/g	U	.	0.1	pCi/g	U	.	7.30E-02	pCi/g	U	.
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	EBRLNE	B15YB2	0.078	pCi/g	U	.	0.12	pCi/g	U	.	8.10E-02	pCi/g	U	.
14117	10.496	11.4964	B15YB3		11/21/02 11:50	EBRLNE	B15YB3	7.10E-02	pCi/g	U	.	0.11	pCi/g	U	.	7.50E-02	pCi/g	U	.
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	EBRLNE	B15YB4	5.70E-02	pCi/g	U	.	8.80E-02	pCi/g	U	.	6.00E-02	pCi/g	U	.
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	EBRLNE	B15YB6	0.11	pCi/g	U	.	0.15	pCi/g	U	.	0.11	pCi/g	U	.
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	EBRLNE	B15YB7	6.40E-02	pCi/g	U	.	9.50E-02	pCi/g	U	.	5.90E-02	pCi/g	U	.
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	EBRLNE	B15YB8	0.063	pCi/g	U	.	9.70E-02	pCi/g	U	.	6.90E-02	pCi/g	U	.
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	EBRLNE	B15YB9	8.50E-02	pCi/g	U	.	0.12	pCi/g	U	.	0.11	pCi/g	U	.
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	EBRLNE	B15YF8	8.00E-02	pCi/g	U	.	0.12	pCi/g	U	.	8.50E-02	pCi/g	U	.
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLRL	B15YF9	-1.42E-02	pCi/g	U	.	1.76E-02	pCi/g	U	.	1.48E-02	pCi/g	U	.
14117	2.999232	3.99832	B160N2		11/21/02 11:20	EBRLNE	B160N2	8.80E-02	pCi/g	U	.	0.13	pCi/g	U	.	0.11	pCi/g	U	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	EBRLNE	B16538	4.90E-02	pCi/g	U	.	6.90E-02	pCi/g	U	.	4.30E-02	pCi/g	U	.
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	EBRLNE	B16539	0.047	pCi/g	U	.	6.10E-02	pCi/g	U	.	7.30E-02	pCi/g	U	.
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	EBRLNE	B16540	0.26	pCi/g	U	.	0.33	pCi/g	U	.	0.22	pCi/g	U	.
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	EBRLNE	B16541	0.25	pCi/g	U	.	0.36	pCi/g	U	.	0.24	pCi/g	U	.
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	EBRLNE	B16542	0.14	pCi/g	U	.	0.2	pCi/g	U	.	0.15	pCi/g	U	.
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	EBRLNE	B16543	0.14	pCi/g	U	.	0.18	pCi/g	U	.	0.17	pCi/g	U	.
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	EBRLNE	B16544	0.12	pCi/g	U	.	0.17	pCi/g	U	.	0.12	pCi/g	U	.
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	EBRLNE	B16545	5.10E-02	pCi/g	U	.	7.90E-02	pCi/g	U	.	6.70E-02	pCi/g	U	.
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	EBRLNE	B16547	5.60E-02	pCi/g	U	.	6.70E-02	pCi/g	U	.	6.60E-02	pCi/g	U	.
299-W26-14	24.9936	26.9944	B16HB6		3/7/03 8:45	STLRL	B16HB6												
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A	2.62E-02	pCi/g	U	.	2.73E-02	pCi/g	U	.	0.0395	pCi/g	U	.
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	EBRLNE	B16KB0	0.3	pCi/g	U	.	0.36	pCi/g	U	.	0.24	pCi/g	U	.
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	EBRLNE	B16KB1	0.15	pCi/g	U	.	0.19	pCi/g	U	.	0.19	pCi/g	U	.

S-10 Ditch, RAD1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Gross alpha (12587-46-1) 900				Gross alpha (12587-46-1) 9310				Gross alpha (12587-46-1) GPC			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	EBRLNE	B15Y84	4.22	pCi/g	.	.								
14119	0	1.499616	B15Y85		11/20/02 13:25	EBRLNE	B15Y85	1.53	pCi/g	U	.								
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	EBRLNE	B15YB0	1.12	pCi/g	U	.								
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	EBRLNE	B15YB1	3.32	pCi/g	U	.								
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	EBRLNE	B15YB2	6.2	pCi/g	.	.								
14117	10.496	11.4964	B15YB3		11/21/02 11:50	EBRLNE	B15YB3	2.54	pCi/g	U	.								
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	EBRLNE	B15YB4	2.58	pCi/g	U	.								
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	EBRLNE	B15YB6	4.91	pCi/g	.	.								
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	EBRLNE	B15YB7	3.02	pCi/g	U	.								
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	EBRLNE	B15YB8	0.292	pCi/g	U	.								
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	EBRLNE	B15YB9	0.606	pCi/g	U	.								
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	EBRLNE	B15YF8	4.16	pCi/g	U	.								
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLRL	B15YF9					11.4	pCi/g	.	.				
14117	2.999232	3.99832	B160N2		11/21/02 11:20	EBRLNE	B160N2	4.68	pCi/g	.	.								
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	EBRLNE	B16538	3.51	pCi/g	U	.								
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	EBRLNE	B16539	5.46	pCi/g	.	.								
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	EBRLNE	B16540	3.98	pCi/g	U	.								
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	EBRLNE	B16541	11	pCi/g	.	.								
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	EBRLNE	B16542	9.48	pCi/g	.	.								
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	EBRLNE	B16543	0.586	pCi/g	U	.								
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	EBRLNE	B16544	1.65	pCi/g	U	.								
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	EBRLNE	B16545	3.39	pCi/g	.	.								
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	EBRLNE	B16547	13.6	pCi/g	.	.								
299-W26-14	24.9936	26.9944	B16HB6		3/7/03 8:45	STLRL	B16HB6												
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A									1.6	pCi/g	.	.
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	EBRLNE	B16KB0	10.3	pCi/g	.	.								
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	EBRLNE	B16KB1	1.88	pCi/g	U	.								

S-10 Ditch, RAD1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Gross beta (12587-47-2) 900				Gross beta (12587-47-2) 9310				Gross beta (12587-47-2) GPC			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	EBRLNE	B15Y84	9.49	pCi/g	.	.								
14119	0	1.499616	B15Y85		11/20/02 13:25	EBRLNE	B15Y85	15.7	pCi/g	.	.								
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	EBRLNE	B15YB0	11.8	pCi/g	.	.								
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	EBRLNE	B15YB1	14.3	pCi/g	.	.								
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	EBRLNE	B15YB2	8.89	pCi/g	.	.								
14117	10.496	11.4964	B15YB3		11/21/02 11:50	EBRLNE	B15YB3	16.6	pCi/g	.	.								
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	EBRLNE	B15YB4	12	pCi/g	.	.								
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	EBRLNE	B15YB6	15.4	pCi/g	.	.								
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	EBRLNE	B15YB7	13.5	pCi/g	.	.								
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	EBRLNE	B15YB8	14.4	pCi/g	.	.								
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	EBRLNE	B15YB9	7.57	pCi/g	.	.								
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	EBRLNE	B15YF8	11	pCi/g	.	.								
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLRL	B15YF9					30.4	pCi/g	.	.				
14117	2.999232	3.99832	B160N2		11/21/02 11:20	EBRLNE	B160N2	11.8	pCi/g	.	.								
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	EBRLNE	B16538	14.5	pCi/g	.	.								
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	EBRLNE	B16539	17.4	pCi/g	.	.								
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	EBRLNE	B16540	16.9	pCi/g	.	.								
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	EBRLNE	B16541	16.4	pCi/g	.	.								
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	EBRLNE	B16542	20	pCi/g	.	.								
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	EBRLNE	B16543	9.92	pCi/g	.	.								
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	EBRLNE	B16544	11.8	pCi/g	.	.								
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	EBRLNE	B16545	12.9	pCi/g	.	.								
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	EBRLNE	B16547	10.6	pCi/g	.	.								
299-W26-14	24.9936	26.9944	B16HB6		3/7/03 8:45	STLRL	B16HB6												
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A									1.2	pCi/g	.	.
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	EBRLNE	B16KB0	12.2	pCi/g	.	.								
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	EBRLNE	B16KB1	6.16	pCi/g	.	.								

S-10 Ditch, RAD1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Iodine-129 (15046-84-1) GEA				Lead-212 (15092-94-1) GEA				Lead-214 (15067-28-4) GEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	EBRLNE	B15Y84												
14119	0	1.499616	B15Y85		11/20/02 13:25	EBRLNE	B15Y85												
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	EBRLNE	B15YB0												
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	EBRLNE	B15YB1												
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	EBRLNE	B15YB2												
14117	10.496	11.4964	B15YB3		11/21/02 11:50	EBRLNE	B15YB3												
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	EBRLNE	B15YB4												
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	EBRLNE	B15YB6												
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	EBRLNE	B15YB7												
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	EBRLNE	B15YB8												
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	EBRLNE	B15YB9												
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	EBRLNE	B15YF8												
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLRL	B15YF9												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	EBRLNE	B160N2												
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	EBRLNE	B16538												
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	EBRLNE	B16539												
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	EBRLNE	B16540												
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	EBRLNE	B16541												
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	EBRLNE	B16542												
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	EBRLNE	B16543												
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	EBRLNE	B16544												
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	EBRLNE	B16545												
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	EBRLNE	B16547												
299-W26-14	24.9936	26.9944	B16HB6		3/7/03 8:45	STLRL	B16HB6												
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A					0.498	pCi/g	.	.	0.39	pCi/g	.	.
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	EBRLNE	B16KB0												
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	EBRLNE	B16KB1												

S-10 Ditch, RAD1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Neptunium-237 (13994-20-2) IX/Prec/AEA				Neptunium-237 (13994-20-2) LX/Plate/AEA				Nickel-63 (13981-37-8) LSC			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	EBRLNE	B15Y84					0	pCi/g	U	.				
14119	0	1.499616	B15Y85		11/20/02 13:25	EBRLNE	B15Y85					0.027	pCi/g	U	.				
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	EBRLNE	B15YB0					3.80E-02	pCi/g	U	.				
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	EBRLNE	B15YB1					4.60E-02	pCi/g	U	.				
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	EBRLNE	B15YB2					0	pCi/g	U	.				
14117	10.496	11.4964	B15YB3		11/21/02 11:50	EBRLNE	B15YB3					0	pCi/g	U	.				
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	EBRLNE	B15YB4					0	pCi/g	U	.				
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	EBRLNE	B15YB6					0	pCi/g	U	.				
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	EBRLNE	B15YB7					0	pCi/g	U	.				
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	EBRLNE	B15YB8					0	pCi/g	U	.				
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	EBRLNE	B15YB9					8.00E-03	pCi/g	U	.	-0.245	pCi/g	U	.
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	EBRLNE	B15YF8					8.00E-03	pCi/g	U	.				
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLRL	B15YF9					0.0143	pCi/g	U	.				
14117	2.999232	3.99832	B160N2		11/21/02 11:20	EBRLNE	B160N2					0.039	pCi/g	U	.				
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	EBRLNE	B16538					5.40E-02	pCi/g	U	.	3.13	pCi/g	.	.
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	EBRLNE	B16539					2.20E-02	pCi/g	U	.	1.66	pCi/g	U	.
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	EBRLNE	B16540					5.80E-02	pCi/g	U	.	1.39	pCi/g	U	.
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	EBRLNE	B16541					0	pCi/g	U	.	1.01	pCi/g	U	.
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	EBRLNE	B16542					0.055	pCi/g	U	.	0.956	pCi/g	U	.
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	EBRLNE	B16543					4.90E-02	pCi/g	U	.	4.57	pCi/g	.	.
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	EBRLNE	B16544					0	pCi/g	U	.	1.41	pCi/g	U	.
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	EBRLNE	B16545					0	pCi/g	U	.	38.4	pCi/g	.	.
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	EBRLNE	B16547					3.20E-02	pCi/g	U	.				
299-W26-14	24.9936	26.9944	B16HB6		3/7/03 8:45	STLRL	B16HB6									2.02	pCi/g	U	.
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A	6.00E-03	pCi/g	U	.								
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	EBRLNE	B16KB0					0	pCi/g	U	.	2.73	pCi/g	.	.
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	EBRLNE	B16KB1					2.80E-02	pCi/g	U	.	10.7	pCi/g	.	.

S-10 Ditch, RAD1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Niobium-94 (14681-63-1) GEA				Plutonium-238 (13981-16-3) IX/Prec/AEA				Plutonium-238 (13981-16-3) Sep/Plate/AEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	EBRLNE	B15Y84									0	pCi/g	U	.
14119	0	1.499616	B15Y85		11/20/02 13:25	EBRLNE	B15Y85									8.00E-02	pCi/g	U	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	EBRLNE	B15YB0									0.047	pCi/g	U	.
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	EBRLNE	B15YB1									0.031	pCi/g	U	.
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	EBRLNE	B15YB2									3.70E-02	pCi/g	U	.
14117	10.496	11.4964	B15YB3		11/21/02 11:50	EBRLNE	B15YB3									3.70E-02	pCi/g	U	.
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	EBRLNE	B15YB4									4.90E-02	pCi/g	U	.
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	EBRLNE	B15YB6									0	pCi/g	U	.
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	EBRLNE	B15YB7									0.02	pCi/g	U	.
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	EBRLNE	B15YB8									2.10E-02	pCi/g	U	.
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	EBRLNE	B15YB9									0	pCi/g	U	.
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	EBRLNE	B15YF8									0.023	pCi/g	U	.
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLRL	B15YF9									0	pCi/g	U	.
14117	2.999232	3.99832	B160N2		11/21/02 11:20	EBRLNE	B160N2									0	pCi/g	U	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	EBRLNE	B16538									0.047	pCi/g	U	.
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	EBRLNE	B16539									-5.00E-02	pCi/g	U	.
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	EBRLNE	B16540									-0.102	pCi/g	U	.
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	EBRLNE	B16541									2.50E-02	pCi/g	U	.
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	EBRLNE	B16542									0	pCi/g	U	.
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	EBRLNE	B16543									-1.80E-02	pCi/g	U	.
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	EBRLNE	B16544									-5.00E-02	pCi/g	U	.
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	EBRLNE	B16545									-4.20E-02	pCi/g	U	.
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	EBRLNE	B16547									0.144	pCi/g	U	.
299-W26-14	24.9936	26.9944	B16HB6		3/7/03 8:45	STLRL	B16HB6												
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A	7.86E-03	pCi/g	U	.	2.90E-02	pCi/g	U	.				
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	EBRLNE	B16KB0									0.019	pCi/g	U	.
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	EBRLNE	B16KB1									0.047	pCi/g	U	.

S-10 Ditch, RAD1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Plutonium-239/240 (PU-239/240) IX/Prec/AEA				Plutonium-239/240 (PU-239/240) Sep/Plate/AEA				Plutonium-241 (14119-32-5) IX/LSC			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	EBRLNE	B15Y84					0.223	pCi/g	.	.				
14119	0	1.499616	B15Y85		11/20/02 13:25	EBRLNE	B15Y85					3.24	pCi/g	.	.				
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	EBRLNE	B15YB0					0.142	pCi/g	U	.				
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	EBRLNE	B15YB1					6.10E-02	pCi/g	U	.				
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	EBRLNE	B15YB2					0	pCi/g	U	.				
14117	10.496	11.4964	B15YB3		11/21/02 11:50	EBRLNE	B15YB3					5.60E-02	pCi/g	U	.				
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	EBRLNE	B15YB4					0	pCi/g	U	.				
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	EBRLNE	B15YB6					0	pCi/g	U	.				
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	EBRLNE	B15YB7					6.10E-02	pCi/g	U	.				
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	EBRLNE	B15YB8					4.10E-02	pCi/g	U	.				
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	EBRLNE	B15YB9					0	pCi/g	U	.				
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	EBRLNE	B15YF8					0	pCi/g	U	.				
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLRL	B15YF9					2.74E-02	pCi/g	U	.				
14117	2.999232	3.99832	B160N2		11/21/02 11:20	EBRLNE	B160N2					0.078	pCi/g	U	.				
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	EBRLNE	B16538					0.047	pCi/g	U	.				
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	EBRLNE	B16539					0	pCi/g	U	.				
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	EBRLNE	B16540					2.50E-02	pCi/g	U	.				
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	EBRLNE	B16541					0	pCi/g	U	.				
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	EBRLNE	B16542					0	pCi/g	U	.				
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	EBRLNE	B16543					1.80E-02	pCi/g	U	.				
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	EBRLNE	B16544					1.70E-02	pCi/g	U	.				
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	EBRLNE	B16545					0	pCi/g	U	.				
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	EBRLNE	B16547					5.33	pCi/g	.	.				
299-W26-14	24.9936	26.9944	B16HB6		3/7/03 8:45	STLRL	B16HB6												
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A	2.10E-02	pCi/g	.	.								
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	EBRLNE	B16KB0					9.30E-02	pCi/g	U	.				
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	EBRLNE	B16KB1					0	pCi/g	U	.				

S-10 Ditch, RAD1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Potassium-40 (13966-00-2) GEA				Radium-224 (13233-32-4) GEA				Radium-226 (13982-63-3) GEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	EBRLNE	B15Y84	12.2	pCi/g	.	.					0.488	pCi/g	.	.
14119	0	1.499616	B15Y85		11/20/02 13:25	EBRLNE	B15Y85	12	pCi/g	.	.					0.526	pCi/g	.	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	EBRLNE	B15YB0	10.8	pCi/g	.	.					0.414	pCi/g	.	.
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	EBRLNE	B15YB1	12.4	pCi/g	.	.					0.517	pCi/g	.	.
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	EBRLNE	B15YB2	13.3	pCi/g	.	.					0.603	pCi/g	.	.
14117	10.496	11.4964	B15YB3		11/21/02 11:50	EBRLNE	B15YB3	11.2	pCi/g	.	.					0.36	pCi/g	.	.
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	EBRLNE	B15YB4	10.9	pCi/g	.	.					0.355	pCi/g	.	.
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	EBRLNE	B15YB6	12.8	pCi/g	.	.					0.513	pCi/g	.	.
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	EBRLNE	B15YB7	11	pCi/g	.	.					0.331	pCi/g	.	.
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	EBRLNE	B15YB8	11.4	pCi/g	.	.					0.478	pCi/g	.	.
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	EBRLNE	B15YB9	11.1	pCi/g	.	.					0.34	pCi/g	.	.
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	EBRLNE	B15YF8	11.8	pCi/g	.	.					0.502	pCi/g	.	.
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLRL	B15YF9												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	EBRLNE	B160N2	13.1	pCi/g	.	.					0.547	pCi/g	.	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	EBRLNE	B16538	3.08	pCi/g	.	.					0.114	pCi/g	.	.
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	EBRLNE	B16539	12.4	pCi/g	.	.					0.495	pCi/g	.	.
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	EBRLNE	B16540	10.3	pCi/g	.	.					0.455	pCi/g	.	.
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	EBRLNE	B16541	12.1	pCi/g	.	.					0.517	pCi/g	.	.
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	EBRLNE	B16542	14.3	pCi/g	.	.					0.741	pCi/g	.	.
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	EBRLNE	B16543	5.79	pCi/g	.	.					0.243	pCi/g	.	.
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	EBRLNE	B16544	8.85	pCi/g	.	.					0.32	pCi/g	.	.
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	EBRLNE	B16545	11.1	pCi/g	.	.					0.367	pCi/g	.	.
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	EBRLNE	B16547	8.56	pCi/g	.	.					0.259	pCi/g	.	.
299-W26-14	24.9936	26.9944	B16HB6		3/7/03 8:45	STLRL	B16HB6												
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A									0.327	pCi/g	.	.
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	EBRLNE	B16KB0	13.4	pCi/g	.	.					0.922	pCi/g	.	.
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	EBRLNE	B16KB1	5.94	pCi/g	.	.					0.251	pCi/g	.	.

S-10 Ditch, RAD1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Radium-228 (15262-20-1) GEA				Ruthenium-103 (13968-53-1) GEA				Ruthenium-106 (13967-48-1) GEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	EBRLNE	B15Y84	0.735	pCi/g	.	.								
14119	0	1.499616	B15Y85		11/20/02 13:25	EBRLNE	B15Y85	0.757	pCi/g	.	.								
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	EBRLNE	B15YB0	0.565	pCi/g	.	.								
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	EBRLNE	B15YB1	0.883	pCi/g	.	.								
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	EBRLNE	B15YB2	0.939	pCi/g	.	.								
14117	10.496	11.4964	B15YB3		11/21/02 11:50	EBRLNE	B15YB3	0.498	pCi/g	.	.								
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	EBRLNE	B15YB4	0.514	pCi/g	.	.								
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	EBRLNE	B15YB6	0.665	pCi/g	.	.								
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	EBRLNE	B15YB7	0.587	pCi/g	.	.								
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	EBRLNE	B15YB8	0.556	pCi/g	.	.								
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	EBRLNE	B15YB9	0.575	pCi/g	.	.								
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	EBRLNE	B15YF8	0.778	pCi/g	.	.								
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLRL	B15YF9	0.683	pCi/g	.	.								
14117	2.999232	3.99832	B160N2		11/21/02 11:20	EBRLNE	B160N2	0.777	pCi/g	.	.								
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	EBRLNE	B16538	0.176	pCi/g	.	.								
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	EBRLNE	B16539	0.836	pCi/g	.	.								
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	EBRLNE	B16540	0.963	pCi/g	.	.								
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	EBRLNE	B16541	0.482	pCi/g	U	.								
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	EBRLNE	B16542	0.944	pCi/g	.	.								
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	EBRLNE	B16543	0.417	pCi/g	.	.								
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	EBRLNE	B16544	0.625	pCi/g	.	.								
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	EBRLNE	B16545	0.608	pCi/g	.	.								
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	EBRLNE	B16547	0.421	pCi/g	.	.								
299-W26-14	24.9936	26.9944	B16HB6		3/7/03 8:45	STLRL	B16HB6												
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A	0.511	pCi/g	.	.	8.02E-03	pCi/g	U	.	7.04E-02	pCi/g	U	.
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	EBRLNE	B16KB0	1.1	pCi/g	.	.								
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	EBRLNE	B16KB1	0.543	pCi/g	.	.								

S-10 Ditch, RAD1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Selenium-79 (15758-45-9) IX/LSC				Sodium-22 (13966-32-0) GEA				Strontium-90 (10098-97-2) Sep/GPC			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	EBRLNE	B15Y84					5.70E-02	pCi/g	U	.				
14119	0	1.499616	B15Y85		11/20/02 13:25	EBRLNE	B15Y85					4.00E-02	pCi/g	U	.				
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	EBRLNE	B15YB0												
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	EBRLNE	B15YB1												
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	EBRLNE	B15YB2												
14117	10.496	11.4964	B15YB3		11/21/02 11:50	EBRLNE	B15YB3												
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	EBRLNE	B15YB4												
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	EBRLNE	B15YB6												
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	EBRLNE	B15YB7												
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	EBRLNE	B15YB8												
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	EBRLNE	B15YB9												
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	EBRLNE	B15YF8												
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLRL	B15YF9												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	EBRLNE	B160N2					4.60E-02	pCi/g	U	.				
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	EBRLNE	B16538												
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	EBRLNE	B16539												
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	EBRLNE	B16540												
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	EBRLNE	B16541												
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	EBRLNE	B16542												
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	EBRLNE	B16543												
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	EBRLNE	B16544												
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	EBRLNE	B16545												
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	EBRLNE	B16547												
299-W26-14	24.9936	26.9944	B16HB6		3/7/03 8:45	STLRL	B16HB6												
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A												
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	EBRLNE	B16KB0												
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	EBRLNE	B16KB1												

S-10 Ditch, RAD1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Technetium-99 (14133-76-7) IX/LSC				Technetium-99 (14133-76-7) Sep/GPC				Technetium-99 (14133-76-7) TEVA/LSC			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	EBRLNE	B15Y84												
14119	0	1.499616	B15Y85		11/20/02 13:25	EBRLNE	B15Y85												
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	EBRLNE	B15YB0												
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	EBRLNE	B15YB1												
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	EBRLNE	B15YB2												
14117	10.496	11.4964	B15YB3		11/21/02 11:50	EBRLNE	B15YB3												
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	EBRLNE	B15YB4												
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	EBRLNE	B15YB6												
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	EBRLNE	B15YB7												
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	EBRLNE	B15YB8												
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	EBRLNE	B15YB9					6.70E-02	pCi/g	U	.				
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	EBRLNE	B15YF8												
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLRL	B15YF9												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	EBRLNE	B160N2												
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	EBRLNE	B16538					-9.10E-02	pCi/g	U	.				
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	EBRLNE	B16539					-9.70E-02	pCi/g	U	.				
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	EBRLNE	B16540					3.50E-02	pCi/g	U	.				
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	EBRLNE	B16541					0.162	pCi/g	U	.				
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	EBRLNE	B16542					-9.00E-03	pCi/g	U	.				
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	EBRLNE	B16543					-3.80E-02	pCi/g	U	.				
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	EBRLNE	B16544					-3.70E-02	pCi/g	U	.				
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	EBRLNE	B16545					2.50E-02	pCi/g	U	.				
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	EBRLNE	B16547												
299-W26-14	24.9936	26.9944	B16HB6		3/7/03 8:45	STLRL	B16HB6									-4.55E-02	pCi/g	U	.
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A												
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	EBRLNE	B16KB0					0.14	pCi/g	U	.				
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	EBRLNE	B16KB1					0.189	pCi/g	U	.				

S-10 Ditch, RAD1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Thallium-208 (14913-50-9) GEA				Thorium-228 (14274-82-9) GEA				Thorium-228 (14274-82-9) IX/Plate/AEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	EBRLNE	B15Y84					0.664	pCi/g	.	.	0.078	pCi/g	U	.
14119	0	1.499616	B15Y85		11/20/02 13:25	EBRLNE	B15Y85					0.608	pCi/g	.	.	0.324	pCi/g	U	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	EBRLNE	B15YB0					0.632	pCi/g	.	.	0.236	pCi/g	.	.
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	EBRLNE	B15YB1					0.809	pCi/g	.	.	0.445	pCi/g	.	.
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	EBRLNE	B15YB2					0.903	pCi/g	.	.	0.553	pCi/g	.	.
14117	10.496	11.4964	B15YB3		11/21/02 11:50	EBRLNE	B15YB3					0.56	pCi/g	.	.	0.455	pCi/g	.	.
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	EBRLNE	B15YB4					0.534	pCi/g	.	.	0.216	pCi/g	.	.
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	EBRLNE	B15YB6					0.752	pCi/g	.	.	0.269	pCi/g	.	.
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	EBRLNE	B15YB7					0.549	pCi/g	.	.	0.25	pCi/g	.	.
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	EBRLNE	B15YB8					0.598	pCi/g	.	.	0.234	pCi/g	.	.
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	EBRLNE	B15YB9					0.517	pCi/g	.	.	0.276	pCi/g	U	.
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	EBRLNE	B15YF8					0.662	pCi/g	.	.	0.271	pCi/g	U	.
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLRL	B15YF9												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	EBRLNE	B160N2					0.659	pCi/g	.	.	0.426	pCi/g	U	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	EBRLNE	B16538					0.232	pCi/g	.	.	0.412	pCi/g	U	.
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	EBRLNE	B16539					0.647	pCi/g	.	.	1.07	pCi/g	.	.
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	EBRLNE	B16540					0.543	pCi/g	.	.	0.935	pCi/g	.	.
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	EBRLNE	B16541					0.553	pCi/g	.	.	0.966	pCi/g	.	.
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	EBRLNE	B16542					0.961	pCi/g	.	.	1.02	pCi/g	.	.
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	EBRLNE	B16543					0.317	pCi/g	.	.	0.309	pCi/g	U	.
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	EBRLNE	B16544					0.352	pCi/g	.	.	5.9	pCi/g	.	.
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	EBRLNE	B16545					0.514	pCi/g	.	.	0.416	pCi/g	.	.
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	EBRLNE	B16547					0.318	pCi/g	.	.	0.728	pCi/g	.	.
299-W26-14	24.9936	26.9944	B16HB6		3/7/03 8:45	STLRL	B16HB6												
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A	0.157	pCi/g	.	.								
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	EBRLNE	B16KB0					1.21	pCi/g	.	.	1.26	pCi/g	.	.
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	EBRLNE	B16KB1					0.32	pCi/g	.	.	0.306	pCi/g	U	.

S-10 Ditch, RAD1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Thorium-228 (14274-82-9) IX/Prec/AEA				Thorium-230 (14269-63-7) IX/Plate/AEA				Thorium-230 (14269-63-7) IX/Prec/AEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	EBRLNE	B15Y84					0.462	pCi/g	U	.				
14119	0	1.499616	B15Y85		11/20/02 13:25	EBRLNE	B15Y85					0.515	pCi/g	.	.				
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	EBRLNE	B15YB0					0.373	pCi/g	.	.				
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	EBRLNE	B15YB1					0.471	pCi/g	.	.				
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	EBRLNE	B15YB2					0.612	pCi/g	.	.				
14117	10.496	11.4964	B15YB3		11/21/02 11:50	EBRLNE	B15YB3					0.396	pCi/g	.	.				
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	EBRLNE	B15YB4					0.34	pCi/g	.	.				
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	EBRLNE	B15YB6					0.481	pCi/g	.	.				
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	EBRLNE	B15YB7					0.47	pCi/g	.	.				
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	EBRLNE	B15YB8					0.448	pCi/g	.	.				
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	EBRLNE	B15YB9					0.33	pCi/g	.	.				
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	EBRLNE	B15YF8					0.324	pCi/g	.	.				
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLRL	B15YF9	0.515	pCi/g	.	.					0.427	pCi/g	.	.
14117	2.999232	3.99832	B160N2		11/21/02 11:20	EBRLNE	B160N2					0.541	pCi/g	.	.				
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	EBRLNE	B16538					0.538	pCi/g	.	.				
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	EBRLNE	B16539					1.38	pCi/g	.	.				
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	EBRLNE	B16540					1.18	pCi/g	.	.				
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	EBRLNE	B16541					1.25	pCi/g	.	.				
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	EBRLNE	B16542					0.723	pCi/g	.	.				
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	EBRLNE	B16543					0.176	pCi/g	U	.				
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	EBRLNE	B16544					0.561	pCi/g	U	.				
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	EBRLNE	B16545					0.735	pCi/g	.	.				
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	EBRLNE	B16547					1.34	pCi/g	.	.				
299-W26-14	24.9936	26.9944	B16HB6		3/7/03 8:45	STLRL	B16HB6												
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A												
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	EBRLNE	B16KB0					0.625	pCi/g	U	.				
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	EBRLNE	B16KB1					0.611	pCi/g	B	.				

S-10 Ditch, RAD1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Thorium-232 (TH-232) GEA				Thorium-232 (TH-232) IX/Plate/AEA				Thorium-232 (TH-232) IX/Prec/AEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	EBRLNE	B15Y84	0.735	pCi/g	.	.	7.70E-02	pCi/g	U	.				
14119	0	1.499616	B15Y85		11/20/02 13:25	EBRLNE	B15Y85	0.757	pCi/g	.	.	0.258	pCi/g	U	.				
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	EBRLNE	B15YB0	0.565	pCi/g	.	.	0.28	pCi/g	.	.				
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	EBRLNE	B15YB1	0.883	pCi/g	.	.	0.466	pCi/g	.	.				
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	EBRLNE	B15YB2	0.939	pCi/g	.	.	0.612	pCi/g	.	.				
14117	10.496	11.4964	B15YB3		11/21/02 11:50	EBRLNE	B15YB3	0.498	pCi/g	.	.	0.344	pCi/g	.	.				
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	EBRLNE	B15YB4	0.514	pCi/g	.	.	0.208	pCi/g	.	.				
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	EBRLNE	B15YB6	0.665	pCi/g	.	.	0.298	pCi/g	.	.				
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	EBRLNE	B15YB7	0.587	pCi/g	.	.	0.221	pCi/g	.	.				
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	EBRLNE	B15YB8	0.556	pCi/g	.	.	0.208	pCi/g	.	.				
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	EBRLNE	B15YB9	0.575	pCi/g	.	.	0.165	pCi/g	U	.				
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	EBRLNE	B15YF8	0.778	pCi/g	.	.	0.351	pCi/g	.	.				
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLRL	B15YF9									0.394	pCi/g	.	.
14117	2.999232	3.99832	B160N2		11/21/02 11:20	EBRLNE	B160N2	0.777	pCi/g	.	.	0.541	pCi/g	.	.				
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	EBRLNE	B16538	0.176	pCi/g	.	.	0.759	pCi/g	.	.				
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	EBRLNE	B16539	0.836	pCi/g	.	.	0.998	pCi/g	.	.				
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	EBRLNE	B16540	0.963	pCi/g	.	.	0.622	pCi/g	.	.				
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	EBRLNE	B16541	0.482	pCi/g	U	.	0.643	pCi/g	.	.				
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	EBRLNE	B16542	0.944	pCi/g	.	.	0.986	pCi/g	.	.				
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	EBRLNE	B16543	0.417	pCi/g	.	.	0.308	pCi/g	U	.				
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	EBRLNE	B16544	0.625	pCi/g	.	.	0.374	pCi/g	U	.				
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	EBRLNE	B16545	0.608	pCi/g	.	.	0.479	pCi/g	.	.				
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	EBRLNE	B16547	0.421	pCi/g	.	.	0.58	pCi/g	.	.				
299-W26-14	24.9936	26.9944	B16HB6		3/7/03 8:45	STLRL	B16HB6												
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A												
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	EBRLNE	B16KB0	1.1	pCi/g	.	.	1.41	pCi/g	.	.				
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	EBRLNE	B16KB1	0.543	pCi/g	.	.	0.441	pCi/g	.	.				

S-10 Ditch, RAD1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Thorium-234 (15065-10-8) GEA			
								Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	EBRLNE	B15Y84				
14119	0	1.499616	B15Y85		11/20/02 13:25	EBRLNE	B15Y85				
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	EBRLNE	B15YB0				
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	EBRLNE	B15YB1				
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	EBRLNE	B15YB2				
14117	10.496	11.4964	B15YB3		11/21/02 11:50	EBRLNE	B15YB3				
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	EBRLNE	B15YB4				
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	EBRLNE	B15YB6				
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	EBRLNE	B15YB7				
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	EBRLNE	B15YB8				
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	EBRLNE	B15YB9				
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	EBRLNE	B15YF8				
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLRL	B15YF9				
14117	2.999232	3.99832	B160N2		11/21/02 11:20	EBRLNE	B160N2				
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	EBRLNE	B16538				
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	EBRLNE	B16539				
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	EBRLNE	B16540				
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	EBRLNE	B16541				
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	EBRLNE	B16542				
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	EBRLNE	B16543				
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	EBRLNE	B16544				
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	EBRLNE	B16545				
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	EBRLNE	B16547				
299-W26-14	24.9936	26.9944	B16HB6		3/7/03 8:45	STLRL	B16HB6				
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A	0.591	pCi/g	.	.
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	EBRLNE	B16KB0				
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	EBRLNE	B16KB1				

S-10 Ditch, RAD2

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Tin-113 (13966-06-8) GEA				Tin-126 (15832-50-5) GEA				Total beta radiostrontium (SR-RAD) Sep/GPC			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	EBRLNE	B15Y84					8.60E-02	pCi/g	U	.	9.00E-02	pCi/g	U	.
14119	0	1.499616	B15Y85		11/20/02 13:25	EBRLNE	B15Y85					0.12	pCi/g	U	.	0.21	pCi/g	U	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	EBRLNE	B15YB0									0.106	pCi/g	U	.
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	EBRLNE	B15YB1									5.00E-03	pCi/g	U	.
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	EBRLNE	B15YB2									-4.90E-02	pCi/g	U	.
14117	10.496	11.4964	B15YB3		11/21/02 11:50	EBRLNE	B15YB3									4.10E-02	pCi/g	U	.
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	EBRLNE	B15YB4									4.30E-02	pCi/g	U	.
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	EBRLNE	B15YB6									5.60E-02	pCi/g	U	.
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	EBRLNE	B15YB7									6.00E-03	pCi/g	U	.
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	EBRLNE	B15YB8									0.103	pCi/g	U	.
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	EBRLNE	B15YB9									0.146	pCi/g	U	.
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	EBRLNE	B15YF8									9.30E-02	pCi/g	U	.
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLRL	B15YF9									6.65E-02	pCi/g	U	.
14117	2.999232	3.99832	B160N2		11/21/02 11:20	EBRLNE	B160N2					9.10E-02	pCi/g	U	.	0.462	pCi/g	.	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	EBRLNE	B16538									0.001	pCi/g	U	.
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	EBRLNE	B16539									1.10E-02	pCi/g	U	.
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	EBRLNE	B16540									0.002	pCi/g	U	.
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	EBRLNE	B16541									-5.00E-03	pCi/g	U	.
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	EBRLNE	B16542									-0.014	pCi/g	U	.
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	EBRLNE	B16543									-5.40E-02	pCi/g	U	.
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	EBRLNE	B16544									0.111	pCi/g	U	.
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	EBRLNE	B16545									4.50E-02	pCi/g	U	.
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	EBRLNE	B16547									0.318	pCi/g	.	.
299-W26-14	24.9936	26.9944	B16HB6		3/7/03 8:45	STLRL	B16HB6												
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A	0.0112	pCi/g	U	.	9.70E-02	pCi/g	U	.	5.00E-02	pCi/g	U	.
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	EBRLNE	B16KB0									-0.02	pCi/g	U	.
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	EBRLNE	B16KB1									6.10E-02	pCi/g	U	.

S-10 Ditch, RAD2

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Tritium (10028-17-8) 906				Uranium-233/234 (U-233/234) Sep/Plate/AEA				Uranium-234 (13966-29-5) IX/Plate/AEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	EBRLNE	B15Y84												
14119	0	1.499616	B15Y85		11/20/02 13:25	EBRLNE	B15Y85												
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	EBRLNE	B15YB0												
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	EBRLNE	B15YB1												
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	EBRLNE	B15YB2												
14117	10.496	11.4964	B15YB3		11/21/02 11:50	EBRLNE	B15YB3												
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	EBRLNE	B15YB4												
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	EBRLNE	B15YB6												
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	EBRLNE	B15YB7												
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	EBRLNE	B15YB8												
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	EBRLNE	B15YB9	6.60E-02	pCi/g	U	.								
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	EBRLNE	B15YF8												
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLRL	B15YF9									0.524	pCi/g	.	.
14117	2.999232	3.99832	B160N2		11/21/02 11:20	EBRLNE	B160N2												
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	EBRLNE	B16538	-9.00E-03	pCi/g	U	.								
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	EBRLNE	B16539	5.00E-03	pCi/g	U	.								
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	EBRLNE	B16540	-6.60E-02	pCi/g	U	.								
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	EBRLNE	B16541	0.063	pCi/g	U	.								
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	EBRLNE	B16542	-4.80E-02	pCi/g	U	.								
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	EBRLNE	B16543	0.014	pCi/g	U	.								
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	EBRLNE	B16544	-6.00E-03	pCi/g	U	.								
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	EBRLNE	B16545	-1.10E-02	pCi/g	U	.								
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	EBRLNE	B16547												
299-W26-14	24.9936	26.9944	B16HB6		3/7/03 8:45	STLRL	B16HB6	6.10E-02	pCi/g	.	.								
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A												
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	EBRLNE	B16KB0	-3.00E-02	pCi/g	U	.								
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	EBRLNE	B16KB1	2.90E-02	pCi/g	U	.								

S-10 Ditch, RAD2

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Uranium-234 (13966-29-5) Sep/Plate/AEA				Uranium-235 (15117-96-1) GEA				Uranium-235 (15117-96-1) IX/Plate/AEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	EBRLNE	B15Y84					0.17	pCi/g	U	.				
14119	0	1.499616	B15Y85		11/20/02 13:25	EBRLNE	B15Y85					0.22	pCi/g	U	.				
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	EBRLNE	B15YB0					0.18	pCi/g	U	.				
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	EBRLNE	B15YB1					0.11	pCi/g	U	.				
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	EBRLNE	B15YB2					0.12	pCi/g	U	.				
14117	10.496	11.4964	B15YB3		11/21/02 11:50	EBRLNE	B15YB3					0.11	pCi/g	U	.				
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	EBRLNE	B15YB4					9.10E-02	pCi/g	U	.				
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	EBRLNE	B15YB6					0.17	pCi/g	U	.				
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	EBRLNE	B15YB7					9.70E-02	pCi/g	U	.				
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	EBRLNE	B15YB8					0.1	pCi/g	U	.				
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	EBRLNE	B15YB9					0.15	pCi/g	U	.				
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	EBRLNE	B15YF8					0.12	pCi/g	U	.				
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLRL	B15YF9									4.99E-03	pCi/g	U	.
14117	2.999232	3.99832	B160N2		11/21/02 11:20	EBRLNE	B160N2					0.16	pCi/g	U	.				
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	EBRLNE	B16538					6.90E-02	pCi/g	U	.				
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	EBRLNE	B16539					9.50E-02	pCi/g	U	.				
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	EBRLNE	B16540					0.36	pCi/g	U	.				
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	EBRLNE	B16541					0.38	pCi/g	U	.				
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	EBRLNE	B16542					0.19	pCi/g	U	.				
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	EBRLNE	B16543					0.25	pCi/g	U	.				
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	EBRLNE	B16544					0.16	pCi/g	U	.				
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	EBRLNE	B16545					8.40E-02	pCi/g	U	.				
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	EBRLNE	B16547					9.20E-02	pCi/g	U	.				
299-W26-14	24.9936	26.9944	B16HB6		3/7/03 8:45	STLRL	B16HB6												
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A					7.64E-02	pCi/g	U	.				
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	EBRLNE	B16KB0					0.43	pCi/g	U	.				
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	EBRLNE	B16KB1					0.26	pCi/g	U	.				

S-10 Ditch, RAD2

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Uranium-235 (15117-96-1) Sep/Plate/AEA				Uranium-238 (U-238) GEA				Uranium-238 (U-238) IX/Plate/AEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	EBRLNE	B15Y84					5.1	pCi/g	U	.				
14119	0	1.499616	B15Y85		11/20/02 13:25	EBRLNE	B15Y85					4.6	pCi/g	U	.				
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	EBRLNE	B15YB0					3.1	pCi/g	U	.				
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	EBRLNE	B15YB1					3	pCi/g	U	.				
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	EBRLNE	B15YB2					3.8	pCi/g	U	.				
14117	10.496	11.4964	B15YB3		11/21/02 11:50	EBRLNE	B15YB3					3.5	pCi/g	U	.				
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	EBRLNE	B15YB4					3	pCi/g	U	.				
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	EBRLNE	B15YB6					5.9	pCi/g	U	.				
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	EBRLNE	B15YB7					3.4	pCi/g	U	.				
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	EBRLNE	B15YB8					3.2	pCi/g	U	.				
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	EBRLNE	B15YB9					4.5	pCi/g	U	.				
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	EBRLNE	B15YF8					3.9	pCi/g	U	.				
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLRL	B15YF9									0.536	pCi/g	.	.
14117	2.999232	3.99832	B160N2		11/21/02 11:20	EBRLNE	B160N2					4.3	pCi/g	U	.				
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	EBRLNE	B16538					2.5	pCi/g	U	.				
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	EBRLNE	B16539					2.2	pCi/g	U	.				
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	EBRLNE	B16540					14	pCi/g	U	.				
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	EBRLNE	B16541					15	pCi/g	U	.				
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	EBRLNE	B16542					7.8	pCi/g	U	.				
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	EBRLNE	B16543					6.9	pCi/g	U	.				
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	EBRLNE	B16544					6.5	pCi/g	U	.				
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	EBRLNE	B16545					3.2	pCi/g	U	.				
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	EBRLNE	B16547					2.7	pCi/g	U	.				
299-W26-14	24.9936	26.9944	B16HB6		3/7/03 8:45	STLRL	B16HB6												
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A												
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	EBRLNE	B16KB0					15	pCi/g	U	.				
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	EBRLNE	B16KB1					7.6	pCi/g	U	.				

S-10 Ditch, RAD2

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Uranium-238 (U-238) Sep/Plate/AEA				Zinc-65 (13982-39-3) GEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	EBRLNE	B15Y84								
14119	0	1.499616	B15Y85		11/20/02 13:25	EBRLNE	B15Y85								
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	EBRLNE	B15YB0								
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	EBRLNE	B15YB1								
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	EBRLNE	B15YB2								
14117	10.496	11.4964	B15YB3		11/21/02 11:50	EBRLNE	B15YB3								
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	EBRLNE	B15YB4								
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	EBRLNE	B15YB6								
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	EBRLNE	B15YB7								
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	EBRLNE	B15YB8								
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	EBRLNE	B15YB9								
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	EBRLNE	B15YF8								
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLRL	B15YF9								
14117	2.999232	3.99832	B160N2		11/21/02 11:20	EBRLNE	B160N2								
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	EBRLNE	B16538								
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	EBRLNE	B16539								
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	EBRLNE	B16540								
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	EBRLNE	B16541								
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	EBRLNE	B16542								
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	EBRLNE	B16543								
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	EBRLNE	B16544								
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	EBRLNE	B16545								
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	EBRLNE	B16547								
299-W26-14	24.9936	26.9944	B16HB6		3/7/03 8:45	STLRL	B16HB6								
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A					1.86E-02	pCi/g	U	.
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	EBRLNE	B16KB0								
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	EBRLNE	B16KB1								

S-10 Ditch, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	1,2,4-Trichlorobenzene (120-82-1) 8270				1,2-Dichlorobenzene (95-50-1) 8270				1,3-Dichlorobenzene (541-73-1) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	740	ug/kg	U	.	740	ug/kg	U	.	740	ug/kg	U	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A	300	ug/kg	U	.								
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.

S-10 Ditch, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	1,4-Dichlorobenzene (106-46-7) 8270				2,4,5-Trichlorophenol (95-95-4) 8270				2,4,6-Trichlorophenol (88-06-2) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	350	ug/kg	U	.	870	ug/kg	U	.	350	ug/kg	U	.
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	740	ug/kg	U	.	1800	ug/kg	U	.	740	ug/kg	U	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0	360	ug/kg	U	.	910	ug/kg	U	.	360	ug/kg	U	.
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1	350	ug/kg	U	.	870	ug/kg	U	.	350	ug/kg	U	.
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2	360	ug/kg	U	.	910	ug/kg	U	.	360	ug/kg	U	.
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3	340	ug/kg	U	.	910	ug/kg	U	.	340	ug/kg	U	.
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4	340	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6	350	ug/kg	U	.	880	ug/kg	U	.	350	ug/kg	U	.
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7	340	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8	350	ug/kg	U	.	870	ug/kg	U	.	350	ug/kg	U	.
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9	340	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8	350	ug/kg	U	.	870	ug/kg	U	.	350	ug/kg	U	.
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	340	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538	350	ug/kg	U	.	870	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539	350	ug/kg	U	.	880	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540	370	ug/kg	U	.	920	ug/kg	U	.	370	ug/kg	U	.
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541	350	ug/kg	U	.	860	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542	380	ug/kg	U	.	950	ug/kg	U	.	380	ug/kg	U	.
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543	360	ug/kg	U	.	890	ug/kg	U	.	360	ug/kg	U	.
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544	360	ug/kg	U	.	890	ug/kg	U	.	360	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545	340	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547	350	ug/kg	U	.	880	ug/kg	U	J	350	ug/kg	U	J
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A	320	ug/kg	U	.								
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0	380	ug/kg	U	.	950	ug/kg	U	.	380	ug/kg	U	.
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1	380	ug/kg	U	.	950	ug/kg	U	.	380	ug/kg	U	.

S-10 Ditch, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	2,4-Dichlorophenol (120-83-2) 8270				2,4-Dimethylphenol (105-67-9) 8270				2,4-Dinitrophenol (51-28-5) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	350	ug/kg	U	.	350	ug/kg	U	.	870	ug/kg	U	.
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	740	ug/kg	U	.	740	ug/kg	U	.	1800	ug/kg	U	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0	360	ug/kg	U	.	360	ug/kg	U	.	910	ug/kg	U	.
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1	350	ug/kg	U	.	350	ug/kg	U	.	870	ug/kg	U	.
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2	360	ug/kg	U	.	360	ug/kg	U	.	910	ug/kg	U	.
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3	340	ug/kg	U	.	340	ug/kg	U	.	860	ug/kg	U	.
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4	340	ug/kg	U	.	340	ug/kg	U	.	860	ug/kg	U	.
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6	350	ug/kg	U	.	350	ug/kg	U	.	880	ug/kg	U	.
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7	340	ug/kg	U	.	340	ug/kg	U	.	860	ug/kg	U	.
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8	350	ug/kg	U	.	350	ug/kg	U	.	870	ug/kg	U	.
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9	340	ug/kg	U	.	340	ug/kg	U	.	860	ug/kg	U	.
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8	350	ug/kg	U	.	350	ug/kg	U	.	870	ug/kg	U	.
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	340	ug/kg	U	.	340	ug/kg	U	.	860	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538	350	ug/kg	U	.	350	ug/kg	U	.	870	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539	350	ug/kg	U	.	350	ug/kg	U	.	880	ug/kg	U	.
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540	370	ug/kg	U	.	370	ug/kg	U	.	920	ug/kg	U	.
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541	350	ug/kg	U	.	350	ug/kg	U	.	860	ug/kg	U	.
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542	380	ug/kg	U	.	380	ug/kg	U	.	950	ug/kg	U	.
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543	360	ug/kg	U	.	360	ug/kg	U	.	890	ug/kg	U	.
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544	360	ug/kg	U	.	360	ug/kg	U	.	890	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545	340	ug/kg	U	.	340	ug/kg	U	.	860	ug/kg	U	.
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547	350	ug/kg	U	.	350	ug/kg	U	.	880	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A												
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0	380	ug/kg	U	.	380	ug/kg	U	.	950	ug/kg	U	.
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1	380	ug/kg	U	.	380	ug/kg	U	.	950	ug/kg	U	.

S-10 Ditch, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	2,4-Dinitrotoluene (121-14-2) 8270				2,6-Dinitrotoluene (606-20-2) 8270				2-Chloronaphthalene (91-58-7) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	740	ug/kg	U	.	740	ug/kg	U	.	740	ug/kg	U	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A	68	ug/kg	U	.								
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.

S-10 Ditch, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	2-Chlorophenol (95-57-8) 8270				2-Methylnaphthalene (91-57-6) 8270				2-Methylphenol (cresol, o-) (95-48-7) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	740	ug/kg	U	.	740	ug/kg	U	.	740	ug/kg	U	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A	150	ug/kg	U	.								
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.

S-10 Ditch, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	2-Nitroaniline (88-74-4) 8270				2-Nitrophenol (88-75-5) 8270				3,3'-Dichlorobenzidine (91-94-1) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	870	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	1800	ug/kg	U	.	740	ug/kg	U	.	740	ug/kg	U	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0	910	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1	870	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2	910	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6	880	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8	870	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8	870	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538	870	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539	880	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540	920	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541	860	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542	950	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543	890	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544	890	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547	880	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A												
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0	950	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1	950	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.

S-10 Ditch, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	3-Nitroaniline (99-09-2) 8270				4,6-Dinitro-2-methylphenol (534-52-1) 8270				4-Bromophenylphenyl ether (101-55-3) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	870	ug/kg	U	.	870	ug/kg	U	.	350	ug/kg	U	.
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	1800	ug/kg	U	.	1800	ug/kg	U	.	740	ug/kg	U	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0	910	ug/kg	U	.	910	ug/kg	U	.	360	ug/kg	U	.
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1	870	ug/kg	U	.	870	ug/kg	U	.	350	ug/kg	U	.
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2	910	ug/kg	U	.	910	ug/kg	U	.	360	ug/kg	U	.
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3	860	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4	860	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6	880	ug/kg	U	.	880	ug/kg	U	.	350	ug/kg	U	.
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7	860	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8	870	ug/kg	U	.	870	ug/kg	U	.	350	ug/kg	U	.
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9	860	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8	870	ug/kg	U	.	870	ug/kg	U	.	350	ug/kg	U	.
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	860	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538	870	ug/kg	U	.	870	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539	880	ug/kg	U	.	880	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540	920	ug/kg	U	.	920	ug/kg	U	.	370	ug/kg	U	.
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541	860	ug/kg	U	.	860	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542	950	ug/kg	U	.	950	ug/kg	U	.	380	ug/kg	U	.
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543	890	ug/kg	U	.	890	ug/kg	U	.	360	ug/kg	U	.
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544	890	ug/kg	U	.	890	ug/kg	U	.	360	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545	860	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547	880	ug/kg	U	.	880	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A												
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0	950	ug/kg	U	.	950	ug/kg	U	.	380	ug/kg	U	.
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1	950	ug/kg	U	.	950	ug/kg	U	.	380	ug/kg	U	.

S-10 Ditch, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	4-Chloro-3-methylphenol (59-50-7) 8270				4-Chloroaniline (106-47-8) 8270				4-Chlorophenylphenyl ether (7005-72-3) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	740	ug/kg	U	.	740	ug/kg	U	.	740	ug/kg	U	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A	68	ug/kg	U	.								
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.

S-10 Ditch, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	4-Methylphenol (cresol, p-) (106-44-5) 8270				4-Nitroaniline (100-01-6) 8270				4-Nitrophenol (100-02-7) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	350	ug/kg	U	.	870	ug/kg	U	.	870	ug/kg	U	.
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	740	ug/kg	U	.	1800	ug/kg	U	.	1800	ug/kg	U	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0	360	ug/kg	U	.	910	ug/kg	U	.	910	ug/kg	U	.
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1	350	ug/kg	U	.	870	ug/kg	U	.	870	ug/kg	U	.
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2	360	ug/kg	U	.	910	ug/kg	U	.	910	ug/kg	U	.
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3	340	ug/kg	U	.	860	ug/kg	U	.	860	ug/kg	U	.
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4	340	ug/kg	U	.	860	ug/kg	U	.	860	ug/kg	U	.
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6	350	ug/kg	U	.	880	ug/kg	U	.	880	ug/kg	U	.
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7	340	ug/kg	U	.	860	ug/kg	U	.	860	ug/kg	U	.
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8	350	ug/kg	U	.	870	ug/kg	U	.	870	ug/kg	U	.
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9	340	ug/kg	U	.	860	ug/kg	U	.	860	ug/kg	U	.
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8	350	ug/kg	U	.	870	ug/kg	U	.	870	ug/kg	U	.
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	340	ug/kg	U	.	860	ug/kg	U	.	860	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538	350	ug/kg	U	.	870	ug/kg	U	.	870	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539	350	ug/kg	U	.	880	ug/kg	U	.	880	ug/kg	U	.
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540	370	ug/kg	U	.	920	ug/kg	U	.	920	ug/kg	U	.
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541	350	ug/kg	U	.	860	ug/kg	U	.	860	ug/kg	U	.
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542	380	ug/kg	U	.	950	ug/kg	U	.	950	ug/kg	U	.
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543	360	ug/kg	U	.	890	ug/kg	U	.	890	ug/kg	U	.
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544	360	ug/kg	U	.	890	ug/kg	U	.	890	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545	340	ug/kg	U	.	860	ug/kg	U	.	860	ug/kg	U	.
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547	350	ug/kg	U	.	880	ug/kg	U	.	880	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A									660	ug/kg	U	.
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0	380	ug/kg	U	.	950	ug/kg	U	.	950	ug/kg	U	.
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1	380	ug/kg	U	.	950	ug/kg	U	.	950	ug/kg	U	.

S-10 Ditch, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Acenaphthene (83-32-9) 8270				Acenaphthylene (208-96-8) 8270				Anthracene (120-12-7) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	61	ug/kg	J	.	740	ug/kg	U	.	150	ug/kg	J	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A	68	ug/kg	U	.								
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.

S-10 Ditch, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Benzo(a)anthracene (56-55-3) 8270				Benzo(a)pyrene (50-32-8) 8270				Benzo(b)fluoranthene (205-99-2) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	550	ug/kg	J	.	600	ug/kg	J	.	530	ug/kg	J	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A												
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.

S-10 Ditch, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Benzo(ghi)perylene (191-24-2) 8270				Benzo(k)fluoranthene (207-08-9) 8270				Bis(2-chloro-1-methylethyl)ether (108-60-1) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	660	ug/kg	J	.	450	ug/kg	J	.	740	ug/kg	U	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A												
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.

S-10 Ditch, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Bis(2-Chloroethoxy)methane (111-91-1) 8270				Bis(2-chloroethyl) ether (111-44-4) 8270				Bis(2-ethylhexyl) phthalate (117-81-7) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	350	ug/kg	U	.	350	ug/kg	U	.	22	ug/kg	J	.
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	740	ug/kg	U	.	740	ug/kg	U	.	580	ug/kg	J	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0	360	ug/kg	U	.	360	ug/kg	U	.	26	ug/kg	J	.
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1	350	ug/kg	U	.	350	ug/kg	U	.	23	ug/kg	J	.
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2	360	ug/kg	U	.	360	ug/kg	U	.	37	ug/kg	J	.
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4	340	ug/kg	U	.	340	ug/kg	U	.	20	ug/kg	J	.
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6	350	ug/kg	U	.	350	ug/kg	U	.	380	ug/kg	.	.
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9	340	ug/kg	U	.	340	ug/kg	U	.	26	ug/kg	J	.
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	340	ug/kg	U	.	340	ug/kg	U	.	33	ug/kg	J	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538	350	ug/kg	U	.	350	ug/kg	U	.	19.471	ug/kg	JB	.
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539	350	ug/kg	U	.	350	ug/kg	U	.	68.974	ug/kg	JB	.
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542	380	ug/kg	U	.	380	ug/kg	U	.	22	ug/kg	JB	.
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543	360	ug/kg	U	.	360	ug/kg	U	.	21	ug/kg	J	.
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544	360	ug/kg	U	.	360	ug/kg	U	.	26	ug/kg	J	.
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545	340	ug/kg	U	.	340	ug/kg	U	.	23.805	ug/kg	JB	.
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A												
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0	380	ug/kg	U	.	380	ug/kg	U	.	41	ug/kg	J	.
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1	380	ug/kg	U	.	380	ug/kg	U	.	22	ug/kg	J	.

S-10 Ditch, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Butyl Stearate (123-95-5) 8270				Butylbenzylphthalate (85-68-7) 8270				Carbazole (86-74-8) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84					350	ug/kg	U	.	350	ug/kg	U	.
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85					580	ug/kg	J	.	97	ug/kg	J	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0					360	ug/kg	U	.	360	ug/kg	U	.
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1					350	ug/kg	U	.	350	ug/kg	U	.
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2					360	ug/kg	U	.	360	ug/kg	U	.
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3					340	ug/kg	U	.	340	ug/kg	U	.
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4					340	ug/kg	U	.	340	ug/kg	U	.
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6					350	ug/kg	U	.	350	ug/kg	U	.
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7					340	ug/kg	U	.	340	ug/kg	U	.
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8					350	ug/kg	U	.	350	ug/kg	U	.
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9					340	ug/kg	U	.	340	ug/kg	U	.
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8					350	ug/kg	U	.	350	ug/kg	U	.
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2					340	ug/kg	U	.	340	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538					350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539					350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540					370	ug/kg	U	.	370	ug/kg	U	.
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541					350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542					380	ug/kg	U	.	380	ug/kg	U	.
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543					360	ug/kg	U	.	360	ug/kg	U	.
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544					360	ug/kg	U	.	360	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545					340	ug/kg	U	.	340	ug/kg	U	.
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547					350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A	230	ug/kg	J	.								
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0					380	ug/kg	U	.	380	ug/kg	U	.
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1					380	ug/kg	U	.	380	ug/kg	U	.

S-10 Ditch, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Chrysene (218-01-9) 8270				Decane (124-18-5) 8270				Dibenz(a,h)anthracene (53-70-3) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	350	ug/kg	U	.					350	ug/kg	U	.
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	680	ug/kg	J	.					110	ug/kg	J	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0	360	ug/kg	U	.					360	ug/kg	U	.
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1	350	ug/kg	U	.					350	ug/kg	U	.
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2	360	ug/kg	U	.					360	ug/kg	U	.
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3	340	ug/kg	U	.					340	ug/kg	U	.
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4	340	ug/kg	U	.					340	ug/kg	U	.
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6	350	ug/kg	U	.					350	ug/kg	U	.
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7	340	ug/kg	U	.					340	ug/kg	U	.
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8	350	ug/kg	U	.					350	ug/kg	U	.
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9	340	ug/kg	U	.					340	ug/kg	U	.
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8	350	ug/kg	U	.					350	ug/kg	U	.
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	340	ug/kg	U	.					340	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538	350	ug/kg	U	.					350	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539	350	ug/kg	U	.					350	ug/kg	U	.
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540	370	ug/kg	U	.					370	ug/kg	U	.
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541	350	ug/kg	U	.					350	ug/kg	U	.
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542	380	ug/kg	U	.					380	ug/kg	U	.
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543	360	ug/kg	U	.					360	ug/kg	U	.
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544	360	ug/kg	U	.					360	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545	340	ug/kg	U	.					340	ug/kg	U	.
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547	350	ug/kg	U	.					350	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A												
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0	380	ug/kg	U	.					380	ug/kg	U	.
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1	380	ug/kg	U	.					380	ug/kg	U	.

S-10 Ditch, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Dibenzofuran (132-64-9) 8270				Diethylphthalate (84-66-2) 8270				Dimethyl phthalate (131-11-3) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	740	ug/kg	U	.	740	ug/kg	U	.	740	ug/kg	U	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A					360	ug/kg	J	.				
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.

S-10 Ditch, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Di-n-butylphthalate (84-74-2) 8270				Di-n-octylphthalate (117-84-0) 8270				Eicosane (112-95-8) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	350	ug/kg	U	.	350	ug/kg	U	.				
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	2300	ug/kg	.	.	740	ug/kg	U	.				
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0	50	ug/kg	J	.	360	ug/kg	U	.				
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1	350	ug/kg	U	.	350	ug/kg	U	.				
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2	360	ug/kg	U	.	360	ug/kg	U	.				
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3	340	ug/kg	U	.	340	ug/kg	U	.				
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4	340	ug/kg	U	.	340	ug/kg	U	.				
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6	350	ug/kg	U	.	350	ug/kg	U	.				
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7	340	ug/kg	U	.	340	ug/kg	U	.				
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8	18	ug/kg	J	.	350	ug/kg	U	.				
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9	170	ug/kg	J	.	340	ug/kg	U	.				
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8	350	ug/kg	U	.	350	ug/kg	U	.				
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	52	ug/kg	J	.	340	ug/kg	U	.				
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538	350	ug/kg	U	.	350	ug/kg	U	.				
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539	350	ug/kg	U	.	350	ug/kg	U	.				
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540	370	ug/kg	U	.	370	ug/kg	U	.				
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541	44	ug/kg	J	.	350	ug/kg	U	.				
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542	380	ug/kg	U	.	380	ug/kg	U	.				
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543	66	ug/kg	J	.	360	ug/kg	U	.				
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544	360	ug/kg	U	.	360	ug/kg	U	.				
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545	340	ug/kg	U	.	340	ug/kg	U	.				
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547	350	ug/kg	U	.	350	ug/kg	U	.				
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A									170	ug/kg	J	.
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0	380	ug/kg	U	.	380	ug/kg	U	.				
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1	380	ug/kg	U	.	380	ug/kg	U	.				

S-10 Ditch, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Fluoranthene (206-44-0) 8270				Fluorene (86-73-7) 8270				Hexachlorobenzene (118-74-1) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	1500	ug/kg	.	.	59	ug/kg	J	.	740	ug/kg	U	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A												
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.

S-10 Ditch, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Hexachlorobutadiene (87-68-3) 8270				Hexachlorocyclopentadiene (77-47-4) 8270				Hexachloroethane (67-72-1) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	740	ug/kg	U	.	740	ug/kg	U	.	740	ug/kg	U	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A												
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.

S-10 Ditch, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Hexadecanoic acid (9CI) (57-10-3) 8270				Hexadecanoic acid, butyl ester (111-06-8) 8270				Indeno(1,2,3-cd)pyrene (193-39-5) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84									350	ug/kg	U	.
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85									400	ug/kg	J	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0									360	ug/kg	U	.
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1									350	ug/kg	U	.
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2									360	ug/kg	U	.
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3									340	ug/kg	U	.
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4									340	ug/kg	U	.
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6									350	ug/kg	U	.
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7									340	ug/kg	U	.
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8									350	ug/kg	U	.
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9									340	ug/kg	U	.
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8									350	ug/kg	U	.
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2									340	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538									350	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539									350	ug/kg	U	.
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540									370	ug/kg	U	.
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541									350	ug/kg	U	.
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542									380	ug/kg	U	.
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543									360	ug/kg	U	.
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544									360	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545									340	ug/kg	U	.
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547									350	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A					300	ug/kg	J	.				
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0									380	ug/kg	U	.
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1									380	ug/kg	U	.

S-10 Ditch, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Isophorone (78-59-1) 8270			
								Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	350	ug/kg	U	.
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	740	ug/kg	U	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0	360	ug/kg	U	.
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1	350	ug/kg	U	.
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2	360	ug/kg	U	.
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3	340	ug/kg	U	.
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4	340	ug/kg	U	.
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6	350	ug/kg	U	.
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7	340	ug/kg	U	.
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8	350	ug/kg	U	.
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9	340	ug/kg	U	.
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8	350	ug/kg	U	.
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9				
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	340	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538	350	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539	350	ug/kg	U	.
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540	370	ug/kg	U	.
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541	350	ug/kg	U	.
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542	380	ug/kg	U	.
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543	360	ug/kg	U	.
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544	360	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545	340	ug/kg	U	.
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547	350	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A				
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0	380	ug/kg	U	.
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1	380	ug/kg	U	.

S-10 Ditch, SVOA2

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Mesityl oxide (141-79-7) 8270				Naphthalene (91-20-3) 8270				n-Butyl benzenesulfonamide (3622-84-2) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84					350	ug/kg	U	.				
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85					740	ug/kg	U	.				
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0					360	ug/kg	U	.				
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1					350	ug/kg	U	.				
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2					360	ug/kg	U	.				
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3					340	ug/kg	U	.				
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4					340	ug/kg	U	.				
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6					350	ug/kg	U	.				
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7					340	ug/kg	U	.				
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8					350	ug/kg	U	.				
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9					340	ug/kg	U	.				
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8					350	ug/kg	U	.				
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2					340	ug/kg	U	.				
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538					350	ug/kg	U	.				
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539					350	ug/kg	U	.				
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540					370	ug/kg	U	.				
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541					350	ug/kg	U	.				
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542					380	ug/kg	U	.				
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543					360	ug/kg	U	.				
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544					360	ug/kg	U	.				
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545					340	ug/kg	U	.				
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547					350	ug/kg	U	.				
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A												
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0					380	ug/kg	U	.				
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1					380	ug/kg	U	.				

S-10 Ditch, SVOA2

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Nitrobenzene (98-95-3) 8270				n-Nitrosodi-n-dipropylamine (621-64-7) 8270				n-Nitrosodiphenylamine (86-30-6) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	740	ug/kg	U	.	740	ug/kg	U	.	740	ug/kg	U	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A					68	ug/kg	U	.				
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.

S-10 Ditch, SVOA2

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Octadecanoic acid (57-11-4) 8270				Pentachlorophenol (87-86-5) 8270				Phenanthrene (85-01-8) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84					870	ug/kg	U	.	350	ug/kg	U	.
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85					1800	ug/kg	U	.	930	ug/kg	.	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0					910	ug/kg	U	.	360	ug/kg	U	.
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1					870	ug/kg	U	.	350	ug/kg	U	.
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2					910	ug/kg	U	.	360	ug/kg	U	.
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3					860	ug/kg	U	.	340	ug/kg	U	.
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4					860	ug/kg	U	.	340	ug/kg	U	.
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6					880	ug/kg	U	.	350	ug/kg	U	.
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7					860	ug/kg	U	.	340	ug/kg	U	.
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8					870	ug/kg	U	.	350	ug/kg	U	.
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9					860	ug/kg	U	.	340	ug/kg	U	.
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8					870	ug/kg	U	.	350	ug/kg	U	.
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2					860	ug/kg	U	.	340	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538					870	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539					880	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540					920	ug/kg	U	.	370	ug/kg	U	.
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541					860	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542					950	ug/kg	U	.	380	ug/kg	U	.
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543					890	ug/kg	U	.	360	ug/kg	U	.
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544					890	ug/kg	U	.	360	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545					860	ug/kg	U	.	340	ug/kg	U	.
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547					880	ug/kg	U	J	350	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A					310	ug/kg	U	.				
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0					950	ug/kg	U	.	380	ug/kg	U	.
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1					950	ug/kg	U	.	380	ug/kg	U	.

S-10 Ditch, SVOA2

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Phenol (108-95-2) 8270				Pyrene (129-00-0) 8270				Tributyl phosphate (126-73-8) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	740	ug/kg	U	.	1600	ug/kg	.	.	740	ug/kg	U	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0	360	ug/kg	U	.	20	ug/kg	J	.	360	ug/kg	U	.
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9									350	ug/kg	U	.
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A	100	ug/kg	U	.	68	ug/kg	U	.	68	ug/kg	U	.
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1	380	ug/kg	U	.	380	ug/kg	U	.	380	ug/kg	U	.

S-10 Ditch, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	1,1,1-Trichloroethane (71-55-6) 8260				1,1,2,2-Tetrachloroethane (79-34-5) 8260				1,1,2-Trichloroethane (79-00-5) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9	0.3	ug/kg	U	.	0.44	ug/kg	U	.	0.66	ug/kg	U	.
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A	1.7	ug/kg	U	.	1.7	ug/kg	U	.	1.7	ug/kg	U	.
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.

S-10 Ditch, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	1,1-Dichloroethane (75-34-3) 8260				1,1-Dichloroethene (75-35-4) 8260				1,2,4-Trimethylbenzene (95-63-6) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	5	ug/kg	U	.	5	ug/kg	U	.				
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	6	ug/kg	U	.	6	ug/kg	U	.				
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0	6	ug/kg	U	.	6	ug/kg	U	.				
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1	5	ug/kg	U	.	5	ug/kg	U	.				
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2	6	ug/kg	U	.	6	ug/kg	U	.				
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3	5	ug/kg	U	.	5	ug/kg	U	.				
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4	5	ug/kg	U	.	5	ug/kg	U	.				
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6	6	ug/kg	U	.	6	ug/kg	U	.				
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7	5	ug/kg	U	.	5	ug/kg	U	.				
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8	6	ug/kg	U	.	6	ug/kg	U	.				
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9	5	ug/kg	U	.	5	ug/kg	U	.				
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8	6	ug/kg	U	.	6	ug/kg	U	.				
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9	0.28	ug/kg	U	.	0.33	ug/kg	U	.				
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	5	ug/kg	U	.	5	ug/kg	U	.				
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538	5	ug/kg	U	.	5	ug/kg	U	.				
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539	6	ug/kg	U	.	6	ug/kg	U	.				
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540	6	ug/kg	U	.	6	ug/kg	U	.				
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541	6	ug/kg	U	.	6	ug/kg	U	.				
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542	6	ug/kg	U	.	6	ug/kg	U	.				
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543	6	ug/kg	U	.	6	ug/kg	U	.				
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544	6	ug/kg	U	.	6	ug/kg	U	.				
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545	5	ug/kg	U	.	5	ug/kg	U	.				
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547	6	ug/kg	U	.	6	ug/kg	U	.				
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A	1.7	ug/kg	U	.	1.7	ug/kg	U	.				
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0	6	ug/kg	U	.	6	ug/kg	U	.				
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1	6	ug/kg	U	.	6	ug/kg	U	.				

S-10 Ditch, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	1,2-Dichloroethane (107-06-2) 8260				1,2-Dichloroethene (Total) (540-59-0) 8260				1,2-Dichloropropane (78-87-5) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9	0.27	ug/kg	U	.	0.58	ug/kg	U	.	0.23	ug/kg	U	.
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A	1.7	ug/kg	U	.	1.7	ug/kg	U	.	1.7	ug/kg	U	.
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.

S-10 Ditch, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	1,4-Dichlorobenzene (106-46-7) 8260				1,4-Dioxane (123-91-1) 8260				1-Butanol (71-36-3) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84												
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85												
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0												
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1												
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2												
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3												
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4												
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6												
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7												
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8												
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9												
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8												
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9												
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2												
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538												
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539												
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540												
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541												
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542												
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543												
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544												
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545												
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547												
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A												
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0												
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1												

S-10 Ditch, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	1-Propanol (71-23-8) 8015				2-Butanone (78-93-3) 8260				2-Ethyl-1-hexanol (104-76-7) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	23000	ug/kg	U	.	10	ug/kg	U	.				
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	30000	ug/kg	U	.	11	ug/kg	U	.				
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0	25000	ug/kg	U	.	11	ug/kg	U	.				
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1	24000	ug/kg	U	.	9	ug/kg	U	.				
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2	28000	ug/kg	U	.	12	ug/kg	U	.				
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3	26000	ug/kg	U	.	10	ug/kg	U	.				
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4	26000	ug/kg	U	.	10	ug/kg	U	.				
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6	24000	ug/kg	U	.	11	ug/kg	U	.				
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7	28000	ug/kg	U	.	10	ug/kg	U	.				
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8	24000	ug/kg	U	.	11	ug/kg	U	.				
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9	22000	ug/kg	U	.	9	ug/kg	U	.				
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8	26000	ug/kg	U	.	11	ug/kg	U	.				
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9	53000	ug/kg	U	.	1.8	ug/kg	U	.				
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	22000	ug/kg	U	.	10	ug/kg	U	.				
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538	26000	ug/kg	U	.	10	ug/kg	U	.				
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539	26000	ug/kg	U	.	11	ug/kg	U	.				
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540	28000	ug/kg	U	.	11	ug/kg	U	.				
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541	26000	ug/kg	U	.	11	ug/kg	U	.				
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542	28000	ug/kg	U	.	12	ug/kg	U	.				
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543	27000	ug/kg	U	.	11	ug/kg	U	.				
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544	26000	ug/kg	U	.	12	ug/kg	U	.				
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545	22000	ug/kg	U	.	10	ug/kg	U	.				
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547	22000	ug/kg	U	.	11	ug/kg	U	.				
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A	4300	ug/kg	U	.	1.7	ug/kg	U	.				
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0	28000	ug/kg	U	.	12	ug/kg	U	.				
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1	28000	ug/kg	U	.	13	ug/kg	U	.				

S-10 Ditch, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	2-Ethyl-1-hexanol (104-76-7) 8270				2-Hexanone (591-78-6) 8260				2-Pentanone, 4-Methyl (108-10-1) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84					10	ug/kg	U	.	10	ug/kg	U	.
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85					11	ug/kg	U	.	11	ug/kg	U	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0					11	ug/kg	U	.	11	ug/kg	U	.
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1					9	ug/kg	U	.	9	ug/kg	U	.
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2					12	ug/kg	U	.	12	ug/kg	U	.
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3					10	ug/kg	U	.	10	ug/kg	U	.
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4					10	ug/kg	U	.	10	ug/kg	U	.
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6					11	ug/kg	U	.	11	ug/kg	U	.
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7					10	ug/kg	U	.	10	ug/kg	U	.
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8					11	ug/kg	U	.	11	ug/kg	U	.
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9					9	ug/kg	U	.	9	ug/kg	U	.
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8					11	ug/kg	U	.	11	ug/kg	U	.
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9					1.8	ug/kg	U	.	0.74	ug/kg	U	.
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2					10	ug/kg	U	.	10	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538					10	ug/kg	U	.	10	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539					11	ug/kg	U	.	11	ug/kg	U	.
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540					11	ug/kg	U	.	11	ug/kg	U	.
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541					11	ug/kg	U	.	11	ug/kg	U	.
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542					12	ug/kg	U	.	12	ug/kg	U	.
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543					11	ug/kg	U	.	11	ug/kg	U	.
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544					12	ug/kg	U	.	12	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545					10	ug/kg	U	.	10	ug/kg	U	.
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547					11	ug/kg	U	.	11	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A					1.7	ug/kg	U	.	1.7	ug/kg	U	.
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0					12	ug/kg	U	.	12	ug/kg	U	.
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1					13	ug/kg	U	.	13	ug/kg	U	.

S-10 Ditch, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Acetone (67-64-1) 8260				Benzene (71-43-2) 8260				Bromodichloromethane (75-27-4) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	10	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	11	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0	7	ug/kg	J	.	6	ug/kg	U	.	6	ug/kg	U	.
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1	7	ug/kg	J	.	5	ug/kg	U	.	5	ug/kg	U	.
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2	7	ug/kg	J	.	6	ug/kg	U	.	6	ug/kg	U	.
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3	4	ug/kg	J	.	5	ug/kg	U	.	5	ug/kg	U	.
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4	8	ug/kg	J	.	5	ug/kg	U	.	5	ug/kg	U	.
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6	6	ug/kg	J	.	6	ug/kg	U	.	6	ug/kg	U	.
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7	5	ug/kg	J	.	5	ug/kg	U	.	5	ug/kg	U	.
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8	9	ug/kg	J	.	6	ug/kg	U	.	6	ug/kg	U	.
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9	10	ug/kg	.	.	5	ug/kg	U	.	5	ug/kg	U	.
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8	3	ug/kg	J	.	6	ug/kg	U	.	6	ug/kg	U	.
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9	3.2	ug/kg	J	.	0.15	ug/kg	U	.	0.15	ug/kg	U	.
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	10	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538	10	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539	11	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540	11	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541	11	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542	12	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543	3	ug/kg	J	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544	3	ug/kg	J	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545	10	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547	11	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A	1.7	ug/kg	U	.	1.7	ug/kg	U	.	1.7	ug/kg	U	.
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0	2	ug/kg	J	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1	2	ug/kg	J	.	6	ug/kg	U	.	6	ug/kg	U	.

S-10 Ditch, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Bromoform (75-25-2) 8260				Bromomethane (74-83-9) 8260				Carbon disulfide (75-15-0) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	5	ug/kg	U	.	10	ug/kg	U	.	5	ug/kg	U	.
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1	5	ug/kg	U	.	9	ug/kg	U	.	5	ug/kg	U	.
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2	6	ug/kg	U	.	12	ug/kg	U	.	6	ug/kg	U	.
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3	5	ug/kg	U	.	10	ug/kg	U	.	5	ug/kg	U	.
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4	5	ug/kg	U	.	10	ug/kg	U	.	5	ug/kg	U	.
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7	5	ug/kg	U	.	10	ug/kg	U	.	5	ug/kg	U	.
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9	5	ug/kg	U	.	9	ug/kg	U	.	5	ug/kg	U	.
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9	0.26	ug/kg	U	.	1.1	ug/kg	U	.	0.34	ug/kg	U	.
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	5	ug/kg	U	.	10	ug/kg	U	.	5	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538	5	ug/kg	U	.	10	ug/kg	U	.	5	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542	6	ug/kg	U	.	12	ug/kg	U	.	6	ug/kg	U	.
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544	6	ug/kg	U	.	12	ug/kg	U	.	6	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545	5	ug/kg	U	.	10	ug/kg	U	.	5	ug/kg	U	.
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A	1.7	ug/kg	U	.	1.7	ug/kg	U	.	1.7	ug/kg	U	.
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0	6	ug/kg	U	.	12	ug/kg	U	.	6	ug/kg	U	.
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1	6	ug/kg	U	.	13	ug/kg	U	.	6	ug/kg	U	.

S-10 Ditch, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Carbon tetrachloride (56-23-5) 8260				Chlorobenzene (108-90-7) 8260				Chloroethane (75-00-3) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1	5	ug/kg	U	.	5	ug/kg	U	.	9	ug/kg	U	.
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2	6	ug/kg	U	.	6	ug/kg	U	.	12	ug/kg	U	.
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9	5	ug/kg	U	.	5	ug/kg	U	.	9	ug/kg	U	.
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9	0.25	ug/kg	U	.	0.28	ug/kg	U	.	0.57	ug/kg	U	.
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542	6	ug/kg	U	.	6	ug/kg	U	.	12	ug/kg	U	.
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544	6	ug/kg	U	.	6	ug/kg	U	.	12	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A	1.7	ug/kg	U	.	1.7	ug/kg	U	.	1.7	ug/kg	U	.
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0	6	ug/kg	U	.	6	ug/kg	U	.	12	ug/kg	U	.
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1	6	ug/kg	U	.	6	ug/kg	U	.	13	ug/kg	U	.

S-10 Ditch, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Chloroform (67-66-3) 8260				Chloromethane (74-87-3) 8260				cis-1,2-Dichloroethylene (156-59-2) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	5	ug/kg	U	.	10	ug/kg	U	.				
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	6	ug/kg	U	.	11	ug/kg	U	.				
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0	6	ug/kg	U	.	11	ug/kg	U	.				
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1	5	ug/kg	U	.	9	ug/kg	U	.				
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2	6	ug/kg	U	.	12	ug/kg	U	.				
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3	5	ug/kg	U	.	10	ug/kg	U	.				
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4	5	ug/kg	U	.	10	ug/kg	U	.				
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6	6	ug/kg	U	.	11	ug/kg	U	.				
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7	5	ug/kg	U	.	10	ug/kg	U	.				
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8	6	ug/kg	U	.	11	ug/kg	U	.				
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9	5	ug/kg	U	.	9	ug/kg	U	.				
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8	6	ug/kg	U	.	11	ug/kg	U	.				
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9	0.24	ug/kg	U	.	1	ug/kg	U	.				
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	5	ug/kg	U	.	10	ug/kg	U	.				
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538	5	ug/kg	U	.	10	ug/kg	U	.				
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539	6	ug/kg	U	.	11	ug/kg	U	.				
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540	6	ug/kg	U	.	11	ug/kg	U	.				
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541	6	ug/kg	U	.	11	ug/kg	U	.				
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542	6	ug/kg	U	.	12	ug/kg	U	.				
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543	6	ug/kg	U	.	11	ug/kg	U	.				
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544	6	ug/kg	U	.	12	ug/kg	U	.				
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545	5	ug/kg	U	.	10	ug/kg	U	.				
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547	6	ug/kg	U	.	11	ug/kg	U	.				
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A	1.7	ug/kg	U	.	1.7	ug/kg	U	.				
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0	6	ug/kg	U	.	12	ug/kg	U	.				
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1	6	ug/kg	U	.	13	ug/kg	U	.				

S-10 Ditch, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	cis-1,3-Dichloropropene (10061-01-5) 8260				Dibromochloromethane (124-48-1) 8260				Diethyl ether (60-29-7) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	5	ug/kg	U	.	5	ug/kg	U	.				
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	6	ug/kg	U	.	6	ug/kg	U	.				
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0	6	ug/kg	U	.	6	ug/kg	U	.				
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1	5	ug/kg	U	.	5	ug/kg	U	.				
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2	6	ug/kg	U	.	6	ug/kg	U	.				
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3	5	ug/kg	U	.	5	ug/kg	U	.				
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4	5	ug/kg	U	.	5	ug/kg	U	.				
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6	6	ug/kg	U	.	6	ug/kg	U	.				
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7	5	ug/kg	U	.	5	ug/kg	U	.				
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8	6	ug/kg	U	.	6	ug/kg	U	.				
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9	5	ug/kg	U	.	5	ug/kg	U	.				
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8	6	ug/kg	U	.	6	ug/kg	U	.				
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9	0.46	ug/kg	U	.	0.36	ug/kg	U	.				
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	5	ug/kg	U	.	5	ug/kg	U	.				
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538	5	ug/kg	U	.	5	ug/kg	U	.				
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539	6	ug/kg	U	.	6	ug/kg	U	.				
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540	6	ug/kg	U	.	6	ug/kg	U	.				
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541	6	ug/kg	U	.	6	ug/kg	U	.				
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542	6	ug/kg	U	.	6	ug/kg	U	.				
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543	6	ug/kg	U	.	6	ug/kg	U	.				
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544	6	ug/kg	U	.	6	ug/kg	U	.				
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545	5	ug/kg	U	.	5	ug/kg	U	.				
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547	6	ug/kg	U	.	6	ug/kg	U	.				
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A	1.7	ug/kg	U	.	1.7	ug/kg	U	.				
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0	6	ug/kg	U	.	6	ug/kg	U	.				
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1	6	ug/kg	U	.	6	ug/kg	U	.				

S-10 Ditch, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Ethanol (64-17-5) 8015				Ethyl cyanide (107-12-0) 8260				Ethylbenzene (100-41-4) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	23000	ug/kg	U	.					5	ug/kg	U	.
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	30000	ug/kg	U	.					6	ug/kg	U	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0	25000	ug/kg	U	.					6	ug/kg	U	.
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1	24000	ug/kg	U	.					5	ug/kg	U	.
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2	28000	ug/kg	U	.					6	ug/kg	U	.
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3	26000	ug/kg	U	.					5	ug/kg	U	.
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4	26000	ug/kg	U	.					5	ug/kg	U	.
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6	24000	ug/kg	U	.					6	ug/kg	U	.
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7	28000	ug/kg	U	.					5	ug/kg	U	.
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8	24000	ug/kg	U	.					6	ug/kg	U	.
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9	22000	ug/kg	U	.					5	ug/kg	U	.
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8	26000	ug/kg	U	.					6	ug/kg	U	.
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9	6200	ug/kg	U	.					0.78	ug/kg	U	.
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	22000	ug/kg	U	.					5	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538	26000	ug/kg	U	.					5	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539	26000	ug/kg	U	.					6	ug/kg	U	.
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540	28000	ug/kg	U	.					6	ug/kg	U	.
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541	26000	ug/kg	U	.					6	ug/kg	U	.
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542	28000	ug/kg	U	.					6	ug/kg	U	.
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543	27000	ug/kg	U	.					6	ug/kg	U	.
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544	26000	ug/kg	U	.					6	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545	22000	ug/kg	U	.					5	ug/kg	U	.
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547	22000	ug/kg	U	.					6	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A	4300	ug/kg	U	.					1.7	ug/kg	U	.
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0	28000	ug/kg	U	.					6	ug/kg	U	.
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1	28000	ug/kg	U	.					6	ug/kg	U	.

S-10 Ditch, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Methylene chloride (75-09-2) 8260				Styrene (100-42-5) 8260				Tetrachloroethene (127-18-4) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	9	ug/kg	.	.	5	ug/kg	U	.	5	ug/kg	U	.
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	5	ug/kg	J	.	6	ug/kg	U	.	6	ug/kg	U	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0	10	ug/kg	.	.	6	ug/kg	U	.	6	ug/kg	U	.
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1	8	ug/kg	.	.	5	ug/kg	U	.	5	ug/kg	U	.
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2	6	ug/kg	.	.	6	ug/kg	U	.	6	ug/kg	U	.
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3	6	ug/kg	.	.	5	ug/kg	U	.	5	ug/kg	U	.
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4	7	ug/kg	.	.	5	ug/kg	U	.	5	ug/kg	U	.
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6	9	ug/kg	.	.	6	ug/kg	U	.	6	ug/kg	U	.
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7	6	ug/kg	.	.	5	ug/kg	U	.	5	ug/kg	U	.
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8	6	ug/kg	.	.	6	ug/kg	U	.	6	ug/kg	U	.
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9	6	ug/kg	.	.	5	ug/kg	U	.	5	ug/kg	U	.
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8	10	ug/kg	.	.	6	ug/kg	U	.	6	ug/kg	U	.
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9	2	ug/kg	JB	.	0.38	ug/kg	U	.	1.1	ug/kg	U	.
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	5	ug/kg	J	.	5	ug/kg	U	.	5	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538	12.812	ug/kg	.	.	5	ug/kg	U	.	5	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539	17.72	ug/kg	.	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541	10	ug/kg	.	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542	14	ug/kg	.	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543	13	ug/kg	.	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544	17	ug/kg	B	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545	7.797	ug/kg	.	.	5	ug/kg	U	.	5	ug/kg	U	.
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A	1.7	ug/kg	U	.	1.7	ug/kg	U	.	1.7	ug/kg	U	.
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0	18	ug/kg	.	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1	18	ug/kg	.	.	6	ug/kg	U	.	6	ug/kg	U	.

S-10 Ditch, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Tetrahydrofuran (109-99-9) 8260				Toluene (108-88-3) 8260				trans-1,2-Dichloroethylene (156-60-5) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84					5	ug/kg	U	.				
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85					6	ug/kg	U	.				
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0					6	ug/kg	U	.				
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1					5	ug/kg	U	.				
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2					6	ug/kg	U	.				
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3					5	ug/kg	U	.				
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4					5	ug/kg	U	.				
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6					6	ug/kg	U	.				
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7					5	ug/kg	U	.				
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8					6	ug/kg	U	.				
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9					5	ug/kg	U	.				
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8					6	ug/kg	U	.				
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9					0.25	ug/kg	U	.				
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2					5	ug/kg	U	.				
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538					5	ug/kg	U	.				
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539					6	ug/kg	U	.				
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540					6	ug/kg	U	.				
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541					6	ug/kg	U	.				
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542					6	ug/kg	U	.				
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543					6	ug/kg	U	.				
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544					6	ug/kg	U	.				
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545					5	ug/kg	U	.				
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547					6	ug/kg	U	.				
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A					1.7	ug/kg	U	.				
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0					6	ug/kg	U	.				
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1					6	ug/kg	U	.				

S-10 Ditch, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	trans-1,3-Dichloropropene (10061-02-6) 8260				Trichloroethene (79-01-6) 8260				Vinyl chloride (75-01-4) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1	5	ug/kg	U	.	5	ug/kg	U	.	9	ug/kg	U	.
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2	6	ug/kg	U	.	6	ug/kg	U	.	12	ug/kg	U	.
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9	5	ug/kg	U	.	5	ug/kg	U	.	9	ug/kg	U	.
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9	0.84	ug/kg	U	.	0.23	ug/kg	U	.	0.84	ug/kg	U	.
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542	6	ug/kg	U	.	6	ug/kg	U	.	12	ug/kg	U	.
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544	6	ug/kg	U	.	6	ug/kg	U	.	12	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A	1.7	ug/kg	U	.	1.7	ug/kg	U	.	1.7	ug/kg	U	.
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0	6	ug/kg	U	.	6	ug/kg	U	.	12	ug/kg	U	.
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1	6	ug/kg	U	.	6	ug/kg	U	.	13	ug/kg	U	.

S-10 Ditch, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Xylenes (total) (1330-20-7) 8260			
								Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	5	ug/kg	U	.
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	6	ug/kg	U	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0	6	ug/kg	U	.
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1	5	ug/kg	U	.
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2	6	ug/kg	U	.
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3	5	ug/kg	U	.
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4	5	ug/kg	U	.
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6	6	ug/kg	U	.
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7	5	ug/kg	U	.
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8	6	ug/kg	U	.
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9	5	ug/kg	U	.
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8	6	ug/kg	U	.
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9	1	ug/kg	U	.
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	5	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538	5	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539	6	ug/kg	U	.
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540	6	ug/kg	U	.
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541	6	ug/kg	U	.
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542	6	ug/kg	U	.
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543	6	ug/kg	U	.
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544	6	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545	5	ug/kg	U	.
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547	6	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A	1.7	ug/kg	U	.
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0	6	ug/kg	U	.
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1	6	ug/kg	U	.

S-10 Ditch, WETCHEM

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Ammonia (7664-41-7) 350.1				Ammonia (7664-41-7) 350.3				Ammonium ion (14798-03-9) 300.7_CATIONS_IC			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84					3150	ug/kg	U	.				
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85					3340	ug/kg	U	.				
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0					3250	ug/kg	U	.				
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1					2980	ug/kg	U	.				
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2					3280	ug/kg	U	.				
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3					2970	ug/kg	U	.				
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4					3100	ug/kg	U	.				
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6					3120	ug/kg	U	.				
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7					2990	ug/kg	U	.				
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8					3120	ug/kg	U	.				
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9					3020	ug/kg	U	.				
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8					3020	ug/kg	U	.				
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9	158	ug/kg	U	.								
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2					2880	ug/kg	U	.				
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538					3450	ug/kg	.	.				
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539					3190	ug/kg	U	.				
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540					3300	ug/kg	U	.				
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541					5350	ug/kg	U	.				
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542					5590	ug/kg	U	.				
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543					5350	ug/kg	U	.				
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544					6320	ug/kg	U	.				
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545					3110	ug/kg	U	.				
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547					6200	ug/kg	U	.				
299-W26-14	24.9936	26.9944	B16HB6		3/7/03 8:45	STLSL	B16HB6												
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A									100	ug/kg	BE	.
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0					5470	ug/kg	U	.				
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1					5710	ug/kg	U	.				

S-10 Ditch, WETCHEM

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Bromide (24959-67-9) 300				Chloride (16887-00-6) 300				Cyanide (57-12-5) 335.2			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84					1550	ug/kg	.	.	298	ug/kg	U	.
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85					11200	ug/kg	.	.	374	ug/kg	U	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0					4870	ug/kg	.	.	372	ug/kg	U	.
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1					7760	ug/kg	.	.	261	ug/kg	U	.
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2					11500	ug/kg	.	.	366	ug/kg	U	.
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3					1710	ug/kg	.	.	280	ug/kg	U	.
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4					1290	ug/kg	U	.	278	ug/kg	U	.
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6					1320	ug/kg	U	.	447	ug/kg	U	.
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7					1720	ug/kg	.	.	268	ug/kg	U	.
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8					1300	ug/kg	U	.	373	ug/kg	U	.
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9					1280	ug/kg	U	.	337	ug/kg	U	.
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8					1320	ug/kg	.	.	361	ug/kg	U	.
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9					1100	ug/kg	B	.				
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2					5820	ug/kg	.	.	377	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538					30000	ug/kg	.	.				
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539					31900	ug/kg	.	.				
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540					14400	ug/kg	.	.				
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541					2000	ug/kg	.	.				
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542					3100	ug/kg	.	.				
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543					2100	ug/kg	.	.				
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544					4000	ug/kg	.	.				
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545					6790	ug/kg	.	.				
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547					1500	ug/kg	.	.				
299-W26-14	24.9936	26.9944	B16HB6		3/7/03 8:45	STLSL	B16HB6												
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A	450	ug/kg	U	.	4590	ug/kg	.	.	200	ug/kg	U	.
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0					1900	ug/kg	.	.				
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1					2600	ug/kg	.	.				

S-10 Ditch, WETCHEM

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Cyanide (57-12-5) 9010				Fluoride (16984-48-8) 300				Hydrazine (302-01-2) D1385			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84					1300	ug/kg	U	.				
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85					1390	ug/kg	U	.				
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0					1360	ug/kg	U	.				
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1					1300	ug/kg	U	.				
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2					1360	ug/kg	U	.				
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3					1290	ug/kg	U	.				
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4					1290	ug/kg	U	.				
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6					1320	ug/kg	U	.				
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7					1280	ug/kg	U	.				
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8					1300	ug/kg	U	.				
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9					1280	ug/kg	U	.				
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8					1310	ug/kg	U	.				
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9	130	ug/kg	U	.	700	ug/kg	B	.				
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2					1280	ug/kg	U	.				
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538	356	ug/kg	U	.	1310	ug/kg	U	.				
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539	290	ug/kg	U	.	1320	ug/kg	U	.				
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540	440	ug/kg	U	.	1380	ug/kg	U	.				
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541	480	ug/kg	U	.	1300	ug/kg	U	.				
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542	530	ug/kg	U	.	1400	ug/kg	U	.				
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543	450	ug/kg	U	.	1300	ug/kg	U	.				
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544	470	ug/kg	U	.	1300	ug/kg	U	.				
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545	299	ug/kg	U	.	1290	ug/kg	U	.				
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547	520	ug/kg	U	.	1300	ug/kg	U	.				
299-W26-14	24.9936	26.9944	B16HB6		3/7/03 8:45	STLSL	B16HB6												
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A					718	ug/kg	B	.				
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0	440	ug/kg	U	.	1400	ug/kg	U	.				
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1	340	ug/kg	U	.	1400	ug/kg	U	.				

S-10 Ditch, WETCHEM

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Nitrate (14797-55-8) 300				Nitrite (14797-65-0) 300				Nitrogen in Nitrite and Nitrate (NO2+NO3-N) 353.1			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	16000	ug/kg	.	.	1300	ug/kg	U	.				
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	80600	ug/kg	.	.	1390	ug/kg	U	.				
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0	18100	ug/kg	.	.	1360	ug/kg	U	.				
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1	1300	ug/kg	U	.	1300	ug/kg	U	.				
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2	1360	ug/kg	U	.	1360	ug/kg	U	.				
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3	1290	ug/kg	U	.	1290	ug/kg	U	.				
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4	1290	ug/kg	U	.	1290	ug/kg	U	.				
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6	2550	ug/kg	.	.	1320	ug/kg	U	.				
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7	5780	ug/kg	.	.	1280	ug/kg	U	.				
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8	6600	ug/kg	.	.	1300	ug/kg	U	.				
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9	1380	ug/kg	.	.	1280	ug/kg	U	.				
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8	2140	ug/kg	.	.	1310	ug/kg	U	.				
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9	2520	ug/kg	.	.	1150	ug/kg	.	.	38	ug/kg	U	.
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	3280	ug/kg	.	.	1280	ug/kg	U	.				
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538	1520	ug/kg	.	.	1310	ug/kg	U	.				
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539	1580	ug/kg	.	.	1320	ug/kg	U	.				
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540	1380	ug/kg	U	.	1380	ug/kg	U	.				
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541	1300	ug/kg	U	.	1300	ug/kg	U	.				
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542	1420	ug/kg	U	.	1420	ug/kg	U	.				
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543	1340	ug/kg	U	.	1340	ug/kg	U	.				
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544	1330	ug/kg	U	.	1330	ug/kg	U	.				
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545	1290	ug/kg	U	.	1290	ug/kg	U	.				
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547	8110	ug/kg	.	.	1310	ug/kg	U	.				
299-W26-14	24.9936	26.9944	B16HB6		3/7/03 8:45	STLSL	B16HB6									1400	ug/kg	.	.
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A	221	ug/kg	U	.	296	ug/kg	U	.				
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0	1430	ug/kg	U	.	1430	ug/kg	U	.				
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1	1420	ug/kg	U	.	1420	ug/kg	U	.				

S-10 Ditch, WETCHEM

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Nitrogen in Nitrite and Nitrate (NO2+NO3-N) 353.2				Phosphate (14265-44-2) 300				Sulfate (14808-79-8) 300			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	3770	ug/kg	.	.	1300	ug/kg	U	.	36800	ug/kg	.	.
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	10600	ug/kg	.	.	1390	ug/kg	U	.	199000	ug/kg	.	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0	4330	ug/kg	.	.	1360	ug/kg	U	.	80100	ug/kg	.	.
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1	169	ug/kg	U	.	1300	ug/kg	U	.	10800	ug/kg	.	.
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2	217	ug/kg	U	.	1360	ug/kg	U	.	17100	ug/kg	.	.
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3	182	ug/kg	U	.	1290	ug/kg	U	.	2890	ug/kg	.	.
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4	142	ug/kg	U	.	1290	ug/kg	U	.	1290	ug/kg	U	.
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6	484	ug/kg	.	.	1320	ug/kg	U	.	2210	ug/kg	.	.
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7	1360	ug/kg	.	.	1280	ug/kg	U	.	1840	ug/kg	.	.
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8	1150	ug/kg	.	.	1300	ug/kg	U	.	2420	ug/kg	.	.
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9	359	ug/kg	.	.	1280	ug/kg	U	.	1280	ug/kg	U	.
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8	486	ug/kg	.	.	1310	ug/kg	U	.	1310	ug/kg	U	.
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9					830	ug/kg	U	.	3200	ug/kg	B	.
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	808	ug/kg	.	.	1500	ug/kg	.	.	3890	ug/kg	.	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538	550	ug/kg	.	.	1310	ug/kg	U	.	35000	ug/kg	.	.
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539	494	ug/kg	.	.	1320	ug/kg	U	.	36200	ug/kg	.	.
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540	409	ug/kg	.	.	1380	ug/kg	U	.	21400	ug/kg	.	.
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541	180	ug/kg	U	.	1300	ug/kg	U	.	3000	ug/kg	.	.
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542	240	ug/kg	U	.	1400	ug/kg	U	.	3900	ug/kg	.	.
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543	170	ug/kg	U	.	2400	ug/kg	.	.	3900	ug/kg	.	.
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544	210	ug/kg	U	.	1300	ug/kg	U	.	2500	ug/kg	.	.
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545	159	ug/kg	.	.	1290	ug/kg	U	.	10200	ug/kg	.	.
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547	1900	ug/kg	.	.	1300	ug/kg	U	.	30100	ug/kg	.	.
299-W26-14	24.9936	26.9944	B16HB6		3/7/03 8:45	STLSL	B16HB6												
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A					399	ug/kg	U	.	12200	ug/kg	.	.
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0	230	ug/kg	U	.	1400	ug/kg	U	.	4200	ug/kg	.	.
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1	220	ug/kg	U	.	1400	ug/kg	U	.	2900	ug/kg	.	.

S-10 Ditch, WETCHEM

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Sulfide (18496-25-8) 9030			
								Conc	Units	Q	VQ
14116	5.99912	6.99952	B15Y84		11/21/02 8:36	RLNP	B15Y84	39100	ug/kg	U	.
14119	0	1.499616	B15Y85		11/20/02 13:25	RLNP	B15Y85	44200	ug/kg	U	.
14119	1.499616	2.999232	B15YB0		11/20/02 13:49	RLNP	B15YB0	42400	ug/kg	U	.
14117	5.49728	6.49768	B15YB1		11/21/02 11:30	RLNP	B15YB1	39100	ug/kg	U	.
14117	7.99664	8.99704	B15YB2		11/21/02 11:40	RLNP	B15YB2	43100	ug/kg	U	.
14117	10.496	11.4964	B15YB3		11/21/02 11:50	RLNP	B15YB3	41100	ug/kg	U	.
14117	12.99536	13.99576	B15YB4		11/21/02 12:00	RLNP	B15YB4	40000	ug/kg	U	.
14116	8.49848	9.49888	B15YB6		11/21/02 8:50	RLNP	B15YB6	41500	ug/kg	U	.
14116	10.99784	11.99824	B15YB7		11/21/02 9:16	RLNP	B15YB7	40900	ug/kg	U	.
14116	13.4972	14.4976	B15YB8		11/21/02 9:26	RLNP	B15YB8	38800	ug/kg	U	.
14116	15.99656	16.99696	B15YB9		11/21/02 9:35	RLNP	B15YB9	40100	ug/kg	U	.
14116	8.49848	9.49888	B15YF8	R	11/21/02 9:35	RLNP	B15YF8	41800	ug/kg	U	.
14116	8.49848	9.49888	B15YF9	S	11/21/02 8:50	STLSL	B15YF9	7400	ug/kg	U	.
14117	2.999232	3.99832	B160N2		11/21/02 11:20	RLNP	B160N2	40700	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16538		3/7/03 8:15	RLNP	B16538	31100	ug/kg	U	.
299-W26-14	19.99488	21.99568	B16539		3/7/03 8:45	RLNP	B16539	69200	ug/kg	.	.
299-W26-14	49.9872	51.988	B16540		3/7/03 14:50	RLNP	B16540	43900	ug/kg	U	.
299-W26-14	99.9744	101.9752	B16541		3/11/03 10:45	RLNP	B16541	28100	ug/kg	U	.
299-W26-14	134.972	136.9728	B16542		3/12/03 12:00	RLNP	B16542	41800	ug/kg	.	.
299-W26-14	199.9488	201.9496	B16543		3/17/03 14:16	RLNP	B16543	25700	ug/kg	U	.
299-W26-14	219.9568	221.9576	B16544		3/18/03 9:55	RLNP	B16544	24500	ug/kg	U	.
299-W26-14	24.9936	26.9944	B16545		3/7/03 8:45	RLNP	B16545	97400	ug/kg	.	.
299-W26-14	6.49768	8.99704	B16547	R	4/7/03 13:40	RLNP	B16547	52100	ug/kg	U	J
299-W26-14	24.9936	26.9944	B16HB6		3/7/03 8:45	STLSL	B16HB6	12400	ug/kg	.	.
299-W26-14	24.9936	26.9944	B16HB6-A		3/7/03 8:45	WSCF	B16HB6-A				
299-W26-14	149.9616	151.9624	B16KB0		3/14/03 11:20	RLNP	B16KB0	23500	ug/kg	U	.
299-W26-14	184.9592	186.96	B16KB1		3/17/03 10:30	RLNP	B16KB1	23200	ug/kg	U	.

S-10 Pond, GENORG

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Aroclor-1016 (12674-11-2) 8080_PESTPCB_GC				Aroclor-1016 (12674-11-2) 8082				Aroclor-1221 (11104-28-2) 8080_PESTPCB_GC			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099					49	ug/kg	U	.				
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0					36	ug/kg	U	.				
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1					34	ug/kg	U	.				
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2					34	ug/kg	U	.				
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3					37	ug/kg	U	.				
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5					39	ug/kg	U	.				
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6					35	ug/kg	U	.				
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7					34	ug/kg	U	.				
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5					35	ug/kg	U	.				
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6					34	ug/kg	U	.				
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7					35	ug/kg	U	.				
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8					35	ug/kg	U	.				
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9					34	ug/kg	U	.				
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0					35	ug/kg	U	.				
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7					36	ug/kg	U	.				
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8					35	ug/kg	U	.				
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9					34	ug/kg	U	.				
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0					35	ug/kg	U	.				
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1					35	ug/kg	U	.				
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2					35	ug/kg	U	.				
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3					35	ug/kg	U	.				
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4					13	ug/kg	U	.				
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7					35	ug/kg	U	.				
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8					35	ug/kg	U	.				
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1					35	ug/kg	U	.				
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2					34	ug/kg	U	.				
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3					34	ug/kg	U	.				
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4					36	ug/kg	U	.				
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5					35	ug/kg	U	.				
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6					35	ug/kg	U	.				
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3					36	ug/kg	U	.				
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4					34	ug/kg	U	.				
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5					34	ug/kg	U	.				
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6					34	ug/kg	U	.				
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7					35	ug/kg	U	.				
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8					36	ug/kg	U	.				
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9					35	ug/kg	U	.				
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0					35	ug/kg	U	.				

S-10 Pond, GENORG

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Aroclor-1221 (11104-28-2) 8082				Aroclor-1232 (11141-16-5) 8080_PESTPCB_GC				Aroclor-1232 (11141-16-5) 8082			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099	99	ug/kg	U	.					49	ug/kg	U	.
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0	72	ug/kg	U	.					36	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1	68	ug/kg	U	.					34	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2	69	ug/kg	U	.					34	ug/kg	U	.
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3	74	ug/kg	U	.					37	ug/kg	U	.
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5	78	ug/kg	U	.					39	ug/kg	U	.
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6	71	ug/kg	U	.					35	ug/kg	U	.
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7	68	ug/kg	U	.					34	ug/kg	U	.
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5	69	ug/kg	U	.					35	ug/kg	U	.
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6	68	ug/kg	U	.					34	ug/kg	U	.
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7	69	ug/kg	U	.					35	ug/kg	U	.
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8	70	ug/kg	U	.					35	ug/kg	U	.
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9	69	ug/kg	U	.					34	ug/kg	U	.
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0	71	ug/kg	U	.					35	ug/kg	U	.
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7	71	ug/kg	U	.					36	ug/kg	U	.
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8	69	ug/kg	U	.					35	ug/kg	U	.
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9	69	ug/kg	U	.					34	ug/kg	U	.
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0	70	ug/kg	U	.					35	ug/kg	U	.
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1	70	ug/kg	U	.					35	ug/kg	U	.
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2	70	ug/kg	U	.					35	ug/kg	U	.
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3	69	ug/kg	U	.					35	ug/kg	U	.
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4	13	ug/kg	U	.					13	ug/kg	U	.
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7	70	ug/kg	U	.					35	ug/kg	U	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8	70	ug/kg	U	.					35	ug/kg	U	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1	70	ug/kg	U	.					35	ug/kg	U	.
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2	68	ug/kg	U	.					34	ug/kg	U	.
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3	68	ug/kg	U	.					34	ug/kg	U	.
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4	72	ug/kg	U	.					36	ug/kg	U	.
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5	70	ug/kg	U	.					35	ug/kg	U	.
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6	69	ug/kg	U	.					35	ug/kg	U	.
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3	71	ug/kg	U	.					36	ug/kg	U	.
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4	69	ug/kg	U	.					34	ug/kg	U	.
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5	68	ug/kg	U	.					34	ug/kg	U	.
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6	68	ug/kg	U	.					34	ug/kg	U	.
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7	70	ug/kg	U	.					35	ug/kg	U	.
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8	72	ug/kg	U	.					36	ug/kg	U	.
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9	70	ug/kg	U	.					35	ug/kg	U	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0	71	ug/kg	U	.					35	ug/kg	U	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Aroclor-1242 (53469-21-9) 8080_PESTPCB_GC				Aroclor-1242 (53469-21-9) 8082				Aroclor-1248 (12672-29-6) 8080_PESTPCB_GC			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099					49	ug/kg	U	.				
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0					36	ug/kg	U	.				
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1					34	ug/kg	U	.				
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2					34	ug/kg	U	.				
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3					37	ug/kg	U	.				
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5					39	ug/kg	U	.				
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6					35	ug/kg	U	.				
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7					34	ug/kg	U	.				
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5					35	ug/kg	U	.				
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6					34	ug/kg	U	.				
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7					35	ug/kg	U	.				
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8					35	ug/kg	U	.				
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9					34	ug/kg	U	.				
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0					35	ug/kg	U	.				
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7					36	ug/kg	U	.				
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8					35	ug/kg	U	.				
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9					34	ug/kg	U	.				
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0					35	ug/kg	U	.				
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1					35	ug/kg	U	.				
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2					35	ug/kg	U	.				
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3					35	ug/kg	U	.				
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4					13	ug/kg	U	.				
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7					35	ug/kg	U	.				
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8					35	ug/kg	U	.				
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1					35	ug/kg	U	.				
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2					34	ug/kg	U	.				
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3					34	ug/kg	U	.				
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4					36	ug/kg	U	.				
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5					35	ug/kg	U	.				
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6					35	ug/kg	U	.				
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3					36	ug/kg	U	.				
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4					34	ug/kg	U	.				
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5					34	ug/kg	U	.				
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6					34	ug/kg	U	.				
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7					35	ug/kg	U	.				
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8					36	ug/kg	U	.				
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9					35	ug/kg	U	.				
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0					35	ug/kg	U	.				

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Aroclor-1248 (12672-29-6) 8082				Aroclor-1254 (11097-69-1) 8080_PESTPCB_GC				Aroclor-1254 (11097-69-1) 8082			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099	49	ug/kg	U	.					49	ug/kg	U	.
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0	36	ug/kg	U	.					36	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1	34	ug/kg	U	.					34	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2	34	ug/kg	U	.					34	ug/kg	U	.
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3	37	ug/kg	U	.					37	ug/kg	U	.
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5	39	ug/kg	U	.					39	ug/kg	U	.
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6	35	ug/kg	U	.					35	ug/kg	U	.
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7	34	ug/kg	U	.					34	ug/kg	U	.
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5	35	ug/kg	U	.					35	ug/kg	U	.
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6	34	ug/kg	U	.					34	ug/kg	U	.
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7	35	ug/kg	U	.					35	ug/kg	U	.
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8	35	ug/kg	U	.					35	ug/kg	U	.
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9	34	ug/kg	U	.					34	ug/kg	U	.
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0	35	ug/kg	U	.					35	ug/kg	U	.
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7	36	ug/kg	U	.					36	ug/kg	U	.
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8	35	ug/kg	U	.					35	ug/kg	U	.
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9	34	ug/kg	U	.					34	ug/kg	U	.
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0	35	ug/kg	U	.					35	ug/kg	U	.
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1	35	ug/kg	U	.					35	ug/kg	U	.
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2	35	ug/kg	U	.					35	ug/kg	U	.
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3	35	ug/kg	U	.					35	ug/kg	U	.
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4	13	ug/kg	U	.					7.5	ug/kg	U	.
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7	35	ug/kg	U	.					35	ug/kg	U	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8	35	ug/kg	U	.					35	ug/kg	U	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1	35	ug/kg	U	.					35	ug/kg	U	.
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2	34	ug/kg	U	.					34	ug/kg	U	.
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3	34	ug/kg	U	.					34	ug/kg	U	.
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4	36	ug/kg	U	.					36	ug/kg	U	.
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5	35	ug/kg	U	.					35	ug/kg	U	.
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6	35	ug/kg	U	.					35	ug/kg	U	.
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3	36	ug/kg	U	.					36	ug/kg	U	.
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4	34	ug/kg	U	.					34	ug/kg	U	.
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5	34	ug/kg	U	.					34	ug/kg	U	.
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6	34	ug/kg	U	.					34	ug/kg	U	.
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7	35	ug/kg	U	.					35	ug/kg	U	.
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8	36	ug/kg	U	.					36	ug/kg	U	.
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9	35	ug/kg	U	.					35	ug/kg	U	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0	35	ug/kg	U	.					35	ug/kg	U	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Aroclor-1260 (11096-82-5) 8080_PESTPCB_GC				Aroclor-1260 (11096-82-5) 8082				Aroclor-1262 (37324-23-5) 8082			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099					49	ug/kg	U	.				
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0					36	ug/kg	U	.				
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1					34	ug/kg	U	.				
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2					34	ug/kg	U	.				
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3					37	ug/kg	U	.				
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5					39	ug/kg	U	.				
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6					35	ug/kg	U	.				
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7					34	ug/kg	U	.				
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5					35	ug/kg	U	.				
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6					34	ug/kg	U	.				
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7					35	ug/kg	U	.				
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8					35	ug/kg	U	.				
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9					34	ug/kg	U	.				
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0					35	ug/kg	U	.				
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7					36	ug/kg	U	.				
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8					35	ug/kg	U	.				
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9					34	ug/kg	U	.				
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0					35	ug/kg	U	.				
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1					35	ug/kg	U	.				
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2					35	ug/kg	U	.				
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3					35	ug/kg	U	.				
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4					7.5	ug/kg	U	.				
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7					35	ug/kg	U	.				
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8					35	ug/kg	U	.				
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1					35	ug/kg	U	.				
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2					34	ug/kg	U	.				
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3					34	ug/kg	U	.				
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4					36	ug/kg	U	.				
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5					35	ug/kg	U	.				
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6					35	ug/kg	U	.				
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3					36	ug/kg	U	.				
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4					34	ug/kg	U	.				
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5					34	ug/kg	U	.				
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6					34	ug/kg	U	.				
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7					35	ug/kg	U	.				
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8					36	ug/kg	U	.				
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9					35	ug/kg	U	.				
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0					35	ug/kg	U	.				

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Aroclor-1268 (11100-14-4) 8082				Total organic carbon (TOC) 9060				Total petroleum hydrocarbons - diesel range (TPHDIESEL) WDOE TPH			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099									4500	ug/kg	U	.
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0									4300	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1									4100	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2									4100	ug/kg	U	.
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3									4400	ug/kg	U	.
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5									4700	ug/kg	U	.
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6									4200	ug/kg	U	.
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7									4100	ug/kg	U	.
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5									12500	ug/kg	U	.
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6									12300	ug/kg	U	.
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7									12400	ug/kg	U	.
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8									12500	ug/kg	U	.
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9									12400	ug/kg	U	.
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0									12700	ug/kg	U	.
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7									12900	ug/kg	U	.
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8									12500	ug/kg	U	.
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9									12400	ug/kg	U	.
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0									12600	ug/kg	U	.
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1									12600	ug/kg	U	.
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2									12600	ug/kg	U	.
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3									12500	ug/kg	U	.
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4									1400	ug/kg	U	.
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7									12500	ug/kg	U	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8									12700	ug/kg	U	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1									12600	ug/kg	U	.
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2									12300	ug/kg	U	.
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3									12300	ug/kg	U	.
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4									12900	ug/kg	U	.
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5									12600	ug/kg	U	.
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6									12500	ug/kg	U	.
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3									12900	ug/kg	U	.
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4									12400	ug/kg	U	.
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5									12300	ug/kg	U	.
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6									12300	ug/kg	U	.
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7									12600	ug/kg	U	.
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8									13000	ug/kg	U	.
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9									12700	ug/kg	U	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0									12800	ug/kg	U	.

S-10 Pond, GENORG

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Total petroleum hydrocarbons - kerosene range (TPHKEROSENE)				Total petroleum hydrocarbons - motor oil (high boi (TPH/OILH)			
								WDOE TPH				WDOE TPH			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099								
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0								
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1								
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2								
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3								
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5								
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6								
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7								
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5	12500	ug/kg	U	.				
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6	12300	ug/kg	U	.				
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7	12400	ug/kg	U	.				
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8	12500	ug/kg	U	.				
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9	12400	ug/kg	U	.				
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0	12700	ug/kg	U	.				
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7								
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8								
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9								
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0								
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1								
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2								
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3	12500	ug/kg	U	.				
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4	26000	ug/kg	U	.				
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7								
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8	12700	ug/kg	U	.				
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1	12600	ug/kg	U	.				
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2	12300	ug/kg	U	.				
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3	12300	ug/kg	U	.				
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4	12900	ug/kg	U	.				
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5	12600	ug/kg	U	.				
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6	12500	ug/kg	U	.				
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3	12900	ug/kg	U	.				
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4	12400	ug/kg	U	.				
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5	12300	ug/kg	U	.				
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6	12300	ug/kg	U	.				
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7	12600	ug/kg	U	.				
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8	13000	ug/kg	U	.				
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9	12700	ug/kg	U	.				
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0	12800	ug/kg	U	.				

S-10 Pond, METAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Aluminum (7429-90-5) 6010				Antimony (7440-36-0) 6010				Arsenic (7440-38-2) 6010				Barium (7440-39-3) 6010				Beryllium (7440-41-7) 6010				Bismuth (7440-69-9) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099									3000	ug/kg	.	.	97400	ug/kg	.	.	340	ug/kg	B	.				
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	TMANC	B0X099																								
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0									3100	ug/kg	.	.	87000	ug/kg	.	.	280	ug/kg	B	.				
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	TMANC	B0X0B0																								
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1									2400	ug/kg	.	.	67200	ug/kg	.	.	200	ug/kg	B	.				
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	TMANC	B0X0B1																								
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2									2600	ug/kg	.	.	52400	ug/kg	.	.	200	ug/kg	B	.				
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	TMANC	B0X0B2																								
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3									5300	ug/kg	.	.	85100	ug/kg	.	.	350	ug/kg	B	.				
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	TMANC	B0X0B3																								
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	RLNP	B0X0B4									4000	ug/kg	.	.	95700	ug/kg	.	.	300	ug/kg	B	.				
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	TMANC	B0X0B4																								
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5									3300	ug/kg	.	.	82000	ug/kg	.	.	450	ug/kg	B	.				
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	TMANC	B0X0B5																								
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6									2200	ug/kg	.	.	124000	ug/kg	.	.	430	ug/kg	.	.				
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	TMANC	B0X0B6																								
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7									2800	ug/kg	.	.	70200	ug/kg	.	.	200	ug/kg	B	.				
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	TMANC	B0X0B7																								
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESRL	B0X0X4																								
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESSL	B0X0X4									2500	ug/kg	.	.	95100	ug/kg	.	.	300	ug/kg	B	.				
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	EBRLNE	B15YJ5																								
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5									3600	ug/kg	.	.	85000	ug/kg	.	.	260	ug/kg	.	.				
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	EBRLNE	B15YJ6																								
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6									2100	ug/kg	.	.	65700	ug/kg	.	.	210	ug/kg	.	.				
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	EBRLNE	B15YJ7																								
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7									3500	ug/kg	.	.	64400	ug/kg	.	.	230	ug/kg	.	.				
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	EBRLNE	B15YJ8																								
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8									3400	ug/kg	.	.	81100	ug/kg	.	.	260	ug/kg	.	.				
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	EBRLNE	B15YJ9																								
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9									1500	ug/kg	.	.	180000	ug/kg	.	.	180	ug/kg	.	.				
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	EBRLNE	B15YK0																								
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0									2900	ug/kg	.	.	92800	ug/kg	.	.	270	ug/kg	.	.				
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	EBRLNE	B15YK7																								
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7									4000	ug/kg	.	.	83400	ug/kg	.	.	310	ug/kg	.	.				
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	EBRLNE	B15YK8																								
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8									2700	ug/kg	.	.	74700	ug/kg	.	.	240	ug/kg	.	.				
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	EBRLNE	B15YK9																								
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9									1900	ug/kg	.	.	103000	ug/kg	.	.	230	ug/kg	.	.				
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	EBRLNE	B15YL0																								
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0									3200	ug/kg	.	.	96900	ug/kg	.	.	290	ug/kg	.	.				
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	EBRLNE	B15YL1																								
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1									2000	ug/kg	.	.	105000	ug/kg	.	.	250	ug/kg	.	.				
14097	24.9936	25.994	B15YL2		11/15/02 11:00	EBRLNE	B15YL2																								
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2									1700	ug/kg	.	.	104000	ug/kg	.	.	290	ug/kg	.	.				
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	EBRLNE	B15YL3																								
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3									3200	ug/kg	.	.	77000	ug/kg	.	.	230	ug/kg	.	.				
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLRL	B15YL4																								
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4									3300	ug/kg	.	.	91100	ug/kg	.	.	240	ug/kg	B	.				
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	EBRLNE	B15YL7																								
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7	5290000	ug/kg	.	.					3400	ug/kg	.	.	69100	ug/kg	.	.	180	ug/kg	.	.	620	ug/kg	U	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	EBRLNE	B15YL8																								
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8	5550000	ug/kg	.	.					3800	ug/kg	.	.	79500	ug/kg	.	.	170	ug/kg	.	.	600	ug/kg	U	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	EBRLNE	B15YM1																								
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1									4200	ug/kg	.	.	75200	ug/kg	.	.	320	ug/kg	.	.				
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	EBRLNE	B15YM2																								
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2									2900	ug/kg	.	.	69800	ug/kg	.	.	280	ug/kg	.	.				
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	EBRLNE	B15YM3																								
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3									2500	ug/kg	.	.	77900	ug/kg	.	.	300	ug/kg	.	.				
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	EBRLNE	B15YM4																								
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4									4800	ug/kg	.	.	91000	ug/kg	.	.	430	ug/kg	.	.				
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	EBRLNE	B15YM5																								
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5									3700	ug/kg	.	.	106000	ug/kg	.	.	370	ug/kg	.	.				
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	EBRLNE	B15YM6																								
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6									3900	ug/kg	.	.	93300	ug/kg	.	.	340	ug/kg	.	.				
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	EBRLNE	B15YN3																								
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3									5600	ug/kg	.	.	90300	ug/kg	.	.	250	ug/kg	.	.				
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	EBRLNE	B15YN4																								
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4									3400	ug/kg	.	.	63500	ug/kg	.	.	180	ug/kg	.	.				
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	EBRLNE	B15YN5																								
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5									2000	ug/kg	.	.	63600	ug/kg	.	.	140	ug/kg	.	.				
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	EBRLNE	B15YN6																								
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6									2200	ug/kg	.	.	75500	ug/kg	.	.	170	ug/kg	.	.				
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	EBRLNE	B15YN7																								
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7									3700	ug/kg	.	.	88900	ug/kg	.	.	270	ug/kg	.	.				
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	EBRLNE	B15YN8																								
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8									4400	ug/kg	.	.	96600	ug/kg	.	.	290	ug/kg	.	.				
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	EBRLNE	B15YP9																								
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9	5870000	ug/kg	.	.					3700	ug/kg	.	.	77200	ug/kg	.	.	140	ug/kg	.	.	600	ug/kg	U	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	EBRLNE	B15YR0																								
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0	5530000	ug/kg	.	.					4200	ug/kg	.	.	93800	ug/kg	.	.	420	ug/kg	B	.	570	ug/kg	U	.

S-10 Pond, METAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Boron (7440-42-8) 6010				Cadmium (7440-43-9) 6010				Cadmium (7440-43-9) TCLP/6010				Calcium (7440-70-2) 6010				Chromium (7440-47-3) 6010				Cobalt (7440-48-4) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099					40	ug/kg	B	.									9400	ug/kg	.	.				
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	TMANC	B0X099																								
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0					40	ug/kg	U	.									7900	ug/kg	.	.				
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	TMANC	B0X0B0																								
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1					30	ug/kg	U	.									12100	ug/kg	.	.				
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	TMANC	B0X0B1																								
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2					30	ug/kg	U	.									11900	ug/kg	.	.				
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	TMANC	B0X0B2																								
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3					40	ug/kg	U	.									15900	ug/kg	.	.				
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	TMANC	B0X0B3																								
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	RLNP	B0X0B4					230	ug/kg	B	.									7000	ug/kg	.	.				
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	TMANC	B0X0B4																								
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5					280	ug/kg	B	.									12500	ug/kg	.	.				
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	TMANC	B0X0B5																								
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6					500	ug/kg	.	.									15500	ug/kg	.	.				
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	TMANC	B0X0B6																								
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7					170	ug/kg	B	.									39000	ug/kg	.	.				
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	TMANC	B0X0B7																								
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESRL	B0X0X4																								
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESSL	B0X0X4					30	ug/kg	U	.									8900	ug/kg	.	.				
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	EBRLNE	B15YJ5																								
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5					50	ug/kg	.	.									25000	ug/kg	.	.				
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	EBRLNE	B15YJ6																								
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6					40	ug/kg	U	.									6600	ug/kg	.	.				
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	EBRLNE	B15YJ7																								
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7					40	ug/kg	U	.									10500	ug/kg	.	.				
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	EBRLNE	B15YJ8																								
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8					40	ug/kg	U	.									19800	ug/kg	.	.				
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	EBRLNE	B15YJ9																								
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9					40	ug/kg	U	.									8300	ug/kg	.	.				
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	EBRLNE	B15YK0																								
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0					40	ug/kg	U	.									10600	ug/kg	.	.				
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	EBRLNE	B15YK7																								
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7					200	ug/kg	.	.									26200	ug/kg	.	.				
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	EBRLNE	B15YK8																								
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8					170	ug/kg	.	.									25700	ug/kg	.	.				
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	EBRLNE	B15YK9																								
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9					140	ug/kg	.	.									11500	ug/kg	.	.				
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	EBRLNE	B15YL0																								
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0					150	ug/kg	.	.									10600	ug/kg	.	.				
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	EBRLNE	B15YL1																								
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1					140	ug/kg	.	.									10300	ug/kg	.	.				
14097	24.9936	25.994	B15YL2		11/15/02 11:00	EBRLNE	B15YL2																								
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2					130	ug/kg	.	.									11700	ug/kg	.	.				
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	EBRLNE	B15YL3																								
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3					40	ug/kg	U	.									16500	ug/kg	.	.				
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLRL	B15YL4																								
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4					280	ug/kg	U	.									21900	ug/kg	.	.				
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	EBRLNE	B15YL7																								
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7	540	ug/kg	.	.	110	ug/kg	.	.					6950000	ug/kg	.	.	19600	ug/kg	.	.				
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	EBRLNE	B15YL8																								
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8	560	ug/kg	.	.	60	ug/kg	.	.					6080000	ug/kg	.	.	13400	ug/kg	.	.				
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	EBRLNE	B15YM1																								
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1					40	ug/kg	U	.									7400	ug/kg	.	.				
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	EBRLNE	B15YM2																								
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2					40	ug/kg	U	.									26200	ug/kg	.	.				
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	EBRLNE	B15YM3																								
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3					50	ug/kg	.	.									15700	ug/kg	.	.				
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	EBRLNE	B15YM4																								
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4					40	ug/kg	U	.									10200	ug/kg	.	.				
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	EBRLNE	B15YM5																								
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5					140	ug/kg	.	.									25200	ug/kg	.	.				
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	EBRLNE	B15YM6																								
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6					40	ug/kg	U	.									10400	ug/kg	.	.				
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	EBRLNE	B15YN3																								
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3					40	ug/kg	U	.									9900	ug/kg	.	.				
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	EBRLNE	B15YN4																								
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4					30	ug/kg	U	.									6300	ug/kg	.	.				
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	EBRLNE	B15YN5																								
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5					40	ug/kg	U	.									11500	ug/kg	.	.				
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	EBRLNE	B15YN6																								
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6					40	ug/kg	U	.									8200	ug/kg	.	.				
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	EBRLNE	B15YN7																								
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7					40	ug/kg	U	.									13000	ug/kg	.	.				
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	EBRLNE	B15YN8																								
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8					40	ug/kg	U	.									11400	ug/kg	.	.				
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	EBRLNE	B15YP9																								
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9	1000	ug/kg	.	.	70	ug/kg	.	.					5370000	ug/kg	.	.	12700	ug/kg	.	.				
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	EBRLNE	B15YR0																								
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0	970	ug/kg	B	.	40	ug/kg	U	.					11100000	ug/kg	.	.	7500	ug/kg	.	.				

S-10 Pond, METAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Copper (7440-50-8) 6010				Hexavalent Chromium (18540-29-9) 7196				Iron (7439-89-6) 6010				Lead (7439-92-1) 6010				Lead (7439-92-1) TCLP/6010				Magnesium (7439-95-4) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099	12600	ug/kg	.	.	450	ug/kg	U	.					4200	ug/kg	.	.								
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	TMANC	B0X099																								
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0	11300	ug/kg	.	.	430	ug/kg	U	.					3900	ug/kg	.	.								
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	TMANC	B0X0B0																								
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1	12100	ug/kg	.	.	410	ug/kg	U	.					10300	ug/kg	.	.								
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	TMANC	B0X0B1																								
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2	10600	ug/kg	.	.	410	ug/kg	U	.					7200	ug/kg	.	.								
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	TMANC	B0X0B2																								
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3	13900	ug/kg	.	.	440	ug/kg	U	.					7300	ug/kg	.	.								
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	TMANC	B0X0B3																								
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	RLNP	B0X0B4	12100	ug/kg	.	.	440	ug/kg	U	.					3200	ug/kg	.	.								
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	TMANC	B0X0B4																								
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5	18900	ug/kg	.	.	470	ug/kg	U	.					4500	ug/kg	.	.								
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	TMANC	B0X0B5																								
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6	18000	ug/kg	.	.	420	ug/kg	U	.					3300	ug/kg	.	.								
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	TMANC	B0X0B6																								
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7	15400	ug/kg	.	.	970	ug/kg	.	.					5200	ug/kg	.	.								
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	TMANC	B0X0B7																								
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESRL	B0X0X4																								
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESSL	B0X0X4	12600	ug/kg	.	.	100	ug/kg	U	.					3300	ug/kg	.	.								
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	EBRLNE	B15YJ5																								
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5	16400	ug/kg	.	.	2300	ug/kg	.	.					4100	ug/kg	.	.								
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	EBRLNE	B15YJ6																								
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6	11800	ug/kg	.	.	410	ug/kg	U	.					2900	ug/kg	.	.								
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	EBRLNE	B15YJ7																								
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7	13100	ug/kg	.	.	450	ug/kg	.	.					3400	ug/kg	.	.								
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	EBRLNE	B15YJ8																								
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8	16100	ug/kg	.	.	420	ug/kg	U	.					4400	ug/kg	.	.								
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	EBRLNE	B15YJ9																								
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9	13000	ug/kg	.	.	410	ug/kg	U	.					2700	ug/kg	.	.								
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	EBRLNE	B15YK0																								
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0	13300	ug/kg	.	.	420	ug/kg	U	.					4900	ug/kg	.	.								
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	EBRLNE	B15YK7																								
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7	14500	ug/kg	.	.	1500	ug/kg	.	.					5100	ug/kg	.	.								
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	EBRLNE	B15YK8																								
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8	15200	ug/kg	.	.	1600	ug/kg	.	.					4600	ug/kg	.	.								
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	EBRLNE	B15YK9																								
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9	12700	ug/kg	.	.	510	ug/kg	.	.					3400	ug/kg	.	.								
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	EBRLNE	B15YL0																								
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0	13300	ug/kg	.	.	450	ug/kg	.	.					4500	ug/kg	.	.								
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	EBRLNE	B15YL1																								
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1	12300	ug/kg	.	.	420	ug/kg	U	.					3800	ug/kg	.	.								
14097	24.9936	25.994	B15YL2		11/15/02 11:00	EBRLNE	B15YL2																								
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2	12700	ug/kg	.	.	420	ug/kg	.	.					4500	ug/kg	.	.								
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	EBRLNE	B15YL3																								
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3	15500	ug/kg	.	.	2500	ug/kg	.	.					3900	ug/kg	.	.								
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLRL	B15YL4																								
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4	17700	ug/kg	.	.	56	ug/kg	U	.					2700	ug/kg	.	.								
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	EBRLNE	B15YL7																								
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7	14500	ug/kg	.	.	2700	ug/kg	.	.	24100000	ug/kg	.	.	4300	ug/kg	.	.					4500000	ug/kg	.	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	EBRLNE	B15YL8																								
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8	17700	ug/kg	.	.	1600	ug/kg	.	.	24200000	ug/kg	.	.	4400	ug/kg	.	.					4490000	ug/kg	.	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	EBRLNE	B15YM1																								
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1	12400	ug/kg	.	.	419	ug/kg	U	.					4000	ug/kg	.	.								
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	EBRLNE	B15YM2																								
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2	13800	ug/kg	.	.	1540	ug/kg	.	.					2500	ug/kg	.	.								
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	EBRLNE	B15YM3																								
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3	12600	ug/kg	.	.	727	ug/kg	.	.					2200	ug/kg	.	.								
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	EBRLNE	B15YM4																								
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4	21300	ug/kg	.	.	429	ug/kg	U	.					6500	ug/kg	.	.								
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	EBRLNE	B15YM5																								
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5	15400	ug/kg	.	.	1570	ug/kg	.	.					3900	ug/kg	.	.								
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	EBRLNE	B15YM6																								
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6	11700	ug/kg	.	.	416	ug/kg	U	.					3900	ug/kg	.	.								
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	EBRLNE	B15YN3																								
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3	12700	ug/kg	.	.	429	ug/kg	U	.					4200	ug/kg	.	.								
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	EBRLNE	B15YN4																								
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4	11900	ug/kg	.	.	412	ug/kg	U	.					2500	ug/kg	.	.								
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	EBRLNE	B15YN5																								
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5	11800	ug/kg	.	.	410	ug/kg	U	.					2300	ug/kg	.	.								
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	EBRLNE	B15YN6																								
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6	11300	ug/kg	.	.	411	ug/kg	U	.					2300	ug/kg	.	.								
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	EBRLNE	B15YN7																								
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7	12200	ug/kg	.	.	420	ug/kg	U	.					4900	ug/kg	.	.								
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	EBRLNE	B15YN8																								
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8	13300	ug/kg	.	.	433	ug/kg	U	.					5000	ug/kg	.	.								
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	EBRLNE	B15YP9																								
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9	12800	ug/kg	.	.	423	ug/kg	U	.	25100000	ug/kg	.	.	5400	ug/kg	.	.					4430000	ug/kg	.	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	EBRLNE	B15YR0																								
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0	13400	ug/kg	.	.	426	ug/kg	U	.	25100000	ug/kg	.	.	4400	ug/kg	.	.					4780000	ug/kg	.	.

S-10 Pond, METAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Manganese (7439-96-5) 6010				Mercury (7439-97-6) 200.8				Mercury (7439-97-6) 7470				Mercury (7439-97-6) 7471				Mercury (7439-97-6) TCLP/7470				Molybdenum (7439-98-7) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099													20	ug/kg	U	.								
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	TMANC	B0X099																								
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0													20	ug/kg	U	.								
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	TMANC	B0X0B0																								
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1													20	ug/kg	U	.								
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	TMANC	B0X0B1																								
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2													20	ug/kg	.	.								
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	TMANC	B0X0B2																								
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3													20	ug/kg	.	.								
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	TMANC	B0X0B3																								
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	RLNP	B0X0B4																								
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	TMANC	B0X0B4																								
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5													20	ug/kg	U	.								
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	TMANC	B0X0B5																								
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6													20	ug/kg	U	.								
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	TMANC	B0X0B6																								
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7													20	ug/kg	U	.								
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	TMANC	B0X0B7																								
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESRL	B0X0X4																								
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESSL	B0X0X4																								
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	EBRLNE	B15YJ5																								
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5													120	ug/kg	.	.								
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	EBRLNE	B15YJ6																								
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6													10	ug/kg	U	.								
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	EBRLNE	B15YJ7																								
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7													50	ug/kg	.	.								
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	EBRLNE	B15YJ8																								
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8													260	ug/kg	.	.								
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	EBRLNE	B15YJ9																								
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9													20	ug/kg	U	.								
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	EBRLNE	B15YK0																								
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0													20	ug/kg	U	.								
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	EBRLNE	B15YK7																								
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7													30	ug/kg	.	.								
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	EBRLNE	B15YK8																								
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8													430	ug/kg	.	.								
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	EBRLNE	B15YK9																								
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9													70	ug/kg	.	.								
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	EBRLNE	B15YL0																								
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0													20	ug/kg	U	.								
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	EBRLNE	B15YL1																								
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1													20	ug/kg	U	.								
14097	24.9936	25.994	B15YL2		11/15/02 11:00	EBRLNE	B15YL2																								
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2													20	ug/kg	U	.								
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	EBRLNE	B15YL3																								
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3													170	ug/kg	.	.								
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLRL	B15YL4																								
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4													130	ug/kg	.	.								
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	EBRLNE	B15YL7																								
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7	340000	ug/kg	.	.									20	ug/kg	.	.					180	ug/kg	U	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	EBRLNE	B15YL8																								
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8	378000	ug/kg	.	.									20	ug/kg	U	.					290	ug/kg	.	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	EBRLNE	B15YM1																								
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1													20	ug/kg	U	.								
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	EBRLNE	B15YM2																								
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2													70	ug/kg	.	.								
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	EBRLNE	B15YM3																								
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3													60	ug/kg	.	.								
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	EBRLNE	B15YM4																								
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4													30	ug/kg	.	.								
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	EBRLNE	B15YM5																								
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5													60	ug/kg	.	.								
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	EBRLNE	B15YM6																								
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6													20	ug/kg	U	.								
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	EBRLNE	B15YN3																								
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3													20	ug/kg	U	.								
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	EBRLNE	B15YN4																								
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4													20	ug/kg	U	.								
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	EBRLNE	B15YN5																								
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5													10	ug/kg	U	.								
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	EBRLNE	B15YN6																								
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6													20	ug/kg	U	.								
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	EBRLNE	B15YN7																								
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7													20	ug/kg	U	.								
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	EBRLNE	B15YN8																								
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8													20	ug/kg	U	.								
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	EBRLNE	B15YP9																								
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9	392000	ug/kg	.	.									50	ug/kg	.	.					200	ug/kg	.	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	EBRLNE	B15YR0																								
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0	386000	ug/kg	.	.									20	ug/kg	U	.					270	ug/kg	B	.

S-10 Pond, METAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Nickel (7440-02-0) 6010				Potassium (7440-09-7) 6010				Selenium (7782-49-2) 6010				Silver (7440-22-4) 6010				Sodium (7440-23-5) 6010				Thallium (7440-28-0) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099	10200	ug/kg							450	ug/kg	U		90	ug/kg	U									
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	TMANC	B0X099																								
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0	9300	ug/kg							420	ug/kg	U		80	ug/kg	U									
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	TMANC	B0X0B0																								
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1	10600	ug/kg							300	ug/kg	U		60	ug/kg	U									
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	TMANC	B0X0B1																								
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2	10000	ug/kg							290	ug/kg	U		60	ug/kg	U									
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	TMANC	B0X0B2																								
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3	14000	ug/kg							380	ug/kg	U		70	ug/kg	U									
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	TMANC	B0X0B3																								
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	RLNP	B0X0B4	9400	ug/kg							850	ug/kg			70	ug/kg	U									
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	TMANC	B0X0B4																								
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5	12300	ug/kg							1900	ug/kg			70	ug/kg	U									
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	TMANC	B0X0B5																								
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6	14700	ug/kg							2000	ug/kg			70	ug/kg	U									
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	TMANC	B0X0B6																								
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7	25200	ug/kg							1100	ug/kg			70	ug/kg	U									
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	TMANC	B0X0B7																								
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESRL	B0X0X4																								
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESSL	B0X0X4	9300	ug/kg							780	ug/kg			90	ug/kg	U									
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	EBRLNE	B15YJ5																								
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5	9900	ug/kg							350	ug/kg	U		390	ug/kg										
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	EBRLNE	B15YJ6																								
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6	7100	ug/kg							350	ug/kg	U		130	ug/kg	U									
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	EBRLNE	B15YJ7																								
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7	8800	ug/kg							380	ug/kg	U		140	ug/kg	U									
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	EBRLNE	B15YJ8																								
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8	10200	ug/kg							370	ug/kg	U		470	ug/kg										
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	EBRLNE	B15YJ9																								
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9	9200	ug/kg							390	ug/kg	U		140	ug/kg	U									
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	EBRLNE	B15YK0																								
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0	11700	ug/kg							360	ug/kg	U		130	ug/kg	U									
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	EBRLNE	B15YK7																								
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7	9600	ug/kg							350	ug/kg	U		8300	ug/kg										
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	EBRLNE	B15YK8																								
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8	8500	ug/kg							350	ug/kg	U		220	ug/kg										
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	EBRLNE	B15YK9																								
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9	10600	ug/kg							370	ug/kg	U		140	ug/kg	U									
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	EBRLNE	B15YL0																								
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0	11700	ug/kg							380	ug/kg	U		140	ug/kg	U									
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	EBRLNE	B15YL1																								
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1	11800	ug/kg							380	ug/kg	U		140	ug/kg	U									
14097	24.9936	25.994	B15YL2		11/15/02 11:00	EBRLNE	B15YL2																								
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2	12200	ug/kg							380	ug/kg	U		140	ug/kg	U									
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	EBRLNE	B15YL3																								
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3	10300	ug/kg							360	ug/kg	U		180	ug/kg										
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLRL	B15YL4																								
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4	10300	ug/kg							210	ug/kg	U		740	ug/kg	B									
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	EBRLNE	B15YL7																								
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7	8300	ug/kg			840000	ug/kg			400	ug/kg	U		1300	ug/kg			155000	ug/kg			580	ug/kg	U	
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	EBRLNE	B15YL8																								
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8	9200	ug/kg			1040000	ug/kg			390	ug/kg	U		480	ug/kg			193000	ug/kg			570	ug/kg	U	
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	EBRLNE	B15YM1																								
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1	9800	ug/kg							380	ug/kg	U		140	ug/kg										
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	EBRLNE	B15YM2																								
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2	6700	ug/kg							380	ug/kg	U		140	ug/kg										
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	EBRLNE	B15YM3																								
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3	7200	ug/kg							340	ug/kg	U		280	ug/kg										
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	EBRLNE	B15YM4																								
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4	11700	ug/kg							380	ug/kg	U		140	ug/kg	U									
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	EBRLNE	B15YM5																								
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5	12600	ug/kg							370	ug/kg	U		140	ug/kg										
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	EBRLNE	B15YM6																								
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6	10400	ug/kg							340	ug/kg	U		120	ug/kg	U									
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	EBRLNE	B15YN3																								
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3	12000	ug/kg							400	ug/kg	U		150	ug/kg	U									
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	EBRLNE	B15YN4																								
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4	7600	ug/kg							460	ug/kg			120	ug/kg	U									
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	EBRLNE	B15YN5																								
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5	10600	ug/kg							390	ug/kg	U		140	ug/kg	U									
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	EBRLNE	B15YN6																								
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6	9500	ug/kg							370	ug/kg	U		130	ug/kg	U									
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	EBRLNE	B15YN7																								
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7	11900	ug/kg							400	ug/kg	U		120	ug/kg	U									
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	EBRLNE	B15YN8																								
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8	13300	ug/kg							560	ug/kg			150	ug/kg	U									
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	EBRLNE	B15YP9																								
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9	9000	ug/kg			1230000	ug/kg			390	ug/kg	U		140	ug/kg	U		121000	ug/kg			570	ug/kg	U	
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	EBRLNE	B15YR0																								
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0	9700	ug/kg			964000	ug/kg			370	ug/kg	U		140	ug/kg	U		174000	ug/kg	B		620	ug/kg	B	

S-10 Pond, METAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Tin (7440-31-5) 6010				Uranium (7440-61-1) 200.8				Uranium (7440-61-1) KPA				Vanadium (7440-62-2) 6010				Zinc (7440-66-6) 6010			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099													63700	ug/kg	.	.	42700	ug/kg	.	.
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	TMANC	B0X099									460	ug/kg	J	.								
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0													53900	ug/kg	.	.	36500	ug/kg	.	.
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	TMANC	B0X0B0									2140	ug/kg	.	.								
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1													41900	ug/kg	.	.	31800	ug/kg	.	.
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	TMANC	B0X0B1									1940	ug/kg	.	.								
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2													37400	ug/kg	.	.	29500	ug/kg	.	.
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	TMANC	B0X0B2									804	ug/kg	J	.								
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3													36900	ug/kg	.	.	42800	ug/kg	.	.
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	TMANC	B0X0B3									772	ug/kg	J	.								
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	RLNP	B0X0B4													58600	ug/kg	.	.	32200	ug/kg	.	.
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	TMANC	B0X0B4									806	ug/kg	J	.								
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5													87500	ug/kg	.	.	49600	ug/kg	.	.
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	TMANC	B0X0B5									589	ug/kg	J	.								
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6													87100	ug/kg	.	.	52500	ug/kg	.	.
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	TMANC	B0X0B6									782	ug/kg	J	.								
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7													25400	ug/kg	.	.	201000	ug/kg	.	.
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	TMANC	B0X0B7									377	ug/kg	J	.								
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESRL	B0X0X4									614	ug/kg	J	.								
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESSL	B0X0X4													56800	ug/kg	.	.	38300	ug/kg	E	.
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	EBRLNE	B15YJ5									767	ug/kg	.	.								
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5													76700	ug/kg	.	.	54800	ug/kg	.	.
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	EBRLNE	B15YJ6									715	ug/kg	.	.								
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6													67900	ug/kg	.	.	44500	ug/kg	.	.
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	EBRLNE	B15YJ7									404	ug/kg	.	.								
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7													74100	ug/kg	.	.	51600	ug/kg	.	.
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	EBRLNE	B15YJ8									1030	ug/kg	.	.								
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8													77300	ug/kg	.	.	53200	ug/kg	.	.
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	EBRLNE	B15YJ9									265	ug/kg	.	.								
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9													76200	ug/kg	.	.	44900	ug/kg	.	.
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	EBRLNE	B15YK0									731	ug/kg	.	.								
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0													64300	ug/kg	.	.	47300	ug/kg	.	.
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	EBRLNE	B15YK7									409	ug/kg	.	.								
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7													69100	ug/kg	.	.	51300	ug/kg	.	.
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	EBRLNE	B15YK8									488	ug/kg	.	.								
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8													73200	ug/kg	.	.	51600	ug/kg	.	.
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	EBRLNE	B15YK9									415	ug/kg	.	.								
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9													66500	ug/kg	.	.	45700	ug/kg	.	.
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	EBRLNE	B15YL0									397	ug/kg	.	.								
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0													57800	ug/kg	.	.	46400	ug/kg	.	.
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	EBRLNE	B15YL1									289	ug/kg	.	.								
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1													52900	ug/kg	.	.	43700	ug/kg	.	.
14097	24.9936	25.994	B15YL2		11/15/02 11:00	EBRLNE	B15YL2									366	ug/kg	.	.								
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2													58800	ug/kg	.	.	46400	ug/kg	.	.
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	EBRLNE	B15YL3									435	ug/kg	.	.								
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3													73600	ug/kg	.	.	50600	ug/kg	.	.
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLRL	B15YL4									2010	ug/kg	.	.								
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4													81700	ug/kg	.	.	59700	ug/kg	.	.
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	EBRLNE	B15YL7									562	ug/kg	.	.								
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7													65100	ug/kg	.	.	44900	ug/kg	.	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	EBRLNE	B15YL8									566	ug/kg	.	.								
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8													64700	ug/kg	.	.	45200	ug/kg	.	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	EBRLNE	B15YM1									486	ug/kg	.	.								
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1													64400	ug/kg	.	.	43800	ug/kg	.	.
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	EBRLNE	B15YM2									391	ug/kg	.	.								
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2													67900	ug/kg	.	.	39600	ug/kg	.	.
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	EBRLNE	B15YM3									295	ug/kg	.	.								
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3													69500	ug/kg	.	.	41600	ug/kg	.	.
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	EBRLNE	B15YM4									465	ug/kg	.	.								
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4													58000	ug/kg	.	.	52000	ug/kg	.	.
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	EBRLNE	B15YM5									351	ug/kg	.	.								
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5													62400	ug/kg	.	.	52900	ug/kg	.	.
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	EBRLNE	B15YM6									322	ug/kg	.	.								
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6													48500	ug/kg	.	.	41700	ug/kg	.	.
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	EBRLNE	B15YN3									1960	ug/kg	.	.								
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3													77400	ug/kg	.	.	50300	ug/kg	.	.
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	EBRLNE	B15YN4									245	ug/kg	.	.								
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4													75500	ug/kg	.	.	44500	ug/kg	.	.
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	EBRLNE	B15YN5									316	ug/kg	.	.								
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5													81200	ug/kg	.	.	48800	ug/kg	.	.
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	EBRLNE	B15YN6									321	ug/kg	.	.								
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6													77900	ug/kg	.	.	48200	ug/kg	.	.
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	EBRLNE	B15YN7									446	ug/kg	.	.								
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7													66900	ug/kg	.	.	49000	ug/kg	.	.
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	EBRLNE	B15YN8									417	ug/kg	.	.								
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8													66600	ug/kg	.	.	49900	ug/kg	.	.
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	EBRLNE	B15YP9									457	ug/kg	.	.								
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9													65400	ug/kg	.	.	47600	ug/kg	.	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	EBRLNE	B15YR0									513	ug/kg	.	.								
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0													65400	ug/kg	.	.	44800	ug/kg	.	.

S-10 Pond, PHYSICAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Bulk density - dry (BULKDENSITY-DRY) D2937				Bulk density - wet (BULKDENSITY-WET) D2937				Cation Exchange Capacity (CEC) 9080			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099												
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0												
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1												
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2												
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3												
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	RLNP	B0X0B4												
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5												
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6												
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7												
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESSL	B0X0X4												
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5												
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6												
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7												
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8												
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9												
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0												
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7												
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8												
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9												
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0												
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1												
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2												
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3												
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4												
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7												
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8												
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1												
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2												
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3												
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4												
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5												
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6												
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3												
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4												
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5												
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6												
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7												
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8												
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9												
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0												

S-10 Pond, PHYSICAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Percent moisture (dry sample) (%MOISTURE-D) D2216				Percent moisture (wet sample) (%MOISTURE) D2216				Percent passing 1 inch sieve (PAS1IN) D422			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099												
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0												
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1												
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2												
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3												
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	RLNP	B0X0B4												
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5												
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6												
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7												
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESSL	B0X0X4												
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5												
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6												
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7												
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8												
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9												
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0												
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7												
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8												
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9												
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0												
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1												
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2												
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3												
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4												
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7												
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8												
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1												
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2												
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3												
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4												
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5												
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6												
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3												
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4												
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5												
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6												
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7												
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8												
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9												
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0												

S-10 Pond, PHYSICAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Percent passing 1.5 inch sieve (PAS1.5IN) D422				Percent passing 2 inch sieve (PAS2IN) D422				Percent passing 3 inch sieve (PAS3IN) D422			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099												
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0												
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1												
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2												
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3												
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	RLNP	B0X0B4												
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5												
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6												
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7												
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESSL	B0X0X4												
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5												
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6												
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7												
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8												
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9												
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0												
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7												
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8												
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9												
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0												
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1												
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2												
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3												
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4												
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7												
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8												
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1												
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2												
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3												
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4												
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5												
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6												
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3												
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4												
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5												
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6												
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7												
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8												
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9												
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0												

S-10 Pond, PHYSICAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Percent passing 3/4 inch sieve (PAS3/4IN) D422				Percent passing 3/8 inch sieve (PAS3/8IN) D422				Percent passing No.10 sieve (PAS#10) D422			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099												
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0												
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1												
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2												
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3												
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	RLNP	B0X0B4												
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5												
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6												
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7												
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESSL	B0X0X4												
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5												
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6												
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7												
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8												
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9												
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0												
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7												
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8												
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9												
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0												
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1												
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2												
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3												
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4												
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7												
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8												
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1												
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2												
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3												
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4												
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5												
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6												
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3												
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4												
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5												
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6												
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7												
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8												
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9												
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0												

S-10 Pond, PHYSICAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Percent passing No.100 sieve (PAS#100) D422				Percent passing No.140 sieve (PAS#140) D422				Percent passing No.20 sieve (PAS#20) D422			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099												
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0												
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1												
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2												
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3												
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	RLNP	B0X0B4												
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5												
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6												
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7												
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESSL	B0X0X4												
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5												
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6												
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7												
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8												
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9												
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0												
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7												
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8												
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9												
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0												
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1												
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2												
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3												
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4												
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7												
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8												
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1												
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2												
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3												
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4												
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5												
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6												
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3												
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4												
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5												
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6												
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7												
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8												
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9												
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0												

S-10 Pond, PHYSICAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Percent passing No.200 sieve (PAS#200) D422				Percent passing No.4 sieve (PAS#4) D422				Percent passing No.40 sieve (PAS#40) D422			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099												
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0												
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1												
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2												
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3												
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	RLNP	B0X0B4												
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5												
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6												
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7												
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESSL	B0X0X4												
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5												
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6												
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7												
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8												
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9												
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0												
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7												
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8												
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9												
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0												
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1												
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2												
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3												
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4												
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7												
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8												
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1												
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2												
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3												
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4												
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5												
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6												
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3												
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4												
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5												
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6												
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7												
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8												
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9												
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0												

S-10 Pond, PHYSICAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Percent passing No.60 sieve (PAS#60) D422				pH Measurement (PH) 150.1				pH Measurement (PH) 9040			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099												
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0												
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1												
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2												
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3												
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	RLNP	B0X0B4												
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5												
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6												
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7												
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESSL	B0X0X4												
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5												
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6												
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7												
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8												
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9												
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0												
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7												
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8												
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9												
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0												
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1												
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2												
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3												
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4												
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7												
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8												
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1												
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2												
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3												
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4												
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5												
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6												
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3												
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4												
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5												
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6												
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7												
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8												
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9												
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0												

S-10 Pond, PHYSICAL

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	pH Measurement (PH) 9045				Specific Gravity (SPECGVTY) D854			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099	8.7	pH	.	.				
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0	8.7	pH	.	.				
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1	9.1	pH	.	.				
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2	9	pH	.	.				
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3	8.8	pH	.	.				
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	RLNP	B0X0B4	8.7	pH	.	.				
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5	8.5	pH	.	.				
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6	8.1	pH	.	.				
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7	8.6	pH	.	.				
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESSL	B0X0X4	8.88	pH	.	.				
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5	8.7	pH	.	.				
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6	8.7	pH	.	.				
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7	8.6	pH	.	.				
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8	8.8	pH	.	.				
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9	8.5	pH	.	.				
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0	8.5	pH	.	.				
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7	8.5	pH	.	.				
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8	8.3	pH	.	.				
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9	8.3	pH	.	.				
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0	8.4	pH	.	.				
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1	8.3	pH	.	.				
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2	8.3	pH	.	.				
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3	8.8	pH	.	.				
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4	9.2	pH	.	.				
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7	8.6	pH	.	.				
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8	8.7	pH	.	.				
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1	8.51	pH	.	.				
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2	8.43	pH	.	.				
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3	8.47	pH	.	.				
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4	8.04	pH	.	.				
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5	8.34	pH	.	.				
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6	8.52	pH	.	.				
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3	9.13	pH	.	.				
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4	9.23	pH	.	.				
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5	9.26	pH	.	.				
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6	9.34	pH	.	.				
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7	9	pH	.	.				
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8	8.96	pH	.	.				
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9	8.12	pH	.	.				
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0	8.8	pH	.	.				

S-10 Pond, RAD1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Actinium-228 (14331-83-0) GEA				Americium-241 (14596-10-2) Eichrom/Plate/AEA				Americium-241 (14596-10-2) GEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	TMANC	B0X099									6.40E-02	pCi/g	U	.
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	TMANC	B0X0B0									0.2	pCi/g	U	.
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	TMANC	B0X0B1									0.12	pCi/g	U	.
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	TMANC	B0X0B2									0.047	pCi/g	U	.
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	TMANC	B0X0B3									7.40E-02	pCi/g	U	.
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	TMANC	B0X0B4									0.24	pCi/g	U	.
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	TMANC	B0X0B5									0.34	pCi/g	U	.
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	TMANC	B0X0B6									0.17	pCi/g	U	.
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	TMANC	B0X0B7									7.40E-02	pCi/g	U	.
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESRL	B0X0X4									-0.0591	pCi/g	U	.
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	EBRLNE	B15YJ5									0.13	pCi/g	U	.
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	EBRLNE	B15YJ6									0.16	pCi/g	U	.
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	EBRLNE	B15YJ7									2.80E-02	pCi/g	U	.
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	EBRLNE	B15YJ8									9.20E-02	pCi/g	U	.
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	EBRLNE	B15YJ9									2.60E-02	pCi/g	U	.
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	EBRLNE	B15YK0									9.90E-02	pCi/g	U	.
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	EBRLNE	B15YK7									0.016	pCi/g	U	.
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	EBRLNE	B15YK8									0.22	pCi/g	U	.
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	EBRLNE	B15YK9									0.13	pCi/g	U	.
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	EBRLNE	B15YL0									8.20E-02	pCi/g	U	.
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	EBRLNE	B15YL1									0.2	pCi/g	U	.
14097	24.9936	25.994	B15YL2		11/15/02 11:00	EBRLNE	B15YL2									3.50E-02	pCi/g	U	.
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	EBRLNE	B15YL3									6.80E-02	pCi/g	U	.
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLRL	B15YL4					0.199	pCi/g	.	.	-0.00123	pCi/g	U	.
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	EBRLNE	B15YL7									0.062	pCi/g	U	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	EBRLNE	B15YL8									4.30E-02	pCi/g	U	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	EBRLNE	B15YM1									8.70E-02	pCi/g	U	.
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	EBRLNE	B15YM2									0.2	pCi/g	U	.
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	EBRLNE	B15YM3									3.60E-02	pCi/g	U	.
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	EBRLNE	B15YM4									0.12	pCi/g	U	.
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	EBRLNE	B15YM5									0.21	pCi/g	U	.
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	EBRLNE	B15YM6									3.70E-02	pCi/g	U	.
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	EBRLNE	B15YN3									0.1	pCi/g	U	.
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	EBRLNE	B15YN4									0.22	pCi/g	U	.
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	EBRLNE	B15YN5									3.50E-02	pCi/g	U	.
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	EBRLNE	B15YN6									8.50E-02	pCi/g	U	.
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	EBRLNE	B15YN7									0.25	pCi/g	U	.
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	EBRLNE	B15YN8									0.1	pCi/g	U	.
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	EBRLNE	B15YP9									0.26	pCi/g	U	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	EBRLNE	B15YR0									9.50E-02	pCi/g	U	.

S-10 Pond, RAD1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Americium-241 (14596-10-2) IX/Plate/AEA				Americium-241 (14596-10-2) IX/Prec/AEA				Antimony-125 (14234-35-6) GEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	TMANC	B0X099	4.00E-03	pCi/g	U	.								
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	TMANC	B0X0B0	2.50E-02	pCi/g	U	.								
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	TMANC	B0X0B1	-2.80E-02	pCi/g	U	.								
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	TMANC	B0X0B2	2.90E-02	pCi/g	U	.								
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	TMANC	B0X0B3	0.02	pCi/g	U	.								
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	TMANC	B0X0B4	0.019	pCi/g	U	.								
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	TMANC	B0X0B5												
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	TMANC	B0X0B6	-7.00E-03	pCi/g	U	.								
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	TMANC	B0X0B7	3.30E-02	pCi/g	U	.								
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESRL	B0X0X4					9.40E-03	pCi/g	U	.				
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	EBRLNE	B15YJ5	0.102	pCi/g	U	.								
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	EBRLNE	B15YJ6	0	pCi/g	U	.								
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	EBRLNE	B15YJ7	7.10E-02	pCi/g	U	.								
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	EBRLNE	B15YJ8	0.101	pCi/g	U	.								
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	EBRLNE	B15YJ9	0.178	pCi/g	U	.								
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	EBRLNE	B15YK0	-3.80E-02	pCi/g	U	.								
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	EBRLNE	B15YK7	-0.039	pCi/g	U	.								
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	EBRLNE	B15YK8	0.395	pCi/g	.	.								
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	EBRLNE	B15YK9	0.303	pCi/g	U	.								
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	EBRLNE	B15YL0	0.13	pCi/g	U	.								
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	EBRLNE	B15YL1	7.00E-02	pCi/g	U	.								
14097	24.9936	25.994	B15YL2		11/15/02 11:00	EBRLNE	B15YL2	0	pCi/g	U	.								
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	EBRLNE	B15YL3	4.00E-02	pCi/g	U	.								
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLRL	B15YL4												
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	EBRLNE	B15YL7	0.153	pCi/g	U	.					4.00E-02	pCi/g	U	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	EBRLNE	B15YL8	0	pCi/g	U	.					7.60E-02	pCi/g	U	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	EBRLNE	B15YM1	0.1	pCi/g	U	.								
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	EBRLNE	B15YM2	9.80E-02	pCi/g	U	.								
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	EBRLNE	B15YM3	-8.10E-02	pCi/g	U	.								
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	EBRLNE	B15YM4	-4.40E-02	pCi/g	U	.								
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	EBRLNE	B15YM5	7.50E-02	pCi/g	U	.								
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	EBRLNE	B15YM6	7.50E-02	pCi/g	U	.								
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	EBRLNE	B15YN3	-3.70E-02	pCi/g	U	.								
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	EBRLNE	B15YN4	-4.80E-02	pCi/g	U	.								
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	EBRLNE	B15YN5	-4.60E-02	pCi/g	U	.								
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	EBRLNE	B15YN6	5.60E-02	pCi/g	U	.								
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	EBRLNE	B15YN7	0	pCi/g	U	.								
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	EBRLNE	B15YN8	-3.70E-02	pCi/g	U	.								
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	EBRLNE	B15YP9	4.00E-03	pCi/g	U	.					8.60E-02	pCi/g	U	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	EBRLNE	B15YR0	0.01	pCi/g	U	.					0.063	pCi/g	U	.

S-10 Pond, RAD1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Barium-133 (13981-41-4) GEA				Bismuth-212 (14913-49-6) GEA				Bismuth-214 (14733-03-0) GEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	TMANC	B0X099												
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	TMANC	B0X0B0												
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	TMANC	B0X0B1												
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	TMANC	B0X0B2												
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	TMANC	B0X0B3												
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	TMANC	B0X0B4												
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	TMANC	B0X0B5												
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	TMANC	B0X0B6												
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	TMANC	B0X0B7												
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESRL	B0X0X4												
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	EBRLNE	B15YJ5												
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	EBRLNE	B15YJ6												
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	EBRLNE	B15YJ7												
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	EBRLNE	B15YJ8												
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	EBRLNE	B15YJ9												
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	EBRLNE	B15YK0												
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	EBRLNE	B15YK7												
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	EBRLNE	B15YK8												
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	EBRLNE	B15YK9												
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	EBRLNE	B15YL0												
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	EBRLNE	B15YL1												
14097	24.9936	25.994	B15YL2		11/15/02 11:00	EBRLNE	B15YL2												
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	EBRLNE	B15YL3												
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLRL	B15YL4												
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	EBRLNE	B15YL7	1.70E-02	pCi/g	U	.								
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	EBRLNE	B15YL8	2.90E-02	pCi/g	U	.								
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	EBRLNE	B15YM1												
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	EBRLNE	B15YM2												
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	EBRLNE	B15YM3												
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	EBRLNE	B15YM4												
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	EBRLNE	B15YM5												
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	EBRLNE	B15YM6												
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	EBRLNE	B15YN3												
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	EBRLNE	B15YN4												
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	EBRLNE	B15YN5												
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	EBRLNE	B15YN6												
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	EBRLNE	B15YN7												
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	EBRLNE	B15YN8												
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	EBRLNE	B15YP9	3.40E-02	pCi/g	U	.								
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	EBRLNE	B15YR0	0.039	pCi/g	U	.								

S-10 Pond, RAD1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Carbon-14 (14762-75-5) CombOx/LSC				Cerium-144 (14762-78-8) GEA				Cesium-134 (13967-70-9) GEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	TMANC	B0X099												
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	TMANC	B0X0B0												
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	TMANC	B0X0B1												
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	TMANC	B0X0B2												
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	TMANC	B0X0B3												
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	TMANC	B0X0B4												
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	TMANC	B0X0B5												
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	TMANC	B0X0B6												
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	TMANC	B0X0B7												
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESRL	B0X0X4												
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	EBRLNE	B15YJ5												
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	EBRLNE	B15YJ6												
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	EBRLNE	B15YJ7												
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	EBRLNE	B15YJ8												
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	EBRLNE	B15YJ9												
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	EBRLNE	B15YK0												
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	EBRLNE	B15YK7												
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	EBRLNE	B15YK8												
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	EBRLNE	B15YK9												
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	EBRLNE	B15YL0												
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	EBRLNE	B15YL1												
14097	24.9936	25.994	B15YL2		11/15/02 11:00	EBRLNE	B15YL2												
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	EBRLNE	B15YL3												
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLRL	B15YL4												
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	EBRLNE	B15YL7	-0.674	pCi/g	U	.					0.023	pCi/g	U	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	EBRLNE	B15YL8	12.2	pCi/g	.	.					4.30E-02	pCi/g	U	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	EBRLNE	B15YM1												
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	EBRLNE	B15YM2												
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	EBRLNE	B15YM3												
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	EBRLNE	B15YM4												
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	EBRLNE	B15YM5												
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	EBRLNE	B15YM6												
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	EBRLNE	B15YN3												
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	EBRLNE	B15YN4												
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	EBRLNE	B15YN5												
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	EBRLNE	B15YN6												
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	EBRLNE	B15YN7												
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	EBRLNE	B15YN8												
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	EBRLNE	B15YP9	1.03	pCi/g	U	.					0.047	pCi/g	U	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	EBRLNE	B15YR0	0.908	pCi/g	U	.					6.50E-02	pCi/g	U	.

S-10 Pond, RAD1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Cesium-137 (10045-97-3) GEA				Cobalt-60 (10198-40-0) GEA				Curium-242 (15510-73-3) IX/Plate/AEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	TMANC	B0X099	8.40E-02	pCi/g	U	.	0.12	pCi/g	U	.				
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	TMANC	B0X0B0	0.062	pCi/g	U	.	7.10E-02	pCi/g	U	.				
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	TMANC	B0X0B1	0.047	pCi/g	U	.	5.90E-02	pCi/g	U	.				
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	TMANC	B0X0B2	4.30E-02	pCi/g	U	.	4.80E-02	pCi/g	U	.				
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	TMANC	B0X0B3	2.90E-02	pCi/g	U	.	3.00E-02	pCi/g	U	.				
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	TMANC	B0X0B4	7.50E-02	pCi/g	U	.	9.20E-02	pCi/g	U	.				
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	TMANC	B0X0B5	0.12	pCi/g	U	.	0.14	pCi/g	U	.				
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	TMANC	B0X0B6	0.22	pCi/g	U	.	0.29	pCi/g	U	.				
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	TMANC	B0X0B7	9.80E-02	pCi/g	U	.	0.13	pCi/g	U	.				
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESRL	B0X0X4	3.26E-02	pCi/g	U	.	0.0155	pCi/g	U	.				
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	EBRLNE	B15YJ5	0.29	pCi/g	.	.	3.30E-02	pCi/g	U	.				
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	EBRLNE	B15YJ6	2.10E-02	pCi/g	U	.	0.023	pCi/g	U	.				
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	EBRLNE	B15YJ7	9.30E-02	pCi/g	.	.	0.02	pCi/g	U	.				
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	EBRLNE	B15YJ8	0.336	pCi/g	.	.	2.50E-02	pCi/g	U	.				
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	EBRLNE	B15YJ9	1.80E-02	pCi/g	U	.	0.019	pCi/g	U	.				
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	EBRLNE	B15YK0	0.027	pCi/g	U	.	2.80E-02	pCi/g	U	.				
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	EBRLNE	B15YK7	0.857	pCi/g	.	.	1.10E-02	pCi/g	U	.				
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	EBRLNE	B15YK8	1.77	pCi/g	.	.	0.024	pCi/g	U	.				
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	EBRLNE	B15YK9	3.30E-02	pCi/g	U	.	4.30E-02	pCi/g	U	.				
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	EBRLNE	B15YL0	0.024	pCi/g	U	.	0.027	pCi/g	U	.				
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	EBRLNE	B15YL1	2.80E-02	pCi/g	U	.	2.80E-02	pCi/g	U	.				
14097	24.9936	25.994	B15YL2		11/15/02 11:00	EBRLNE	B15YL2	0.023	pCi/g	U	.	2.50E-02	pCi/g	U	.				
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	EBRLNE	B15YL3	0.193	pCi/g	.	.	2.20E-02	pCi/g	U	.				
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLRL	B15YL4	0.257	pCi/g	.	.	-0.00645	pCi/g	U	.				
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	EBRLNE	B15YL7	0.312	pCi/g	.	.	1.80E-02	pCi/g	U	.	0	pCi/g	U	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	EBRLNE	B15YL8	0.642	pCi/g	.	.	3.00E-02	pCi/g	U	.	0	pCi/g	U	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	EBRLNE	B15YM1	0.117	pCi/g	.	.	3.00E-02	pCi/g	U	.				
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	EBRLNE	B15YM2	2.90E-02	pCi/g	U	.	3.00E-02	pCi/g	U	.				
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	EBRLNE	B15YM3	2.80E-02	pCi/g	U	.	2.90E-02	pCi/g	U	.				
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	EBRLNE	B15YM4	3.50E-02	pCi/g	U	.	3.70E-02	pCi/g	U	.				
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	EBRLNE	B15YM5	2.80E-02	pCi/g	U	.	3.80E-02	pCi/g	U	.				
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	EBRLNE	B15YM6	0.027	pCi/g	U	.	3.00E-02	pCi/g	U	.				
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	EBRLNE	B15YN3	3.20E-02	pCi/g	U	.	3.30E-02	pCi/g	U	.				
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	EBRLNE	B15YN4	3.20E-02	pCi/g	U	.	4.20E-02	pCi/g	U	.				
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	EBRLNE	B15YN5	2.50E-02	pCi/g	U	.	2.80E-02	pCi/g	U	.				
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	EBRLNE	B15YN6	2.60E-02	pCi/g	U	.	0.027	pCi/g	U	.				
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	EBRLNE	B15YN7	0.039	pCi/g	U	.	4.10E-02	pCi/g	U	.				
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	EBRLNE	B15YN8	2.90E-02	pCi/g	U	.	3.30E-02	pCi/g	U	.				
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	EBRLNE	B15YP9	0.428	pCi/g	.	.	4.20E-02	pCi/g	U	.	9.00E-03	pCi/g	U	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	EBRLNE	B15YR0	0.027	pCi/g	U	.	3.00E-02	pCi/g	U	.	4.00E-03	pCi/g	U	.

S-10 Pond, RAD1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Curium-242 (15510-73-3) IX/Prec/AEA				Curium-243/244 (CM-243/244) IX/Plate/AEA				Curium-244 (13981-15-2) IX/Prec/AEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	TMANC	B0X099												
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	TMANC	B0X0B0												
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	TMANC	B0X0B1												
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	TMANC	B0X0B2												
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	TMANC	B0X0B3												
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	TMANC	B0X0B4												
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	TMANC	B0X0B5												
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	TMANC	B0X0B6												
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	TMANC	B0X0B7												
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESRL	B0X0X4												
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	EBRLNE	B15YJ5												
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	EBRLNE	B15YJ6												
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	EBRLNE	B15YJ7												
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	EBRLNE	B15YJ8												
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	EBRLNE	B15YJ9												
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	EBRLNE	B15YK0												
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	EBRLNE	B15YK7												
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	EBRLNE	B15YK8												
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	EBRLNE	B15YK9												
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	EBRLNE	B15YL0												
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	EBRLNE	B15YL1												
14097	24.9936	25.994	B15YL2		11/15/02 11:00	EBRLNE	B15YL2												
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	EBRLNE	B15YL3												
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLRL	B15YL4												
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	EBRLNE	B15YL7					0	pCi/g	U	.				
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	EBRLNE	B15YL8					-3.20E-02	pCi/g	U	.				
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	EBRLNE	B15YM1												
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	EBRLNE	B15YM2												
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	EBRLNE	B15YM3												
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	EBRLNE	B15YM4												
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	EBRLNE	B15YM5												
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	EBRLNE	B15YM6												
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	EBRLNE	B15YN3												
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	EBRLNE	B15YN4												
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	EBRLNE	B15YN5												
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	EBRLNE	B15YN6												
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	EBRLNE	B15YN7												
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	EBRLNE	B15YN8												
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	EBRLNE	B15YP9					-4.00E-03	pCi/g	U	.				
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	EBRLNE	B15YR0					-7.00E-03	pCi/g	U	.				

S-10 Pond, RAD1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Europium-152 (14683-23-9) GEA				Europium-154 (15585-10-1) GEA				Europium-155 (14391-16-3) GEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	TMANC	B0X099	0.18	pCi/g	U	.	0.29	pCi/g	U	.	0.11	pCi/g	U	.
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	TMANC	B0X0B0	0.16	pCi/g	U	.	0.24	pCi/g	U	.	0.16	pCi/g	U	.
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	TMANC	B0X0B1	0.12	pCi/g	U	.	0.17	pCi/g	U	.	0.12	pCi/g	U	.
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	TMANC	B0X0B2	0.11	pCi/g	U	.	0.15	pCi/g	U	.	8.90E-02	pCi/g	U	.
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	TMANC	B0X0B3	7.00E-02	pCi/g	U	.	0.1	pCi/g	U	.	6.70E-02	pCi/g	U	.
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	TMANC	B0X0B4	0.2	pCi/g	U	.	0.26	pCi/g	U	.	0.19	pCi/g	U	.
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	TMANC	B0X0B5	0.29	pCi/g	U	.	0.34	pCi/g	U	.	0.28	pCi/g	U	.
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	TMANC	B0X0B6	0.41	pCi/g	U	.	0.91	pCi/g	U	.	0.3	pCi/g	U	.
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	TMANC	B0X0B7	0.21	pCi/g	U	.	0.39	pCi/g	U	.	0.13	pCi/g	U	.
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESRL	B0X0X4	-0.023	pCi/g	U	.	-8.39E-02	pCi/g	U	.	3.76E-02	pCi/g	U	.
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	EBRLNE	B15YJ5	8.50E-02	pCi/g	U	.	0.12	pCi/g	U	.	9.00E-02	pCi/g	U	.
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	EBRLNE	B15YJ6	5.90E-02	pCi/g	U	.	8.30E-02	pCi/g	U	.	7.70E-02	pCi/g	U	.
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	EBRLNE	B15YJ7	4.60E-02	pCi/g	U	.	6.80E-02	pCi/g	U	.	4.40E-02	pCi/g	U	.
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	EBRLNE	B15YJ8	6.70E-02	pCi/g	U	.	8.80E-02	pCi/g	U	.	6.60E-02	pCi/g	U	.
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	EBRLNE	B15YJ9	4.50E-02	pCi/g	U	.	6.60E-02	pCi/g	U	.	4.10E-02	pCi/g	U	.
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	EBRLNE	B15YK0	6.70E-02	pCi/g	U	.	0.1	pCi/g	U	.	6.90E-02	pCi/g	U	.
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	EBRLNE	B15YK7	2.80E-02	pCi/g	U	.	3.60E-02	pCi/g	U	.	4.20E-02	pCi/g	U	.
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	EBRLNE	B15YK8	6.60E-02	pCi/g	U	.	0.078	pCi/g	U	.	5.60E-02	pCi/g	U	.
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	EBRLNE	B15YK9	8.70E-02	pCi/g	U	.	0.13	pCi/g	U	.	0.11	pCi/g	U	.
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	EBRLNE	B15YL0	5.90E-02	pCi/g	U	.	9.70E-02	pCi/g	U	.	6.60E-02	pCi/g	U	.
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	EBRLNE	B15YL1	7.00E-02	pCi/g	U	.	0.11	pCi/g	U	.	9.30E-02	pCi/g	U	.
14097	24.9936	25.994	B15YL2		11/15/02 11:00	EBRLNE	B15YL2	5.70E-02	pCi/g	U	.	8.00E-02	pCi/g	U	.	5.60E-02	pCi/g	U	.
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	EBRLNE	B15YL3	5.00E-02	pCi/g	U	.	6.70E-02	pCi/g	U	.	4.80E-02	pCi/g	U	.
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLRL	B15YL4	4.22E-02	pCi/g	U	.	-3.95E-03	pCi/g	U	.	-0.0138	pCi/g	U	.
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	EBRLNE	B15YL7	4.40E-02	pCi/g	U	.	5.80E-02	pCi/g	U	.	9.80E-02	pCi/g	U	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	EBRLNE	B15YL8	7.50E-02	pCi/g	U	.	9.70E-02	pCi/g	U	.	7.00E-02	pCi/g	U	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	EBRLNE	B15YM1	7.00E-02	pCi/g	U	.	0.1	pCi/g	U	.	7.10E-02	pCi/g	U	.
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	EBRLNE	B15YM2	7.20E-02	pCi/g	U	.	0.1	pCi/g	U	.	9.30E-02	pCi/g	U	.
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	EBRLNE	B15YM3	6.10E-02	pCi/g	U	.	8.70E-02	pCi/g	U	.	5.90E-02	pCi/g	U	.
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	EBRLNE	B15YM4	8.60E-02	pCi/g	U	.	0.12	pCi/g	U	.	9.30E-02	pCi/g	U	.
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	EBRLNE	B15YM5	7.40E-02	pCi/g	U	.	0.12	pCi/g	U	.	0.1	pCi/g	U	.
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	EBRLNE	B15YM6	0.063	pCi/g	U	.	9.10E-02	pCi/g	U	.	5.70E-02	pCi/g	U	.
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	EBRLNE	B15YN3	7.60E-02	pCi/g	U	.	0.11	pCi/g	U	.	8.20E-02	pCi/g	U	.
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	EBRLNE	B15YN4	8.40E-02	pCi/g	U	.	0.11	pCi/g	U	.	0.1	pCi/g	U	.
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	EBRLNE	B15YN5	5.90E-02	pCi/g	U	.	8.30E-02	pCi/g	U	.	0.055	pCi/g	U	.
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	EBRLNE	B15YN6	6.50E-02	pCi/g	U	.	9.60E-02	pCi/g	U	.	6.90E-02	pCi/g	U	.
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	EBRLNE	B15YN7	8.20E-02	pCi/g	U	.	0.12	pCi/g	U	.	0.14	pCi/g	U	.
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	EBRLNE	B15YN8	7.50E-02	pCi/g	U	.	0.12	pCi/g	U	.	8.00E-02	pCi/g	U	.
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	EBRLNE	B15YP9	9.80E-02	pCi/g	U	.	0.13	pCi/g	U	.	0.12	pCi/g	U	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	EBRLNE	B15YR0	7.00E-02	pCi/g	U	.	0.11	pCi/g	U	.	7.70E-02	pCi/g	U	.

S-10 Pond, RAD1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Gross alpha (12587-46-1) 900				Gross alpha (12587-46-1) 9310				Gross alpha (12587-46-1) GPC			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	TMANC	B0X099	3.93	pCi/g	.	.								
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	TMANC	B0X0B0	7.2	pCi/g	.	.								
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	TMANC	B0X0B1	5.61	pCi/g	J	.								
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	TMANC	B0X0B2	7.62	pCi/g	J	.								
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	TMANC	B0X0B3	9.15	pCi/g	J	.								
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	TMANC	B0X0B4	10.7	pCi/g	.	.								
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	TMANC	B0X0B5	3.02	pCi/g	J	.								
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	TMANC	B0X0B6	9.03	pCi/g	J	.								
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	TMANC	B0X0B7	6.58	pCi/g	J	.								
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESRL	B0X0X4									10.6	pCi/g	.	.
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	EBRLNE	B15YJ5	4.79	pCi/g	.	.								
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	EBRLNE	B15YJ6	7.43	pCi/g	.	.								
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	EBRLNE	B15YJ7	2.46	pCi/g	U	.								
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	EBRLNE	B15YJ8	3.23	pCi/g	U	.								
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	EBRLNE	B15YJ9	7.27	pCi/g	.	.								
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	EBRLNE	B15YK0	0.835	pCi/g	U	.								
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	EBRLNE	B15YK7	3.34	pCi/g	U	.								
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	EBRLNE	B15YK8	9.11	pCi/g	.	.								
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	EBRLNE	B15YK9	3.62	pCi/g	.	.								
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	EBRLNE	B15YL0	2.7	pCi/g	U	.								
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	EBRLNE	B15YL1	2.87	pCi/g	U	.								
14097	24.9936	25.994	B15YL2		11/15/02 11:00	EBRLNE	B15YL2	1.15	pCi/g	U	.								
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	EBRLNE	B15YL3	4.53	pCi/g	.	.								
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLRL	B15YL4					11.2	pCi/g	.	.				
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	EBRLNE	B15YL7	4.22	pCi/g	.	.								
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	EBRLNE	B15YL8	2.31	pCi/g	U	.								
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	EBRLNE	B15YM1	3.48	pCi/g	U	.								
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	EBRLNE	B15YM2	2.32	pCi/g	U	.								
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	EBRLNE	B15YM3	1.24	pCi/g	U	.								
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	EBRLNE	B15YM4	6.08	pCi/g	.	.								
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	EBRLNE	B15YM5	2.66	pCi/g	U	.								
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	EBRLNE	B15YM6	1.18	pCi/g	U	.								
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	EBRLNE	B15YN3	3.84	pCi/g	U	.								
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	EBRLNE	B15YN4	0.742	pCi/g	U	.								
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	EBRLNE	B15YN5	2.89	pCi/g	U	.								
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	EBRLNE	B15YN6	1.28	pCi/g	U	.								
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	EBRLNE	B15YN7	0.638	pCi/g	U	.								
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	EBRLNE	B15YN8	3.94	pCi/g	.	.								
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	EBRLNE	B15YP9	2.64	pCi/g	U	.								
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	EBRLNE	B15YR0	5.64	pCi/g	.	.								

S-10 Pond, RAD1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Gross beta (12587-47-2) 900				Gross beta (12587-47-2) 9310				Gross beta (12587-47-2) GPC			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	TMANC	B0X099	12.8	pCi/g	.	.								
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	TMANC	B0X0B0	14.4	pCi/g	.	.								
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	TMANC	B0X0B1	19.8	pCi/g	.	.								
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	TMANC	B0X0B2	21.9	pCi/g	.	.								
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	TMANC	B0X0B3	16.8	pCi/g	.	.								
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	TMANC	B0X0B4	40.3	pCi/g	B	.								
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	TMANC	B0X0B5	24	pCi/g	B	.								
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	TMANC	B0X0B6	8.18	pCi/g	J	.								
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	TMANC	B0X0B7	33.1	pCi/g	B	.								
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESRL	B0X0X4									22.1	pCi/g	.	.
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	EBRLNE	B15YJ5	10.3	pCi/g	.	.								
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	EBRLNE	B15YJ6	15	pCi/g	.	.								
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	EBRLNE	B15YJ7	11.4	pCi/g	.	.								
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	EBRLNE	B15YJ8	14.9	pCi/g	.	.								
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	EBRLNE	B15YJ9	11.2	pCi/g	.	.								
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	EBRLNE	B15YK0	9.3	pCi/g	.	.								
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	EBRLNE	B15YK7	16.5	pCi/g	.	.								
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	EBRLNE	B15YK8	14.4	pCi/g	.	.								
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	EBRLNE	B15YK9	12	pCi/g	.	.								
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	EBRLNE	B15YL0	13.4	pCi/g	.	.								
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	EBRLNE	B15YL1	14.7	pCi/g	.	.								
14097	24.9936	25.994	B15YL2		11/15/02 11:00	EBRLNE	B15YL2	11.2	pCi/g	.	.								
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	EBRLNE	B15YL3	14	pCi/g	.	.								
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLRL	B15YL4					24.7	pCi/g	.	.				
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	EBRLNE	B15YL7	16	pCi/g	.	.								
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	EBRLNE	B15YL8	13.1	pCi/g	.	.								
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	EBRLNE	B15YM1	10.2	pCi/g	.	.								
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	EBRLNE	B15YM2	8.33	pCi/g	.	.								
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	EBRLNE	B15YM3	8.96	pCi/g	.	.								
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	EBRLNE	B15YM4	12.9	pCi/g	.	.								
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	EBRLNE	B15YM5	12.9	pCi/g	.	.								
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	EBRLNE	B15YM6	12.6	pCi/g	.	.								
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	EBRLNE	B15YN3	13.7	pCi/g	.	.								
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	EBRLNE	B15YN4	6.03	pCi/g	U	.								
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	EBRLNE	B15YN5	13.5	pCi/g	.	.								
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	EBRLNE	B15YN6	13.1	pCi/g	.	.								
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	EBRLNE	B15YN7	13	pCi/g	.	.								
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	EBRLNE	B15YN8	13.3	pCi/g	.	.								
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	EBRLNE	B15YP9	15.3	pCi/g	.	.								
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	EBRLNE	B15YR0	14.5	pCi/g	.	.								

S-10 Pond, RAD1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Iodine-129 (15046-84-1) GEA				Lead-212 (15092-94-1) GEA				Lead-214 (15067-28-4) GEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	TMANC	B0X099												
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	TMANC	B0X0B0												
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	TMANC	B0X0B1												
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	TMANC	B0X0B2												
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	TMANC	B0X0B3												
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	TMANC	B0X0B4												
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	TMANC	B0X0B5												
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	TMANC	B0X0B6												
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	TMANC	B0X0B7												
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESRL	B0X0X4												
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	EBRLNE	B15YJ5												
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	EBRLNE	B15YJ6												
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	EBRLNE	B15YJ7												
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	EBRLNE	B15YJ8												
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	EBRLNE	B15YJ9												
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	EBRLNE	B15YK0												
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	EBRLNE	B15YK7												
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	EBRLNE	B15YK8												
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	EBRLNE	B15YK9												
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	EBRLNE	B15YL0												
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	EBRLNE	B15YL1												
14097	24.9936	25.994	B15YL2		11/15/02 11:00	EBRLNE	B15YL2												
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	EBRLNE	B15YL3												
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLRL	B15YL4												
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	EBRLNE	B15YL7												
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	EBRLNE	B15YL8												
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	EBRLNE	B15YM1												
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	EBRLNE	B15YM2												
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	EBRLNE	B15YM3												
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	EBRLNE	B15YM4												
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	EBRLNE	B15YM5												
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	EBRLNE	B15YM6												
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	EBRLNE	B15YN3												
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	EBRLNE	B15YN4												
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	EBRLNE	B15YN5												
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	EBRLNE	B15YN6												
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	EBRLNE	B15YN7												
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	EBRLNE	B15YN8												
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	EBRLNE	B15YP9												
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	EBRLNE	B15YR0												

S-10 Pond, RAD1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Neptunium-237 (13994-20-2) IX/Prec/AEA				Neptunium-237 (13994-20-2) LX/Plate/AEA				Nickel-63 (13981-37-8) LSC			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	TMANC	B0X099												
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	TMANC	B0X0B0												
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	TMANC	B0X0B1					3.00E-02	pCi/g	U	.	0.758	pCi/g	U	.
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	TMANC	B0X0B2					2.80E-02	pCi/g	U	.	2.46	pCi/g	J	.
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	TMANC	B0X0B3					1.30E-02	pCi/g	U	.	2.14	pCi/g	U	.
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	TMANC	B0X0B4												
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	TMANC	B0X0B5					4.00E-03	pCi/g	U	.	1.4	pCi/g	U	.
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	TMANC	B0X0B6					8.00E-03	pCi/g	U	.	-8.80E-02	pCi/g	U	.
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	TMANC	B0X0B7					-0.016	pCi/g	U	.	1.41	pCi/g	U	.
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESRL	B0X0X4												
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	EBRLNE	B15YJ5					0.063	pCi/g	U	.				
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	EBRLNE	B15YJ6					0.012	pCi/g	U	.				
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	EBRLNE	B15YJ7					0	pCi/g	U	.				
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	EBRLNE	B15YJ8					0.062	pCi/g	.	.	0.223	pCi/g	U	.
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	EBRLNE	B15YJ9					0	pCi/g	U	.	-0.652	pCi/g	U	.
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	EBRLNE	B15YK0					6.70E-02	pCi/g	U	.	-4.90E-02	pCi/g	U	.
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	EBRLNE	B15YK7					3.80E-02	pCi/g	U	.				
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	EBRLNE	B15YK8					0.062	pCi/g	U	.				
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	EBRLNE	B15YK9					0	pCi/g	U	.				
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	EBRLNE	B15YL0					5.20E-02	pCi/g	U	.	1.01	pCi/g	U	.
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	EBRLNE	B15YL1					0	pCi/g	U	.	0.779	pCi/g	U	.
14097	24.9936	25.994	B15YL2		11/15/02 11:00	EBRLNE	B15YL2					0	pCi/g	U	.	0.877	pCi/g	U	.
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	EBRLNE	B15YL3					0.027	pCi/g	U	.				
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLRL	B15YL4					0	pCi/g	U	.				
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	EBRLNE	B15YL7					0	pCi/g	U	.				
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	EBRLNE	B15YL8					0.031	pCi/g	U	.				
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	EBRLNE	B15YM1					0	pCi/g	U	.				
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	EBRLNE	B15YM2					0	pCi/g	U	.				
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	EBRLNE	B15YM3					0	pCi/g	U	.				
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	EBRLNE	B15YM4					3.70E-02	pCi/g	U	.	8.20E-02	pCi/g	U	.
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	EBRLNE	B15YM5					0	pCi/g	U	.	0	pCi/g	U	.
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	EBRLNE	B15YM6					4.20E-02	pCi/g	U	.	6.00E-02	pCi/g	U	.
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	EBRLNE	B15YN3					-3.00E-03	pCi/g	U	.				
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	EBRLNE	B15YN4					0	pCi/g	U	.				
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	EBRLNE	B15YN5					0.019	pCi/g	U	.				
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	EBRLNE	B15YN6					0	pCi/g	U	.				
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	EBRLNE	B15YN7					3.00E-03	pCi/g	U	.	0.623	pCi/g	U	.
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	EBRLNE	B15YN8					5.00E-02	pCi/g	U	.	-0.248	pCi/g	U	.
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	EBRLNE	B15YP9					0	pCi/g	U	.				
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	EBRLNE	B15YR0					7.50E-02	pCi/g	U	.				

S-10 Pond, RAD1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Niobium-94 (14681-63-1) GEA				Plutonium-238 (13981-16-3) IX/Prec/AEA				Plutonium-238 (13981-16-3) Sep/Plate/AEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	TMANC	B0X099									0	pCi/g	U	.
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	TMANC	B0X0B0									0	pCi/g	U	.
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	TMANC	B0X0B1									2.60E-02	pCi/g	U	.
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	TMANC	B0X0B2									0	pCi/g	U	.
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	TMANC	B0X0B3									5.00E-03	pCi/g	U	.
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	TMANC	B0X0B4									-6.00E-03	pCi/g	U	.
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	TMANC	B0X0B5									-0.014	pCi/g	U	.
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	TMANC	B0X0B6									4.00E-03	pCi/g	U	.
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	TMANC	B0X0B7									-7.00E-03	pCi/g	U	.
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESRL	B0X0X4									2.26E-03	pCi/g	U	.
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	EBRLNE	B15YJ5									0.014	pCi/g	U	.
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	EBRLNE	B15YJ6									0.016	pCi/g	U	.
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	EBRLNE	B15YJ7									0	pCi/g	U	.
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	EBRLNE	B15YJ8									-0.016	pCi/g	U	.
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	EBRLNE	B15YJ9									0	pCi/g	U	.
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	EBRLNE	B15YK0									-1.70E-02	pCi/g	U	.
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	EBRLNE	B15YK7									0	pCi/g	U	.
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	EBRLNE	B15YK8									9.10E-02	pCi/g	U	.
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	EBRLNE	B15YK9									0	pCi/g	U	.
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	EBRLNE	B15YL0									0	pCi/g	U	.
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	EBRLNE	B15YL1									0	pCi/g	U	.
14097	24.9936	25.994	B15YL2		11/15/02 11:00	EBRLNE	B15YL2									6.10E-02	pCi/g	U	.
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	EBRLNE	B15YL3									0	pCi/g	U	.
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLRL	B15YL4									0	pCi/g	U	.
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	EBRLNE	B15YL7									0	pCi/g	U	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	EBRLNE	B15YL8									0.027	pCi/g	U	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	EBRLNE	B15YM1									0	pCi/g	U	.
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	EBRLNE	B15YM2									0	pCi/g	U	.
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	EBRLNE	B15YM3									-2.60E-02	pCi/g	U	.
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	EBRLNE	B15YM4									9.20E-02	pCi/g	U	.
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	EBRLNE	B15YM5									0.027	pCi/g	U	.
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	EBRLNE	B15YM6									0	pCi/g	U	.
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	EBRLNE	B15YN3									0.078	pCi/g	U	.
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	EBRLNE	B15YN4									0	pCi/g	U	.
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	EBRLNE	B15YN5									0	pCi/g	U	.
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	EBRLNE	B15YN6									0	pCi/g	U	.
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	EBRLNE	B15YN7									2.90E-02	pCi/g	U	.
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	EBRLNE	B15YN8									6.40E-02	pCi/g	U	.
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	EBRLNE	B15YP9									0	pCi/g	U	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	EBRLNE	B15YR0									0	pCi/g	U	.

S-10 Pond, RAD1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Plutonium-239/240 (PU-239/240) IX/Prec/AEA				Plutonium-239/240 (PU-239/240) Sep/Plate/AEA				Plutonium-241 (14119-32-5) IX/LSC			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	TMANC	B0X099					0.014	pCi/g	U	.				
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	TMANC	B0X0B0					9.00E-03	pCi/g	U	.				
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	TMANC	B0X0B1					1.50E-02	pCi/g	U	.				
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	TMANC	B0X0B2					0.016	pCi/g	U	.				
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	TMANC	B0X0B3					0.117	pCi/g	J	.				
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	TMANC	B0X0B4					6.00E-03	pCi/g	U	.				
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	TMANC	B0X0B5					2.10E-02	pCi/g	U	.				
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	TMANC	B0X0B6					0.012	pCi/g	U	.				
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	TMANC	B0X0B7					7.00E-03	pCi/g	U	.				
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESRL	B0X0X4					0	pCi/g	U	.				
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	EBRLNE	B15YJ5					0.831	pCi/g	.	.				
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	EBRLNE	B15YJ6					0.016	pCi/g	U	.				
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	EBRLNE	B15YJ7					0.288	pCi/g	.	.				
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	EBRLNE	B15YJ8					0.317	pCi/g	.	.				
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	EBRLNE	B15YJ9					0	pCi/g	U	.				
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	EBRLNE	B15YK0					-1.70E-02	pCi/g	U	.				
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	EBRLNE	B15YK7					5.80E-02	pCi/g	U	.				
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	EBRLNE	B15YK8					2.33	pCi/g	.	.				
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	EBRLNE	B15YK9					9.60E-02	pCi/g	U	.				
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	EBRLNE	B15YL0					0	pCi/g	U	.				
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	EBRLNE	B15YL1					0	pCi/g	U	.				
14097	24.9936	25.994	B15YL2		11/15/02 11:00	EBRLNE	B15YL2					0	pCi/g	U	.				
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	EBRLNE	B15YL3					0.797	pCi/g	.	.				
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLRL	B15YL4					0.758	pCi/g	.	.				
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	EBRLNE	B15YL7					0.265	pCi/g	.	.				
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	EBRLNE	B15YL8					0.191	pCi/g	U	.				
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	EBRLNE	B15YM1					0.142	pCi/g	U	.				
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	EBRLNE	B15YM2					0.023	pCi/g	U	.				
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	EBRLNE	B15YM3					2.60E-02	pCi/g	U	.				
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	EBRLNE	B15YM4					0	pCi/g	U	.				
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	EBRLNE	B15YM5					5.30E-02	pCi/g	U	.				
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	EBRLNE	B15YM6					4.40E-02	pCi/g	U	.				
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	EBRLNE	B15YN3					0	pCi/g	U	.				
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	EBRLNE	B15YN4					0	pCi/g	U	.				
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	EBRLNE	B15YN5					0	pCi/g	U	.				
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	EBRLNE	B15YN6					3.30E-02	pCi/g	U	.				
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	EBRLNE	B15YN7					2.90E-02	pCi/g	U	.				
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	EBRLNE	B15YN8					0	pCi/g	U	.				
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	EBRLNE	B15YP9					7.70E-02	pCi/g	U	.				
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	EBRLNE	B15YR0					8.60E-02	pCi/g	U	.				

S-10 Pond, RAD1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Potassium-40 (13966-00-2) GEA				Radium-224 (13233-32-4) GEA				Radium-226 (13982-63-3) GEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	TMANC	B0X099	13.7	pCi/g	.	.					0.589	pCi/g	.	.
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	TMANC	B0X0B0	12.4	pCi/g	.	.					0.396	pCi/g	.	.
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	TMANC	B0X0B1	12.9	pCi/g	.	.					0.428	pCi/g	.	.
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	TMANC	B0X0B2	12.5	pCi/g	.	.					0.362	pCi/g	.	.
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	TMANC	B0X0B3	13.1	pCi/g	.	.					0.564	pCi/g	.	.
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	TMANC	B0X0B4	9.14	pCi/g	.	.					0.533	pCi/g	.	.
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	TMANC	B0X0B5	10.7	pCi/g	.	.					0.311	pCi/g	.	.
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	TMANC	B0X0B6	8.51	pCi/g	.	.					0.515	pCi/g	.	.
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	TMANC	B0X0B7	13.9	pCi/g	.	.					0.344	pCi/g	.	.
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESRL	B0X0X4												
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	EBRLNE	B15YJ5	10.7	pCi/g	.	.					0.504	pCi/g	.	.
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	EBRLNE	B15YJ6	10.1	pCi/g	.	.					0.348	pCi/g	.	.
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	EBRLNE	B15YJ7	11	pCi/g	.	.					0.397	pCi/g	.	.
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	EBRLNE	B15YJ8	11.3	pCi/g	.	.					0.486	pCi/g	.	.
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	EBRLNE	B15YJ9	10.3	pCi/g	.	.					0.316	pCi/g	.	.
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	EBRLNE	B15YK0	11.5	pCi/g	.	.					0.483	pCi/g	.	.
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	EBRLNE	B15YK7	12.8	pCi/g	.	.					0.498	pCi/g	.	.
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	EBRLNE	B15YK8	11.3	pCi/g	.	.					0.423	pCi/g	.	.
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	EBRLNE	B15YK9	11.6	pCi/g	.	.					0.386	pCi/g	.	.
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	EBRLNE	B15YL0	11.7	pCi/g	.	.					0.432	pCi/g	.	.
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	EBRLNE	B15YL1	13	pCi/g	.	.					0.406	pCi/g	.	.
14097	24.9936	25.994	B15YL2		11/15/02 11:00	EBRLNE	B15YL2	12	pCi/g	.	.					0.408	pCi/g	.	.
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	EBRLNE	B15YL3	11.1	pCi/g	.	.					0.437	pCi/g	.	.
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLRL	B15YL4												
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	EBRLNE	B15YL7	11.6	pCi/g	.	.					0.495	pCi/g	.	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	EBRLNE	B15YL8	12.8	pCi/g	.	.					0.495	pCi/g	.	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	EBRLNE	B15YM1	12	pCi/g	.	.					0.42	pCi/g	.	.
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	EBRLNE	B15YM2	11.6	pCi/g	.	.					0.323	pCi/g	.	.
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	EBRLNE	B15YM3	11.5	pCi/g	.	.					0.325	pCi/g	.	.
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	EBRLNE	B15YM4	12.3	pCi/g	.	.					0.739	pCi/g	.	.
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	EBRLNE	B15YM5	10.3	pCi/g	.	.					0.421	pCi/g	.	.
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	EBRLNE	B15YM6	13.2	pCi/g	.	.					0.361	pCi/g	.	.
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	EBRLNE	B15YN3	12	pCi/g	.	.					0.497	pCi/g	.	.
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	EBRLNE	B15YN4	11.2	pCi/g	.	.					0.362	pCi/g	.	.
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	EBRLNE	B15YN5	11	pCi/g	.	.					0.339	pCi/g	.	.
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	EBRLNE	B15YN6	10.8	pCi/g	.	.					0.34	pCi/g	.	.
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	EBRLNE	B15YN7	13.6	pCi/g	.	.					0.512	pCi/g	.	.
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	EBRLNE	B15YN8	12.4	pCi/g	.	.					0.469	pCi/g	.	.
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	EBRLNE	B15YP9	12.1	pCi/g	.	.					0.546	pCi/g	.	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	EBRLNE	B15YR0	12.3	pCi/g	.	.					0.537	pCi/g	.	.

S-10 Pond, RAD1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Radium-228 (15262-20-1) GEA				Ruthenium-103 (13968-53-1) GEA				Ruthenium-106 (13967-48-1) GEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	TMANC	B0X099	0.536	pCi/g	.	.								
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	TMANC	B0X0B0	0.829	pCi/g	.	.								
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	TMANC	B0X0B1	0.566	pCi/g	.	.								
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	TMANC	B0X0B2	0.492	pCi/g	.	.								
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	TMANC	B0X0B3	0.907	pCi/g	.	.								
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	TMANC	B0X0B4	0.606	pCi/g	.	.								
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	TMANC	B0X0B5	0.667	pCi/g	.	.								
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	TMANC	B0X0B6	1.2	pCi/g	U	.								
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	TMANC	B0X0B7	0.523	pCi/g	.	.								
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESRL	B0X0X4	0.834	pCi/g	.	.								
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	EBRLNE	B15YJ5	0.608	pCi/g	.	.								
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	EBRLNE	B15YJ6	0.568	pCi/g	.	.								
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	EBRLNE	B15YJ7	0.607	pCi/g	.	.								
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	EBRLNE	B15YJ8	0.749	pCi/g	.	.								
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	EBRLNE	B15YJ9	0.408	pCi/g	.	.								
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	EBRLNE	B15YK0	0.654	pCi/g	.	.								
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	EBRLNE	B15YK7	0.761	pCi/g	.	.								
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	EBRLNE	B15YK8	0.596	pCi/g	.	.								
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	EBRLNE	B15YK9	0.603	pCi/g	.	.								
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	EBRLNE	B15YL0	0.615	pCi/g	.	.								
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	EBRLNE	B15YL1	0.637	pCi/g	.	.								
14097	24.9936	25.994	B15YL2		11/15/02 11:00	EBRLNE	B15YL2	0.605	pCi/g	.	.								
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	EBRLNE	B15YL3	0.625	pCi/g	.	.								
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLRL	B15YL4	0.658	pCi/g	.	.								
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	EBRLNE	B15YL7	0.705	pCi/g	.	.								
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	EBRLNE	B15YL8	0.758	pCi/g	.	.								
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	EBRLNE	B15YM1	0.72	pCi/g	.	.								
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	EBRLNE	B15YM2	0.45	pCi/g	.	.								
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	EBRLNE	B15YM3	0.535	pCi/g	.	.								
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	EBRLNE	B15YM4	0.938	pCi/g	.	.								
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	EBRLNE	B15YM5	0.593	pCi/g	.	.								
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	EBRLNE	B15YM6	0.6	pCi/g	.	.								
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	EBRLNE	B15YN3	0.808	pCi/g	.	.								
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	EBRLNE	B15YN4	0.47	pCi/g	.	.								
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	EBRLNE	B15YN5	0.547	pCi/g	.	.								
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	EBRLNE	B15YN6	0.542	pCi/g	.	.								
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	EBRLNE	B15YN7	0.843	pCi/g	.	.								
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	EBRLNE	B15YN8	0.636	pCi/g	.	.								
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	EBRLNE	B15YP9	0.793	pCi/g	.	.								
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	EBRLNE	B15YR0	0.878	pCi/g	.	.								

S-10 Pond, RAD1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Selenium-79 (15758-45-9) IX/LSC				Sodium-22 (13966-32-0) GEA				Strontium-90 (10098-97-2) Sep/GPC			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	TMANC	B0X099												
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	TMANC	B0X0B0												
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	TMANC	B0X0B1												
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	TMANC	B0X0B2												
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	TMANC	B0X0B3												
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	TMANC	B0X0B4												
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	TMANC	B0X0B5												
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	TMANC	B0X0B6												
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	TMANC	B0X0B7												
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESRL	B0X0X4												
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	EBRLNE	B15YJ5												
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	EBRLNE	B15YJ6												
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	EBRLNE	B15YJ7												
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	EBRLNE	B15YJ8												
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	EBRLNE	B15YJ9												
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	EBRLNE	B15YK0												
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	EBRLNE	B15YK7												
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	EBRLNE	B15YK8												
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	EBRLNE	B15YK9												
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	EBRLNE	B15YL0												
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	EBRLNE	B15YL1												
14097	24.9936	25.994	B15YL2		11/15/02 11:00	EBRLNE	B15YL2												
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	EBRLNE	B15YL3												
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLRL	B15YL4												
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	EBRLNE	B15YL7					4.00E-02	pCi/g	U	.				
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	EBRLNE	B15YL8					3.30E-02	pCi/g	U	.				
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	EBRLNE	B15YM1												
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	EBRLNE	B15YM2												
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	EBRLNE	B15YM3												
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	EBRLNE	B15YM4												
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	EBRLNE	B15YM5												
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	EBRLNE	B15YM6												
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	EBRLNE	B15YN3												
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	EBRLNE	B15YN4												
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	EBRLNE	B15YN5												
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	EBRLNE	B15YN6												
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	EBRLNE	B15YN7												
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	EBRLNE	B15YN8												
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	EBRLNE	B15YP9					4.60E-02	pCi/g	U	.				
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	EBRLNE	B15YR0					3.50E-02	pCi/g	U	.				

S-10 Pond, RAD1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Technetium-99 (14133-76-7) IX/LSC				Technetium-99 (14133-76-7) Sep/GPC				Technetium-99 (14133-76-7) TEVA/LSC			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	TMANC	B0X099												
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	TMANC	B0X0B0												
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	TMANC	B0X0B1					-0.062	pCi/g	U	.				
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	TMANC	B0X0B2					-0.144	pCi/g	U	.				
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	TMANC	B0X0B3					-0.132	pCi/g	U	.				
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	TMANC	B0X0B4												
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	TMANC	B0X0B5					0.118	pCi/g	U	.				
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	TMANC	B0X0B6					0.114	pCi/g	U	.				
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	TMANC	B0X0B7					-4.90E-02	pCi/g	U	.				
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESRL	B0X0X4												
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	EBRLNE	B15YJ5												
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	EBRLNE	B15YJ6												
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	EBRLNE	B15YJ7												
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	EBRLNE	B15YJ8					-7.00E-02	pCi/g	U	.				
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	EBRLNE	B15YJ9					-0.117	pCi/g	U	.				
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	EBRLNE	B15YK0					-0.214	pCi/g	U	.				
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	EBRLNE	B15YK7												
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	EBRLNE	B15YK8												
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	EBRLNE	B15YK9												
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	EBRLNE	B15YL0					0.114	pCi/g	U	.				
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	EBRLNE	B15YL1					-8.60E-02	pCi/g	U	.				
14097	24.9936	25.994	B15YL2		11/15/02 11:00	EBRLNE	B15YL2					0.019	pCi/g	U	.				
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	EBRLNE	B15YL3												
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLRL	B15YL4												
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	EBRLNE	B15YL7												
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	EBRLNE	B15YL8												
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	EBRLNE	B15YM1												
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	EBRLNE	B15YM2												
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	EBRLNE	B15YM3												
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	EBRLNE	B15YM4					0.409	pCi/g	U	.				
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	EBRLNE	B15YM5					0.217	pCi/g	U	.				
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	EBRLNE	B15YM6					0.15	pCi/g	U	.				
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	EBRLNE	B15YN3												
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	EBRLNE	B15YN4												
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	EBRLNE	B15YN5												
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	EBRLNE	B15YN6												
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	EBRLNE	B15YN7					0.17	pCi/g	U	.				
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	EBRLNE	B15YN8					0.156	pCi/g	U	.				
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	EBRLNE	B15YP9												
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	EBRLNE	B15YR0												

S-10 Pond, RAD1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Thallium-208 (14913-50-9) GEA				Thorium-228 (14274-82-9) GEA				Thorium-228 (14274-82-9) IX/Plate/AEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	TMANC	B0X099					0.87	pCi/g	.	.				
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	TMANC	B0X0B0					0.637	pCi/g	.	.				
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	TMANC	B0X0B1					0.583	pCi/g	.	.	0.475	pCi/g	J	.
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	TMANC	B0X0B2					0.573	pCi/g	.	.	0.564	pCi/g	J	.
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	TMANC	B0X0B3					0.856	pCi/g	.	.	0.58	pCi/g	J	.
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	TMANC	B0X0B4					0.623	pCi/g	.	.				
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	TMANC	B0X0B5					0.883	pCi/g	.	.	0.484	pCi/g	J	.
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	TMANC	B0X0B6					0.649	pCi/g	.	.	0.484	pCi/g	J	.
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	TMANC	B0X0B7					0.725	pCi/g	.	.	0.516	pCi/g	J	.
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESRL	B0X0X4												
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	EBRLNE	B15YJ5					0.649	pCi/g	.	.	0.286	pCi/g	U	.
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	EBRLNE	B15YJ6					0.452	pCi/g	.	.	1.45	pCi/g	.	.
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	EBRLNE	B15YJ7					0.585	pCi/g	.	.	0.238	pCi/g	U	.
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	EBRLNE	B15YJ8					0.877	pCi/g	.	.	0.269	pCi/g	U	.
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	EBRLNE	B15YJ9					0.459	pCi/g	.	.	1.27	pCi/g	.	.
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	EBRLNE	B15YK0					0.838	pCi/g	.	.	0.265	pCi/g	U	.
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	EBRLNE	B15YK7					0.711	pCi/g	.	.	0.424	pCi/g	.	.
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	EBRLNE	B15YK8					0.566	pCi/g	.	.	0.278	pCi/g	.	.
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	EBRLNE	B15YK9					0.546	pCi/g	.	.	0.155	pCi/g	U	.
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	EBRLNE	B15YL0					0.62	pCi/g	.	.	0.266	pCi/g	U	.
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	EBRLNE	B15YL1					0.553	pCi/g	.	.	0.117	pCi/g	U	.
14097	24.9936	25.994	B15YL2		11/15/02 11:00	EBRLNE	B15YL2					0.607	pCi/g	.	.	0.355	pCi/g	.	.
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	EBRLNE	B15YL3					0.607	pCi/g	.	.	0.23	pCi/g	U	.
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLRL	B15YL4												
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	EBRLNE	B15YL7					0.668	pCi/g	.	.	0.27	pCi/g	U	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	EBRLNE	B15YL8					0.71	pCi/g	.	.	0.162	pCi/g	U	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	EBRLNE	B15YM1					0.649	pCi/g	.	.	0.377	pCi/g	.	.
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	EBRLNE	B15YM2					0.499	pCi/g	.	.	0.314	pCi/g	U	.
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	EBRLNE	B15YM3					0.531	pCi/g	.	.	0.13	pCi/g	U	.
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	EBRLNE	B15YM4					0.979	pCi/g	.	.	0.433	pCi/g	U	.
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	EBRLNE	B15YM5					0.54	pCi/g	.	.	0.46	pCi/g	.	.
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	EBRLNE	B15YM6					0.576	pCi/g	.	.	0.137	pCi/g	U	.
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	EBRLNE	B15YN3					0.718	pCi/g	.	.	0.288	pCi/g	.	.
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	EBRLNE	B15YN4					0.463	pCi/g	.	.	0.31	pCi/g	.	.
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	EBRLNE	B15YN5					0.493	pCi/g	.	.	0.164	pCi/g	U	.
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	EBRLNE	B15YN6					0.504	pCi/g	.	.	9.30E-02	pCi/g	U	.
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	EBRLNE	B15YN7					0.73	pCi/g	.	.	0.444	pCi/g	.	.
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	EBRLNE	B15YN8					0.718	pCi/g	.	.	0.194	pCi/g	U	.
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	EBRLNE	B15YP9					0.688	pCi/g	.	.	0.404	pCi/g	.	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	EBRLNE	B15YR0					0.702	pCi/g	.	.	0.25	pCi/g	U	.

S-10 Pond, RAD1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Thorium-228 (14274-82-9) IX/Prec/AEA				Thorium-230 (14269-63-7) IX/Plate/AEA				Thorium-230 (14269-63-7) IX/Prec/AEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	TMANC	B0X099												
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	TMANC	B0X0B0												
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	TMANC	B0X0B1					1.06	pCi/g	.	.				
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	TMANC	B0X0B2					0.432	pCi/g	J	.				
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	TMANC	B0X0B3					0.812	pCi/g	J	.				
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	TMANC	B0X0B4												
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	TMANC	B0X0B5					0.436	pCi/g	J	.				
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	TMANC	B0X0B6					0.738	pCi/g	J	.				
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	TMANC	B0X0B7					0.243	pCi/g	J	.				
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESRL	B0X0X4												
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	EBRLNE	B15YJ5					0.203	pCi/g	U	.				
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	EBRLNE	B15YJ6					0.776	pCi/g	.	.				
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	EBRLNE	B15YJ7					0.237	pCi/g	U	.				
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	EBRLNE	B15YJ8					0.4	pCi/g	U	.				
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	EBRLNE	B15YJ9					0.469	pCi/g	.	.				
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	EBRLNE	B15YK0					0.338	pCi/g	.	.				
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	EBRLNE	B15YK7					0.5	pCi/g	B	.				
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	EBRLNE	B15YK8					0.527	pCi/g	B	.				
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	EBRLNE	B15YK9					1.12	pCi/g	B	.				
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	EBRLNE	B15YL0					0.708	pCi/g	B	.				
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	EBRLNE	B15YL1					0.743	pCi/g	B	.				
14097	24.9936	25.994	B15YL2		11/15/02 11:00	EBRLNE	B15YL2					0.425	pCi/g	B	.				
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	EBRLNE	B15YL3					0.73	pCi/g	.	.				
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLRL	B15YL4	0.608	pCi/g	.	.					0.529	pCi/g	.	.
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	EBRLNE	B15YL7					0.154	pCi/g	U	.				
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	EBRLNE	B15YL8					0.363	pCi/g	.	.				
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	EBRLNE	B15YM1					0.41	pCi/g	B	.				
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	EBRLNE	B15YM2					0.453	pCi/g	.	.				
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	EBRLNE	B15YM3					1.59	pCi/g	.	.				
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	EBRLNE	B15YM4					0.678	pCi/g	.	.				
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	EBRLNE	B15YM5					0.721	pCi/g	.	.				
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	EBRLNE	B15YM6					0.651	pCi/g	.	.				
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	EBRLNE	B15YN3					0.594	pCi/g	.	.				
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	EBRLNE	B15YN4					0.394	pCi/g	.	.				
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	EBRLNE	B15YN5					0.519	pCi/g	.	.				
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	EBRLNE	B15YN6					0.372	pCi/g	.	.				
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	EBRLNE	B15YN7					0.61	pCi/g	.	.				
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	EBRLNE	B15YN8					0.194	pCi/g	U	.				
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	EBRLNE	B15YP9					0.798	pCi/g	.	.				
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	EBRLNE	B15YR0					0.298	pCi/g	U	.				

S-10 Pond, RAD1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Thorium-232 (TH-232) GEA				Thorium-232 (TH-232) IX/Plate/AEA				Thorium-232 (TH-232) IX/Prec/AEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	TMANC	B0X099	0.536	pCi/g	.	.								
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	TMANC	B0X0B0	0.829	pCi/g	.	.								
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	TMANC	B0X0B1	0.566	pCi/g	.	.	0.387	pCi/g	J	.				
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	TMANC	B0X0B2	0.492	pCi/g	.	.	0.344	pCi/g	J	.				
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	TMANC	B0X0B3	0.907	pCi/g	.	.	0.534	pCi/g	J	.				
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	TMANC	B0X0B4	0.606	pCi/g	.	.								
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	TMANC	B0X0B5	0.667	pCi/g	.	.	0.39	pCi/g	J	.				
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	TMANC	B0X0B6	1.2	pCi/g	U	.	0.387	pCi/g	J	.				
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	TMANC	B0X0B7	0.523	pCi/g	.	.	0.531	pCi/g	J	.				
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESRL	B0X0X4												
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	EBRLNE	B15YJ5	0.608	pCi/g	.	.	0.284	pCi/g	U	.				
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	EBRLNE	B15YJ6	0.568	pCi/g	.	.	0.831	pCi/g	.	.				
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	EBRLNE	B15YJ7	0.607	pCi/g	.	.	0.237	pCi/g	U	.				
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	EBRLNE	B15YJ8	0.749	pCi/g	.	.	0.534	pCi/g	.	.				
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	EBRLNE	B15YJ9	0.408	pCi/g	.	.	0.516	pCi/g	.	.				
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	EBRLNE	B15YK0	0.654	pCi/g	.	.	0.263	pCi/g	U	.				
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	EBRLNE	B15YK7	0.761	pCi/g	.	.	0.308	pCi/g	.	.				
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	EBRLNE	B15YK8	0.596	pCi/g	.	.	0.176	pCi/g	U	.				
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	EBRLNE	B15YK9	0.603	pCi/g	.	.	0.193	pCi/g	U	.				
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	EBRLNE	B15YL0	0.615	pCi/g	.	.	0.31	pCi/g	U	.				
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	EBRLNE	B15YL1	0.637	pCi/g	.	.	0.156	pCi/g	U	.				
14097	24.9936	25.994	B15YL2		11/15/02 11:00	EBRLNE	B15YL2	0.605	pCi/g	.	.	0.283	pCi/g	.	.				
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	EBRLNE	B15YL3	0.625	pCi/g	.	.	0.365	pCi/g	.	.				
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLRL	B15YL4									0.583	pCi/g	.	.
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	EBRLNE	B15YL7	0.705	pCi/g	.	.	0.192	pCi/g	U	.				
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	EBRLNE	B15YL8	0.758	pCi/g	.	.	0.282	pCi/g	U	.				
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	EBRLNE	B15YM1	0.72	pCi/g	.	.	0.284	pCi/g	.	.				
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	EBRLNE	B15YM2	0.45	pCi/g	.	.	0.279	pCi/g	.	.				
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	EBRLNE	B15YM3	0.535	pCi/g	.	.	0.172	pCi/g	U	.				
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	EBRLNE	B15YM4	0.938	pCi/g	.	.	0.308	pCi/g	U	.				
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	EBRLNE	B15YM5	0.593	pCi/g	.	.	0.459	pCi/g	.	.				
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	EBRLNE	B15YM6	0.6	pCi/g	.	.	0.514	pCi/g	.	.				
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	EBRLNE	B15YN3	0.808	pCi/g	.	.	0.423	pCi/g	.	.				
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	EBRLNE	B15YN4	0.47	pCi/g	.	.	0.423	pCi/g	.	.				
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	EBRLNE	B15YN5	0.547	pCi/g	.	.	0.055	pCi/g	U	.				
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	EBRLNE	B15YN6	0.542	pCi/g	.	.	9.30E-02	pCi/g	U	.				
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	EBRLNE	B15YN7	0.843	pCi/g	.	.	0.443	pCi/g	.	.				
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	EBRLNE	B15YN8	0.636	pCi/g	.	.	0.226	pCi/g	U	.				
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	EBRLNE	B15YP9	0.793	pCi/g	.	.	0.342	pCi/g	.	.				
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	EBRLNE	B15YR0	0.878	pCi/g	.	.	0.398	pCi/g	.	.				

S-10 Pond, RAD1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Thorium-234 (15065-10-8) GEA			
								Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	TMANC	B0X099				
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	TMANC	B0X0B0				
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	TMANC	B0X0B1				
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	TMANC	B0X0B2				
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	TMANC	B0X0B3				
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	TMANC	B0X0B4				
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	TMANC	B0X0B5				
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	TMANC	B0X0B6				
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	TMANC	B0X0B7				
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESRL	B0X0X4				
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	EBRLNE	B15YJ5				
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	EBRLNE	B15YJ6				
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	EBRLNE	B15YJ7				
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	EBRLNE	B15YJ8				
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	EBRLNE	B15YJ9				
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	EBRLNE	B15YK0				
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	EBRLNE	B15YK7				
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	EBRLNE	B15YK8				
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	EBRLNE	B15YK9				
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	EBRLNE	B15YL0				
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	EBRLNE	B15YL1				
14097	24.9936	25.994	B15YL2		11/15/02 11:00	EBRLNE	B15YL2				
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	EBRLNE	B15YL3				
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLRL	B15YL4				
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	EBRLNE	B15YL7				
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	EBRLNE	B15YL8				
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	EBRLNE	B15YM1				
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	EBRLNE	B15YM2				
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	EBRLNE	B15YM3				
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	EBRLNE	B15YM4				
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	EBRLNE	B15YM5				
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	EBRLNE	B15YM6				
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	EBRLNE	B15YN3				
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	EBRLNE	B15YN4				
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	EBRLNE	B15YN5				
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	EBRLNE	B15YN6				
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	EBRLNE	B15YN7				
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	EBRLNE	B15YN8				
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	EBRLNE	B15YP9				
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	EBRLNE	B15YR0				

S-10 Pond, RAD2

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Tin-113 (13966-06-8) GEA				Tin-126 (15832-50-5) GEA				Total beta radiostrontium (SR-RAD) Sep/GPC			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	TMANC	B0X099									-5.70E-02	pCi/g	U	.
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	TMANC	B0X0B0									-5.20E-02	pCi/g	U	.
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	TMANC	B0X0B1									-1.50E-02	pCi/g	U	.
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	TMANC	B0X0B2									1.57	pCi/g	.	.
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	TMANC	B0X0B3									-6.50E-02	pCi/g	U	.
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	TMANC	B0X0B4									-6.80E-02	pCi/g	U	.
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	TMANC	B0X0B5									-0.027	pCi/g	U	.
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	TMANC	B0X0B6									-0.023	pCi/g	U	.
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	TMANC	B0X0B7									-0.133	pCi/g	U	.
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESRL	B0X0X4									0.0264	pCi/g	U	.
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	EBRLNE	B15YJ5									0.766	pCi/g	.	.
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	EBRLNE	B15YJ6									0.452	pCi/g	.	.
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	EBRLNE	B15YJ7									0.186	pCi/g	U	.
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	EBRLNE	B15YJ8									0.284	pCi/g	.	.
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	EBRLNE	B15YJ9									7.70E-02	pCi/g	U	.
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	EBRLNE	B15YK0									0.17	pCi/g	U	.
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	EBRLNE	B15YK7									9.00E-02	pCi/g	U	.
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	EBRLNE	B15YK8									1.15	pCi/g	.	.
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	EBRLNE	B15YK9									0.178	pCi/g	U	.
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	EBRLNE	B15YL0									0.28	pCi/g	.	.
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	EBRLNE	B15YL1									0.564	pCi/g	.	.
14097	24.9936	25.994	B15YL2		11/15/02 11:00	EBRLNE	B15YL2									1.43	pCi/g	.	.
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	EBRLNE	B15YL3									1.26	pCi/g	.	.
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLRL	B15YL4									0.774	pCi/g	.	.
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	EBRLNE	B15YL7					3.50E-02	pCi/g	U	.	0.895	pCi/g	.	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	EBRLNE	B15YL8					0.16	pCi/g	U	.	0.1	pCi/g	U	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	EBRLNE	B15YM1									4.50E-02	pCi/g	U	.
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	EBRLNE	B15YM2									-5.00E-03	pCi/g	U	.
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	EBRLNE	B15YM3									-6.10E-02	pCi/g	U	.
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	EBRLNE	B15YM4									0.151	pCi/g	U	.
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	EBRLNE	B15YM5									0.293	pCi/g	.	.
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	EBRLNE	B15YM6									0.21	pCi/g	U	.
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	EBRLNE	B15YN3									0.024	pCi/g	U	.
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	EBRLNE	B15YN4									-9.00E-02	pCi/g	U	.
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	EBRLNE	B15YN5									0.829	pCi/g	.	.
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	EBRLNE	B15YN6									0.134	pCi/g	U	.
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	EBRLNE	B15YN7									0.152	pCi/g	U	.
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	EBRLNE	B15YN8									-8.20E-02	pCi/g	U	.
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	EBRLNE	B15YP9					9.70E-02	pCi/g	U	.	7.70E-02	pCi/g	U	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	EBRLNE	B15YR0					0.062	pCi/g	U	.	0.366	pCi/g	.	.

S-10 Pond, RAD2

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Tritium (10028-17-8) 906				Uranium-233/234 (U-233/234) Sep/Plate/AEA				Uranium-234 (13966-29-5) IX/Plate/AEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	TMANC	B0X099												
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	TMANC	B0X0B0					0.407	pCi/g	J	.				
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	TMANC	B0X0B1	6.40E-02	pCi/g	U	.	0.452	pCi/g	J	.				
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	TMANC	B0X0B2	4.00E-02	pCi/g	U	.								
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	TMANC	B0X0B3	3.80E-02	pCi/g	U	.								
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	TMANC	B0X0B4												
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	TMANC	B0X0B5	-4.60E-02	pCi/g	U	.								
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	TMANC	B0X0B6	-0.001	pCi/g	U	.								
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	TMANC	B0X0B7	0.012	pCi/g	U	.								
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESRL	B0X0X4												
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	EBRLNE	B15YJ5												
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	EBRLNE	B15YJ6												
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	EBRLNE	B15YJ7												
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	EBRLNE	B15YJ8	-6.50E-02	pCi/g	U	.								
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	EBRLNE	B15YJ9	-1.50E-02	pCi/g	U	.	0.577	pCi/g	.	.				
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	EBRLNE	B15YK0	0	pCi/g	U	.								
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	EBRLNE	B15YK7												
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	EBRLNE	B15YK8												
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	EBRLNE	B15YK9												
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	EBRLNE	B15YL0	8.40E-02	pCi/g	U	.								
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	EBRLNE	B15YL1	0.126	pCi/g	U	.								
14097	24.9936	25.994	B15YL2		11/15/02 11:00	EBRLNE	B15YL2	5.60E-02	pCi/g	U	.								
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	EBRLNE	B15YL3												
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLRL	B15YL4									0.563	pCi/g	.	.
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	EBRLNE	B15YL7												
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	EBRLNE	B15YL8												
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	EBRLNE	B15YM1												
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	EBRLNE	B15YM2												
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	EBRLNE	B15YM3												
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	EBRLNE	B15YM4	1.53	pCi/g	.	.								
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	EBRLNE	B15YM5	1.02	pCi/g	.	.								
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	EBRLNE	B15YM6	0.512	pCi/g	.	.								
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	EBRLNE	B15YN3												
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	EBRLNE	B15YN4												
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	EBRLNE	B15YN5												
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	EBRLNE	B15YN6												
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	EBRLNE	B15YN7	4.10E-02	pCi/g	U	.								
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	EBRLNE	B15YN8	4.50E-02	pCi/g	U	.								
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	EBRLNE	B15YP9												
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	EBRLNE	B15YR0												

S-10 Pond, RAD2

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Uranium-234 (13966-29-5) Sep/Plate/AEA				Uranium-235 (15117-96-1) GEA				Uranium-235 (15117-96-1) IX/Plate/AEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	TMANC	B0X099					0.19	pCi/g	U	.				
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	TMANC	B0X0B0					0.2	pCi/g	U	.				
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	TMANC	B0X0B1					0.17	pCi/g	U	.				
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	TMANC	B0X0B2					0.15	pCi/g	U	.				
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	TMANC	B0X0B3					0.1	pCi/g	U	.				
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	TMANC	B0X0B4					0.26	pCi/g	U	.				
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	TMANC	B0X0B5					0.36	pCi/g	U	.				
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	TMANC	B0X0B6					0.49	pCi/g	U	.				
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	TMANC	B0X0B7					0.21	pCi/g	U	.				
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESRL	B0X0X4												
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	EBRLNE	B15YJ5					0.14	pCi/g	U	.				
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	EBRLNE	B15YJ6					0.11	pCi/g	U	.				
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	EBRLNE	B15YJ7					7.20E-02	pCi/g	U	.				
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	EBRLNE	B15YJ8					0.1	pCi/g	U	.				
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	EBRLNE	B15YJ9					6.60E-02	pCi/g	U	.				
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	EBRLNE	B15YK0					0.1	pCi/g	U	.				
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	EBRLNE	B15YK7					4.00E-02	pCi/g	U	.				
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	EBRLNE	B15YK8					9.00E-02	pCi/g	U	.				
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	EBRLNE	B15YK9					0.14	pCi/g	U	.				
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	EBRLNE	B15YL0					9.90E-02	pCi/g	U	.				
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	EBRLNE	B15YL1					0.13	pCi/g	U	.				
14097	24.9936	25.994	B15YL2		11/15/02 11:00	EBRLNE	B15YL2					8.70E-02	pCi/g	U	.				
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	EBRLNE	B15YL3					7.60E-02	pCi/g	U	.				
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLRL	B15YL4									0.0137	pCi/g	U	.
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	EBRLNE	B15YL7					6.80E-02	pCi/g	U	.				
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	EBRLNE	B15YL8					0.11	pCi/g	U	.				
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	EBRLNE	B15YM1					0.1	pCi/g	U	.				
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	EBRLNE	B15YM2					0.12	pCi/g	U	.				
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	EBRLNE	B15YM3					9.30E-02	pCi/g	U	.				
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	EBRLNE	B15YM4					0.14	pCi/g	U	.				
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	EBRLNE	B15YM5					0.14	pCi/g	U	.				
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	EBRLNE	B15YM6					9.20E-02	pCi/g	U	.				
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	EBRLNE	B15YN3					0.12	pCi/g	U	.				
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	EBRLNE	B15YN4					0.14	pCi/g	U	.				
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	EBRLNE	B15YN5					8.90E-02	pCi/g	U	.				
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	EBRLNE	B15YN6					0.1	pCi/g	U	.				
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	EBRLNE	B15YN7					0.15	pCi/g	U	.				
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	EBRLNE	B15YN8					0.14	pCi/g	U	.				
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	EBRLNE	B15YP9					0.16	pCi/g	U	.				
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	EBRLNE	B15YR0					0.12	pCi/g	U	.				

S-10 Pond, RAD2

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Uranium-235 (15117-96-1) Sep/Plate/AEA				Uranium-238 (U-238) GEA				Uranium-238 (U-238) IX/Plate/AEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	TMANC	B0X099					11	pCi/g	U	.				
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	TMANC	B0X0B0	0.055	pCi/g	U	.	7.7	pCi/g	U	.				
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	TMANC	B0X0B1	2.20E-02	pCi/g	J	.	6.6	pCi/g	U	.				
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	TMANC	B0X0B2					5.4	pCi/g	U	.				
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	TMANC	B0X0B3					3.8	pCi/g	U	.				
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	TMANC	B0X0B4					8.7	pCi/g	U	.				
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	TMANC	B0X0B5					15	pCi/g	U	.				
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	TMANC	B0X0B6					27	pCi/g	U	.				
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	TMANC	B0X0B7					14	pCi/g	U	.				
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESRL	B0X0X4												
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	EBRLNE	B15YJ5					4.2	pCi/g	U	.				
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	EBRLNE	B15YJ6					3	pCi/g	U	.				
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	EBRLNE	B15YJ7					2.4	pCi/g	U	.				
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	EBRLNE	B15YJ8					3.1	pCi/g	U	.				
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	EBRLNE	B15YJ9	0	pCi/g	U	.	2.3	pCi/g	U	.				
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	EBRLNE	B15YK0					3.2	pCi/g	U	.				
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	EBRLNE	B15YK7					1.3	pCi/g	U	.				
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	EBRLNE	B15YK8					2.8	pCi/g	U	.				
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	EBRLNE	B15YK9					4.5	pCi/g	U	.				
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	EBRLNE	B15YL0					3.2	pCi/g	U	.				
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	EBRLNE	B15YL1					3.7	pCi/g	U	.				
14097	24.9936	25.994	B15YL2		11/15/02 11:00	EBRLNE	B15YL2					3	pCi/g	U	.				
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	EBRLNE	B15YL3					2.5	pCi/g	U	.				
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLRL	B15YL4									0.568	pCi/g	.	.
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	EBRLNE	B15YL7					2	pCi/g	U	.				
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	EBRLNE	B15YL8					3.8	pCi/g	U	.				
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	EBRLNE	B15YM1					3.1	pCi/g	U	.				
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	EBRLNE	B15YM2					3.7	pCi/g	U	.				
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	EBRLNE	B15YM3					3.3	pCi/g	U	.				
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	EBRLNE	B15YM4					3.9	pCi/g	U	.				
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	EBRLNE	B15YM5					4	pCi/g	U	.				
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	EBRLNE	B15YM6					3.3	pCi/g	U	.				
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	EBRLNE	B15YN3					3.5	pCi/g	U	.				
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	EBRLNE	B15YN4					4.2	pCi/g	U	.				
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	EBRLNE	B15YN5					3	pCi/g	U	.				
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	EBRLNE	B15YN6					3.2	pCi/g	U	.				
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	EBRLNE	B15YN7					4.6	pCi/g	U	.				
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	EBRLNE	B15YN8					3.6	pCi/g	U	.				
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	EBRLNE	B15YP9					4.5	pCi/g	U	.				
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	EBRLNE	B15YR0					3.5	pCi/g	U	.				

S-10 Pond, RAD2

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Uranium-238 (U-238) Sep/Plate/AEA				Zinc-65 (13982-39-3) GEA			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	TMANC	B0X099								
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	TMANC	B0X0B0	0.434	pCi/g	J	.				
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	TMANC	B0X0B1	0.381	pCi/g	J	.				
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	TMANC	B0X0B2								
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	TMANC	B0X0B3								
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	TMANC	B0X0B4								
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	TMANC	B0X0B5								
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	TMANC	B0X0B6								
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	TMANC	B0X0B7								
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESRL	B0X0X4								
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	EBRLNE	B15YJ5								
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	EBRLNE	B15YJ6								
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	EBRLNE	B15YJ7								
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	EBRLNE	B15YJ8								
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	EBRLNE	B15YJ9	0.548	pCi/g	.	.				
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	EBRLNE	B15YK0								
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	EBRLNE	B15YK7								
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	EBRLNE	B15YK8								
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	EBRLNE	B15YK9								
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	EBRLNE	B15YL0								
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	EBRLNE	B15YL1								
14097	24.9936	25.994	B15YL2		11/15/02 11:00	EBRLNE	B15YL2								
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	EBRLNE	B15YL3								
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLRL	B15YL4								
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	EBRLNE	B15YL7								
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	EBRLNE	B15YL8								
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	EBRLNE	B15YM1								
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	EBRLNE	B15YM2								
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	EBRLNE	B15YM3								
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	EBRLNE	B15YM4								
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	EBRLNE	B15YM5								
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	EBRLNE	B15YM6								
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	EBRLNE	B15YN3								
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	EBRLNE	B15YN4								
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	EBRLNE	B15YN5								
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	EBRLNE	B15YN6								
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	EBRLNE	B15YN7								
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	EBRLNE	B15YN8								
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	EBRLNE	B15YP9								
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	EBRLNE	B15YR0								

S-10 Pond, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	1,2,4-Trichlorobenzene (120-82-1) 8270				1,2-Dichlorobenzene (95-50-1) 8270				1,3-Dichlorobenzene (541-73-1) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5	570	ug/kg	U	.	570	ug/kg	U	.	570	ug/kg	U	.
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4												
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.

S-10 Pond, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	1,4-Dichlorobenzene (106-46-7) 8270				2,4,5-Trichlorophenol (95-95-4) 8270				2,4,6-Trichlorophenol (88-06-2) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099	370	ug/kg	U	.	940	ug/kg	U	.	370	ug/kg	U	.
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0	360	ug/kg	U	.	900	ug/kg	U	.	360	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1	340	ug/kg	U	.	850	ug/kg	U	.	340	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2	340	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3	370	ug/kg	U	.	920	ug/kg	U	.	370	ug/kg	U	.
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5	570	ug/kg	U	.	1400	ug/kg	U	.	570	ug/kg	U	.
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6	350	ug/kg	U	.	880	ug/kg	U	.	350	ug/kg	U	.
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7	340	ug/kg	U	.	850	ug/kg	U	.	340	ug/kg	U	.
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5	350	ug/kg	U	.	870	ug/kg	U	.	350	ug/kg	U	.
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6	340	ug/kg	U	.	850	ug/kg	U	.	340	ug/kg	U	.
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7	350	ug/kg	U	.	860	ug/kg	U	.	350	ug/kg	U	.
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8	350	ug/kg	U	.	870	ug/kg	U	.	350	ug/kg	U	.
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9	340	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0	350	ug/kg	U	.	880	ug/kg	U	.	350	ug/kg	U	.
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7	360	ug/kg	U	.	900	ug/kg	U	.	360	ug/kg	U	.
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8	350	ug/kg	U	.	860	ug/kg	U	.	350	ug/kg	U	.
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9	340	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0	350	ug/kg	U	.	860	ug/kg	U	.	350	ug/kg	U	.
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1	350	ug/kg	U	.	880	ug/kg	U	.	350	ug/kg	U	.
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2	350	ug/kg	U	.	880	ug/kg	U	.	350	ug/kg	U	.
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3	350	ug/kg	U	.	870	ug/kg	U	.	350	ug/kg	U	.
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4												
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7	350	ug/kg	U	.	870	ug/kg	U	.	350	ug/kg	U	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8	350	ug/kg	U	.	880	ug/kg	U	.	350	ug/kg	U	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1	350	ug/kg	U	.	870	ug/kg	U	.	350	ug/kg	U	.
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2	340	ug/kg	U	.	850	ug/kg	U	.	340	ug/kg	U	.
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3	340	ug/kg	U	.	850	ug/kg	U	.	340	ug/kg	U	.
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4	360	ug/kg	U	.	890	ug/kg	U	.	360	ug/kg	U	.
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5	350	ug/kg	U	.	880	ug/kg	U	.	350	ug/kg	U	.
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6	350	ug/kg	U	.	870	ug/kg	U	.	350	ug/kg	U	.
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3	360	ug/kg	U	.	890	ug/kg	U	.	360	ug/kg	U	.
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4	340	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5	340	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6	340	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7	350	ug/kg	U	.	880	ug/kg	U	.	350	ug/kg	U	.
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8	360	ug/kg	U	.	900	ug/kg	U	.	360	ug/kg	U	.
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9	350	ug/kg	U	.	880	ug/kg	U	.	350	ug/kg	U	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0	360	ug/kg	U	.	890	ug/kg	U	.	360	ug/kg	U	.

S-10 Pond, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	2,4-Dichlorophenol (120-83-2) 8270				2,4-Dimethylphenol (105-67-9) 8270				2,4-Dinitrophenol (51-28-5) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099	370	ug/kg	U	.	370	ug/kg	U	.	940	ug/kg	U	.
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0	360	ug/kg	U	.	360	ug/kg	U	.	900	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1	340	ug/kg	U	.	340	ug/kg	U	.	850	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2	340	ug/kg	U	.	340	ug/kg	U	.	860	ug/kg	U	.
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3	370	ug/kg	U	.	370	ug/kg	U	.	920	ug/kg	U	.
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5	570	ug/kg	U	.	570	ug/kg	U	.	1400	ug/kg	U	.
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6	350	ug/kg	U	.	350	ug/kg	U	.	880	ug/kg	U	.
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7	340	ug/kg	U	.	340	ug/kg	U	.	850	ug/kg	U	.
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5	350	ug/kg	U	.	350	ug/kg	U	.	870	ug/kg	U	.
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6	340	ug/kg	U	.	340	ug/kg	U	.	850	ug/kg	U	.
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7	350	ug/kg	U	.	350	ug/kg	U	.	860	ug/kg	U	.
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8	350	ug/kg	U	.	350	ug/kg	U	.	870	ug/kg	U	.
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9	340	ug/kg	U	.	340	ug/kg	U	.	860	ug/kg	U	.
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0	350	ug/kg	U	.	350	ug/kg	U	.	880	ug/kg	U	.
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7	360	ug/kg	U	.	360	ug/kg	U	.	900	ug/kg	U	.
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8	350	ug/kg	U	.	350	ug/kg	U	.	860	ug/kg	U	.
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9	340	ug/kg	U	.	340	ug/kg	U	.	860	ug/kg	U	.
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0	350	ug/kg	U	.	350	ug/kg	U	.	880	ug/kg	U	.
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1	350	ug/kg	U	.	350	ug/kg	U	.	880	ug/kg	U	.
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2	350	ug/kg	U	.	350	ug/kg	U	.	880	ug/kg	U	.
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3	350	ug/kg	U	.	350	ug/kg	U	.	870	ug/kg	U	.
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4												
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7	350	ug/kg	U	.	350	ug/kg	U	.	870	ug/kg	U	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8	350	ug/kg	U	.	350	ug/kg	U	.	880	ug/kg	U	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1	350	ug/kg	U	.	350	ug/kg	U	.	870	ug/kg	U	.
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2	340	ug/kg	U	.	340	ug/kg	U	.	850	ug/kg	U	.
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3	340	ug/kg	U	.	340	ug/kg	U	.	850	ug/kg	U	.
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4	360	ug/kg	U	.	360	ug/kg	U	.	890	ug/kg	U	.
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5	350	ug/kg	U	.	350	ug/kg	U	.	880	ug/kg	U	.
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6	350	ug/kg	U	.	350	ug/kg	U	.	870	ug/kg	U	.
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3	360	ug/kg	U	.	360	ug/kg	U	.	890	ug/kg	U	.
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4	340	ug/kg	U	.	340	ug/kg	U	.	860	ug/kg	U	.
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5	340	ug/kg	U	.	340	ug/kg	U	.	860	ug/kg	U	.
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6	340	ug/kg	U	.	340	ug/kg	U	.	860	ug/kg	U	.
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7	350	ug/kg	U	.	350	ug/kg	U	.	880	ug/kg	U	.
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8	360	ug/kg	U	.	360	ug/kg	U	.	900	ug/kg	U	.
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9	350	ug/kg	U	.	350	ug/kg	U	.	880	ug/kg	U	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0	360	ug/kg	U	.	360	ug/kg	U	.	890	ug/kg	U	.

S-10 Pond, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	2,4-Dinitrotoluene (121-14-2) 8270				2,6-Dinitrotoluene (606-20-2) 8270				2-Chloronaphthalene (91-58-7) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5	570	ug/kg	U	.	570	ug/kg	U	.	570	ug/kg	U	.
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4												
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.

S-10 Pond, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	2-Chlorophenol (95-57-8) 8270				2-Methylnaphthalene (91-57-6) 8270				2-Methylphenol (cresol, o-) (95-48-7) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5	570	ug/kg	U	.	570	ug/kg	U	.	570	ug/kg	U	.
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4												
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.

S-10 Pond, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	2-Nitroaniline (88-74-4) 8270				2-Nitrophenol (88-75-5) 8270				3,3'-Dichlorobenzidine (91-94-1) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099	940	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0	900	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1	850	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3	920	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5	1400	ug/kg	U	.	570	ug/kg	U	.	570	ug/kg	U	.
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6	880	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7	850	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5	870	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6	850	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7	860	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8	870	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0	880	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7	900	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8	860	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0	880	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1	880	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2	880	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3	870	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4												
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7	870	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8	880	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1	870	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2	850	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3	850	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4	890	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5	880	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6	870	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3	890	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6	860	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7	880	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8	900	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9	880	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0	890	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.

S-10 Pond, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	3-Nitroaniline (99-09-2) 8270				4,6-Dinitro-2-methylphenol (534-52-1) 8270				4-Bromophenylphenyl ether (101-55-3) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099	940	ug/kg	U	.	940	ug/kg	U	.	370	ug/kg	U	.
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0	900	ug/kg	U	.	900	ug/kg	U	.	360	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1	850	ug/kg	U	.	850	ug/kg	U	.	340	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2	860	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3	920	ug/kg	U	.	920	ug/kg	U	.	370	ug/kg	U	.
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5	1400	ug/kg	U	.	1400	ug/kg	U	.	570	ug/kg	U	.
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6	880	ug/kg	U	.	880	ug/kg	U	.	350	ug/kg	U	.
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7	850	ug/kg	U	.	850	ug/kg	U	.	340	ug/kg	U	.
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5	870	ug/kg	U	.	870	ug/kg	U	.	350	ug/kg	U	.
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6	850	ug/kg	U	.	850	ug/kg	U	.	340	ug/kg	U	.
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7	860	ug/kg	U	.	860	ug/kg	U	.	350	ug/kg	U	.
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8	870	ug/kg	U	.	870	ug/kg	U	.	350	ug/kg	U	.
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9	860	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0	880	ug/kg	U	.	880	ug/kg	U	.	350	ug/kg	U	.
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7	900	ug/kg	U	.	900	ug/kg	U	.	360	ug/kg	U	.
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8	860	ug/kg	U	.	860	ug/kg	U	.	350	ug/kg	U	.
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9	860	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0	880	ug/kg	U	.	880	ug/kg	U	.	350	ug/kg	U	.
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1	880	ug/kg	U	.	880	ug/kg	U	.	350	ug/kg	U	.
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2	880	ug/kg	U	.	880	ug/kg	U	.	350	ug/kg	U	.
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3	870	ug/kg	U	.	870	ug/kg	U	.	350	ug/kg	U	.
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4												
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7	870	ug/kg	U	.	870	ug/kg	U	.	350	ug/kg	U	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8	880	ug/kg	U	.	880	ug/kg	U	.	350	ug/kg	U	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1	870	ug/kg	U	.	870	ug/kg	U	.	350	ug/kg	U	.
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2	850	ug/kg	U	.	850	ug/kg	U	.	340	ug/kg	U	.
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3	850	ug/kg	U	.	850	ug/kg	U	.	340	ug/kg	U	.
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4	890	ug/kg	U	.	890	ug/kg	U	.	360	ug/kg	U	.
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5	880	ug/kg	U	.	880	ug/kg	U	.	350	ug/kg	U	.
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6	870	ug/kg	U	.	870	ug/kg	U	.	350	ug/kg	U	.
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3	890	ug/kg	U	.	890	ug/kg	U	.	360	ug/kg	U	.
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4	860	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5	860	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6	860	ug/kg	U	.	860	ug/kg	U	.	340	ug/kg	U	.
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7	880	ug/kg	U	.	880	ug/kg	U	.	350	ug/kg	U	.
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8	900	ug/kg	U	.	900	ug/kg	U	.	360	ug/kg	U	.
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9	880	ug/kg	U	.	880	ug/kg	U	.	350	ug/kg	U	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0	890	ug/kg	U	.	890	ug/kg	U	.	360	ug/kg	U	.

S-10 Pond, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	4-Chloro-3-methylphenol (59-50-7) 8270				4-Chloroaniline (106-47-8) 8270				4-Chlorophenylphenyl ether (7005-72-3) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5	570	ug/kg	U	.	570	ug/kg	U	.	570	ug/kg	U	.
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4												
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.

S-10 Pond, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	4-Methylphenol (cresol, p-) (106-44-5) 8270				4-Nitroaniline (100-01-6) 8270				4-Nitrophenol (100-02-7) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099	370	ug/kg	U	.	940	ug/kg	U	.	940	ug/kg	U	.
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0	360	ug/kg	U	.	900	ug/kg	U	.	900	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1	340	ug/kg	U	.	850	ug/kg	U	.	850	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2	340	ug/kg	U	.	860	ug/kg	U	.	860	ug/kg	U	.
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3	370	ug/kg	U	.	920	ug/kg	U	.	920	ug/kg	U	.
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5	570	ug/kg	U	.	1400	ug/kg	U	.	1400	ug/kg	U	.
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6	350	ug/kg	U	.	880	ug/kg	U	.	880	ug/kg	U	.
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7	340	ug/kg	U	.	850	ug/kg	U	.	850	ug/kg	U	.
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5	350	ug/kg	U	.	870	ug/kg	U	.	870	ug/kg	U	.
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6	340	ug/kg	U	.	850	ug/kg	U	.	850	ug/kg	U	.
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7	350	ug/kg	U	.	860	ug/kg	U	.	860	ug/kg	U	.
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8	350	ug/kg	U	.	870	ug/kg	U	.	870	ug/kg	U	.
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9	340	ug/kg	U	.	860	ug/kg	U	.	860	ug/kg	U	.
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0	350	ug/kg	U	.	880	ug/kg	U	.	880	ug/kg	U	.
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7	360	ug/kg	U	.	900	ug/kg	U	.	900	ug/kg	U	.
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8	350	ug/kg	U	.	860	ug/kg	U	.	860	ug/kg	U	.
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9	340	ug/kg	U	.	860	ug/kg	U	.	860	ug/kg	U	.
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0	350	ug/kg	U	.	880	ug/kg	U	.	880	ug/kg	U	.
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1	350	ug/kg	U	.	880	ug/kg	U	.	880	ug/kg	U	.
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2	350	ug/kg	U	.	880	ug/kg	U	.	880	ug/kg	U	.
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3	350	ug/kg	U	.	870	ug/kg	U	.	870	ug/kg	U	.
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4												
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7	350	ug/kg	U	.	870	ug/kg	U	.	870	ug/kg	U	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8	350	ug/kg	U	.	880	ug/kg	U	.	880	ug/kg	U	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1	350	ug/kg	U	.	870	ug/kg	U	.	870	ug/kg	U	.
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2	340	ug/kg	U	.	850	ug/kg	U	.	850	ug/kg	U	.
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3	340	ug/kg	U	.	850	ug/kg	U	.	850	ug/kg	U	.
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4	360	ug/kg	U	.	890	ug/kg	U	.	890	ug/kg	U	.
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5	350	ug/kg	U	.	880	ug/kg	U	.	880	ug/kg	U	.
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6	350	ug/kg	U	.	870	ug/kg	U	.	870	ug/kg	U	.
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3	360	ug/kg	U	.	890	ug/kg	U	.	890	ug/kg	U	.
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4	340	ug/kg	U	.	860	ug/kg	U	.	860	ug/kg	U	.
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5	340	ug/kg	U	.	860	ug/kg	U	.	860	ug/kg	U	.
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6	340	ug/kg	U	.	860	ug/kg	U	.	860	ug/kg	U	.
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7	350	ug/kg	U	.	880	ug/kg	U	.	880	ug/kg	U	.
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8	360	ug/kg	U	.	900	ug/kg	U	.	900	ug/kg	U	.
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9	350	ug/kg	U	.	880	ug/kg	U	.	880	ug/kg	U	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0	360	ug/kg	U	.	890	ug/kg	U	.	890	ug/kg	U	.

S-10 Pond, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Acenaphthene (83-32-9) 8270				Acenaphthylene (208-96-8) 8270				Anthracene (120-12-7) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5	570	ug/kg	U	.	570	ug/kg	U	.	570	ug/kg	U	.
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4												
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.

S-10 Pond, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Benzo(a)anthracene (56-55-3) 8270				Benzo(a)pyrene (50-32-8) 8270				Benzo(b)fluoranthene (205-99-2) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5	570	ug/kg	U	.	570	ug/kg	U	.	570	ug/kg	U	.
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4												
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.

S-10 Pond, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Benzo(ghi)perylene (191-24-2) 8270				Benzo(k)fluoranthene (207-08-9) 8270				Bis(2-chloro-1-methylethyl)ether (108-60-1) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5	570	ug/kg	U	.	570	ug/kg	U	.	570	ug/kg	U	.
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4												
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.

S-10 Pond, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Bis(2-Chloroethoxy)methane (111-91-1) 8270				Bis(2-chloroethyl) ether (111-44-4) 8270				Bis(2-ethylhexyl) phthalate (117-81-7) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1	340	ug/kg	U	.	340	ug/kg	U	.	24	ug/kg	J	.
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2	340	ug/kg	U	.	340	ug/kg	U	.	27	ug/kg	J	.
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5	570	ug/kg	U	.	570	ug/kg	U	.	570	ug/kg	U	.
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6	350	ug/kg	U	.	350	ug/kg	U	.	260	ug/kg	J	.
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7	340	ug/kg	U	.	340	ug/kg	U	.	230	ug/kg	JB	.
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9	340	ug/kg	U	.	340	ug/kg	U	.	35	ug/kg	J	.
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4												
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7	350	ug/kg	U	.	350	ug/kg	U	.	30	ug/kg	J	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3	340	ug/kg	U	.	340	ug/kg	U	.	21	ug/kg	J	.
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6	350	ug/kg	U	.	350	ug/kg	U	.	25	ug/kg	J	.
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4	340	ug/kg	U	.	340	ug/kg	U	.	38	ug/kg	J	.
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6	340	ug/kg	U	.	340	ug/kg	U	.	18	ug/kg	J	.
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0	360	ug/kg	U	.	360	ug/kg	U	.	140	ug/kg	J	.

S-10 Pond, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Butyl Stearate (123-95-5) 8270				Butylbenzylphthalate (85-68-7) 8270				Carbazole (86-74-8) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099					370	ug/kg	U	.	370	ug/kg	U	.
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0					360	ug/kg	U	.	360	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1					340	ug/kg	U	.	340	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2					340	ug/kg	U	.	340	ug/kg	U	.
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3					370	ug/kg	U	.	370	ug/kg	U	.
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5					570	ug/kg	U	.	570	ug/kg	U	.
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6					350	ug/kg	U	.	350	ug/kg	U	.
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7					340	ug/kg	U	.	340	ug/kg	U	.
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5					350	ug/kg	U	.	350	ug/kg	U	.
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6					340	ug/kg	U	.	340	ug/kg	U	.
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7					350	ug/kg	U	.	350	ug/kg	U	.
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8					350	ug/kg	U	.	350	ug/kg	U	.
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9					340	ug/kg	U	.	340	ug/kg	U	.
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0					350	ug/kg	U	.	350	ug/kg	U	.
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7					360	ug/kg	U	.	360	ug/kg	U	.
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8					350	ug/kg	U	.	350	ug/kg	U	.
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9					340	ug/kg	U	.	340	ug/kg	U	.
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0					350	ug/kg	U	.	350	ug/kg	U	.
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1					350	ug/kg	U	.	350	ug/kg	U	.
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2					350	ug/kg	U	.	350	ug/kg	U	.
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3					350	ug/kg	U	.	350	ug/kg	U	.
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4												
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7					350	ug/kg	U	.	350	ug/kg	U	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8					350	ug/kg	U	.	350	ug/kg	U	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1					350	ug/kg	U	.	350	ug/kg	U	.
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2					340	ug/kg	U	.	340	ug/kg	U	.
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3					340	ug/kg	U	.	340	ug/kg	U	.
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4					360	ug/kg	U	.	360	ug/kg	U	.
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5					350	ug/kg	U	.	350	ug/kg	U	.
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6					350	ug/kg	U	.	350	ug/kg	U	.
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3					360	ug/kg	U	.	360	ug/kg	U	.
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4					340	ug/kg	U	.	340	ug/kg	U	.
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5					340	ug/kg	U	.	340	ug/kg	U	.
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6					340	ug/kg	U	.	340	ug/kg	U	.
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7					350	ug/kg	U	.	350	ug/kg	U	.
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8					360	ug/kg	U	.	360	ug/kg	U	.
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9					350	ug/kg	U	.	350	ug/kg	U	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0					360	ug/kg	U	.	360	ug/kg	U	.

S-10 Pond, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Chrysene (218-01-9) 8270				Decane (124-18-5) 8270				Dibenz(a,h)anthracene (53-70-3) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099	370	ug/kg	U	.					370	ug/kg	U	.
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0	360	ug/kg	U	.					360	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1	340	ug/kg	U	.					340	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2	340	ug/kg	U	.					340	ug/kg	U	.
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3	370	ug/kg	U	.					370	ug/kg	U	.
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5	570	ug/kg	U	.					570	ug/kg	U	.
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6	350	ug/kg	U	.					350	ug/kg	U	.
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7	340	ug/kg	U	.					340	ug/kg	U	.
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5	350	ug/kg	U	.					350	ug/kg	U	.
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6	340	ug/kg	U	.					340	ug/kg	U	.
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7	350	ug/kg	U	.					350	ug/kg	U	.
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8	350	ug/kg	U	.					350	ug/kg	U	.
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9	340	ug/kg	U	.					340	ug/kg	U	.
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0	350	ug/kg	U	.					350	ug/kg	U	.
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7	360	ug/kg	U	.					360	ug/kg	U	.
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8	350	ug/kg	U	.					350	ug/kg	U	.
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9	340	ug/kg	U	.					340	ug/kg	U	.
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0	350	ug/kg	U	.					350	ug/kg	U	.
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1	350	ug/kg	U	.					350	ug/kg	U	.
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2	350	ug/kg	U	.					350	ug/kg	U	.
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3	350	ug/kg	U	.					350	ug/kg	U	.
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4												
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7	350	ug/kg	U	.					350	ug/kg	U	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8	350	ug/kg	U	.					350	ug/kg	U	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1	350	ug/kg	U	.					350	ug/kg	U	.
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2	340	ug/kg	U	.					340	ug/kg	U	.
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3	340	ug/kg	U	.					340	ug/kg	U	.
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4	360	ug/kg	U	.					360	ug/kg	U	.
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5	350	ug/kg	U	.					350	ug/kg	U	.
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6	350	ug/kg	U	.					350	ug/kg	U	.
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3	360	ug/kg	U	.					360	ug/kg	U	.
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4	340	ug/kg	U	.					340	ug/kg	U	.
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5	340	ug/kg	U	.					340	ug/kg	U	.
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6	340	ug/kg	U	.					340	ug/kg	U	.
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7	350	ug/kg	U	.					350	ug/kg	U	.
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8	360	ug/kg	U	.					360	ug/kg	U	.
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9	350	ug/kg	U	.					350	ug/kg	U	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0	360	ug/kg	U	.					360	ug/kg	U	.

S-10 Pond, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Dibenzofuran (132-64-9) 8270				Diethylphthalate (84-66-2) 8270				Dimethyl phthalate (131-11-3) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5	570	ug/kg	U	.	570	ug/kg	U	.	570	ug/kg	U	.
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4												
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.

S-10 Pond, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Di-n-butylphthalate (84-74-2) 8270				Di-n-octylphthalate (117-84-0) 8270				Eicosane (112-95-8) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099	370	ug/kg	U	.	370	ug/kg	U	.				
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0	360	ug/kg	U	.	360	ug/kg	U	.				
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1	340	ug/kg	U	.	340	ug/kg	U	.				
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2	340	ug/kg	U	.	340	ug/kg	U	.				
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3	370	ug/kg	U	.	370	ug/kg	U	.				
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5	570	ug/kg	U	.	570	ug/kg	U	.				
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6	350	ug/kg	U	.	350	ug/kg	U	.				
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7	340	ug/kg	U	.	340	ug/kg	U	.				
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5	350	ug/kg	U	.	350	ug/kg	U	.				
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6	340	ug/kg	U	.	340	ug/kg	U	.				
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7	350	ug/kg	U	.	350	ug/kg	U	.				
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8	350	ug/kg	U	.	350	ug/kg	U	.				
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9	340	ug/kg	U	.	340	ug/kg	U	.				
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0	350	ug/kg	U	.	350	ug/kg	U	.				
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7	360	ug/kg	U	.	360	ug/kg	U	.				
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8	350	ug/kg	U	.	350	ug/kg	U	.				
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9	340	ug/kg	U	.	340	ug/kg	U	.				
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0	350	ug/kg	U	.	350	ug/kg	U	.				
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1	350	ug/kg	U	.	350	ug/kg	U	.				
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2	350	ug/kg	U	.	350	ug/kg	U	.				
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3	350	ug/kg	U	.	350	ug/kg	U	.				
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4												
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7	350	ug/kg	U	.	350	ug/kg	U	.				
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8	350	ug/kg	U	.	350	ug/kg	U	.				
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1	350	ug/kg	U	.	350	ug/kg	U	.				
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2	340	ug/kg	U	.	340	ug/kg	U	.				
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3	340	ug/kg	U	.	340	ug/kg	U	.				
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4	360	ug/kg	U	.	360	ug/kg	U	.				
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5	350	ug/kg	U	.	350	ug/kg	U	.				
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6	100	ug/kg	J	.	350	ug/kg	U	.				
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3	360	ug/kg	U	.	360	ug/kg	U	.				
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4	340	ug/kg	U	.	340	ug/kg	U	.				
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5	340	ug/kg	U	.	340	ug/kg	U	.				
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6	340	ug/kg	U	.	340	ug/kg	U	.				
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7	350	ug/kg	U	.	350	ug/kg	U	.				
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8	360	ug/kg	U	.	360	ug/kg	U	.				
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9	350	ug/kg	U	.	350	ug/kg	U	.				
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0	360	ug/kg	U	.	360	ug/kg	U	.				

S-10 Pond, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Fluoranthene (206-44-0) 8270				Fluorene (86-73-7) 8270				Hexachlorobenzene (118-74-1) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5	570	ug/kg	U	.	570	ug/kg	U	.	570	ug/kg	U	.
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4												
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.

S-10 Pond, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Hexachlorobutadiene (87-68-3) 8270				Hexachlorocyclopentadiene (77-47-4) 8270				Hexachloroethane (67-72-1) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5	570	ug/kg	U	.	570	ug/kg	U	.	570	ug/kg	U	.
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4												
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.

S-10 Pond, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Hexadecanoic acid (9CI) (57-10-3) 8270				Hexadecanoic acid, butyl ester (111-06-8) 8270				Indeno(1,2,3-cd)pyrene (193-39-5) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099									370	ug/kg	U	.
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0									360	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1									340	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2									340	ug/kg	U	.
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3									370	ug/kg	U	.
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5									570	ug/kg	U	.
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6									350	ug/kg	U	.
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7									340	ug/kg	U	.
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5									350	ug/kg	U	.
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6									340	ug/kg	U	.
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7									350	ug/kg	U	.
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8									350	ug/kg	U	.
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9									340	ug/kg	U	.
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0									350	ug/kg	U	.
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7									360	ug/kg	U	.
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8									350	ug/kg	U	.
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9									340	ug/kg	U	.
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0									350	ug/kg	U	.
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1									350	ug/kg	U	.
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2									350	ug/kg	U	.
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3									350	ug/kg	U	.
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4												
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7									350	ug/kg	U	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8									350	ug/kg	U	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1									350	ug/kg	U	.
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2									340	ug/kg	U	.
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3									340	ug/kg	U	.
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4									360	ug/kg	U	.
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5									350	ug/kg	U	.
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6									350	ug/kg	U	.
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3									360	ug/kg	U	.
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4									340	ug/kg	U	.
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5									340	ug/kg	U	.
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6									340	ug/kg	U	.
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7									350	ug/kg	U	.
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8									360	ug/kg	U	.
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9									350	ug/kg	U	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0									360	ug/kg	U	.

S-10 Pond, SVOA1

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Isophorone (78-59-1) 8270			
								Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099	370	ug/kg	U	.
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0	360	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1	340	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2	340	ug/kg	U	.
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3	370	ug/kg	U	.
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5	570	ug/kg	U	.
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6	350	ug/kg	U	.
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7	340	ug/kg	U	.
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5	350	ug/kg	U	.
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6	340	ug/kg	U	.
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7	350	ug/kg	U	.
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8	350	ug/kg	U	.
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9	340	ug/kg	U	.
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0	350	ug/kg	U	.
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7	360	ug/kg	U	.
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8	350	ug/kg	U	.
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9	340	ug/kg	U	.
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0	350	ug/kg	U	.
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1	350	ug/kg	U	.
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2	350	ug/kg	U	.
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3	350	ug/kg	U	.
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4				
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7	350	ug/kg	U	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8	350	ug/kg	U	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1	350	ug/kg	U	.
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2	340	ug/kg	U	.
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3	340	ug/kg	U	.
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4	360	ug/kg	U	.
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5	350	ug/kg	U	.
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6	350	ug/kg	U	.
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3	360	ug/kg	U	.
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4	340	ug/kg	U	.
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5	340	ug/kg	U	.
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6	340	ug/kg	U	.
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7	350	ug/kg	U	.
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8	360	ug/kg	U	.
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9	350	ug/kg	U	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0	360	ug/kg	U	.

S-10 Pond, SVOA2

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Mesityl oxide (141-79-7) 8270				Naphthalene (91-20-3) 8270				n-Butyl benzenesulfonamide (3622-84-2) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099					370	ug/kg	U	.				
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0					360	ug/kg	U	.				
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1					340	ug/kg	U	.				
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2					340	ug/kg	U	.				
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3					370	ug/kg	U	.				
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5					570	ug/kg	U	.				
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6					350	ug/kg	U	.				
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7					340	ug/kg	U	.				
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5					350	ug/kg	U	.				
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6					340	ug/kg	U	.				
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7					350	ug/kg	U	.				
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8					350	ug/kg	U	.				
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9					340	ug/kg	U	.				
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0					350	ug/kg	U	.				
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7					360	ug/kg	U	.				
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8					350	ug/kg	U	.				
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9					340	ug/kg	U	.				
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0					350	ug/kg	U	.				
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1					350	ug/kg	U	.				
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2					350	ug/kg	U	.				
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3					350	ug/kg	U	.				
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4												
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7					350	ug/kg	U	.				
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8					350	ug/kg	U	.				
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1					350	ug/kg	U	.				
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2					340	ug/kg	U	.				
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3					340	ug/kg	U	.				
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4					360	ug/kg	U	.				
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5					350	ug/kg	U	.				
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6					350	ug/kg	U	.				
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3					360	ug/kg	U	.				
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4					340	ug/kg	U	.				
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5					340	ug/kg	U	.				
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6					340	ug/kg	U	.				
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7					350	ug/kg	U	.				
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8					360	ug/kg	U	.				
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9					350	ug/kg	U	.				
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0					360	ug/kg	U	.				

S-10 Pond, SVOA2

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Nitrobenzene (98-95-3) 8270				n-Nitrosodi-n-dipropylamine (621-64-7) 8270				n-Nitrosodiphenylamine (86-30-6) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3	370	ug/kg	U	.	370	ug/kg	U	.	370	ug/kg	U	.
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5	570	ug/kg	U	.	570	ug/kg	U	.	570	ug/kg	U	.
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4												
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.

S-10 Pond, SVOA2

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Octadecanoic acid (57-11-4) 8270				Pentachlorophenol (87-86-5) 8270				Phenanthrene (85-01-8) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099					940	ug/kg	U	.	370	ug/kg	U	.
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0					900	ug/kg	U	.	360	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1					850	ug/kg	U	.	340	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2					860	ug/kg	U	.	340	ug/kg	U	.
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3					920	ug/kg	U	.	370	ug/kg	U	.
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5					1400	ug/kg	U	.	570	ug/kg	U	.
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6					880	ug/kg	U	.	350	ug/kg	U	.
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7					850	ug/kg	U	.	340	ug/kg	U	.
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5					870	ug/kg	U	.	350	ug/kg	U	.
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6					850	ug/kg	U	.	340	ug/kg	U	.
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7					860	ug/kg	U	.	350	ug/kg	U	.
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8					870	ug/kg	U	.	350	ug/kg	U	.
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9					860	ug/kg	U	.	340	ug/kg	U	.
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0					880	ug/kg	U	.	350	ug/kg	U	.
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7					900	ug/kg	U	.	360	ug/kg	U	.
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8					860	ug/kg	U	.	350	ug/kg	U	.
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9					860	ug/kg	U	.	340	ug/kg	U	.
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0					880	ug/kg	U	.	350	ug/kg	U	.
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1					880	ug/kg	U	.	350	ug/kg	U	.
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2					880	ug/kg	U	.	350	ug/kg	U	.
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3					870	ug/kg	U	.	350	ug/kg	U	.
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4												
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7					870	ug/kg	U	.	350	ug/kg	U	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8					880	ug/kg	U	.	350	ug/kg	U	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1					870	ug/kg	U	.	350	ug/kg	U	.
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2					850	ug/kg	U	.	340	ug/kg	U	.
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3					850	ug/kg	U	.	340	ug/kg	U	.
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4					890	ug/kg	U	.	360	ug/kg	U	.
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5					880	ug/kg	U	.	350	ug/kg	U	.
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6					870	ug/kg	U	.	350	ug/kg	U	.
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3					890	ug/kg	U	.	360	ug/kg	U	.
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4					860	ug/kg	U	.	340	ug/kg	U	.
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5					860	ug/kg	U	.	340	ug/kg	U	.
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6					860	ug/kg	U	.	340	ug/kg	U	.
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7					880	ug/kg	U	.	350	ug/kg	U	.
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8					900	ug/kg	U	.	360	ug/kg	U	.
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9					880	ug/kg	U	.	350	ug/kg	U	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0					890	ug/kg	U	.	360	ug/kg	U	.

S-10 Pond, SVOA2

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Phenol (108-95-2) 8270				Pyrene (129-00-0) 8270				Tributyl phosphate (126-73-8) 8270			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099	370	ug/kg	U	.	370	ug/kg	U	.				
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0	360	ug/kg	U	.	360	ug/kg	U	.				
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1	340	ug/kg	U	.	340	ug/kg	U	.				
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2	340	ug/kg	U	.	340	ug/kg	U	.				
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3	370	ug/kg	U	.	370	ug/kg	U	.				
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5	570	ug/kg	U	.	570	ug/kg	U	.				
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6	350	ug/kg	U	.	350	ug/kg	U	.				
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7	340	ug/kg	U	.	340	ug/kg	U	.				
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4									340	ug/kg	U	.
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6	340	ug/kg	U	.	340	ug/kg	U	.	340	ug/kg	U	.
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9	350	ug/kg	U	.	350	ug/kg	U	.	350	ug/kg	U	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0	360	ug/kg	U	.	360	ug/kg	U	.	360	ug/kg	U	.

S-10 Pond, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	1,1,1-Trichloroethane (71-55-6) 8260				1,1,2,2-Tetrachloroethane (79-34-5) 8260				1,1,2-Trichloroethane (79-00-5) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4	0.29	ug/kg	U	.	0.44	ug/kg	U	.	0.66	ug/kg	U	.
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.

S-10 Pond, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	1,1-Dichloroethane (75-34-3) 8260				1,1-Dichloroethene (75-35-4) 8260				1,2,4-Trimethylbenzene (95-63-6) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099	6	ug/kg	U	.	6	ug/kg	U	.				
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0	6	ug/kg	U	.	6	ug/kg	U	.				
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1	5	ug/kg	U	.	5	ug/kg	U	.				
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2	6	ug/kg	U	.	6	ug/kg	U	.				
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3	6	ug/kg	U	.	6	ug/kg	U	.				
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5	6	ug/kg	U	.	6	ug/kg	U	.				
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6	5	ug/kg	U	.	5	ug/kg	U	.				
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7	6	ug/kg	U	.	6	ug/kg	U	.				
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5	6	ug/kg	U	.	6	ug/kg	U	.				
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6	6	ug/kg	U	.	6	ug/kg	U	.				
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7	6	ug/kg	U	.	6	ug/kg	U	.				
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8	5	ug/kg	U	.	5	ug/kg	U	.				
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9	6	ug/kg	U	.	6	ug/kg	U	.				
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0	6	ug/kg	U	.	6	ug/kg	U	.				
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7	6	ug/kg	U	.	6	ug/kg	U	.				
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8	6	ug/kg	U	.	6	ug/kg	U	.				
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9	6	ug/kg	U	.	6	ug/kg	U	.				
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0	6	ug/kg	U	.	6	ug/kg	U	.				
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1	6	ug/kg	U	.	6	ug/kg	U	.				
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2	6	ug/kg	U	.	6	ug/kg	U	.				
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3	5	ug/kg	U	.	5	ug/kg	U	.				
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4	0.28	ug/kg	U	.	0.32	ug/kg	U	.				
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7	6	ug/kg	U	.	6	ug/kg	U	.				
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8	6	ug/kg	U	.	6	ug/kg	U	.				
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1	6	ug/kg	U	.	6	ug/kg	U	.				
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2	5	ug/kg	U	.	5	ug/kg	U	.				
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3	5	ug/kg	U	.	5	ug/kg	U	.				
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4	5	ug/kg	U	.	5	ug/kg	U	.				
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5	5	ug/kg	U	.	5	ug/kg	U	.				
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6	6	ug/kg	U	.	6	ug/kg	U	.				
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3	6	ug/kg	U	.	6	ug/kg	U	.				
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4	5	ug/kg	U	.	5	ug/kg	U	.				
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5	5	ug/kg	U	.	5	ug/kg	U	.				
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6	5	ug/kg	U	.	5	ug/kg	U	.				
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7	6	ug/kg	U	.	6	ug/kg	U	.				
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8	6	ug/kg	U	.	6	ug/kg	U	.				
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9	6	ug/kg	U	.	6	ug/kg	U	.				
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0	5	ug/kg	U	.	5	ug/kg	U	.				

S-10 Pond, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	1,2-Dichloroethane (107-06-2) 8260				1,2-Dichloroethene (Total) (540-59-0) 8260				1,2-Dichloropropane (78-87-5) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4	0.27	ug/kg	U	.	0.57	ug/kg	U	.	0.23	ug/kg	U	.
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0	5	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.

S-10 Pond, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	1,4-Dichlorobenzene (106-46-7) 8260				1,4-Dioxane (123-91-1) 8260				1-Butanol (71-36-3) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099												
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0												
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1												
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2												
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3												
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5												
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6												
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7												
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5												
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6												
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7												
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8												
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9												
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0												
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7												
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8												
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9												
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0												
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1												
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2												
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3												
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4												
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7												
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8												
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1												
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2												
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3												
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4												
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5												
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6												
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3												
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4												
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5												
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6												
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7												
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8												
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9												
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0												

S-10 Pond, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	1-Propanol (71-23-8) 8015				2-Butanone (78-93-3) 8260				2-Ethyl-1-hexanol (104-76-7) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099	5000	ug/kg	U	.	11	ug/kg	U	.				
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0	4800	ug/kg	U	.	11	ug/kg	U	.				
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1	4600	ug/kg	U	.	10	ug/kg	U	.				
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2	5000	ug/kg	U	.	11	ug/kg	U	.				
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3	5500	ug/kg	U	.	12	ug/kg	.	.				
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5	5500	ug/kg	U	.	12	ug/kg	U	.				
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6	5000	ug/kg	U	.	10	ug/kg	U	.				
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7	5000	ug/kg	U	.	11	ug/kg	U	.				
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5	23000	ug/kg	U	.	11	ug/kg	U	.				
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6	23000	ug/kg	U	.	11	ug/kg	U	.				
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7	25000	ug/kg	U	.	11	ug/kg	U	.				
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8	24000	ug/kg	U	.	10	ug/kg	U	.				
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9	28000	ug/kg	U	.	11	ug/kg	U	.				
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0	27000	ug/kg	U	.	12	ug/kg	U	.				
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7	28000	ug/kg	U	.	11	ug/kg	U	.				
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8	23000	ug/kg	U	.	11	ug/kg	U	.				
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9	21000	ug/kg	U	.	11	ug/kg	U	.				
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0	22000	ug/kg	U	.	11	ug/kg	U	.				
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1	22000	ug/kg	U	.	12	ug/kg	U	.				
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2	22000	ug/kg	U	.	11	ug/kg	U	.				
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3	24000	ug/kg	U	.	10	ug/kg	U	.				
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4	52000	ug/kg	U	.	1.8	ug/kg	U	.				
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7	22000	ug/kg	U	.	12	ug/kg	U	.				
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8	26000	ug/kg	U	.	11	ug/kg	U	.				
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1	27000	ug/kg	U	.	11	ug/kg	U	.				
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2	25000	ug/kg	U	.	10	ug/kg	U	.				
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3	23000	ug/kg	U	.	10	ug/kg	U	.				
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4	26000	ug/kg	U	.	10	ug/kg	U	.				
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5	22000	ug/kg	U	.	10	ug/kg	U	.				
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6	24000	ug/kg	U	.	11	ug/kg	U	.				
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3	28000	ug/kg	U	.	12	ug/kg	U	.				
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4	22000	ug/kg	U	.	9	ug/kg	U	.				
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5	22000	ug/kg	U	.	10	ug/kg	U	.				
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6	24000	ug/kg	U	.	10	ug/kg	U	.				
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7	27000	ug/kg	U	.	2	ug/kg	J	.				
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8	29000	ug/kg	U	.	12	ug/kg	U	.				
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9	27000	ug/kg	U	.	11	ug/kg	U	.				
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0	24000	ug/kg	U	.	10	ug/kg	U	.				

S-10 Pond, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	2-Ethyl-1-hexanol (104-76-7) 8270				2-Hexanone (591-78-6) 8260				2-Pentanone, 4-Methyl (108-10-1) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099					11	ug/kg	U	.	11	ug/kg	U	.
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0					11	ug/kg	U	.	11	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1					10	ug/kg	U	.	10	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2					11	ug/kg	U	.	11	ug/kg	U	.
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3					12	ug/kg	U	.	12	ug/kg	U	.
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5					12	ug/kg	U	.	12	ug/kg	U	.
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6					10	ug/kg	U	.	10	ug/kg	U	.
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7					11	ug/kg	U	.	11	ug/kg	U	.
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5					11	ug/kg	U	.	11	ug/kg	U	.
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6					11	ug/kg	U	.	11	ug/kg	U	.
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7					11	ug/kg	U	.	11	ug/kg	U	.
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8					10	ug/kg	U	.	10	ug/kg	U	.
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9					11	ug/kg	U	.	11	ug/kg	U	.
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0					12	ug/kg	U	.	12	ug/kg	U	.
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7					11	ug/kg	U	.	11	ug/kg	U	.
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8					11	ug/kg	U	.	11	ug/kg	U	.
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9					11	ug/kg	U	.	11	ug/kg	U	.
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0					11	ug/kg	U	.	11	ug/kg	U	.
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1					12	ug/kg	U	.	12	ug/kg	U	.
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2					11	ug/kg	U	.	11	ug/kg	U	.
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3					10	ug/kg	U	.	10	ug/kg	U	.
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4					1.8	ug/kg	U	.	0.73	ug/kg	U	.
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7					12	ug/kg	U	.	12	ug/kg	U	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8					11	ug/kg	U	.	11	ug/kg	U	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1					11	ug/kg	U	.	11	ug/kg	U	.
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2					10	ug/kg	U	.	10	ug/kg	U	.
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3					10	ug/kg	U	.	10	ug/kg	U	.
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4					10	ug/kg	U	.	10	ug/kg	U	.
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5					10	ug/kg	U	.	10	ug/kg	U	.
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6					11	ug/kg	U	.	11	ug/kg	U	.
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3					12	ug/kg	U	.	12	ug/kg	U	.
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4					9	ug/kg	U	.	9	ug/kg	U	.
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5					10	ug/kg	U	.	10	ug/kg	U	.
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6					10	ug/kg	U	.	10	ug/kg	U	.
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7					11	ug/kg	U	.	11	ug/kg	U	.
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8					12	ug/kg	U	.	12	ug/kg	U	.
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9					11	ug/kg	U	.	11	ug/kg	U	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0					10	ug/kg	U	.	10	ug/kg	U	.

S-10 Pond, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Acetone (67-64-1) 8260				Benzene (71-43-2) 8260				Bromodichloromethane (75-27-4) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099	11	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0	6	ug/kg	J	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1	30	ug/kg	.	.	5	ug/kg	U	.	5	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2	22	ug/kg	.	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3	33	ug/kg	.	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5	22	ug/kg	B	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6	6	ug/kg	BJ	.	5	ug/kg	U	.	5	ug/kg	U	.
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7	5	ug/kg	J	.	6	ug/kg	U	.	6	ug/kg	U	.
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5	11	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6	11	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7	11	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8	10	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9	11	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0	12	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7	11	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8	11	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9	11	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0	11	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1	12	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2	11	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3	10	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4	2.5	ug/kg	U	.	0.15	ug/kg	U	.	0.15	ug/kg	U	.
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7	12	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8	11	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1	26	ug/kg	.	.	6	ug/kg	U	.	6	ug/kg	U	.
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2	10	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3	10	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4	10	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5	10	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6	15	ug/kg	.	.	6	ug/kg	U	.	6	ug/kg	U	.
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3	9	ug/kg	J	.	6	ug/kg	U	.	6	ug/kg	U	.
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4	4	ug/kg	J	.	5	ug/kg	U	.	5	ug/kg	U	.
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5	5	ug/kg	J	.	5	ug/kg	U	.	5	ug/kg	U	.
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6	9	ug/kg	J	.	5	ug/kg	U	.	5	ug/kg	U	.
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7	15	ug/kg	.	.	6	ug/kg	U	.	6	ug/kg	U	.
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8	8.699	ug/kg	J	.	6	ug/kg	U	.	6	ug/kg	U	.
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9	11	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0	10	ug/kg	U	.	5	ug/kg	U	.	5	ug/kg	U	.

S-10 Pond, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Bromoform (75-25-2) 8260				Bromomethane (74-83-9) 8260				Carbon disulfide (75-15-0) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1	5	ug/kg	U	.	10	ug/kg	U	.	5	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3	6	ug/kg	U	.	12	ug/kg	U	.	6	ug/kg	U	.
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5	6	ug/kg	U	.	12	ug/kg	U	.	6	ug/kg	U	.
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6	5	ug/kg	U	.	10	ug/kg	U	.	5	ug/kg	U	.
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8	5	ug/kg	U	.	10	ug/kg	U	.	5	ug/kg	U	.
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0	6	ug/kg	U	.	12	ug/kg	U	.	6	ug/kg	U	.
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1	6	ug/kg	U	.	12	ug/kg	U	.	6	ug/kg	U	.
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3	5	ug/kg	U	.	10	ug/kg	U	.	5	ug/kg	U	.
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4	0.26	ug/kg	U	.	1.1	ug/kg	U	.	0.33	ug/kg	U	.
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7	6	ug/kg	U	.	12	ug/kg	U	.	6	ug/kg	U	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2	5	ug/kg	U	.	10	ug/kg	U	.	5	ug/kg	U	.
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3	5	ug/kg	U	.	10	ug/kg	U	.	5	ug/kg	U	.
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4	5	ug/kg	U	.	10	ug/kg	U	.	5	ug/kg	U	.
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5	5	ug/kg	U	.	10	ug/kg	U	.	5	ug/kg	U	.
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3	6	ug/kg	U	.	12	ug/kg	U	.	6	ug/kg	U	.
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4	5	ug/kg	U	.	9	ug/kg	U	.	5	ug/kg	U	.
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5	5	ug/kg	U	.	10	ug/kg	U	.	5	ug/kg	U	.
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6	5	ug/kg	U	.	10	ug/kg	U	.	5	ug/kg	U	.
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8	6	ug/kg	U	.	12	ug/kg	U	.	6	ug/kg	U	.
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9	6	ug/kg	U	.	11	ug/kg	U	.	6	ug/kg	U	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0	5	ug/kg	U	.	10	ug/kg	U	.	5	ug/kg	U	.

S-10 Pond, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Carbon tetrachloride (56-23-5) 8260				Chlorobenzene (108-90-7) 8260				Chloroethane (75-00-3) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3	6	ug/kg	U	.	6	ug/kg	U	.	12	ug/kg	U	.
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5	6	ug/kg	U	.	6	ug/kg	U	.	12	ug/kg	U	.
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0	6	ug/kg	U	.	6	ug/kg	U	.	12	ug/kg	U	.
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1	6	ug/kg	U	.	6	ug/kg	U	.	12	ug/kg	U	.
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4	0.25	ug/kg	U	.	0.28	ug/kg	U	.	0.56	ug/kg	U	.
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7	6	ug/kg	U	.	6	ug/kg	U	.	12	ug/kg	U	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3	6	ug/kg	U	.	6	ug/kg	U	.	12	ug/kg	U	.
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4	5	ug/kg	U	.	5	ug/kg	U	.	9	ug/kg	U	.
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8	6	ug/kg	U	.	6	ug/kg	U	.	12	ug/kg	U	.
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.

S-10 Pond, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Chloroform (67-66-3) 8260				Chloromethane (74-87-3) 8260				cis-1,2-Dichloroethylene (156-59-2) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099	6	ug/kg	U	.	11	ug/kg	U	.				
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0	6	ug/kg	U	.	11	ug/kg	U	.				
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1	5	ug/kg	U	.	10	ug/kg	U	.				
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2	6	ug/kg	U	.	11	ug/kg	U	.				
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3	6	ug/kg	U	.	12	ug/kg	U	.				
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5	6	ug/kg	U	.	12	ug/kg	U	.				
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6	5	ug/kg	U	.	10	ug/kg	U	.				
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7	6	ug/kg	U	.	11	ug/kg	U	.				
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5	6	ug/kg	U	.	11	ug/kg	U	.				
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6	6	ug/kg	U	.	11	ug/kg	U	.				
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7	6	ug/kg	U	.	11	ug/kg	U	.				
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8	5	ug/kg	U	.	10	ug/kg	U	.				
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9	6	ug/kg	U	.	11	ug/kg	U	.				
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0	6	ug/kg	U	.	12	ug/kg	U	.				
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7	6	ug/kg	U	.	11	ug/kg	U	.				
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8	6	ug/kg	U	.	11	ug/kg	U	.				
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9	6	ug/kg	U	.	11	ug/kg	U	.				
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0	6	ug/kg	U	.	11	ug/kg	U	.				
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1	6	ug/kg	U	.	12	ug/kg	U	.				
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2	6	ug/kg	U	.	11	ug/kg	U	.				
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3	5	ug/kg	U	.	10	ug/kg	U	.				
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4	0.24	ug/kg	U	.	0.99	ug/kg	U	.				
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7	6	ug/kg	U	.	12	ug/kg	U	.				
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8	6	ug/kg	U	.	11	ug/kg	U	.				
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1	6	ug/kg	U	.	11	ug/kg	U	.				
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2	5	ug/kg	U	.	10	ug/kg	U	.				
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3	5	ug/kg	U	.	10	ug/kg	U	.				
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4	5	ug/kg	U	.	10	ug/kg	U	.				
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5	5	ug/kg	U	.	10	ug/kg	U	.				
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6	6	ug/kg	U	.	11	ug/kg	U	.				
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3	6	ug/kg	U	.	12	ug/kg	U	.				
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4	5	ug/kg	U	.	9	ug/kg	U	.				
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5	5	ug/kg	U	.	10	ug/kg	U	.				
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6	5	ug/kg	U	.	10	ug/kg	U	.				
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7	6	ug/kg	U	.	11	ug/kg	U	.				
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8	6	ug/kg	U	.	12	ug/kg	U	.				
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9	6	ug/kg	U	.	11	ug/kg	U	.				
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0	5	ug/kg	U	.	10	ug/kg	U	.				

S-10 Pond, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	cis-1,3-Dichloropropene (10061-01-5) 8260				Dibromochloromethane (124-48-1) 8260				Diethyl ether (60-29-7) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099	6	ug/kg	U	.	6	ug/kg	U	.				
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0	6	ug/kg	U	.	6	ug/kg	U	.				
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1	5	ug/kg	U	.	5	ug/kg	U	.				
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2	6	ug/kg	U	.	6	ug/kg	U	.				
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3	6	ug/kg	U	.	6	ug/kg	U	.				
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5	6	ug/kg	U	.	6	ug/kg	U	.				
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6	5	ug/kg	U	.	5	ug/kg	U	.				
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7	6	ug/kg	U	.	6	ug/kg	U	.				
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5	6	ug/kg	U	.	6	ug/kg	U	.				
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6	6	ug/kg	U	.	6	ug/kg	U	.				
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7	6	ug/kg	U	.	6	ug/kg	U	.				
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8	5	ug/kg	U	.	5	ug/kg	U	.				
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9	6	ug/kg	U	.	6	ug/kg	U	.				
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0	6	ug/kg	U	.	6	ug/kg	U	.				
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7	6	ug/kg	U	.	6	ug/kg	U	.				
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8	6	ug/kg	U	.	6	ug/kg	U	.				
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9	6	ug/kg	U	.	6	ug/kg	U	.				
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0	6	ug/kg	U	.	6	ug/kg	U	.				
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1	6	ug/kg	U	.	6	ug/kg	U	.				
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2	6	ug/kg	U	.	6	ug/kg	U	.				
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3	5	ug/kg	U	.	5	ug/kg	U	.				
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4	0.46	ug/kg	U	.	0.36	ug/kg	U	.				
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7	6	ug/kg	U	.	6	ug/kg	U	.				
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8	6	ug/kg	U	.	6	ug/kg	U	.				
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1	6	ug/kg	U	.	6	ug/kg	U	.				
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2	5	ug/kg	U	.	5	ug/kg	U	.				
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3	5	ug/kg	U	.	5	ug/kg	U	.				
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4	5	ug/kg	U	.	5	ug/kg	U	.				
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5	5	ug/kg	U	.	5	ug/kg	U	.				
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6	6	ug/kg	U	.	6	ug/kg	U	.				
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3	6	ug/kg	U	.	6	ug/kg	U	.				
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4	5	ug/kg	U	.	5	ug/kg	U	.				
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5	5	ug/kg	U	.	5	ug/kg	U	.				
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6	5	ug/kg	U	.	5	ug/kg	U	.				
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7	6	ug/kg	U	.	6	ug/kg	U	.				
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8	6	ug/kg	U	.	6	ug/kg	U	.				
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9	6	ug/kg	U	.	6	ug/kg	U	.				
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0	5	ug/kg	U	.	5	ug/kg	U	.				

S-10 Pond, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Ethanol (64-17-5) 8015				Ethyl cyanide (107-12-0) 8260				Ethylbenzene (100-41-4) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099	5000	ug/kg	U	.					6	ug/kg	U	.
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0	4800	ug/kg	U	.					6	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1	4600	ug/kg	U	.					5	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2	5000	ug/kg	U	.					6	ug/kg	U	.
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3	5500	ug/kg	U	.					6	ug/kg	U	.
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5	5500	ug/kg	U	.					6	ug/kg	U	.
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6	5000	ug/kg	U	.					5	ug/kg	U	.
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7	5000	ug/kg	U	.					6	ug/kg	U	.
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5	23000	ug/kg	U	.					6	ug/kg	U	.
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6	23000	ug/kg	U	.					6	ug/kg	U	.
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7	25000	ug/kg	U	.					6	ug/kg	U	.
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8	24000	ug/kg	U	.					5	ug/kg	U	.
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9	28000	ug/kg	U	.					6	ug/kg	U	.
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0	27000	ug/kg	U	.					6	ug/kg	U	.
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7	28000	ug/kg	U	.					6	ug/kg	U	.
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8	23000	ug/kg	U	.					6	ug/kg	U	.
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9	21000	ug/kg	U	.					6	ug/kg	U	.
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0	22000	ug/kg	U	.					6	ug/kg	U	.
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1	22000	ug/kg	U	.					6	ug/kg	U	.
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2	22000	ug/kg	U	.					6	ug/kg	U	.
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3	24000	ug/kg	U	.					5	ug/kg	U	.
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4	6200	ug/kg	U	.					0.77	ug/kg	U	.
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7	22000	ug/kg	U	.					6	ug/kg	U	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8	26000	ug/kg	U	.					6	ug/kg	U	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1	27000	ug/kg	U	.					6	ug/kg	U	.
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2	25000	ug/kg	U	.					5	ug/kg	U	.
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3	23000	ug/kg	U	.					5	ug/kg	U	.
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4	26000	ug/kg	U	.					5	ug/kg	U	.
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5	22000	ug/kg	U	.					5	ug/kg	U	.
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6	24000	ug/kg	U	.					6	ug/kg	U	.
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3	28000	ug/kg	U	.					6	ug/kg	U	.
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4	22000	ug/kg	U	.					5	ug/kg	U	.
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5	22000	ug/kg	U	.					5	ug/kg	U	.
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6	24000	ug/kg	U	.					5	ug/kg	U	.
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7	27000	ug/kg	U	.					6	ug/kg	U	.
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8	29000	ug/kg	U	.					6	ug/kg	U	.
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9	27000	ug/kg	U	.					6	ug/kg	U	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0	24000	ug/kg	U	.					5	ug/kg	U	.

S-10 Pond, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Methylene chloride (75-09-2) 8260				Styrene (100-42-5) 8260				Tetrachloroethene (127-18-4) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099	8	ug/kg	B	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0	10	ug/kg	B	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1	6	ug/kg	B	.	5	ug/kg	U	.	5	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2	7	ug/kg	B	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3	19	ug/kg	B	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5	15	ug/kg	B	.	6	ug/kg	U	.	6	ug/kg	U	.
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6	4	ug/kg	BJ	.	5	ug/kg	U	.	5	ug/kg	U	.
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7	20	ug/kg	B	.	6	ug/kg	U	.	6	ug/kg	U	.
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5	15	ug/kg	B	.	6	ug/kg	U	.	6	ug/kg	U	.
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6	14	ug/kg	B	.	6	ug/kg	U	.	6	ug/kg	U	.
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7	14	ug/kg	B	.	6	ug/kg	U	.	6	ug/kg	U	.
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8	16	ug/kg	B	.	5	ug/kg	U	.	5	ug/kg	U	.
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0	6	ug/kg	U	.	6	ug/kg	U	.	6	ug/kg	U	.
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7	5	ug/kg	J	.	6	ug/kg	U	.	6	ug/kg	U	.
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8	6	ug/kg	.	.	6	ug/kg	U	.	6	ug/kg	U	.
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9	6	ug/kg	.	.	6	ug/kg	U	.	6	ug/kg	U	.
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0	17	ug/kg	.	.	6	ug/kg	U	.	6	ug/kg	U	.
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1	17	ug/kg	.	.	6	ug/kg	U	.	6	ug/kg	U	.
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2	18	ug/kg	.	.	6	ug/kg	U	.	6	ug/kg	U	.
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3	15	ug/kg	B	.	5	ug/kg	U	.	5	ug/kg	U	.
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4	5.4	ug/kg	B	.	0.38	ug/kg	U	.	1.1	ug/kg	U	.
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7	14.031	ug/kg	.	.	6	ug/kg	U	.	6	ug/kg	U	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8	5	ug/kg	J	.	6	ug/kg	U	.	6	ug/kg	U	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1	7	ug/kg	.	.	6	ug/kg	U	.	6	ug/kg	U	.
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2	7	ug/kg	.	.	5	ug/kg	U	.	5	ug/kg	U	.
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3	9	ug/kg	.	.	5	ug/kg	U	.	5	ug/kg	U	.
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4	23	ug/kg	.	.	5	ug/kg	U	.	5	ug/kg	U	.
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5	10	ug/kg	.	.	5	ug/kg	U	.	5	ug/kg	U	.
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6	13	ug/kg	.	.	6	ug/kg	U	.	6	ug/kg	U	.
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3	9	ug/kg	.	.	6	ug/kg	U	.	6	ug/kg	U	.
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4	12	ug/kg	.	.	5	ug/kg	U	.	5	ug/kg	U	.
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5	7	ug/kg	.	.	5	ug/kg	U	.	5	ug/kg	U	.
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6	11	ug/kg	.	.	5	ug/kg	U	.	5	ug/kg	U	.
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7	8	ug/kg	.	.	6	ug/kg	U	.	6	ug/kg	U	.
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8	9	ug/kg	.	.	6	ug/kg	U	.	6	ug/kg	U	.
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9	7	ug/kg	.	.	6	ug/kg	U	.	6	ug/kg	U	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0	7	ug/kg	.	.	5	ug/kg	U	.	5	ug/kg	U	.

S-10 Pond, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Tetrahydrofuran (109-99-9) 8260				Toluene (108-88-3) 8260				trans-1,2-Dichloroethylene (156-60-5) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099					6	ug/kg	U	.				
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0					6	ug/kg	U	.				
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1					5	ug/kg	U	.				
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2					6	ug/kg	U	.				
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3					6	ug/kg	U	.				
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5					6	ug/kg	U	.				
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6					5	ug/kg	U	.				
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7					6	ug/kg	U	.				
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5					6	ug/kg	U	.				
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6					6	ug/kg	U	.				
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7					6	ug/kg	U	.				
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8					5	ug/kg	U	.				
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9					6	ug/kg	U	.				
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0					6	ug/kg	U	.				
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7					6	ug/kg	U	.				
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8					6	ug/kg	U	.				
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9					6	ug/kg	U	.				
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0					6	ug/kg	U	.				
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1					6	ug/kg	U	.				
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2					6	ug/kg	U	.				
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3					5	ug/kg	U	.				
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4					4.2	ug/kg	J	.				
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7					6	ug/kg	U	.				
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8					6	ug/kg	U	.				
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1					6	ug/kg	U	.				
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2					5	ug/kg	U	.				
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3					5	ug/kg	U	.				
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4					5	ug/kg	U	.				
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5					5	ug/kg	U	.				
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6					6	ug/kg	U	.				
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3					6	ug/kg	U	.				
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4					5	ug/kg	U	.				
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5					5	ug/kg	U	.				
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6					5	ug/kg	U	.				
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7					6	ug/kg	U	.				
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8					6	ug/kg	U	.				
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9					6	ug/kg	U	.				
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0					5	ug/kg	U	.				

S-10 Pond, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	trans-1,3-Dichloropropene (10061-02-6) 8260				Trichloroethene (79-01-6) 8260				Vinyl chloride (75-01-4) 8260			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3	6	ug/kg	U	.	6	ug/kg	U	.	12	ug/kg	U	.
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5	6	ug/kg	U	.	6	ug/kg	U	.	12	ug/kg	U	.
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0	6	ug/kg	U	.	6	ug/kg	U	.	12	ug/kg	U	.
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1	6	ug/kg	U	.	6	ug/kg	U	.	12	ug/kg	U	.
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4	0.84	ug/kg	U	.	0.23	ug/kg	U	.	0.84	ug/kg	U	.
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7	6	ug/kg	U	.	6	ug/kg	U	.	12	ug/kg	U	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3	6	ug/kg	U	.	6	ug/kg	U	.	12	ug/kg	U	.
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4	5	ug/kg	U	.	5	ug/kg	U	.	9	ug/kg	U	.
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8	6	ug/kg	U	.	6	ug/kg	U	.	12	ug/kg	U	.
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9	6	ug/kg	U	.	6	ug/kg	U	.	11	ug/kg	U	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0	5	ug/kg	U	.	5	ug/kg	U	.	10	ug/kg	U	.

S-10 Pond, VOA

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Xylenes (total) (1330-20-7) 8260			
								Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099	6	ug/kg	U	.
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0	6	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1	5	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2	6	ug/kg	U	.
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3	6	ug/kg	U	.
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5	6	ug/kg	U	.
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6	5	ug/kg	U	.
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7	6	ug/kg	U	.
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5	6	ug/kg	U	.
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6	6	ug/kg	U	.
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7	6	ug/kg	U	.
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8	5	ug/kg	U	.
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9	6	ug/kg	U	.
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0	6	ug/kg	U	.
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7	6	ug/kg	U	.
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8	6	ug/kg	U	.
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9	6	ug/kg	U	.
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0	6	ug/kg	U	.
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1	6	ug/kg	U	.
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2	6	ug/kg	U	.
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3	5	ug/kg	U	.
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4	1	ug/kg	U	.
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7	6	ug/kg	U	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8	6	ug/kg	U	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1	6	ug/kg	U	.
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2	5	ug/kg	U	.
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3	5	ug/kg	U	.
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4	5	ug/kg	U	.
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5	5	ug/kg	U	.
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6	6	ug/kg	U	.
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3	6	ug/kg	U	.
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4	5	ug/kg	U	.
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5	5	ug/kg	U	.
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6	5	ug/kg	U	.
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7	6	ug/kg	U	.
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8	6	ug/kg	U	.
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9	1.388	ug/kg	J	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0	5	ug/kg	U	.

S-10 Pond, WETCHEM

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Ammonia (7664-41-7) 350.1				Ammonia (7664-41-7) 350.3				Ammonium ion (14798-03-9) 300.7_CATIONS_IC			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099					1700	ug/kg	U	.				
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0					1580	ug/kg	U	.				
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1					1580	ug/kg	U	.				
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2					2070	ug/kg	.	.				
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3					1700	ug/kg	.	.				
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	RLNP	B0X0B4												
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5					1700	ug/kg	.	.				
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6					1580	ug/kg	U	.				
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7					1580	ug/kg	U	.				
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESSL	B0X0X4												
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5					3160	ug/kg	U	.				
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6					2800	ug/kg	U	.				
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7					3160	ug/kg	U	.				
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8					3040	ug/kg	U	.				
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9					2800	ug/kg	U	.				
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0					3160	ug/kg	U	.				
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7					3160	ug/kg	U	.				
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8					3040	ug/kg	U	.				
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9					3040	ug/kg	U	.				
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0					3040	ug/kg	U	.				
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1					3160	ug/kg	U	.				
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2					3160	ug/kg	U	.				
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3					3160	ug/kg	U	.				
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4	146	ug/kg	U	.								
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7					3160	ug/kg	U	.				
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8					2920	ug/kg	U	.				
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1					3040	ug/kg	U	.				
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2					3100	ug/kg	U	.				
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3					3050	ug/kg	U	.				
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4					3060	ug/kg	U	.				
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5					3090	ug/kg	U	.				
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6					3090	ug/kg	U	.				
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3					3280	ug/kg	U	.				
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4					3100	ug/kg	U	.				
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5					2920	ug/kg	U	.				
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6					3040	ug/kg	U	.				
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7					3170	ug/kg	U	.				
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8					3230	ug/kg	U	.				
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9					3000	ug/kg	U	.				
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0					3060	ug/kg	U	.				

S-10 Pond, WETCHEM

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Bromide (24959-67-9) 300				Chloride (16887-00-6) 300				Cyanide (57-12-5) 335.2			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099					1400	ug/kg	U	.				
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0					2300	ug/kg	.	.				
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1					1900	ug/kg	.	.				
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2					2000	ug/kg	.	.				
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3					1700	ug/kg	.	.				
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	RLNP	B0X0B4					1500	ug/kg	.	.				
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5					1700	ug/kg	.	.				
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6					2000	ug/kg	.	.				
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7					2500	ug/kg	.	.				
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESSL	B0X0X4					2000	ug/kg	U	.				
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5					1300	ug/kg	U	.				
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6					1300	ug/kg	U	.				
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7					1800	ug/kg	.	.				
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8					1900	ug/kg	.	.				
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9					1700	ug/kg	.	.				
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0					1800	ug/kg	.	.				
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7					2000	ug/kg	.	.				
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8					1300	ug/kg	U	.				
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9					1600	ug/kg	.	.				
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0					2000	ug/kg	.	.				
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1					1800	ug/kg	.	.				
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2					1700	ug/kg	.	.				
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3					1300	ug/kg	.	.				
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4					3100	ug/kg	.	.				
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7					1300	ug/kg	U	.				
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8					1300	ug/kg	U	.				
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1					1310	ug/kg	U	.	375	ug/kg	U	.
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2					1480	ug/kg	.	.	320	ug/kg	U	.
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3					1600	ug/kg	.	.	268	ug/kg	U	.
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4					3960	ug/kg	.	.	448	ug/kg	U	.
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5					3870	ug/kg	.	.	412	ug/kg	U	.
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6					1900	ug/kg	.	.	407	ug/kg	U	.
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3					1450	ug/kg	.	.	476	ug/kg	U	.
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4					1290	ug/kg	U	.	261	ug/kg	U	.
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5					1690	ug/kg	.	.	277	ug/kg	U	.
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6					1280	ug/kg	U	.	378	ug/kg	U	.
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7					2090	ug/kg	.	.	347	ug/kg	U	.
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8					1780	ug/kg	.	.	278	ug/kg	U	.
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9					1370	ug/kg	.	.	398	ug/kg	U	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0					1330	ug/kg	U	.	534	ug/kg	U	.

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Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Cyanide (57-12-5) 9010				Fluoride (16984-48-8) 300				Hydrazine (302-01-2) D1385			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099	560	ug/kg	U	.	2800	ug/kg	U	.				
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0	540	ug/kg	U	.	2700	ug/kg	U	.				
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1	520	ug/kg	U	.	2600	ug/kg	U	.				
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2	520	ug/kg	U	.	2600	ug/kg	U	.				
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3	550	ug/kg	U	.	2800	ug/kg	U	.				
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	RLNP	B0X0B4					2700	ug/kg	U	.				
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5	580	ug/kg	U	.	2900	ug/kg	U	.				
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6	530	ug/kg	U	.	2700	ug/kg	U	.				
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7	510	ug/kg	U	.	2600	ug/kg	U	.				
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESSL	B0X0X4					1000	ug/kg	U	.				
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5	250	ug/kg	U	.	1300	ug/kg	U	.				
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6	300	ug/kg	U	.	1300	ug/kg	U	.				
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7	410	ug/kg	U	.	1300	ug/kg	U	.				
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8	450	ug/kg	U	.	1300	ug/kg	U	.				
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9	290	ug/kg	U	.	1300	ug/kg	U	.				
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0	330	ug/kg	U	.	1300	ug/kg	U	.				
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7	520	ug/kg	U	.	1300	ug/kg	U	.				
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8	520	ug/kg	U	.	1300	ug/kg	U	.				
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9	510	ug/kg	U	.	1300	ug/kg	U	.				
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0	520	ug/kg	U	.	1300	ug/kg	U	.				
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1	430	ug/kg	U	.	1300	ug/kg	U	.				
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2	360	ug/kg	U	.	1300	ug/kg	U	.				
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3	380	ug/kg	U	.	1300	ug/kg	U	.				
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4	200	ug/kg	B	.	1100	ug/kg	.	.				
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7	340	ug/kg	U	.	1300	ug/kg	U	.				
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8	300	ug/kg	U	.	1300	ug/kg	U	.				
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1					1310	ug/kg	U	.				
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2					1280	ug/kg	U	.				
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3					1280	ug/kg	U	.				
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4					1340	ug/kg	U	.				
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5					1310	ug/kg	U	.				
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6					1300	ug/kg	U	.				
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3					1340	ug/kg	U	.				
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4					1290	ug/kg	U	.				
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5					1280	ug/kg	U	.				
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6					1280	ug/kg	U	.				
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7					1310	ug/kg	U	.				
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8					1350	ug/kg	U	.				
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9					1320	ug/kg	U	.				
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0					1330	ug/kg	U	.				

S-10 Pond, WETCHEM

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Nitrate (14797-55-8) 300				Nitrite (14797-65-0) 300				Nitrogen in Nitrite and Nitrate (NO2+NO3-N) 353.1			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099	5400	ug/kg	.	.	1400	ug/kg	U	.				
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0	4000	ug/kg	.	.	1400	ug/kg	U	.	730	ug/kg	.	.
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1	1500	ug/kg	.	.	1300	ug/kg	U	.				
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2	1300	ug/kg	.	.	1300	ug/kg	U	.				
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3	1400	ug/kg	U	.	1400	ug/kg	U	.				
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	RLNP	B0X0B4	1600	ug/kg	.	.	1400	ug/kg	U	.				
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5	2300	ug/kg	.	.	1500	ug/kg	U	.				
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6	1300	ug/kg	U	.	1300	ug/kg	U	.				
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7	1300	ug/kg	U	.	1300	ug/kg	U	.	220	ug/kg	U	.
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESSL	B0X0X4	4340	ug/kg	.	.	657	ug/kg	U	.	500	ug/kg	U	.
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5	12400	ug/kg	.	.	1310	ug/kg	U	.				
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6	8110	ug/kg	.	.	1280	ug/kg	U	.				
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7	23700	ug/kg	.	.	1300	ug/kg	U	.				
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8	20400	ug/kg	.	.	1300	ug/kg	U	.				
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9	11300	ug/kg	.	.	1290	ug/kg	U	.				
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0	11100	ug/kg	.	.	1330	ug/kg	U	.				
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7	14200	ug/kg	.	.	1340	ug/kg	U	.				
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8	12800	ug/kg	.	.	1300	ug/kg	U	.				
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9	4230	ug/kg	.	.	1290	ug/kg	U	.				
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0	34100	ug/kg	.	.	1320	ug/kg	U	.				
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1	34200	ug/kg	.	.	1310	ug/kg	U	.				
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2	15800	ug/kg	.	.	1310	ug/kg	U	.				
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3	14200	ug/kg	.	.	1300	ug/kg	U	.				
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4	15900	ug/kg	.	.	1580	ug/kg	.	.	4700	ug/kg	.	.
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7	10600	ug/kg	.	.	1300	ug/kg	U	.				
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8	21100	ug/kg	.	.	1320	ug/kg	U	.				
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1	29500	ug/kg	.	.	1310	ug/kg	U	.				
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2	24900	ug/kg	.	.	1280	ug/kg	U	.				
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3	18800	ug/kg	.	.	1280	ug/kg	U	.				
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4	134000	ug/kg	.	.	1340	ug/kg	U	.				
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5	46300	ug/kg	.	.	1310	ug/kg	U	.				
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6	12700	ug/kg	.	.	1300	ug/kg	U	.				
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3	44800	ug/kg	.	.	1340	ug/kg	U	.				
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4	9410	ug/kg	.	.	1290	ug/kg	U	.				
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5	10100	ug/kg	.	.	1280	ug/kg	U	.				
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6	10500	ug/kg	.	.	1280	ug/kg	U	.				
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7	12100	ug/kg	.	.	1310	ug/kg	U	.				
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8	5260	ug/kg	.	.	1350	ug/kg	U	.				
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9	41400	ug/kg	.	.	1320	ug/kg	U	.				
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0	26900	ug/kg	.	.	1330	ug/kg	U	.				

S-10 Pond, WETCHEM

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Nitrogen in Nitrite and Nitrate (NO2+NO3-N) 353.2				Phosphate (14265-44-2) 300				Sulfate (14808-79-8) 300			
								Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099	1100	ug/kg	.	.	1500	ug/kg	.	.	3400	ug/kg	.	.
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0					1400	ug/kg	U	.	3000	ug/kg	.	.
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1	290	ug/kg	.	.	1300	ug/kg	U	.	7500	ug/kg	.	.
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2	310	ug/kg	.	.	1300	ug/kg	U	.	9000	ug/kg	.	.
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3	270	ug/kg	.	.	1400	ug/kg	U	.	2600	ug/kg	.	.
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	RLNP	B0X0B4	1900	ug/kg	.	.	1400	ug/kg	U	.	7700	ug/kg	.	.
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5	640	ug/kg	.	.	1500	ug/kg	U	.	2400	ug/kg	.	.
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6	220	ug/kg	U	.	2600	ug/kg	.	.	12400	ug/kg	.	.
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7					1400	ug/kg	.	.	8200	ug/kg	.	.
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESSL	B0X0X4					5000	ug/kg	U	.	5730	ug/kg	.	.
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5	2800	ug/kg	.	.	2000	ug/kg	.	.	3200	ug/kg	.	.
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6	2000	ug/kg	.	.	1300	ug/kg	U	.	3000	ug/kg	.	.
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7	5100	ug/kg	.	.	1300	ug/kg	U	.	4800	ug/kg	.	.
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8	4700	ug/kg	.	.	2000	ug/kg	.	.	4100	ug/kg	.	.
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9	2700	ug/kg	.	.	1300	ug/kg	U	.	1300	ug/kg	U	.
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0	2500	ug/kg	.	.	1300	ug/kg	U	.	2400	ug/kg	.	.
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7	3000	ug/kg	.	.	1300	ug/kg	U	.	4700	ug/kg	.	.
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8	3300	ug/kg	.	.	3800	ug/kg	.	.	3900	ug/kg	.	.
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9	1000	ug/kg	.	.	1300	ug/kg	U	.	2500	ug/kg	.	.
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0	7300	ug/kg	.	.	1300	ug/kg	U	.	7400	ug/kg	.	.
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1	6900	ug/kg	.	.	1300	ug/kg	U	.	5200	ug/kg	.	.
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2	3900	ug/kg	.	.	1300	ug/kg	U	.	2800	ug/kg	.	.
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3	2900	ug/kg	.	.	1700	ug/kg	.	.	3200	ug/kg	.	.
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4					830	ug/kg	U	.	5900	ug/kg	.	.
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7	2700	ug/kg	.	.	2800	ug/kg	.	.	5900	ug/kg	.	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8	2600	ug/kg	.	.	2400	ug/kg	.	.	4300	ug/kg	.	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1	4680	ug/kg	.	.	1310	ug/kg	U	.	7050	ug/kg	.	.
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2	4930	ug/kg	.	.	1280	ug/kg	U	.	4390	ug/kg	.	.
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3	3250	ug/kg	.	.	1280	ug/kg	U	.	4410	ug/kg	.	.
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4	22700	ug/kg	.	.	1340	ug/kg	U	.	11700	ug/kg	.	.
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5	8780	ug/kg	.	.	1310	ug/kg	U	.	5760	ug/kg	.	.
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6	1660	ug/kg	.	.	1300	ug/kg	U	.	3240	ug/kg	.	.
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3	14900	ug/kg	.	.	1340	ug/kg	U	.	11500	ug/kg	.	.
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4	2420	ug/kg	.	.	1290	ug/kg	U	.	3910	ug/kg	.	.
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5	2400	ug/kg	.	.	1280	ug/kg	U	.	4210	ug/kg	.	.
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6	1490	ug/kg	.	.	1280	ug/kg	U	.	2450	ug/kg	.	.
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7	3460	ug/kg	.	.	1310	ug/kg	U	.	4980	ug/kg	.	.
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8	1120	ug/kg	.	.	1350	ug/kg	U	.	3110	ug/kg	.	.
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9	10900	ug/kg	.	.	2390	ug/kg	.	.	7630	ug/kg	.	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0	5160	ug/kg	.	.	1330	ug/kg	U	.	7780	ug/kg	.	.

S-10 Pond, WETCHEM

Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Sulfide (18496-25-8) 9030			
								Conc	Units	Q	VQ
299-W26-13	34.9976	36.9984	B0X099	S	11/19/99 11:05	RLNP	B0X099	4330	ug/kg	.	.
299-W26-13	34.9976	36.9984	B0X0B0		11/19/99 11:15	RLNP	B0X0B0	4100	ug/kg	.	.
299-W26-13	49.9872	51.988	B0X0B1	R	11/23/99 10:35	RLNP	B0X0B1	2000	ug/kg	U	.
299-W26-13	49.9872	51.988	B0X0B2	R	11/22/99 10:35	RLNP	B0X0B2	2200	ug/kg	U	.
299-W26-13	99.4824	101.47336	B0X0B3		11/23/99 9:45	RLNP	B0X0B3	4300	ug/kg	.	.
299-W26-13	135.16552	137.16632	B0X0B4		11/30/99 8:00	RLNP	B0X0B4				
299-W26-13	150.06	152.0608	B0X0B5		12/1/99 10:10	RLNP	B0X0B5	4300	ug/kg	.	.
299-W26-13	179.9408	181.9416	B0X0B6		12/2/99 13:45	RLNP	B0X0B6	8300	ug/kg	.	.
299-W26-13	197.35104	199.34856	B0X0B7		12/7/99 14:15	RLNP	B0X0B7	4000	ug/kg	.	.
299-W26-13	34.9976	36.9984	B0X0X4	S	11/19/99 11:05	QTESSL	B0X0X4				
14096	9.49888	10.496	B15YJ5		11/14/02 9:59	RLNP	B15YJ5	25200	ug/kg	U	.
14096	11.99824	12.99536	B15YJ6		11/14/02 13:20	RLNP	B15YJ6	28400	ug/kg	U	.
14096	14.4976	15.49472	B15YJ7		11/14/02 13:20	RLNP	B15YJ7	41200	ug/kg	U	.
14096	16.99696	17.99408	B15YJ8		11/14/02 11:02	RLNP	B15YJ8	41700	ug/kg	U	.
14096	19.99488	20.99528	B15YJ9		11/14/02 11:15	RLNP	B15YJ9	30200	ug/kg	U	.
14096	23.9932	24.9936	B15YK0		11/14/02 11:39	RLNP	B15YK0	26700	ug/kg	U	.
14097	8.99704	9.99744	B15YK7		11/15/02 9:52	RLNP	B15YK7	29300	ug/kg	U	.
14097	11.4964	12.4968	B15YK8		11/15/02 10:02	RLNP	B15YK8	29600	ug/kg	U	.
14097	13.99576	14.99616	B15YK9		11/15/02 10:20	RLNP	B15YK9	40200	ug/kg	U	.
14097	16.49512	17.49552	B15YL0		11/15/02 10:43	RLNP	B15YL0	42000	ug/kg	U	.
14097	19.99488	20.99528	B15YL1		11/15/02 10:50	RLNP	B15YL1	41300	ug/kg	U	.
14097	24.9936	25.994	B15YL2		11/15/02 11:00	RLNP	B15YL2	41700	ug/kg	U	.
14096	9.49888	10.496	B15YL3	R	11/14/02 10:15	RLNP	B15YL3	23900	ug/kg	U	.
14096	9.49888	10.496	B15YL4	S	11/14/02 9:59	STLSL	B15YL4	7300	ug/kg	U	.
14096	6.99952	7.99664	B15YL7		11/14/02 9:39	RLNP	B15YL7	25700	ug/kg	U	.
14097	6.49768	7.49808	B15YL8		11/15/02 9:40	RLNP	B15YL8	20400	ug/kg	U	.
14098	8.49848	9.49888	B15YM1		11/18/02 9:15	RLNP	B15YM1	31200	ug/kg	U	.
14098	10.99784	11.99824	B15YM2		11/18/02 9:23	RLNP	B15YM2	59000	ug/kg	.	.
14098	13.4972	14.4976	B15YM3		11/18/02 9:32	RLNP	B15YM3	43000	ug/kg	.	.
14098	15.99656	16.99696	B15YM4		11/18/02 9:43	RLNP	B15YM4	31400	ug/kg	U	.
14098	19.99488	20.99528	B15YM5		11/18/02 9:56	RLNP	B15YM5	29600	ug/kg	U	.
14098	23.9932	24.9936	B15YM6		11/18/02 10:06	RLNP	B15YM6	43800	ug/kg	.	.
14118	6.49768	7.49808	B15YN3		11/20/02 9:30	RLNP	B15YN3	34000	ug/kg	U	.
14118	8.99704	9.99744	B15YN4		11/20/02 9:52	RLNP	B15YN4	28800	ug/kg	U	.
14118	11.4964	12.4968	B15YN5		11/20/02 10:02	RLNP	B15YN5	21100	ug/kg	U	.
14118	13.99576	14.99616	B15YN6		11/20/02 10:10	RLNP	B15YN6	24700	ug/kg	U	.
14118	19.99488	20.99528	B15YN7		11/20/02 10:45	RLNP	B15YN7	24100	ug/kg	U	.
14118	23.9932	24.9936	B15YN8		11/20/02 10:54	RLNP	B15YN8	23800	ug/kg	U	.
14098	5.99912	6.99952	B15YP9		11/18/02 9:05	RLNP	B15YP9	24200	ug/kg	U	.
14118	3.99832	4.99872	B15YR0		11/20/02 9:11	RLNP	B15YR0	42400	ug/kg	U	.

Blanks, WETCHEM

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Ammonia (7664-41-7)				Ammonia (7664-41-7)				Ammonium ion (14798-03-9)			
										350.1				350.3				300.7_CATIONS_IC			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
WETCHEM					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7					122	ug/L	U	.				
WETCHEM					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6					122	ug/L	U	.				
WETCHEM					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5					122	ug/L	U	.				
WETCHEM					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5					122	ug/L	U	.				
WETCHEM					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6					122	ug/L	U	.				
WETCHEM					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7					122	ug/L	U	.				

Blanks, WETCHEM

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Bromide (24959-67-9)				Chloride (16887-00-6)				Cyanide (57-12-5)			
										300				300				335.2			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
WETCHEM					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7					250	ug/L	U	.				
WETCHEM					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6					250	ug/L	U	.				
WETCHEM					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5					250	ug/L	U	.				
WETCHEM					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5					280	ug/L	.	.				
WETCHEM					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6					250	ug/L	U	.				
WETCHEM					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7					250	ug/L	U	.				

Blanks, WETCHEM

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Cyanide (57-12-5) 9010				Fluoride (16984-48-8) 300				Hydrazine (302-01-2) D1385			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
WETCHEM					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7					250	ug/L	U	.				
WETCHEM					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6					250	ug/L	U	.				
WETCHEM					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5					250	ug/L	U	.				
WETCHEM					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5					250	ug/L	U	.				
WETCHEM					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6					250	ug/L	U	.				
WETCHEM					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7					250	ug/L	U	.				

Blanks, WETCHEM

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Nitrate (14797-55-8)				Nitrite (14797-65-0)				Nitrogen in Nitrite and Nitrate (NO2+NO3-N)			
										300				300				353.1			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
WETCHEM					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7	250	ug/L	U	.	250	ug/L	U	.				
WETCHEM					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6	250	ug/L	U	.	250	ug/L	U	.				
WETCHEM					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5	250	ug/L	U	.	250	ug/L	U	.				
WETCHEM					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5	250	ug/L	U	.	250	ug/L	U	.				
WETCHEM					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6	250	ug/L	U	.	250	ug/L	U	.				
WETCHEM					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7	250	ug/L	U	.	250	ug/L	U	.				

Blanks, WETCHEM

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Nitrogen in Nitrite and Nitrate (NO2+NO3-N)				Phosphate (14265-44-2)				Sulfate (14808-79-8)			
										353.2				300				300			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
WETCHEM					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7	20	ug/L	U	.	250	ug/L	U	.	250	ug/L	U	.
WETCHEM					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6	20	ug/L	U	.	250	ug/L	U	.	250	ug/L	U	.
WETCHEM					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5	20	ug/L	U	.	250	ug/L	U	.	250	ug/L	U	.
WETCHEM					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5	20	ug/L	U	.	250	ug/L	U	.	250	ug/L	U	.
WETCHEM					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6	20	ug/L	U	.	250	ug/L	U	.	250	ug/L	U	.
WETCHEM					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7	20	ug/L	U	.	250	ug/L	U	.	250	ug/L	U	.

Blanks, WETCHEM

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Sulfide (18496-25-8)			
										9030			
										Conc	Units	Q	VQ
WETCHEM					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7	1000	ug/L	U	.
WETCHEM					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6	1000	ug/L	U	.
WETCHEM					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5	1000	ug/L	U	.
WETCHEM					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5	1000	ug/L	U	.
WETCHEM					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6	1000	ug/L	U	.
WETCHEM					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7	1000	ug/L	U	.

Blanks, VOA

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	1,1,1-Trichloroethane (71-55-6)				1,1,2,2-Tetrachloroethane (79-34-5)				1,1,2-Trichloroethane (79-00-5)			
										8260				8260				8260			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
VOA					B111J4	FTB	1/12/01 10:12	STLSL	B111J4	0.23	ug/L	U	.					0.31	ug/L	U	.
VOA					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7	5	ug/L	U	.	5	ug/L	U	.	5	ug/L	U	.
VOA					B15XL8	TB	11/12/02 6:30	RLNP	B15XL8	5	ug/L	U	.	5	ug/L	U	.	5	ug/L	U	.
VOA					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6	5	ug/L	U	.	5	ug/L	U	.	5	ug/L	U	.
VOA					B15YF7	TB	11/21/02 6:00	RLNP	B15YF7	5	ug/L	U	.	5	ug/L	U	.	5	ug/L	U	.
VOA					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5	5	ug/L	U	.	5	ug/L	U	.	5	ug/L	U	.
VOA					B15YL6	TB	11/14/02 6:00	RLNP	B15YL6	5	ug/L	U	.	5	ug/L	U	.	5	ug/L	U	.
VOA					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5	5	ug/L	U	.	5	ug/L	U	.	5	ug/L	U	.
VOA					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6	5	ug/L	U	.	5	ug/L	U	.	5	ug/L	U	.
VOA					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7	5	ug/L	U	.	5	ug/L	U	.	5	ug/L	U	.
VOA					B16HC8	TB	4/7/03 11:20	RLNP	B16HC8	5	ug/L	U	.	5	ug/L	U	.	5	ug/L	U	.
VOA					B16HC9	TB	3/24/03 9:12	RLNP	B16HC9	5	ug/L	U	.	5	ug/L	U	.	5	ug/L	U	.
VOA					B16HD0	EB	3/17/03 8:00	RLNP	B16HD0	5	ug/L	U	.	5	ug/L	U	.	5	ug/L	U	.
VOA					B1FR24	TB	12/21/05 11:45	STLSL	B1FR24	0.15	ug/L	U	.					0.23	ug/L	U	.
VOA					B1FR27	TB	1/3/06 9:20	STLSL	B1FR27	0.15	ug/L	U	.					0.23	ug/L	U	.

Blanks, VOA

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	1,1-Dichloroethane (75-34-3)				1,1-Dichloroethene (75-35-4)				1,2,4-Trimethylbenzene (95-63-6)			
										8260				8260				8260			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
VOA					B111J4	FTB	1/12/01 10:12	STLSL	B111J4	0.19	ug/L	U	.								
VOA					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7	5	ug/L	U	.	5	ug/L	U	.				
VOA					B15XL8	TB	11/12/02 6:30	RLNP	B15XL8	5	ug/L	U	.	5	ug/L	U	.				
VOA					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6	5	ug/L	U	.	5	ug/L	U	.				
VOA					B15YF7	TB	11/21/02 6:00	RLNP	B15YF7	5	ug/L	U	.	5	ug/L	U	.				
VOA					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5	5	ug/L	U	.	5	ug/L	U	.				
VOA					B15YL6	TB	11/14/02 6:00	RLNP	B15YL6	5	ug/L	U	.	5	ug/L	U	.				
VOA					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5	5	ug/L	U	.	5	ug/L	U	.				
VOA					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6	5	ug/L	U	.	5	ug/L	U	.				
VOA					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7	5	ug/L	U	.	5	ug/L	U	.				
VOA					B16HC8	TB	4/7/03 11:20	RLNP	B16HC8	5	ug/L	U	.	5	ug/L	U	.				
VOA					B16HC9	TB	3/24/03 9:12	RLNP	B16HC9	5	ug/L	U	.	5	ug/L	U	.				
VOA					B16HD0	EB	3/17/03 8:00	RLNP	B16HD0	5	ug/L	U	.	5	ug/L	U	.				
VOA					B1FR24	TB	12/21/05 11:45	STLSL	B1FR24	0.16	ug/L	U	.	0.21	ug/L	U	.				
VOA					B1FR27	TB	1/3/06 9:20	STLSL	B1FR27	0.16	ug/L	U	.	0.21	ug/L	U	.				

Blanks, VOA

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	1,2-Dichloroethane (107-06-2)				1,2-Dichloroethene (Total) (540-59-0)				1,2-Dichloropropane (78-87-5)			
										8260				8260				8260			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
VOA					B111J4	FTB	1/12/01 10:12	STLSL	B111J4	0.17	ug/L	U	.								
VOA					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7	5	ug/L	U	.	5	ug/L	U	.	5	ug/L	U	.
VOA					B15XL8	TB	11/12/02 6:30	RLNP	B15XL8	5	ug/L	U	.	5	ug/L	U	.	5	ug/L	U	.
VOA					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6	5	ug/L	U	.	5	ug/L	U	.	5	ug/L	U	.
VOA					B15YF7	TB	11/21/02 6:00	RLNP	B15YF7	5	ug/L	U	.	5	ug/L	U	.	5	ug/L	U	.
VOA					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5	5	ug/L	U	.	5	ug/L	U	.	5	ug/L	U	.
VOA					B15YL6	TB	11/14/02 6:00	RLNP	B15YL6	5	ug/L	U	.	5	ug/L	U	.	5	ug/L	U	.
VOA					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5	5	ug/L	U	.	5	ug/L	U	.	5	ug/L	U	.
VOA					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6	5	ug/L	U	.	5	ug/L	U	.	5	ug/L	U	.
VOA					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7	5	ug/L	U	.	5	ug/L	U	.	5	ug/L	U	.
VOA					B16HC8	TB	4/7/03 11:20	RLNP	B16HC8	5	ug/L	U	.	5	ug/L	U	.	5	ug/L	U	.
VOA					B16HC9	TB	3/24/03 9:12	RLNP	B16HC9	5	ug/L	U	.	5	ug/L	U	.	5	ug/L	U	.
VOA					B16HD0	EB	3/17/03 8:00	RLNP	B16HD0	5	ug/L	U	.	5	ug/L	U	.	5	ug/L	U	.
VOA					B1FR24	TB	12/21/05 11:45	STLSL	B1FR24	0.21	ug/L	U	.								
VOA					B1FR27	TB	1/3/06 9:20	STLSL	B1FR27	0.21	ug/L	U	.								

Blanks, VOA

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	1,4-Dichlorobenzene (106-46-7)				1,4-Dioxane (123-91-1)				1-Butanol (71-36-3)			
										8260				8260				8260			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
VOA					B111J4	FTB	1/12/01 10:12	STLSL	B111J4	0.14	ug/L	U	.					6.6	ug/L	U	.
VOA					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7												
VOA					B15XL8	TB	11/12/02 6:30	RLNP	B15XL8												
VOA					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6												
VOA					B15YF7	TB	11/21/02 6:00	RLNP	B15YF7												
VOA					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5												
VOA					B15YL6	TB	11/14/02 6:00	RLNP	B15YL6												
VOA					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5												
VOA					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6												
VOA					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7												
VOA					B16HC8	TB	4/7/03 11:20	RLNP	B16HC8												
VOA					B16HC9	TB	3/24/03 9:12	RLNP	B16HC9												
VOA					B16HD0	EB	3/17/03 8:00	RLNP	B16HD0												
VOA					B1FR24	TB	12/21/05 11:45	STLSL	B1FR24	0.2	ug/L	U	.	12	ug/L	U	.	2.6	ug/L	U	.
VOA					B1FR27	TB	1/3/06 9:20	STLSL	B1FR27	0.2	ug/L	U	.	12	ug/L	U	.	2.6	ug/L	U	.

Blanks, VOA

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	1-Propanol (71-23-8)				2-Butanone (78-93-3)				2-Ethyl-1-hexanol (104-76-7)			
										8015				8260				8260			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
VOA					B111J4	FTB	1/12/01 10:12	STLSL	B111J4					0.7	ug/L	U	.				
VOA					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7	5000	ug/L	U	.	10	ug/L	U	.				
VOA					B15XL8	TB	11/12/02 6:30	RLNP	B15XL8	5000	ug/L	U	.	10	ug/L	U	.				
VOA					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6	5000	ug/L	U	.	10	ug/L	U	.				
VOA					B15YF7	TB	11/21/02 6:00	RLNP	B15YF7	5000	ug/L	U	.	10	ug/L	U	.				
VOA					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5	5000	ug/L	U	.	10	ug/L	U	.				
VOA					B15YL6	TB	11/14/02 6:00	RLNP	B15YL6	5000	ug/L	U	.	10	ug/L	U	.				
VOA					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5	5000	ug/L	U	.	10	ug/L	U	.				
VOA					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6	5000	ug/L	U	.	10	ug/L	U	.				
VOA					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7	5000	ug/L	U	.	10	ug/L	U	.				
VOA					B16HC8	TB	4/7/03 11:20	RLNP	B16HC8	5000	ug/L	U	.	10	ug/L	U	.				
VOA					B16HC9	TB	3/24/03 9:12	RLNP	B16HC9	5000	ug/L	U	.	10	ug/L	U	.				
VOA					B16HD0	EB	3/17/03 8:00	RLNP	B16HD0	5000	ug/L	U	.	2	ug/L	J	.				
VOA					B1FR24	TB	12/21/05 11:45	STLSL	B1FR24					0.56	ug/L	U	.				
VOA					B1FR27	TB	1/3/06 9:20	STLSL	B1FR27					0.56	ug/L	U	.				

Blanks, VOA

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	2-Ethyl-1-hexanol (104-76-7)				2-Hexanone (591-78-6)				2-Pentanone, 4-Methyl (108-10-1)			
										8270				8260				8260			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
VOA					B111J4	FTB	1/12/01 10:12	STLSL	B111J4									1.3	ug/L	U	.
VOA					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7					10	ug/L	U	.	10	ug/L	U	.
VOA					B15XL8	TB	11/12/02 6:30	RLNP	B15XL8					10	ug/L	U	.	10	ug/L	U	.
VOA					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6					10	ug/L	U	.	10	ug/L	U	.
VOA					B15YF7	TB	11/21/02 6:00	RLNP	B15YF7					10	ug/L	U	.	10	ug/L	U	.
VOA					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5					10	ug/L	U	.	10	ug/L	U	.
VOA					B15YL6	TB	11/14/02 6:00	RLNP	B15YL6					10	ug/L	U	.	10	ug/L	U	.
VOA					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5					10	ug/L	U	.	10	ug/L	U	.
VOA					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6					10	ug/L	U	.	10	ug/L	U	.
VOA					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7					10	ug/L	U	.	10	ug/L	U	.
VOA					B16HC8	TB	4/7/03 11:20	RLNP	B16HC8					10	ug/L	U	.	10	ug/L	U	.
VOA					B16HC9	TB	3/24/03 9:12	RLNP	B16HC9					10	ug/L	U	.	10	ug/L	U	.
VOA					B16HD0	EB	3/17/03 8:00	RLNP	B16HD0					10	ug/L	U	.	10	ug/L	U	.
VOA					B1FR24	TB	12/21/05 11:45	STLSL	B1FR24									0.53	ug/L	U	.
VOA					B1FR27	TB	1/3/06 9:20	STLSL	B1FR27									0.53	ug/L	U	.

Blanks, VOA

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Acetone (67-64-1)				Benzene (71-43-2)				Bromodichloromethane (75-27-4)			
										8260				8260				8260	8260	8260	8260
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
VOA					B111J4	FTB	1/12/01 10:12	STLSL	B111J4	4	ug/L	U	.	0.23	ug/L	U	.				
VOA					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7	3	ug/L	J	.	5	ug/L	U	.	5	ug/L	U	.
VOA					B15XL8	TB	11/12/02 6:30	RLNP	B15XL8	10	ug/L	U	.	5	ug/L	U	.	5	ug/L	U	.
VOA					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6	3	ug/L	J	.	5	ug/L	U	.	5	ug/L	U	.
VOA					B15YF7	TB	11/21/02 6:00	RLNP	B15YF7	10	ug/L	U	.	5	ug/L	U	.	5	ug/L	U	.
VOA					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5	10	ug/L	U	.	5	ug/L	U	.	5	ug/L	U	.
VOA					B15YL6	TB	11/14/02 6:00	RLNP	B15YL6	10	ug/L	U	.	5	ug/L	U	.	5	ug/L	U	.
VOA					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5	4	ug/L	J	.	5	ug/L	U	.	5	ug/L	U	.
VOA					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6	10	ug/L	U	.	5	ug/L	U	.	5	ug/L	U	.
VOA					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7	10	ug/L	U	.	5	ug/L	U	.	5	ug/L	U	.
VOA					B16HC8	TB	4/7/03 11:20	RLNP	B16HC8	10	ug/L	U	.	5	ug/L	U	.	5	ug/L	U	.
VOA					B16HC9	TB	3/24/03 9:12	RLNP	B16HC9	10	ug/L	U	.	5	ug/L	U	.	5	ug/L	U	.
VOA					B16HD0	EB	3/17/03 8:00	RLNP	B16HD0	4	ug/L	JBC	.	5	ug/L	U	.	5	ug/L	U	.
VOA					B1FR24	TB	12/21/05 11:45	STLSL	B1FR24	0.82	ug/L	JB	.	0.17	ug/L	U	.				
VOA					B1FR27	TB	1/3/06 9:20	STLSL	B1FR27	0.7	ug/L	U	.	0.17	ug/L	U	.				

Blanks, VOA

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Bromoform (75-25-2) 8260				Bromomethane (74-83-9) 8260				Carbon disulfide (75-15-0) 8260			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
VOA					B111J4	FTB	1/12/01 10:12	STLSL	B111J4									0.3	ug/L	U	.
VOA					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7	5	ug/L	U	.	10	ug/L	U	.	5	ug/L	U	.
VOA					B15XL8	TB	11/12/02 6:30	RLNP	B15XL8	5	ug/L	U	.	10	ug/L	U	.	5	ug/L	U	.
VOA					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6	5	ug/L	U	.	10	ug/L	U	.	5	ug/L	U	.
VOA					B15YF7	TB	11/21/02 6:00	RLNP	B15YF7	5	ug/L	U	.	10	ug/L	U	.	5	ug/L	U	.
VOA					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5	5	ug/L	U	.	10	ug/L	U	.	5	ug/L	U	.
VOA					B15YL6	TB	11/14/02 6:00	RLNP	B15YL6	5	ug/L	U	.	10	ug/L	U	.	5	ug/L	U	.
VOA					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5	5	ug/L	U	.	10	ug/L	U	.	5	ug/L	U	.
VOA					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6	5	ug/L	U	.	10	ug/L	U	.	5	ug/L	U	.
VOA					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7	5	ug/L	U	.	10	ug/L	U	.	5	ug/L	U	.
VOA					B16HC8	TB	4/7/03 11:20	RLNP	B16HC8	5	ug/L	U	.	10	ug/L	U	.	5	ug/L	U	.
VOA					B16HC9	TB	3/24/03 9:12	RLNP	B16HC9	5	ug/L	U	.	10	ug/L	U	.	5	ug/L	U	.
VOA					B16HD0	EB	3/17/03 8:00	RLNP	B16HD0	5	ug/L	U	.	10	ug/L	U	.	5	ug/L	U	.
VOA					B1FR24	TB	12/21/05 11:45	STLSL	B1FR24									0.16	ug/L	U	.
VOA					B1FR27	TB	1/3/06 9:20	STLSL	B1FR27									0.16	ug/L	U	.

Blanks, VOA

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Carbon tetrachloride (56-23-5) 8260				Chlorobenzene (108-90-7) 8260				Chloroethane (75-00-3) 8260			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
VOA					B111J4	FTB	1/12/01 10:12	STLSL	B111J4	1.1	ug/L	.	.								
VOA					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7	5	ug/L	U	.	5	ug/L	U	.	10	ug/L	U	.
VOA					B15XL8	TB	11/12/02 6:30	RLNP	B15XL8	5	ug/L	U	.	5	ug/L	U	.	10	ug/L	U	.
VOA					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6	5	ug/L	U	.	5	ug/L	U	.	10	ug/L	U	.
VOA					B15YF7	TB	11/21/02 6:00	RLNP	B15YF7	5	ug/L	U	.	5	ug/L	U	.	10	ug/L	U	.
VOA					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5	5	ug/L	U	.	5	ug/L	U	.	10	ug/L	U	.
VOA					B15YL6	TB	11/14/02 6:00	RLNP	B15YL6	5	ug/L	U	.	5	ug/L	U	.	10	ug/L	U	.
VOA					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5	5	ug/L	U	.	5	ug/L	U	.	10	ug/L	U	.
VOA					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6	5	ug/L	U	.	5	ug/L	U	.	10	ug/L	U	.
VOA					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7	5	ug/L	U	.	5	ug/L	U	.	10	ug/L	U	.
VOA					B16HC8	TB	4/7/03 11:20	RLNP	B16HC8	5	ug/L	U	.	5	ug/L	U	.	10	ug/L	U	.
VOA					B16HC9	TB	3/24/03 9:12	RLNP	B16HC9	5	ug/L	U	.	5	ug/L	U	.	10	ug/L	U	.
VOA					B16HD0	EB	3/17/03 8:00	RLNP	B16HD0	5	ug/L	U	.	5	ug/L	U	.	10	ug/L	U	.
VOA					B1FR24	TB	12/21/05 11:45	STLSL	B1FR24	0.15	ug/L	U	.								
VOA					B1FR27	TB	1/3/06 9:20	STLSL	B1FR27	0.15	ug/L	U	.								

Blanks, VOA

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Chloroform (67-66-3)				Chloromethane (74-87-3)				cis-1,2-Dichloroethylene (156-59-2)			
										8260				8260				8260			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
VOA					B111J4	FTB	1/12/01 10:12	STLSL	B111J4	0.39	ug/L	J	.					0.18	ug/L	U	.
VOA					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7	5	ug/L	U	.	10	ug/L	U	.				
VOA					B15XL8	TB	11/12/02 6:30	RLNP	B15XL8	5	ug/L	U	.	10	ug/L	U	.				
VOA					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6	5	ug/L	U	.	10	ug/L	U	.				
VOA					B15YF7	TB	11/21/02 6:00	RLNP	B15YF7	5	ug/L	U	.	10	ug/L	U	.				
VOA					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5	5	ug/L	U	.	10	ug/L	U	.				
VOA					B15YL6	TB	11/14/02 6:00	RLNP	B15YL6	5	ug/L	U	.	10	ug/L	U	.				
VOA					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5	5	ug/L	U	.	10	ug/L	U	.				
VOA					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6	5	ug/L	U	.	10	ug/L	U	.				
VOA					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7	5	ug/L	U	.	10	ug/L	U	.				
VOA					B16HC8	TB	4/7/03 11:20	RLNP	B16HC8	5	ug/L	U	.	10	ug/L	U	.				
VOA					B16HC9	TB	3/24/03 9:12	RLNP	B16HC9	5	ug/L	U	.	10	ug/L	U	.				
VOA					B16HD0	EB	3/17/03 8:00	RLNP	B16HD0	5	ug/L	U	.	10	ug/L	U	.				
VOA					B1FR24	TB	12/21/05 11:45	STLSL	B1FR24	0.19	ug/L	U	.					0.19	ug/L	U	.
VOA					B1FR27	TB	1/3/06 9:20	STLSL	B1FR27	0.19	ug/L	U	.					0.19	ug/L	U	.

Blanks, VOA

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	cis-1,3-Dichloropropene (10061-01-5) 8260				Dibromochloromethane (124-48-1) 8260				Diethyl ether (60-29-7) 8260			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
VOA					B111J4	FTB	1/12/01 10:12	STLSL	B111J4												
VOA					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7	5	ug/L	U	.	5	ug/L	U	.				
VOA					B15XL8	TB	11/12/02 6:30	RLNP	B15XL8	5	ug/L	U	.	5	ug/L	U	.				
VOA					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6	5	ug/L	U	.	5	ug/L	U	.				
VOA					B15YF7	TB	11/21/02 6:00	RLNP	B15YF7	5	ug/L	U	.	5	ug/L	U	.				
VOA					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5	5	ug/L	U	.	5	ug/L	U	.				
VOA					B15YL6	TB	11/14/02 6:00	RLNP	B15YL6	5	ug/L	U	.	5	ug/L	U	.				
VOA					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5	5	ug/L	U	.	5	ug/L	U	.				
VOA					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6	5	ug/L	U	.	5	ug/L	U	.				
VOA					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7	5	ug/L	U	.	5	ug/L	U	.				
VOA					B16HC8	TB	4/7/03 11:20	RLNP	B16HC8	5	ug/L	U	.	5	ug/L	U	.				
VOA					B16HC9	TB	3/24/03 9:12	RLNP	B16HC9	5	ug/L	U	.	5	ug/L	U	.				
VOA					B16HD0	EB	3/17/03 8:00	RLNP	B16HD0	5	ug/L	U	.	5	ug/L	U	.				
VOA					B1FR24	TB	12/21/05 11:45	STLSL	B1FR24												
VOA					B1FR27	TB	1/3/06 9:20	STLSL	B1FR27												

Blanks, VOA

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Ethanol (64-17-5) 8015				Ethyl cyanide (107-12-0) 8260				Ethylbenzene (100-41-4) 8260			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
VOA					B111J4	FTB	1/12/01 10:12	STLSL	B111J4					2.6	ug/L	U	.				
VOA					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7	5000	ug/L	U	.					5	ug/L	U	.
VOA					B15XL8	TB	11/12/02 6:30	RLNP	B15XL8	5000	ug/L	U	.					5	ug/L	U	.
VOA					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6	5000	ug/L	U	.					5	ug/L	U	.
VOA					B15YF7	TB	11/21/02 6:00	RLNP	B15YF7	5000	ug/L	U	.					5	ug/L	U	.
VOA					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5	5000	ug/L	U	.					5	ug/L	U	.
VOA					B15YL6	TB	11/14/02 6:00	RLNP	B15YL6	5000	ug/L	U	.					5	ug/L	U	.
VOA					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5	5000	ug/L	U	.					5	ug/L	U	.
VOA					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6	5000	ug/L	U	.					5	ug/L	U	.
VOA					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7	5000	ug/L	U	.					5	ug/L	U	.
VOA					B16HC8	TB	4/7/03 11:20	RLNP	B16HC8	5000	ug/L	U	.					5	ug/L	U	.
VOA					B16HC9	TB	3/24/03 9:12	RLNP	B16HC9	5000	ug/L	U	.					5	ug/L	U	.
VOA					B16HD0	EB	3/17/03 8:00	RLNP	B16HD0	5000	ug/L	U	.					5	ug/L	U	.
VOA					B1FR24	TB	12/21/05 11:45	STLSL	B1FR24					1.7	ug/L	U	.	0.22	ug/L	U	.
VOA					B1FR27	TB	1/3/06 9:20	STLSL	B1FR27					1.7	ug/L	U	.	0.22	ug/L	U	.

Blanks, VOA

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Methylene chloride (75-09-2) 8260				Styrene (100-42-5) 8260				Tetrachloroethene (127-18-4) 8260			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
VOA					B111J4	FTB	1/12/01 10:12	STLSL	B111J4	0.37	ug/L	U	.					0.57	ug/L	U	.
VOA					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7	5	ug/L	U	.	5	ug/L	U	.	5	ug/L	U	.
VOA					B15XL8	TB	11/12/02 6:30	RLNP	B15XL8	5	ug/L	U	.	5	ug/L	U	.	5	ug/L	U	.
VOA					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6	9	ug/L	B	.	5	ug/L	U	.	5	ug/L	U	.
VOA					B15YF7	TB	11/21/02 6:00	RLNP	B15YF7	5	ug/L	U	.	5	ug/L	U	.	5	ug/L	U	.
VOA					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5	5	ug/L	U	.	5	ug/L	U	.	5	ug/L	U	.
VOA					B15YL6	TB	11/14/02 6:00	RLNP	B15YL6	5	ug/L	U	.	5	ug/L	U	.	5	ug/L	U	.
VOA					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5	5	ug/L	U	.	5	ug/L	U	.	5	ug/L	U	.
VOA					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6	5	ug/L	U	.	5	ug/L	U	.	5	ug/L	U	.
VOA					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7	7.241	ug/L	B	.	5	ug/L	U	.	5	ug/L	U	.
VOA					B16HC8	TB	4/7/03 11:20	RLNP	B16HC8	5	ug/L	U	.	5	ug/L	U	.	5	ug/L	U	.
VOA					B16HC9	TB	3/24/03 9:12	RLNP	B16HC9	5	ug/L	U	.	5	ug/L	U	.	5	ug/L	U	.
VOA					B16HD0	EB	3/17/03 8:00	RLNP	B16HD0	5	ug/L	U	.	5	ug/L	U	.	5	ug/L	U	.
VOA					B1FR24	TB	12/21/05 11:45	STLSL	B1FR24	7.1	ug/L	.	.					0.19	ug/L	U	.
VOA					B1FR27	TB	1/3/06 9:20	STLSL	B1FR27	4.4	ug/L	.	.					0.19	ug/L	U	.

Blanks, VOA

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Tetrahydrofuran (109-99-9) 8260				Toluene (108-88-3) 8260				trans-1,2-Dichloroethylene (156-60-5) 8260			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
VOA					B111J4	FTB	1/12/01 10:12	STLSL	B111J4	1.5	ug/L	U	.	0.33	ug/L	U	.	0.26	ug/L	U	.
VOA					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7					5	ug/L	U	.				
VOA					B15XL8	TB	11/12/02 6:30	RLNP	B15XL8					5	ug/L	U	.				
VOA					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6					5	ug/L	U	.				
VOA					B15YF7	TB	11/21/02 6:00	RLNP	B15YF7					5	ug/L	U	.				
VOA					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5					5	ug/L	U	.				
VOA					B15YL6	TB	11/14/02 6:00	RLNP	B15YL6					5	ug/L	U	.				
VOA					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5					5	ug/L	U	.				
VOA					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6					5	ug/L	U	.				
VOA					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7					5	ug/L	U	.				
VOA					B16HC8	TB	4/7/03 11:20	RLNP	B16HC8					5	ug/L	U	.				
VOA					B16HC9	TB	3/24/03 9:12	RLNP	B16HC9					5	ug/L	U	.				
VOA					B16HD0	EB	3/17/03 8:00	RLNP	B16HD0					5	ug/L	U	.				
VOA					B1FR24	TB	12/21/05 11:45	STLSL	B1FR24	2.9	ug/L	U	.	0.2	ug/L	U	.	0.16	ug/L	U	.
VOA					B1FR27	TB	1/3/06 9:20	STLSL	B1FR27	2.9	ug/L	U	.	0.2	ug/L	U	.	0.16	ug/L	U	.

Blanks, VOA

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	trans-1,3-Dichloropropene (10061-02-6)				Trichloroethene (79-01-6)				Vinyl chloride (75-01-4)			
										8260				8260				8260			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
VOA					B111J4	FTB	1/12/01 10:12	STLSL	B111J4					0.16	ug/L	U	.	0.17	ug/L	U	.
VOA					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7	5	ug/L	U	.	5	ug/L	U	.	10	ug/L	U	.
VOA					B15XL8	TB	11/12/02 6:30	RLNP	B15XL8	5	ug/L	U	.	5	ug/L	U	.	10	ug/L	U	.
VOA					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6	5	ug/L	U	.	5	ug/L	U	.	10	ug/L	U	.
VOA					B15YF7	TB	11/21/02 6:00	RLNP	B15YF7	5	ug/L	U	.	5	ug/L	U	.	10	ug/L	U	.
VOA					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5	5	ug/L	U	.	5	ug/L	U	.	10	ug/L	U	.
VOA					B15YL6	TB	11/14/02 6:00	RLNP	B15YL6	5	ug/L	U	.	5	ug/L	U	.	10	ug/L	U	.
VOA					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5	5	ug/L	U	.	5	ug/L	U	.	10	ug/L	U	.
VOA					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6	5	ug/L	U	.	5	ug/L	U	.	10	ug/L	U	.
VOA					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7	5	ug/L	U	.	5	ug/L	U	.	10	ug/L	U	.
VOA					B16HC8	TB	4/7/03 11:20	RLNP	B16HC8	5	ug/L	U	.	5	ug/L	U	.	10	ug/L	U	.
VOA					B16HC9	TB	3/24/03 9:12	RLNP	B16HC9	5	ug/L	U	.	5	ug/L	U	.	10	ug/L	U	.
VOA					B16HD0	EB	3/17/03 8:00	RLNP	B16HD0	5	ug/L	U	.	5	ug/L	U	.	10	ug/L	U	.
VOA					B1FR24	TB	12/21/05 11:45	STLSL	B1FR24					0.2	ug/L	U	.	0.23	ug/L	U	.
VOA					B1FR27	TB	1/3/06 9:20	STLSL	B1FR27					0.2	ug/L	U	.	0.23	ug/L	U	.

Blanks, VOA

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Xylenes (total) (1330-20-7) 8260			
										Conc	Units	Q	VQ
VOA					B111J4	FTB	1/12/01 10:12	STLSL	B111J4	0.61	ug/L	U	.
VOA					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7	5	ug/L	U	.
VOA					B15XL8	TB	11/12/02 6:30	RLNP	B15XL8	5	ug/L	U	.
VOA					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6	5	ug/L	U	.
VOA					B15YF7	TB	11/21/02 6:00	RLNP	B15YF7	5	ug/L	U	.
VOA					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5	5	ug/L	U	.
VOA					B15YL6	TB	11/14/02 6:00	RLNP	B15YL6	5	ug/L	U	.
VOA					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5	5	ug/L	U	.
VOA					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6	5	ug/L	U	.
VOA					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7	5	ug/L	U	.
VOA					B16HC8	TB	4/7/03 11:20	RLNP	B16HC8	5	ug/L	U	.
VOA					B16HC9	TB	3/24/03 9:12	RLNP	B16HC9	5	ug/L	U	.
VOA					B16HD0	EB	3/17/03 8:00	RLNP	B16HD0	5	ug/L	U	.
VOA					B1FR24	TB	12/21/05 11:45	STLSL	B1FR24	0.58	ug/L	U	.
VOA					B1FR27	TB	1/3/06 9:20	STLSL	B1FR27	0.58	ug/L	U	.

Blanks, SVOA2

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Mesityl oxide (141-79-7)				Naphthalene (91-20-3)				n-Butyl benzenesulfonamide (3622-84-2)			
										8270				8270				8270			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
SVOA					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7					10	ug/L	U	.				
SVOA					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6					11	ug/L	U	.				
SVOA					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5					10	ug/L	U	.				
SVOA					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5					11	ug/L	U	.				
SVOA					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6					11	ug/L	U	.				
SVOA					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7												

Blanks, SVOA2

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Nitrobenzene (98-95-3)				n-Nitrosodi-n-dipropylamine (621-64-7)				n-Nitrosodiphenylamine (86-30-6)			
										8270				8270				8270			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
SVOA					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7	10	ug/L	U	.	10	ug/L	U	.	10	ug/L	U	.
SVOA					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6	11	ug/L	U	.	11	ug/L	U	.	11	ug/L	U	.
SVOA					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5	10	ug/L	U	.	10	ug/L	U	.	10	ug/L	U	.
SVOA					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5	11	ug/L	U	.	11	ug/L	U	.	11	ug/L	U	.
SVOA					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6	11	ug/L	U	.	11	ug/L	U	.	11	ug/L	U	.
SVOA					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7												

Blanks, SVOA2

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Octadecanoic acid (57-11-4)				Pentachlorophenol (87-86-5)				Phenanthrene (85-01-8)			
										8270				8270				8270			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
SVOA					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7					26	ug/L	U	.	10	ug/L	U	.
SVOA					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6					28	ug/L	U	.	11	ug/L	U	.
SVOA					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5					25	ug/L	U	.	10	ug/L	U	.
SVOA					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5					28	ug/L	U	.	11	ug/L	U	.
SVOA					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6					26	ug/L	U	.	11	ug/L	U	.
SVOA					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7												

Blanks, SVOA2

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Phenol (108-95-2)				Pyrene (129-00-0)				Tributyl phosphate (126-73-8)			
										8270				8270				8270			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
SVOA					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7	10	ug/L	U	.	10	ug/L	U	.	10	ug/L	U	.
SVOA					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6	11	ug/L	U	.	11	ug/L	U	.	11	ug/L	U	.
SVOA					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5	10	ug/L	U	.	10	ug/L	U	.	10	ug/L	U	.
SVOA					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5	11	ug/L	U	.	11	ug/L	U	.	11	ug/L	U	.
SVOA					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6	11	ug/L	U	.	11	ug/L	U	.	11	ug/L	U	.
SVOA					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7									13	ug/L	U	.

Blanks, SVOA1

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	1,2,4-Trichlorobenzene (120-82-1)				1,2-Dichlorobenzene (95-50-1)				1,3-Dichlorobenzene (541-73-1)			
										8270				8270				8270			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
SVOA					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7	10	ug/L	U	.	10	ug/L	U	.	10	ug/L	U	.
SVOA					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6	11	ug/L	U	.	11	ug/L	U	.	11	ug/L	U	.
SVOA					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5	10	ug/L	U	.	10	ug/L	U	.	10	ug/L	U	.
SVOA					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5	11	ug/L	U	.	11	ug/L	U	.	11	ug/L	U	.
SVOA					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6	11	ug/L	U	.	11	ug/L	U	.	11	ug/L	U	.
SVOA					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7												

Blanks, SVOA1

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	1,4-Dichlorobenzene (106-46-7)				2,4,5-Trichlorophenol (95-95-4)				2,4,6-Trichlorophenol (88-06-2)			
										8270				8270				8270			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
SVOA					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7	10	ug/L	U	.	26	ug/L	U	.	10	ug/L	U	.
SVOA					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6	11	ug/L	U	.	28	ug/L	U	.	11	ug/L	U	.
SVOA					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5	10	ug/L	U	.	25	ug/L	U	.	10	ug/L	U	.
SVOA					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5	11	ug/L	U	.	28	ug/L	U	.	11	ug/L	U	.
SVOA					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6	11	ug/L	U	.	26	ug/L	U	.	11	ug/L	U	.
SVOA					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7												

Blanks, SVOA1

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	2,4-Dichlorophenol (120-83-2)				2,4-Dimethylphenol (105-67-9)				2,4-Dinitrophenol (51-28-5)			
										8270				8270				8270			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
SVOA					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7	10	ug/L	U	.	10	ug/L	U	.	26	ug/L	U	.
SVOA					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6	11	ug/L	U	.	11	ug/L	U	.	28	ug/L	U	.
SVOA					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5	10	ug/L	U	.	10	ug/L	U	.	25	ug/L	U	.
SVOA					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5	11	ug/L	U	.	11	ug/L	U	.	28	ug/L	U	.
SVOA					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6	11	ug/L	U	.	11	ug/L	U	.	26	ug/L	U	.
SVOA					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7												

Blanks, SVOA1

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	2,4-Dinitrotoluene (121-14-2)				2,6-Dinitrotoluene (606-20-2)				2-Chloronaphthalene (91-58-7)			
										8270				8270				8270			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
SVOA					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7	10	ug/L	U	.	10	ug/L	U	.	10	ug/L	U	.
SVOA					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6	11	ug/L	U	.	11	ug/L	U	.	11	ug/L	U	.
SVOA					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5	10	ug/L	U	.	10	ug/L	U	.	10	ug/L	U	.
SVOA					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5	11	ug/L	U	.	11	ug/L	U	.	11	ug/L	U	.
SVOA					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6	11	ug/L	U	.	11	ug/L	U	.	11	ug/L	U	.
SVOA					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7												

Blanks, SVOA1

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	2-Chlorophenol (95-57-8)				2-Methylnaphthalene (91-57-6)				2-Methylphenol (cresol, o-) (95-48-7)			
										8270				8270				8270			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
SVOA					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7	10	ug/L	U	.	10	ug/L	U	.	10	ug/L	U	.
SVOA					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6	11	ug/L	U	.	11	ug/L	U	.	11	ug/L	U	.
SVOA					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5	10	ug/L	U	.	10	ug/L	U	.	10	ug/L	U	.
SVOA					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5	11	ug/L	U	.	11	ug/L	U	.	11	ug/L	U	.
SVOA					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6	11	ug/L	U	.	11	ug/L	U	.	11	ug/L	U	.
SVOA					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7												

Blanks, SVOA1

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	2-Nitroaniline (88-74-4)				2-Nitrophenol (88-75-5)				3,3'-Dichlorobenzidine (91-94-1)			
										8270				8270				8270			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
SVOA					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7	26	ug/L	U	.	10	ug/L	U	.	10	ug/L	U	.
SVOA					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6	28	ug/L	U	.	11	ug/L	U	.	11	ug/L	U	.
SVOA					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5	25	ug/L	U	.	10	ug/L	U	.	10	ug/L	U	.
SVOA					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5	28	ug/L	U	.	11	ug/L	U	.	11	ug/L	U	.
SVOA					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6	26	ug/L	U	.	11	ug/L	U	.	11	ug/L	U	.
SVOA					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7												

Blanks, SVOA1

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	3-Nitroaniline (99-09-2)				4,6-Dinitro-2-methylphenol (534-52-1)				4-Bromophenylphenyl ether (101-55-3)			
										8270				8270				8270	8270	8270	8270
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
SVOA					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7	26	ug/L	U	.	26	ug/L	U	.	10	ug/L	U	.
SVOA					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6	28	ug/L	U	.	28	ug/L	U	.	11	ug/L	U	.
SVOA					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5	25	ug/L	U	.	25	ug/L	U	.	10	ug/L	U	.
SVOA					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5	28	ug/L	U	.	28	ug/L	U	.	11	ug/L	U	.
SVOA					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6	26	ug/L	U	.	26	ug/L	U	.	11	ug/L	U	.
SVOA					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7												

Blanks, SVOA1

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	4-Chloro-3-methylphenol (59-50-7)				4-Chloroaniline (106-47-8)				4-Chlorophenylphenyl ether (7005-72-3)			
										8270				8270				8270			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
SVOA					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7	10	ug/L	U	.	10	ug/L	U	.	10	ug/L	U	.
SVOA					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6	11	ug/L	U	.	11	ug/L	U	.	11	ug/L	U	.
SVOA					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5	10	ug/L	U	.	10	ug/L	U	.	10	ug/L	U	.
SVOA					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5	11	ug/L	U	.	11	ug/L	U	.	11	ug/L	U	.
SVOA					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6	11	ug/L	U	.	11	ug/L	U	.	11	ug/L	U	.
SVOA					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7												

Blanks, SVOA1

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	4-Methylphenol (cresol, p-) (106-44-5)				4-Nitroaniline (100-01-6)				4-Nitrophenol (100-02-7)			
										8270				8270				8270			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
SVOA					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7	10	ug/L	U	.	26	ug/L	U	.	26	ug/L	U	.
SVOA					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6	11	ug/L	U	.	28	ug/L	U	.	28	ug/L	U	.
SVOA					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5	10	ug/L	U	.	25	ug/L	U	.	25	ug/L	U	.
SVOA					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5	11	ug/L	U	.	28	ug/L	U	.	28	ug/L	U	.
SVOA					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6	11	ug/L	U	.	26	ug/L	U	.	26	ug/L	U	.
SVOA					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7												

Blanks, SVOA1

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Acenaphthene (83-32-9) 8270				Acenaphthylene (208-96-8) 8270				Anthracene (120-12-7) 8270			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
SVOA					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7	10	ug/L	U	.	10	ug/L	U	.	10	ug/L	U	.
SVOA					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6	11	ug/L	U	.	11	ug/L	U	.	11	ug/L	U	.
SVOA					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5	10	ug/L	U	.	10	ug/L	U	.	10	ug/L	U	.
SVOA					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5	11	ug/L	U	.	11	ug/L	U	.	11	ug/L	U	.
SVOA					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6	11	ug/L	U	.	11	ug/L	U	.	11	ug/L	U	.
SVOA					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7												

Blanks, SVOA1

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Benzo(a)anthracene (56-55-3)				Benzo(a)pyrene (50-32-8)				Benzo(b)fluoranthene (205-99-2)			
										8270				8270				8270			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
SVOA					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7	10	ug/L	U	.	10	ug/L	U	.	10	ug/L	U	.
SVOA					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6	11	ug/L	U	.	11	ug/L	U	.	11	ug/L	U	.
SVOA					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5	10	ug/L	U	.	10	ug/L	U	.	10	ug/L	U	.
SVOA					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5	11	ug/L	U	.	11	ug/L	U	.	11	ug/L	U	.
SVOA					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6	11	ug/L	U	.	11	ug/L	U	.	11	ug/L	U	.
SVOA					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7												

Blanks, SVOA1

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Benzo(ghi)perylene (191-24-2)				Benzo(k)fluoranthene (207-08-9)				Bis(2-chloro-1-methylethyl)ether (108-60-1)			
										8270				8270				8270			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
SVOA					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7	10	ug/L	U	.	10	ug/L	U	.	10	ug/L	U	.
SVOA					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6	11	ug/L	U	.	11	ug/L	U	.	11	ug/L	U	.
SVOA					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5	10	ug/L	U	.	10	ug/L	U	.	10	ug/L	U	.
SVOA					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5	11	ug/L	U	.	11	ug/L	U	.	11	ug/L	U	.
SVOA					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6	11	ug/L	U	.	11	ug/L	U	.	11	ug/L	U	.
SVOA					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7												

Blanks, SVOA1

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Bis(2-Chloroethoxy)methane (111-91-1)				Bis(2-chloroethyl) ether (111-44-4)				Bis(2-ethylhexyl) phthalate (117-81-7)			
										8270				8270				8270			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
SVOA					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7	10	ug/L	U	.	10	ug/L	U	.	4	ug/L	J	.
SVOA					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6	11	ug/L	U	.	11	ug/L	U	.	3	ug/L	J	.
SVOA					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5	10	ug/L	U	.	10	ug/L	U	.	10	ug/L	U	.
SVOA					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5	11	ug/L	U	.	11	ug/L	U	.	2	ug/L	JB	.
SVOA					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6	11	ug/L	U	.	11	ug/L	U	.	7	ug/L	J	.
SVOA					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7												

Blanks, SVOA1

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Butyl Stearate (123-95-5)				Butylbenzylphthalate (85-68-7)				Carbazole (86-74-8)			
										8270				8270				8270			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
SVOA					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7					10	ug/L	U	.	10	ug/L	U	.
SVOA					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6					11	ug/L	U	.	11	ug/L	U	.
SVOA					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5					10	ug/L	U	.	10	ug/L	U	.
SVOA					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5					11	ug/L	U	.	11	ug/L	U	.
SVOA					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6					11	ug/L	U	.	11	ug/L	U	.
SVOA					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7												

Blanks, SVOA1

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Chrysene (218-01-9)				Decane (124-18-5)				Dibenz(a,h)anthracene (53-70-3)			
										8270				8270				8270			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
SVOA					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7	10	ug/L	U	.					10	ug/L	U	.
SVOA					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6	11	ug/L	U	.					11	ug/L	U	.
SVOA					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5	10	ug/L	U	.					10	ug/L	U	.
SVOA					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5	11	ug/L	U	.					11	ug/L	U	.
SVOA					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6	11	ug/L	U	.					11	ug/L	U	.
SVOA					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7												

Blanks, SVOA1

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Dibenzofuran (132-64-9)				Diethylphthalate (84-66-2)				Dimethyl phthalate (131-11-3)			
										8270				8270				8270			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
SVOA					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7	10	ug/L	U	.	10	ug/L	U	.	10	ug/L	U	.
SVOA					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6	11	ug/L	U	.	11	ug/L	U	.	11	ug/L	U	.
SVOA					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5	10	ug/L	U	.	10	ug/L	U	.	10	ug/L	U	.
SVOA					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5	11	ug/L	U	.	2	ug/L	J	.	11	ug/L	U	.
SVOA					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6	11	ug/L	U	.	1	ug/L	J	.	11	ug/L	U	.
SVOA					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7												

Blanks, SVOA1

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Di-n-butylphthalate (84-74-2)				Di-n-octylphthalate (117-84-0)				Di-n-octylphthalate (117-84-0)			
										8270				8270	8270	8270					
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
SVOA					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7	10	ug/L	U	.	10	ug/L	U	.				
SVOA					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6	11	ug/L	U	.	11	ug/L	U	.				
SVOA					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5	10	ug/L	U	.	10	ug/L	U	.				
SVOA					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5	2	ug/L	J	.	11	ug/L	U	.				
SVOA					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6	1	ug/L	J	.	11	ug/L	U	.				
SVOA					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7												

Blanks, SVOA1

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Di-n-octylphthalate (117-84-0)				Di-n-octylphth:							
										8270											
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
SVOA					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7	10	ug/L	U	.	10	ug/L	U	.	10	ug/L	U	.
SVOA					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6	11	ug/L	U	.	11	ug/L	U	.	11	ug/L	U	.
SVOA					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5	10	ug/L	U	.	10	ug/L	U	.	10	ug/L	U	.
SVOA					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5	11	ug/L	U	.	11	ug/L	U	.	11	ug/L	U	.
SVOA					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6	11	ug/L	U	.	11	ug/L	U	.	11	ug/L	U	.
SVOA					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7												

Blanks, SVOA1

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	late (117-84-0)								Hexachloroethane (67-72-1) 8270			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
SVOA					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7	10	ug/L	U	.	10	ug/L	U	.	10	ug/L	U	.
SVOA					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6	11	ug/L	U	.	11	ug/L	U	.	11	ug/L	U	.
SVOA					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5	10	ug/L	U	.	10	ug/L	U	.	10	ug/L	U	.
SVOA					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5	11	ug/L	U	.	11	ug/L	U	.	11	ug/L	U	.
SVOA					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6	11	ug/L	U	.	11	ug/L	U	.	11	ug/L	U	.
SVOA					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7												

Blanks, SVOA1

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Hexadecanoic acid (9CI) (57-10-3)				Hexadecanoic acid, butyl ester (111-06-8)				Indeno(1,2,3-cd)pyrene (193-39-5)			
										8270				8270				8270			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
SVOA					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7									10	ug/L	U	.
SVOA					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6									11	ug/L	U	.
SVOA					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5									10	ug/L	U	.
SVOA					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5									11	ug/L	U	.
SVOA					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6									11	ug/L	U	.
SVOA					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7												

Blanks, SVOA1

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Isophorone (78-59-1)			
										8270			
										Conc	Units	Q	VQ
SVOA					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7	10	ug/L	U	.
SVOA					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6	11	ug/L	U	.
SVOA					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5	10	ug/L	U	.
SVOA					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5	11	ug/L	U	.
SVOA					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6	11	ug/L	U	.
SVOA					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7				

Blanks, RAD2

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Tin-113 (13966-06-8)				Tin-126 (15832-50-5)				Total beta radiostrontium (SR-RAD)			
										GEA				GEA				Sep/GPC			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
RAD					B15XL7	EB	11/11/02 15:30	EBRLNE	B15XL7												
RAD					B15YF6	EB	11/20/02 15:30	EBRLNE	B15YF6												
RAD					B15YL5	EB	11/14/02 13:30	EBRLNE	B15YL5												
RAD					B16HC5	EB	3/26/03 11:00	EBRLNE	B16HC5												
RAD					B16HC6	EB	3/20/03 8:20	EBRLNE	B16HC6												
RAD					B16HC7	EB	2/19/03 12:00	EBRLNE	B16HC7												

Blanks, RAD2

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Tritium (10028-17-8)				Uranium-233/234 (U-233/234)				Uranium-234 (13966-29-5)			
										906				Sep/Plate/AEA				IX/Plate/AEA			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
RAD					B15XL7	EB	11/11/02 15:30	EBRLNE	B15XL7												
RAD					B15YF6	EB	11/20/02 15:30	EBRLNE	B15YF6												
RAD					B15YL5	EB	11/14/02 13:30	EBRLNE	B15YL5												
RAD					B16HC5	EB	3/26/03 11:00	EBRLNE	B16HC5												
RAD					B16HC6	EB	3/20/03 8:20	EBRLNE	B16HC6												
RAD					B16HC7	EB	2/19/03 12:00	EBRLNE	B16HC7												

Blanks, RAD2

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Uranium-234 (13966-29-5)				Uranium-235 (15117-96-1)				Uranium-235 (15117-96-1)			
										Sep/Plate/AEA				GEA				IX/Plate/AEA			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
RAD					B15XL7	EB	11/11/02 15:30	EBRLNE	B15XL7												
RAD					B15YF6	EB	11/20/02 15:30	EBRLNE	B15YF6												
RAD					B15YL5	EB	11/14/02 13:30	EBRLNE	B15YL5												
RAD					B16HC5	EB	3/26/03 11:00	EBRLNE	B16HC5												
RAD					B16HC6	EB	3/20/03 8:20	EBRLNE	B16HC6												
RAD					B16HC7	EB	2/19/03 12:00	EBRLNE	B16HC7												

Blanks, RAD2

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Uranium-235 (15117-96-1)				Uranium-238 (U-238)				Uranium-238 (U-238)			
										Sep/Plate/AEA				GEA				IX/Plate/AEA			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
RAD					B15XL7	EB	11/11/02 15:30	EBRLNE	B15XL7												
RAD					B15YF6	EB	11/20/02 15:30	EBRLNE	B15YF6												
RAD					B15YL5	EB	11/14/02 13:30	EBRLNE	B15YL5												
RAD					B16HC5	EB	3/26/03 11:00	EBRLNE	B16HC5												
RAD					B16HC6	EB	3/20/03 8:20	EBRLNE	B16HC6												
RAD					B16HC7	EB	2/19/03 12:00	EBRLNE	B16HC7												

Blanks, RAD2

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Uranium-238 (U-238)				Zinc-65 (13982-39-3)			
										Sep/Plate/AEA				GEA			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ
RAD					B15XL7	EB	11/11/02 15:30	EBRLNE	B15XL7								
RAD					B15YF6	EB	11/20/02 15:30	EBRLNE	B15YF6								
RAD					B15YL5	EB	11/14/02 13:30	EBRLNE	B15YL5								
RAD					B16HC5	EB	3/26/03 11:00	EBRLNE	B16HC5								
RAD					B16HC6	EB	3/20/03 8:20	EBRLNE	B16HC6								
RAD					B16HC7	EB	2/19/03 12:00	EBRLNE	B16HC7								

Blanks, RAD1

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Actinium-228 (14331-83-0)				Americium-241 (14596-10-2)				Americium-241 (14596-10-2)			
										GEA				Eichrom/Plate/AEA				GEA			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
RAD					B15XL7	EB	11/11/02 15:30	EBRLNE	B15XL7												
RAD					B15YF6	EB	11/20/02 15:30	EBRLNE	B15YF6												
RAD					B15YL5	EB	11/14/02 13:30	EBRLNE	B15YL5												
RAD					B16HC5	EB	3/26/03 11:00	EBRLNE	B16HC5												
RAD					B16HC6	EB	3/20/03 8:20	EBRLNE	B16HC6												
RAD					B16HC7	EB	2/19/03 12:00	EBRLNE	B16HC7												

Blanks, RAD1

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Americium-241 (14596-10-2) IX/Plate/AEA				Americium-241 (14596-10-2) IX/Prec/AEA				Antimony-125 (14234-35-6) GEA			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
RAD					B15XL7	EB	11/11/02 15:30	EBRLNE	B15XL7												
RAD					B15YF6	EB	11/20/02 15:30	EBRLNE	B15YF6												
RAD					B15YL5	EB	11/14/02 13:30	EBRLNE	B15YL5												
RAD					B16HC5	EB	3/26/03 11:00	EBRLNE	B16HC5												
RAD					B16HC6	EB	3/20/03 8:20	EBRLNE	B16HC6												
RAD					B16HC7	EB	2/19/03 12:00	EBRLNE	B16HC7												

Blanks, RAD1

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Barium-133 (13981-41-4)				Bismuth-212 (14913-49-6)				Bismuth-214 (14733-03-0)			
										GEA				GEA				GEA			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
RAD					B15XL7	EB	11/11/02 15:30	EBRLNE	B15XL7												
RAD					B15YF6	EB	11/20/02 15:30	EBRLNE	B15YF6												
RAD					B15YL5	EB	11/14/02 13:30	EBRLNE	B15YL5												
RAD					B16HC5	EB	3/26/03 11:00	EBRLNE	B16HC5												
RAD					B16HC6	EB	3/20/03 8:20	EBRLNE	B16HC6												
RAD					B16HC7	EB	2/19/03 12:00	EBRLNE	B16HC7												

Blanks, RAD1

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Carbon-14 (14762-75-5)				Cerium-144 (14762-78-8)				Cesium-134 (13967-70-9)			
										CombOx/LSC				GEA				GEA			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
RAD					B15XL7	EB	11/11/02 15:30	EBRLNE	B15XL7												
RAD					B15YF6	EB	11/20/02 15:30	EBRLNE	B15YF6												
RAD					B15YL5	EB	11/14/02 13:30	EBRLNE	B15YL5												
RAD					B16HC5	EB	3/26/03 11:00	EBRLNE	B16HC5												
RAD					B16HC6	EB	3/20/03 8:20	EBRLNE	B16HC6												
RAD					B16HC7	EB	2/19/03 12:00	EBRLNE	B16HC7												

Blanks, RAD1

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Cesium-137 (10045-97-3)				Cobalt-60 (10198-40-0)				Curium-242 (15510-73-3)			
										GEA				GEA				IX/Plate/AEA			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
RAD					B15XL7	EB	11/11/02 15:30	EBRLNE	B15XL7												
RAD					B15YF6	EB	11/20/02 15:30	EBRLNE	B15YF6												
RAD					B15YL5	EB	11/14/02 13:30	EBRLNE	B15YL5												
RAD					B16HC5	EB	3/26/03 11:00	EBRLNE	B16HC5												
RAD					B16HC6	EB	3/20/03 8:20	EBRLNE	B16HC6												
RAD					B16HC7	EB	2/19/03 12:00	EBRLNE	B16HC7												

Blanks, RAD1

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Curium-242 (15510-73-3)				Curium-243/244 (CM-243/244)				Curium-244 (13981-15-2)			
										IX/Prec/AEA				IX/Plate/AEA				IX/Prec/AEA			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
RAD					B15XL7	EB	11/11/02 15:30	EBRLNE	B15XL7												
RAD					B15YF6	EB	11/20/02 15:30	EBRLNE	B15YF6												
RAD					B15YL5	EB	11/14/02 13:30	EBRLNE	B15YL5												
RAD					B16HC5	EB	3/26/03 11:00	EBRLNE	B16HC5												
RAD					B16HC6	EB	3/20/03 8:20	EBRLNE	B16HC6												
RAD					B16HC7	EB	2/19/03 12:00	EBRLNE	B16HC7												

Blanks, RAD1

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Europium-152 (14683-23-9)				Europium-154 (15585-10-1)				Europium-155 (14391-16-3)			
										GEA				GEA				GEA	GEA	GEA	GEA
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
RAD					B15XL7	EB	11/11/02 15:30	EBRLNE	B15XL7												
RAD					B15YF6	EB	11/20/02 15:30	EBRLNE	B15YF6												
RAD					B15YL5	EB	11/14/02 13:30	EBRLNE	B15YL5												
RAD					B16HC5	EB	3/26/03 11:00	EBRLNE	B16HC5												
RAD					B16HC6	EB	3/20/03 8:20	EBRLNE	B16HC6												
RAD					B16HC7	EB	2/19/03 12:00	EBRLNE	B16HC7												

Blanks, RAD1

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Gross alpha (12587-46-1) 900				Gross alpha (12587-46-1) 9310				Gross alpha (12587-46-1) GPC			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
RAD					B15XL7	EB	11/11/02 15:30	EBRLNE	B15XL7	-0.121	pCi/L	U	.								
RAD					B15YF6	EB	11/20/02 15:30	EBRLNE	B15YF6	-9.90E-02	pCi/L	U	.								
RAD					B15YL5	EB	11/14/02 13:30	EBRLNE	B15YL5	-0.123	pCi/L	U	.								
RAD					B16HC5	EB	3/26/03 11:00	EBRLNE	B16HC5	0.224	pCi/L	U	.								
RAD					B16HC6	EB	3/20/03 8:20	EBRLNE	B16HC6	-0.192	pCi/L	U	.								
RAD					B16HC7	EB	2/19/03 12:00	EBRLNE	B16HC7	-0.264	pCi/L	U	.								

Blanks, RAD1

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Gross beta (12587-47-2) 900				Gross beta (12587-47-2) 9310				Gross beta (12587-47-2) GPC			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
RAD					B15XL7	EB	11/11/02 15:30	EBRLNE	B15XL7	-0.12	pCi/L	U	.								
RAD					B15YF6	EB	11/20/02 15:30	EBRLNE	B15YF6	-0.242	pCi/L	U	.								
RAD					B15YL5	EB	11/14/02 13:30	EBRLNE	B15YL5	0.182	pCi/L	U	.								
RAD					B16HC5	EB	3/26/03 11:00	EBRLNE	B16HC5	0.823	pCi/L	U	.								
RAD					B16HC6	EB	3/20/03 8:20	EBRLNE	B16HC6	-0.41	pCi/L	U	.								
RAD					B16HC7	EB	2/19/03 12:00	EBRLNE	B16HC7	0.838	pCi/L	U	.								

Blanks, RAD1

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Iodine-129 (15046-84-1) GEA				Lead-212 (15092-94-1) GEA				Lead-214 (15067-28-4) GEA			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
RAD					B15XL7	EB	11/11/02 15:30	EBRLNE	B15XL7												
RAD					B15YF6	EB	11/20/02 15:30	EBRLNE	B15YF6												
RAD					B15YL5	EB	11/14/02 13:30	EBRLNE	B15YL5												
RAD					B16HC5	EB	3/26/03 11:00	EBRLNE	B16HC5												
RAD					B16HC6	EB	3/20/03 8:20	EBRLNE	B16HC6												
RAD					B16HC7	EB	2/19/03 12:00	EBRLNE	B16HC7												

Blanks, RAD1

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Neptunium-237 (13994-20-2) IX/Prec/AEA				Neptunium-237 (13994-20-2) LX/Plate/AEA				Nickel-63 (13981-37-8) LSC			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
RAD					B15XL7	EB	11/11/02 15:30	EBRLNE	B15XL7												
RAD					B15YF6	EB	11/20/02 15:30	EBRLNE	B15YF6												
RAD					B15YL5	EB	11/14/02 13:30	EBRLNE	B15YL5												
RAD					B16HC5	EB	3/26/03 11:00	EBRLNE	B16HC5												
RAD					B16HC6	EB	3/20/03 8:20	EBRLNE	B16HC6												
RAD					B16HC7	EB	2/19/03 12:00	EBRLNE	B16HC7												

Blanks, RAD1

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Niobium-94 (14681-63-1) GEA				Plutonium-238 (13981-16-3) IX/Prec/AEA				Plutonium-238 (13981-16-3) Sep/Plate/AEA			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
RAD					B15XL7	EB	11/11/02 15:30	EBRLNE	B15XL7												
RAD					B15YF6	EB	11/20/02 15:30	EBRLNE	B15YF6												
RAD					B15YL5	EB	11/14/02 13:30	EBRLNE	B15YL5												
RAD					B16HC5	EB	3/26/03 11:00	EBRLNE	B16HC5												
RAD					B16HC6	EB	3/20/03 8:20	EBRLNE	B16HC6												
RAD					B16HC7	EB	2/19/03 12:00	EBRLNE	B16HC7												

Blanks, RAD1

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Plutonium-239/240 (PU-239/240) IX/Prec/AEA				Plutonium-239/240 (PU-239/240) Sep/Plate/AEA				Plutonium-241 (14119-32-5) IX/LSC			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
RAD					B15XL7	EB	11/11/02 15:30	EBRLNE	B15XL7												
RAD					B15YF6	EB	11/20/02 15:30	EBRLNE	B15YF6												
RAD					B15YL5	EB	11/14/02 13:30	EBRLNE	B15YL5												
RAD					B16HC5	EB	3/26/03 11:00	EBRLNE	B16HC5												
RAD					B16HC6	EB	3/20/03 8:20	EBRLNE	B16HC6												
RAD					B16HC7	EB	2/19/03 12:00	EBRLNE	B16HC7												

Blanks, RAD1

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Potassium-40 (13966-00-2)				Radium-224 (13233-32-4)				Radium-226 (13982-63-3)			
										GEA				GEA				GEA			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
RAD					B15XL7	EB	11/11/02 15:30	EBRLNE	B15XL7												
RAD					B15YF6	EB	11/20/02 15:30	EBRLNE	B15YF6												
RAD					B15YL5	EB	11/14/02 13:30	EBRLNE	B15YL5												
RAD					B16HC5	EB	3/26/03 11:00	EBRLNE	B16HC5												
RAD					B16HC6	EB	3/20/03 8:20	EBRLNE	B16HC6												
RAD					B16HC7	EB	2/19/03 12:00	EBRLNE	B16HC7												

Blanks, RAD1

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Radium-228 (15262-20-1)				Ruthenium-103 (13968-53-1)				Ruthenium-106 (13967-48-1)			
										GEA				GEA				GEA			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
RAD					B15XL7	EB	11/11/02 15:30	EBRLNE	B15XL7												
RAD					B15YF6	EB	11/20/02 15:30	EBRLNE	B15YF6												
RAD					B15YL5	EB	11/14/02 13:30	EBRLNE	B15YL5												
RAD					B16HC5	EB	3/26/03 11:00	EBRLNE	B16HC5												
RAD					B16HC6	EB	3/20/03 8:20	EBRLNE	B16HC6												
RAD					B16HC7	EB	2/19/03 12:00	EBRLNE	B16HC7												

Blanks, RAD1

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Selenium-79 (15758-45-9)				Sodium-22 (13966-32-0)				Strontium-90 (10098-97-2)			
										IX/LSC				GEA				Sep/GPC			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
RAD					B15XL7	EB	11/11/02 15:30	EBRLNE	B15XL7												
RAD					B15YF6	EB	11/20/02 15:30	EBRLNE	B15YF6												
RAD					B15YL5	EB	11/14/02 13:30	EBRLNE	B15YL5												
RAD					B16HC5	EB	3/26/03 11:00	EBRLNE	B16HC5												
RAD					B16HC6	EB	3/20/03 8:20	EBRLNE	B16HC6												
RAD					B16HC7	EB	2/19/03 12:00	EBRLNE	B16HC7												

Blanks, RAD1

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Technetium-99 (14133-76-7)				Technetium-99 (14133-76-7)	Technetium-99 (14133-76-7)	Technetium-99 (14133-76-7)					
										IX/LSC				Sep/GPC	Sep/GPC	Sep/GPC					
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
RAD					B15XL7	EB	11/11/02 15:30	EBRLNE	B15XL7												
RAD					B15YF6	EB	11/20/02 15:30	EBRLNE	B15YF6												
RAD					B15YL5	EB	11/14/02 13:30	EBRLNE	B15YL5												
RAD					B16HC5	EB	3/26/03 11:00	EBRLNE	B16HC5												
RAD					B16HC6	EB	3/20/03 8:20	EBRLNE	B16HC6												
RAD					B16HC7	EB	2/19/03 12:00	EBRLNE	B16HC7												

Blanks, RAD1

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Technetium-99 (14133-76-7)											
										Sep/GPC											
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
RAD					B15XL7	EB	11/11/02 15:30	EBRLNE	B15XL7												
RAD					B15YF6	EB	11/20/02 15:30	EBRLNE	B15YF6												
RAD					B15YL5	EB	11/14/02 13:30	EBRLNE	B15YL5												
RAD					B16HC5	EB	3/26/03 11:00	EBRLNE	B16HC5												
RAD					B16HC6	EB	3/20/03 8:20	EBRLNE	B16HC6												
RAD					B16HC7	EB	2/19/03 12:00	EBRLNE	B16HC7												

Blanks, RAD1

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample									Thorium-230 (14269-63-7) IX/Prec/AEA			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
RAD					B15XL7	EB	11/11/02 15:30	EBRLNE	B15XL7												
RAD					B15YF6	EB	11/20/02 15:30	EBRLNE	B15YF6												
RAD					B15YL5	EB	11/14/02 13:30	EBRLNE	B15YL5												
RAD					B16HC5	EB	3/26/03 11:00	EBRLNE	B16HC5												
RAD					B16HC6	EB	3/20/03 8:20	EBRLNE	B16HC6												
RAD					B16HC7	EB	2/19/03 12:00	EBRLNE	B16HC7												

Blanks, RAD1

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Thorium-232 (TH-232) GEA				Thorium-232 (TH-232) IX/Plate/AEA				Thorium-232 (TH-232) IX/Prec/AEA			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
RAD					B15XL7	EB	11/11/02 15:30	EBRLNE	B15XL7												
RAD					B15YF6	EB	11/20/02 15:30	EBRLNE	B15YF6												
RAD					B15YL5	EB	11/14/02 13:30	EBRLNE	B15YL5												
RAD					B16HC5	EB	3/26/03 11:00	EBRLNE	B16HC5												
RAD					B16HC6	EB	3/20/03 8:20	EBRLNE	B16HC6												
RAD					B16HC7	EB	2/19/03 12:00	EBRLNE	B16HC7												

Blanks, RAD1

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Thorium-234 (15065-10-8)			
										GEA			
										Conc	Units	Q	VQ
RAD					B15XL7	EB	11/11/02 15:30	EBRLNE	B15XL7				
RAD					B15YF6	EB	11/20/02 15:30	EBRLNE	B15YF6				
RAD					B15YL5	EB	11/14/02 13:30	EBRLNE	B15YL5				
RAD					B16HC5	EB	3/26/03 11:00	EBRLNE	B16HC5				
RAD					B16HC6	EB	3/20/03 8:20	EBRLNE	B16HC6				
RAD					B16HC7	EB	2/19/03 12:00	EBRLNE	B16HC7				

Blanks, PHYSICAL

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Bulk density - dry (BULKDENSITY-DRY)				Bulk density - wet (BULKDENSITY-WET)				Cation Exchange Capacity (CEC)			
										D2937				D2937				9080			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
PHYSICAL					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7												
PHYSICAL					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6												
PHYSICAL					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5												
PHYSICAL					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5												
PHYSICAL					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6												
PHYSICAL					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7												

Blanks, PHYSICAL

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Percent moisture (dry sample) (%MOISTURE-D)				Percent moisture (wet sample) (%MOISTURE)				Percent passing 1 inch sieve (PAS1IN)			
										D2216				D2216				D422			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
PHYSICAL					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7												
PHYSICAL					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6												
PHYSICAL					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5												
PHYSICAL					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5												
PHYSICAL					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6												
PHYSICAL					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7												

Blanks, PHYSICAL

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Percent passing 1.5 inch sieve (PAS1.5IN)				Percent passing 2 inch sieve (PAS2IN)				Percent passing 3 inch sieve (PAS3IN)			
										D422				D422				D422			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
PHYSICAL					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7												
PHYSICAL					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6												
PHYSICAL					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5												
PHYSICAL					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5												
PHYSICAL					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6												
PHYSICAL					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7												

Blanks, PHYSICAL

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Percent passing 3/4 inch sieve (PAS3/4IN)				Percent passing 3/8 inch sieve (PAS3/8IN)				Percent passing No.10 sieve (PAS#10)			
										D422				D422				D422			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
PHYSICAL					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7												
PHYSICAL					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6												
PHYSICAL					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5												
PHYSICAL					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5												
PHYSICAL					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6												
PHYSICAL					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7												

Blanks, PHYSICAL

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Percent passing No.100 sieve (PAS#100)				Percent passing No.140 sieve (PAS#140)				Percent passing No.20 sieve (PAS#20)			
										D422				D422				D422			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
PHYSICAL					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7												
PHYSICAL					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6												
PHYSICAL					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5												
PHYSICAL					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5												
PHYSICAL					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6												
PHYSICAL					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7												

Blanks, PHYSICAL

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Percent passing No.200 sieve (PAS#200)				Percent passing No.4 sieve (PAS#4)				Percent passing No.40 sieve (PAS#40)			
										D422				D422				D422			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
PHYSICAL					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7												
PHYSICAL					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6												
PHYSICAL					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5												
PHYSICAL					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5												
PHYSICAL					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6												
PHYSICAL					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7												

Blanks, PHYSICAL

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Percent passing No.60 sieve (PAS#60)				pH Measurement (PH)				pH Measurement (PH)			
										D422				150.1				9040	9040	9040	9040
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
PHYSICAL					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7									5.2	pH	.	.
PHYSICAL					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6									5.7	pH	.	.
PHYSICAL					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5									5.37	pH	.	.
PHYSICAL					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5									5.7	pH	.	.
PHYSICAL					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6									6	pH	.	.
PHYSICAL					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7									5.79	pH	.	.

Blanks, PHYSICAL

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	pH Measurement (PH)				Specific Gravity (SPECGVTY)			
										9045				D854			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ
PHYSICAL					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7								
PHYSICAL					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6								
PHYSICAL					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5								
PHYSICAL					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5								
PHYSICAL					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6								
PHYSICAL					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7								

Blanks, METAL

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Aluminum (7429-90-5) 6010				Antimony (7440-36-0) 6010				Arsenic (7440-38-2) 6010			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
METAL					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7									3.8	ug/L	U	.
METAL					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6									3.8	ug/L	U	.
METAL					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5									3.8	ug/L	U	.
METAL					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5									3.5	ug/L	U	.
METAL					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6									3.5	ug/L	U	.
METAL					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7									3.5	ug/L	U	.

Blanks, METAL

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Barium (7440-39-3)				Beryllium (7440-41-7)				Bismuth (7440-69-9)			
										6010				6010				6010			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
METAL					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7	0.51	ug/L	.	.	0.2	ug/L	U	.				
METAL					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6	0.46	ug/L	.	.	0.4	ug/L	.	.				
METAL					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5	0.44	ug/L	.	.	0.25	ug/L	.	.				
METAL					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5	0.32	ug/L	.	.	0.79	ug/L	.	.				
METAL					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6	0.31	ug/L	.	.	0.5	ug/L	U	.				
METAL					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7	0.41	ug/L	.	.	0.29	ug/L	.	.				

Blanks, METAL

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Boron (7440-42-8) 6010				Cadmium (7440-43-9) 6010				Cadmium (7440-43-9) TCLP/6010			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
METAL					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7					0.4	ug/L	U	.				
METAL					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6					0.4	ug/L	U	.				
METAL					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5					0.4	ug/L	U	.				
METAL					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5					0.4	ug/L	U	.				
METAL					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6					0.4	ug/L	U	.				
METAL					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7					0.4	ug/L	U	.				

Blanks, METAL

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Calcium (7440-70-2)				Chromium (7440-47-3)				Cobalt (7440-48-4)			
										6010				6010				6010			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
METAL					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7					1	ug/L	U	.				
METAL					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6					1	ug/L	U	.				
METAL					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5					1	ug/L	U	.				
METAL					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5					0.62	ug/L	.	.				
METAL					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6					0.6	ug/L	U	.				
METAL					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7					0.71	ug/L	.	.				

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Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Copper (7440-50-8)				Hexavalent Chromium (18540-29-9)				Iron (7439-89-6)			
										6010				7196				6010			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
METAL					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7	1.3	ug/L	U	.								
METAL					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6	1.3	ug/L	U	.								
METAL					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5	1.3	ug/L	U	.								
METAL					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5	2.4	ug/L	U	.								
METAL					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6	1.5	ug/L	.	.								
METAL					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7	3.3	ug/L	.	.								

Blanks, METAL

Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Lead (7439-92-1) 6010				Lead (7439-92-1) TCLP/6010				Magnesium (7439-95-4) 6010			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
METAL					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7	2.4	ug/L	U	.								
METAL					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6	2.4	ug/L	U	.								
METAL					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5	2.4	ug/L	U	.								
METAL					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5	2.6	ug/L	U	.								
METAL					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6	2.6	ug/L	U	.								
METAL					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7	2.6	ug/L	U	.								

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Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Manganese (7439-96-5)				Mercury (7439-97-6)				Mercury (7439-97-6)			
										6010				200.8				7470	7470	7470	7470
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
METAL					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7												
METAL					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6												
METAL					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5												
METAL					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5												
METAL					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6												
METAL					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7												

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Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Mercury (7439-97-6) 7471				Mercury (7439-97-6) TCLP/7470				Molybdenum (7439-98-7) 6010			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
METAL					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7												
METAL					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6												
METAL					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5												
METAL					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5												
METAL					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6												
METAL					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7												

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Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Nickel (7440-02-0) 6010				Potassium (7440-09-7) 6010				Selenium (7782-49-2) 6010			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
METAL					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7	1.3	ug/L	U	.					3.8	ug/L	U	.
METAL					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6	1.3	ug/L	U	.					3.8	ug/L	U	.
METAL					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5	1.3	ug/L	U	.					3.8	ug/L	U	.
METAL					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5	1.8	ug/L	U	.					3.6	ug/L	U	.
METAL					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6	1.8	ug/L	U	.					3.6	ug/L	U	.
METAL					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7	1.8	ug/L	U	.					3.7	ug/L	.	.

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Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Silver (7440-22-4) 6010				Sodium (7440-23-5) 6010				Thallium (7440-28-0) 6010			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
METAL					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7	1.4	ug/L	U	.								
METAL					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6	1.4	ug/L	U	.								
METAL					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5	1.4	ug/L	U	.								
METAL					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5	0.8	ug/L	U	.								
METAL					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6	0.8	ug/L	U	.								
METAL					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7	0.8	ug/L	U	.								

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Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Tin (7440-31-5)				Uranium (7440-61-1)				Uranium (7440-61-1)			
										6010				200.8				KPA			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ	Conc	Units	Q	VQ
METAL					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7												
METAL					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6												
METAL					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5												
METAL					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5												
METAL					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6												
METAL					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7												

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Class	Wastesite	Location	Sample Top (ft bgs)	Sample Bottom (ft bgs)	Sample	Sample Type	Sample Date	Lab Code	Sample	Vanadium (7440-62-2)				Zinc (7440-66-6)			
										6010				6010			
										Conc	Units	Q	VQ	Conc	Units	Q	VQ
METAL					B15XL7	EB	11/11/02 15:30	RLNP	B15XL7	1	ug/L	U	.	2.4	ug/L	.	.
METAL					B15YF6	EB	11/20/02 15:30	RLNP	B15YF6	1	ug/L	U	.	5.3	ug/L	.	.
METAL					B15YL5	EB	11/14/02 13:30	RLNP	B15YL5	1	ug/L	U	.	3.6	ug/L	.	.
METAL					B16HC5	EB	3/26/03 11:00	RLNP	B16HC5	0.1	ug/L	U	.	21.7	ug/L	.	.
METAL					B16HC6	EB	3/20/03 8:20	RLNP	B16HC6	0.1	ug/L	U	.	13.1	ug/L	.	.
METAL					B16HC7	EB	2/19/03 12:00	RLNP	B16HC7	0.21	ug/L	.	.	12.4	ug/L	.	.

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APPENDIX B

REMEDIAL INVESTIGATION REPORT SUMMARY APPENDIX TABLES (RIRSAT)

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200-CS-1 Summary Table for All Constituents in Shallow Zone Soil Samples

Constituent	CAS Number	Constituent Class	Units	Number of Results	Number of Detects	Frequency of Detects (%)	Minimum Nondetect	Maximum Nondetect	Minimum Detect	Maximum Detect	Analytical Method for Minimum Detect (or nondetect)	Analytical Method for Maximum Detect (or nondetect)	Start Depth of Maximum Detect (ft bgs)	End Depth of Maximum Depth (ft bgs)	Sample Number of Maximum Detect
216-A-29															
Aroclor-1016	12674-11-2	GENORG	ug/kg	32	0	0.0	2.7	2600			8082	8082			
Aroclor-1221	11104-28-2	GENORG	ug/kg	32	0	0.0	2.7	5100			8082	8082			
Aroclor-1232	11141-16-5	GENORG	ug/kg	32	0	0.0	2.7	2600			8082	8082			
Aroclor-1242	53469-21-9	GENORG	ug/kg	32	0	0.0	2.7	2600			8082	8082			
Aroclor-1248	12672-29-6	GENORG	ug/kg	32	0	0.0	2.7	2600			8082	8082			
Aroclor-1254	11097-69-1	GENORG	ug/kg	32	2	6.3	6.3	50	2500	9400	8082	8082	4	5	B13CK9
Aroclor-1260	11096-82-5	GENORG	ug/kg	32	0	0.0	6.3	2600			8082	8082			
Aroclor-1262	37324-23-5	GENORG	ug/kg	1	0	0.0	34	34			8082	8082			
Aroclor-1268	11100-14-4	GENORG	ug/kg	1	0	0.0	34	34			8082	8082			
Total petroleum hydrocarbons - diesel range	TPHDIESEL	GENORG	ug/kg	23	0	0.0	1400	132000			WDOE TPH	WDOE TPH			
Total petroleum hydrocarbons - kerosene rang	TPHKEROSENE	GENORG	ug/kg	21	1	4.8	4900	26000	440000	440000	WDOE TPH	WDOE TPH	4	6.5	B16NF7
Total petroleum hydrocarbons - motor oil (hi	TPH/OILH	GENORG	ug/kg	2	1	50.0	14.6	14.6	760000	760000	WDOE TPH	WDOE TPH	4	5	B13CK9
Aluminum	7429-90-5	METAL		4	4	100.0			5210000	10100000	6010	6010	6	7	B13C81
Antimony	7440-36-0	METAL	ug/kg	1	0	0.0	1070	1070			6010	6010			
Arsenic	7440-38-2	METAL	ug/kg	32	31	96.9	2420	2420	1600	12200	6010	6010	8.5	9.5	B13C77
Barium	7440-39-3	METAL		32	32	100.0			52000	118000	6010	6010	6	7	B13C81
Beryllium	7440-41-7	METAL	ug/kg	23	20	87.0	10	97	80	626	6010	6010	4	6.5	B16NF7
Bismuth	7440-69-9	METAL	ug/kg	5	1	20.0	357	9700	766	766	6010	6010	4	6.5	B16NF7
Boron	7440-42-8	METAL	ug/kg	4	4	100.0			2100	3400	6010	6010	4	5	B13CK9
Cadmium	7440-43-9	METAL	ug/kg	32	26	81.3	30	30	60	28000	6010	6010	4	5	B13CK9
Calcium	7440-70-2	METAL	ug/kg	4	4	100.0			6830000	24300000	6010	6010	6	7	B13C81
Chromium	7440-47-3	METAL	ug/kg	32	32	100.0			3000	36800	6010	6010	4	5	B13CK9
Copper	7440-50-8	METAL	ug/kg	23	23	100.0			7570	172000	6010	6010	4	5	B13CK9
Hexavalent Chromium	18540-29-9	METAL	ug/kg	23	7	30.4	57	490	520	8800	7196	7196	7.5	8.5	B13CR4
Iron	7439-89-6	METAL	ug/kg	4	4	100.0			22900000	26900000	6010	6010	5	6	B13CR9
Lead	7439-92-1	METAL	ug/kg	32	31	96.9	1260	1260	1300	390000	6010	6010	7.5	8.5	B13CR4
Magnesium	7439-95-4	METAL	ug/kg	1	1	100.0			4310000	4310000	6010	6010	4	6.5	B16NF7
Manganese	7439-96-5	METAL	ug/kg	5	5	100.0			216000	454000	6010	6010	6	7	B13C81
Mercury	7439-97-6	METAL	ug/kg	31	17	54.8	10	20	8.7	5200	7471	7471	4	5	B13CK9
Molybdenum	7439-98-7	METAL	ug/kg	5	4	80.0	9700	9700	530	3200	6010	6010	4	5	B13CK9
Nickel	7440-02-0	METAL	ug/kg	23	23	100.0			950	27600	6010	6010	4	5	B13CK9
Potassium	9/7/7440	METAL	ug/kg	4	4	100.0			990000	2260000	6010	6010	6	7	B13C81

200-CS-1 Summary Table for All Constituents in Shallow Zone Soil Samples

Constituent	CAS Number	Constituent Class	Units	Number of Results	Number of Detects	Frequency of Detects (%)	Minimum Nondetect	Maximum Nondetect	Minimum Detect	Maximum Detect	Analytical Method for Minimum Detect (or nondetect)	Analytical Method for Maximum Detect (or nondetect)	Start Depth of Maximum Detect (ft bgs)	End Depth of Maximum Depth (ft bgs)	Sample Number of Maximum Detect
Selenium	7782-49-2	METAL	ug/kg	32	12	37.5	180	420	280	2520	6010	6010	9	11.5	B16FN6-A
Silver	7440-22-4	METAL	ug/kg	32	5	15.6	50	291	1400	42000	6010	6010	4	5	B13CK9
Sodium	7440-23-5	METAL	ug/kg	4	4	100.0			205000	873000	6010	6010	4	5	B13CK9
Thallium	7440-28-0	METAL	ug/kg	4	1	25.0	312	410	520	520	6010	6010	6	7	B13C81
Tin	7440-31-5	METAL	ug/kg	1	0	0.0	9700	9700			6010	6010			
Uranium	7440-61-1	METAL	ug/kg	23	23	100.0			253	5280	KPA	KPA	7.5	8.5	B13CR4
Vanadium	7440-62-2	METAL	ug/kg	23	23	100.0			36800	104000	6010	6010	7.5	8.5	B13CR4
Zinc	7440-66-6	METAL	ug/kg	23	23	100.0			35700	224000	6010	6010	4	5	B13CK9
pH Measurement	PH	PHYSICAL		23	23	100.0			6.5	9.3	9045	9045	10	11	B13CR8
Actinium-228	14331-83-0	RAD	pCi/g	1	1	100.0			0.429	0.429	GEA	GEA	9	11.5	B16FN6-A
Americium-241	14596-10-2	RAD	pCi/g	55	10	18.2	-0.121	77	0.032	145	IX/Plate/AEA	GEA	4	6.5	B16NF7
Antimony-125	14234-35-6	RAD	pCi/g	5	1	20.0	-0.002	0.16	1.67	1.67	GEA	GEA	4	5	B13CK9
Barium-133	13981-41-4	RAD	pCi/g	4	0	0.0	0.03	0.3			GEA	GEA			
Bismuth-212	14913-49-6	RAD	pCi/g	1	1	100.0			0.282	0.282	GEA	GEA	9	11.5	B16FN6-A
Bismuth-214	14733-03-0	RAD	pCi/g	1	1	100.0			0.392	0.392	GEA	GEA	9	11.5	B16FN6-A
Carbon-14	14762-75-5	RAD	pCi/g	4	0	0.0	-0.983	2.49			CombOx/LSC	CombOx/LSC			
Cerium-144	14762-78-8	RAD	pCi/g	1	0	0.0	-0.041	-0.041			GEA	GEA			
Cesium-134	13967-70-9	RAD	pCi/g	5	0	0.0	0.023	0.097			GEA	GEA			
Cesium-137	10045-97-3	RAD	pCi/g	32	18	56.3	-0.013	0.047	0.058	98.4	GEA	GEA	4	5	B13CK9
Cobalt-60	10198-40-0	RAD	pCi/g	32	0	0.0	-0.005	0.067			GEA	GEA			
Curium-242	15510-73-3	RAD	pCi/g	4	0	0.0	0	0.31			IX/Plate/AEA	IX/Plate/AEA			
Curium-243/244	CM-243/244	RAD	pCi/g	1	0	0.0	0.258	0.258			IX/Plate/AEA	IX/Plate/AEA			
Europium-152	14683-23-9	RAD	pCi/g	32	0	0.0	-0.022	0.79			GEA	GEA			
Europium-154	15585-10-1	RAD	pCi/g	32	0	0.0	-0.037	0.27			GEA	GEA			
Europium-155	14391-16-3	RAD	pCi/g	32	1	3.1	0.016	0.52	0.05	0.05	GEA	GEA	10	10	B0P722
Gross alpha	12587-46-1	RAD	pCi/g	32	28	87.5	0.56	3.44	3.47	777	GPC	900	4	6.5	B16NF7
Gross beta	12587-47-2	RAD	pCi/g	32	29	90.6	-2.03	6.45	1.2	78.2	900	900	4	5	B13CK9
Lead-212	15092-94-1	RAD	pCi/g	1	1	100.0			0.445	0.445	GEA	GEA	9	11.5	B16FN6-A
Lead-214	15067-28-4	RAD	pCi/g	1	1	100.0			0.432	0.432	GEA	GEA	9	11.5	B16FN6-A
Neptunium-237	13994-20-2	RAD	pCi/g	23	1	4.3	-0.003	1.88	0.124	0.124	LX/Plate/AEA	LX/Plate/AEA	11.5	12.5	B13CL2
Nickel-63	13981-37-8	RAD	pCi/g	1	0	0.0	0.588	0.588			LSC	LSC			
Niobium-94	14681-63-1	RAD	pCi/g	1	0	0.0	-0.001	-0.001			GEA	GEA			
Plutonium-238	13981-16-3	RAD	pCi/g	23	3	13.0	-0.024	0.162	0.056	15.7	IX/Prec/AEA	Sep/Plate/AEA	4	6.5	B16NF7
Plutonium-239/240	PU-239/240	RAD	pCi/g	23	11	47.8	0	0.145	0.026	667	Sep/Plate/AEA	Sep/Plate/AEA	4	6.5	B16NF7
Potassium-40	13966-00-2	RAD	pCi/g	30	30	100.0			6.63	16	GEA	GEA	6	7	B13C81
Radium-226	13982-63-3	RAD	pCi/g	31	31	100.0			0.266	0.895	GEA	GEA	8.5	9.5	B13C77
Radium-228	15262-20-1	RAD	pCi/g	32	32	100.0			0.414	1.11	GEA	GEA	6	7	B13C81
Ruthenium-103	13968-53-1	RAD	pCi/g	1	0	0.0	0.001	0.001			GEA	GEA			

200-CS-1 Summary Table for All Constituents in Shallow Zone Soil Samples

Constituent	CAS Number	Constituent Class	Units	Number of Results	Number of Detects	Frequency of Detects (%)	Minimum Nondetect	Maximum Nondetect	Minimum Detect	Maximum Detect	Analytical Method for Minimum Detect (or nondetect)	Analytical Method for Maximum Detect (or nondetect)	Start Depth of Maximum Detect (ft bgs)	End Depth of Maximum Depth (ft bgs)	Sample Number of Maximum Detect
Ruthenium-106	13967-48-1	RAD	pCi/g	1	0	0.0	-0.023	-0.023			GEA	GEA			
Sodium-22	13966-32-0	RAD	pCi/g	4	0	0.0	0.034	0.095			GEA	GEA			
Technetium-99	14133-76-7	RAD	pCi/g	1	0	0.0	0.115	0.115			Sep/GPC	Sep/GPC			
Thallium-208	14913-50-9	RAD	pCi/g	1	1	100.0			0.136	0.136	GEA	GEA	9	11.5	B16FN6-A
Thorium-228	14274-82-9	RAD	pCi/g	52	44	84.6	-0.14	1.38	0.322	1.14	IX/Plate/AEA	IX/Plate/AEA	10	11	B13CR8
Thorium-230	14269-63-7	RAD	pCi/g	22	11	50.0	-0.046	3.22	0.423	1.49	IX/Plate/AEA	IX/Plate/AEA	9	11.5	B16548
Thorium-232	TH-232	RAD	pCi/g	52	48	92.3	0.092	1.84	0.298	1.22	IX/Plate/AEA	IX/Plate/AEA	10	11	B13CR8
Thorium-234	15065-10-8	RAD	pCi/g	1	0	0.0	0.696	0.696			GEA	GEA			
Tin-113	13966-06-8	RAD	pCi/g	1	0	0.0	-0.002	-0.002			GEA	GEA			
Tin-126	15832-50-5	RAD	pCi/g	5	0	0.0	0.058	0.31			GEA	GEA			
Total beta radiostrontium	SR-RAD	RAD	pCi/g	32	11	34.4	-0.071	0.197	0.272	0.779	Sep/GPC	Sep/GPC	10	11	B13CR8
Tritium	10028-17-8	RAD	pCi/g	1	0	0.0	0.026	0.026			906	906			
Uranium-233/234	U-233/234	RAD	pCi/g	5	5	100.0			0.33	2.31	Sep/Plate/AEA	Sep/Plate/AEA	7.5	8.5	B13CR4
Uranium-234	13966-29-5	RAD	pCi/g	1	1	100.0			0.964	0.964	IX/Plate/AEA	IX/Plate/AEA	10	11	B13CR8
Uranium-235	15117-96-1	RAD	pCi/g	28	3	10.7	0	0.78	0.061	0.439	Sep/Plate/AEA	GEA	4	5	B13CK9
Uranium-238	U-238	RAD	pCi/g	36	6	16.7	1.1	9.4	0.495	1.81	GEA	GEA	7.5	8.5	B13CR3
Zinc-65	13982-39-3	RAD	pCi/g	1	0	0.0	0.041	0.041			GEA	GEA			
1-2-4-Trichlorobenzene	120-82-1	SVOA	ug/kg	31	0	0.0	300	2600			8270	8270			
1-2-Dichlorobenzene	95-50-1	SVOA	ug/kg	30	0	0.0	340	2600			8270	8270			
1-3-Dichlorobenzene	541-73-1	SVOA	ug/kg	30	0	0.0	340	2600			8270	8270			
1-4-Dichlorobenzene	106-46-7	SVOA	ug/kg	31	0	0.0	330	2600			8270	8270			
2-4-5-Trichlorophenol	95-95-4	SVOA	ug/kg	30	0	0.0	850	6400			8270	8270			
2-4-6-Trichlorophenol	88-06-2	SVOA	ug/kg	30	0	0.0	340	2600			8270	8270			
2-4-Dichlorophenol	120-83-2	SVOA	ug/kg	30	0	0.0	340	2600			8270	8270			
2-4-Dimethylphenol	105-67-9	SVOA	ug/kg	30	0	0.0	340	2600			8270	8270			
2-4-Dinitrophenol	51-28-5	SVOA	ug/kg	30	0	0.0	850	6400			8270	8270			
2-4-Dinitrotoluene	121-14-2	SVOA	ug/kg	31	0	0.0	69	2600			8270	8270			
2-6-Dinitrotoluene	606-20-2	SVOA	ug/kg	30	0	0.0	340	2600			8270	8270			

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Constituent	CAS Number	Constituent Class	Units	Number of Results	Number of Detects	Frequency of Detects (%)	Minimum Nondetect	Maximum Nondetect	Minimum Detect	Maximum Detect	Analytical Method for Minimum Detect (or nondetect)	Analytical Method for Maximum Detect (or nondetect)	Start Depth of Maximum Detect (ft bgs)	End Depth of Maximum Depth (ft bgs)	Sample Number of Maximum Detect
2-Chloronaphthalene	91-58-7	SVOA	ug/kg	30	0	0.0	340	2600			8270	8270			
2-Chlorophenol	95-57-8	SVOA	ug/kg	31	0	0.0	150	2600			8270	8270			
2-Methylnaphthalene	91-57-6	SVOA	ug/kg	30	0	0.0	340	2600			8270	8270			
2-Methylphenol (cresol- o-)	95-48-7	SVOA	ug/kg	30	0	0.0	340	2600			8270	8270			
2-Nitroaniline	88-74-4	SVOA	ug/kg	30	0	0.0	850	6400			8270	8270			
2-Nitrophenol	88-75-5	SVOA	ug/kg	31	0	0.0	180	2600			8270	8270			
3-3'-Dichlorobenzidine	91-94-1	SVOA	ug/kg	30	0	0.0	340	2600			8270	8270			
3-Nitroaniline	99-09-2	SVOA	ug/kg	30	0	0.0	850	6400			8270	8270			
4-6-Dinitro-2-methylphenol	534-52-1	SVOA	ug/kg	30	0	0.0	850	6400			8270	8270			
4-Bromophenylphenyl ether	101-55-3	SVOA	ug/kg	30	0	0.0	340	2600			8270	8270			
4-Chloro-3-methylphenol	59-50-7	SVOA	ug/kg	31	0	0.0	69	2600			8270	8270			
4-Chloroaniline	106-47-8	SVOA	ug/kg	30	0	0.0	340	2600			8270	8270			
4-Chlorophenylphenyl ether	7005-72-3	SVOA	ug/kg	30	0	0.0	340	2600			8270	8270			
4-Methylphenol (cresol- p-)	106-44-5	SVOA	ug/kg	30	0	0.0	340	2600			8270	8270			
4-Nitroaniline	100-01-6	SVOA	ug/kg	30	0	0.0	850	6400			8270	8270			
4-Nitrophenol	100-02-7	SVOA	ug/kg	30	0	0.0	850	6400			8270	8270			
Acenaphthene	83-32-9	SVOA	ug/kg	31	0	0.0	69	2600			8270	8270			
Acenaphthylene	208-96-8	SVOA	ug/kg	30	0	0.0	340	2600			8270	8270			
Anthracene	120-12-7	SVOA	ug/kg	30	0	0.0	340	2600			8270	8270			
Benzo(a)anthracene	56-55-3	SVOA	ug/kg	30	2	6.7	340	740	34	180	8270	8270	4	5	B13CK9
Benzo(a)pyrene	50-32-8	SVOA	ug/kg	30	2	6.7	340	740	22	160	8270	8270	4	5	B13CK9
Benzo(b)fluoranthene	205-99-2	SVOA	ug/kg	30	2	6.7	340	740	37	240	8270	8270	4	5	B13CK9
Benzo(ghi)perylene	191-24-2	SVOA	ug/kg	30	0	0.0	340	2600			8270	8270			

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Benzo(k)fluoranthene	207-08-9	SVOA	ug/kg	30	0	0.0	340	2600			8270	8270			
Bis(2-Chloroethoxy)methane	111-91-1	SVOA	ug/kg	30	0	0.0	340	2600			8270	8270			
Bis(2-chloro-1-methylethyl)ether	108-60-1	SVOA	ug/kg	30	0	0.0	340	2600			8270	8270			
Bis(2-chloroethyl) ether	111-44-4	SVOA	ug/kg	30	0	0.0	340	2600			8270	8270			
Bis(2-ethylhexyl) phthalate	117-81-7	SVOA	ug/kg	31	8	25.8	38	400	19.316	6200	8270	8270	4	5	B13CK9
Butylbenzylphthalate	85-68-7	SVOA	ug/kg	30	2	6.7	340	400	121.882	290	8270	8270	4	5	B13CK9
Carbazole	86-74-8	SVOA	ug/kg	30	0	0.0	340	2600			8270	8270			
Chrysene	218-01-9	SVOA	ug/kg	30	2	6.7	340	740	40	210	8270	8270	4	5	B13CK9
Decane	124-18-5	SVOA	ug/kg	1	0	0.0	250	250			8270	8270			
Di-n-butylphthalate	84-74-2	SVOA	ug/kg	30	4	13.3	340	400	25	2740.798	8270	8270	4	5	B13CK9
Di-n-octylphthalate	117-84-0	SVOA	ug/kg	30	0	0.0	340	2600			8270	8270			
Dibenz[a-h]anthracene	53-70-3	SVOA	ug/kg	30	0	0.0	340	2600			8270	8270			
Dibenzofuran	132-64-9	SVOA	ug/kg	30	0	0.0	340	2600			8270	8270			
Diethylphthalate	84-66-2	SVOA	ug/kg	31	1	3.2	340	2600	330	330	8270	8270	9	11.5	B16FN6-A
Dimethyl phthalate	131-11-3	SVOA	ug/kg	30	0	0.0	340	2600			8270	8270			
Fluoranthene	206-44-0	SVOA	ug/kg	30	2	6.7	340	740	120	370	8270	8270	4	5	B13CK9
Fluorene	86-73-7	SVOA	ug/kg	30	0	0.0	340	2600			8270	8270			
Hexachlorobenzene	118-74-1	SVOA	ug/kg	30	0	0.0	340	2600			8270	8270			
Hexachlorobutadiene	87-68-3	SVOA	ug/kg	30	0	0.0	340	2600			8270	8270			
Hexachlorocyclopentadiene	77-47-4	SVOA	ug/kg	30	0	0.0	340	2600			8270	8270			
Hexachloroethane	67-72-1	SVOA	ug/kg	30	0	0.0	340	2600			8270	8270			
Indeno(1-2-3-cd)pyrene	193-39-5	SVOA	ug/kg	30	0	0.0	340	2600			8270	8270			
Isophorone	78-59-1	SVOA	ug/kg	30	0	0.0	340	2600			8270	8270			
Mesityl oxide	141-79-7	SVOA		1	1	100.0			390	390	8270	8270	9	11.5	B16FN6-A

200-CS-1 Summary Table for All Constituents in Shallow Zone Soil Samples

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Naphthalene	91-20-3	SVOA	ug/kg	30	0	0.0	340	2600			8270	8270			
Nitrobenzene	98-95-3	SVOA	ug/kg	30	0	0.0	340	2600			8270	8270			
Pentachlorophenol	87-86-5	SVOA	ug/kg	31	0	0.0	310	6400			8270	8270			
Phenanthrene	85-01-8	SVOA	ug/kg	30	2	6.7	340	740	150	370	8270	8270	4	5	B13CK9
Phenol	108-95-2	SVOA	ug/kg	31	0	0.0	100	2600			8270	8270			
Pyrene	129-00-0	SVOA	ug/kg	31	2	6.5	69	740	99	350	8270	8270	4	5	B13CK9
Tributyl phosphate	126-73-8	SVOA	ug/kg	22	2	9.1	69	400	310	543.205	8270	8270	4	6.5	B16NF7
n-Butyl benzenesulfonamide	3622-84-2	SVOA	ug/kg	1	1	100.0			4400	4400	8270	8270	9	11.5	B16FN6-A
n-Nitrosodi-n-dipropylamine	621-64-7	SVOA	ug/kg	31	0	0.0	69	2600			8270	8270			
n-Nitrosodiphenylamine	86-30-6	SVOA	ug/kg	30	0	0.0	340	2600			8270	8270			
1-1-1-Trichlorocthane	71-55-6	VOA	ug/kg	23	0	0.0	0.46	8			8260	8260			
1-1-2-2-Tetrachloroethane	79-34-5	VOA	ug/kg	23	0	0.0	0.46	8			8260	8260			
1-1-2-Trichloroethane	79-00-5	VOA	ug/kg	23	0	0.0	0.45	8			8260	8260			
1-1-Dichloroethane	75-34-3	VOA	ug/kg	23	0	0.0	0.4	8			8260	8260			
1-1-Dichloroethene	75-35-4	VOA	ug/kg	23	0	0.0	1.4	8			8260	8260			
1-2-Dichloroethane	107-06-2	VOA	ug/kg	23	1	4.3	0.45	6	13	13	8260	8260	4	5	B13CK9
1-2-Dichloroethene (Total)	540-59-0	VOA	ug/kg	23	0	0.0	0.87	8			8260	8260			
1-2-Dichloropropane	78-87-5	VOA	ug/kg	23	0	0.0	0.22	8			8260	8260			
1-Propanol	71-23-8	VOA	ug/kg	23	0	0.0	4800	26000			8015	8015			
2-Butanone	78-93-3	VOA	ug/kg	23	0	0.0	1.9	16			8260	8260			
2-Hexanone	591-78-6	VOA	ug/kg	23	0	0.0	1.7	16			8260	8260			
2-Pentanone- 4-Methyl	108-10-1	VOA	ug/kg	23	0	0.0	1.3	16			8260	8260			
Acetone	67-64-1	VOA	ug/kg	23	6	26.1	1.9	16	6	30	8260	8260	7.5	8.5	B13CR3
Benzene	71-43-2	VOA	ug/kg	23	0	0.0	0.39	8			8260	8260			

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Bromodichloromethane	75-27-4	VOA	ug/kg	23	0	0.0	0.47	8			8260	8260			
Bromoform	75-25-2	VOA	ug/kg	23	0	0.0	0.65	8			8260	8260			
Bromomethane	74-83-9	VOA	ug/kg	23	0	0.0	0.63	16			8260	8260			
Carbon disulfide	75-15-0	VOA	ug/kg	23	0	0.0	0.48	8			8260	8260			
Carbon tetrachloride	56-23-5	VOA	ug/kg	23	0	0.0	0.68	8			8260	8260			
Chlorobenzene	108-90-7	VOA	ug/kg	23	0	0.0	0.36	8			8260	8260			
Chloroethane	75-00-3	VOA	ug/kg	23	0	0.0	1.9	16			8260	8260			
Chloroform	67-66-3	VOA	ug/kg	23	0	0.0	0.25	8			8260	8260			
Chloromethane	74-87-3	VOA	ug/kg	23	0	0.0	0.81	16			8260	8260			
Dibromochloromethane	124-48-1	VOA	ug/kg	23	0	0.0	0.4	8			8260	8260			
Ethanol	64-17-5	VOA	ug/kg	23	0	0.0	4800	26000			8015	8015			
Ethylbenzene	100-41-4	VOA	ug/kg	23	0	0.0	0.93	8			8260	8260			
Methylene chloride	75-09-2	VOA	ug/kg	23	18	78.3	1.9	6	2	78	8260	8260	4	5	B13CK9
Styrene	100-42-5	VOA	ug/kg	23	0	0.0	0.39	8			8260	8260			
Tetrachloroethene	127-18-4	VOA	ug/kg	23	1	4.3	0.38	6	6	6	8260	8260	4	5	B13CK9
Toluene	108-88-3	VOA	ug/kg	23	0	0.0	0.57	8			8260	8260			
Trichloroethene	79-01-6	VOA	ug/kg	23	0	0.0	0.32	8			8260	8260			
Vinyl chloride	75-01-4	VOA	ug/kg	23	0	0.0	0.83	16			8260	8260			
Xylenes (total)	1330-20-7	VOA	ug/kg	23	0	0.0	1.1	8			8260	8260			
cis-1-3-Dichloropropene	10061-01-5	VOA	ug/kg	23	0	0.0	0.54	8			8260	8260			
trans-1-3-Dichloropropene	10061-02-6	VOA	ug/kg	23	0	0.0	0.32	8			8260	8260			
Ammonia	7664-41-7	WETCHEM	ug/kg	22	5	22.7	170	6320	6690	41700	350.1	350.3	4	5	B13CK9
Ammonium ion	14798-03-9	WETCHEM	ug/kg	1	0	0.0	258	258			300.7_CATIONS_IC	300.7_CATIONS_IC			
Bromide	24959-67-9	WETCHEM	ug/kg	1	0	0.0	2250	2250			300	300			
Chloride	16887-00-6	WETCHEM	ug/kg	23	21	91.3	700	1300	1700	226000	300	300	4	5	B13CK9
Cyanide	57-12-5	WETCHEM	ug/kg	23	0	0.0	130	720			9010	9010			
Fluoride	16984-48-8	WETCHEM	ug/kg	23	2	8.7	1300	19200	730	5260	300	300	9	11.5	B16FN6-A
Hydrazine	302-01-2	WETCHEM	ug/kg	16	0	0.0	1000	1500			D1385	D1385			
Nitrate	14797-55-8	WETCHEM	ug/kg	23	22	95.7	1290	1290	1800	927000	300	300	4	5	B13CK9
Nitrite	14797-65-0	WETCHEM	ug/kg	23	0	0.0	69	9620			300	300			
Nitrogen in Nitrite and Nitrate	NO2+NO3-N	WETCHEM	ug/kg	23	22	95.7	190	190	850	210000	353.2	353.2	4	5	B13CK9
Phosphate	14265-44-2	WETCHEM	ug/kg	23	0	0.0	370	9600			300	300			

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Sulfate	14808-79-8	WETCHEM	ug/kg	23	22	95.7	1300	1300	6100	2970000	300	300	4	5	B13CK9
Sulfide	18496-25-8	WETCHEM	ug/kg	23	0	0.0	7000	61200			9030	9030			
216-B-63															
Aroclor-1016	12674-11-2	GENORG	ug/kg	18	0	0.0	2.7	36			8082	8082			
Aroclor-1221	11104-28-2	GENORG	ug/kg	18	0	0.0	2.7	73			8082	8082			
Aroclor-1232	11141-16-5	GENORG	ug/kg	18	0	0.0	2.7	36			8082	8082			
Aroclor-1242	53469-21-9	GENORG	ug/kg	18	0	0.0	2.7	36			8082	8082			
Aroclor-1248	12672-29-6	GENORG	ug/kg	18	0	0.0	2.7	36			8082	8082			
Aroclor-1254	11097-69-1	GENORG	ug/kg	18	1	5.6	6.4	36	77	77	8082	8082	10	13	B16FW5
Aroclor-1260	11096-82-5	GENORG	ug/kg	21	3	14.3	6.4	36	150	9200	8082	8082	8	10.5	B0MJC5
Total petroleum hydrocarbons - diesel range	TPHDIESEL	GENORG	ug/kg	17	0	0.0	1400	13100			WDOE TPH	WDOE TPH			
Total petroleum hydrocarbons - kerosene rang	TPHKEROSENE	GENORG	ug/kg	17	0	0.0	12200	27000			WDOE TPH	WDOE TPH			
Aluminum	7429-90-5	METAL	ug/kg	8	8	100.0			4640000	7090000	6010	6010	10.5	13	B0MJC8
Antimony	7440-36-0	METAL	ug/kg	4	1	25.0	4500	5000	5000	5000	6010	6010	4	6.5	B0MJC2
Arsenic	7440-38-2	METAL	ug/kg	21	21	100.0			1600	5100	6010	6010	15	17	B16530
Barium	7440-39-3	METAL	ug/kg	21	21	100.0			46100	96900	6010	6010	7.5	8.5	B13D73
Beryllium	7440-41-7	METAL	ug/kg	21	21	100.0			230	713	6010	6010	12.5	14.5	B16528
Bismuth	7440-69-9	METAL	ug/kg	8	6	75.0	330	620	620	37100	6010	6010	8	10.5	B0MJC5
Boron	7440-42-8	METAL	ug/kg	8	8	100.0			950	6300	6010	6010	8	10.5	B0MJC5
Cadmium	7440-43-9	METAL	ug/kg	21	10	47.6	21	390	40	270	6010	6010	5	6	B13D72
Calcium	7440-70-2	METAL	ug/kg	8	8	100.0			3390000	8760000	6010	6010	8	10.5	B0MJC5
Chromium	7440-47-3	METAL	ug/kg	21	21	100.0			4300	21900	6010	6010	12.5	14.5	B16528
Cobalt	7440-48-4	METAL	ug/kg	4	4	100.0			8700	11400	6010	6010	8	10.5	B0MJC5
Copper	7440-50-8	METAL	ug/kg	21	21	100.0			10500	30600	6010	6010	12	13	B15XL0
Hexavalent Chromium	18540-29-9	METAL	ug/kg	17	1	5.9	57	4400	450	450	7196	7196	9.5	10.5	B15XK9
Iron	7439-89-6	METAL	ug/kg	8	8	100.0			20000000	28400000	6010	6010	6	7	B15XM1
Lead	7439-92-1	METAL	ug/kg	21	21	100.0			1300	7500	6010	6010	8	10.5	B0MJC5
Magnesium	7439-95-4	METAL	ug/kg	7	7	100.0			3650000	4930000	6010	6010	6	7	B15XM1
Manganese	7439-96-5	METAL	ug/kg	8	8	100.0			277000	410000	6010	6010	6	7	B15XM1
Mercury	7439-97-6	METAL	ug/kg	21	7	33.3	10	20	23	150	7471	7471	13	15.5	B0MJD1
Molybdenum	7439-98-7	METAL	ug/kg	4	4	100.0			231	550	6010	6010	5	6	B13D72
Nickel	7440-02-0	METAL	ug/kg	21	21	100.0			6000	15000	6010	6010	12.5	14.5	B16528
Potassium	9/7/7440	METAL	ug/kg	8	8	100.0			729000	1740000	6010	6010	5	6	B13D72

200-CS-1 Summary Table for All Constituents in Shallow Zone Soil Samples

Constituent	CAS Number	Constituent Class	Units	Number of Results	Number of Detects	Frequency of Detects (%)	Minimum Nondetect	Maximum Nondetect	Minimum Detect	Maximum Detect	Analytical Method for Minimum Detect (or nondetect)	Analytical Method for Maximum Detect (or nondetect)	Start Depth of Maximum Detect (ft bgs)	End Depth of Maximum Depth (ft bgs)	Sample Number of Maximum Detect
Selenium	7782-49-2	METAL	ug/kg	21	7	33.3	210	420	240	750	6010	6010	7.5	8.5	B13D73
Silver	7440-22-4	METAL	ug/kg	21	3	14.3	60	710	352	860	6010	6010	8	10.5	B0MJC5
Sodium	7440-23-5	METAL	ug/kg	8	8	100.0			120000	671000	6010	6010	10.5	13	B0MJC8
Thallium	7440-28-0	METAL	ug/kg	4	1	25.0	290	590	530	530	6010	6010	6	7	B15XM1
Tin	7440-31-5	METAL	ug/kg	4	0	0.0	3500	4100			6010	6010			
Uranium	7440-61-1	METAL	ug/kg	21	21	100.0			216	2380	KPA	KPA	13	15.5	B0MJD1
Vanadium	7440-62-2	METAL	ug/kg	21	21	100.0			35400	86900	6010	6010	7.5	8.5	B13D82
Zinc	7440-66-6	METAL	ug/kg	21	21	100.0			30600	80800	6010	6010	12	13	B15XL0
Cation Exchange Capacity	CEC	PHYSICAL	mEQ/100g	4	3	75.0	6.27	6.27	7.01	9.27	9080	9080	8	10.5	B0MJC7
Specific Gravity	SPECGVTY	PHYSICAL		4	4	100.0			2.43	2.57	D854	D854	13	15.5	B0MJD3
pH Measurement	PH	PHYSICAL		21	21	100.0			8	9.5	9040	9045	7.5	8.5	B13D82
Americium-241	14596-10-2	RAD	pCi/g	39	3	7.7	0	1.66	0.035	0.589	IX/Plate/AEA	IX/Prec/AEA	8	10.5	B0MJC5
Antimony-125	14234-35-6	RAD	pCi/g	4	0	0.0	0.072	0.12			GEA	GEA			
Barium-133	13981-41-4	RAD	pCi/g	4	0	0.0	0.032	0.055			GEA	GEA			
Carbon-14	14762-75-5	RAD	pCi/g	4	0	0.0	-1.8	-0.58			CombOx/LSC	CombOx/LSC			
Cesium-134	13967-70-9	RAD	pCi/g	4	0	0.0	0.048	0.082			GEA	GEA			
Cesium-137	10045-97-3	RAD	pCi/g	21	12	57.1	0.008	0.082	0.393	100	GEA	GEA	13	15.5	B0MJD1
Cobalt-60	10198-40-0	RAD	pCi/g	21	0	0.0	-0.008	0.1			GEA	GEA			
Curium-242	15510-73-3	RAD	pCi/g	8	0	0.0	-0.042	0.027			IX/Prec/AEA	IX/Plate/AEA			
Curium-243/244	CM-243/244	RAD	pCi/g	3	0	0.0	-0.034	0			IX/Plate/AEA	IX/Plate/AEA			
Curium-244	13981-15-2	RAD	pCi/g	4	0	0.0	-0.033	0.433			IX/Prec/AEA	IX/Prec/AEA			
Europium-152	14683-23-9	RAD	pCi/g	21	0	0.0	-0.097	0.24			GEA	GEA			
Europium-154	15585-10-1	RAD	pCi/g	21	2	9.5	-0.055	0.3	0.774	1.29	GEA	GEA	8	10.5	B0MJC5
Europium-155	14391-16-3	RAD	pCi/g	21	0	0.0	0	0.987			GEA	GEA			
Gross alpha	12587-46-1	RAD	pCi/g	21	11	52.4	1.12	4.68	3.97	12.1	900	900	8	10.5	B0MJC5
Gross beta	12587-47-2	RAD	pCi/g	21	21	100.0			10.2	13900	D854	D854	13	15.5	B0MJD1
Iodine-129	15046-84-1	RAD	pCi/g	4	0	0.0	-0.338	0.688			9040	9045			
Neptunium-237	13994-20-2	RAD	pCi/g	21	3	14.3	-0.009	0.256	0.03	0.054	LX/Plate/AEA	LX/Plate/AEA	9.5	10.5	B15XM3
Plutonium-238	13981-16-3	RAD	pCi/g	21	0	0.0	-0.121	0.431			Sep/Plate/AEA	Sep/Plate/AEA			
Plutonium-239/240	PU-239/240	RAD	pCi/g	21	1	4.8	-0.059	0.348	4.97	4.97	Sep/Plate/AEA	Sep/Plate/AEA	13	15.5	B0MJD1
Plutonium-241	14119-32-5	RAD	pCi/g	4	0	0.0	-0.235	61.6			IX/LSC	IX/LSC			
Potassium-40	13966-00-2	RAD	pCi/g	19	19	100.0			7.34	15	GEA	GEA	4	6.5	B0MJC2
Radium-224	13233-32-4	RAD	pCi/g	4	4	100.0			0.626	0.91	GEA	GEA	4	6.5	B0MJC2
Radium-226	13982-63-3	RAD	pCi/g	19	16	84.2	0.18	0.431	0.333	0.762	GEA	GEA	4	6.5	B0MJC2
Radium-228	15262-20-1	RAD	pCi/g	21	19	90.5	0.47	0.71	0.487	0.917	GEA	GEA	4	6.5	B0MJC2
Selenium-79	15758-45-9	RAD	pCi/g	4	0	0.0	-23.7	-0.442			IX/LSC	IX/LSC			
Sodium-22	13966-32-0	RAD	pCi/g	4	0	0.0	0.038	0.05			GEA	GEA			
Strontium-90	10098-97-2	RAD	pCi/g	4	3	75.0	0.11	0.11	86.7	4710	Sep/GPC	Sep/GPC	13	15.5	B0MJD1
Technetium-99	14133-76-7	RAD	pCi/g	4	0	0.0	-28.2	0.193			IX/LSC	IX/LSC			
Thorium-228	14274-82-9	RAD	pCi/g	36	30	83.3	0.11	2.17	0.293	0.975	IX/Plate/AEA	IX/Prec/AEA	7	8	B15XM2
Thorium-230	14269-63-7	RAD	pCi/g	21	15	71.4	-0.045	0.321	0.298	2.67	IX/Prec/AEA	IX/Plate/AEA	8	10.5	B0MJC5
Thorium-232	TH-232	RAD	pCi/g	36	31	86.1	0	1.14	0.335	0.888	IX/Prec/AEA	IX/Prec/AEA	10.5	13	B0MJC8

200-CS-1 Summary Table for All Constituents in Shallow Zone Soil Samples

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Tin-126	15832-50-5	RAD	pCi/g	4	0	0.0	0.048	0.1			GEA	GEA			
Total beta radiostrontium	SR-RAD	RAD	pCi/g	17	15	88.2	-0.147	-0.022	0.26	29.5	Sep/GPC	Sep/GPC	7.5	8.5	B13D82
Uranium-233/234	U-233/234	RAD	pCi/g	1	1	100.0			0.36	0.36	Sep/Plate/AEA	Sep/Plate/AEA	5	6	B13D72
Uranium-234	13966-29-5	RAD	pCi/g	3	2	66.7	0.388	0.388	0.533	0.748	Sep/Plate/AEA	Sep/Plate/AEA	7.5	8.5	B13D82
Uranium-235	15117-96-1	RAD	pCi/g	19	0	0.0	-0.148	0.34			Sep/Plate/AEA	GEA			
Uranium-238	U-238	RAD	pCi/g	20	4	20.0	1.81	10	0.36	0.93	Sep/Plate/AEA	GEA	7.5	8.5	B13D82
1-2-4-Trichlorobenzene	120-82-1	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			
1-2-Dichlorobenzene	95-50-1	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			
1-3-Dichlorobenzene	541-73-1	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			
1-4-Dichlorobenzene	106-46-7	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			
2-4-5-Trichlorophenol	95-95-4	SVOA	ug/kg	19	0	0.0	330	1800			8270	8270			
2-4-6-Trichlorophenol	88-06-2	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			
2-4-Dichlorophenol	120-83-2	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			
2-4-Dimethylphenol	105-67-9	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			
2-4-Dinitrophenol	51-28-5	SVOA	ug/kg	19	0	0.0	850	1900			8270	8270			
2-4-Dinitrotoluene	121-14-2	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			
2-6-Dinitrotoluene	606-20-2	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			
2-Chloronaphthalene	91-58-7	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			
2-Chlorophenol	95-57-8	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			
2-Methylnaphthalene	91-57-6	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			
2-Methylphenol (cresol- o-)	95-48-7	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			
2-Nitroaniline	88-74-4	SVOA	ug/kg	19	0	0.0	850	1900			8270	8270			
2-Nitrophenol	88-75-5	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			

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3-3'-Dichlorobenzidine	91-94-1	SVOA	ug/kg	19	0	0.0	340	1900			8270	8270			
3-Nitroaniline	99-09-2	SVOA	ug/kg	19	0	0.0	850	1900			8270	8270			
4-6-Dinitro-2-methylphenol	534-52-1	SVOA	ug/kg	19	0	0.0	850	1900			8270	8270			
4-Bromophenylphenyl ether	101-55-3	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			
4-Chloro-3-methylphenol	59-50-7	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			
4-Chloroaniline	106-47-8	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			
4-Chlorophenylphenyl ether	7005-72-3	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			
4-Methylphenol (cresol- p-)	106-44-5	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			
4-Nitroaniline	100-01-6	SVOA	ug/kg	19	0	0.0	850	1900			8270	8270			
4-Nitrophenol	100-02-7	SVOA	ug/kg	19	0	0.0	850	1900			8270	8270			
Acenaphthene	83-32-9	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			
Acenaphthylene	208-96-8	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			
Anthracene	120-12-7	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			
Benzo(a)anthracene	56-55-3	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			
Benzo(a)pyrene	50-32-8	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			
Benzo(b)fluoranthene	205-99-2	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			
Benzo(ghi)perylene	191-24-2	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			
Benzo(k)fluoranthene	207-08-9	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			
Bis(2-Chloroethoxy)methane	111-91-1	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			
Bis(2-chloro-1-methylethyl)ether	108-60-1	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			
Bis(2-chloroethyl) ether	111-44-4	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			

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Bis(2-ethylhexyl) phthalate	117-81-7	SVOA	ug/kg	20	1	5.0	39	730	21	21	8270	8270	8	9.5	B15XJ7
Butylbenzylphthalate	85-68-7	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			
Carbazole	86-74-8	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			
Chrysene	218-01-9	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			
Di-n-butylphthalate	84-74-2	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			
Di-n-octylphthalate	117-84-0	SVOA	ug/kg	19	1	5.3	330	730	52	52	8270	8270	13	15.5	B0MJD1
Dibenz[a-h]anthracene	53-70-3	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			
Dibenzofuran	132-64-9	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			
Diethylphthalate	84-66-2	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			
Dimethyl phthalate	131-11-3	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			
Fluoranthene	206-44-0	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			
Fluorene	86-73-7	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			
Hexachlorobenzene	118-74-1	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			
Hexachlorobutadiene	87-68-3	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			
Hexachlorocyclopentadiene	77-47-4	SVOA	ug/kg	19	0	0.0	340	1900			8270	8270			
Hexachloroethane	67-72-1	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			
Indeno(1-2-3-cd)pyrene	193-39-5	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			
Isophorone	78-59-1	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			
Naphthalene	91-20-3	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			
Nitrobenzene	98-95-3	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			
Pentachlorophenol	87-86-5	SVOA	ug/kg	19	0	0.0	850	910300			8270	8270			
Phenanthrene	85-01-8	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			
Phenol	108-95-2	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			
Pyrene	129-00-0	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			
Tributyl phosphate	126-73-8	SVOA	ug/kg	20	0	0.0	340	770			8270	8270			
n-Nitrosodi-n-dipropylamine	621-64-7	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			

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n-Nitrosodiphenylamine	86-30-6	SVOA	ug/kg	19	0	0.0	330	730			8270	8270			
1-1-1-Trichloroethane	71-55-6	VOA	ug/kg	20	0	0.0	0.47	6			8260	8260			
1-1-2-2-Tetrachloroethane	79-34-5	VOA	ug/kg	20	0	0.0	0.47	6			8260	8260			
1-1-2-Trichloroethane	79-00-5	VOA	ug/kg	20	0	0.0	0.46	6			8260	8260			
1-1-Dichloroethane	75-34-3	VOA	ug/kg	20	0	0.0	0.4	6			8260	8260			
1-1-Dichloroethene	75-35-4	VOA	ug/kg	20	0	0.0	1.4	6			8260	8260			
1-2-Dichloroethane	107-06-2	VOA	ug/kg	20	0	0.0	0.46	6			8260	8260			
1-2-Dichloroethene (Total)	540-59-0	VOA	ug/kg	20	0	0.0	0.88	6			8260	8260			
1-2-Dichloropropane	78-87-5	VOA	ug/kg	20	0	0.0	0.22	6			8260	8260			
1-Butanol	71-36-3	VOA	ug/kg	3	0	0.0	210	240			8260	8260			
1-Propanol	71-23-8	VOA	ug/kg	17	0	0.0	5300	52000			8015	8015			
2-Butanone	78-93-3	VOA	ug/kg	20	0	0.0	7.1	24			8260	8260			
2-Ethyl-1-hexanol	104-76-7	VOA	ug/kg	1	1	100.0			6	6	8260	8260	13	15.5	B0MJD1
2-Hexanone	591-78-6	VOA	ug/kg	20	0	0.0	1.8	24			8260	8260			
2-Pentanone- 4-Methyl	108-10-1	VOA	ug/kg	20	0	0.0	1.3	24			8260	8260			
Acetone	67-64-1	VOA	ug/kg	20	8	40.0	10	24	2	66	8260	8260	5	6	B13D72
Benzene	71-43-2	VOA	ug/kg	20	1	5.0	0.39	6	8	8	8260	8260	5	6	B13D72
Bromodichloromethane	75-27-4	VOA	ug/kg	20	0	0.0	0.48	6			8260	8260			
Bromoform	75-25-2	VOA	ug/kg	20	0	0.0	0.66	6			8260	8260			
Bromomethane	74-83-9	VOA	ug/kg	20	0	0.0	0.64	12			8260	8260			
Carbon disulfide	75-15-0	VOA	ug/kg	20	0	0.0	0.49	6			8260	8260			
Carbon tetrachloride	56-23-5	VOA	ug/kg	20	0	0.0	0.69	6			8260	8260			
Chlorobenzene	108-90-7	VOA	ug/kg	20	0	0.0	0.36	6			8260	8260			
Chloroethane	75-00-3	VOA	ug/kg	20	0	0.0	2.3	12			8260	8260			
Chloroform	67-66-3	VOA	ug/kg	20	0	0.0	0.26	6			8260	8260			
Chloromethane	74-87-3	VOA	ug/kg	20	0	0.0	0.82	12			8260	8260			

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Dibromochloromethane	124-48-1	VOA	ug/kg	20	0	0.0	0.4	6			8260	8260			
Diethyl ether	60-29-7	VOA	ug/kg	3	0	0.0	10	12			8260	8260			
Ethanol	64-17-5	VOA	ug/kg	17	0	0.0	5300	27000			8015	8015			
Ethylbenzene	100-41-4	VOA	ug/kg	20	0	0.0	0.95	6			8260	8260			
Methylene chloride	75-09-2	VOA	ug/kg	20	14	70.0	5	10	1	27	8260	8260	9.5	10.5	B15XM4
Styrene	100-42-5	VOA	ug/kg	20	0	0.0	0.39	6			8260	8260			
Tetrachloroethene	127-18-4	VOA	ug/kg	20	0	0.0	0.38	6			8260	8260			
Toluene	108-88-3	VOA	ug/kg	20	2	10.0	0.57	6	1.78	3	8260	8260	7	8	B15XM2
Trichloroethene	79-01-6	VOA	ug/kg	20	0	0.0	0.33	6			8260	8260			
Vinyl chloride	75-01-4	VOA	ug/kg	20	0	0.0	0.84	12			8260	8260			
Xylenes (total)	1330-20-7	VOA	ug/kg	20	0	0.0	1.1	6			8260	8260			
cis-1-3-Dichloropropene	10061-01-5	VOA	ug/kg	20	0	0.0	0.55	6			8260	8260			
trans-1-3-Dichloropropene	10061-02-6	VOA	ug/kg	20	0	0.0	0.33	6			8260	8260			
Ammonia	7664-41-7	WETCHEM	ug/kg	21	4	19.0	146	6230	648	9990	350.1	350.3	15	17	B16530
Chloride	16887-00-6	WETCHEM	ug/kg	17	17	100.0			1600	17900	300	300	5	6	B13D72
Cyanide	57-12-5	WETCHEM	ug/kg	20	0	0.0	130	588			9010	9010			
Fluoride	16984-48-8	WETCHEM	ug/kg	17	2	11.8	1280	5500	690	760	300	300	7.5	8.5	B13D82
Hydrazine	302-01-2	WETCHEM	ug/kg	2	0	0.0	1100	1100			D1385	D1385			
Nitrate	14797-55-8	WETCHEM	ug/kg	21	21	100.0			3800	833000	300	300	5	6	B13D72
Nitrite	14797-65-0	WETCHEM	ug/kg	21	2	9.5	69	2730	821	1250	300	300	4	6.5	B0MJC2
Nitrogen in Nitrite and Nitrate	NO2+NO3-N	WETCHEM	ug/kg	21	21	100.0			1320	230000	353.2	353.2	5	6	B13D72
Phosphate	14265-44-2	WETCHEM	ug/kg	17	10	58.8	830	1300	1390	6400	300	300	7	8	B15XM2
Sulfate	14808-79-8	WETCHEM	ug/kg	21	21	100.0			4000	76200	300	300	5	6	B13D72
Sulfide	18496-25-8	WETCHEM	ug/kg	17	1	5.9	7300	43400	43800	43800	9030	9030	11	12	B15XJ8
216-S-10D															
Aroclor-1016	12674-11-2	GENORG	ug/kg	14	0	0.0	13	370			8082	8082			
Aroclor-1221	11104-28-2	GENORG	ug/kg	14	0	0.0	13	740			8082	8082			
Aroclor-1232	11141-16-5	GENORG	ug/kg	14	0	0.0	13	370			8082	8082			
Aroclor-1242	53469-21-9	GENORG	ug/kg	14	0	0.0	13	370			8082	8082			
Aroclor-1248	12672-29-6	GENORG	ug/kg	14	0	0.0	13	370			8082	8082			
Aroclor-1254	11097-69-1	GENORG	ug/kg	14	2	14.3	7.5	170	1100	3700	8082	8082	0	1.5	B15Y85
Aroclor-1260	11096-82-5	GENORG	ug/kg	14	0	0.0	7.5	370			8082	8082			

200-CS-1 Summary Table for All Constituents in Shallow Zone Soil Samples

Constituent	CAS Number	Constituent Class	Units	Number of Results	Number of Detects	Frequency of Detects (%)	Minimum Nondetect	Maximum Nondetect	Minimum Detect	Maximum Detect	Analytical Method for Minimum Detect (or nondetect)	Analytical Method for Maximum Detect (or nondetect)	Start Depth of Maximum Detect (ft bgs)	End Depth of Maximum Depth (ft bgs)	Sample Number of Maximum Detect
Total petroleum hydrocarbons - diesel range	TPHDIESEL	GENORG	ug/kg	14	1	7.1	1400	13000	31000	31000	WDOE TPH	WDOE TPH	0	1.5	B15Y85
Total petroleum hydrocarbons - kerosene rang	TPHKEROSENE	GENORG	ug/kg	14	0	0.0	12300	26000			WDOE TPH	WDOE TPH			
Aluminum	7429-90-5	METAL	ug/kg	3	3	100.0			5920000	10800000	6010	6010	0	1.5	B15Y85
Arsenic	7440-38-2	METAL	ug/kg	14	14	100.0			2400	5500	6010	6010	8.5	9.5	B15YB6
Barium	7440-39-3	METAL	ug/kg	14	14	100.0			68500	120000	6010	6010	3	4	B160N2
Beryllium	7440-41-7	METAL	ug/kg	14	14	100.0			110	500	6010	6010	6.5	9	B16547
Bismuth	7440-69-9	METAL	ug/kg	3	1	33.3	580	580	2000	2000	6010	6010	0	1.5	B15Y85
Boron	7440-42-8	METAL	ug/kg	3	3	100.0			780	1500	6010	6010	6	7	B15Y84
Cadmium	7440-43-9	METAL	ug/kg	14	11	78.6	30	280	40	480	6010	6010	0	1.5	B15Y85
Calcium	7440-70-2	METAL	ug/kg	3	3	100.0			2690000	3880000	6010	6010	3	4	B160N2
Chromium	7440-47-3	METAL	ug/kg	14	14	100.0			4300	815000	6010	6010	0	1.5	B15Y85
Copper	7440-50-8	METAL	ug/kg	14	14	100.0			12800	244000	6010	6010	0	1.5	B15Y85
Hexavalent Chromium	18540-29-9	METAL	ug/kg	14	3	21.4	57	435	1090	14100	7196	7196	1.5	3	B15YB0
Iron	7439-89-6	METAL	ug/kg	3	3	100.0			24100000	28800000	6010	6010	0	1.5	B15Y85
Lead	7439-92-1	METAL	ug/kg	14	14	100.0			2600	30000	6010	6010	0	1.5	B15Y85
Magnesium	7439-95-4	METAL	ug/kg	3	3	100.0			3810000	4370000	6010	6010	3	4	B160N2
Manganese	7439-96-5	METAL	ug/kg	3	3	100.0			237000	451000	6010	6010	3	4	B160N2
Mercury	7439-97-6	METAL	ug/kg	14	7	50.0	10	30	30	4300	7471	7471	0	1.5	B15Y85
Molybdenum	7439-98-7	METAL	ug/kg	3	3	100.0			270	880	6010	6010	0	1.5	B15Y85
Nickel	7440-02-0	METAL	ug/kg	14	14	100.0			6600	20300	6010	6010	0	1.5	B15Y85
Potassium	9/7/7440	METAL	ug/kg	3	3	100.0			673000	856000	6010	6010	3	4	B160N2
Selenium	7782-49-2	METAL	ug/kg	14	2	14.3	340	400	220	440	6010	6010	8.5	9.5	B15YF8
Silver	7440-22-4	METAL	ug/kg	14	6	42.9	80	650	140	30400	6010	6010	0	1.5	B15Y85
Sodium	7440-23-5	METAL	ug/kg	3	3	100.0			129000	176000	6010	6010	0	1.5	B15Y85
Thallium	7440-28-0	METAL	ug/kg	3	3	100.0			590	990	6010	6010	0	1.5	B15Y85
Uranium	7440-61-1	METAL	ug/kg	14	14	100.0			36	1490	KPA	KPA	8.5	9.5	B15YF9
Vanadium	7440-62-2	METAL	ug/kg	14	14	100.0			61000	87500	6010	6010	8.5	9.5	B15YF8
Zinc	7440-66-6	METAL	ug/kg	14	14	100.0			44800	506000	6010	6010	0	1.5	B15Y85
pH Measurement	PH	PHYSICAL		14	14	100.0			6	9.4	9045	9045	6.5	9	B16547
Americium-241	14596-10-2	RAD	pCi/g	28	3	10.7	-0.058	1.1	0.253	1.84	IX/Plate/AEA	GEA	6.5	9	B16547
Antimony-125	14234-35-6	RAD	pCi/g	3	0	0.0	0.077	0.17			GEA	GEA			
Barium-133	13981-41-4	RAD	pCi/g	3	0	0.0	0.029	0.06			GEA	GEA			
Carbon-14	14762-75-5	RAD	pCi/g	3	0	0.0	0.76	1.48			CombOx/LSC	CombOx/LSC			
Cesium-134	13967-70-9	RAD	pCi/g	3	0	0.0	0.044	0.066			GEA	GEA			
Cesium-137	10045-97-3	RAD	pCi/g	14	5	35.7	0.007	0.047	0.046	9.13	GEA	GEA	0	1.5	B15Y85

200-CS-1 Summary Table for All Constituents in Shallow Zone Soil Samples

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Cobalt-60	10198-40-0	RAD	pCi/g	14	0	0.0	0.009	0.051			GEA	GEA			
Curium-242	15510-73-3	RAD	pCi/g	3	0	0.0	0.013	0.026			IX/Plate/AEA	IX/Plate/AEA			
Curium-243/244	CM-243/244	RAD	pCi/g	3	0	0.0	0	0.02			IX/Plate/AEA	IX/Plate/AEA			
Europium-152	14683-23-9	RAD	pCi/g	14	0	0.0	-0.014	0.16			GEA	GEA			
Europium-154	15585-10-1	RAD	pCi/g	14	0	0.0	0.018	0.16			GEA	GEA			
Europium-155	14391-16-3	RAD	pCi/g	14	0	0.0	0.015	0.16			GEA	GEA			
Gross alpha	12587-46-1	RAD	pCi/g	14	6	42.9	0.292	4.16	4.22	13.6	900	900	6.5	9	B16547
Gross beta	12587-47-2	RAD	pCi/g	14	14	100.0			8.89	30.4	900	9310	8.5	9.5	B15YF9
Neptunium-237	13994-20-2	RAD	pCi/g	14	0	0.0	0	0.046			LX/Plate/AEA	LX/Plate/AEA			
Plutonium-238	13981-16-3	RAD	pCi/g	14	0	0.0	0	0.144			Sep/Plate/AEA	Sep/Plate/AEA			
Plutonium-239/240	PU-239/240	RAD	pCi/g	14	3	21.4	0	0.142	0.223	5.33	Sep/Plate/AEA	Sep/Plate/AEA	6.5	9	B16547
Potassium-40	13966-00-2	RAD	pCi/g	13	13	100.0			8.56	13.3	GEA	GEA	8	9	B15YB2
Radium-226	13982-63-3	RAD	pCi/g	13	13	100.0			0.259	0.603	GEA	GEA	8	9	B15YB2
Radium-228	15262-20-1	RAD	pCi/g	14	14	100.0			0.421	0.939	GEA	GEA	8	9	B15YB2
Sodium-22	13966-32-0	RAD	pCi/g	3	0	0.0	0.04	0.057			GEA	GEA			
Thorium-228	14274-82-9	RAD	pCi/g	27	23	85.2	0.078	0.426	0.216	0.903	IX/Plate/AEA	IX/Plate/AEA	8	9	B15YB2
Thorium-230	14269-63-7	RAD	pCi/g	14	13	92.9	0.462	0.462	0.324	1.34	IX/Plate/AEA	IX/Plate/AEA	6.5	9	B16547
Thorium-232	TH-232	RAD	pCi/g	27	25	92.6	0.077	0.258	0.208	0.939	IX/Plate/AEA	IX/Plate/AEA	8	9	B15YB2
Tin-126	15832-50-5	RAD	pCi/g	3	0	0.0	0.086	0.12			GEA	GEA			
Total beta radiostrontium	SR-RAD	RAD	pCi/g	14	2	14.3	-0.049	0.21	0.318	0.462	Sep/GPC	Sep/GPC	3	4	B160N2
Uranium-234	13966-29-5	RAD	pCi/g	1	1	100.0			0.524	0.524	IX/Plate/AEA	IX/Plate/AEA	8.5	9.5	B15YF9
Uranium-235	15117-96-1	RAD	pCi/g	14	0	0.0	0.005	0.22			IX/Plate/AEA	GEA			
Uranium-238	U-238	RAD	pCi/g	14	1	7.1	2.7	5.9	0.536	0.536	GEA	GEA	8.5	9.5	B15YF9
1-2-4-Trichlorobenzene	120-82-1	SVOA	ug/kg	13	0	0.0	340	740			8270	8270			
1-2-Dichlorobenzene	95-50-1	SVOA	ug/kg	13	0	0.0	340	740			8270	8270			
1-3-Dichlorobenzene	541-73-1	SVOA	ug/kg	13	0	0.0	340	740			8270	8270			
1-4-Dichlorobenzene	106-46-7	SVOA	ug/kg	13	0	0.0	340	740			8270	8270			
2-4-5-Trichlorophenol	95-95-4	SVOA	ug/kg	13	0	0.0	860	1800			8270	8270			
2-4-6-Trichlorophenol	88-06-2	SVOA	ug/kg	13	0	0.0	340	740			8270	8270			
2-4-Dichlorophenol	120-83-2	SVOA	ug/kg	13	0	0.0	340	740			8270	8270			
2-4-Dimethylphenol	105-67-9	SVOA	ug/kg	13	0	0.0	340	740			8270	8270			

200-CS-1 Summary Table for All Constituents in Shallow Zone Soil Samples

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2-4-Dinitrophenol	51-28-5	SVOA	ug/kg	13	0	0.0	860	1800			8270	8270			
2-4-Dinitrotoluene	121-14-2	SVOA	ug/kg	13	0	0.0	340	740			8270	8270			
2-6-Dinitrotoluene	606-20-2	SVOA	ug/kg	13	0	0.0	340	740			8270	8270			
2-Chloronaphthalene	91-58-7	SVOA	ug/kg	13	0	0.0	340	740			8270	8270			
2-Chlorophenol	95-57-8	SVOA	ug/kg	13	0	0.0	340	740			8270	8270			
2-Methylnaphthalene	91-57-6	SVOA	ug/kg	13	0	0.0	340	740			8270	8270			
2-Methylphenol (cresol- o-)	95-48-7	SVOA	ug/kg	13	0	0.0	340	740			8270	8270			
2-Nitroaniline	88-74-4	SVOA	ug/kg	13	0	0.0	860	1800			8270	8270			
2-Nitrophenol	88-75-5	SVOA	ug/kg	13	0	0.0	340	740			8270	8270			
3-3'-Dichlorobenzidine	91-94-1	SVOA	ug/kg	13	0	0.0	340	740			8270	8270			
3-Nitroaniline	99-09-2	SVOA	ug/kg	13	0	0.0	860	1800			8270	8270			
4-6-Dinitro-2-methylphenol	534-52-1	SVOA	ug/kg	13	0	0.0	860	1800			8270	8270			
4-Bromophenylphenyl ether	101-55-3	SVOA	ug/kg	13	0	0.0	340	740			8270	8270			
4-Chloro-3-methylphenol	59-50-7	SVOA	ug/kg	13	0	0.0	340	740			8270	8270			
4-Chloroaniline	106-47-8	SVOA	ug/kg	13	0	0.0	340	740			8270	8270			
4-Chlorophenylphenyl ether	7005-72-3	SVOA	ug/kg	13	0	0.0	340	740			8270	8270			
4-Methylphenol (cresol- p-)	106-44-5	SVOA	ug/kg	13	0	0.0	340	740			8270	8270			
4-Nitroaniline	100-01-6	SVOA	ug/kg	13	0	0.0	860	1800			8270	8270			
4-Nitrophenol	100-02-7	SVOA	ug/kg	13	0	0.0	860	1800			8270	8270			
Acenaphthene	83-32-9	SVOA	ug/kg	13	1	7.7	340	360	61	61	8270	8270	0	1.5	B15Y85

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Acenaphthylene	208-96-8	SVOA	ug/kg	13	0	0.0	340	740			8270	8270			
Anthracene	120-12-7	SVOA	ug/kg	13	1	7.7	340	360	150	150	8270	8270	0	1.5	B15Y85
Benzo(a)anthracene	56-55-3	SVOA	ug/kg	13	1	7.7	340	360	550	550	8270	8270	0	1.5	B15Y85
Benzo(a)pyrene	50-32-8	SVOA	ug/kg	13	1	7.7	340	360	600	600	8270	8270	0	1.5	B15Y85
Benzo(b)fluoranthene	205-99-2	SVOA	ug/kg	13	1	7.7	340	360	530	530	8270	8270	0	1.5	B15Y85
Benzo(ghi)perylene	191-24-2	SVOA	ug/kg	13	1	7.7	340	360	660	660	8270	8270	0	1.5	B15Y85
Benzo(k)fluoranthene	207-08-9	SVOA	ug/kg	13	1	7.7	340	360	450	450	8270	8270	0	1.5	B15Y85
Bis(2-Chloroethoxy)methane	111-91-1	SVOA	ug/kg	13	0	0.0	340	740			8270	8270			
Bis(2-chloro-1-methylethyl)ether	108-60-1	SVOA	ug/kg	13	0	0.0	340	740			8270	8270			
Bis(2-chloroethyl) ether	111-44-4	SVOA	ug/kg	13	0	0.0	340	740			8270	8270			
Bis(2-ethylhexyl) phthalate	117-81-7	SVOA	ug/kg	13	8	61.5	340	350	20	580	8270	8270	0	1.5	B15Y85
Butylbenzylphthalate	85-68-7	SVOA	ug/kg	13	1	7.7	340	360	580	580	8270	8270	0	1.5	B15Y85
Carbazole	86-74-8	SVOA	ug/kg	13	1	7.7	340	360	97	97	8270	8270	0	1.5	B15Y85
Chrysene	218-01-9	SVOA	ug/kg	13	1	7.7	340	360	680	680	8270	8270	0	1.5	B15Y85
Di-n-butylphthalate	84-74-2	SVOA	ug/kg	13	4	30.8	340	360	18	2300	8270	8270	0	1.5	B15Y85
Di-n-octylphthalate	117-84-0	SVOA	ug/kg	13	0	0.0	340	740			8270	8270			
Dibenz[a-h]anthracene	53-70-3	SVOA	ug/kg	13	1	7.7	340	360	110	110	8270	8270	0	1.5	B15Y85
Dibenzofuran	132-64-9	SVOA	ug/kg	13	0	0.0	340	740			8270	8270			
Diethylphthalate	84-66-2	SVOA	ug/kg	13	0	0.0	340	740			8270	8270			
Dimethyl phthalate	131-11-3	SVOA	ug/kg	13	0	0.0	340	740			8270	8270			
Fluoranthene	206-44-0	SVOA	ug/kg	13	1	7.7	340	360	1500	1500	8270	8270	0	1.5	B15Y85
Fluorene	86-73-7	SVOA	ug/kg	13	1	7.7	340	360	59	59	8270	8270	0	1.5	B15Y85
Hexachlorobenzene	118-74-1	SVOA	ug/kg	13	0	0.0	340	740			8270	8270			
Hexachlorobutadiene	87-68-3	SVOA	ug/kg	13	0	0.0	340	740			8270	8270			

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Hexachlorocyclopentadiene	77-47-4	SVOA	ug/kg	13	0	0.0	340	740			8270	8270			
Hexachloroethane	67-72-1	SVOA	ug/kg	13	0	0.0	340	740			8270	8270			
Indeno(1-2-3-cd)pyrene	193-39-5	SVOA	ug/kg	13	1	7.7	340	360	400	400	8270	8270	0	1.5	B15Y85
Isophorone	78-59-1	SVOA	ug/kg	13	0	0.0	340	740			8270	8270			
Naphthalene	91-20-3	SVOA	ug/kg	13	0	0.0	340	740			8270	8270			
Nitrobenzene	98-95-3	SVOA	ug/kg	13	0	0.0	340	740			8270	8270			
Pentachlorophenol	87-86-5	SVOA	ug/kg	13	0	0.0	860	1800			8270	8270			
Phenanthrene	85-01-8	SVOA	ug/kg	13	1	7.7	340	360	930	930	8270	8270	0	1.5	B15Y85
Phenol	108-95-2	SVOA	ug/kg	13	0	0.0	340	740			8270	8270			
Pyrene	129-00-0	SVOA	ug/kg	13	2	15.4	340	360	20	1600	8270	8270	0	1.5	B15Y85
Tributyl phosphate	126-73-8	SVOA	ug/kg	14	0	0.0	340	740			8270	8270			
n-Nitrosodi-n-dipropylamine	621-64-7	SVOA	ug/kg	13	0	0.0	340	740			8270	8270			
n-Nitrosodiphenylamine	86-30-6	SVOA	ug/kg	13	0	0.0	340	740			8270	8270			
1-1-1-Trichloroethane	71-55-6	VOA	ug/kg	14	0	0.0	0.3	6			8260	8260			
1-1-2-2-Tetrachloroethane	79-34-5	VOA	ug/kg	14	0	0.0	0.44	6			8260	8260			
1-1-2-Trichloroethane	79-00-5	VOA	ug/kg	14	0	0.0	0.66	6			8260	8260			
1-1-Dichloroethane	75-34-3	VOA	ug/kg	14	0	0.0	0.28	6			8260	8260			
1-1-Dichloroethene	75-35-4	VOA	ug/kg	14	0	0.0	0.33	6			8260	8260			
1-2-Dichloroethane	107-06-2	VOA	ug/kg	14	0	0.0	0.27	6			8260	8260			
1-2-Dichloroethene (Total)	540-59-0	VOA	ug/kg	14	0	0.0	0.58	6			8260	8260			
1-2-Dichloropropane	78-87-5	VOA	ug/kg	14	0	0.0	0.23	6			8260	8260			
1-Propanol	71-23-8	VOA	ug/kg	14	0	0.0	22000	53000			8015	8015			
2-Butanone	78-93-3	VOA	ug/kg	14	0	0.0	1.8	12			8260	8260			

200-CS-1 Summary Table for All Constituents in Shallow Zone Soil Samples

Constituent	CAS Number	Constituent Class	Units	Number of Results	Number of Detects	Frequency of Detects (%)	Minimum Nondetect	Maximum Nondetect	Minimum Detect	Maximum Detect	Analytical Method for Minimum Detect (or nondetect)	Analytical Method for Maximum Detect (or nondetect)	Start Depth of Maximum Detect (ft bgs)	End Depth of Maximum Depth (ft bgs)	Sample Number of Maximum Detect
2-Hexanone	591-78-6	VOA	ug/kg	14	0	0.0	1.8	12			8260	8260			
2-Pentanone- 4-Methyl	108-10-1	VOA	ug/kg	14	0	0.0	0.74	12			8260	8260			
Acetone	67-64-1	VOA	ug/kg	14	10	71.4	10	11	3	9	8260	8260	13.5	14.5	B15YB8
Benzene	71-43-2	VOA	ug/kg	14	0	0.0	0.15	6			8260	8260			
Bromodichloromethane	75-27-4	VOA	ug/kg	14	0	0.0	0.15	6			8260	8260			
Bromoform	75-25-2	VOA	ug/kg	14	0	0.0	0.26	6			8260	8260			
Bromomethane	74-83-9	VOA	ug/kg	14	0	0.0	1.1	12			8260	8260			
Carbon disulfide	75-15-0	VOA	ug/kg	14	0	0.0	0.34	6			8260	8260			
Carbon tetrachloride	56-23-5	VOA	ug/kg	14	0	0.0	0.25	6			8260	8260			
Chlorobenzene	108-90-7	VOA	ug/kg	14	0	0.0	0.28	6			8260	8260			
Chloroethane	75-00-3	VOA	ug/kg	14	0	0.0	0.57	12			8260	8260			
Chloroform	67-66-3	VOA	ug/kg	14	0	0.0	0.24	6			8260	8260			
Chloromethane	74-87-3	VOA	ug/kg	14	0	0.0	1	12			8260	8260			
Dibromochloromethane	124-48-1	VOA	ug/kg	14	0	0.0	0.36	6			8260	8260			
Ethanol	64-17-5	VOA	ug/kg	14	0	0.0	6200	30000			8015	8015			
Ethylbenzene	100-41-4	VOA	ug/kg	14	0	0.0	0.78	6			8260	8260			
Methylene chloride	75-09-2	VOA	ug/kg	14	13	92.9	6	6	2	10	8260	8260	8.5	9.5	B15YF8
Styrene	100-42-5	VOA	ug/kg	14	0	0.0	0.38	6			8260	8260			
Tetrachloroethene	127-18-4	VOA	ug/kg	14	0	0.0	1.1	6			8260	8260			
Toluene	108-88-3	VOA	ug/kg	14	0	0.0	0.25	6			8260	8260			
Trichloroethene	79-01-6	VOA	ug/kg	14	0	0.0	0.23	6			8260	8260			
Vinyl chloride	75-01-4	VOA	ug/kg	14	0	0.0	0.84	12			8260	8260			
Xylenes (total)	1330-20-7	VOA	ug/kg	14	0	0.0	1	6			8260	8260			
cis-1-3-Dichloropropene	10061-01-5	VOA	ug/kg	14	0	0.0	0.46	6			8260	8260			
trans-1-3-Dichloropropene	10061-02-6	VOA	ug/kg	14	0	0.0	0.84	6			8260	8260			
Ammonia	7664-41-7	WETCHEM	ug/kg	14	0	0.0	158	6200			350.1	350.3			
Chloride	16887-00-6	WETCHEM	ug/kg	14	11	78.6	1290	1320	1100	11500	300	300	8	9	B15YB2
Cyanide	57-12-5	WETCHEM	ug/kg	14	0	0.0	130	520			9010	9010			
Fluoride	16984-48-8	WETCHEM	ug/kg	14	1	7.1	1280	1390	700	700	300	300	8.5	9.5	B15YF9
Nitrate	14797-55-8	WETCHEM	ug/kg	14	10	71.4	1290	1360	2140	80600	300	300	0	1.5	B15Y85
Nitrite	14797-65-0	WETCHEM	ug/kg	14	1	7.1	1280	1390	1150	1150	300	300	8.5	9.5	B15YF9

200-CS-1 Summary Table for All Constituents in Shallow Zone Soil Samples

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Nitrogen in Nitrite and Nitrate	NO2+NO3-N	WETCHEM	ug/kg	14	9	64.3	38	217	484	10600	353.1	353.2	0	1.5	B15Y85
Phosphate	14265-44-2	WETCHEM	ug/kg	14	1	7.1	830	1390	1500	1500	300	300	3	4	B160N2
Sulfate	14808-79-8	WETCHEM	ug/kg	14	12	85.7	1290	1310	1840	199000	300	300	0	1.5	B15Y85
Sulfide	18496-25-8	WETCHEM	ug/kg	14	0	0.0	7400	52100			9030	9030			
216-S-10P															
Aroclor-1016	12674-11-2	GENORG	ug/kg	19	0	0.0	13	36			8082	8082			
Aroclor-1221	11104-28-2	GENORG	ug/kg	19	0	0.0	13	71			8082	8082			
Aroclor-1232	11141-16-5	GENORG	ug/kg	19	0	0.0	13	36			8082	8082			
Aroclor-1242	53469-21-9	GENORG	ug/kg	19	0	0.0	13	36			8082	8082			
Aroclor-1248	12672-29-6	GENORG	ug/kg	19	0	0.0	13	36			8082	8082			
Aroclor-1254	11097-69-1	GENORG	ug/kg	19	0	0.0	7.5	36			8082	8082			
Aroclor-1260	11096-82-5	GENORG	ug/kg	19	0	0.0	7.5	36			8082	8082			
Total petroleum hydrocarbons - diesel range	TPHDIESEL	GENORG	ug/kg	19	0	0.0	1400	12900			WDOE TPH	WDOE TPH			
Total petroleum hydrocarbons - kerosene rang	TPHKEROSENE	GENORG	ug/kg	15	0	0.0	12300	26000			WDOE TPH	WDOE TPH			
Aluminum	7429-90-5	METAL	ug/kg	4	4	100.0			5290000	5870000	6010	6010	6	7	B15YP9
Arsenic	7440-38-2	METAL	ug/kg	19	19	100.0			1900	5600	6010	6010	6.5	7.5	B15YN3
Barium	7440-39-3	METAL	ug/kg	19	19	100.0			63500	103000	6010	6010	14	15	B15YK9
Beryllium	7440-41-7	METAL	ug/kg	19	19	100.0			140	420	6010	6010	4	5	B15YR0
Bismuth	7440-69-9	METAL	ug/kg	4	0	0.0	570	620			6010	6010			
Boron	7440-42-8	METAL	ug/kg	4	4	100.0			540	1000	6010	6010	6	7	B15YP9
Cadmium	7440-43-9	METAL	ug/kg	19	8	42.1	30	280	50	200	6010	6010	9	10	B15YK7
Calcium	7440-70-2	METAL	ug/kg	4	4	100.0			5370000	11100000	6010	6010	4	5	B15YR0
Chromium	7440-47-3	METAL	ug/kg	19	19	100.0			6300	26200	6010	6010	9	10	B15YK7
Copper	7440-50-8	METAL	ug/kg	19	19	100.0			11300	17700	6010	6010	9.5	10.5	B15YL4
Hexavalent Chromium	18540-29-9	METAL	ug/kg	19	10	52.6	56	429	450	2700	7196	7196	7	8	B15YL7
Iron	7439-89-6	METAL	ug/kg	4	4	100.0			24100000	25100000	6010	6010	6	7	B15YP9
Lead	7439-92-1	METAL	ug/kg	19	19	100.0			2200	5400	6010	6010	6	7	B15YP9
Magnesium	7439-95-4	METAL	ug/kg	4	4	100.0			4430000	4780000	6010	6010	4	5	B15YR0
Manganese	7439-96-5	METAL	ug/kg	4	4	100.0			340000	392000	6010	6010	6	7	B15YP9
Mercury	7439-97-6	METAL	ug/kg	19	11	57.9	10	20	20	430	7471	7471	11.5	12.5	B15YK8
Molybdenum	7439-98-7	METAL	ug/kg	4	3	75.0	180	180	200	290	6010	6010	6.5	7.5	B15YL8
Nickel	7440-02-0	METAL	ug/kg	19	19	100.0			6700	12000	6010	6010	6.5	7.5	B15YN3
Potassium	9/7/7440	METAL	ug/kg	4	4	100.0			840000	1230000	6010	6010	6	7	B15YP9

200-CS-1 Summary Table for All Constituents in Shallow Zone Soil Samples

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Selenium	7782-49-2	METAL	ug/kg	19	1	5.3	210	400	460	460	6010	6010	9	10	B15YN4
Silver	7440-22-4	METAL	ug/kg	19	10	52.6	120	150	140	8300	6010	6010	9	10	B15YK7
Sodium	7440-23-5	METAL	ug/kg	4	4	100.0			121000	193000	6010	6010	6.5	7.5	B15YL8
Thallium	7440-28-0	METAL	ug/kg	4	1	25.0	570	580	620	620	6010	6010	4	5	B15YR0
Uranium	7440-61-1	METAL	ug/kg	19	19	100.0			245	2010	KPA	KPA	9.5	10.5	B15YL4
Vanadium	7440-62-2	METAL	ug/kg	19	19	100.0			64400	81700	6010	6010	9.5	10.5	B15YL4
Zinc	7440-66-6	METAL	ug/kg	19	19	100.0			39600	59700	6010	6010	9.5	10.5	B15YL4
pH Measurement	PH	PHYSICAL		19	19	100.0			8.12	9.34	9045	9045	14	15	B15YN6
Americium-241	14596-10-2	RAD	pCi/g	38	2	5.3	-0.081	0.303	0.199	0.395	IX/Plate/AEA	IX/Plate/AEA	11.5	12.5	B15YK8
Antimony-125	14234-35-6	RAD	pCi/g	4	0	0.0	0.04	0.086			GEA	GEA			
Barium-133	13981-41-4	RAD	pCi/g	4	0	0.0	0.017	0.039			GEA	GEA			
Carbon-14	14762-75-5	RAD	pCi/g	4	1	25.0	-0.674	1.03	12.2	12.2	CombOx/LSC	CombOx/LSC	6.5	7.5	B15YL8
Cesium-134	13967-70-9	RAD	pCi/g	4	0	0.0	0.023	0.065			GEA	GEA			
Cesium-137	10045-97-3	RAD	pCi/g	19	10	52.6	0.021	0.033	0.093	1.77	GEA	GEA	11.5	12.5	B15YK8
Cobalt-60	10198-40-0	RAD	pCi/g	19	0	0.0	-0.006	0.043			GEA	GEA			
Curium-242	15510-73-3	RAD	pCi/g	4	0	0.0	0	0.009			IX/Plate/AEA	IX/Plate/AEA			
Curium-243/244	CM-243/244	RAD	pCi/g	4	0	0.0	-0.032	0			IX/Plate/AEA	IX/Plate/AEA			
Europium-152	14683-23-9	RAD	pCi/g	19	0	0.0	0.028	0.098			GEA	GEA			
Europium-154	15585-10-1	RAD	pCi/g	19	0	0.0	-0.004	0.13			GEA	GEA			
Europium-155	14391-16-3	RAD	pCi/g	19	0	0.0	-0.014	0.12			GEA	GEA			
Gross alpha	12587-46-1	RAD	pCi/g	19	8	42.1	0.742	3.84	3.62	11.2	900	900	9.5	10.5	B15YL4
Gross beta	12587-47-2	RAD	pCi/g	19	18	94.7	6.03	6.03	8.33	24.7	900	900	9.5	10.5	B15YL4
Neptunium-237	13994-20-2	RAD	pCi/g	19	0	0.0	-0.003	0.075			LX/Plate/AEA	LX/Plate/AEA			
Plutonium-238	13981-16-3	RAD	pCi/g	19	0	0.0	-0.026	0.091			Sep/Plate/AEA	Sep/Plate/AEA			
Plutonium-239/240	PU-239/240	RAD	pCi/g	19	6	31.6	0	0.191	0.265	2.33	Sep/Plate/AEA	Sep/Plate/AEA	11.5	12.5	B15YK8
Potassium-40	13966-00-2	RAD	pCi/g	18	18	100.0			10.1	12.8	GEA	GEA	6.5	7.5	B15YL8
Radium-226	13982-63-3	RAD	pCi/g	18	18	100.0			0.323	0.546	GEA	GEA	6	7	B15YP9
Radium-228	15262-20-1	RAD	pCi/g	19	19	100.0			0.45	0.878	GEA	GEA	4	5	B15YR0
Sodium-22	13966-32-0	RAD	pCi/g	4	0	0.0	0.033	0.046			GEA	GEA			
Thorium-228	14274-82-9	RAD	pCi/g	37	26	70.3	0.093	0.314	0.278	1.45	IX/Plate/AEA	IX/Plate/AEA	12	13	B15YJ6
Thorium-230	14269-63-7	RAD	pCi/g	19	15	78.9	0.154	0.298	0.363	1.59	IX/Plate/AEA	IX/Plate/AEA	13.5	14.5	B15YM3
Thorium-232	TH-232	RAD	pCi/g	37	28	75.7	0.055	0.284	0.279	0.878	IX/Plate/AEA	IX/Plate/AEA	4	5	B15YR0
Tin-126	15832-50-5	RAD	pCi/g	4	0	0.0	0.035	0.16			GEA	GEA			
Total beta radiostrontium	SR-RAD	RAD	pCi/g	19	8	42.1	-0.09	0.186	0.366	1.26	Sep/GPC	Sep/GPC	9.5	10.5	B15YL3
Uranium-234	13966-29-5	RAD	pCi/g	1	1	100.0			0.563	0.563	IX/Plate/AEA	IX/Plate/AEA	9.5	10.5	B15YL4
Uranium-235	15117-96-1	RAD	pCi/g	19	0	0.0	0.014	0.16			IX/Plate/AEA	GEA			
Uranium-238	U-238	RAD	pCi/g	19	1	5.3	1.3	4.5	0.568	0.568	GEA	GEA	9.5	10.5	B15YL4
1-2-4-Trichlorobenzene	120-82-1	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			

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1-2-Dichlorobenzene	95-50-1	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
1-3-Dichlorobenzene	541-73-1	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
1-4-Dichlorobenzene	106-46-7	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
2-4-5-Trichlorophenol	95-95-4	SVOA	ug/kg	18	0	0.0	850	900			8270	8270			
2-4-6-Trichlorophenol	88-06-2	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
2-4-Dichlorophenol	120-83-2	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
2-4-Dimethylphenol	105-67-9	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
2-4-Dinitrophenol	51-28-5	SVOA	ug/kg	18	0	0.0	850	900			8270	8270			
2-4-Dinitrotoluene	121-14-2	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
2-6-Dinitrotoluene	606-20-2	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
2-Chloronaphthalene	91-58-7	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
2-Chlorophenol	95-57-8	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
2-Methylnaphthalene	91-57-6	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
2-Methylphenol (cresol- o-)	95-48-7	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
2-Nitroaniline	88-74-4	SVOA	ug/kg	18	0	0.0	850	900			8270	8270			
2-Nitrophenol	88-75-5	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
3-3'-Dichlorobenzidine	91-94-1	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
3-Nitroaniline	99-09-2	SVOA	ug/kg	18	0	0.0	850	900			8270	8270			
4-6-Dinitro-2-methylphenol	534-52-1	SVOA	ug/kg	18	0	0.0	850	900			8270	8270			
4-Bromophenylphenyl ether	101-55-3	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			

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4-Chloro-3-methylphenol	59-50-7	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
4-Chloroaniline	106-47-8	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
4-Chlorophenylphenyl ether	7005-72-3	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
4-Methylphenol (cresol- p-)	106-44-5	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
4-Nitroaniline	100-01-6	SVOA	ug/kg	18	0	0.0	850	900			8270	8270			
4-Nitrophenol	100-02-7	SVOA	ug/kg	18	0	0.0	850	900			8270	8270			
Acenaphthene	83-32-9	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
Acenaphthylene	208-96-8	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
Anthracene	120-12-7	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
Benzo(a)anthracene	56-55-3	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
Benzo(a)pyrene	50-32-8	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
Benzo(b)fluoranthene	205-99-2	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
Benzo(ghi)perylene	191-24-2	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
Benzo(k)fluoranthene	207-08-9	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
Bis(2-Chloroethoxy)methane	111-91-1	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
Bis(2-chloro-1-methylethyl)ether	108-60-1	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
Bis(2-chloroethyl) ether	111-44-4	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
Bis(2-ethylhexyl) phthalate	117-81-7	SVOA	ug/kg	18	6	33.3	340	360	18	140	8270	8270	4	5	B15YR0
Butylbenzylphthalate	85-68-7	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
Carbazole	86-74-8	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
Chrysene	218-01-9	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
Di-n-butylphthalate	84-74-2	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
Di-n-octylphthalate	117-84-0	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			

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Dibenz[a-h]anthracene	53-70-3	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
Dibenzofuran	132-64-9	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
Diethylphthalate	84-66-2	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
Dimethyl phthalate	131-11-3	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
Fluoranthene	206-44-0	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
Fluorene	86-73-7	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
Hexachlorobenzene	118-74-1	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
Hexachlorobutadiene	87-68-3	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
Hexachlorocyclopentadiene	77-47-4	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
Hexachloroethane	67-72-1	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
Indeno(1-2-3-cd)pyrene	193-39-5	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
Isophorone	78-59-1	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
Naphthalene	91-20-3	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
Nitrobenzene	98-95-3	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
Pentachlorophenol	87-86-5	SVOA	ug/kg	18	0	0.0	850	900			8270	8270			
Phenanthrene	85-01-8	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
Phenol	108-95-2	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
Pyrene	129-00-0	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
Tributyl phosphate	126-73-8	SVOA	ug/kg	19	0	0.0	340	360			8270	8270			
n-Nitrosodi-n-dipropylamine	621-64-7	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
n-Nitrosodiphenylamine	86-30-6	SVOA	ug/kg	18	0	0.0	340	360			8270	8270			
1-1-1-Trichloroethane	71-55-6	VOA	ug/kg	19	0	0.0	0.29	6			8260	8260			
1-1-2-2-Tetrachloroethane	79-34-5	VOA	ug/kg	19	0	0.0	0.44	6			8260	8260			
1-1-2-Trichloroethane	79-00-5	VOA	ug/kg	19	0	0.0	0.66	6			8260	8260			
1-1-Dichloroethane	75-34-3	VOA	ug/kg	19	0	0.0	0.28	6			8260	8260			

200-CS-1 Summary Table for All Constituents in Shallow Zone Soil Samples

Constituent	CAS Number	Constituent Class	Units	Number of Results	Number of Detects	Frequency of Detects (%)	Minimum Nondetect	Maximum Nondetect	Minimum Detect	Maximum Detect	Analytical Method for Minimum Detect (or nondetect)	Analytical Method for Maximum Detect (or nondetect)	Start Depth of Maximum Detect (ft bgs)	End Depth of Maximum Depth (ft bgs)	Sample Number of Maximum Detect
1-1-Dichloroethene	75-35-4	VOA	ug/kg	19	0	0.0	0.32	6			8260	8260			
1-2-Dichloroethane	107-06-2	VOA	ug/kg	19	0	0.0	0.27	6			8260	8260			
1-2-Dichloroethene (Total)	540-59-0	VOA	ug/kg	19	0	0.0	0.57	6			8260	8260			
1-2-Dichloropropane	78-87-5	VOA	ug/kg	19	0	0.0	0.23	6			8260	8260			
1-Propanol	71-23-8	VOA	ug/kg	19	0	0.0	21000	52000			8015	8015			
2-Butanone	78-93-3	VOA	ug/kg	19	0	0.0	1.8	12			8260	8260			
2-Hexanone	591-78-6	VOA	ug/kg	19	0	0.0	1.8	12			8260	8260			
2-Pentanone-4-Methyl	108-10-1	VOA	ug/kg	19	0	0.0	0.73	12			8260	8260			
Acetone	67-64-1	VOA	ug/kg	19	5	26.3	2.5	12	4	26	8260	8260	8.5	9.5	B15YM1
Benzene	71-43-2	VOA	ug/kg	19	0	0.0	0.15	6			8260	8260			
Bromodichloromethane	75-27-4	VOA	ug/kg	19	0	0.0	0.15	6			8260	8260			
Bromoform	75-25-2	VOA	ug/kg	19	0	0.0	0.26	6			8260	8260			
Bromomethane	74-83-9	VOA	ug/kg	19	0	0.0	1.1	12			8260	8260			
Carbon disulfide	75-15-0	VOA	ug/kg	19	0	0.0	0.33	6			8260	8260			
Carbon tetrachloride	56-23-5	VOA	ug/kg	19	0	0.0	0.25	6			8260	8260			
Chlorobenzene	108-90-7	VOA	ug/kg	19	0	0.0	0.28	6			8260	8260			
Chloroethane	75-00-3	VOA	ug/kg	19	0	0.0	0.56	12			8260	8260			
Chloroform	67-66-3	VOA	ug/kg	19	0	0.0	0.24	6			8260	8260			
Chloromethane	74-87-3	VOA	ug/kg	19	0	0.0	0.99	12			8260	8260			
Dibromochloromethane	124-48-1	VOA	ug/kg	19	0	0.0	0.36	6			8260	8260			
Ethanol	64-17-5	VOA	ug/kg	19	0	0.0	6200	28000			8015	8015			
Ethylbenzene	100-41-4	VOA	ug/kg	19	0	0.0	0.77	6			8260	8260			
Methylene chloride	75-09-2	VOA	ug/kg	19	19	100.0			5	15	8260	8260	9.5	10.5	B15YJ5
Styrene	100-42-5	VOA	ug/kg	19	0	0.0	0.38	6			8260	8260			
Tetrachloroethene	127-18-4	VOA	ug/kg	19	0	0.0	1.1	6			8260	8260			
Toluene	108-88-3	VOA	ug/kg	19	1	5.3	5	6	4.2	4.2	8260	8260	9.5	10.5	B15YL4
Trichloroethene	79-01-6	VOA	ug/kg	19	0	0.0	0.23	6			8260	8260			
Vinyl chloride	75-01-4	VOA	ug/kg	19	0	0.0	0.84	12			8260	8260			
Xylenes (total)	1330-20-7	VOA	ug/kg	19	1	5.3	1	6	1.388	1.388	8260	8260	6	7	B15YP9
cis-1-3-Dichloropropene	10061-01-5	VOA	ug/kg	19	0	0.0	0.46	6			8260	8260			

200-CS-1 Summary Table for All Constituents in Shallow Zone Soil Samples

Constituent	CAS Number	Constituent Class	Units	Number of Results	Number of Detects	Frequency of Detects (%)	Minimum Nondetect	Maximum Nondetect	Minimum Detect	Maximum Detect	Analytical Method for Minimum Detect (or nondetect)	Analytical Method for Maximum Detect (or nondetect)	Start Depth of Maximum Detect (ft bgs)	End Depth of Maximum Depth (ft bgs)	Sample Number of Maximum Detect
trans-1-3-Dichloropropene	10061-02-6	VOA	ug/kg	19	0	0.0	0.84	6			8260	8260			
Ammonia	7664-41-7	WETCHEM	ug/kg	19	0	0.0	146	3280			350.1	350.3			
Chloride	16887-00-6	WETCHEM	ug/kg	19	10	52.6	1280	1330	1300	3100	300	300	9.5	10.5	B15YL4
Cyanide	57-12-5	WETCHEM	ug/kg	19	1	5.3	250	534	200	200	9010	335.2	9.5	10.5	B15YL4
Fluoride	16984-48-8	WETCHEM	ug/kg	19	1	5.3	1280	1340	1100	1100	300	300	9.5	10.5	B15YL4
Nitrate	14797-55-8	WETCHEM	ug/kg	19	19	100.0			4230	44800	300	300	6.5	7.5	B15YN3
Nitrite	14797-65-0	WETCHEM	ug/kg	19	1	5.3	1280	1340	1580	1580	300	300	9.5	10.5	B15YL4
Nitrogen in Nitrite and Nitrate	NO2+NO3-N	WETCHEM	ug/kg	19	19	100.0			1000	14900	353.2	353.2	6.5	7.5	B15YN3
Phosphate	14265-44-2	WETCHEM	ug/kg	19	6	31.6	830	1340	1700	3800	300	300	11.5	12.5	B15YK8
Sulfate	14808-79-8	WETCHEM	ug/kg	19	19	100.0			2450	11500	300	300	6.5	7.5	B15YN3
Sulfide	18496-25-8	WETCHEM	ug/kg	19	2	10.5	7300	42400	43000	59000	9030	9030	11	12	B15YM2

200-CS-1 Summary Table for Shallow Zone Radionuclides

Constituent	CAS Number	Constituent Class	Units	Number of Results	Number of Detects	Frequency of Detects (%)	Minimum Nondetect	Maximum Nondetect	Minimum Detect	Maximum Detect	Analytical Method for Minimum Detect (or nondetect)	Analytical Method for Maximum Detect (or nondetect)	Start Depth of Maximum Detect (ft bgs)	End Depth of Maximum Depth (ft bgs)	Sample Number of Maximum Detect
216-A-29															
Actinium-228	14331-83-0	RAD	pCi/g	1	1	100.0			0.429	0.429	GEA	GEA	9	11.5	B16FN6-A
Americium-241	14596-10-2	RAD	pCi/g	55	10	18.2	-0.121	77	0.032	145	IX/Plate/AEA	GEA	4	6.5	B16NF7
Antimony-125	14234-35-6	RAD	pCi/g	5	1	20.0	-0.002	0.16	1.67	1.67	GEA	GEA	4	5	B13CK9
Barium-133	13981-41-4	RAD	pCi/g	4	0	0.0	0.03	0.3			GEA	GEA			
Bismuth-212	14913-49-6	RAD	pCi/g	1	1	100.0			0.282	0.282	GEA	GEA	9	11.5	B16FN6-A
Bismuth-214	14733-03-0	RAD	pCi/g	1	1	100.0			0.392	0.392	GEA	GEA	9	11.5	B16FN6-A
Carbon-14	14762-75-5	RAD	pCi/g	4	0	0.0	-0.983	2.49			CombOx/LSC	CombOx/LSC			
Cerium-144	14762-78-8	RAD	pCi/g	1	0	0.0	-0.041	-0.041			GEA	GEA			
Cesium-134	13967-70-9	RAD	pCi/g	5	0	0.0	0.023	0.097			GEA	GEA			
Cesium-137	10045-97-3	RAD	pCi/g	32	18	56.3	-0.013	0.047	0.058	98.4	GEA	GEA	4	5	B13CK9
Cobalt-60	10198-40-0	RAD	pCi/g	32	0	0.0	-0.005	0.067			GEA	GEA			
Curium-242	15510-73-3	RAD	pCi/g	4	0	0.0	0	0.31			IX/Plate/AEA	IX/Plate/AEA			
Curium-243/244	CM-243/244	RAD	pCi/g	1	0	0.0	0.258	0.258			IX/Plate/AEA	IX/Plate/AEA			
Europium-152	14683-23-9	RAD	pCi/g	32	0	0.0	-0.022	0.79			GEA	GEA			
Europium-154	15585-10-1	RAD	pCi/g	32	0	0.0	-0.037	0.27			GEA	GEA			
Europium-155	14391-16-3	RAD	pCi/g	32	1	3.1	0.016	0.52	0.05	0.05	GEA	GEA	10	10	B0P722
Gross alpha	12587-46-1	RAD	pCi/g	32	28	87.5	0.56	3.44	3.47	777	GPC	900	4	6.5	B16NF7
Gross beta	12587-47-2	RAD	pCi/g	32	29	90.6	-2.03	6.45	1.2	78.2	900	900	4	5	B13CK9
Lead-212	15092-94-1	RAD	pCi/g	1	1	100.0			0.445	0.445	GEA	GEA	9	11.5	B16FN6-A
Lead-214	15067-28-4	RAD	pCi/g	1	1	100.0			0.432	0.432	GEA	GEA	9	11.5	B16FN6-A
Neptunium-237	13994-20-2	RAD	pCi/g	23	1	4.3	-0.003	1.88	0.124	0.124	LX/Plate/AEA	LX/Plate/AEA	11.5	12.5	B13CL2
Nickel-63	13981-37-8	RAD	pCi/g	1	0	0.0	0.588	0.588			LSC	LSC			
Niobium-94	14681-63-1	RAD	pCi/g	1	0	0.0	-0.001	-0.001			GEA	GEA			
Plutonium-238	13981-16-3	RAD	pCi/g	23	3	13.0	-0.024	0.162	0.056	15.7	IX/Prec/AEA	Sep/Plate/AEA	4	6.5	B16NF7
Plutonium-239/240	PU-239/240	RAD	pCi/g	23	11	47.8	0	0.145	0.026	667	Sep/Plate/AEA	Sep/Plate/AEA	4	6.5	B16NF7
Potassium-40	13966-00-2	RAD	pCi/g	30	30	100.0			6.63	16	GEA	GEA	6	7	B13C81
Radium-226	13982-63-3	RAD	pCi/g	31	31	100.0			0.266	0.895	GEA	GEA	8.5	9.5	B13C77
Radium-228	15262-20-1	RAD	pCi/g	32	32	100.0			0.414	1.11	GEA	GEA	6	7	B13C81
Ruthenium-103	13968-53-1	RAD	pCi/g	1	0	0.0	0.001	0.001			GEA	GEA			
Ruthenium-106	13967-48-1	RAD	pCi/g	1	0	0.0	-0.023	-0.023			GEA	GEA			
Sodium-22	13966-32-0	RAD	pCi/g	4	0	0.0	0.034	0.095			GEA	GEA			
Technetium-99	14133-76-7	RAD	pCi/g	1	0	0.0	0.115	0.115			Sep/GPC	Sep/GPC			
Thallium-208	14913-50-9	RAD	pCi/g	1	1	100.0			0.136	0.136	GEA	GEA	9	11.5	B16FN6-A
Thorium-228	14274-82-9	RAD	pCi/g	52	44	84.6	-0.14	1.38	0.322	1.14	IX/Plate/AEA	IX/Plate/AEA	10	11	B13CR8
Thorium-230	14269-63-7	RAD	pCi/g	22	11	50.0	-0.046	3.22	0.423	1.49	IX/Plate/AEA	IX/Plate/AEA	9	11.5	B16548
Thorium-232	TH-232	RAD	pCi/g	52	48	92.3	0.092	1.84	0.298	1.22	IX/Plate/AEA	IX/Plate/AEA	10	11	B13CR8
Thorium-234	15065-10-8	RAD	pCi/g	1	0	0.0	0.696	0.696			GEA	GEA			
Tin-113	13966-06-8	RAD	pCi/g	1	0	0.0	-0.002	-0.002			GEA	GEA			
Tin-126	15832-50-5	RAD	pCi/g	5	0	0.0	0.058	0.31			GEA	GEA			

200-CS-1 Summary Table for Shallow Zone Radionuclides

Constituent	CAS Number	Constituent Class	Units	Number of Results	Number of Detects	Frequency of Detects (%)	Minimum Nondetect	Maximum Nondetect	Minimum Detect	Maximum Detect	Analytical Method for Minimum Detect (or nondetect)	Analytical Method for Maximum Detect (or nondetect)	Start Depth of Maximum Detect (ft bgs)	End Depth of Maximum Depth (ft bgs)	Sample Number of Maximum Detect
Total beta radiostrontium	SR-RAD	RAD	pCi/g	32	11	34.4	-0.071	0.197	0.272	0.779	Sep/GPC	Sep/GPC	10	11	B13CR8
Tritium	10028-17-8	RAD	pCi/g	1	0	0.0	0.026	0.026			906	906			
Uranium-233/234	U-233/234	RAD	pCi/g	5	5	100.0			0.33	2.31	Sep/Plate/AEA	Sep/Plate/AEA	7.5	8.5	B13CR4
Uranium-234	13966-29-5	RAD	pCi/g	1	1	100.0			0.964	0.964	IX/Plate/AEA	IX/Plate/AEA	10	11	B13CR8
Uranium-235	15117-96-1	RAD	pCi/g	28	3	10.7	0	0.78	0.061	0.439	Sep/Plate/AEA	GEA	4	5	B13CK9
Uranium-238	U-238	RAD	pCi/g	36	6	16.7	1.1	9.4	0.495	1.81	GEA	GEA	7.5	8.5	B13CR3
Zinc-65	13982-39-3	RAD	pCi/g	1	0	0.0	0.041	0.041			GEA	GEA			
216-B-63															
Americium-241	14596-10-2	RAD	pCi/g	39	3	7.7	0	1.66	0.035	0.589	IX/Plate/AEA	IX/Prec/AEA	8	10.5	B0MJC5
Antimony-125	14234-35-6	RAD	pCi/g	4	0	0.0	0.072	0.12			GEA	GEA			
Barium-133	13981-41-4	RAD	pCi/g	4	0	0.0	0.032	0.055			GEA	GEA			
Carbon-14	14762-75-5	RAD	pCi/g	4	0	0.0	-1.8	-0.58			CombOx/LSC	CombOx/LSC			
Cesium-134	13967-70-9	RAD	pCi/g	4	0	0.0	0.048	0.082			GEA	GEA			
Cesium-137	10045-97-3	RAD	pCi/g	21	12	57.1	0.008	0.082	0.393	100	GEA	GEA	13	15.5	B0MJD1
Cobalt-60	10198-40-0	RAD	pCi/g	21	0	0.0	-0.008	0.1			GEA	GEA			
Curium-242	15510-73-3	RAD	pCi/g	8	0	0.0	-0.042	0.027			IX/Prec/AEA	IX/Plate/AEA			
Curium-243/244	CM-243/244	RAD	pCi/g	3	0	0.0	-0.034	0			IX/Plate/AEA	IX/Plate/AEA			
Curium-244	13981-15-2	RAD	pCi/g	4	0	0.0	-0.033	0.433			IX/Prec/AEA	IX/Prec/AEA			
Europium-152	14683-23-9	RAD	pCi/g	21	0	0.0	-0.097	0.24			GEA	GEA			
Europium-154	15585-10-1	RAD	pCi/g	21	2	9.5	-0.055	0.3	0.774	1.29	GEA	GEA	8	10.5	B0MJC5
Europium-155	14391-16-3	RAD	pCi/g	21	0	0.0	0	0.987			GEA	GEA			
Gross alpha	12587-46-1	RAD	pCi/g	21	11	52.4	1.12	4.68	3.97	12.1	900	900	8	10.5	B0MJC5
Gross beta	12587-47-2	RAD	pCi/g	21	21	100.0			10.2	13900	900	GPC	13	15.5	B0MJD1
Iodine-129	15046-84-1	RAD	pCi/g	4	0	0.0	-0.338	0.688			GEA	GEA			
Neptunium-237	13994-20-2	RAD	pCi/g	21	3	14.3	-0.009	0.256	0.03	0.054	LX/Plate/AEA	LX/Plate/AEA	9.5	10.5	B15XM3
Plutonium-238	13981-16-3	RAD	pCi/g	21	0	0.0	-0.121	0.431			Sep/Plate/AEA	Sep/Plate/AEA			
Plutonium-239/240	PU-239/240	RAD	pCi/g	21	1	4.8	-0.059	0.348	4.97	4.97	Sep/Plate/AEA	Sep/Plate/AEA	13	15.5	B0MJD1
Plutonium-241	14119-32-5	RAD	pCi/g	4	0	0.0	-0.235	61.6			IX/LSC	IX/LSC			
Potassium-40	13966-00-2	RAD	pCi/g	19	19	100.0			7.34	15	GEA	GEA	4	6.5	B0MJC2
Radium-224	13233-32-4	RAD	pCi/g	4	4	100.0			0.626	0.91	GEA	GEA	4	6.5	B0MJC2
Radium-226	13982-63-3	RAD	pCi/g	19	16	84.2	0.18	0.431	0.333	0.762	GEA	GEA	4	6.5	B0MJC2
Radium-228	15262-20-1	RAD	pCi/g	21	19	90.5	0.47	0.71	0.487	0.917	GEA	GEA	4	6.5	B0MJC2
Selenium-79	15758-45-9	RAD	pCi/g	4	0	0.0	-23.7	-0.442			IX/LSC	IX/LSC			
Sodium-22	13966-32-0	RAD	pCi/g	4	0	0.0	0.038	0.05			GEA	GEA			
Strontium-90	10098-97-2	RAD	pCi/g	4	3	75.0	0.11	0.11	86.7	4710	Sep/GPC	Sep/GPC	13	15.5	B0MJD1
Technetium-99	14133-76-7	RAD	pCi/g	4	0	0.0	-28.2	0.193			IX/LSC	IX/LSC			
Thorium-228	14274-82-9	RAD	pCi/g	36	30	83.3	0.11	2.17	0.293	0.975	IX/Plate/AEA	IX/Prec/AEA	7	8	B15XM2
Thorium-230	14269-63-7	RAD	pCi/g	21	15	71.4	-0.045	0.321	0.298	2.67	IX/Prec/AEA	IX/Plate/AEA	8	10.5	B0MJC5
Thorium-232	TH-232	RAD	pCi/g	36	31	86.1	0	1.14	0.335	0.888	IX/Prec/AEA	IX/Prec/AEA	10.5	13	B0MJC8
Tin-126	15832-50-5	RAD	pCi/g	4	0	0.0	0.048	0.1			GEA	GEA			

200-CS-1 Summary Table for Shallow Zone Radionuclides

Constituent	CAS Number	Constituent Class	Units	Number of Results	Number of Detects	Frequency of Detects (%)	Minimum Nondetect	Maximum Nondetect	Minimum Detect	Maximum Detect	Analytical Method for Minimum Detect (or nondetect)	Analytical Method for Maximum Detect (or nondetect)	Start Depth of Maximum Detect (ft bgs)	End Depth of Maximum Depth (ft bgs)	Sample Number of Maximum Detect
Total beta radiostrontium	SR-RAD	RAD	pCi/g	17	15	88.2	-0.147	-0.022	0.26	29.5	Sep/GPC	Sep/GPC	7.5	8.5	B13D82
Uranium-233/234	U-233/234	RAD	pCi/g	1	1	100.0			0.36	0.36	Sep/Plate/AEA	Sep/Plate/AEA	5	6	B13D72
Uranium-234	13966-29-5	RAD	pCi/g	3	2	66.7	0.388	0.388	0.533	0.748	Sep/Plate/AEA	Sep/Plate/AEA	7.5	8.5	B13D82
Uranium-235	15117-96-1	RAD	pCi/g	19	0	0.0	-0.148	0.34			Sep/Plate/AEA	GEA			
Uranium-238	U-238	RAD	pCi/g	20	4	20.0	1.81	10	0.36	0.93	Sep/Plate/AEA	GEA	7.5	8.5	B13D82
216-S-10D															
Americium-241	14596-10-2	RAD	pCi/g	28	3	10.7	-0.058	1.1	0.253	1.84	IX/Plate/AEA	GEA	6.5	9	B16547
Antimony-125	14234-35-6	RAD	pCi/g	3	0	0.0	0.077	0.17			GEA	GEA			
Barium-133	13981-41-4	RAD	pCi/g	3	0	0.0	0.029	0.06			GEA	GEA			
Carbon-14	14762-75-5	RAD	pCi/g	3	0	0.0	0.76	1.48			CombOx/LSC	CombOx/LSC			
Cesium-134	13967-70-9	RAD	pCi/g	3	0	0.0	0.044	0.066			GEA	GEA			
Cesium-137	10045-97-3	RAD	pCi/g	14	5	35.7	0.007	0.047	0.046	9.13	GEA	GEA	0	1.5	B15Y85
Cobalt-60	10198-40-0	RAD	pCi/g	14	0	0.0	0.009	0.051			GEA	GEA			
Curium-242	15510-73-3	RAD	pCi/g	3	0	0.0	0.013	0.026			IX/Plate/AEA	IX/Plate/AEA			
Curium-243/244	CM-243/244	RAD	pCi/g	3	0	0.0	0	0.02			IX/Plate/AEA	IX/Plate/AEA			
Europium-152	14683-23-9	RAD	pCi/g	14	0	0.0	-0.014	0.16			GEA	GEA			
Europium-154	15585-10-1	RAD	pCi/g	14	0	0.0	0.018	0.16			GEA	GEA			
Europium-155	14391-16-3	RAD	pCi/g	14	0	0.0	0.015	0.16			GEA	GEA			
Gross alpha	12587-46-1	RAD	pCi/g	14	6	42.9	0.292	4.16	4.22	13.6	900	900	6.5	9	B16547
Gross beta	12587-47-2	RAD	pCi/g	14	14	100.0			8.89	30.4	900	9310	8.5	9.5	B15YF9
Neptunium-237	13994-20-2	RAD	pCi/g	14	0	0.0	0	0.046			LX/Plate/AEA	LX/Plate/AEA			
Plutonium-238	13981-16-3	RAD	pCi/g	14	0	0.0	0	0.144			Sep/Plate/AEA	Sep/Plate/AEA			
Plutonium-239/240	PU-239/240	RAD	pCi/g	14	3	21.4	0	0.142	0.223	5.33	Sep/Plate/AEA	Sep/Plate/AEA	6.5	9	B16547
Potassium-40	13966-00-2	RAD	pCi/g	13	13	100.0			8.56	13.3	GEA	GEA	8	9	B15YB2
Radium-226	13982-63-3	RAD	pCi/g	13	13	100.0			0.259	0.603	GEA	GEA	8	9	B15YB2
Radium-228	15262-20-1	RAD	pCi/g	14	14	100.0			0.421	0.939	GEA	GEA	8	9	B15YB2
Sodium-22	13966-32-0	RAD	pCi/g	3	0	0.0	0.04	0.057			GEA	GEA			
Thorium-228	14274-82-9	RAD	pCi/g	27	23	85.2	0.078	0.426	0.216	0.903	IX/Plate/AEA	IX/Plate/AEA	8	9	B15YB2
Thorium-230	14269-63-7	RAD	pCi/g	14	13	92.9	0.462	0.462	0.324	1.34	IX/Plate/AEA	IX/Plate/AEA	6.5	9	B16547
Thorium-232	TH-232	RAD	pCi/g	27	25	92.6	0.077	0.258	0.208	0.939	IX/Plate/AEA	IX/Plate/AEA	8	9	B15YB2
Tin-126	15832-50-5	RAD	pCi/g	3	0	0.0	0.086	0.12			GEA	GEA			
Total beta radiostrontium	SR-RAD	RAD	pCi/g	14	2	14.3	-0.049	0.21	0.318	0.462	Sep/GPC	Sep/GPC	3	4	B160N2
Uranium-234	13966-29-5	RAD	pCi/g	1	1	100.0			0.524	0.524	IX/Plate/AEA	IX/Plate/AEA	8.5	9.5	B15YF9
Uranium-235	15117-96-1	RAD	pCi/g	14	0	0.0	0.005	0.22			IX/Plate/AEA	GEA			
Uranium-238	U-238	RAD	pCi/g	14	1	7.1	2.7	5.9	0.536	0.536	GEA	GEA	8.5	9.5	B15YF9
216-S-10P															
Americium-241	14596-10-2	RAD	pCi/g	38	2	5.3	-0.081	0.303	0.199	0.395	IX/Plate/AEA	IX/Plate/AEA	11.5	12.5	B15YK8
Antimony-125	14234-35-6	RAD	pCi/g	4	0	0.0	0.04	0.086			GEA	GEA			
Barium-133	13981-41-4	RAD	pCi/g	4	0	0.0	0.017	0.039			GEA	GEA			

200-CS-1 Summary Table for Shallow Zone Radionuclides

Constituent	CAS Number	Constituent Class	Units	Number of Results	Number of Detects	Frequency of Detects (%)	Minimum Nondetect	Maximum Nondetect	Minimum Detect	Maximum Detect	Analytical Method for Minimum Detect (or nondetect)	Analytical Method for Maximum Detect (or nondetect)	Start Depth of Maximum Detect (ft bgs)	End Depth of Maximum Depth (ft bgs)	Sample Number of Maximum Detect
Carbon-14	14762-75-5	RAD	pCi/g	4	1	25.0	-0.674	1.03	12.2	12.2	CombOx/LSC	CombOx/LSC	6.5	7.5	B15YL8
Cesium-134	13967-70-9	RAD	pCi/g	4	0	0.0	0.023	0.065			GEA	GEA			
Cesium-137	10045-97-3	RAD	pCi/g	19	10	52.6	0.021	0.033	0.093	1.77	GEA	GEA	11.5	12.5	B15YK8
Cobalt-60	10198-40-0	RAD	pCi/g	19	0	0.0	-0.006	0.043			GEA	GEA			
Curium-242	15510-73-3	RAD	pCi/g	4	0	0.0	0	0.009			IX/Plate/AEA	IX/Plate/AEA			
Curium-243/244	CM-243/244	RAD	pCi/g	4	0	0.0	-0.032	0			IX/Plate/AEA	IX/Plate/AEA			
Europium-152	14683-23-9	RAD	pCi/g	19	0	0.0	0.028	0.098			GEA	GEA			
Europium-154	15585-10-1	RAD	pCi/g	19	0	0.0	-0.004	0.13			GEA	GEA			
Europium-155	14391-16-3	RAD	pCi/g	19	0	0.0	-0.014	0.12			GEA	GEA			
Gross alpha	12587-46-1	RAD	pCi/g	19	8	42.1	0.742	3.84	3.62	11.2	900	900	9.5	10.5	B15YL4
Gross beta	12587-47-2	RAD	pCi/g	19	18	94.7	6.03	6.03	8.33	24.7	900	900	9.5	10.5	B15YL4
Neptunium-237	13994-20-2	RAD	pCi/g	19	0	0.0	-0.003	0.075			LX/Plate/AEA	LX/Plate/AEA			
Plutonium-238	13981-16-3	RAD	pCi/g	19	0	0.0	-0.026	0.091			Sep/Plate/AEA	Sep/Plate/AEA			
Plutonium-239/240	PU-239/240	RAD	pCi/g	19	6	31.6	0	0.191	0.265	2.33	Sep/Plate/AEA	Sep/Plate/AEA	11.5	12.5	B15YK8
Potassium-40	13966-00-2	RAD	pCi/g	18	18	100.0			10.1	12.8	GEA	GEA	6.5	7.5	B15YL8
Radium-226	13982-63-3	RAD	pCi/g	18	18	100.0			0.323	0.546	GEA	GEA	6	7	B15YP9
Radium-228	15262-20-1	RAD	pCi/g	19	19	100.0			0.45	0.878	GEA	GEA	4	5	B15YR0
Sodium-22	13966-32-0	RAD	pCi/g	4	0	0.0	0.033	0.046			GEA	GEA			
Thorium-228	14274-82-9	RAD	pCi/g	37	26	70.3	0.093	0.314	0.278	1.45	IX/Plate/AEA	IX/Plate/AEA	12	13	B15YJ6
Thorium-230	14269-63-7	RAD	pCi/g	19	15	78.9	0.154	0.298	0.363	1.59	IX/Plate/AEA	IX/Plate/AEA	13.5	14.5	B15YM3
Thorium-232	TH-232	RAD	pCi/g	37	28	75.7	0.055	0.284	0.279	0.878	IX/Plate/AEA	IX/Plate/AEA	4	5	B15YR0
Tin-126	15832-50-5	RAD	pCi/g	4	0	0.0	0.035	0.16			GEA	GEA			
Total beta radiostrontium	SR-RAD	RAD	pCi/g	19	8	42.1	-0.09	0.186	0.366	1.26	Sep/GPC	Sep/GPC	9.5	10.5	B15YL3
Uranium-234	13966-29-5	RAD	pCi/g	1	1	100.0			0.563	0.563	IX/Plate/AEA	IX/Plate/AEA	9.5	10.5	B15YL4
Uranium-235	15117-96-1	RAD	pCi/g	19	0	0.0	0.014	0.16			IX/Plate/AEA	GEA			
Uranium-238	U-238	RAD	pCi/g	19	1	5.3	1.3	4.5	0.568	0.568	GEA	GEA	9.5	10.5	B15YL4

200-CS-1 Summary Table for Shallow Zone Nonradionuclides

Constituent	CAS Number	Constituent Class	Units	Number of Results	Number of Detects	Frequency of Detects (%)	Minimum Nondetect	Maximum Nondetect	Minimum Detect	Maximum Detect	Analytical Method for Minimum Detect (or nondetect)	Analytical Method for Maximum Detect (or nondetect)	Start Depth of Maximum Detect (ft bgs)	End Depth of Maximum Depth (ft bgs)	Sample Number of Maximum Detect
216-A-29															
Aroclor-1016	12674-11-2	GENORG	ug/kg	32	0	0	2.7	2600			8082	8082			
Aroclor-1221	11104-28-2	GENORG	ug/kg	32	0	0	2.7	5100			8082	8082			
Aroclor-1232	11141-16-5	GENORG	ug/kg	32	0	0	2.7	2600			8082	8082			
Aroclor-1242	53469-21-9	GENORG	ug/kg	32	0	0	2.7	2600			8082	8082			
Aroclor-1248	12672-29-6	GENORG	ug/kg	32	0	0	2.7	2600			8082	8082			
Aroclor-1254	11097-69-1	GENORG	ug/kg	32	2	6.25	6.3	50	2500	9400	8082	8082	4	5	B13CK9
Aroclor-1260	11096-82-5	GENORG	ug/kg	32	0	0	6.3	2600			8082	8082			
Aroclor-1262	37324-23-5	GENORG	ug/kg	1	0	0	34	34			8082	8082			
Aroclor-1268	11100-14-4	GENORG	ug/kg	1	0	0	34	34			8082	8082			
Total petroleum hydrocarbons - diesel range	TPHDIESEL	GENORG	ug/kg	23	0	0	1400	132000			WDOE TPH	WDOE TPH			
Total petroleum hydrocarbons - kerosene rang	TPHKEROSENE	GENORG	ug/kg	21	1	4.761904762	4900	26000	440000	440000	WDOE TPH	WDOE TPH	4	6.5	B16NF7
Total petroleum hydrocarbons - motor oil (hi	TPH/OILH	GENORG	ug/kg	2	1	50	14.6	14.6	760000	760000	WDOE TPH	WDOE TPH	4	5	B13CK9
Aluminum	7429-90-5	METAL	ug/kg	4	4	100			5210000	10100000	6010	6010	6	7	B13C81
Antimony	7440-36-0	METAL	ug/kg	1	0	0	1070	1070			6010	6010			
Arsenic	7440-38-2	METAL	ug/kg	32	31	96.875	2420	2420	1600	12200	6010	6010	8.5	9.5	B13C77
Barium	7440-39-3	METAL	ug/kg	32	32	100			52000	118000	6010	6010	6	7	B13C81
Beryllium	7440-41-7	METAL	ug/kg	23	20	86.95652174	10	97	80	626	6010	6010	4	6.5	B16NF7
Bismuth	7440-69-9	METAL	ug/kg	5	1	20	357	9700	766	766	6010	6010	4	6.5	B16NF7
Boron	7440-42-8	METAL	ug/kg	4	4	100			2100	3400	6010	6010	4	5	B13CK9
Cadmium	7440-43-9	METAL	ug/kg	32	26	81.25	30	30	60	28000	6010	6010	4	5	B13CK9
Calcium	7440-70-2	METAL	ug/kg	4	4	100			6830000	24300000	6010	6010	6	7	B13C81
Chromium	7440-47-3	METAL	ug/kg	32	32	100			3000	36800	6010	6010	4	5	B13CK9
Copper	7440-50-8	METAL	ug/kg	23	23	100			7570	172000	6010	6010	4	5	B13CK9
Hexavalent Chromium	18540-29-9	METAL	ug/kg	23	7	30.43478261	57	490	520	8800	7196	7196	7.5	8.5	B13CR4
Iron	7439-89-6	METAL	ug/kg	4	4	100			22900000	26900000	6010	6010	5	6	B13CR9
Lead	7439-92-1	METAL	ug/kg	32	31	96.875	1260	1260	1300	390000	6010	6010	7.5	8.5	B13CR4
Magnesium	7439-95-4	METAL	ug/kg	1	1	100			4310000	4310000	6010	6010	4	6.5	B16NF7
Manganese	7439-96-5	METAL	ug/kg	5	5	100			216000	454000	6010	6010	6	7	B13C81
Mercury	7439-97-6	METAL	ug/kg	31	17	54.83870968	10	20	8.7	5200	7471	7471	4	5	B13CK9
Molybdenum	7439-98-7	METAL	ug/kg	5	4	80	9700	9700	530	3200	6010	6010	4	5	B13CK9
Nickel	7440-02-0	METAL	ug/kg	23	23	100			950	27600	6010	6010	4	5	B13CK9
Potassium	9/7/7440	METAL	ug/kg	4	4	100			990000	2260000	6010	6010	6	7	B13C81
Selenium	7782-49-2	METAL	ug/kg	32	12	37.5	180	420	280	2520	6010	6010	9	11.5	B16FN6-A
Silver	7440-22-4	METAL	ug/kg	32	5	15.625	50	291	1400	42000	6010	6010	4	5	B13CK9
Sodium	7440-23-5	METAL	ug/kg	4	4	100			205000	873000	6010	6010	4	5	B13CK9
Thallium	7440-28-0	METAL	ug/kg	4	1	25	312	410	520	520	6010	6010	6	7	B13C81
Tin	7440-31-5	METAL	ug/kg	1	0	0	9700	9700			6010	6010			
Uranium	7440-61-1	METAL	ug/kg	23	23	100			253	5280	KPA	KPA	7.5	8.5	B13CR4
Vanadium	7440-62-2	METAL	ug/kg	23	23	100			36800	104000	6010	6010	7.5	8.5	B13CR4
Zinc	7440-66-6	METAL	ug/kg	23	23	100			35700	224000	6010	6010	4	5	B13CK9
pH Measurement	PH	PHYSICAL	ug/kg	23	23	100			6.5	9.3	9045	9045	10	11	B13CR8
1-2-4-Trichlorobenzene	120-82-1	SVOA	ug/kg	31	0	0	300	2600			8270	8270			

200-CS-1 Summary Table for Shallow Zone Nonradionuclides

Constituent	CAS Number	Constituent Class	Units	Number of Results	Number of Detects	Frequency of Detects (%)	Minimum Nondetect	Maximum Nondetect	Minimum Detect	Maximum Detect	Analytical Method for Minimum Detect (or nondetect)	Analytical Method for Maximum Detect (or nondetect)	Start Depth of Maximum Detect (ft bgs)	End Depth of Maximum Depth (ft bgs)	Sample Number of Maximum Detect
1-2-Dichlorobenzene	95-50-1	SVOA	ug/kg	30	0	0	340	2600			8270	8270			
1-3-Dichlorobenzene	541-73-1	SVOA	ug/kg	30	0	0	340	2600			8270	8270			
1-4-Dichlorobenzene	106-46-7	SVOA	ug/kg	31	0	0	330	2600			8270	8270			
2-4-5-Trichlorophenol	95-95-4	SVOA	ug/kg	30	0	0	850	6400			8270	8270			
2-4-6-Trichlorophenol	88-06-2	SVOA	ug/kg	30	0	0	340	2600			8270	8270			
2-4-Dichlorophenol	120-83-2	SVOA	ug/kg	30	0	0	340	2600			8270	8270			
2-4-Dimethylphenol	105-67-9	SVOA	ug/kg	30	0	0	340	2600			8270	8270			
2-4-Dinitrophenol	51-28-5	SVOA	ug/kg	30	0	0	850	6400			8270	8270			
2-4-Dinitrotoluene	121-14-2	SVOA	ug/kg	31	0	0	69	2600			8270	8270			
2-6-Dinitrotoluene	606-20-2	SVOA	ug/kg	30	0	0	340	2600			8270	8270			
2-Chloronaphthalene	91-58-7	SVOA	ug/kg	30	0	0	340	2600			8270	8270			
2-Chlorophenol	95-57-8	SVOA	ug/kg	31	0	0	150	2600			8270	8270			
2-Methylnaphthalene	91-57-6	SVOA	ug/kg	30	0	0	340	2600			8270	8270			
2-Methylphenol (cresol- o-)	95-48-7	SVOA	ug/kg	30	0	0	340	2600			8270	8270			
2-Nitroaniline	88-74-4	SVOA	ug/kg	30	0	0	850	6400			8270	8270			
2-Nitrophenol	88-75-5	SVOA	ug/kg	31	0	0	180	2600			8270	8270			
3-3'-Dichlorobenzidine	91-94-1	SVOA	ug/kg	30	0	0	340	2600			8270	8270			
3-Nitroaniline	99-09-2	SVOA	ug/kg	30	0	0	850	6400			8270	8270			
4-6-Dinitro-2-methylphenol	534-52-1	SVOA	ug/kg	30	0	0	850	6400			8270	8270			
4-Bromophenylphenyl ether	101-55-3	SVOA	ug/kg	30	0	0	340	2600			8270	8270			
4-Chloro-3-methylphenol	59-50-7	SVOA	ug/kg	31	0	0	69	2600			8270	8270			
4-Chloroaniline	106-47-8	SVOA	ug/kg	30	0	0	340	2600			8270	8270			
4-Chlorophenylphenyl ether	7005-72-3	SVOA	ug/kg	30	0	0	340	2600			8270	8270			
4-Methylphenol (cresol- p-)	106-44-5	SVOA	ug/kg	30	0	0	340	2600			8270	8270			
4-Nitroaniline	100-01-6	SVOA	ug/kg	30	0	0	850	6400			8270	8270			
4-Nitrophenol	100-02-7	SVOA	ug/kg	30	0	0	850	6400			8270	8270			
Acenaphthene	83-32-9	SVOA	ug/kg	31	0	0	69	2600			8270	8270			
Acenaphthylene	208-96-8	SVOA	ug/kg	30	0	0	340	2600			8270	8270			
Anthracene	120-12-7	SVOA	ug/kg	30	0	0	340	2600			8270	8270			
Benzo(a)anthracene	56-55-3	SVOA	ug/kg	30	2	6.666666667	340	740	34	180	8270	8270	4	5	B13CK9
Benzo(a)pyrene	50-32-8	SVOA	ug/kg	30	2	6.666666667	340	740	22	160	8270	8270	4	5	B13CK9
Benzo(b)fluoranthene	205-99-2	SVOA	ug/kg	30	2	6.666666667	340	740	37	240	8270	8270	4	5	B13CK9
Benzo(ghi)perylene	191-24-2	SVOA	ug/kg	30	0	0	340	2600			8270	8270			
Benzo(k)fluoranthene	207-08-9	SVOA	ug/kg	30	0	0	340	2600			8270	8270			
Bis(2-Chloroethoxy)methane	111-91-1	SVOA	ug/kg	30	0	0	340	2600			8270	8270			
Bis(2-chloro-1-methylethyl)ether	108-60-1	SVOA	ug/kg	30	0	0	340	2600			8270	8270			
Bis(2-chloroethyl) ether	111-44-4	SVOA	ug/kg	30	0	0	340	2600			8270	8270			
Bis(2-ethylhexyl) phthalate	117-81-7	SVOA	ug/kg	31	8	25.80645161	38	400	19.316	6200	8270	8270	4	5	B13CK9
Butylbenzylphthalate	85-68-7	SVOA	ug/kg	30	2	6.666666667	340	400	121.882	290	8270	8270	4	5	B13CK9
Carbazole	86-74-8	SVOA	ug/kg	30	0	0	340	2600			8270	8270			

200-CS-1 Summary Table for Shallow Zone Nonradionuclides

Constituent	CAS Number	Constituent Class	Units	Number of Results	Number of Detects	Frequency of Detects (%)	Minimum Nondetect	Maximum Nondetect	Minimum Detect	Maximum Detect	Analytical Method for Minimum Detect (or nondetect)	Analytical Method for Maximum Detect (or nondetect)	Start Depth of Maximum Detect (ft bgs)	End Depth of Maximum Depth (ft bgs)	Sample Number of Maximum Detect
Chrysene	218-01-9	SVOA	ug/kg	30	2	6.666666667	340	740	40	210	8270	8270	4	5	B13CK9
Decane	124-18-5	SVOA	ug/kg	1	0	0	250	250			8270	8270			
Di-n-butylphthalate	84-74-2	SVOA	ug/kg	30	4	13.33333333	340	400	25	2740.798	8270	8270	4	5	B13CK9
Di-n-octylphthalate	117-84-0	SVOA	ug/kg	30	0	0	340	2600			8270	8270			
Dibenz[a-h]anthracene	53-70-3	SVOA	ug/kg	30	0	0	340	2600			8270	8270			
Dibenzofuran	132-64-9	SVOA	ug/kg	30	0	0	340	2600			8270	8270			
Diethylphthalate	84-66-2	SVOA	ug/kg	31	1	3.225806452	340	2600	330	330	8270	8270	9	11.5	B16FN6-A
Dimethyl phthalate	131-11-3	SVOA	ug/kg	30	0	0	340	2600			8270	8270			
Fluoranthene	206-44-0	SVOA	ug/kg	30	2	6.666666667	340	740	120	370	8270	8270	4	5	B13CK9
Fluorene	86-73-7	SVOA	ug/kg	30	0	0	340	2600			8270	8270			
Hexachlorobenzene	118-74-1	SVOA	ug/kg	30	0	0	340	2600			8270	8270			
Hexachlorobutadiene	87-68-3	SVOA	ug/kg	30	0	0	340	2600			8270	8270			
Hexachlorocyclopentadiene	77-47-4	SVOA	ug/kg	30	0	0	340	2600			8270	8270			
Hexachloroethane	67-72-1	SVOA	ug/kg	30	0	0	340	2600			8270	8270			
Indeno(1-2-3-cd)pyrene	193-39-5	SVOA	ug/kg	30	0	0	340	2600			8270	8270			
Isophorone	78-59-1	SVOA	ug/kg	30	0	0	340	2600			8270	8270			
Mesityl oxide	141-79-7	SVOA		1	1	100			390	390	8270	8270	9	11.5	B16FN6-A
Naphthalene	91-20-3	SVOA	ug/kg	30	0	0	340	2600			8270	8270			
Nitrobenzene	98-95-3	SVOA	ug/kg	30	0	0	340	2600			8270	8270			
Pentachlorophenol	87-86-5	SVOA	ug/kg	31	0	0	310	6400			8270	8270			
Phenanthrene	85-01-8	SVOA	ug/kg	30	2	6.666666667	340	740	150	370	8270	8270	4	5	B13CK9
Phenol	108-95-2	SVOA	ug/kg	31	0	0	100	2600			8270	8270			
Pyrene	129-00-0	SVOA	ug/kg	31	2	6.451612903	69	740	99	350	8270	8270	4	5	B13CK9
Tributyl phosphate	126-73-8	SVOA	ug/kg	22	2	9.090909091	69	400	310	543.205	8270	8270	4	6.5	B16NF7
n-Butyl benzenesulfonamide	3622-84-2	SVOA	ug/kg	1	1	100			4400	4400	8270	8270	9	11.5	B16FN6-A
n-Nitrosodi-n-dipropylamine	621-64-7	SVOA	ug/kg	31	0	0	69	2600			8270	8270			
n-Nitrosodiphenylamine	86-30-6	SVOA	ug/kg	30	0	0	340	2600			8270	8270			
1-1-1-Trichloroethane	71-55-6	VOA	ug/kg	23	0	0	0.46	8			8260	8260			
1-1-2-2-Tetrachloroethane	79-34-5	VOA	ug/kg	23	0	0	0.46	8			8260	8260			
1-1-2-Trichloroethane	79-00-5	VOA	ug/kg	23	0	0	0.45	8			8260	8260			
1-1-Dichloroethane	75-34-3	VOA	ug/kg	23	0	0	0.4	8			8260	8260			
1-1-Dichloroethene	75-35-4	VOA	ug/kg	23	0	0	1.4	8			8260	8260			
1-2-Dichloroethane	107-06-2	VOA	ug/kg	23	1	4.347826087	0.45	6	13	13	8260	8260	4	5	B13CK9
1-2-Dichloroethene (Total)	540-59-0	VOA	ug/kg	23	0	0	0.87	8			8260	8260			
1-2-Dichloropropane	78-87-5	VOA	ug/kg	23	0	0	0.22	8			8260	8260			
1-Propanol	71-23-8	VOA	ug/kg	23	0	0	4800	26000			8015	8015			
2-Butanone	78-93-3	VOA	ug/kg	23	0	0	1.9	16			8260	8260			
2-Hexanone	591-78-6	VOA	ug/kg	23	0	0	1.7	16			8260	8260			
2-Pentanone- 4-Methyl	108-10-1	VOA	ug/kg	23	0	0	1.3	16			8260	8260			
Acetone	67-64-1	VOA	ug/kg	23	6	26.08695652	1.9	16	6	30	8260	8260	7.5	8.5	B13CR3
Benzene	71-43-2	VOA	ug/kg	23	0	0	0.39	8			8260	8260			
Bromodichloromethane	75-27-4	VOA	ug/kg	23	0	0	0.47	8			8260	8260			
Bromoform	75-25-2	VOA	ug/kg	23	0	0	0.65	8			8260	8260			

200-CS-1 Summary Table for Shallow Zone Nonradionuclides

Constituent	CAS Number	Constituent Class	Units	Number of Results	Number of Detects	Frequency of Detects (%)	Minimum Nondetect	Maximum Nondetect	Minimum Detect	Maximum Detect	Analytical Method for Minimum Detect (or nondetect)	Analytical Method for Maximum Detect (or nondetect)	Start Depth of Maximum Detect (ft bgs)	End Depth of Maximum Depth (ft bgs)	Sample Number of Maximum Detect
Bromomethane	74-83-9	VOA	ug/kg	23	0	0	0.63	16			8260	8260			
Carbon disulfide	75-15-0	VOA	ug/kg	23	0	0	0.48	8			8260	8260			
Carbon tetrachloride	56-23-5	VOA	ug/kg	23	0	0	0.68	8			8260	8260			
Chlorobenzene	108-90-7	VOA	ug/kg	23	0	0	0.36	8			8260	8260			
Chloroethane	75-00-3	VOA	ug/kg	23	0	0	1.9	16			8260	8260			
Chloroform	67-66-3	VOA	ug/kg	23	0	0	0.25	8			8260	8260			
Chloromethane	74-87-3	VOA	ug/kg	23	0	0	0.81	16			8260	8260			
Dibromochloromethane	124-48-1	VOA	ug/kg	23	0	0	0.4	8			8260	8260			
Ethanol	64-17-5	VOA	ug/kg	23	0	0	4800	26000			8015	8015			
Ethylbenzene	100-41-4	VOA	ug/kg	23	0	0	0.93	8			8260	8260			
Methylene chloride	75-09-2	VOA	ug/kg	23	18	78.26086957	1.9	6	2	78	8260	8260	4	5	B13CK9
Styrene	100-42-5	VOA	ug/kg	23	0	0	0.39	8			8260	8260			
Tetrachloroethene	127-18-4	VOA	ug/kg	23	1	4.347826087	0.38	6	6	6	8260	8260	4	5	B13CK9
Toluene	108-88-3	VOA	ug/kg	23	0	0	0.57	8			8260	8260			
Trichloroethene	79-01-6	VOA	ug/kg	23	0	0	0.32	8			8260	8260			
Vinyl chloride	75-01-4	VOA	ug/kg	23	0	0	0.83	16			8260	8260			
Xylenes (total)	1330-20-7	VOA	ug/kg	23	0	0	1.1	8			8260	8260			
cis-1-3-Dichloropropene	10061-01-5	VOA	ug/kg	23	0	0	0.54	8			8260	8260			
trans-1-3-Dichloropropene	10061-02-6	VOA	ug/kg	23	0	0	0.32	8			8260	8260			
Ammonia	7664-41-7	WETCHEM	ug/kg	22	5	22.72727273	170	6320	6690	41700	350.1	350.3	4	5	B13CK9
Ammonium ion	14798-03-9	WETCHEM	ug/kg	1	0	0	258	258			300.7_CATIONS_IC	300.7_CATIONS_IC			
Bromide	24959-67-9	WETCHEM	ug/kg	1	0	0	2250	2250			300	300			
Chloride	16887-00-6	WETCHEM	ug/kg	23	21	91.30434783	700	1300	1700	226000	300	300	4	5	B13CK9
Cyanide	57-12-5	WETCHEM	ug/kg	23	0	0	130	720			9010	9010			
Fluoride	16984-48-8	WETCHEM	ug/kg	23	2	8.695652174	1300	19200	730	5260	300	300	9	11.5	B16FN6-A
Hydrazine	302-01-2	WETCHEM	ug/kg	16	0	0	1000	1500			D1385	D1385			
Nitrate	14797-55-8	WETCHEM	ug/kg	23	22	95.65217391	1290	1290	1800	927000	300	300	4	5	B13CK9
Nitrite	14797-65-0	WETCHEM	ug/kg	23	0	0	69	9620			300	300			
Nitrogen in Nitrite and Nitrate	NO2+NO3-N	WETCHEM	ug/kg	23	22	95.65217391	190	190	850	210000	353.2	353.2	4	5	B13CK9
Phosphate	14265-44-2	WETCHEM	ug/kg	23	0	0	370	9600			300	300			
Sulfate	14808-79-8	WETCHEM	ug/kg	23	22	95.65217391	1300	1300	6100	2970000	300	300	4	5	B13CK9
Sulfide	18496-25-8	WETCHEM	ug/kg	23	0	0	7000	61200			9030	9030			
216-B-63															
Aroclor-1016	12674-11-2	GENORG	ug/kg	18	0	0	2.7	36			8082	8082			
Aroclor-1221	11104-28-2	GENORG	ug/kg	18	0	0	2.7	73			8082	8082			
Aroclor-1232	11141-16-5	GENORG	ug/kg	18	0	0	2.7	36			8082	8082			
Aroclor-1242	53469-21-9	GENORG	ug/kg	18	0	0	2.7	36			8082	8082			
Aroclor-1248	12672-29-6	GENORG	ug/kg	18	0	0	2.7	36			8082	8082			
Aroclor-1254	11097-69-1	GENORG	ug/kg	18	1	5.555555556	6.4	36	77	77	8082	8082	10	13	B16FW5
Aroclor-1260	11096-82-5	GENORG	ug/kg	21	3	14.28571429	6.4	36	150	9200	8082	8082	8	10.5	B0MJC5
Total petroleum hydrocarbons - diesel range	TPHDIESEL	GENORG	ug/kg	17	0	0	1400	13100			WDOE TPH	WDOE TPH			

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Total petroleum hydrocarbons - kerosene rang	TPHKEROSENE	GENORG	ug/kg	17	0	0	12200	27000			WDOE TPH	WDOE TPH			
Aluminum	7429-90-5	METAL	ug/kg	8	8	100			4640000	7090000	6010	6010	10.5	13	B0MJC8
Antimony	7440-36-0	METAL	ug/kg	4	1	25	4500	5000	5000	5000	6010	6010	4	6.5	B0MJC2
Arsenic	7440-38-2	METAL	ug/kg	21	21	100			1600	5100	6010	6010	15	17	B16530
Barium	7440-39-3	METAL	ug/kg	21	21	100			46100	96900	6010	6010	7.5	8.5	B13D73
Beryllium	7440-41-7	METAL	ug/kg	21	21	100			230	713	6010	6010	12.5	14.5	B16528
Bismuth	7440-69-9	METAL	ug/kg	8	6	75	330	620	620	37100	6010	6010	8	10.5	B0MJC5
Boron	7440-42-8	METAL	ug/kg	8	8	100			950	6300	6010	6010	8	10.5	B0MJC5
Cadmium	7440-43-9	METAL	ug/kg	21	10	47.61904762	21	390	40	270	6010	6010	5	6	B13D72
Calcium	7440-70-2	METAL	ug/kg	8	8	100			3390000	8760000	6010	6010	8	10.5	B0MJC5
Chromium	7440-47-3	METAL	ug/kg	21	21	100			4300	21900	6010	6010	12.5	14.5	B16528
Cobalt	7440-48-4	METAL	ug/kg	4	4	100			8700	11400	6010	6010	8	10.5	B0MJC5
Copper	7440-50-8	METAL	ug/kg	21	21	100			10500	30600	6010	6010	12	13	B15XL0
Hexavalent Chromium	18540-29-9	METAL	ug/kg	17	1	5.882352941	57	4400	450	450	7196	7196	9.5	10.5	B15XK9
Iron	7439-89-6	METAL	ug/kg	8	8	100			20000000	28400000	6010	6010	6	7	B15XM1
Lead	7439-92-1	METAL	ug/kg	21	21	100			1300	7500	6010	6010	8	10.5	B0MJC5
Magnesium	7439-95-4	METAL	ug/kg	7	7	100			3650000	4930000	6010	6010	6	7	B15XM1
Manganese	7439-96-5	METAL	ug/kg	8	8	100			277000	410000	6010	6010	6	7	B15XM1
Mercury	7439-97-6	METAL	ug/kg	21	7	33.33333333	10	20	23	150	7471	7471	13	15.5	B0MJD1
Molybdenum	7439-98-7	METAL	ug/kg	4	4	100			231	550	6010	6010	5	6	B13D72
Nickel	7440-02-0	METAL	ug/kg	21	21	100			6000	15000	6010	6010	12.5	14.5	B16528
Potassium	9/7/7440	METAL	ug/kg	8	8	100			729000	1740000	6010	6010	5	6	B13D72
Selenium	7782-49-2	METAL	ug/kg	21	7	33.33333333	210	420	240	750	6010	6010	7.5	8.5	B13D73
Silver	7440-22-4	METAL	ug/kg	21	3	14.28571429	60	710	352	860	6010	6010	8	10.5	B0MJC5
Sodium	7440-23-5	METAL	ug/kg	8	8	100			120000	671000	6010	6010	10.5	13	B0MJC8
Thallium	7440-28-0	METAL	ug/kg	4	1	25	290	590	530	530	6010	6010	6	7	B15XM1
Tin	7440-31-5	METAL	ug/kg	4	0	0	3500	4100			6010	6010			
Uranium	7440-61-1	METAL	ug/kg	21	21	100			216	2380	KPA	KPA	13	15.5	B0MJD1
Vanadium	7440-62-2	METAL	ug/kg	21	21	100			35400	86900	6010	6010	7.5	8.5	B13D82
Zinc	7440-66-6	METAL	ug/kg	21	21	100			30600	80800	6010	6010	12	13	B15XL0
Cation Exchange Capacity	CEC	PHYSICAL	mEQ/100g	4	3	75	6.27	6.27	7.01	9.27	9080	9080	8	10.5	B0MJC7
Specific Gravity	SPECGVTY	PHYSICAL		4	4	100			2.43	2.57	D854	D854	13	15.5	B0MJD3
pH Measurement	PH	PHYSICAL		21	21	100			8	9.5	9040	9045	7.5	8.5	B13D82
1-2-4-Trichlorobenzene	120-82-1	SVOA	ug/kg	19	0	0	330	730			8270	8270			
1-2-Dichlorobenzene	95-50-1	SVOA	ug/kg	19	0	0	330	730			8270	8270			
1-3-Dichlorobenzene	541-73-1	SVOA	ug/kg	19	0	0	330	730			8270	8270			
1-4-Dichlorobenzene	106-46-7	SVOA	ug/kg	19	0	0	330	730			8270	8270			
2-4-5-Trichlorophenol	95-95-4	SVOA	ug/kg	19	0	0	330	1800			8270	8270			
2-4-6-Trichlorophenol	88-06-2	SVOA	ug/kg	19	0	0	330	730			8270	8270			
2-4-Dichlorophenol	120-83-2	SVOA	ug/kg	19	0	0	330	730			8270	8270			
2-4-Dimethylphenol	105-67-9	SVOA	ug/kg	19	0	0	330	730			8270	8270			
2-4-Dinitrophenol	51-28-5	SVOA	ug/kg	19	0	0	850	1900			8270	8270			
2-4-Dinitrotoluene	121-14-2	SVOA	ug/kg	19	0	0	330	730			8270	8270			
2-6-Dinitrotoluene	606-20-2	SVOA	ug/kg	19	0	0	330	730			8270	8270			
2-Chloronaphthalene	91-58-7	SVOA	ug/kg	19	0	0	330	730			8270	8270			
2-Chlorophenol	95-57-8	SVOA	ug/kg	19	0	0	330	730			8270	8270			

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2-Methylnaphthalene	91-57-6	SVOA	ug/kg	19	0	0	330	730			8270	8270			
2-Methylphenol (cresol- o-)	95-48-7	SVOA	ug/kg	19	0	0	330	730			8270	8270			
2-Nitroaniline	88-74-4	SVOA	ug/kg	19	0	0	850	1900			8270	8270			
2-Nitrophenol	88-75-5	SVOA	ug/kg	19	0	0	330	730			8270	8270			
3-3'-Dichlorobenzidine	91-94-1	SVOA	ug/kg	19	0	0	340	1900			8270	8270			
3-Nitroaniline	99-09-2	SVOA	ug/kg	19	0	0	850	1900			8270	8270			
4-6-Dinitro-2-methylphenol	534-52-1	SVOA	ug/kg	19	0	0	850	1900			8270	8270			
4-Bromophenylphenyl ether	101-55-3	SVOA	ug/kg	19	0	0	330	730			8270	8270			
4-Chloro-3-methylphenol	59-50-7	SVOA	ug/kg	19	0	0	330	730			8270	8270			
4-Chloroaniline	106-47-8	SVOA	ug/kg	19	0	0	330	730			8270	8270			
4-Chlorophenylphenyl ether	7005-72-3	SVOA	ug/kg	19	0	0	330	730			8270	8270			
4-Methylphenol (cresol- p-)	106-44-5	SVOA	ug/kg	19	0	0	330	730			8270	8270			
4-Nitroaniline	100-01-6	SVOA	ug/kg	19	0	0	850	1900			8270	8270			
4-Nitrophenol	100-02-7	SVOA	ug/kg	19	0	0	850	1900			8270	8270			
Acenaphthene	83-32-9	SVOA	ug/kg	19	0	0	330	730			8270	8270			
Acenaphthylene	208-96-8	SVOA	ug/kg	19	0	0	330	730			8270	8270			
Anthracene	120-12-7	SVOA	ug/kg	19	0	0	330	730			8270	8270			
Benzo(a)anthracene	56-55-3	SVOA	ug/kg	19	0	0	330	730			8270	8270			
Benzo(a)pyrene	50-32-8	SVOA	ug/kg	19	0	0	330	730			8270	8270			
Benzo(b)fluoranthene	205-99-2	SVOA	ug/kg	19	0	0	330	730			8270	8270			
Benzo(ghi)perylene	191-24-2	SVOA	ug/kg	19	0	0	330	730			8270	8270			
Benzo(k)fluoranthene	207-08-9	SVOA	ug/kg	19	0	0	330	730			8270	8270			
Bis(2-Chloroethoxy)methane	111-91-1	SVOA	ug/kg	19	0	0	330	730			8270	8270			
Bis(2-chloro-1-methylethyl)ether	108-60-1	SVOA	ug/kg	19	0	0	330	730			8270	8270			
Bis(2-chloroethyl) ether	111-44-4	SVOA	ug/kg	19	0	0	330	730			8270	8270			
Bis(2-ethylhexyl) phthalate	117-81-7	SVOA	ug/kg	20	1	5	39	730	21	21	8270	8270	8	9.5	B15XJ7
Butylbenzylphthalate	85-68-7	SVOA	ug/kg	19	0	0	330	730			8270	8270			
Carbazole	86-74-8	SVOA	ug/kg	19	0	0	330	730			8270	8270			
Chrysene	218-01-9	SVOA	ug/kg	19	0	0	330	730			8270	8270			
Di-n-butylphthalate	84-74-2	SVOA	ug/kg	19	0	0	330	730			8270	8270			
Di-n-octylphthalate	117-84-0	SVOA	ug/kg	19	1	5.263157895	330	730	52	52	8270	8270	13	15.5	B0MJD1
Dibenz[a-h]anthracene	53-70-3	SVOA	ug/kg	19	0	0	330	730			8270	8270			
Dibenzofuran	132-64-9	SVOA	ug/kg	19	0	0	330	730			8270	8270			
Diethylphthalate	84-66-2	SVOA	ug/kg	19	0	0	330	730			8270	8270			
Dimethyl phthalate	131-11-3	SVOA	ug/kg	19	0	0	330	730			8270	8270			
Fluoranthene	206-44-0	SVOA	ug/kg	19	0	0	330	730			8270	8270			
Fluorene	86-73-7	SVOA	ug/kg	19	0	0	330	730			8270	8270			
Hexachlorobenzene	118-74-1	SVOA	ug/kg	19	0	0	330	730			8270	8270			
Hexachlorobutadiene	87-68-3	SVOA	ug/kg	19	0	0	330	730			8270	8270			

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Hexachlorocyclopentadiene	77-47-4	SVOA	ug/kg	19	0	0	340	1900			8270	8270			
Hexachloroethane	67-72-1	SVOA	ug/kg	19	0	0	330	730			8270	8270			
Indeno(1-2-3-cd)pyrene	193-39-5	SVOA	ug/kg	19	0	0	330	730			8270	8270			
Isophorone	78-59-1	SVOA	ug/kg	19	0	0	330	730			8270	8270			
Naphthalene	91-20-3	SVOA	ug/kg	19	0	0	330	730			8270	8270			
Nitrobenzene	98-95-3	SVOA	ug/kg	19	0	0	330	730			8270	8270			
Pentachlorophenol	87-86-5	SVOA	ug/kg	19	0	0	850	910300			8270	8270			
Phenanthrene	85-01-8	SVOA	ug/kg	19	0	0	330	730			8270	8270			
Phenol	108-95-2	SVOA	ug/kg	19	0	0	330	730			8270	8270			
Pyrene	129-00-0	SVOA	ug/kg	19	0	0	330	730			8270	8270			
Tributyl phosphate	126-73-8	SVOA	ug/kg	20	0	0	340	770			8270	8270			
n-Nitrosodi-n-dipropylamine	621-64-7	SVOA	ug/kg	19	0	0	330	730			8270	8270			
n-Nitrosodiphenylamine	86-30-6	SVOA	ug/kg	19	0	0	330	730			8270	8270			
1-1-1-Trichloroethane	71-55-6	VOA	ug/kg	20	0	0	0.47	6			8260	8260			
1-1-2-2-Tetrachloroethane	79-34-5	VOA	ug/kg	20	0	0	0.47	6			8260	8260			
1-1-2-Trichloroethane	79-00-5	VOA	ug/kg	20	0	0	0.46	6			8260	8260			
1-1-Dichloroethane	75-34-3	VOA	ug/kg	20	0	0	0.4	6			8260	8260			
1-1-Dichloroethene	75-35-4	VOA	ug/kg	20	0	0	1.4	6			8260	8260			
1-2-Dichloroethane	107-06-2	VOA	ug/kg	20	0	0	0.46	6			8260	8260			
1-2-Dichloroethene (Total)	540-59-0	VOA	ug/kg	20	0	0	0.88	6			8260	8260			
1-2-Dichloropropane	78-87-5	VOA	ug/kg	20	0	0	0.22	6			8260	8260			
1-Butanol	71-36-3	VOA	ug/kg	3	0	0	210	240			8260	8260			
1-Propanol	71-23-8	VOA	ug/kg	17	0	0	5300	52000			8015	8015			
2-Butanone	78-93-3	VOA	ug/kg	20	0	0	7.1	24			8260	8260			
2-Ethyl-1-hexanol	104-76-7	VOA		1	1	100			6	6	8260	8260	13	15.5	B0MJD1
2-Hexanone	591-78-6	VOA	ug/kg	20	0	0	1.8	24			8260	8260			
2-Pentanone- 4-Methyl	108-10-1	VOA	ug/kg	20	0	0	1.3	24			8260	8260			
Acetone	67-64-1	VOA	ug/kg	20	8	40	10	24	2	66	8260	8260	5	6	B13D72
Benzene	71-43-2	VOA	ug/kg	20	1	5	0.39	6	8	8	8260	8260	5	6	B13D72
Bromodichloromethane	75-27-4	VOA	ug/kg	20	0	0	0.48	6			8260	8260			
Bromoform	75-25-2	VOA	ug/kg	20	0	0	0.66	6			8260	8260			
Bromomethane	74-83-9	VOA	ug/kg	20	0	0	0.64	12			8260	8260			
Carbon disulfide	75-15-0	VOA	ug/kg	20	0	0	0.49	6			8260	8260			
Carbon tetrachloride	56-23-5	VOA	ug/kg	20	0	0	0.69	6			8260	8260			
Chlorobenzene	108-90-7	VOA	ug/kg	20	0	0	0.36	6			8260	8260			
Chloroethane	75-00-3	VOA	ug/kg	20	0	0	2.3	12			8260	8260			
Chloroform	67-66-3	VOA	ug/kg	20	0	0	0.26	6			8260	8260			
Chloromethane	74-87-3	VOA	ug/kg	20	0	0	0.82	12			8260	8260			
Dibromochloromethane	124-48-1	VOA	ug/kg	20	0	0	0.4	6			8260	8260			
Diethyl ether	60-29-7	VOA	ug/kg	3	0	0	10	12			8260	8260			
Ethanol	64-17-5	VOA	ug/kg	17	0	0	5300	27000			8015	8015			
Ethylbenzene	100-41-4	VOA	ug/kg	20	0	0	0.95	6			8260	8260			
Methylene chloride	75-09-2	VOA	ug/kg	20	14	70	5	10	1	27	8260	8260	9.5	10.5	B15XM4
Styrene	100-42-5	VOA	ug/kg	20	0	0	0.39	6			8260	8260			

200-CS-1 Summary Table for Shallow Zone Nonradionuclides

Constituent	CAS Number	Constituent Class	Units	Number of Results	Number of Detects	Frequency of Detects (%)	Minimum Nondetect	Maximum Nondetect	Minimum Detect	Maximum Detect	Analytical Method for Minimum Detect (or nondetect)	Analytical Method for Maximum Detect (or nondetect)	Start Depth of Maximum Detect (ft bgs)	End Depth of Maximum Depth (ft bgs)	Sample Number of Maximum Detect
Tetrachloroethene	127-18-4	VOA	ug/kg	20	0	0	0.38	6			8260	8260			
Toluene	108-88-3	VOA	ug/kg	20	2	10	0.57	6	1.78	3	8260	8260	7	8	B15XM2
Trichloroethene	79-01-6	VOA	ug/kg	20	0	0	0.33	6			8260	8260			
Vinyl chloride	75-01-4	VOA	ug/kg	20	0	0	0.84	12			8260	8260			
Xylenes (total)	1330-20-7	VOA	ug/kg	20	0	0	1.1	6			8260	8260			
cis-1-3-Dichloropropene	10061-01-5	VOA	ug/kg	20	0	0	0.55	6			8260	8260			
trans-1-3-Dichloropropene	10061-02-6	VOA	ug/kg	20	0	0	0.33	6			8260	8260			
Ammonia	7664-41-7	WETCHEM	ug/kg	21	4	19.04761905	146	6230	648	9990	350.1	350.3	15	17	B16530
Chloride	16887-00-6	WETCHEM		17	17	100			1600	17900	300	300	5	6	B13D72
Cyanide	57-12-5	WETCHEM	ug/kg	20	0	0	130	588			9010	9010			
Fluoride	16984-48-8	WETCHEM	ug/kg	17	2	11.76470588	1280	5500	690	760	300	300	7.5	8.5	B13D82
Hydrazine	302-01-2	WETCHEM	ug/kg	2	0	0	1100	1100			D1385	D1385			
Nitrate	14797-55-8	WETCHEM	ug/kg	21	21	100			3800	833000	300	300	5	6	B13D72
Nitrite	14797-65-0	WETCHEM	ug/kg	21	2	9.523809524	69	2730	821	1250	300	300	4	6.5	B0MJC2
Nitrogen in Nitrite and Nitrate	NO2+NO3-N	WETCHEM	ug/kg	21	21	100			1320	230000	353.2	353.2	5	6	B13D72
Phosphate	14265-44-2	WETCHEM	ug/kg	17	10	58.82352941	830	1300	1390	6400	300	300	7	8	B15XM2
Sulfate	14808-79-8	WETCHEM	ug/kg	21	21	100			4000	76200	300	300	5	6	B13D72
Sulfide	18496-25-8	WETCHEM	ug/kg	17	1	5.882352941	7300	43400	43800	43800	9030	9030	11	12	B15XJ8
216-S-10D															
Aroclor-1016	12674-11-2	GENORG	ug/kg	14	0	0	13	370			8082	8082			
Aroclor-1221	11104-28-2	GENORG	ug/kg	14	0	0	13	740			8082	8082			
Aroclor-1232	11141-16-5	GENORG	ug/kg	14	0	0	13	370			8082	8082			
Aroclor-1242	53469-21-9	GENORG	ug/kg	14	0	0	13	370			8082	8082			
Aroclor-1248	12672-29-6	GENORG	ug/kg	14	0	0	13	370			8082	8082			
Aroclor-1254	11097-69-1	GENORG	ug/kg	14	2	14.28571429	7.5	170	1100	3700	8082	8082	0	1.5	B15Y85
Aroclor-1260	11096-82-5	GENORG	ug/kg	14	0	0	7.5	370			8082	8082			
Total petroleum hydrocarbons - diesel range	TPHDIESEL	GENORG	ug/kg	14	1	7.142857143	1400	13000	31000	31000	WDOE TPH	WDOE TPH	0	1.5	B15Y85
Total petroleum hydrocarbons - kerosene rang	TPHKEROSENE	GENORG	ug/kg	14	0	0	12300	26000			WDOE TPH	WDOE TPH			
Aluminum	7429-90-5	METAL	ug/kg	3	3	100			5920000	10800000	6010	6010	0	1.5	B15Y85
Arsenic	7440-38-2	METAL	ug/kg	14	14	100			2400	5500	6010	6010	8.5	9.5	B15YB6
Barium	7440-39-3	METAL	ug/kg	14	14	100			68500	120000	6010	6010	3	4	B160N2
Beryllium	7440-41-7	METAL	ug/kg	14	14	100			110	500	6010	6010	6.5	9	B16547
Bismuth	7440-69-9	METAL	ug/kg	3	1	33.33333333	580	580	2000	2000	6010	6010	0	1.5	B15Y85
Boron	7440-42-8	METAL	ug/kg	3	3	100			780	1500	6010	6010	6	7	B15Y84
Cadmium	7440-43-9	METAL	ug/kg	14	11	78.57142857	30	280	40	480	6010	6010	0	1.5	B15Y85
Calcium	7440-70-2	METAL	ug/kg	3	3	100			2690000	3880000	6010	6010	3	4	B160N2
Chromium	7440-47-3	METAL	ug/kg	14	14	100			4300	815000	6010	6010	0	1.5	B15Y85
Copper	7440-50-8	METAL	ug/kg	14	14	100			12800	244000	6010	6010	0	1.5	B15Y85
Hexavalent Chromium	18540-29-9	METAL	ug/kg	14	3	21.42857143	57	435	1090	14100	7196	7196	1.5	3	B15YB0
Iron	7439-89-6	METAL	ug/kg	3	3	100			24100000	28800000	6010	6010	0	1.5	B15Y85
Lead	7439-92-1	METAL	ug/kg	14	14	100			2600	30000	6010	6010	0	1.5	B15Y85
Magnesium	7439-95-4	METAL	ug/kg	3	3	100			3810000	4370000	6010	6010	3	4	B160N2

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Constituent	CAS Number	Constituent Class	Units	Number of Results	Number of Detects	Frequency of Detects (%)	Minimum Nondetect	Maximum Nondetect	Minimum Detect	Maximum Detect	Analytical Method for Minimum Detect (or nondetect)	Analytical Method for Maximum Detect (or nondetect)	Start Depth of Maximum Detect (ft bgs)	End Depth of Maximum Depth (ft bgs)	Sample Number of Maximum Detect
Manganese	7439-96-5	METAL	ug/kg	3	3	100			237000	451000	6010	6010	3	4	B160N2
Mercury	7439-97-6	METAL	ug/kg	14	7	50	10	30	30	4300	7471	7471	0	1.5	B15Y85
Molybdenum	7439-98-7	METAL	ug/kg	3	3	100			270	880	6010	6010	0	1.5	B15Y85
Nickel	7440-02-0	METAL	ug/kg	14	14	100			6600	20300	6010	6010	0	1.5	B15Y85
Potassium	9/7/7440	METAL	ug/kg	3	3	100			673000	856000	6010	6010	3	4	B160N2
Selenium	7782-49-2	METAL	ug/kg	14	2	14.28571429	340	400	220	440	6010	6010	8.5	9.5	B15YF8
Silver	7440-22-4	METAL	ug/kg	14	6	42.85714286	80	650	140	30400	6010	6010	0	1.5	B15Y85
Sodium	7440-23-5	METAL	ug/kg	3	3	100			129000	176000	6010	6010	0	1.5	B15Y85
Thallium	7440-28-0	METAL	ug/kg	3	3	100			590	990	6010	6010	0	1.5	B15Y85
Uranium	7440-61-1	METAL	ug/kg	14	14	100			36	1490	KPA	KPA	8.5	9.5	B15YF9
Vanadium	7440-62-2	METAL	ug/kg	14	14	100			61000	87500	6010	6010	8.5	9.5	B15YF8
Zinc	7440-66-6	METAL	ug/kg	14	14	100			44800	506000	6010	6010	0	1.5	B15Y85
pH Measurement	PH	PHYSICAL	ug/kg	14	14	100			6	9.4	9045	9045	6.5	9	B16547
1-2-4-Trichlorobenzene	120-82-1	SVOA	ug/kg	13	0	0	340	740			8270	8270			
1-2-Dichlorobenzene	95-50-1	SVOA	ug/kg	13	0	0	340	740			8270	8270			
1-3-Dichlorobenzene	541-73-1	SVOA	ug/kg	13	0	0	340	740			8270	8270			
1-4-Dichlorobenzene	106-46-7	SVOA	ug/kg	13	0	0	340	740			8270	8270			
2-4-5-Trichlorophenol	95-95-4	SVOA	ug/kg	13	0	0	860	1800			8270	8270			
2-4-6-Trichlorophenol	88-06-2	SVOA	ug/kg	13	0	0	340	740			8270	8270			
2-4-Dichlorophenol	120-83-2	SVOA	ug/kg	13	0	0	340	740			8270	8270			
2-4-Dimethylphenol	105-67-9	SVOA	ug/kg	13	0	0	340	740			8270	8270			
2-4-Dinitrophenol	51-28-5	SVOA	ug/kg	13	0	0	860	1800			8270	8270			
2-4-Dinitrotoluene	121-14-2	SVOA	ug/kg	13	0	0	340	740			8270	8270			
2-6-Dinitrotoluene	606-20-2	SVOA	ug/kg	13	0	0	340	740			8270	8270			
2-Chloronaphthalene	91-58-7	SVOA	ug/kg	13	0	0	340	740			8270	8270			
2-Chlorophenol	95-57-8	SVOA	ug/kg	13	0	0	340	740			8270	8270			
2-Methylnaphthalene	91-57-6	SVOA	ug/kg	13	0	0	340	740			8270	8270			
2-Methylphenol (cresol- o-)	95-48-7	SVOA	ug/kg	13	0	0	340	740			8270	8270			
2-Nitroaniline	88-74-4	SVOA	ug/kg	13	0	0	860	1800			8270	8270			
2-Nitrophenol	88-75-5	SVOA	ug/kg	13	0	0	340	740			8270	8270			
3-3'-Dichlorobenzidine	91-94-1	SVOA	ug/kg	13	0	0	340	740			8270	8270			
3-Nitroaniline	99-09-2	SVOA	ug/kg	13	0	0	860	1800			8270	8270			
4-6-Dinitro-2-methylphenol	534-52-1	SVOA	ug/kg	13	0	0	860	1800			8270	8270			
4-Bromophenylphenyl ether	101-55-3	SVOA	ug/kg	13	0	0	340	740			8270	8270			
4-Chloro-3-methylphenol	59-50-7	SVOA	ug/kg	13	0	0	340	740			8270	8270			
4-Chloroaniline	106-47-8	SVOA	ug/kg	13	0	0	340	740			8270	8270			
4-Chlorophenylphenyl ether	7005-72-3	SVOA	ug/kg	13	0	0	340	740			8270	8270			
4-Methylphenol (cresol- p-)	106-44-5	SVOA	ug/kg	13	0	0	340	740			8270	8270			
4-Nitroaniline	100-01-6	SVOA	ug/kg	13	0	0	860	1800			8270	8270			
4-Nitrophenol	100-02-7	SVOA	ug/kg	13	0	0	860	1800			8270	8270			
Acenaphthene	83-32-9	SVOA	ug/kg	13	1	7.692307692	340	360	61	61	8270	8270	0	1.5	B15Y85
Acenaphthylene	208-96-8	SVOA	ug/kg	13	0	0	340	740			8270	8270			
Anthracene	120-12-7	SVOA	ug/kg	13	1	7.692307692	340	360	150	150	8270	8270	0	1.5	B15Y85

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Benzo(a)anthracene	56-55-3	SVOA	ug/kg	13	1	7.692307692	340	360	550	550	8270	8270	0	1.5	B15Y85
Benzo(a)pyrene	50-32-8	SVOA	ug/kg	13	1	7.692307692	340	360	600	600	8270	8270	0	1.5	B15Y85
Benzo(b)fluoranthene	205-99-2	SVOA	ug/kg	13	1	7.692307692	340	360	530	530	8270	8270	0	1.5	B15Y85
Benzo(ghi)perylene	191-24-2	SVOA	ug/kg	13	1	7.692307692	340	360	660	660	8270	8270	0	1.5	B15Y85
Benzo(k)fluoranthene	207-08-9	SVOA	ug/kg	13	1	7.692307692	340	360	450	450	8270	8270	0	1.5	B15Y85
Bis(2-Chloroethoxy)methane	111-91-1	SVOA	ug/kg	13	0	0	340	740			8270	8270			
Bis(2-chloro-1-methylethyl)ether	108-60-1	SVOA	ug/kg	13	0	0	340	740			8270	8270			
Bis(2-chloroethyl) ether	111-44-4	SVOA	ug/kg	13	0	0	340	740			8270	8270			
Bis(2-ethylhexyl) phthalate	117-81-7	SVOA	ug/kg	13	8	61.53846154	340	350	20	580	8270	8270	0	1.5	B15Y85
Butylbenzylphthalate	85-68-7	SVOA	ug/kg	13	1	7.692307692	340	360	580	580	8270	8270	0	1.5	B15Y85
Carbazole	86-74-8	SVOA	ug/kg	13	1	7.692307692	340	360	97	97	8270	8270	0	1.5	B15Y85
Chrysene	218-01-9	SVOA	ug/kg	13	1	7.692307692	340	360	680	680	8270	8270	0	1.5	B15Y85
Di-n-butylphthalate	84-74-2	SVOA	ug/kg	13	4	30.76923077	340	360	18	2300	8270	8270	0	1.5	B15Y85
Di-n-octylphthalate	117-84-0	SVOA	ug/kg	13	0	0	340	740			8270	8270			
Dibenz[a-h]anthracene	53-70-3	SVOA	ug/kg	13	1	7.692307692	340	360	110	110	8270	8270	0	1.5	B15Y85
Dibenzofuran	132-64-9	SVOA	ug/kg	13	0	0	340	740			8270	8270			
Diethylphthalate	84-66-2	SVOA	ug/kg	13	0	0	340	740			8270	8270			
Dimethyl phthalate	131-11-3	SVOA	ug/kg	13	0	0	340	740			8270	8270			
Fluoranthene	206-44-0	SVOA	ug/kg	13	1	7.692307692	340	360	1500	1500	8270	8270	0	1.5	B15Y85
Fluorene	86-73-7	SVOA	ug/kg	13	1	7.692307692	340	360	59	59	8270	8270	0	1.5	B15Y85
Hexachlorobenzene	118-74-1	SVOA	ug/kg	13	0	0	340	740			8270	8270			
Hexachlorobutadiene	87-68-3	SVOA	ug/kg	13	0	0	340	740			8270	8270			
Hexachlorocyclopentadiene	77-47-4	SVOA	ug/kg	13	0	0	340	740			8270	8270			
Hexachloroethane	67-72-1	SVOA	ug/kg	13	0	0	340	740			8270	8270			
Indeno(1-2-3-cd)pyrene	193-39-5	SVOA	ug/kg	13	1	7.692307692	340	360	400	400	8270	8270	0	1.5	B15Y85
Isophorone	78-59-1	SVOA	ug/kg	13	0	0	340	740			8270	8270			
Naphthalene	91-20-3	SVOA	ug/kg	13	0	0	340	740			8270	8270			
Nitrobenzene	98-95-3	SVOA	ug/kg	13	0	0	340	740			8270	8270			
Pentachlorophenol	87-86-5	SVOA	ug/kg	13	0	0	860	1800			8270	8270			
Phenanthrene	85-01-8	SVOA	ug/kg	13	1	7.692307692	340	360	930	930	8270	8270	0	1.5	B15Y85
Phenol	108-95-2	SVOA	ug/kg	13	0	0	340	740			8270	8270			
Pyrene	129-00-0	SVOA	ug/kg	13	2	15.38461538	340	360	20	1600	8270	8270	0	1.5	B15Y85
Tributyl phosphate	126-73-8	SVOA	ug/kg	14	0	0	340	740			8270	8270			
n-Nitrosodi-n-dipropylamine	621-64-7	SVOA	ug/kg	13	0	0	340	740			8270	8270			
n-Nitrosodiphenylamine	86-30-6	SVOA	ug/kg	13	0	0	340	740			8270	8270			
1-1-1-Trichloroethane	71-55-6	VOA	ug/kg	14	0	0	0.3	6			8260	8260			
1-1-2-2-Tetrachloroethane	79-34-5	VOA	ug/kg	14	0	0	0.44	6			8260	8260			
1-1-2-Trichloroethane	79-00-5	VOA	ug/kg	14	0	0	0.66	6			8260	8260			
1-1-Dichloroethane	75-34-3	VOA	ug/kg	14	0	0	0.28	6			8260	8260			
1-1-Dichloroethene	75-35-4	VOA	ug/kg	14	0	0	0.33	6			8260	8260			
1-2-Dichloroethane	107-06-2	VOA	ug/kg	14	0	0	0.27	6			8260	8260			

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1-2-Dichloroethene (Total)	540-59-0	VOA	ug/kg	14	0	0	0.58	6			8260	8260			
1-2-Dichloropropane	78-87-5	VOA	ug/kg	14	0	0	0.23	6			8260	8260			
1-Propanol	71-23-8	VOA	ug/kg	14	0	0	22000	53000			8015	8015			
2-Butanone	78-93-3	VOA	ug/kg	14	0	0	1.8	12			8260	8260			
2-Hexanone	591-78-6	VOA	ug/kg	14	0	0	1.8	12			8260	8260			
2-Pentanone- 4-Methyl	108-10-1	VOA	ug/kg	14	0	0	0.74	12			8260	8260			
Acetone	67-64-1	VOA	ug/kg	14	10	71.42857143	10	11	3	9	8260	8260	13.5	14.5	B15YB8
Benzene	71-43-2	VOA	ug/kg	14	0	0	0.15	6			8260	8260			
Bromodichloromethane	75-27-4	VOA	ug/kg	14	0	0	0.15	6			8260	8260			
Bromoform	75-25-2	VOA	ug/kg	14	0	0	0.26	6			8260	8260			
Bromomethane	74-83-9	VOA	ug/kg	14	0	0	1.1	12			8260	8260			
Carbon disulfide	75-15-0	VOA	ug/kg	14	0	0	0.34	6			8260	8260			
Carbon tetrachloride	56-23-5	VOA	ug/kg	14	0	0	0.25	6			8260	8260			
Chlorobenzene	108-90-7	VOA	ug/kg	14	0	0	0.28	6			8260	8260			
Chloroethane	75-00-3	VOA	ug/kg	14	0	0	0.57	12			8260	8260			
Chloroform	67-66-3	VOA	ug/kg	14	0	0	0.24	6			8260	8260			
Chloromethane	74-87-3	VOA	ug/kg	14	0	0	1	12			8260	8260			
Dibromochloromethane	124-48-1	VOA	ug/kg	14	0	0	0.36	6			8260	8260			
Ethanol	64-17-5	VOA	ug/kg	14	0	0	6200	30000			8015	8015			
Ethylbenzene	100-41-4	VOA	ug/kg	14	0	0	0.78	6			8260	8260			
Methylene chloride	75-09-2	VOA	ug/kg	14	13	92.85714286	6	6	2	10	8260	8260	8.5	9.5	B15YF8
Styrene	100-42-5	VOA	ug/kg	14	0	0	0.38	6			8260	8260			
Tetrachloroethene	127-18-4	VOA	ug/kg	14	0	0	1.1	6			8260	8260			
Toluene	108-88-3	VOA	ug/kg	14	0	0	0.25	6			8260	8260			
Trichloroethene	79-01-6	VOA	ug/kg	14	0	0	0.23	6			8260	8260			
Vinyl chloride	75-01-4	VOA	ug/kg	14	0	0	0.84	12			8260	8260			
Xylenes (total)	1330-20-7	VOA	ug/kg	14	0	0	1	6			8260	8260			
cis-1-3-Dichloropropene	10061-01-5	VOA	ug/kg	14	0	0	0.46	6			8260	8260			
trans-1-3-Dichloropropene	10061-02-6	VOA	ug/kg	14	0	0	0.84	6			8260	8260			
Ammonia	7664-41-7	WETCHEM	ug/kg	14	0	0	158	6200			350.1	350.3			
Chloride	16887-00-6	WETCHEM	ug/kg	14	11	78.57142857	1290	1320	1100	11500	300	300	8	9	B15YB2
Cyanide	57-12-5	WETCHEM	ug/kg	14	0	0	130	520			9010	9010			
Fluoride	16984-48-8	WETCHEM	ug/kg	14	1	7.142857143	1280	1390	700	700	300	300	8.5	9.5	B15YF9
Nitrate	14797-55-8	WETCHEM	ug/kg	14	10	71.42857143	1290	1360	2140	80600	300	300	0	1.5	B15Y85
Nitrite	14797-65-0	WETCHEM	ug/kg	14	1	7.142857143	1280	1390	1150	1150	300	300	8.5	9.5	B15YF9
Nitrogen in Nitrite and Nitrate	NO2+NO3-N	WETCHEM	ug/kg	14	9	64.28571429	38	217	484	10600	353.1	353.2	0	1.5	B15Y85
Phosphate	14265-44-2	WETCHEM	ug/kg	14	1	7.142857143	830	1390	1500	1500	300	300	3	4	B160N2
Sulfate	14808-79-8	WETCHEM	ug/kg	14	12	85.71428571	1290	1310	1840	199000	300	300	0	1.5	B15Y85
Sulfide	18496-25-8	WETCHEM	ug/kg	14	0	0	7400	52100			9030	9030			
216-S-10P															
Aroclor-1016	12674-11-2	GENORG	ug/kg	19	0	0	13	36			8082	8082			
Aroclor-1221	11104-28-2	GENORG	ug/kg	19	0	0	13	71			8082	8082			
Aroclor-1232	11141-16-5	GENORG	ug/kg	19	0	0	13	36			8082	8082			
Aroclor-1242	53469-21-9	GENORG	ug/kg	19	0	0	13	36			8082	8082			
Aroclor-1248	12672-29-6	GENORG	ug/kg	19	0	0	13	36			8082	8082			

200-CS-1 Summary Table for Shallow Zone Nonradionuclides

Constituent	CAS Number	Constituent Class	Units	Number of Results	Number of Detects	Frequency of Detects (%)	Minimum Nondetect	Maximum Nondetect	Minimum Detect	Maximum Detect	Analytical Method for Minimum Detect (or nondetect)	Analytical Method for Maximum Detect (or nondetect)	Start Depth of Maximum Detect (ft bgs)	End Depth of Maximum Depth (ft bgs)	Sample Number of Maximum Detect
Aroclor-1254	11097-69-1	GENORG	ug/kg	19	0	0	7.5	36			8082	8082			
Aroclor-1260	11096-82-5	GENORG	ug/kg	19	0	0	7.5	36			8082	8082			
Total petroleum hydrocarbons - diesel range	TPHDIESEL	GENORG	ug/kg	19	0	0	1400	12900			WDOE TPH	WDOE TPH			
Total petroleum hydrocarbons - kerosene rang	TPHKEROSENE	GENORG	ug/kg	15	0	0	12300	26000			WDOE TPH	WDOE TPH			
Aluminum	7429-90-5	METAL	ug/kg	4	4	100			5290000	5870000	6010	6010	6	7	B15YP9
Arsenic	7440-38-2	METAL	ug/kg	19	19	100			1900	5600	6010	6010	6.5	7.5	B15YN3
Barium	7440-39-3	METAL	ug/kg	19	19	100			63500	103000	6010	6010	14	15	B15YK9
Beryllium	7440-41-7	METAL	ug/kg	19	19	100			140	420	6010	6010	4	5	B15YR0
Bismuth	7440-69-9	METAL	ug/kg	4	0	0	570	620			6010	6010			
Boron	7440-42-8	METAL	ug/kg	4	4	100			540	1000	6010	6010	6	7	B15YP9
Cadmium	7440-43-9	METAL	ug/kg	19	8	42.10526316	30	280	50	200	6010	6010	9	10	B15YK7
Calcium	7440-70-2	METAL	ug/kg	4	4	100			5370000	11100000	6010	6010	4	5	B15YR0
Chromium	7440-47-3	METAL	ug/kg	19	19	100			6300	26200	6010	6010	9	10	B15YK7
Copper	7440-50-8	METAL	ug/kg	19	19	100			11300	17700	6010	6010	9.5	10.5	B15YL4
Hexavalent Chromium	18540-29-9	METAL	ug/kg	19	10	52.63157895	56	429	450	2700	7196	7196	7	8	B15YL7
Iron	7439-89-6	METAL	ug/kg	4	4	100			24100000	25100000	6010	6010	6	7	B15YP9
Lead	7439-92-1	METAL	ug/kg	19	19	100			2200	5400	6010	6010	6	7	B15YP9
Magnesium	7439-95-4	METAL	ug/kg	4	4	100			4430000	4780000	6010	6010	4	5	B15YR0
Manganese	7439-96-5	METAL	ug/kg	4	4	100			340000	392000	6010	6010	6	7	B15YP9
Mercury	7439-97-6	METAL	ug/kg	19	11	57.89473684	10	20	20	430	7471	7471	11.5	12.5	B15YK8
Molybdenum	7439-98-7	METAL	ug/kg	4	3	75	180	180	200	290	6010	6010	6.5	7.5	B15YL8
Nickel	7440-02-0	METAL	ug/kg	19	19	100			6700	12000	6010	6010	6.5	7.5	B15YN3
Potassium	9/7/7440	METAL	ug/kg	4	4	100			840000	1230000	6010	6010	6	7	B15YP9
Selenium	7782-49-2	METAL	ug/kg	19	1	5.263157895	210	400	460	460	6010	6010	9	10	B15YN4
Silver	7440-22-4	METAL	ug/kg	19	10	52.63157895	120	150	140	8300	6010	6010	9	10	B15YK7
Sodium	7440-23-5	METAL	ug/kg	4	4	100			121000	193000	6010	6010	6.5	7.5	B15YL8
Thallium	7440-28-0	METAL	ug/kg	4	1	25	570	580	620	620	6010	6010	4	5	B15YR0
Uranium	7440-61-1	METAL	ug/kg	19	19	100			245	2010	KPA	KPA	9.5	10.5	B15YL4
Vanadium	7440-62-2	METAL	ug/kg	19	19	100			64400	81700	6010	6010	9.5	10.5	B15YL4
Zinc	7440-66-6	METAL	ug/kg	19	19	100			39600	59700	6010	6010	9.5	10.5	B15YL4
pH Measurement	PH	PHYSICAL	ug/kg	19	19	100			8.12	9.34	9045	9045	14	15	B15YN6
1-2-4-Trichlorobenzene	120-82-1	SVOA	ug/kg	18	0	0	340	360			8270	8270			
1-2-Dichlorobenzene	95-50-1	SVOA	ug/kg	18	0	0	340	360			8270	8270			
1-3-Dichlorobenzene	541-73-1	SVOA	ug/kg	18	0	0	340	360			8270	8270			
1-4-Dichlorobenzene	106-46-7	SVOA	ug/kg	18	0	0	340	360			8270	8270			
2-4-5-Trichlorophenol	95-95-4	SVOA	ug/kg	18	0	0	850	900			8270	8270			
2-4-6-Trichlorophenol	88-06-2	SVOA	ug/kg	18	0	0	340	360			8270	8270			
2-4-Dichlorophenol	120-83-2	SVOA	ug/kg	18	0	0	340	360			8270	8270			
2-4-Dimethylphenol	105-67-9	SVOA	ug/kg	18	0	0	340	360			8270	8270			
2-4-Dinitrophenol	51-28-5	SVOA	ug/kg	18	0	0	850	900			8270	8270			
2-4-Dinitrotoluene	121-14-2	SVOA	ug/kg	18	0	0	340	360			8270	8270			
2-6-Dinitrotoluene	606-20-2	SVOA	ug/kg	18	0	0	340	360			8270	8270			
2-Chloronaphthalene	91-58-7	SVOA	ug/kg	18	0	0	340	360			8270	8270			
2-Chlorophenol	95-57-8	SVOA	ug/kg	18	0	0	340	360			8270	8270			
2-Methylnaphthalene	91-57-6	SVOA	ug/kg	18	0	0	340	360			8270	8270			

200-CS-1 Summary Table for Shallow Zone Nonradionuclides

Constituent	CAS Number	Constituent Class	Units	Number of Results	Number of Detects	Frequency of Detects (%)	Minimum Nondetect	Maximum Nondetect	Minimum Detect	Maximum Detect	Analytical Method for Minimum Detect (or nondetect)	Analytical Method for Maximum Detect (or nondetect)	Start Depth of Maximum Detect (ft bgs)	End Depth of Maximum Depth (ft bgs)	Sample Number of Maximum Detect
2-Methylphenol (cresol- o-)	95-48-7	SVOA	ug/kg	18	0	0	340	360			8270	8270			
2-Nitroaniline	88-74-4	SVOA	ug/kg	18	0	0	850	900			8270	8270			
2-Nitrophenol	88-75-5	SVOA	ug/kg	18	0	0	340	360			8270	8270			
3-3'-Dichlorobenzidine	91-94-1	SVOA	ug/kg	18	0	0	340	360			8270	8270			
3-Nitroaniline	99-09-2	SVOA	ug/kg	18	0	0	850	900			8270	8270			
4-6-Dinitro-2-methylphenol	534-52-1	SVOA	ug/kg	18	0	0	850	900			8270	8270			
4-Bromophenylphenyl ether	101-55-3	SVOA	ug/kg	18	0	0	340	360			8270	8270			
4-Chloro-3-methylphenol	59-50-7	SVOA	ug/kg	18	0	0	340	360			8270	8270			
4-Chloroaniline	106-47-8	SVOA	ug/kg	18	0	0	340	360			8270	8270			
4-Chlorophenylphenyl ether	7005-72-3	SVOA	ug/kg	18	0	0	340	360			8270	8270			
4-Methylphenol (cresol- p-)	106-44-5	SVOA	ug/kg	18	0	0	340	360			8270	8270			
4-Nitroaniline	100-01-6	SVOA	ug/kg	18	0	0	850	900			8270	8270			
4-Nitrophenol	100-02-7	SVOA	ug/kg	18	0	0	850	900			8270	8270			
Acenaphthene	83-32-9	SVOA	ug/kg	18	0	0	340	360			8270	8270			
Acenaphthylene	208-96-8	SVOA	ug/kg	18	0	0	340	360			8270	8270			
Anthracene	120-12-7	SVOA	ug/kg	18	0	0	340	360			8270	8270			
Benzo(a)anthracene	56-55-3	SVOA	ug/kg	18	0	0	340	360			8270	8270			
Benzo(a)pyrene	50-32-8	SVOA	ug/kg	18	0	0	340	360			8270	8270			
Benzo(b)fluoranthene	205-99-2	SVOA	ug/kg	18	0	0	340	360			8270	8270			
Benzo(ghi)perylene	191-24-2	SVOA	ug/kg	18	0	0	340	360			8270	8270			
Benzo(k)fluoranthene	207-08-9	SVOA	ug/kg	18	0	0	340	360			8270	8270			
Bis(2-Chloroethoxy)methane	111-91-1	SVOA	ug/kg	18	0	0	340	360			8270	8270			
Bis(2-chloro-1-methylethyl)ether	108-60-1	SVOA	ug/kg	18	0	0	340	360			8270	8270			
Bis(2-chloroethyl) ether	111-44-4	SVOA	ug/kg	18	0	0	340	360			8270	8270			
Bis(2-ethylhexyl) phthalate	117-81-7	SVOA	ug/kg	18	6	33.33333333	340	360	18	140	8270	8270	4	5	B15YR0
Butylbenzylphthalate	85-68-7	SVOA	ug/kg	18	0	0	340	360			8270	8270			
Carbazole	86-74-8	SVOA	ug/kg	18	0	0	340	360			8270	8270			
Chrysene	218-01-9	SVOA	ug/kg	18	0	0	340	360			8270	8270			
Di-n-butylphthalate	84-74-2	SVOA	ug/kg	18	0	0	340	360			8270	8270			
Di-n-octylphthalate	117-84-0	SVOA	ug/kg	18	0	0	340	360			8270	8270			
Dibenz[a-h]anthracene	53-70-3	SVOA	ug/kg	18	0	0	340	360			8270	8270			
Dibenzofuran	132-64-9	SVOA	ug/kg	18	0	0	340	360			8270	8270			
Diethylphthalate	84-66-2	SVOA	ug/kg	18	0	0	340	360			8270	8270			
Dimethyl phthalate	131-11-3	SVOA	ug/kg	18	0	0	340	360			8270	8270			
Fluoranthene	206-44-0	SVOA	ug/kg	18	0	0	340	360			8270	8270			
Fluorene	86-73-7	SVOA	ug/kg	18	0	0	340	360			8270	8270			
Hexachlorobenzene	118-74-1	SVOA	ug/kg	18	0	0	340	360			8270	8270			
Hexachlorobutadiene	87-68-3	SVOA	ug/kg	18	0	0	340	360			8270	8270			
Hexachlorocyclopentadiene	77-47-4	SVOA	ug/kg	18	0	0	340	360			8270	8270			

200-CS-1 Summary Table for Shallow Zone Nonradionuclides

Constituent	CAS Number	Constituent Class	Units	Number of Results	Number of Detects	Frequency of Detects (%)	Minimum Nondetect	Maximum Nondetect	Minimum Detect	Maximum Detect	Analytical Method for Minimum Detect (or nondetect)	Analytical Method for Maximum Detect (or nondetect)	Start Depth of Maximum Detect (ft bgs)	End Depth of Maximum Depth (ft bgs)	Sample Number of Maximum Detect
Hexachloroethane	67-72-1	SVOA	ug/kg	18	0	0	340	360			8270	8270			
Indeno(1-2-3-cd)pyrene	193-39-5	SVOA	ug/kg	18	0	0	340	360			8270	8270			
Isophorone	78-59-1	SVOA	ug/kg	18	0	0	340	360			8270	8270			
Naphthalene	91-20-3	SVOA	ug/kg	18	0	0	340	360			8270	8270			
Nitrobenzene	98-95-3	SVOA	ug/kg	18	0	0	340	360			8270	8270			
Pentachlorophenol	87-86-5	SVOA	ug/kg	18	0	0	850	900			8270	8270			
Phenanthrene	85-01-8	SVOA	ug/kg	18	0	0	340	360			8270	8270			
Phenol	108-95-2	SVOA	ug/kg	18	0	0	340	360			8270	8270			
Pyrene	129-00-0	SVOA	ug/kg	18	0	0	340	360			8270	8270			
Tributyl phosphate	126-73-8	SVOA	ug/kg	19	0	0	340	360			8270	8270			
n-Nitrosodi-n-dipropylamine	621-64-7	SVOA	ug/kg	18	0	0	340	360			8270	8270			
n-Nitrosodiphenylamine	86-30-6	SVOA	ug/kg	18	0	0	340	360			8270	8270			
1-1-1-Trichloroethane	71-55-6	VOA	ug/kg	19	0	0	0.29	6			8260	8260			
1-1-2-2-Tetrachloroethane	79-34-5	VOA	ug/kg	19	0	0	0.44	6			8260	8260			
1-1-2-Trichloroethane	79-00-5	VOA	ug/kg	19	0	0	0.66	6			8260	8260			
1-1-Dichloroethane	75-34-3	VOA	ug/kg	19	0	0	0.28	6			8260	8260			
1-1-Dichloroethene	75-35-4	VOA	ug/kg	19	0	0	0.32	6			8260	8260			
1-2-Dichloroethane	107-06-2	VOA	ug/kg	19	0	0	0.27	6			8260	8260			
1-2-Dichloroethene (Total)	540-59-0	VOA	ug/kg	19	0	0	0.57	6			8260	8260			
1-2-Dichloropropane	78-87-5	VOA	ug/kg	19	0	0	0.23	6			8260	8260			
1-Propanol	71-23-8	VOA	ug/kg	19	0	0	21000	52000			8015	8015			
2-Butanone	78-93-3	VOA	ug/kg	19	0	0	1.8	12			8260	8260			
2-Hexanone	591-78-6	VOA	ug/kg	19	0	0	1.8	12			8260	8260			
2-Pentanone- 4-Methyl	108-10-1	VOA	ug/kg	19	0	0	0.73	12			8260	8260			
Acetone	67-64-1	VOA	ug/kg	19	5	26.31578947	2.5	12	4	26	8260	8260	8.5	9.5	B15YM1
Benzene	71-43-2	VOA	ug/kg	19	0	0	0.15	6			8260	8260			
Bromodichloromethane	75-27-4	VOA	ug/kg	19	0	0	0.15	6			8260	8260			
Bromoform	75-25-2	VOA	ug/kg	19	0	0	0.26	6			8260	8260			
Bromomethane	74-83-9	VOA	ug/kg	19	0	0	1.1	12			8260	8260			
Carbon disulfide	75-15-0	VOA	ug/kg	19	0	0	0.33	6			8260	8260			
Carbon tetrachloride	56-23-5	VOA	ug/kg	19	0	0	0.25	6			8260	8260			
Chlorobenzene	108-90-7	VOA	ug/kg	19	0	0	0.28	6			8260	8260			
Chloroethane	75-00-3	VOA	ug/kg	19	0	0	0.56	12			8260	8260			
Chloroform	67-66-3	VOA	ug/kg	19	0	0	0.24	6			8260	8260			
Chloromethane	74-87-3	VOA	ug/kg	19	0	0	0.99	12			8260	8260			
Dibromochloromethane	124-48-1	VOA	ug/kg	19	0	0	0.36	6			8260	8260			
Ethanol	64-17-5	VOA	ug/kg	19	0	0	6200	28000			8015	8015			
Ethylbenzene	100-41-4	VOA	ug/kg	19	0	0	0.77	6			8260	8260			
Methylene chloride	75-09-2	VOA	ug/kg	19	19	100			5	15	8260	8260	9.5	10.5	B15YJ5
Styrene	100-42-5	VOA	ug/kg	19	0	0	0.38	6			8260	8260			
Tetrachloroethene	127-18-4	VOA	ug/kg	19	0	0	1.1	6			8260	8260			
Toluene	108-88-3	VOA	ug/kg	19	1	5.263157895	5	6	4.2	4.2	8260	8260	9.5	10.5	B15YL4
Trichloroethene	79-01-6	VOA	ug/kg	19	0	0	0.23	6			8260	8260			
Vinyl chloride	75-01-4	VOA	ug/kg	19	0	0	0.84	12			8260	8260			
Xylenes (total)	1330-20-7	VOA	ug/kg	19	1	5.263157895	1	6	1.388	1.388	8260	8260	6	7	B15YP9

200-CS-1 Summary Table for Shallow Zone Nonradionuclides

Constituent	CAS Number	Constituent Class	Units	Number of Results	Number of Detects	Frequency of Detects (%)	Minimum Nondetect	Maximum Nondetect	Minimum Detect	Maximum Detect	Analytical Method for Minimum Detect (or nondetect)	Analytical Method for Maximum Detect (or nondetect)	Start Depth of Maximum Detect (ft bgs)	End Depth of Maximum Depth (ft bgs)	Sample Number of Maximum Detect
cis-1-3-Dichloropropene	10061-01-5	VOA	ug/kg	19	0	0	0.46	6			8260	8260			
trans-1-3-Dichloropropene	10061-02-6	VOA	ug/kg	19	0	0	0.84	6			8260	8260			
Ammonia	7664-41-7	WETCHEM	ug/kg	19	0	0	146	3280			350.1	350.3			
Chloride	16887-00-6	WETCHEM	ug/kg	19	10	52.63157895	1280	1330	1300	3100	300	300	9.5	10.5	B15YL4
Cyanide	57-12-5	WETCHEM	ug/kg	19	1	5.263157895	250	534	200	200	9010	335.2	9.5	10.5	B15YL4
Fluoride	16984-48-8	WETCHEM	ug/kg	19	1	5.263157895	1280	1340	1100	1100	300	300	9.5	10.5	B15YL4
Nitrate	14797-55-8	WETCHEM	ug/kg	19	19	100			4230	44800	300	300	6.5	7.5	B15YN3
Nitrite	14797-65-0	WETCHEM	ug/kg	19	1	5.263157895	1280	1340	1580	1580	300	300	9.5	10.5	B15YL4
Nitrogen in Nitrite and Nitrate	NO2+NO3-N	WETCHEM	ug/kg	19	19	100			1000	14900	353.2	353.2	6.5	7.5	B15YN3
Phosphate	14265-44-2	WETCHEM	ug/kg	19	6	31.57894737	830	1340	1700	3800	300	300	11.5	12.5	B15YK8
Sulfate	14808-79-8	WETCHEM	ug/kg	19	19	100			2450	11500	300	300	6.5	7.5	B15YN3
Sulfide	18496-25-8	WETCHEM	ug/kg	19	2	10.52631579	7300	42400	43000	59000	9030	9030	11	12	B15YM2

200-CS-1 Summary Table for All Constituents in Deep Zone Soil Samples

Constituent	CAS Number	Constituent Class	Units	Number of Results	Number of Detects	Frequency of Detects (%)	Minimum Nondetect	Maximum Nondetect	Minimum Detect	Maximum Detect	Analytical Method for Minimum Detect (or nondetect)	Analytical Method for Maximum Detect (or nondetect)	Start Depth of Maximum Detect (ft bgs)	End Depth of Maximum Depth (ft bgs)	Sample Number of Maximum Detect
216-A-29															
Aroclor-1016	12674-11-2	GENORG	ug/kg	10	0	0	34	41			8080_PESTPCB_GC	8082			
Aroclor-1221	11104-28-2	GENORG	ug/kg	10	0	0	69	83			8082	8082			
Aroclor-1232	11141-16-5	GENORG	ug/kg	10	0	0	34	41			8080_PESTPCB_GC	8082			
Aroclor-1242	53469-21-9	GENORG	ug/kg	10	0	0	34	41			8080_PESTPCB_GC	8082			
Aroclor-1248	12672-29-6	GENORG	ug/kg	10	0	0	34	41			8080_PESTPCB_GC	8082			
Aroclor-1254	11097-69-1	GENORG	ug/kg	10	0	0	34	50			8080_PESTPCB_GC	8082			
Aroclor-1260	11096-82-5	GENORG	ug/kg	10	0	0	34	41			8080_PESTPCB_GC	8082			
Total petroleum hydrocarbons - diesel range	TPHDIESEL	GENORG	ug/kg	9	0	0	12400	14900			WDOE TPH	WDOE TPH			
Total petroleum hydrocarbons - kerosene rang	TPHKEROSENE	GENORG	ug/kg	9	0	0	12400	14900			WDOE TPH	WDOE TPH			
Arsenic	7440-38-2	METAL	ug/kg	10	10	100			1500	7200	6010	6010	16	16	B0P726
Barium	7440-39-3	METAL	ug/kg	10	10	100			59900	166000	6010	6010	259.9	261.9	B16FV6
Beryllium	7440-41-7	METAL	ug/kg	9	9	100			240	680	6010	6010	24.5	27	B16552
Cadmium	7440-43-9	METAL	ug/kg	10	8	80	40	450	10	320	6010	6010	16	16	B0P726
Chromium	7440-47-3	METAL	ug/kg	10	10	100			3500	36400	6010	6010	259.9	261.9	B16FV6
Copper	7440-50-8	METAL	ug/kg	9	9	100			8300	27300	6010	6010	259.9	261.9	B16FV6
Hexavalent Chromium	18540-29-9	METAL	ug/kg	9	0	0	410	500			7196	7196			
Lead	7439-92-1	METAL	ug/kg	10	10	100			1700	10500	6010	6010	259.9	261.9	B16FV6
Mercury	7439-97-6	METAL	ug/kg	7	1	14.28571429	20	30	40	40	7471	7471	259.9	261.9	B16FV6
Nickel	7440-02-0	METAL	ug/kg	9	9	100			5300	32300	6010	6010	259.9	261.9	B16FV6
Selenium	7782-49-2	METAL	ug/kg	10	2	20	170	450	640	680	6010	6010	16	16	B0P726
Silver	7440-22-4	METAL	ug/kg	10	0	0	50	900			6010	6010			
Uranium	7440-61-1	METAL	ug/kg	9	9	100			320	1250	KPA	KPA	16	17	B13C80
Vanadium	7440-62-2	METAL	ug/kg	9	9	100			31700	94200	6010	6010	24.5	27	B16552
Zinc	7440-66-6	METAL	ug/kg	9	9	100			30600	76900	6010	6010	259.9	261.9	B16FV6
pH Measurement	PH	PHYSICAL		9	9	100			8.8	9.5	9045	9045	150	152	B16FV4
Americium-241	14596-10-2	RAD	pCi/g	19	0	0	-0.135	0.32			IX/Plate/AEA	GEA			
Cesium-137	10045-97-3	RAD	pCi/g	10	0	0	0.011	0.083			GEA	GEA			

200-CS-1 Summary Table for All Constituents in Deep Zone Soil Samples

Constituent	CAS Number	Constituent Class	Units	Number of Results	Number of Detects	Frequency of Detects (%)	Minimum Nondetect	Maximum Nondetect	Minimum Detect	Maximum Detect	Analytical Method for Minimum Detect (or nondetect)	Analytical Method for Maximum Detect (or nondetect)	Start Depth of Maximum Detect (ft bgs)	End Depth of Maximum Depth (ft bgs)	Sample Number of Maximum Detect
Cobalt-60	10198-40-0	RAD	pCi/g	10	0	0	0.013	0.097			GEA	GEA			
Europium-152	14683-23-9	RAD	pCi/g	10	0	0	0.027	0.19			GEA	GEA			
Europium-154	15585-10-1	RAD	pCi/g	10	0	0	0.04	0.26			GEA	GEA			
Europium-155	14391-16-3	RAD	pCi/g	10	0	0	0.048	0.2			GEA	GEA			
Gross alpha	12587-46-1	RAD	pCi/g	10	8	80	0.6	4.08	4.51	8.18	900	900	259.9	261.9	B16FV6
Gross beta	12587-47-2	RAD	pCi/g	10	9	90	4.79	4.79	9.15	23.6	900	900	259.9	261.9	B16FV6
Neptunium-237	13994-20-2	RAD	pCi/g	9	0	0	-0.031	0.038			LX/Plate/AEA	LX/Plate/AEA			
Nickel-63	13981-37-8	RAD	pCi/g	8	0	0	-0.437	0.458			LSC	LSC			
Plutonium-238	13981-16-3	RAD	pCi/g	9	0	0	-0.049	0.022			Sep/Plate/AEA	Sep/Plate/AEA			
Plutonium-239/240	PU-239/240	RAD	pCi/g	9	0	0	0	0.052			Sep/Plate/AEA	Sep/Plate/AEA			
Potassium-40	13966-00-2	RAD	pCi/g	10	10	100			7.66	13.9	GEA	GEA	259.9	261.9	B16FV6
Radium-226	13982-63-3	RAD	pCi/g	10	9	90	0.38	0.38	0.191	0.514	GEA	GEA	259.9	261.9	B16FV6
Radium-228	15262-20-1	RAD	pCi/g	10	10	100			0.344	1.04	GEA	GEA	259.9	261.9	B16FV6
Technetium-99	14133-76-7	RAD	pCi/g	8	0	0	-0.019	0.462			Sep/GPC	Sep/GPC			
Thorium-228	14274-82-9	RAD	pCi/g	19	16	84.21052632	0.264	0.535	0.294	0.948	IX/Plate/AEA	IX/Plate/AEA	100	102	B16555
Thorium-230	14269-63-7	RAD	pCi/g	9	6	66.66666667	0.194	0.263	0.381	1.6	IX/Plate/AEA	IX/Plate/AEA	50	52.5	B16553
Thorium-232	TH-232	RAD	pCi/g	19	16	84.21052632	0.146	0.456	0.344	1.07	IX/Plate/AEA	IX/Plate/AEA	150	152	B16FV4
Total beta radiostrontium	SR-RAD	RAD	pCi/g	10	1	10	-0.096	0.102	0.27	0.27	Sep/GPC	Sep/GPC	16	16	B0P726
Tritium	10028-17-8	RAD	pCi/g	8	3	37.5	-0.032	0.144	0.221	7.05	906	906	259.9	261.9	B16FV6
Uranium-235	15117-96-1	RAD	pCi/g	9	0	0	0.048	0.27			GEA	GEA			
Uranium-238	U-238	RAD	pCi/g	10	0	0	1.4	10			GEA	GEA			
1-2-4-Trichlorobenzene	120-82-1	SVOA	ug/kg	10	0	0	340	410			8270	8270			
1-2-Dichlorobenzene	95-50-1	SVOA	ug/kg	10	0	0	340	410			8270	8270			
1-3-Dichlorobenzene	541-73-1	SVOA	ug/kg	10	0	0	340	410			8270	8270			
1-4-Dichlorobenzene	106-46-7	SVOA	ug/kg	10	0	0	340	410			8270	8270			
2-4-5-Trichlorophenol	95-95-4	SVOA	ug/kg	10	0	0	860	1000			8270	8270			
2-4-6-Trichlorophenol	88-06-2	SVOA	ug/kg	10	0	0	340	410			8270	8270			
2-4-Dichlorophenol	120-83-2	SVOA	ug/kg	10	0	0	340	410			8270	8270			
2-4-Dimethylphenol	105-67-9	SVOA	ug/kg	10	0	0	340	410			8270	8270			
2-4-Dinitrophenol	51-28-5	SVOA	ug/kg	10	0	0	860	1000			8270	8270			
2-4-Dinitrotoluene	121-14-2	SVOA	ug/kg	10	0	0	340	410			8270	8270			
2-6-Dinitrotoluene	606-20-2	SVOA	ug/kg	10	0	0	340	410			8270	8270			
2-Chloronaphthalene	91-58-7	SVOA	ug/kg	10	0	0	340	410			8270	8270			
2-Chlorophenol	95-57-8	SVOA	ug/kg	10	0	0	340	410			8270	8270			
2-Methylnaphthalene	91-57-6	SVOA	ug/kg	10	0	0	340	410			8270	8270			
2-Methylphenol (cresol- o-)	95-48-7	SVOA	ug/kg	10	0	0	340	410			8270	8270			
2-Nitroaniline	88-74-4	SVOA	ug/kg	10	0	0	860	1000			8270	8270			

200-CS-1 Summary Table for All Constituents in Deep Zone Soil Samples

Constituent	CAS Number	Constituent Class	Units	Number of Results	Number of Detects	Frequency of Detects (%)	Minimum Nondetect	Maximum Nondetect	Minimum Detect	Maximum Detect	Analytical Method for Minimum Detect (or nondetect)	Analytical Method for Maximum Detect (or nondetect)	Start Depth of Maximum Detect (ft bgs)	End Depth of Maximum Depth (ft bgs)	Sample Number of Maximum Detect
2-Nitrophenol	88-75-5	SVOA	ug/kg	10	0	0	340	410			8270	8270			
3-3'-Dichlorobenzidine	91-94-1	SVOA	ug/kg	10	0	0	340	410			8270	8270			
3-Nitroaniline	99-09-2	SVOA	ug/kg	10	0	0	860	1000			8270	8270			
4-6-Dinitro-2-methylphenol	534-52-1	SVOA	ug/kg	10	0	0	860	1000			8270	8270			
4-Bromophenylphenyl ether	101-55-3	SVOA	ug/kg	10	0	0	340	410			8270	8270			
4-Chloro-3-methylphenol	59-50-7	SVOA	ug/kg	10	0	0	340	410			8270	8270			
4-Chloroaniline	106-47-8	SVOA	ug/kg	10	0	0	340	410			8270	8270			
4-Chlorophenylphenyl ether	7005-72-3	SVOA	ug/kg	10	0	0	340	410			8270	8270			
4-Methylphenol (cresol- p-)	106-44-5	SVOA	ug/kg	10	0	0	340	410			8270	8270			
4-Nitroaniline	100-01-6	SVOA	ug/kg	10	0	0	860	1000			8270	8270			
4-Nitrophenol	100-02-7	SVOA	ug/kg	10	0	0	860	1000			8270	8270			
Acenaphthene	83-32-9	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Acenaphthylene	208-96-8	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Anthracene	120-12-7	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Benzo(a)anthracene	56-55-3	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Benzo(a)pyrene	50-32-8	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Benzo(b)fluoranthene	205-99-2	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Benzo(ghi)perylene	191-24-2	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Benzo(k)fluoranthene	207-08-9	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Bis(2-Chloroethoxy)methane	111-91-1	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Bis(2-chloro-1-methylethyl)ether	108-60-1	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Bis(2-chloroethyl) ether	111-44-4	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Bis(2-ethylhexyl) phthalate	117-81-7	SVOA	ug/kg	10	1	10	340	410	52	52	8270	8270	16	16	B0P726
Butylbenzylphthalate	85-68-7	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Carbazole	86-74-8	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Chrysene	218-01-9	SVOA	ug/kg	10	0	0	340	410			8270	8270			

200-CS-1 Summary Table for All Constituents in Deep Zone Soil Samples

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Di-n-butylphthalate	84-74-2	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Di-n-octylphthalate	117-84-0	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Dibenz[a-h]anthracene	53-70-3	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Dibenzofuran	132-64-9	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Diethylphthalate	84-66-2	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Dimethyl phthalate	131-11-3	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Fluoranthene	206-44-0	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Fluorene	86-73-7	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Hexachlorobenzene	118-74-1	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Hexachlorobutadiene	87-68-3	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Hexachlorocyclopentadiene	77-47-4	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Hexachloroethane	67-72-1	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Indeno(1-2-3-cd)pyrene	193-39-5	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Isophorone	78-59-1	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Naphthalene	91-20-3	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Nitrobenzene	98-95-3	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Pentachlorophenol	87-86-5	SVOA	ug/kg	10	0	0	860	1000			8270	8270			
Phenanthrene	85-01-8	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Phenol	108-95-2	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Pyrene	129-00-0	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Tributyl phosphate	126-73-8	SVOA	ug/kg	9	0	0	340	410			8270	8270			
n-Nitrosodi-n-dipropylamine	621-64-7	SVOA	ug/kg	10	0	0	340	410			8270	8270			
n-Nitrosodi-phenylamine	86-30-6	SVOA	ug/kg	10	0	0	340	410			8270	8270			
1-1-1-Trichloroethane	71-55-6	VOA	ug/kg	9	0	0	5	6			8260	8260			
1-1-2-2-Tetrachloroethane	79-34-5	VOA	ug/kg	9	0	0	5	6			8260	8260			
1-1-2-Trichloroethane	79-00-5	VOA	ug/kg	9	0	0	5	6			8260	8260			
1-1-Dichloroethane	75-34-3	VOA	ug/kg	9	0	0	5	6			8260	8260			
1-1-Dichloroethene	75-35-4	VOA	ug/kg	9	0	0	5	6			8260	8260			
1-2-Dichloroethane	107-06-2	VOA	ug/kg	9	0	0	5	6			8260	8260			

200-CS-1 Summary Table for All Constituents in Deep Zone Soil Samples

Constituent	CAS Number	Constituent Class	Units	Number of Results	Number of Detects	Frequency of Detects (%)	Minimum Nondetect	Maximum Nondetect	Minimum Detect	Maximum Detect	Analytical Method for Minimum Detect (or nondetect)	Analytical Method for Maximum Detect (or nondetect)	Start Depth of Maximum Detect (ft bgs)	End Depth of Maximum Depth (ft bgs)	Sample Number of Maximum Detect
1-2-Dichloroethene (Total)	540-59-0	VOA	ug/kg	9	0	0	5	6			8260	8260			
1-2-Dichloropropane	78-87-5	VOA	ug/kg	9	0	0	5	6			8260	8260			
1-Propanol	71-23-8	VOA	ug/kg	9	0	0	5000	30000			8015	8015			
2-Butanone	78-93-3	VOA	ug/kg	9	1	11.11111111	9	12	2	2	8260	8260	271.9	273.9	B16FV7
2-Hexanone	591-78-6	VOA	ug/kg	9	0	0	9	12			8260	8260			
2-Pentanone- 4-Methyl	108-10-1	VOA	ug/kg	9	0	0	9	12			8260	8260			
Acetone	67-64-1	VOA	ug/kg	9	2	22.22222222	9	12	8	14	8260	8260	199.9	201.9	B16FV5
Benzene	71-43-2	VOA	ug/kg	9	0	0	5	6			8260	8260			
Bromodichloromethane	75-27-4	VOA	ug/kg	9	0	0	5	6			8260	8260			
Bromoform	75-25-2	VOA	ug/kg	9	0	0	5	6			8260	8260			
Bromomethane	74-83-9	VOA	ug/kg	9	0	0	9	12			8260	8260			
Carbon disulfide	75-15-0	VOA	ug/kg	9	0	0	5	6			8260	8260			
Carbon tetrachloride	56-23-5	VOA	ug/kg	9	0	0	5	6			8260	8260			
Chlorobenzene	108-90-7	VOA	ug/kg	9	0	0	5	6			8260	8260			
Chloroethane	75-00-3	VOA	ug/kg	9	0	0	9	12			8260	8260			
Chloroform	67-66-3	VOA	ug/kg	9	0	0	5	6			8260	8260			
Chloromethane	74-87-3	VOA	ug/kg	9	0	0	9	12			8260	8260			
Dibromochloromethane	124-48-1	VOA	ug/kg	9	0	0	5	6			8260	8260			
Ethanol	64-17-5	VOA	ug/kg	9	0	0	5000	30000			8015	8015			
Ethylbenzene	100-41-4	VOA	ug/kg	9	0	0	5	6			8260	8260			
Methylene chloride	75-09-2	VOA	ug/kg	9	6	66.66666667	5	6	2	36	8260	8260	259.9	261.9	B16FV6
Styrene	100-42-5	VOA	ug/kg	9	0	0	5	6			8260	8260			
Tetrachloroethene	127-18-4	VOA	ug/kg	9	0	0	5	6			8260	8260			
Toluene	108-88-3	VOA	ug/kg	9	1	11.11111111	5	6	1	1	8260	8260	259.9	261.9	B16FV6
Trichloroethene	79-01-6	VOA	ug/kg	9	0	0	5	6			8260	8260			
Vinyl chloride	75-01-4	VOA	ug/kg	9	0	0	9	12			8260	8260			
Xylenes (total)	1330-20-7	VOA	ug/kg	9	0	0	5	6			8260	8260			
cis-1-3-Dichloropropene	10061-01-5	VOA	ug/kg	9	0	0	5	6			8260	8260			
trans-1-3-Dichloropropene	10061-02-6	VOA	ug/kg	9	0	0	5	6			8260	8260			
Ammonia	7664-41-7	WETCHEM	ug/kg	9	0	0	3770	6810			350.3	350.3			
Chloride	16887-00-6	WETCHEM	ug/kg	9	5	55.55555556	1300	1600	1800	4300	300	300	24.5	27	B16552
Cyanide	57-12-5	WETCHEM	ug/kg	9	0	0	340	590			9010	9010			
Fluoride	16984-48-8	WETCHEM	ug/kg	9	0	0	1300	2600			300	300			
Hydrazine	302-01-2	WETCHEM	ug/kg	1	0	0	1000	1000			D1385	D1385			
Nitrate	14797-55-8	WETCHEM	ug/kg	9	3	33.33333333	1290	1550	14100	33800	300	300	16	17	B13C80
Nitrite	14797-65-0	WETCHEM	ug/kg	9	1	11.11111111	1290	1380	2700	2700	300	300	259.9	261.9	B16FV6

200-CS-1 Summary Table for All Constituents in Deep Zone Soil Samples

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Nitrogen in Nitrite and Nitrate	NO2+NO3-N	WETCHEM	ug/kg	9	5	55.55555556	180	230	300	7900	353.2	353.2	16	17	B13C80
Phosphate	14265-44-2	WETCHEM	ug/kg	9	0	0	1300	1600			300	300			
Sulfate	14808-79-8	WETCHEM	ug/kg	9	9	100			1300	46200	300	300	24.5	27	B16552
Sulfide	18496-25-8	WETCHEM	ug/kg	9	1	11.11111111	22100	40900	58400	58400	9030	9030	259.9	261.9	B16FV6
216-B-63															
Aroclor-1016	12674-11-2	GENORG	ug/kg	16	0	0	30	36			8082	8080_PESTPCB_GC			
Aroclor-1221	11104-28-2	GENORG	ug/kg	16	0	0	30	70			8082	8082			
Aroclor-1232	11141-16-5	GENORG	ug/kg	16	0	0	30	36			8082	8080_PESTPCB_GC			
Aroclor-1242	53469-21-9	GENORG	ug/kg	16	0	0	30	36			8082	8080_PESTPCB_GC			
Aroclor-1248	12672-29-6	GENORG	ug/kg	16	0	0	30	36			8082	8080_PESTPCB_GC			
Aroclor-1254	11097-69-1	GENORG	ug/kg	16	0	0	30	36			8082	8080_PESTPCB_GC			
Aroclor-1260	11096-82-5	GENORG	ug/kg	16	0	0	30	36			8082	8080_PESTPCB_GC			
Aroclor-1262	37324-23-5	GENORG	ug/kg	1	0	0	30	30			8082	8082			
Aroclor-1268	11100-14-4	GENORG	ug/kg	1	0	0	30	30			8082	8082			
Total organic carbon	TOC	GENORG	ug/kg	4	4	100			206000	367000	9060	9060	176.5	179	B0MJK3
Total petroleum hydrocarbons - diesel range	TPHDIESEL	GENORG	ug/kg	11	0	0	3700	12600			WDOE TPH	WDOE TPH			
Total petroleum hydrocarbons - kerosene rang	TPHKEROSENE	GENORG	ug/kg	11	0	0	3700	12600			WDOE TPH	WDOE TPH			
Aluminum	7429-90-5	METAL	ug/kg	10	10	100			3530000	6980000	6010	6010	100	102.5	B0MJF9
Antimony	7440-36-0	METAL	ug/kg	11	0	0	3330	4600			6010	6010			
Arsenic	7440-38-2	METAL	ug/kg	21	20	95.23809524	3010	3010	720	4500	6010	6010	24	25	B15XK2
Barium	7440-39-3	METAL	ug/kg	21	21	100			31300	80700	6010	6010	17	18	B15XL2
Beryllium	7440-41-7	METAL	ug/kg	21	21	100			170	913	6010	6010	17.5	19	B16HB4-A
Bismuth	7440-69-9	METAL	ug/kg	11	10	90.90909091	3060	3060	12400	26200	6010	6010	100	102.5	B0MJF9
Boron	7440-42-8	METAL	ug/kg	10	10	100			2800	5000	6010	6010	75	77.5	B0MJF6
Cadmium	7440-43-9	METAL	ug/kg	21	9	42.85714286	30	360	40	2420	6010	6010	17.5	19	B16HB4-A
Calcium	7440-70-2	METAL	ug/kg	10	10	100			2920000	16100000	6010	6010	40	42	B0MJJ1
Chromium	7440-47-3	METAL	ug/kg	21	21	100			5500	16500	6010	6010	17.5	19	B16HB4-A
Cobalt	7440-48-4	METAL	ug/kg	10	10	100			4100	7200	6010	6010	174	179	B0MJK0
Copper	7440-50-8	METAL	ug/kg	21	21	100			6700	14800	6010	6010	174	179	B0MJK0

200-CS-1 Summary Table for All Constituents in Deep Zone Soil Samples

Constituent	CAS Number	Constituent Class	Units	Number of Results	Number of Detects	Frequency of Detects (%)	Minimum Nondetect	Maximum Nondetect	Minimum Detect	Maximum Detect	Analytical Method for Minimum Detect (or nondetect)	Analytical Method for Maximum Detect (or nondetect)	Start Depth of Maximum Detect (ft bgs)	End Depth of Maximum Depth (ft bgs)	Sample Number of Maximum Detect
Hexavalent Chromium	18540-29-9	METAL	ug/kg	11	1	9.090909091	410	420	483	483	7196	7196	17.5	19	B16HB4
Iron	7439-89-6	METAL	ug/kg	10	10	100			8930000	16700000	6010	6010	174	179	B0MJK0
Lead	7439-92-1	METAL	ug/kg	21	20	95.23809524	3060	3060	1400	4800	6010	6010	30	32.5	B0MJF3
Magnesium	7439-95-4	METAL	ug/kg	10	10	100			2300000	5600000	6010	6010	100	102.5	B0MJF9
Manganese	7439-96-5	METAL	ug/kg	11	11	100			147000	330000	6010	6010	30	32.5	B0MJF3
Mercury	7439-97-6	METAL	ug/kg	21	0	0	10	50			7471	200.8			
Molybdenum	7439-98-7	METAL	ug/kg	1	0	0	1000	1000			6010	6010			
Nickel	7440-02-0	METAL	ug/kg	21	21	100			2890	21000	6010	6010	19.5	21.5	B16532
Potassium	9/7/7440	METAL	ug/kg	10	10	100			579000	1490000	6010	6010	174	179	B0MJK0
Selenium	7782-49-2	METAL	ug/kg	21	6	28.57142857	230	3370	260	500	6010	6010	75	77.5	B0MJF6
Silver	7440-22-4	METAL	ug/kg	21	2	9.523809524	71	1440	620	790	6010	6010	75	77.5	B0MJF6
Sodium	7440-23-5	METAL	ug/kg	10	10	100			122000	281000	6010	6010	20	22.5	B0MJD7
Tin	7440-31-5	METAL	ug/kg	11	0	0	1570	3800			6010	6010			
Uranium	7440-61-1	METAL	ug/kg	21	21	100			336	2200	KPA	KPA	30	32.5	B0MJF3
Vanadium	7440-62-2	METAL	ug/kg	21	21	100			22700	64200	6010	6010	17	18	B15XL2
Zinc	7440-66-6	METAL	ug/kg	21	21	100			18500	45200	6010	6010	17	18	B15XL2
Cation Exchange Capacity	CEC	PHYSICAL	mEQ/100 g	11	3	27.27272727	6.14	6.49	6.34	11.9	9080	9080	30	32	B0MJF5
Specific Gravity	SPECGVTY	PHYSICAL		11	11	100			2.1	2.64	D854	D854	174	179	B0MJK5
pH Measurement	PH	PHYSICAL		23	23	100			8.18	9.42	9045	9040	53	55	B16535
Actinium-228	14331-83-0	RAD	pCi/g	1	1	100			0.44	0.44	GEA	GEA	17.5	19	B16HB4-A
Americium-241	14596-10-2	RAD	pCi/g	32	1	3.125	-0.181	0.46	0.03	0.03	IX/Plate/AEA	GEA	20	22.5	B0MJD7
Antimony-125	14234-35-6	RAD	pCi/g	1	0	0	-0.002	-0.002			GEA	GEA			
Bismuth-212	14913-49-6	RAD	pCi/g	1	1	100			0.276	0.276	GEA	GEA	17.5	19	B16HB4-A
Bismuth-214	14733-03-0	RAD	pCi/g	1	1	100			0.311	0.311	GEA	GEA	17.5	19	B16HB4-A
Cerium-144	14762-78-8	RAD	pCi/g	1	0	0	0.007	0.007			GEA	GEA			
Cesium-134	13967-70-9	RAD	pCi/g	1	0	0	0.018	0.018			GEA	GEA			
Cesium-137	10045-97-3	RAD	pCi/g	21	0	0	-0.017	0.083			GEA	GEA			
Cobalt-60	10198-40-0	RAD	pCi/g	21	0	0	-0.02	0.076			GEA	GEA			
Curium-242	15510-73-3	RAD	pCi/g	10	0	0	-0.002	0.01			IX/Prec/AEA	IX/Prec/AEA			
Curium-244	13981-15-2	RAD	pCi/g	10	0	0	-0.001	0.012			IX/Prec/AEA	IX/Prec/AEA			
Europium-152	14683-23-9	RAD	pCi/g	21	0	0	-0.07	0.22			GEA	GEA			
Europium-154	15585-10-1	RAD	pCi/g	21	0	0	-0.061	0.27			GEA	GEA			
Europium-155	14391-16-3	RAD	pCi/g	21	0	0	0.017	0.26			GEA	GEA			
Gross alpha	12587-46-1	RAD	pCi/g	21	14	66.66666667	1.35	4.54	1.1	9.76	900	900	100	102.5	B0MJF9
Gross beta	12587-47-2	RAD	pCi/g	21	21	100			2.3	32.6	GPC	GPC	75	77.5	B0MJF6
Iodine-129	15046-84-1	RAD	pCi/g	10	0	0	-0.056	0.328			GEA	GEA			
Lead-212	15092-94-1	RAD	pCi/g	1	1	100			0.443	0.443	GEA	GEA	17.5	19	B16HB4-A
Lead-214	15067-28-4	RAD	pCi/g	1	1	100			0.362	0.362	GEA	GEA	17.5	19	B16HB4-A

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Neptunium-237	13994-20-2	RAD	pCi/g	21	0	0	-0.044	0.101			LX/Plate/AEA	LX/Plate/AEA			
Nickel-63	13981-37-8	RAD	pCi/g	11	7	63.63636364	-0.724	0.706	2.85	23	LSC	LSC	17.5	19	B16HB4
Niobium-94	14681-63-1	RAD	pCi/g	1	0	0	0.003	0.003			GEA	GEA			
Plutonium-238	13981-16-3	RAD	pCi/g	21	1	4.761904762	-0.013	0.061	0.081	0.081	Sep/Plate/AEA	Sep/Plate/AEA	17.5	19	B16HB4-A
Plutonium-239/240	PU-239/240	RAD	pCi/g	21	1	4.761904762	-0.013	0.034	0.026	0.026	Sep/Plate/AEA	Sep/Plate/AEA	17.5	19	B16HB4-A
Plutonium-241	14119-32-5	RAD	pCi/g	10	0	0	-1.31	0.591			IX/LSC	IX/LSC			
Potassium-40	13966-00-2	RAD	pCi/g	20	20	100			8.69	18.4	GEA	GEA	75	77.5	B0MJF6
Radium-224	13233-32-4	RAD	pCi/g	10	10	100			0.52	0.742	GEA	GEA	30	32.5	B0MJF3
Radium-226	13982-63-3	RAD	pCi/g	21	21	100			0.3	0.67	GEA	GEA	251.4	253.9	B0MJK6
Radium-228	15262-20-1	RAD	pCi/g	21	21	100			0.44	0.792	GEA	GEA	251.4	253.9	B0MJK6
Ruthenium-103	13968-53-1	RAD	pCi/g	1	0	0	0.002	0.002			GEA	GEA			
Ruthenium-106	13967-48-1	RAD	pCi/g	1	0	0	-0.008	-0.008			GEA	GEA			
Selenium-79	15758-45-9	RAD	pCi/g	10	0	0	-1.38	0.178			IX/LSC	IX/LSC			
Strontium-90	10098-97-2	RAD	pCi/g	10	0	0	-0.018	0.094			Sep/GPC	Sep/GPC			
Technetium-99	14133-76-7	RAD	pCi/g	21	1	4.761904762	-0.633	0.577	0.406	0.406	IX/LSC	Sep/GPC	17.5	19	B16531
Thallium-208	14913-50-9	RAD	pCi/g	1	1	100			0.14	0.14	GEA	GEA	17.5	19	B16HB4-A
Thorium-228	14274-82-9	RAD	pCi/g	30	28	93.33333333	-0.002	0.258	0.366	1.47	IX/Prec/AEA	IX/Plate/AEA	100	102.5	B0MJF9
Thorium-230	14269-63-7	RAD	pCi/g	20	20	100			0.037	1.73	IX/Prec/AEA	IX/Plate/AEA	28	30	B16534
Thorium-232	TH-232	RAD	pCi/g	30	28	93.33333333	0	0.122	0.301	1.03	IX/Prec/AEA	IX/Plate/AEA	100	102.5	B0MJF9
Thorium-234	15065-10-8	RAD	pCi/g	1	0	0	0.289	0.289			GEA	GEA			
Tin-113	13966-06-8	RAD	pCi/g	1	0	0	0	0			GEA	GEA			
Tin-126	15832-50-5	RAD	pCi/g	1	0	0	0.108	0.108			GEA	GEA			
Total beta radiostrontium	SR-RAD	RAD	pCi/g	11	4	36.36363636	-0.128	0.033	1.2	3.21	Sep/GPC	Sep/GPC	17	18	B15XL2
Tritium	10028-17-8	RAD	pCi/g	11	2	18.18181818	-0.021	0.13	0.044	0.33	906	906	17	18	B15XL2
Uranium-235	15117-96-1	RAD	pCi/g	13	0	0	0.02	0.35			GEA	GEA			
Uranium-238	U-238	RAD	pCi/g	16	6	37.5	3.3	11	0.366	0.653	GEA	GEA	251.4	253.9	B0MJK6
Zinc-65	13982-39-3	RAD	pCi/g	1	0	0	-0.006	-0.006			GEA	GEA			
1-2-4-Trichlorobenzene	120-82-1	SVOA	ug/kg	21	0	0	300	350			8270	8270			
1-2-Dichlorobenzene	95-50-1	SVOA	ug/kg	20	0	0	340	350			8270	8270			
1-3-Dichlorobenzene	541-73-1	SVOA	ug/kg	20	0	0	340	350			8270	8270			
1-4-Dichlorobenzene	106-46-7	SVOA	ug/kg	21	0	0	320	350			8270	8270			
2-4-5-Trichlorophenol	95-95-4	SVOA	ug/kg	20	0	0	340	880			8270	8270			
2-4-6-Trichlorophenol	88-06-2	SVOA	ug/kg	20	0	0	340	350			8270	8270			
2-4-Dichlorophenol	120-83-2	SVOA	ug/kg	20	0	0	340	350			8270	8270			
2-4-Dimethylphenol	105-67-9	SVOA	ug/kg	20	0	0	340	350			8270	8270			

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2-4-Dinitrophenol	51-28-5	SVOA	ug/kg	20	0	0	850	1700			8270	8270			
2-4-Dinitrotoluene	121-14-2	SVOA	ug/kg	21	0	0	69	350			8270	8270			
2-6-Dinitrotoluene	606-20-2	SVOA	ug/kg	20	0	0	340	350			8270	8270			
2-Chloronaphthalene	91-58-7	SVOA	ug/kg	20	0	0	340	350			8270	8270			
2-Chlorophenol	95-57-8	SVOA	ug/kg	21	0	0	150	350			8270	8270			
2-Methylnaphthalene	91-57-6	SVOA	ug/kg	20	0	0	340	350			8270	8270			
2-Methylphenol (cresol- o-)	95-48-7	SVOA	ug/kg	20	0	0	340	350			8270	8270			
2-Nitroaniline	88-74-4	SVOA	ug/kg	20	0	0	850	1700			8270	8270			
2-Nitrophenol	88-75-5	SVOA	ug/kg	20	0	0	340	350			8270	8270			
3-3'-Dichlorobenzidine	91-94-1	SVOA	ug/kg	20	0	0	340	1700			8270	8270			
3-Nitroaniline	99-09-2	SVOA	ug/kg	20	0	0	850	1700			8270	8270			
4-6-Dinitro-2-methylphenol	534-52-1	SVOA	ug/kg	20	0	0	850	1700			8270	8270			
4-Bromophenylphenyl ether	101-55-3	SVOA	ug/kg	20	0	0	340	350			8270	8270			
4-Chloro-3-methylphenol	59-50-7	SVOA	ug/kg	21	0	0	69	350			8270	8270			
4-Chloroaniline	106-47-8	SVOA	ug/kg	20	0	0	340	350			8270	8270			
4-Chlorophenylphenyl ether	7005-72-3	SVOA	ug/kg	20	0	0	340	350			8270	8270			
4-Methylphenol (cresol- p-)	106-44-5	SVOA	ug/kg	20	0	0	340	350			8270	8270			
4-Nitroaniline	100-01-6	SVOA	ug/kg	20	0	0	850	1700			8270	8270			
4-Nitrophenol	100-02-7	SVOA	ug/kg	21	0	0	670	1700			8270	8270			
Acenaphthene	83-32-9	SVOA	ug/kg	21	0	0	69	350			8270	8270			
Acenaphthylene	208-96-8	SVOA	ug/kg	20	0	0	340	350			8270	8270			
Anthracene	120-12-7	SVOA	ug/kg	20	0	0	340	350			8270	8270			
Benzo(a)anthracene	56-55-3	SVOA	ug/kg	20	0	0	340	350			8270	8270			
Benzo(a)pyrene	50-32-8	SVOA	ug/kg	20	0	0	340	350			8270	8270			
Benzo(b)fluoranthene	205-99-2	SVOA	ug/kg	20	0	0	340	350			8270	8270			
Benzo(ghi)perylene	191-24-2	SVOA	ug/kg	20	0	0	340	350			8270	8270			

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Benzo(k)fluoranthene	207-08-9	SVOA	ug/kg	20	0	0	340	350			8270	8270			
Bis(2-Chloroethoxy) methane	111-91-1	SVOA	ug/kg	20	0	0	340	350			8270	8270			
Bis(2-chloro-1-methylethyl)ether	108-60-1	SVOA	ug/kg	20	0	0	340	350			8270	8270			
Bis(2-chloroethyl) ether	111-44-4	SVOA	ug/kg	20	0	0	340	350			8270	8270			
Bis(2-ethylhexyl) phthalate	117-81-7	SVOA	ug/kg	20	3	15	330	350	21	54	8270	8270	24	25	B15XK2
Butylbenzylphthalate	85-68-7	SVOA	ug/kg	20	4	20	340	350	220	240	8270	8270	251.4	253.9	B0MJK6
Carbazole	86-74-8	SVOA	ug/kg	20	0	0	340	350			8270	8270			
Chrysene	218-01-9	SVOA	ug/kg	20	0	0	340	350			8270	8270			
Di-n-butylphthalate	84-74-2	SVOA	ug/kg	20	1	5	340	350	21	21	8270	8270	101	103	B16536
Di-n-octylphthalate	117-84-0	SVOA	ug/kg	20	0	0	340	350			8270	8270			
Dibenz[a-h]anthracene	53-70-3	SVOA	ug/kg	20	0	0	340	350			8270	8270			
Dibenzofuran	132-64-9	SVOA	ug/kg	20	0	0	340	350			8270	8270			
Diethylphthalate	84-66-2	SVOA	ug/kg	21	1	4.761904762	340	350	210	210	8270	8270	17.5	19	B16HB4-A
Dimethyl phthalate	131-11-3	SVOA	ug/kg	20	0	0	340	350			8270	8270			
Fluoranthene	206-44-0	SVOA	ug/kg	20	0	0	340	350			8270	8270			
Fluorene	86-73-7	SVOA	ug/kg	20	0	0	340	350			8270	8270			
Hexachlorobenzene	118-74-1	SVOA	ug/kg	20	0	0	340	350			8270	8270			
Hexachlorobutadiene	87-68-3	SVOA	ug/kg	20	0	0	340	350			8270	8270			
Hexachlorocyclopentadiene	77-47-4	SVOA	ug/kg	20	0	0	340	1700			8270	8270			
Hexachloroethane	67-72-1	SVOA	ug/kg	20	0	0	340	350			8270	8270			
Hexadecanoic acid (9CI)	57-10-3	SVOA	ug/kg	5	5	100			380	740	8270	8270	251.4	253.9	B0MJK6
Indeno(1-2-3-cd)pyrene	193-39-5	SVOA	ug/kg	20	0	0	340	350			8270	8270			
Isophorone	78-59-1	SVOA	ug/kg	20	0	0	340	350			8270	8270			
Naphthalene	91-20-3	SVOA	ug/kg	20	0	0	340	350			8270	8270			
Nitrobenzene	98-95-3	SVOA	ug/kg	20	0	0	340	350			8270	8270			
Octadecanoic acid	57-11-4	SVOA	ug/kg	3	3	100			86	140	8270	8270	251.4	253.9	B0MJK6
Pentachlorophenol	87-86-5	SVOA	ug/kg	21	0	0	310	1700			8270	8270			
Phenanthrene	85-01-8	SVOA	ug/kg	20	0	0	340	350			8270	8270			
Phenol	108-95-2	SVOA	ug/kg	21	0	0	100	350			8270	8270			

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Pyrene	129-00-0	SVOA	ug/kg	21	0	0	69	350			8270	8270			
Tributyl phosphate	126-73-8	SVOA	ug/kg	21	0	0	69	710			8270	8270			
n-Nitrosodi-n-dipropylamine	621-64-7	SVOA	ug/kg	21	0	0	69	350			8270	8270			
n-Nitrosodiphenylamine	86-30-6	SVOA	ug/kg	20	0	0	340	350			8270	8270			
1-1-1-Trichloroethane	71-55-6	VOA	ug/kg	21	0	0	1.6	6			8260	8260			
1-1-2-2-Tetrachloroethane	79-34-5	VOA	ug/kg	21	0	0	1.6	6			8260	8260			
1-1-2-Trichloroethane	79-00-5	VOA	ug/kg	21	0	0	1.6	6			8260	8260			
1-1-Dichloroethane	75-34-3	VOA	ug/kg	21	0	0	1.6	6			8260	8260			
1-1-Dichloroethene	75-35-4	VOA	ug/kg	21	0	0	1.6	6			8260	8260			
1-2-4-Trimethylbenzene	95-63-6	VOA	ug/kg	1	1	100			10	10	8260	8260	150	152	B0MJJ7
1-2-Dichloroethane	107-06-2	VOA	ug/kg	21	0	0	1.6	6			8260	8260			
1-2-Dichloroethene (Total)	540-59-0	VOA	ug/kg	21	0	0	1.6	6			8260	8260			
1-2-Dichloropropane	78-87-5	VOA	ug/kg	21	0	0	1.6	6			8260	8260			
1-Butanol	71-36-3	VOA	ug/kg	10	0	0	200	220			8260	8260			
1-Propanol	71-23-8	VOA	ug/kg	11	0	0	5000	28000			8015	8015			
2-Butanone	78-93-3	VOA	ug/kg	21	0	0	1.6	22			8260	8260			
2-Ethyl-1-hexanol	104-76-7	VOA	ug/kg	3	3	100			6	240	8260	8270	251.4	253.9	B0MJK6
2-Hexanone	591-78-6	VOA	ug/kg	21	0	0	1.6	22			8260	8260			
2-Pentanone- 4-Methyl	108-10-1	VOA	ug/kg	21	0	0	1.6	22			8260	8260			
Acetone	67-64-1	VOA	ug/kg	21	7	33.33333333	1.6	40	5	22	8260	8260	251.4	253.9	B0MJK6
Benzene	71-43-2	VOA	ug/kg	21	0	0	1.6	6			8260	8260			
Bromo-dichloromethane	75-27-4	VOA	ug/kg	21	0	0	1.6	6			8260	8260			
Bromoform	75-25-2	VOA	ug/kg	21	0	0	1.6	6			8260	8260			
Bromomethane	74-83-9	VOA	ug/kg	21	0	0	1.6	11			8260	8260			
Carbon disulfide	75-15-0	VOA	ug/kg	21	0	0	1.6	6			8260	8260			
Carbon tetrachloride	56-23-5	VOA	ug/kg	21	0	0	1.6	6			8260	8260			
Chlorobenzene	108-90-7	VOA	ug/kg	21	0	0	1.6	6			8260	8260			
Chloroethane	75-00-3	VOA	ug/kg	21	0	0	1.6	11			8260	8260			

200-CS-1 Summary Table for All Constituents in Deep Zone Soil Samples

Constituent	CAS Number	Constituent Class	Units	Number of Results	Number of Detects	Frequency of Detects (%)	Minimum Nondetect	Maximum Nondetect	Minimum Detect	Maximum Detect	Analytical Method for Minimum Detect (or nondetect)	Analytical Method for Maximum Detect (or nondetect)	Start Depth of Maximum Detect (ft bgs)	End Depth of Maximum Depth (ft bgs)	Sample Number of Maximum Detect
Chloroform	67-66-3	VOA	ug/kg	21	0	0	1.6	6			8260	8260			
Chloromethane	74-87-3	VOA	ug/kg	21	0	0	1.6	11			8260	8260			
Dibromo-chloromethane	124-48-1	VOA	ug/kg	21	0	0	1.6	6			8260	8260			
Diethyl ether	60-29-7	VOA	ug/kg	10	0	0	10	11			8260	8260			
Ethanol	64-17-5	VOA	ug/kg	11	0	0	5000	28000			8015	8015			
Ethylbenzene	100-41-4	VOA	ug/kg	21	0	0	1.6	6			8260	8260			
Methylene chloride	75-09-2	VOA	ug/kg	21	13	61.9047619	1.6	6	2	16	8260	8260	17	18	B15XL2
Styrene	100-42-5	VOA	ug/kg	21	0	0	1.6	6			8260	8260			
Tetrachloroethene	127-18-4	VOA	ug/kg	21	0	0	1.6	6			8260	8260			
Toluene	108-88-3	VOA	ug/kg	21	1	4.761904762	1.6	6	2	2	8260	8260	150	152	B0MJJ7
Trichloroethene	79-01-6	VOA	ug/kg	21	0	0	1.6	6			8260	8260			
Vinyl chloride	75-01-4	VOA	ug/kg	21	0	0	1.6	11			8260	8260			
Xylenes (total)	1330-20-7	VOA	ug/kg	21	1	4.761904762	1.6	6	8	8	8260	8260	150	152	B0MJJ7
cis-1-3-Dichloropropene	10061-01-5	VOA	ug/kg	21	0	0	1.6	6			8260	8260			
trans-1-3-Dichloropropene	10061-02-6	VOA	ug/kg	21	0	0	1.6	6			8260	8260			
Ammonia	7664-41-7	WETCHEM	ug/kg	20	0	0	619	6210			350.1	350.3			
Ammonium ion	14798-03-9	WETCHEM	ug/kg	1	1	100			60	60	300.7_CATIONS IC	300.7_CATIONS_ IC	17.5	19	B16HB4-A
Bromide	24959-67-9	WETCHEM	ug/kg	1	0	0	450	450			300	300			
Chloride	16887-00-6	WETCHEM	ug/kg	11	10	90.90909091	1300	1300	784	3750	300	300	19.5	21.5	B16532
Cyanide	57-12-5	WETCHEM	ug/kg	21	0	0	200	539			335.2	9010			
Fluoride	16984-48-8	WETCHEM	ug/kg	11	1	9.090909091	1280	1300	263	263	300	300	17.5	19	B16HB4-A
Nitrate	14797-55-8	WETCHEM	ug/kg	21	14	66.66666667	868	1290	1130	35700	300	300	17	18	B15XL2
Nitrite	14797-65-0	WETCHEM	ug/kg	21	0	0	296	1320			300	300			
Nitrogen in Nitrite and Nitrate	NO2+NO3-N	WETCHEM	ug/kg	21	14	66.66666667	509	539	260	8500	353.1	353.1	17	18	B15XL2
Phosphate	14265-44-2	WETCHEM	ug/kg	11	0	0	399	1300			300	300			
Sulfate	14808-79-8	WETCHEM	ug/kg	21	16	76.19047619	4910	5170	2700	18400	300	300	251.4	253.9	B0MJK6
Sulfide	18496-25-8	WETCHEM	ug/kg	11	1	9.090909091	7200	33600	38800	38800	9030	9030	19.5	21.5	B16532
216-S-10D															
Aroclor-1016	12674-11-2	GENORG	ug/kg	12	0	0	34	51			8082	8082			
Aroclor-1221	11104-28-2	GENORG	ug/kg	12	0	0	51	76			8082	8082			
Aroclor-1232	11141-16-5	GENORG	ug/kg	12	0	0	34	51			8082	8082			
Aroclor-1242	53469-21-9	GENORG	ug/kg	12	0	0	34	51			8082	8082			
Aroclor-1248	12672-29-6	GENORG	ug/kg	12	0	0	34	51			8082	8082			
Aroclor-1254	11097-69-1	GENORG	ug/kg	12	0	0	34	51			8082	8082			
Aroclor-1260	11096-82-5	GENORG	ug/kg	12	0	0	34	51			8082	8082			
Aroclor-1262	37324-23-5	GENORG	ug/kg	1	0	0	51	51			8082	8082			
Aroclor-1268	11100-14-4	GENORG	ug/kg	1	0	0	51	51			8082	8082			

200-CS-1 Summary Table for All Constituents in Deep Zone Soil Samples

Constituent	CAS Number	Constituent Class	Units	Number of Results	Number of Detects	Frequency of Detects (%)	Minimum Nondetect	Maximum Nondetect	Minimum Detect	Maximum Detect	Analytical Method for Minimum Detect (or nondetect)	Analytical Method for Maximum Detect (or nondetect)	Start Depth of Maximum Detect (ft bgs)	End Depth of Maximum Depth (ft bgs)	Sample Number of Maximum Detect
Total petroleum hydrocarbons - diesel range	TPHDIESEL	GENORG	ug/kg	12	0	0	5100	13700			WDOE TPH	WDOE TPH			
Total petroleum hydrocarbons - kerosene rang	TPHKEROSENE	GENORG	ug/kg	11	0	0	12300	13700			WDOE TPH	WDOE TPH			
Antimony	7440-36-0	METAL	ug/kg	1	0	0	0.074	0.074			6010	6010			
Arsenic	7440-38-2	METAL	ug/kg	12	12	100			1000	6700	6010	6010	135	137	B16542
Barium	7440-39-3	METAL	ug/kg	12	12	100			54600	114000	6010	6010	50	52	B16540
Beryllium	7440-41-7	METAL	ug/kg	12	12	100			150	653	6010	6010	25	27	B16HB6-A
Bismuth	7440-69-9	METAL	ug/kg	1	1	100			0.594	0.594	6010	6010	25	27	B16HB6-A
Cadmium	7440-43-9	METAL	ug/kg	12	3	25	33	50	51	2260	6010	6010	25	27	B16HB6-A
Chromium	7440-47-3	METAL	ug/kg	12	12	100			7500	29800	6010	6010	220	222	B16544
Copper	7440-50-8	METAL	ug/kg	12	12	100			11600	20000	6010	6010	185	187	B16KB1
Hexavalent Chromium	18540-29-9	METAL	ug/kg	12	2	16.66666667	350	460	470	1800	7196	7196	199.9	201.9	B16543
Lead	7439-92-1	METAL	ug/kg	12	11	91.66666667	68	68	2300	8900	6010	6010	135	137	B16542
Manganese	7439-96-5	METAL	ug/kg	1	1	100			257000	257000	6010	6010	25	27	B16HB6-A
Mercury	7439-97-6	METAL	ug/kg	12	2	16.66666667	10	100	16	16	7471	200.8	25	27	B16545
Molybdenum	7439-98-7	METAL	ug/kg	1	1	100			342	342	6010	6010	25	27	B16HB6-A
Nickel	7440-02-0	METAL	ug/kg	12	12	100			5430	20800	6010	6010	150	152	B16KB0
Selenium	7782-49-2	METAL	ug/kg	12	3	25	294	410	450	1900	6010	6010	25	27	B16HB6-A
Silver	7440-22-4	METAL	ug/kg	12	1	8.333333333	65	130	82	82	6010	6010	25	27	B16HB6-A
Tin	7440-31-5	METAL	ug/kg	1	0	0	35	35			6010	6010			
Uranium	7440-61-1	METAL	ug/kg	12	12	100			261	833	KPA	KPA	135	137	B16542
Vanadium	7440-62-2	METAL	ug/kg	12	12	100			26100	131000	6010	6010	199.9	201.9	B16543
Zinc	7440-66-6	METAL	ug/kg	12	12	100			31800	76000	6010	6010	185	187	B16KB1
pH Measurement	PH	PHYSICAL		12	12	100			8.5	9.334	9045	150.1	25	27	B16HB6-A
Actinium-228	14331-83-0	RAD	pCi/g	1	1	100			0.51	0.51	GEA	GEA	25	27	B16HB6-A
Americium-241	14596-10-2	RAD	pCi/g	24	0	0	-0.095	0.26			IX/Plate/AEA	GEA			
Antimony-125	14234-35-6	RAD	pCi/g	1	0	0	0.024	0.024			GEA	GEA			
Bismuth-212	14913-49-6	RAD	pCi/g	1	1	100			0.321	0.321	GEA	GEA	25	27	B16HB6-A
Bismuth-214	14733-03-0	RAD	pCi/g	1	1	100			0.426	0.426	GEA	GEA	25	27	B16HB6-A
Cerium-144	14762-78-8	RAD	pCi/g	1	0	0	0.073	0.073			GEA	GEA			
Cesium-134	13967-70-9	RAD	pCi/g	1	0	0	0.025	0.025			GEA	GEA			
Cesium-137	10045-97-3	RAD	pCi/g	12	0	0	0.008	0.12			GEA	GEA			
Cobalt-60	10198-40-0	RAD	pCi/g	12	0	0	0.008	0.14			GEA	GEA			
Europium-152	14683-23-9	RAD	pCi/g	12	0	0	0.026	0.3			GEA	GEA			
Europium-154	15585-10-1	RAD	pCi/g	12	0	0	0.027	0.36			GEA	GEA			

200-CS-1 Summary Table for All Constituents in Deep Zone Soil Samples

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Europium-155	14391-16-3	RAD	pCi/g	12	0	0	0.04	0.24			GEA	GEA			
Gross alpha	12587-46-1	RAD	pCi/g	12	6	50	0.586	3.98	1.6	11	900	900	100	102	B16541
Gross beta	12587-47-2	RAD	pCi/g	12	12	100			1.2	20	GPC	900	135	137	B16542
Lead-212	15092-94-1	RAD	pCi/g	1	1	100			0.498	0.498	GEA	GEA	25	27	B16HB6-A
Lead-214	15067-28-4	RAD	pCi/g	1	1	100			0.39	0.39	GEA	GEA	25	27	B16HB6-A
Neptunium-237	13994-20-2	RAD	pCi/g	12	0	0	0	0.058			LX/Plate/AEA	LX/Plate/AEA			
Nickel-63	13981-37-8	RAD	pCi/g	12	5	41.66666667	-0.245	2.02	2.73	38.4	LSC	LSC	25	27	B16545
Niobium-94	14681-63-1	RAD	pCi/g	1	0	0	0.008	0.008			GEA	GEA			
Plutonium-238	13981-16-3	RAD	pCi/g	12	0	0	-0.102	0.047			Sep/Plate/AEA	Sep/Plate/AEA			
Plutonium-239/240	PU-239/240	RAD	pCi/g	12	1	8.333333333	0	0.093	0.021	0.021	Sep/Plate/AEA	Sep/Plate/AEA	25	27	B16HB6-A
Potassium-40	13966-00-2	RAD	pCi/g	11	11	100			3.08	14.3	GEA	GEA	135	137	B16542
Radium-226	13982-63-3	RAD	pCi/g	12	12	100			0.114	0.922	GEA	GEA	150	152	B16KB0
Radium-228	15262-20-1	RAD	pCi/g	12	11	91.66666667	0.482	0.482	0.176	1.1	GEA	GEA	150	152	B16KB0
Ruthenium-103	13968-53-1	RAD	pCi/g	1	0	0	0.008	0.008			GEA	GEA			
Ruthenium-106	13967-48-1	RAD	pCi/g	1	0	0	0.07	0.07			GEA	GEA			
Technetium-99	14133-76-7	RAD	pCi/g	12	0	0	-0.097	0.189			Sep/GPC	Sep/GPC			
Thallium-208	14913-50-9	RAD		1	1	100			0.157	0.157	GEA	GEA	25	27	B16HB6-A
Thorium-228	14274-82-9	RAD	pCi/g	22	18	81.81818182	0.276	0.412	0.232	5.9	IX/Plate/AEA	IX/Plate/AEA	220	222	B16544
Thorium-230	14269-63-7	RAD	pCi/g	11	8	72.72727273	0.176	0.625	0.33	1.38	IX/Plate/AEA	IX/Plate/AEA	20	22	B16539
Thorium-232	TH-232	RAD	pCi/g	22	18	81.81818182	0.165	0.482	0.176	1.41	IX/Plate/AEA	GEA	150	152	B16KB0
Thorium-234	15065-10-8	RAD	pCi/g	1	1	100			0.591	0.591	GEA	GEA	25	27	B16HB6-A
Tin-113	13966-06-8	RAD	pCi/g	1	0	0	0.011	0.011			GEA	GEA			
Tin-126	15832-50-5	RAD	pCi/g	1	0	0	0.097	0.097			GEA	GEA			
Total beta radiostrontium	SR-RAD	RAD	pCi/g	12	0	0	-0.054	0.146			Sep/GPC	Sep/GPC			
Tritium	10028-17-8	RAD	pCi/g	12	1	8.333333333	-0.066	0.066	0.061	0.061	906	906	25	27	B16HB6
Uranium-235	15117-96-1	RAD	pCi/g	12	0	0	0.069	0.43			GEA	GEA			
Uranium-238	U-238	RAD	pCi/g	11	0	0	2.2	15			GEA	GEA			
Zinc-65	13982-39-3	RAD	pCi/g	1	0	0	0.019	0.019			GEA	GEA			
1-2-4-Trichlorobenzene	120-82-1	SVOA	ug/kg	12	0	0	300	380			8270	8270			
1-2-Dichlorobenzene	95-50-1	SVOA	ug/kg	11	0	0	340	380			8270	8270			
1-3-Dichlorobenzene	541-73-1	SVOA	ug/kg	11	0	0	340	380			8270	8270			
1-4-Dichlorobenzene	106-46-7	SVOA	ug/kg	12	0	0	320	380			8270	8270			
2-4-5-Trichlorophenol	95-95-4	SVOA	ug/kg	11	0	0	860	950			8270	8270			
2-4-6-Trichlorophenol	88-06-2	SVOA	ug/kg	11	0	0	340	380			8270	8270			
2-4-Dichlorophenol	120-83-2	SVOA	ug/kg	11	0	0	340	380			8270	8270			

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2-4-Dimethylphenol	105-67-9	SVOA	ug/kg	11	0	0	340	380			8270	8270			
2-4-Dinitrophenol	51-28-5	SVOA	ug/kg	11	0	0	860	950			8270	8270			
2-4-Dinitrotoluene	121-14-2	SVOA	ug/kg	12	0	0	68	380			8270	8270			
2-6-Dinitrotoluene	606-20-2	SVOA	ug/kg	11	0	0	340	380			8270	8270			
2-Chloronaphthalene	91-58-7	SVOA	ug/kg	11	0	0	340	380			8270	8270			
2-Chlorophenol	95-57-8	SVOA	ug/kg	12	0	0	150	380			8270	8270			
2-Methylnaphthalene	91-57-6	SVOA	ug/kg	11	0	0	340	380			8270	8270			
2-Methylphenol (cresol- o-)	95-48-7	SVOA	ug/kg	11	0	0	340	380			8270	8270			
2-Nitroaniline	88-74-4	SVOA	ug/kg	11	0	0	860	950			8270	8270			
2-Nitrophenol	88-75-5	SVOA	ug/kg	11	0	0	340	380			8270	8270			
3-3'-Dichlorobenzidine	91-94-1	SVOA	ug/kg	11	0	0	340	380			8270	8270			
3-Nitroaniline	99-09-2	SVOA	ug/kg	11	0	0	860	950			8270	8270			
4-6-Dinitro-2-methylphenol	534-52-1	SVOA	ug/kg	11	0	0	860	950			8270	8270			
4-Bromophenylphenyl ether	101-55-3	SVOA	ug/kg	11	0	0	340	380			8270	8270			
4-Chloro-3-methylphenol	59-50-7	SVOA	ug/kg	12	0	0	68	380			8270	8270			
4-Chloroaniline	106-47-8	SVOA	ug/kg	11	0	0	340	380			8270	8270			
4-Chlorophenylphenyl ether	7005-72-3	SVOA	ug/kg	11	0	0	340	380			8270	8270			
4-Methylphenol (cresol- p-)	106-44-5	SVOA	ug/kg	11	0	0	340	380			8270	8270			
4-Nitroaniline	100-01-6	SVOA	ug/kg	11	0	0	860	950			8270	8270			
4-Nitrophenol	100-02-7	SVOA	ug/kg	12	0	0	660	950			8270	8270			
Acenaphthene	83-32-9	SVOA	ug/kg	12	0	0	68	380			8270	8270			
Acenaphthylene	208-96-8	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Anthracene	120-12-7	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Benzo(a)anthracene	56-55-3	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Benzo(a)pyrene	50-32-8	SVOA	ug/kg	11	0	0	340	380			8270	8270			

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Benzo(b)fluoranthene	205-99-2	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Benzo(ghi)perylene	191-24-2	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Benzo(k)fluoranthene	207-08-9	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Bis(2-Chloroethoxy)methane	111-91-1	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Bis(2-chloro-1-methylethyl)ether	108-60-1	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Bis(2-chloroethyl) ether	111-44-4	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Bis(2-ethylhexyl) phthalate	117-81-7	SVOA	ug/kg	11	9	81.81818182	350	370	19.471	68.974	8270	8270	20	22	B16539
Butyl Stearate	123-95-5	SVOA	ug/kg	1	1	100			230	230	8270	8270	25	27	B16HB6-A
Butylbenzylphthalate	85-68-7	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Carbazole	86-74-8	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Chrysene	218-01-9	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Di-n-butylphthalate	84-74-2	SVOA	ug/kg	11	3	27.27272727	340	380	44	170	8270	8270	16	17	B15YB9
Di-n-octylphthalate	117-84-0	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Dibenz[a-h]anthracene	53-70-3	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Dibenzofuran	132-64-9	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Diethylphthalate	84-66-2	SVOA	ug/kg	12	1	8.333333333	340	380	360	360	8270	8270	25	27	B16HB6-A
Dimethyl phthalate	131-11-3	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Eicosane	112-95-8	SVOA		1	1	100			170	170	8270	8270	25	27	B16HB6-A
Fluoranthene	206-44-0	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Fluorene	86-73-7	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Hexachlorobenzene	118-74-1	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Hexachlorobutadiene	87-68-3	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Hexachlorocyclopentadiene	77-47-4	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Hexachloroethane	67-72-1	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Hexadecanoic acid-butyl ester	111-06-8	SVOA	ug/kg	1	1	100			300	300	8270	8270	25	27	B16HB6-A
Indeno(1-2-3-cd)pyrene	193-39-5	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Isophorone	78-59-1	SVOA	ug/kg	11	0	0	340	380			8270	8270			

200-CS-1 Summary Table for All Constituents in Deep Zone Soil Samples

Constituent	CAS Number	Constituent Class	Units	Number of Results	Number of Detects	Frequency of Detects (%)	Minimum Nondetect	Maximum Nondetect	Minimum Detect	Maximum Detect	Analytical Method for Minimum Detect (or nondetect)	Analytical Method for Maximum Detect (or nondetect)	Start Depth of Maximum Detect (ft bgs)	End Depth of Maximum Depth (ft bgs)	Sample Number of Maximum Detect
Naphthalene	91-20-3	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Nitrobenzene	98-95-3	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Pentachlorophenol	87-86-5	SVOA	ug/kg	12	0	0	310	950			8270	8270			
Phenanthrene	85-01-8	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Phenol	108-95-2	SVOA	ug/kg	12	0	0	100	380			8270	8270			
Pyrene	129-00-0	SVOA	ug/kg	12	0	0	68	380			8270	8270			
Tributyl phosphate	126-73-8	SVOA	ug/kg	12	0	0	68	380			8270	8270			
n-Nitrosodi-n-dipropylamine	621-64-7	SVOA	ug/kg	12	0	0	68	380			8270	8270			
n-Nitrosodiphenylamine	86-30-6	SVOA	ug/kg	11	0	0	340	380			8270	8270			
1-1-1-Trichloroethane	71-55-6	VOA	ug/kg	12	0	0	1.7	6			8260	8260			
1-1-2-2-Tetrachloroethane	79-34-5	VOA	ug/kg	12	0	0	1.7	6			8260	8260			
1-1-2-Trichloroethane	79-00-5	VOA	ug/kg	12	0	0	1.7	6			8260	8260			
1-1-Dichloroethane	75-34-3	VOA	ug/kg	12	0	0	1.7	6			8260	8260			
1-1-Dichloroethene	75-35-4	VOA	ug/kg	12	0	0	1.7	6			8260	8260			
1-2-Dichloroethane	107-06-2	VOA	ug/kg	12	0	0	1.7	6			8260	8260			
1-2-Dichloroethene (Total)	540-59-0	VOA	ug/kg	12	0	0	1.7	6			8260	8260			
1-2-Dichloropropane	78-87-5	VOA	ug/kg	12	0	0	1.7	6			8260	8260			
1-Propanol	71-23-8	VOA	ug/kg	12	0	0	4300	28000			8015	8015			
2-Butanone	78-93-3	VOA	ug/kg	12	0	0	1.7	13			8260	8260			
2-Hexanone	591-78-6	VOA	ug/kg	12	0	0	1.7	13			8260	8260			
2-Pentanone- 4-Methyl	108-10-1	VOA	ug/kg	12	0	0	1.7	13			8260	8260			
Acetone	67-64-1	VOA	ug/kg	12	5	41.66666667	1.7	12	2	10	8260	8260	16	17	B15YB9
Benzene	71-43-2	VOA	ug/kg	12	0	0	1.7	6			8260	8260			
Bromodichloromethane	75-27-4	VOA	ug/kg	12	0	0	1.7	6			8260	8260			
Bromoform	75-25-2	VOA	ug/kg	12	0	0	1.7	6			8260	8260			
Bromomethane	74-83-9	VOA	ug/kg	12	0	0	1.7	13			8260	8260			
Carbon disulfide	75-15-0	VOA	ug/kg	12	0	0	1.7	6			8260	8260			
Carbon tetrachloride	56-23-5	VOA	ug/kg	12	0	0	1.7	6			8260	8260			
Chlorobenzene	108-90-7	VOA	ug/kg	12	0	0	1.7	6			8260	8260			
Chloroethane	75-00-3	VOA	ug/kg	12	0	0	1.7	13			8260	8260			

200-CS-1 Summary Table for All Constituents in Deep Zone Soil Samples

Constituent	CAS Number	Constituent Class	Units	Number of Results	Number of Detects	Frequency of Detects (%)	Minimum Nondetect	Maximum Nondetect	Minimum Detect	Maximum Detect	Analytical Method for Minimum Detect (or nondetect)	Analytical Method for Maximum Detect (or nondetect)	Start Depth of Maximum Detect (ft bgs)	End Depth of Maximum Depth (ft bgs)	Sample Number of Maximum Detect
Chloroform	67-66-3	VOA	ug/kg	12	0	0	1.7	6			8260	8260			
Chloromethane	74-87-3	VOA	ug/kg	12	0	0	1.7	13			8260	8260			
Dibromochloromethane	124-48-1	VOA	ug/kg	12	0	0	1.7	6			8260	8260			
Ethanol	64-17-5	VOA	ug/kg	12	0	0	4300	28000			8015	8015			
Ethylbenzene	100-41-4	VOA	ug/kg	12	0	0	1.7	6			8260	8260			
Methylene chloride	75-09-2	VOA	ug/kg	12	10	83.33333333	1.7	6	6	18	8260	8260	150	152	B16KB0
Styrene	100-42-5	VOA	ug/kg	12	0	0	1.7	6			8260	8260			
Tetrachloroethene	127-18-4	VOA	ug/kg	12	0	0	1.7	6			8260	8260			
Toluene	108-88-3	VOA	ug/kg	12	0	0	1.7	6			8260	8260			
Trichloroethene	79-01-6	VOA	ug/kg	12	0	0	1.7	6			8260	8260			
Vinyl chloride	75-01-4	VOA	ug/kg	12	0	0	1.7	13			8260	8260			
Xylenes (total)	1330-20-7	VOA	ug/kg	12	0	0	1.7	6			8260	8260			
cis-1-3-Dichloropropene	10061-01-5	VOA	ug/kg	12	0	0	1.7	6			8260	8260			
trans-1-3-Dichloropropene	10061-02-6	VOA	ug/kg	12	0	0	1.7	6			8260	8260			
Ammonia	7664-41-7	WETCHEM	ug/kg	11	1	9.090909091	3020	6320	3450	3450	350.3	350.3	20	22	B16538
Ammonium ion	14798-03-9	WETCHEM	ug/kg	1	1	100			100	100	300.7_CATIONS IC	300.7_CATIONS_IC	25	27	B16HB6-A
Bromide	24959-67-9	WETCHEM	ug/kg	1	0	0	450	450			300	300			
Chloride	16887-00-6	WETCHEM	ug/kg	12	11	91.66666667	1280	1280	1900	31900	300	300	20	22	B16539
Cyanide	57-12-5	WETCHEM	ug/kg	12	0	0	200	530			335.2	9010			
Fluoride	16984-48-8	WETCHEM	ug/kg	12	1	8.333333333	1280	1400	718	718	300	300	25	27	B16HB6-A
Nitrate	14797-55-8	WETCHEM	ug/kg	12	3	25	221	1430	1380	1580	300	300	20	22	B16539
Nitrite	14797-65-0	WETCHEM	ug/kg	12	0	0	296	1430			300	300			
Nitrogen in Nitrite and Nitrate	NO2+NO3-N	WETCHEM	ug/kg	12	6	50	170	240	159	1400	353.2	353.2	25	27	B16HB6
Phosphate	14265-44-2	WETCHEM	ug/kg	12	1	8.333333333	399	1400	2400	2400	300	300	199.9	201.9	B16543
Sulfate	14808-79-8	WETCHEM	ug/kg	12	11	91.66666667	1280	1280	2500	36200	300	300	20	22	B16539
Sulfide	18496-25-8	WETCHEM	ug/kg	12	4	33.33333333	23200	43900	12400	97400	9030	9030	25	27	B16545
216-S-10P															
Aroclor-1016	12674-11-2	GENORG	ug/kg	19	0	0	34	49			8082	8082			
Aroclor-1221	11104-28-2	GENORG	ug/kg	19	0	0	68	99			8082	8082			
Aroclor-1232	11141-16-5	GENORG	ug/kg	19	0	0	34	49			8082	8082			
Aroclor-1242	53469-21-9	GENORG	ug/kg	19	0	0	34	49			8082	8082			
Aroclor-1248	12672-29-6	GENORG	ug/kg	19	0	0	34	49			8082	8082			
Aroclor-1254	11097-69-1	GENORG	ug/kg	19	0	0	34	49			8082	8082			
Aroclor-1260	11096-82-5	GENORG	ug/kg	19	0	0	34	49			8082	8082			

200-CS-1 Summary Table for All Constituents in Deep Zone Soil Samples

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Total petroleum hydrocarbons - diesel range	TPHDIESEL	GENORG	ug/kg	19	0	0	4100	13000			WDOE TPH	WDOE TPH			
Total petroleum hydrocarbons - kerosene rang	TPHKEROSENE	GENORG	ug/kg	8	0	0	12400	13000			WDOE TPH	WDOE TPH			
Arsenic	7440-38-2	METAL	ug/kg	21	21	100			1500	5300	6010	6010	99.5	101.5	B0X0B3
Barium	7440-39-3	METAL	ug/kg	21	21	100			52400	180000	6010	6010	20	21	B15YJ9
Beryllium	7440-41-7	METAL	ug/kg	21	21	100			180	450	6010	6010	150.1	152.1	B0X0B5
Cadmium	7440-43-9	METAL	ug/kg	21	9	42.85714286	30	40	40	500	6010	6010	179.9	181.9	B0X0B6
Chromium	7440-47-3	METAL	ug/kg	21	21	100			7000	39000	6010	6010	197.4	199.3	B0X0B7
Copper	7440-50-8	METAL	ug/kg	21	21	100			10600	21300	6010	6010	16	17	B15YM4
Hexavalent Chromium	18540-29-9	METAL	ug/kg	21	4	19.04761905	100	470	420	1570	7196	7196	20	21	B15YM5
Lead	7439-92-1	METAL	ug/kg	21	21	100			2700	10300	6010	6010	50	52	B0X0B1
Mercury	7439-97-6	METAL	ug/kg	19	5	26.31578947	20	20	20	260	7471	7471	17	18	B15YJ8
Nickel	7440-02-0	METAL	ug/kg	21	21	100			9200	25200	6010	6010	197.4	199.3	B0X0B7
Selenium	7782-49-2	METAL	ug/kg	21	6	28.57142857	290	450	560	2000	6010	6010	179.9	181.9	B0X0B6
Silver	7440-22-4	METAL	ug/kg	21	2	9.523809524	60	150	140	470	6010	6010	17	18	B15YJ8
Uranium	7440-61-1	METAL	ug/kg	21	21	100			265	2140	KPA	KPA	35	37	B0X0B0
Vanadium	7440-62-2	METAL	ug/kg	21	21	100			25400	87500	6010	6010	150.1	152.1	B0X0B5
Zinc	7440-66-6	METAL	ug/kg	21	21	100			29500	201000	6010	6010	197.4	199.3	B0X0B7
pH Measurement	PH	PHYSICAL		21	21	100			8.04	9.1	9045	9045	50	52	B0X0B1
Americium-241	14596-10-2	RAD	pCi/g	41	0	0	-0.059	0.34			GEA	GEA			
Cesium-137	10045-97-3	RAD	pCi/g	21	1	4.761904762	0.018	0.22	0.336	0.336	GEA	GEA	17	18	B15YJ8
Cobalt-60	10198-40-0	RAD	pCi/g	21	0	0	0.016	0.29			GEA	GEA			
Europium-152	14683-23-9	RAD	pCi/g	21	0	0	-0.023	0.41			GEA	GEA			
Europium-154	15585-10-1	RAD	pCi/g	21	0	0	-0.084	0.91			GEA	GEA			
Europium-155	14391-16-3	RAD	pCi/g	21	0	0	0.038	0.3			GEA	GEA			
Gross alpha	12587-46-1	RAD	pCi/g	21	13	61.9047619	0.638	3.23	3.02	10.7	900	900	135.2	137.2	B0X0B4
Gross beta	12587-47-2	RAD	pCi/g	21	21	100			8.18	40.3	900	900	135.2	137.2	B0X0B4
Neptunium-237	13994-20-2	RAD	pCi/g	17	1	5.882352941	-0.016	0.067	0.062	0.062	LX/Plate/AEA	LX/Plate/AEA	17	18	B15YJ8
Nickel-63	13981-37-8	RAD	pCi/g	17	1	5.882352941	-0.652	2.14	2.46	2.46	LSC	LSC	50	52	B0X0B2
Plutonium-238	13981-16-3	RAD	pCi/g	21	0	0	-0.017	0.092			Sep/Plate/AEA	Sep/Plate/AEA			
Plutonium-239/240	PU-239/240	RAD	pCi/g	21	2	9.523809524	-0.017	0.053	0.117	0.317	Sep/Plate/AEA	Sep/Plate/AEA	17	18	B15YJ8
Potassium-40	13966-00-2	RAD	pCi/g	20	20	100			8.51	13.9	GEA	GEA	197.4	199.3	B0X0B7
Radium-226	13982-63-3	RAD	pCi/g	20	20	100			0.311	0.739	GEA	GEA	16	17	B15YM4
Radium-228	15262-20-1	RAD	pCi/g	21	20	95.23809524	1.2	1.2	0.408	0.938	GEA	GEA	16	17	B15YM4

200-CS-1 Summary Table for All Constituents in Deep Zone Soil Samples

Constituent	CAS Number	Constituent Class	Units	Number of Results	Number of Detects	Frequency of Detects (%)	Minimum Nondetect	Maximum Nondetect	Minimum Detect	Maximum Detect	Analytical Method for Minimum Detect (or nondetect)	Analytical Method for Maximum Detect (or nondetect)	Start Depth of Maximum Detect (ft bgs)	End Depth of Maximum Depth (ft bgs)	Sample Number of Maximum Detect
Technetium-99	14133-76-7	RAD	pCi/g	17	0	0	-0.214	0.409			Sep/GPC	Sep/GPC			
Thorium-228	14274-82-9	RAD	pCi/g	37	30	81.08108108	0.117	0.433	0.355	1.27	IX/Plate/AEA	IX/Plate/AEA	20	21	B15YJ9
Thorium-230	14269-63-7	RAD	pCi/g	17	15	88.23529412	0.194	0.4	0.243	1.06	IX/Plate/AEA	IX/Plate/AEA	50	52	B0X0B1
Thorium-232	TH-232	RAD	pCi/g	37	31	83.78378378	0.156	1.2	0.283	0.938	IX/Plate/AEA	GEA	16	17	B15YM4
Total beta radiostrontium	SR-RAD	RAD	pCi/g	21	6	28.57142857	-0.133	0.21	0.28	1.57	Sep/GPC	Sep/GPC	50	52	B0X0B2
Tritium	10028-17-8	RAD	pCi/g	17	3	17.64705882	-0.065	0.126	0.512	1.53	906	906	16	17	B15YM4
Uranium-233/234	U-233/234	RAD	pCi/g	3	3	100			0.407	0.577	Sep/Plate/AEA	Sep/Plate/AEA	20	21	B15YJ9
Uranium-235	15117-96-1	RAD	pCi/g	23	1	4.347826087	0	0.49	0.022	0.022	Sep/Plate/AEA	GEA	50	52	B0X0B1
Uranium-238	U-238	RAD	pCi/g	23	3	13.04347826	2.3	27	0.381	0.548	GEA	GEA	20	21	B15YJ9
1-2-4-Trichlorobenzene	120-82-1	SVOA	ug/kg	19	0	0	340	570			8270	8270			
1-2-Dichlorobenzene	95-50-1	SVOA	ug/kg	19	0	0	340	570			8270	8270			
1-3-Dichlorobenzene	541-73-1	SVOA	ug/kg	19	0	0	340	570			8270	8270			
1-4-Dichlorobenzene	106-46-7	SVOA	ug/kg	19	0	0	340	570			8270	8270			
2-4-5-Trichlorophenol	95-95-4	SVOA	ug/kg	19	0	0	850	1400			8270	8270			
2-4-6-Trichlorophenol	88-06-2	SVOA	ug/kg	19	0	0	340	570			8270	8270			
2-4-Dichlorophenol	120-83-2	SVOA	ug/kg	19	0	0	340	570			8270	8270			
2-4-Dimethylphenol	105-67-9	SVOA	ug/kg	19	0	0	340	570			8270	8270			
2-4-Dinitrophenol	51-28-5	SVOA	ug/kg	19	0	0	850	1400			8270	8270			
2-4-Dinitrotoluene	121-14-2	SVOA	ug/kg	19	0	0	340	570			8270	8270			
2-6-Dinitrotoluene	606-20-2	SVOA	ug/kg	19	0	0	340	570			8270	8270			
2-Chloronaphthalene	91-58-7	SVOA	ug/kg	19	0	0	340	570			8270	8270			
2-Chlorophenol	95-57-8	SVOA	ug/kg	19	0	0	340	570			8270	8270			
2-Methylnaphthalene	91-57-6	SVOA	ug/kg	19	0	0	340	570			8270	8270			
2-Methylphenol (cresol- o-)	95-48-7	SVOA	ug/kg	19	0	0	340	570			8270	8270			
2-Nitroaniline	88-74-4	SVOA	ug/kg	19	0	0	850	1400			8270	8270			
2-Nitrophenol	88-75-5	SVOA	ug/kg	19	0	0	340	570			8270	8270			
3-3'-Dichlorobenzidine	91-94-1	SVOA	ug/kg	19	0	0	340	570			8270	8270			
3-Nitroaniline	99-09-2	SVOA	ug/kg	19	0	0	850	1400			8270	8270			

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4-6-Dinitro-2-methylphenol	534-52-1	SVOA	ug/kg	19	0	0	850	1400			8270	8270			
4-Bromophenylphenyl ether	101-55-3	SVOA	ug/kg	19	0	0	340	570			8270	8270			
4-Chloro-3-methylphenol	59-50-7	SVOA	ug/kg	19	0	0	340	570			8270	8270			
4-Chloroaniline	106-47-8	SVOA	ug/kg	19	0	0	340	570			8270	8270			
4-Chlorophenylphenyl ether	7005-72-3	SVOA	ug/kg	19	0	0	340	570			8270	8270			
4-Methylphenol (cresol- p-)	106-44-5	SVOA	ug/kg	19	0	0	340	570			8270	8270			
4-Nitroaniline	100-01-6	SVOA	ug/kg	19	0	0	850	1400			8270	8270			
4-Nitrophenol	100-02-7	SVOA	ug/kg	19	0	0	850	1400			8270	8270			
Acenaphthene	83-32-9	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Acenaphthylene	208-96-8	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Anthracene	120-12-7	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Benzo(a)anthracene	56-55-3	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Benzo(a)pyrene	50-32-8	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Benzo(b)fluoranthene	205-99-2	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Benzo(ghi)perylene	191-24-2	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Benzo(k)fluoranthene	207-08-9	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Bis(2-Chloroethoxy)methane	111-91-1	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Bis(2-chloro-1-methylethyl)ether	108-60-1	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Bis(2-chloroethyl) ether	111-44-4	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Bis(2-ethylhexyl) phthalate	117-81-7	SVOA	ug/kg	19	5	26.31578947	340	570	24	260	8270	8270	179.9	181.9	B0X0B6
Butylbenzylphthalate	85-68-7	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Carbazole	86-74-8	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Chrysene	218-01-9	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Di-n-butylphthalate	84-74-2	SVOA	ug/kg	19	1	5.263157895	340	570	100	100	8270	8270	24	25	B15YM6
Di-n-octylphthalate	117-84-0	SVOA	ug/kg	19	0	0	340	570			8270	8270			

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Dibenz[a-h]anthracene	53-70-3	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Dibenzofuran	132-64-9	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Diethylphthalate	84-66-2	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Dimethyl phthalate	131-11-3	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Fluoranthene	206-44-0	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Fluorene	86-73-7	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Hexachlorobenzene	118-74-1	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Hexachlorobutadiene	87-68-3	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Hexachlorocyclopentadiene	77-47-4	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Hexachloroethane	67-72-1	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Indeno(1-2-3-cd)pyrene	193-39-5	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Isophorone	78-59-1	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Naphthalene	91-20-3	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Nitrobenzene	98-95-3	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Pentachlorophenol	87-86-5	SVOA	ug/kg	19	0	0	850	1400			8270	8270			
Phenanthrene	85-01-8	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Phenol	108-95-2	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Pyrene	129-00-0	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Tributyl phosphate	126-73-8	SVOA	ug/kg	11	0	0	340	360			8270	8270			
n-Nitrosodi-n-dipropylamine	621-64-7	SVOA	ug/kg	19	0	0	340	570			8270	8270			
n-Nitrosodiphenylamine	86-30-6	SVOA	ug/kg	19	0	0	340	570			8270	8270			
1-1-1-Trichloroethane	71-55-6	VOA	ug/kg	19	0	0	5	6			8260	8260			
1-1-2-2-Tetrachloroethane	79-34-5	VOA	ug/kg	19	0	0	5	6			8260	8260			
1-1-2-Trichloroethane	79-00-5	VOA	ug/kg	19	0	0	5	6			8260	8260			
1-1-Dichloroethane	75-34-3	VOA	ug/kg	19	0	0	5	6			8260	8260			
1-1-Dichloroethene	75-35-4	VOA	ug/kg	19	0	0	5	6			8260	8260			
1-2-Dichloroethane	107-06-2	VOA	ug/kg	19	0	0	5	6			8260	8260			
1-2-Dichloroethene (Total)	540-59-0	VOA	ug/kg	19	0	0	5	6			8260	8260			
1-2-Dichloropropane	78-87-5	VOA	ug/kg	19	0	0	5	6			8260	8260			

200-CS-1 Summary Table for All Constituents in Deep Zone Soil Samples

Constituent	CAS Number	Constituent Class	Units	Number of Results	Number of Detects	Frequency of Detects (%)	Minimum Nondetect	Maximum Nondetect	Minimum Detect	Maximum Detect	Analytical Method for Minimum Detect (or nondetect)	Analytical Method for Maximum Detect (or nondetect)	Start Depth of Maximum Detect (ft bgs)	End Depth of Maximum Depth (ft bgs)	Sample Number of Maximum Detect
1-Propanol	71-23-8	VOA	ug/kg	19	0	0	4600	29000			8015	8015			
2-Butanone	78-93-3	VOA	ug/kg	19	2	10.52631579	10	12	2	12	8260	8260	99.5	101.5	B0X0B3
2-Hexanone	591-78-6	VOA	ug/kg	19	0	0	10	12			8260	8260			
2-Pentanone- 4-Methyl	108-10-1	VOA	ug/kg	19	0	0	10	12			8260	8260			
Acetone	67-64-1	VOA	ug/kg	19	10	52.63157895	10	12	5	33	8260	8260	99.5	101.5	B0X0B3
Benzene	71-43-2	VOA	ug/kg	19	0	0	5	6			8260	8260			
Bromodichloromethane	75-27-4	VOA	ug/kg	19	0	0	5	6			8260	8260			
Bromoform	75-25-2	VOA	ug/kg	19	0	0	5	6			8260	8260			
Bromomethane	74-83-9	VOA	ug/kg	19	0	0	10	12			8260	8260			
Carbon disulfide	75-15-0	VOA	ug/kg	19	0	0	5	6			8260	8260			
Carbon tetrachloride	56-23-5	VOA	ug/kg	19	0	0	5	6			8260	8260			
Chlorobenzene	108-90-7	VOA	ug/kg	19	0	0	5	6			8260	8260			
Chloroethane	75-00-3	VOA	ug/kg	19	0	0	10	12			8260	8260			
Chloroform	67-66-3	VOA	ug/kg	19	0	0	5	6			8260	8260			
Chloromethane	74-87-3	VOA	ug/kg	19	0	0	10	12			8260	8260			
Dibromochloromethane	124-48-1	VOA	ug/kg	19	0	0	5	6			8260	8260			
Ethanol	64-17-5	VOA	ug/kg	19	0	0	4600	29000			8015	8015			
Ethylbenzene	100-41-4	VOA	ug/kg	19	0	0	5	6			8260	8260			
Methylene chloride	75-09-2	VOA	ug/kg	19	17	89.47368421	6	6	4	23	8260	8260	16	17	B15YM4
Styrene	100-42-5	VOA	ug/kg	19	0	0	5	6			8260	8260			
Tetrachloroethene	127-18-4	VOA	ug/kg	19	0	0	5	6			8260	8260			
Toluene	108-88-3	VOA	ug/kg	19	0	0	5	6			8260	8260			
Trichloroethene	79-01-6	VOA	ug/kg	19	0	0	5	6			8260	8260			
Vinyl chloride	75-01-4	VOA	ug/kg	19	0	0	10	12			8260	8260			
Xylenes (total)	1330-20-7	VOA	ug/kg	19	0	0	5	6			8260	8260			
cis-1-3-Dichloropropene	10061-01-5	VOA	ug/kg	19	0	0	5	6			8260	8260			
trans-1-3-Dichloropropene	10061-02-6	VOA	ug/kg	19	0	0	5	6			8260	8260			
Ammonia	7664-41-7	WETCHEM	ug/kg	19	3	15.78947368	1580	3230	1700	2070	350.3	350.3	50	52	B0X0B2
Chloride	16887-00-6	WETCHEM	ug/kg	21	19	90.47619048	1400	2000	1500	3960	300	300	16	17	B15YM4
Cyanide	57-12-5	WETCHEM	ug/kg	19	0	0	278	580			335.2	9010			
Fluoride	16984-48-8	WETCHEM	ug/kg	21	0	0	1000	2900			300	300			
Nitrate	14797-55-8	WETCHEM	ug/kg	21	18	85.71428571	1300	1400	1300	134000	300	300	16	17	B15YM4
Nitrite	14797-65-0	WETCHEM	ug/kg	21	0	0	657	1500			300	300			
Nitrogen in Nitrite and Nitrate	NO2+NO3-N	WETCHEM	ug/kg	21	18	85.71428571	220	500	270	22700	353.2	353.1	16	17	B15YM4
Phosphate	14265-44-2	WETCHEM	ug/kg	21	4	19.04761905	1300	5000	1400	2600	300	300	179.9	181.9	B0X0B6

200-CS-1 Summary Table for All Constituents in Deep Zone Soil Samples

Constituent	CAS Number	Constituent Class	Units	Number of Results	Number of Detects	Frequency of Detects (%)	Minimum Nondetect	Maximum Nondetect	Minimum Detect	Maximum Detect	Analytical Method for Minimum Detect (or nondetect)	Analytical Method for Maximum Detect (or nondetect)	Start Depth of Maximum Detect (ft bgs)	End Depth of Maximum Depth (ft bgs)	Sample Number of Maximum Detect
Sulfate	14808-79-8	WETCHEM	ug/kg	21	20	95.23809524	1300	1300	2400	12400	300	300	179.9	181.9	B0X0B6
Sulfide	18496-25-8	WETCHEM	ug/kg	19	7	36.84210526	2000	42000	4000	43800	9030	9030	24	25	B15YM6

Deep Zone Radionuclides															
Constituent	**CAS Number**	**Constituent Class**	**Units**	**Number of Results**	**Number of Detects**	**Frequency of Detects (%)**	**Minimum Nondetect**	**Maximum Nondetect**	**Minimum Detect**	**Maximum Detect**	**Analytical Method for Minimum Detect (or nondetect)**	**Analytical Method for Maximum Detect (or nondetect)**	**Start Depth of Maximum Detect (ft bgs)**	**End Depth of Maximum Depth (ft bgs)**	**Sample Number of Maximum Detect**
216-A-29															
Americium-241	14596-10-2	RAD	pCi/g	19	0	0	-0.135	0.32			IX/Plate/AEA	GEA			
Cesium-137	10045-97-3	RAD	pCi/g	10	0	0	0.011	0.083			GEA	GEA			
Cobalt-60	10198-40-0	RAD	pCi/g	10	0	0	0.013	0.097			GEA	GEA			
Europium-152	14683-23-9	RAD	pCi/g	10	0	0	0.027	0.19			GEA	GEA			
Europium-154	15585-10-1	RAD	pCi/g	10	0	0	0.04	0.26			GEA	GEA			
Europium-155	14391-16-3	RAD	pCi/g	10	0	0	0.048	0.2			GEA	GEA			
Gross alpha	12587-46-1	RAD	pCi/g	10	8	80	0.6	4.08	4.51	8.18	900	900	259.9	261.9	B16FV6
Gross beta	12587-47-2	RAD	pCi/g	10	9	90	4.79	4.79	9.15	23.6	900	900	259.9	261.9	B16FV6
Neptunium-237	13994-20-2	RAD	pCi/g	9	0	0	-0.031	0.038			LX/Plate/AEA	LX/Plate/AEA			
Nickel-63	13981-37-8	RAD	pCi/g	8	0	0	-0.437	0.458			LSC	LSC			
Plutonium-238	13981-16-3	RAD	pCi/g	9	0	0	-0.049	0.022			Sep/Plate/AEA	Sep/Plate/AEA			
Plutonium-239/240	PU-239/240	RAD	pCi/g	9	0	0	0	0.052			Sep/Plate/AEA	Sep/Plate/AEA			
Potassium-40	13966-00-2	RAD	pCi/g	10	10	100			7.66	13.9	GEA	GEA	259.9	261.9	B16FV6
Radium-226	13982-63-3	RAD	pCi/g	10	9	90	0.38	0.38	0.191	0.514	GEA	GEA	259.9	261.9	B16FV6
Radium-228	15262-20-1	RAD	pCi/g	10	10	100			0.344	1.04	GEA	GEA	259.9	261.9	B16FV6
Technetium-99	14133-76-7	RAD	pCi/g	8	0	0	-0.019	0.462			Sep/GPC	Sep/GPC			
Thorium-228	14274-82-9	RAD	pCi/g	19	16	84.21052632	0.264	0.535	0.294	0.948	IX/Plate/AEA	IX/Plate/AEA	100	102	B16555
Thorium-230	14269-63-7	RAD	pCi/g	9	6	66.66666667	0.194	0.263	0.381	1.6	IX/Plate/AEA	IX/Plate/AEA	50	52.5	B16553
Thorium-232	TH-232	RAD	pCi/g	19	16	84.21052632	0.146	0.456	0.344	1.07	IX/Plate/AEA	IX/Plate/AEA	150	152	B16FV4
Total beta radiostrontium	SR-RAD	RAD	pCi/g	10	1	10	-0.096	0.102	0.27	0.27	Sep/GPC	Sep/GPC	16	16	B0P726
Tritium	10028-17-8	RAD	pCi/g	8	3	37.5	-0.032	0.144	0.221	7.05	906	906	259.9	261.9	B16FV6
Uranium-235	15117-96-1	RAD	pCi/g	9	0	0	0.048	0.27			GEA	GEA			
Uranium-238	U-238	RAD	pCi/g	10	0	0	1.4	10			GEA	GEA			
216-B-63															
Actinium-228	14331-83-0	RAD	pCi/g	1	1	100			0.44	0.44	GEA	GEA	17.5	19	B16HB4-A
Americium-241	14596-10-2	RAD	pCi/g	32	1	3.125	-0.181	0.46	0.03	0.03	IX/Plate/AEA	GEA	20	22.5	B0MJD7
Antimony-125	14234-35-6	RAD	pCi/g	1	0	0	-0.002	-0.002			GEA	GEA			
Bismuth-212	14913-49-6	RAD	pCi/g	1	1	100			0.276	0.276	GEA	GEA	17.5	19	B16HB4-A
Bismuth-214	14733-03-0	RAD	pCi/g	1	1	100			0.311	0.311	GEA	GEA	17.5	19	B16HB4-A
Cerium-144	14762-78-8	RAD	pCi/g	1	0	0	0.007	0.007			GEA	GEA			
Cesium-134	13967-70-9	RAD	pCi/g	1	0	0	0.018	0.018			GEA	GEA			
Cesium-137	10045-97-3	RAD	pCi/g	21	0	0	-0.017	0.083			GEA	GEA			
Cobalt-60	10198-40-0	RAD	pCi/g	21	0	0	-0.02	0.076			GEA	GEA			
Curium-242	15510-73-3	RAD	pCi/g	10	0	0	-0.002	0.01			IX/Prec/AEA	IX/Prec/AEA			
Curium-244	13981-15-2	RAD	pCi/g	10	0	0	-0.001	0.012			IX/Prec/AEA	IX/Prec/AEA			
Europium-152	14683-23-9	RAD	pCi/g	21	0	0	-0.07	0.22			GEA	GEA			
Europium-154	15585-10-1	RAD	pCi/g	21	0	0	-0.061	0.27			GEA	GEA			
Europium-155	14391-16-3	RAD	pCi/g	21	0	0	0.017	0.26			GEA	GEA			
Gross alpha	12587-46-1	RAD	pCi/g	21	14	66.66666667	1.35	4.54	1.1	9.76	900	900	100	102.5	B0MJF9
Gross beta	12587-47-2	RAD	pCi/g	21	21	100			2.3	32.6	GPC	GPC	75	77.5	B0MJF6

Deep Zone Radionuclides															
Constituent	CAS Number	Constituent Class	Units	Number of Results	Number of Detects	Frequency of Detects (%)	Minimum Nondetect	Maximum Nondetect	Minimum Detect	Maximum Detect	Analytical Method for Minimum Detect (or nondetect)	Analytical Method for Maximum Detect (or nondetect)	Start Depth of Maximum Detect (ft bgs)	End Depth of Maximum Depth (ft bgs)	Sample Number of Maximum Detect
Iodine-129	15046-84-1	RAD	pCi/g	10	0	0	-0.056	0.328			GEA	GEA			
Lead-212	15092-94-1	RAD	pCi/g	1	1	100			0.443	0.443	GEA	GEA	17.5	19	B16HB4-A
Lead-214	15067-28-4	RAD	pCi/g	1	1	100			0.362	0.362	GEA	GEA	17.5	19	B16HB4-A
Neptunium-237	13994-20-2	RAD	pCi/g	21	0	0	-0.044	0.101			LX/Plate/AEA	LX/Plate/AEA			
Nickel-63	13981-37-8	RAD	pCi/g	11	7	63.63636364	-0.724	0.706	2.85	23	LSC	LSC	17.5	19	B16HB4
Niobium-94	14681-63-1	RAD	pCi/g	1	0	0	0.003	0.003			GEA	GEA			
Plutonium-238	13981-16-3	RAD	pCi/g	21	1	4.761904762	-0.013	0.061	0.081	0.081	Sep/Plate/AEA	Sep/Plate/AEA	17.5	19	B16HB4-A
Plutonium-239/240	PU-239/240	RAD	pCi/g	21	1	4.761904762	-0.013	0.034	0.026	0.026	Sep/Plate/AEA	Sep/Plate/AEA	17.5	19	B16HB4-A
Plutonium-241	14119-32-5	RAD	pCi/g	10	0	0	-1.31	0.591			IX/LSC	IX/LSC			
Potassium-40	13966-00-2	RAD	pCi/g	20	20	100			8.69	18.4	GEA	GEA	75	77.5	B0MJF6
Radium-224	13233-32-4	RAD	pCi/g	10	10	100			0.52	0.742	GEA	GEA	30	32.5	B0MJF3
Radium-226	13982-63-3	RAD	pCi/g	21	21	100			0.3	0.67	GEA	GEA	251.4	253.9	B0MJK6
Radium-228	15262-20-1	RAD	pCi/g	21	21	100			0.44	0.792	GEA	GEA	251.4	253.9	B0MJK6
Ruthenium-103	13968-53-1	RAD	pCi/g	1	0	0	0.002	0.002			GEA	GEA			
Ruthenium-106	13967-48-1	RAD	pCi/g	1	0	0	-0.008	-0.008			GEA	GEA			
Selenium-79	15758-45-9	RAD	pCi/g	10	0	0	-1.38	0.178			IX/LSC	IX/LSC			
Strontium-90	10098-97-2	RAD	pCi/g	10	0	0	-0.018	0.094			Sep/GPC	Sep/GPC			
Technetium-99	14133-76-7	RAD	pCi/g	21	1	4.761904762	-0.633	0.577	0.406	0.406	IX/LSC	Sep/GPC	17.5	19	B16531
Thallium-208	14913-50-9	RAD	pCi/g	1	1	100			0.14	0.14	GEA	GEA	17.5	19	B16HB4-A
Thorium-228	14274-82-9	RAD	pCi/g	30	28	93.33333333	-0.002	0.258	0.366	1.47	IX/Prec/AEA	IX/Plate/AEA	100	102.5	B0MJF9
Thorium-230	14269-63-7	RAD	pCi/g	20	20	100			0.037	1.73	IX/Prec/AEA	IX/Plate/AEA	28	30	B16534
Thorium-232	TH-232	RAD	pCi/g	30	28	93.33333333	0	0.122	0.301	1.03	IX/Prec/AEA	IX/Plate/AEA	100	102.5	B0MJF9
Thorium-234	15065-10-8	RAD	pCi/g	1	0	0	0.289	0.289			GEA	GEA			
Tin-113	13966-06-8	RAD	pCi/g	1	0	0	0	0			GEA	GEA			
Tin-126	15832-50-5	RAD	pCi/g	1	0	0	0.108	0.108			GEA	GEA			
Total beta radiostrontium	SR-RAD	RAD	pCi/g	11	4	36.36363636	-0.128	0.033	1.2	3.21	Sep/GPC	Sep/GPC	17	18	B15XL2
Tritium	10028-17-8	RAD	pCi/g	11	2	18.18181818	-0.021	0.13	0.044	0.33	906	906	17	18	B15XL2
Uranium-235	15117-96-1	RAD	pCi/g	13	0	0	0.02	0.35			GEA	GEA			
Uranium-238	U-238	RAD	pCi/g	16	6	37.5	3.3	11	0.366	0.653	GEA	GEA	251.4	253.9	B0MJK6
Zinc-65	13982-39-3	RAD	pCi/g	1	0	0	-0.006	-0.006			GEA	GEA			
216-S-10D															
Actinium-228	14331-83-0	RAD	pCi/g	1	1	100			0.51	0.51	GEA	GEA	25	27	B16HB6-A
Americium-241	14596-10-2	RAD	pCi/g	24	0	0	-0.095	0.26			IX/Plate/AEA	GEA			
Antimony-125	14234-35-6	RAD	pCi/g	1	0	0	0.024	0.024			GEA	GEA			
Bismuth-212	14913-49-6	RAD	pCi/g	1	1	100			0.321	0.321	GEA	GEA	25	27	B16HB6-A
Bismuth-214	14733-03-0	RAD	pCi/g	1	1	100			0.426	0.426	GEA	GEA	25	27	B16HB6-A
Cerium-144	14762-78-8	RAD	pCi/g	1	0	0	0.073	0.073			GEA	GEA			
Cesium-134	13967-70-9	RAD	pCi/g	1	0	0	0.025	0.025			GEA	GEA			
Cesium-137	10045-97-3	RAD	pCi/g	12	0	0	0.008	0.12			GEA	GEA			
Cobalt-60	10198-40-0	RAD	pCi/g	12	0	0	0.008	0.14			GEA	GEA			
Europium-152	14683-23-9	RAD	pCi/g	12	0	0	0.026	0.3			GEA	GEA			

Deep Zone Radionuclides															
Constituent	CAS Number	Constituent Class	Units	Number of Results	Number of Detects	Frequency of Detects (%)	Minimum Nondetect	Maximum Nondetect	Minimum Detect	Maximum Detect	Analytical Method for Minimum Detect (or nondetect)	Analytical Method for Maximum Detect (or nondetect)	Start Depth of Maximum Detect (ft bgs)	End Depth of Maximum Depth (ft bgs)	Sample Number of Maximum Detect
Europium-154	15585-10-1	RAD	pCi/g	12	0	0	0.027	0.36			GEA	GEA			
Europium-155	14391-16-3	RAD	pCi/g	12	0	0	0.04	0.24			GEA	GEA			
Gross alpha	12587-46-1	RAD	pCi/g	12	6	50	0.586	3.98	1.6	11	900	900	100	102	B16541
Gross beta	12587-47-2	RAD	pCi/g	12	12	100			1.2	20	GPC	900	135	137	B16542
Lead-212	15092-94-1	RAD	pCi/g	1	1	100			0.498	0.498	GEA	GEA	25	27	B16HB6-A
Lead-214	15067-28-4	RAD	pCi/g	1	1	100			0.39	0.39	GEA	GEA	25	27	B16HB6-A
Neptunium-237	13994-20-2	RAD	pCi/g	12	0	0	0	0.058			LX/Plate/AEA	LX/Plate/AEA			
Nickel-63	13981-37-8	RAD	pCi/g	12	5	41.66666667	-0.245	2.02	2.73	38.4	LSC	LSC	25	27	B16545
Niobium-94	14681-63-1	RAD	pCi/g	1	0	0	0.008	0.008			GEA	GEA			
Plutonium-238	13981-16-3	RAD	pCi/g	12	0	0	-0.102	0.047			Sep/Plate/AEA	Sep/Plate/AEA			
Plutonium-239/240	PU-239/240	RAD	pCi/g	12	1	8.333333333	0	0.093	0.021	0.021	Sep/Plate/AEA	Sep/Plate/AEA	25	27	B16HB6-A
Potassium-40	13966-00-2	RAD	pCi/g	11	11	100			3.08	14.3	GEA	GEA	135	137	B16542
Radium-226	13982-63-3	RAD	pCi/g	12	12	100			0.114	0.922	GEA	GEA	150	152	B16KB0
Radium-228	15262-20-1	RAD	pCi/g	12	11	91.66666667	0.482	0.482	0.176	1.1	GEA	GEA	150	152	B16KB0
Ruthenium-103	13968-53-1	RAD	pCi/g	1	0	0	0.008	0.008			GEA	GEA			
Ruthenium-106	13967-48-1	RAD	pCi/g	1	0	0	0.07	0.07			GEA	GEA			
Technetium-99	14133-76-7	RAD	pCi/g	12	0	0	-0.097	0.189			Sep/GPC	Sep/GPC			
Thallium-208	14913-50-9	RAD	pCi/g	1	1	100			0.157	0.157	GEA	GEA	25	27	B16HB6-A
Thorium-228	14274-82-9	RAD	pCi/g	22	18	81.81818182	0.276	0.412	0.232	5.9	IX/Plate/AEA	IX/Plate/AEA	220	222	B16544
Thorium-230	14269-63-7	RAD	pCi/g	11	8	72.72727273	0.176	0.625	0.33	1.38	IX/Plate/AEA	IX/Plate/AEA	20	22	B16539
Thorium-232	TH-232	RAD	pCi/g	22	18	81.81818182	0.165	0.482	0.176	1.41	IX/Plate/AEA	GEA	150	152	B16KB0
Thorium-234	15065-10-8	RAD	pCi/g	1	1	100			0.591	0.591	GEA	GEA	25	27	B16HB6-A
Tin-113	13966-06-8	RAD	pCi/g	1	0	0	0.011	0.011			GEA	GEA			
Tin-126	15832-50-5	RAD	pCi/g	1	0	0	0.097	0.097			GEA	GEA			
Total beta radiostrontium	SR-RAD	RAD	pCi/g	12	0	0	-0.054	0.146			Sep/GPC	Sep/GPC			
Tritium	10028-17-8	RAD	pCi/g	12	1	8.333333333	-0.066	0.066	0.061	0.061	906	906	25	27	B16HB6
Uranium-235	15117-96-1	RAD	pCi/g	12	0	0	0.069	0.43			GEA	GEA			
Uranium-238	U-238	RAD	pCi/g	11	0	0	2.2	15			GEA	GEA			
Zinc-65	13982-39-3	RAD	pCi/g	1	0	0	0.019	0.019			GEA	GEA			
216-S-10P															
Americium-241	14596-10-2	RAD	pCi/g	41	0	0	-0.059	0.34			GEA	GEA			
Cesium-137	10045-97-3	RAD	pCi/g	21	1	4.761904762	0.018	0.22	0.336	0.336	GEA	GEA	17	18	B15YJ8
Cobalt-60	10198-40-0	RAD	pCi/g	21	0	0	0.016	0.29			GEA	GEA			
Europium-152	14683-23-9	RAD	pCi/g	21	0	0	-0.023	0.41			GEA	GEA			
Europium-154	15585-10-1	RAD	pCi/g	21	0	0	-0.084	0.91			GEA	GEA			
Europium-155	14391-16-3	RAD	pCi/g	21	0	0	0.038	0.3			GEA	GEA			
Gross alpha	12587-46-1	RAD	pCi/g	21	13	61.9047619	0.638	3.23	3.02	10.7	900	900	135.2	137.2	B0X0B4
Gross beta	12587-47-2	RAD	pCi/g	21	21	100			8.18	40.3	900	900	135.2	137.2	B0X0B4
Neptunium-237	13994-20-2	RAD	pCi/g	17	1	5.882352941	-0.016	0.067	0.062	0.062	LX/Plate/AEA	LX/Plate/AEA	17	18	B15YJ8
Nickel-63	13981-37-8	RAD	pCi/g	17	1	5.882352941	-0.652	2.14	2.46	2.46	LSC	LSC	50	52	B0X0B2
Plutonium-238	13981-16-3	RAD	pCi/g	21	0	0	-0.017	0.092			Sep/Plate/AEA	Sep/Plate/AEA			

Deep Zone Radionuclides															
Constituent	**CAS Number**	**Constituent Class**	**Units**	**Number of Results**	**Number of Detects**	**Frequency of Detects (%)**	**Minimum Nondetect**	**Maximum Nondetect**	**Minimum Detect**	**Maximum Detect**	**Analytical Method for Minimum Detect (or nondetect)**	**Analytical Method for Maximum Detect (or nondetect)**	**Start Depth of Maximum Detect (ft bgs)**	**End Depth of Maximum Depth (ft bgs)**	**Sample Number of Maximum Detect**
Plutonium-239/240	PU-239/240	RAD	pCi/g	21	2	9.523809524	-0.017	0.053	0.117	0.317	Sep/Plate/AEA	Sep/Plate/AEA	17	18	B15YJ8
Potassium-40	13966-00-2	RAD	pCi/g	20	20	100			8.51	13.9	GEA	GEA	197.4	199.3	B0X0B7
Radium-226	13982-63-3	RAD	pCi/g	20	20	100			0.311	0.739	GEA	GEA	16	17	B15YM4
Radium-228	15262-20-1	RAD	pCi/g	21	20	95.23809524	1.2	1.2	0.408	0.938	GEA	GEA	16	17	B15YM4
Technetium-99	14133-76-7	RAD	pCi/g	17	0	0	-0.214	0.409			Sep/GPC	Sep/GPC			
Thorium-228	14274-82-9	RAD	pCi/g	37	30	81.08108108	0.117	0.433	0.355	1.27	IX/Plate/AEA	IX/Plate/AEA	20	21	B15YJ9
Thorium-230	14269-63-7	RAD	pCi/g	17	15	88.23529412	0.194	0.4	0.243	1.06	IX/Plate/AEA	IX/Plate/AEA	50	52	B0X0B1
Thorium-232	TH-232	RAD	pCi/g	37	31	83.78378378	0.156	1.2	0.283	0.938	IX/Plate/AEA	GEA	16	17	B15YM4
Total beta radiostrontium	SR-RAD	RAD	pCi/g	21	6	28.57142857	-0.133	0.21	0.28	1.57	Sep/GPC	Sep/GPC	50	52	B0X0B2
Tritium	10028-17-8	RAD	pCi/g	17	3	17.64705882	-0.065	0.126	0.512	1.53	906	906	16	17	B15YM4
Uranium-233/234	U-233/234	RAD	pCi/g	3	3	100			0.407	0.577	Sep/Plate/AEA	Sep/Plate/AEA	20	21	B15YJ9
Uranium-235	15117-96-1	RAD	pCi/g	23	1	4.347826087	0	0.49	0.022	0.022	Sep/Plate/AEA	GEA	50	52	B0X0B1
Uranium-238	U-238	RAD	pCi/g	23	3	13.04347826	2.3	27	0.381	0.548	GEA	GEA	20	21	B15YJ9

Deep Zone Nonradionuclides															
Constituent	**CAS Number**	**Constituent Class**	**Units**	**Number of Results**	**Number of Detects**	**Frequency of Detects (%)**	**Minimum Nondetect**	**Maximum Nondetect**	**Minimum Detect**	**Maximum Detect**	**Analytical Method for Minimum Detect (or nondetect)**	**Analytical Method for Maximum Detect (or nondetect)**	**Start Depth of Maximum Detect (ft bgs)**	**End Depth of Maximum Depth (ft bgs)**	**Sample Number of Maximum Detect**
216-A-29															
Aroclor-1016	12674-11-2	GENORG	ug/kg	10	0	0	34	41			8080_PESTPCB_GC	8082			
Aroclor-1221	11104-28-2	GENORG	ug/kg	10	0	0	69	83			8082	8082			
Aroclor-1232	11141-16-5	GENORG	ug/kg	10	0	0	34	41			8080_PESTPCB_GC	8082			
Aroclor-1242	53469-21-9	GENORG	ug/kg	10	0	0	34	41			8080_PESTPCB_GC	8082			
Aroclor-1248	12672-29-6	GENORG	ug/kg	10	0	0	34	41			8080_PESTPCB_GC	8082			
Aroclor-1254	11097-69-1	GENORG	ug/kg	10	0	0	34	50			8080_PESTPCB_GC	8082			
Aroclor-1260	11096-82-5	GENORG	ug/kg	10	0	0	34	41			8080_PESTPCB_GC	8082			
Total petroleum hydrocarbons - diesel range	TPHDIESEL	GENORG	ug/kg	9	0	0	12400	14900			WDOE TPH	WDOE TPH			
Total petroleum hydrocarbons - kerosene rang	TPHKEROSENE	GENORG	ug/kg	9	0	0	12400	14900			WDOE TPH	WDOE TPH			
Arsenic	7440-38-2	METAL	ug/kg	10	10	100			1500	7200	6010	6010	16	16	B0P726
Barium	7440-39-3	METAL	ug/kg	10	10	100			59900	166000	6010	6010	259.9	261.9	B16FV6
Beryllium	7440-41-7	METAL	ug/kg	9	9	100			240	680	6010	6010	24.5	27	B16552
Cadmium	7440-43-9	METAL	ug/kg	10	8	80	40	450	10	320	6010	6010	16	16	B0P726
Chromium	7440-47-3	METAL	ug/kg	10	10	100			3500	36400	6010	6010	259.9	261.9	B16FV6
Copper	7440-50-8	METAL	ug/kg	9	9	100			8300	27300	6010	6010	259.9	261.9	B16FV6
Hexavalent Chromium	18540-29-9	METAL	ug/kg	9	0	0	410	500			7196	7196			
Lead	7439-92-1	METAL	ug/kg	10	10	100			1700	10500	6010	6010	259.9	261.9	B16FV6
Mercury	7439-97-6	METAL	ug/kg	7	1	14.28571429	20	30	40	40	7471	7471	259.9	261.9	B16FV6
Nickel	7440-02-0	METAL	ug/kg	9	9	100			5300	32300	6010	6010	259.9	261.9	B16FV6
Selenium	7782-49-2	METAL	ug/kg	10	2	20	170	450	640	680	6010	6010	16	16	B0P726
Silver	7440-22-4	METAL	ug/kg	10	0	0	50	900			6010	6010			
Uranium	7440-61-1	METAL	ug/kg	9	9	100			320	1250	KPA	KPA	16	17	B13C80
Vanadium	7440-62-2	METAL	ug/kg	9	9	100			31700	94200	6010	6010	24.5	27	B16552
Zinc	7440-66-6	METAL	ug/kg	9	9	100			30600	76900	6010	6010	259.9	261.9	B16FV6
pH Measurement	PH	PHYSICAL		9	9	100			8.8	9.5	9045	9045	150	152	B16FV4
1-2-4-Trichlorobenzene	120-82-1	SVOA	ug/kg	10	0	0	340	410			8270	8270			
1-2-Dichlorobenzene	95-50-1	SVOA	ug/kg	10	0	0	340	410			8270	8270			
1-3-Dichlorobenzene	541-73-1	SVOA	ug/kg	10	0	0	340	410			8270	8270			
1-4-Dichlorobenzene	106-46-7	SVOA	ug/kg	10	0	0	340	410			8270	8270			
2-4-5-Trichlorophenol	95-95-4	SVOA	ug/kg	10	0	0	860	1000			8270	8270			
2-4-6-Trichlorophenol	88-06-2	SVOA	ug/kg	10	0	0	340	410			8270	8270			

Deep Zone Nonradionuclides															
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2-4-Dichlorophenol	120-83-2	SVOA	ug/kg	10	0	0	340	410			8270	8270			
2-4-Dimethylphenol	105-67-9	SVOA	ug/kg	10	0	0	340	410			8270	8270			
2-4-Dinitrophenol	51-28-5	SVOA	ug/kg	10	0	0	860	1000			8270	8270			
2-4-Dinitrotoluene	121-14-2	SVOA	ug/kg	10	0	0	340	410			8270	8270			
2-6-Dinitrotoluene	606-20-2	SVOA	ug/kg	10	0	0	340	410			8270	8270			
2-Chloronaphthalene	91-58-7	SVOA	ug/kg	10	0	0	340	410			8270	8270			
2-Chlorophenol	95-57-8	SVOA	ug/kg	10	0	0	340	410			8270	8270			
2-Methylnaphthalene	91-57-6	SVOA	ug/kg	10	0	0	340	410			8270	8270			
2-Methylphenol (cresol- o-)	95-48-7	SVOA	ug/kg	10	0	0	340	410			8270	8270			
2-Nitroaniline	88-74-4	SVOA	ug/kg	10	0	0	860	1000			8270	8270			
2-Nitrophenol	88-75-5	SVOA	ug/kg	10	0	0	340	410			8270	8270			
3-3'-Dichlorobenzidine	91-94-1	SVOA	ug/kg	10	0	0	340	410			8270	8270			
3-Nitroaniline	99-09-2	SVOA	ug/kg	10	0	0	860	1000			8270	8270			
4-6-Dinitro-2-methylphenol	534-52-1	SVOA	ug/kg	10	0	0	860	1000			8270	8270			
4-Bromophenylphenyl ether	101-55-3	SVOA	ug/kg	10	0	0	340	410			8270	8270			
4-Chloro-3-methylphenol	59-50-7	SVOA	ug/kg	10	0	0	340	410			8270	8270			
4-Chloroaniline	106-47-8	SVOA	ug/kg	10	0	0	340	410			8270	8270			
4-Chlorophenylphenyl ether	7005-72-3	SVOA	ug/kg	10	0	0	340	410			8270	8270			
4-Methylphenol (cresol- p-)	106-44-5	SVOA	ug/kg	10	0	0	340	410			8270	8270			
4-Nitroaniline	100-01-6	SVOA	ug/kg	10	0	0	860	1000			8270	8270			
4-Nitrophenol	100-02-7	SVOA	ug/kg	10	0	0	860	1000			8270	8270			
Acenaphthene	83-32-9	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Acenaphthylene	208-96-8	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Anthracene	120-12-7	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Benzo(a)anthracene	56-55-3	SVOA	ug/kg	10	0	0	340	410			8270	8270			

Deep Zone Nonradionuclides															
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Benzo(a)pyrene	50-32-8	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Benzo(b)fluoranthene	205-99-2	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Benzo(ghi)perylene	191-24-2	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Benzo(k)fluoranthene	207-08-9	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Bis(2-Chloroethoxy)methane	111-91-1	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Bis(2-chloro-1-methylethyl)ether	108-60-1	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Bis(2-chloroethyl) ether	111-44-4	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Bis(2-ethylhexyl) phthalate	117-81-7	SVOA	ug/kg	10	1	10	340	410	52	52	8270	8270	16	16	B0P726
Butylbenzylphthalate	85-68-7	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Carbazole	86-74-8	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Chrysene	218-01-9	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Di-n-butylphthalate	84-74-2	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Di-n-octylphthalate	117-84-0	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Dibenz[a-h]anthracene	53-70-3	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Dibenzofuran	132-64-9	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Diethylphthalate	84-66-2	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Dimethyl phthalate	131-11-3	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Fluoranthene	206-44-0	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Fluorene	86-73-7	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Hexachlorobenzene	118-74-1	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Hexachlorobutadiene	87-68-3	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Hexachlorocyclopentadiene	77-47-4	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Hexachloroethane	67-72-1	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Indeno(1-2-3-cd)pyrene	193-39-5	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Isophorone	78-59-1	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Naphthalene	91-20-3	SVOA	ug/kg	10	0	0	340	410			8270	8270			

Deep Zone Nonradionuclides															
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Nitrobenzene	98-95-3	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Pentachlorophenol	87-86-5	SVOA	ug/kg	10	0	0	860	1000			8270	8270			
Phenanthrene	85-01-8	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Phenol	108-95-2	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Pyrene	129-00-0	SVOA	ug/kg	10	0	0	340	410			8270	8270			
Tributyl phosphate	126-73-8	SVOA	ug/kg	9	0	0	340	410			8270	8270			
n-Nitrosodi-n-dipropylamine	621-64-7	SVOA	ug/kg	10	0	0	340	410			8270	8270			
n-Nitrosodiphenylamine	86-30-6	SVOA	ug/kg	10	0	0	340	410			8270	8270			
1-1-1-Trichloroethane	71-55-6	VOA	ug/kg	9	0	0	5	6			8260	8260			
1-1-2-2-Tetrachloroethane	79-34-5	VOA	ug/kg	9	0	0	5	6			8260	8260			
1-1-2-Trichloroethane	79-00-5	VOA	ug/kg	9	0	0	5	6			8260	8260			
1-1-Dichloroethane	75-34-3	VOA	ug/kg	9	0	0	5	6			8260	8260			
1-1-Dichloroethene	75-35-4	VOA	ug/kg	9	0	0	5	6			8260	8260			
1-2-Dichloroethane	107-06-2	VOA	ug/kg	9	0	0	5	6			8260	8260			
1-2-Dichloroethene (Total)	540-59-0	VOA	ug/kg	9	0	0	5	6			8260	8260			
1-2-Dichloropropane	78-87-5	VOA	ug/kg	9	0	0	5	6			8260	8260			
1-Propanol	71-23-8	VOA	ug/kg	9	0	0	5000	30000			8015	8015			
2-Butanone	78-93-3	VOA	ug/kg	9	1	11.11111111	9	12	2	2	8260	8260	271.9	273.9	B16FV7
2-Hexanone	591-78-6	VOA	ug/kg	9	0	0	9	12			8260	8260			
2-Pentanone- 4-Methyl	108-10-1	VOA	ug/kg	9	0	0	9	12			8260	8260			
Acetone	67-64-1	VOA	ug/kg	9	2	22.22222222	9	12	8	14	8260	8260	199.9	201.9	B16FV5
Benzene	71-43-2	VOA	ug/kg	9	0	0	5	6			8260	8260			
Bromodichloromethane	75-27-4	VOA	ug/kg	9	0	0	5	6			8260	8260			
Bromoform	75-25-2	VOA	ug/kg	9	0	0	5	6			8260	8260			
Bromomethane	74-83-9	VOA	ug/kg	9	0	0	9	12			8260	8260			
Carbon disulfide	75-15-0	VOA	ug/kg	9	0	0	5	6			8260	8260			

Deep Zone Nonradionuclides															
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Carbon tetrachloride	56-23-5	VOA	ug/kg	9	0	0	5	6			8260	8260			
Chlorobenzene	108-90-7	VOA	ug/kg	9	0	0	5	6			8260	8260			
Chloroethane	75-00-3	VOA	ug/kg	9	0	0	9	12			8260	8260			
Chloroform	67-66-3	VOA	ug/kg	9	0	0	5	6			8260	8260			
Chloromethane	74-87-3	VOA	ug/kg	9	0	0	9	12			8260	8260			
Dibromochloromethane	124-48-1	VOA	ug/kg	9	0	0	5	6			8260	8260			
Ethanol	64-17-5	VOA	ug/kg	9	0	0	5000	30000			8015	8015			
Ethylbenzene	100-41-4	VOA	ug/kg	9	0	0	5	6			8260	8260			
Methylene chloride	75-09-2	VOA	ug/kg	9	6	66.66666667	5	6	2	36	8260	8260	259.9	261.9	B16FV6
Styrene	100-42-5	VOA	ug/kg	9	0	0	5	6			8260	8260			
Tetrachloroethene	127-18-4	VOA	ug/kg	9	0	0	5	6			8260	8260			
Toluene	108-88-3	VOA	ug/kg	9	1	11.11111111	5	6	1	1	8260	8260	259.9	261.9	B16FV6
Trichloroethene	79-01-6	VOA	ug/kg	9	0	0	5	6			8260	8260			
Vinyl chloride	75-01-4	VOA	ug/kg	9	0	0	9	12			8260	8260			
Xylenes (total)	1330-20-7	VOA	ug/kg	9	0	0	5	6			8260	8260			
cis-1-3-Dichloropropene	10061-01-5	VOA	ug/kg	9	0	0	5	6			8260	8260			
trans-1-3-Dichloropropene	10061-02-6	VOA	ug/kg	9	0	0	5	6			8260	8260			
Ammonia	7664-41-7	WETCHEM	ug/kg	9	0	0	3770	6810			350.3	350.3			
Chloride	16887-00-6	WETCHEM	ug/kg	9	5	55.55555556	1300	1600	1800	4300	300	300	24.5	27	B16552
Cyanide	57-12-5	WETCHEM	ug/kg	9	0	0	340	590			9010	9010			
Fluoride	16984-48-8	WETCHEM	ug/kg	9	0	0	1300	2600			300	300			
Hydrazine	302-01-2	WETCHEM	ug/kg	1	0	0	1000	1000			D1385	D1385			
Nitrate	14797-55-8	WETCHEM	ug/kg	9	3	33.33333333	1290	1550	14100	33800	300	300	16	17	B13C80
Nitrite	14797-65-0	WETCHEM	ug/kg	9	1	11.11111111	1290	1380	2700	2700	300	300	259.9	261.9	B16FV6
Nitrogen in Nitrite and Nitrate	NO2+NO3-N	WETCHEM	ug/kg	9	5	55.55555556	180	230	300	7900	353.2	353.2	16	17	B13C80
Phosphate	14265-44-2	WETCHEM	ug/kg	9	0	0	1300	1600			300	300			
Sulfate	14808-79-8	WETCHEM	ug/kg	9	9	100			1300	46200	300	300	24.5	27	B16552
Sulfide	18496-25-8	WETCHEM	ug/kg	9	1	11.11111111	22100	40900	58400	58400	9030	9030	259.9	261.9	B16FV6
216-B-63															
Aroclor-1016	12674-11-2	GENORG	ug/kg	16	0	0	30	36			8082	8080_PESTPCB_GC			
Aroclor-1221	11104-28-2	GENORG	ug/kg	16	0	0	30	70			8082	8082			
Aroclor-1232	11141-16-5	GENORG	ug/kg	16	0	0	30	36			8082	8080_PESTPCB_GC			
Aroclor-1242	53469-21-9	GENORG	ug/kg	16	0	0	30	36			8082	8080_PESTPCB_GC			
Aroclor-1248	12672-29-6	GENORG	ug/kg	16	0	0	30	36			8082	8080_PESTPCB_GC			
Aroclor-1254	11097-69-1	GENORG	ug/kg	16	0	0	30	36			8082	8080_PESTPCB_GC			
Aroclor-1260	11096-82-5	GENORG	ug/kg	16	0	0	30	36			8082	8080_PESTPCB_GC			
Aroclor-1262	37324-23-5	GENORG	ug/kg	1	0	0	30	30			8082	8082			

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Constituent	CAS Number	Constituent Class	Units	Number of Results	Number of Detects	Frequency of Detects (%)	Minimum Nondetect	Maximum Nondetect	Minimum Detect	Maximum Detect	Analytical Method for Minimum Detect (or nondetect)	Analytical Method for Maximum Detect (or nondetect)	Start Depth of Maximum Detect (ft bgs)	End Depth of Maximum Depth (ft bgs)	Sample Number of Maximum Detect
Aroclor-1268	11100-14-4	GENORG	ug/kg	1	0	0	30	30			8082	8082			
Total organic carbon	TOC	GENORG	ug/kg	4	4	100			206000	367000	9060	9060	176.5	179	B0MJK3
Total petroleum hydrocarbons - diesel range	TPHDIESEL	GENORG	ug/kg	11	0	0	3700	12600			WDOE TPH	WDOE TPH			
Total petroleum hydrocarbons - kerosene rang	TPHKEROSENE	GENORG	ug/kg	11	0	0	3700	12600			WDOE TPH	WDOE TPH			
Aluminum	7429-90-5	METAL	ug/kg	10	10	100			3530000	6980000	6010	6010	100	102.5	B0MJF9
Antimony	7440-36-0	METAL	ug/kg	11	0	0	3330	4600			6010	6010			
Arsenic	7440-38-2	METAL	ug/kg	21	20	95.23809524	3010	3010	720	4500	6010	6010	24	25	B15XK2
Barium	7440-39-3	METAL	ug/kg	21	21	100			31300	80700	6010	6010	17	18	B15XL2
Beryllium	7440-41-7	METAL	ug/kg	21	21	100			170	913	6010	6010	17.5	19	B16HB4-A
Bismuth	7440-69-9	METAL	ug/kg	11	10	90.90909091	3060	3060	12400	26200	6010	6010	100	102.5	B0MJF9
Boron	7440-42-8	METAL	ug/kg	10	10	100			2800	5000	6010	6010	75	77.5	B0MJF6
Cadmium	7440-43-9	METAL	ug/kg	21	9	42.85714286	30	360	40	2420	6010	6010	17.5	19	B16HB4-A
Calcium	7440-70-2	METAL	ug/kg	10	10	100			2920000	16100000	6010	6010	40	42	B0MJJ1
Chromium	7440-47-3	METAL	ug/kg	21	21	100			5500	16500	6010	6010	17.5	19	B16HB4-A
Cobalt	7440-48-4	METAL	ug/kg	10	10	100			4100	7200	6010	6010	174	179	B0MJK0
Copper	7440-50-8	METAL	ug/kg	21	21	100			6700	14800	6010	6010	174	179	B0MJK0
Hexavalent Chromium	18540-29-9	METAL	ug/kg	11	1	9.090909091	410	420	483	483	7196	7196	17.5	19	B16HB4
Iron	7439-89-6	METAL	ug/kg	10	10	100			8930000	16700000	6010	6010	174	179	B0MJK0
Lead	7439-92-1	METAL	ug/kg	21	20	95.23809524	3060	3060	1400	4800	6010	6010	30	32.5	B0MJF3
Magnesium	7439-95-4	METAL	ug/kg	10	10	100			2300000	5600000	6010	6010	100	102.5	B0MJF9
Manganese	7439-96-5	METAL	ug/kg	11	11	100			147000	330000	6010	6010	30	32.5	B0MJF3
Mercury	7439-97-6	METAL	ug/kg	21	0	0	10	50			7471	200.8			
Molybdenum	7439-98-7	METAL	ug/kg	1	0	0	1000	1000			6010	6010			
Nickel	7440-02-0	METAL	ug/kg	21	21	100			2890	21000	6010	6010	19.5	21.5	B16532
Potassium	9/7/7440	METAL	ug/kg	10	10	100			579000	1490000	6010	6010	174	179	B0MJK0
Selenium	7782-49-2	METAL	ug/kg	21	6	28.57142857	230	3370	260	500	6010	6010	75	77.5	B0MJF6
Silver	7440-22-4	METAL	ug/kg	21	2	9.523809524	71	1440	620	790	6010	6010	75	77.5	B0MJF6
Sodium	7440-23-5	METAL	ug/kg	10	10	100			122000	281000	6010	6010	20	22.5	B0MJD7
Tin	7440-31-5	METAL	ug/kg	11	0	0	1570	3800			6010	6010			
Uranium	7440-61-1	METAL	ug/kg	21	21	100			336	2200	KPA	KPA	30	32.5	B0MJF3
Vanadium	7440-62-2	METAL	ug/kg	21	21	100			22700	64200	6010	6010	17	18	B15XL2
Zinc	7440-66-6	METAL	ug/kg	21	21	100			18500	45200	6010	6010	17	18	B15XL2
Cation Exchange Capacity	CEC	PHYSICAL	mEQ/100g	11	3	27.27272727	6.14	6.49	6.34	11.9	9080	9080	30	32	B0MJF5
Specific Gravity	SPECGVTY	PHYSICAL		11	11	100			2.1	2.64	D854	D854	174	179	B0MJK5
pH Measurement	PH	PHYSICAL		23	23	100			8.18	9.42	9045	9040	53	55	B16535
1-2-4-Trichlorobenzene	120-82-1	SVOA	ug/kg	21	0	0	300	350			8270	8270			

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1-2-Dichlorobenzene	95-50-1	SVOA	ug/kg	20	0	0	340	350			8270	8270			
1-3-Dichlorobenzene	541-73-1	SVOA	ug/kg	20	0	0	340	350			8270	8270			
1-4-Dichlorobenzene	106-46-7	SVOA	ug/kg	21	0	0	320	350			8270	8270			
2-4-5-Trichlorophenol	95-95-4	SVOA	ug/kg	20	0	0	340	880			8270	8270			
2-4-6-Trichlorophenol	88-06-2	SVOA	ug/kg	20	0	0	340	350			8270	8270			
2-4-Dichlorophenol	120-83-2	SVOA	ug/kg	20	0	0	340	350			8270	8270			
2-4-Dimethylphenol	105-67-9	SVOA	ug/kg	20	0	0	340	350			8270	8270			
2-4-Dinitrophenol	51-28-5	SVOA	ug/kg	20	0	0	850	1700			8270	8270			
2-4-Dinitrotoluene	121-14-2	SVOA	ug/kg	21	0	0	69	350			8270	8270			
2-6-Dinitrotoluene	606-20-2	SVOA	ug/kg	20	0	0	340	350			8270	8270			
2-Chloronaphthalene	91-58-7	SVOA	ug/kg	20	0	0	340	350			8270	8270			
2-Chlorophenol	95-57-8	SVOA	ug/kg	21	0	0	150	350			8270	8270			
2-Methylnaphthalene	91-57-6	SVOA	ug/kg	20	0	0	340	350			8270	8270			
2-Methylphenol (cresol- o-)	95-48-7	SVOA	ug/kg	20	0	0	340	350			8270	8270			
2-Nitroaniline	88-74-4	SVOA	ug/kg	20	0	0	850	1700			8270	8270			
2-Nitrophenol	88-75-5	SVOA	ug/kg	20	0	0	340	350			8270	8270			
3-3'-Dichlorobenzidine	91-94-1	SVOA	ug/kg	20	0	0	340	1700			8270	8270			
3-Nitroaniline	99-09-2	SVOA	ug/kg	20	0	0	850	1700			8270	8270			
4-6-Dinitro-2-methylphenol	534-52-1	SVOA	ug/kg	20	0	0	850	1700			8270	8270			
4-Bromophenylphenyl ether	101-55-3	SVOA	ug/kg	20	0	0	340	350			8270	8270			
4-Chloro-3-methylphenol	59-50-7	SVOA	ug/kg	21	0	0	69	350			8270	8270			
4-Chloroaniline	106-47-8	SVOA	ug/kg	20	0	0	340	350			8270	8270			

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4-Chlorophenylphenyl ether	7005-72-3	SVOA	ug/kg	20	0	0	340	350			8270	8270			
4-Methylphenol (cresol- p-)	106-44-5	SVOA	ug/kg	20	0	0	340	350			8270	8270			
4-Nitroaniline	100-01-6	SVOA	ug/kg	20	0	0	850	1700			8270	8270			
4-Nitrophenol	100-02-7	SVOA	ug/kg	21	0	0	670	1700			8270	8270			
Acenaphthene	83-32-9	SVOA	ug/kg	21	0	0	69	350			8270	8270			
Acenaphthylene	208-96-8	SVOA	ug/kg	20	0	0	340	350			8270	8270			
Anthracene	120-12-7	SVOA	ug/kg	20	0	0	340	350			8270	8270			
Benzo(a)anthracene	56-55-3	SVOA	ug/kg	20	0	0	340	350			8270	8270			
Benzo(a)pyrene	50-32-8	SVOA	ug/kg	20	0	0	340	350			8270	8270			
Benzo(b)fluoranthene	205-99-2	SVOA	ug/kg	20	0	0	340	350			8270	8270			
Benzo(ghi)perylene	191-24-2	SVOA	ug/kg	20	0	0	340	350			8270	8270			
Benzo(k)fluoranthene	207-08-9	SVOA	ug/kg	20	0	0	340	350			8270	8270			
Bis(2-Chloroethoxy)methane	111-91-1	SVOA	ug/kg	20	0	0	340	350			8270	8270			
Bis(2-chloro-1-methylethyl)ether	108-60-1	SVOA	ug/kg	20	0	0	340	350			8270	8270			
Bis(2-chloroethyl) ether	111-44-4	SVOA	ug/kg	20	0	0	340	350			8270	8270			
Bis(2-ethylhexyl) phthalate	117-81-7	SVOA	ug/kg	20	3	15	330	350	21	54	8270	8270	24	25	B15XK2
Butylbenzylphthalate	85-68-7	SVOA	ug/kg	20	4	20	340	350	220	240	8270	8270	251.4	253.9	B0MJK6
Carbazole	86-74-8	SVOA	ug/kg	20	0	0	340	350			8270	8270			
Chrysene	218-01-9	SVOA	ug/kg	20	0	0	340	350			8270	8270			
Di-n-butylphthalate	84-74-2	SVOA	ug/kg	20	1	5	340	350	21	21	8270	8270	101	103	B16536
Di-n-octylphthalate	117-84-0	SVOA	ug/kg	20	0	0	340	350			8270	8270			
Dibenz[a-h]anthracene	53-70-3	SVOA	ug/kg	20	0	0	340	350			8270	8270			
Dibenzofuran	132-64-9	SVOA	ug/kg	20	0	0	340	350			8270	8270			
Diethylphthalate	84-66-2	SVOA	ug/kg	21	1	4.761904762	340	350	210	210	8270	8270	17.5	19	B16HB4-A
Dimethyl phthalate	131-11-3	SVOA	ug/kg	20	0	0	340	350			8270	8270			
Fluoranthene	206-44-0	SVOA	ug/kg	20	0	0	340	350			8270	8270			
Fluorene	86-73-7	SVOA	ug/kg	20	0	0	340	350			8270	8270			

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Hexachlorobenzene	118-74-1	SVOA	ug/kg	20	0	0	340	350			8270	8270			
Hexachlorobutadiene	87-68-3	SVOA	ug/kg	20	0	0	340	350			8270	8270			
Hexachlorocyclopentadiene	77-47-4	SVOA	ug/kg	20	0	0	340	1700			8270	8270			
Hexachloroethane	67-72-1	SVOA	ug/kg	20	0	0	340	350			8270	8270			
Hexadecanoic acid (9CI)	57-10-3	SVOA	ug/kg	5	5	100			380	740	8270	8270	251.4	253.9	B0MJK6
Indeno(1-2-3-cd)pyrene	193-39-5	SVOA	ug/kg	20	0	0	340	350			8270	8270			
Isophorone	78-59-1	SVOA	ug/kg	20	0	0	340	350			8270	8270			
Naphthalene	91-20-3	SVOA	ug/kg	20	0	0	340	350			8270	8270			
Nitrobenzene	98-95-3	SVOA	ug/kg	20	0	0	340	350			8270	8270			
Octadecanoic acid	57-11-4	SVOA	ug/kg	3	3	100			86	140	8270	8270	251.4	253.9	B0MJK6
Pentachlorophenol	87-86-5	SVOA	ug/kg	21	0	0	310	1700			8270	8270			
Phenanthrene	85-01-8	SVOA	ug/kg	20	0	0	340	350			8270	8270			
Phenol	108-95-2	SVOA	ug/kg	21	0	0	100	350			8270	8270			
Pyrene	129-00-0	SVOA	ug/kg	21	0	0	69	350			8270	8270			
Tributyl phosphate	126-73-8	SVOA	ug/kg	21	0	0	69	710			8270	8270			
n-Nitrosodi-n-dipropylamine	621-64-7	SVOA	ug/kg	21	0	0	69	350			8270	8270			
n-Nitrosodiphenylamine	86-30-6	SVOA	ug/kg	20	0	0	340	350			8270	8270			
1-1-1-Trichloroethane	71-55-6	VOA	ug/kg	21	0	0	1.6	6			8260	8260			
1-1-2-2-Tetrachloroethane	79-34-5	VOA	ug/kg	21	0	0	1.6	6			8260	8260			
1-1-2-Trichloroethane	79-00-5	VOA	ug/kg	21	0	0	1.6	6			8260	8260			
1-1-Dichloroethane	75-34-3	VOA	ug/kg	21	0	0	1.6	6			8260	8260			
1-1-Dichloroethene	75-35-4	VOA	ug/kg	21	0	0	1.6	6			8260	8260			
1-2-4-Trimethylbenzene	95-63-6	VOA	ug/kg	1	1	100			10	10	8260	8260	150	152	B0MJJ7
1-2-Dichloroethane	107-06-2	VOA	ug/kg	21	0	0	1.6	6			8260	8260			

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1-2-Dichloroethene (Total)	540-59-0	VOA	ug/kg	21	0	0	1.6	6			8260	8260			
1-2-Dichloropropane	78-87-5	VOA	ug/kg	21	0	0	1.6	6			8260	8260			
1-Butanol	71-36-3	VOA	ug/kg	10	0	0	200	220			8260	8260			
1-Propanol	71-23-8	VOA	ug/kg	11	0	0	5000	28000			8015	8015			
2-Butanone	78-93-3	VOA	ug/kg	21	0	0	1.6	22			8260	8260			
2-Ethyl-1-hexanol	104-76-7	VOA	ug/kg	3	3	100			6	240	8260	8270	251.4	253.9	B0MJK6
2-Hexanone	591-78-6	VOA	ug/kg	21	0	0	1.6	22			8260	8260			
2-Pentanone- 4-Methyl	108-10-1	VOA	ug/kg	21	0	0	1.6	22			8260	8260			
Acetone	67-64-1	VOA	ug/kg	21	7	33.33333333	1.6	40	5	22	8260	8260	251.4	253.9	B0MJK6
Benzene	71-43-2	VOA	ug/kg	21	0	0	1.6	6			8260	8260			
Bromodichloromethane	75-27-4	VOA	ug/kg	21	0	0	1.6	6			8260	8260			
Bromoform	75-25-2	VOA	ug/kg	21	0	0	1.6	6			8260	8260			
Bromomethane	74-83-9	VOA	ug/kg	21	0	0	1.6	11			8260	8260			
Carbon disulfide	75-15-0	VOA	ug/kg	21	0	0	1.6	6			8260	8260			
Carbon tetrachloride	56-23-5	VOA	ug/kg	21	0	0	1.6	6			8260	8260			
Chlorobenzene	108-90-7	VOA	ug/kg	21	0	0	1.6	6			8260	8260			
Chloroethane	75-00-3	VOA	ug/kg	21	0	0	1.6	11			8260	8260			
Chloroform	67-66-3	VOA	ug/kg	21	0	0	1.6	6			8260	8260			
Chloromethane	74-87-3	VOA	ug/kg	21	0	0	1.6	11			8260	8260			
Dibromochloromethane	124-48-1	VOA	ug/kg	21	0	0	1.6	6			8260	8260			
Diethyl ether	60-29-7	VOA	ug/kg	10	0	0	10	11			8260	8260			
Ethanol	64-17-5	VOA	ug/kg	11	0	0	5000	28000			8015	8015			
Ethylbenzene	100-41-4	VOA	ug/kg	21	0	0	1.6	6			8260	8260			
Methylene chloride	75-09-2	VOA	ug/kg	21	13	61.9047619	1.6	6	2	16	8260	8260	17	18	B15XL2
Styrene	100-42-5	VOA	ug/kg	21	0	0	1.6	6			8260	8260			
Tetrachloroethene	127-18-4	VOA	ug/kg	21	0	0	1.6	6			8260	8260			
Toluene	108-88-3	VOA	ug/kg	21	1	4.761904762	1.6	6	2	2	8260	8260	150	152	B0MJJ7
Trichloroethene	79-01-6	VOA	ug/kg	21	0	0	1.6	6			8260	8260			
Vinyl chloride	75-01-4	VOA	ug/kg	21	0	0	1.6	11			8260	8260			
Xylenes (total)	1330-20-7	VOA	ug/kg	21	1	4.761904762	1.6	6	8	8	8260	8260	150	152	B0MJJ7
cis-1-3-Dichloropropene	10061-01-5	VOA	ug/kg	21	0	0	1.6	6			8260	8260			
trans-1-3-Dichloropropene	10061-02-6	VOA	ug/kg	21	0	0	1.6	6			8260	8260			
Ammonia	7664-41-7	WETCHEM	ug/kg	20	0	0	619	6210			350.1	350.3			

Deep Zone Nonradionuclides															
Constituent	**CAS Number**	**Constituent Class**	**Units**	**Number of Results**	**Number of Detects**	**Frequency of Detects (%)**	**Minimum Nondetect**	**Maximum Nondetect**	**Minimum Detect**	**Maximum Detect**	**Analytical Method for Minimum Detect (or nondetect)**	**Analytical Method for Maximum Detect (or nondetect)**	**Start Depth of Maximum Detect (ft bgs)**	**End Depth of Maximum Depth (ft bgs)**	**Sample Number of Maximum Detect**
Ammonium ion	14798-03-9	WETCHEM	ug/kg	1	1	100			60	60	300.7_CATIONS_IC	300.7_CATIONS_IC	17.5	19	B16HB4-A
Bromide	24959-67-9	WETCHEM	ug/kg	1	0	0	450	450			300	300			
Chloride	16887-00-6	WETCHEM	ug/kg	11	10	90.90909091	1300	1300	784	3750	300	300	19.5	21.5	B16532
Cyanide	57-12-5	WETCHEM	ug/kg	21	0	0	200	539			335.2	9010			
Fluoride	16984-48-8	WETCHEM	ug/kg	11	1	9.090909091	1280	1300	263	263	300	300	17.5	19	B16HB4-A
Nitrate	14797-55-8	WETCHEM	ug/kg	21	14	66.66666667	868	1290	1130	35700	300	300	17	18	B15XL2
Nitrite	14797-65-0	WETCHEM	ug/kg	21	0	0	296	1320			300	300			
Nitrogen in Nitrite and Nitrate	NO2+NO3-N	WETCHEM	ug/kg	21	14	66.66666667	509	539	260	8500	353.1	353.1	17	18	B15XL2
Phosphate	14265-44-2	WETCHEM	ug/kg	11	0	0	399	1300			300	300			
Sulfate	14808-79-8	WETCHEM	ug/kg	21	16	76.19047619	4910	5170	2700	18400	300	300	251.4	253.9	B0MJK6
Sulfide	18496-25-8	WETCHEM	ug/kg	11	1	9.090909091	7200	33600	38800	38800	9030	9030	19.5	21.5	B16532
216-S-10D															
Aroclor-1016	12674-11-2	GENORG	ug/kg	12	0	0	34	51			8082	8082			
Aroclor-1221	11104-28-2	GENORG	ug/kg	12	0	0	51	76			8082	8082			
Aroclor-1232	11141-16-5	GENORG	ug/kg	12	0	0	34	51			8082	8082			
Aroclor-1242	53469-21-9	GENORG	ug/kg	12	0	0	34	51			8082	8082			
Aroclor-1248	12672-29-6	GENORG	ug/kg	12	0	0	34	51			8082	8082			
Aroclor-1254	11097-69-1	GENORG	ug/kg	12	0	0	34	51			8082	8082			
Aroclor-1260	11096-82-5	GENORG	ug/kg	12	0	0	34	51			8082	8082			
Aroclor-1262	37324-23-5	GENORG	ug/kg	1	0	0	51	51			8082	8082			
Aroclor-1268	11100-14-4	GENORG	ug/kg	1	0	0	51	51			8082	8082			
Total petroleum hydrocarbons - diesel range	TPHDIESEL	GENORG	ug/kg	12	0	0	5100	13700			WDOE TPH	WDOE TPH			
Total petroleum hydrocarbons - kerosene rang	TPHKEROSENE	GENORG	ug/kg	11	0	0	12300	13700			WDOE TPH	WDOE TPH			
Antimony	7440-36-0	METAL	ug/kg	1	0	0	0.074	0.074			6010	6010			
Arsenic	7440-38-2	METAL	ug/kg	12	12	100			1000	6700	6010	6010	135	137	B16542
Barium	7440-39-3	METAL	ug/kg	12	12	100			54600	114000	6010	6010	50	52	B16540
Beryllium	7440-41-7	METAL	ug/kg	12	12	100			150	653	6010	6010	25	27	B16HB6-A
Bismuth	7440-69-9	METAL	ug/kg	1	1	100			0.594	0.594	6010	6010	25	27	B16HB6-A
Cadmium	7440-43-9	METAL	ug/kg	12	3	25	33	50	51	2260	6010	6010	25	27	B16HB6-A
Chromium	7440-47-3	METAL	ug/kg	12	12	100			7500	29800	6010	6010	220	222	B16544
Copper	7440-50-8	METAL	ug/kg	12	12	100			11600	20000	6010	6010	185	187	B16KB1
Hexavalent Chromium	18540-29-9	METAL	ug/kg	12	2	16.66666667	350	460	470	1800	7196	7196	199.9	201.9	B16543
Lead	7439-92-1	METAL	ug/kg	12	11	91.66666667	68	68	2300	8900	6010	6010	135	137	B16542
Manganese	7439-96-5	METAL	ug/kg	1	1	100			257000	257000	6010	6010	25	27	B16HB6-A
Mercury	7439-97-6	METAL	ug/kg	12	2	16.66666667	10	100	16	16	7471	200.8	25	27	B16545
Molybdenum	7439-98-7	METAL	ug/kg	1	1	100			342	342	6010	6010	25	27	B16HB6-A
Nickel	7440-02-0	METAL	ug/kg	12	12	100			5430	20800	6010	6010	150	152	B16KB0
Selenium	7782-49-2	METAL	ug/kg	12	3	25	294	410	450	1900	6010	6010	25	27	B16HB6-A

Deep Zone Nonradionuclides															
Constituent	CAS Number	Constituent Class	Units	Number of Results	Number of Detects	Frequency of Detects (%)	Minimum Nondetect	Maximum Nondetect	Minimum Detect	Maximum Detect	Analytical Method for Minimum Detect (or nondetect)	Analytical Method for Maximum Detect (or nondetect)	Start Depth of Maximum Detect (ft bgs)	End Depth of Maximum Depth (ft bgs)	Sample Number of Maximum Detect
Silver	7440-22-4	METAL	ug/kg	12	1	8.333333333	65	130	82	82	6010	6010	25	27	B16HB6-A
Tin	7440-31-5	METAL	ug/kg	1	0	0	35	35			6010	6010			
Uranium	7440-61-1	METAL	ug/kg	12	12	100			261	833	KPA	KPA	135	137	B16542
Vanadium	7440-62-2	METAL	ug/kg	12	12	100			26100	131000	6010	6010	199.9	201.9	B16543
Zinc	7440-66-6	METAL	ug/kg	12	12	100			31800	76000	6010	6010	185	187	B16KB1
pH Measurement	PH	PHYSICAL	ug/kg	12	12	100			8.5	9.334	9045	150.1	25	27	B16HB6-A
1-2-4-Trichlorobenzene	120-82-1	SVOA	ug/kg	12	0	0	300	380			8270	8270			
1-2-Dichlorobenzene	95-50-1	SVOA	ug/kg	11	0	0	340	380			8270	8270			
1-3-Dichlorobenzene	541-73-1	SVOA	ug/kg	11	0	0	340	380			8270	8270			
1-4-Dichlorobenzene	106-46-7	SVOA	ug/kg	12	0	0	320	380			8270	8270			
2-4-5-Trichlorophenol	95-95-4	SVOA	ug/kg	11	0	0	860	950			8270	8270			
2-4-6-Trichlorophenol	88-06-2	SVOA	ug/kg	11	0	0	340	380			8270	8270			
2-4-Dichlorophenol	120-83-2	SVOA	ug/kg	11	0	0	340	380			8270	8270			
2-4-Dimethylphenol	105-67-9	SVOA	ug/kg	11	0	0	340	380			8270	8270			
2-4-Dinitrophenol	51-28-5	SVOA	ug/kg	11	0	0	860	950			8270	8270			
2-4-Dinitrotoluene	121-14-2	SVOA	ug/kg	12	0	0	68	380			8270	8270			
2-6-Dinitrotoluene	606-20-2	SVOA	ug/kg	11	0	0	340	380			8270	8270			
2-Chloronaphthalene	91-58-7	SVOA	ug/kg	11	0	0	340	380			8270	8270			
2-Chlorophenol	95-57-8	SVOA	ug/kg	12	0	0	150	380			8270	8270			
2-Methylnaphthalene	91-57-6	SVOA	ug/kg	11	0	0	340	380			8270	8270			
2-Methylphenol (cresol- o-)	95-48-7	SVOA	ug/kg	11	0	0	340	380			8270	8270			
2-Nitroaniline	88-74-4	SVOA	ug/kg	11	0	0	860	950			8270	8270			
2-Nitrophenol	88-75-5	SVOA	ug/kg	11	0	0	340	380			8270	8270			
3-3'-Dichlorobenzidine	91-94-1	SVOA	ug/kg	11	0	0	340	380			8270	8270			
3-Nitroaniline	99-09-2	SVOA	ug/kg	11	0	0	860	950			8270	8270			
4-6-Dinitro-2-methylphenol	534-52-1	SVOA	ug/kg	11	0	0	860	950			8270	8270			

Deep Zone Nonradionuclides															
Constituent	CAS Number	Constituent Class	Units	Number of Results	Number of Detects	Frequency of Detects (%)	Minimum Nondetect	Maximum Nondetect	Minimum Detect	Maximum Detect	Analytical Method for Minimum Detect (or nondetect)	Analytical Method for Maximum Detect (or nondetect)	Start Depth of Maximum Detect (ft bgs)	End Depth of Maximum Depth (ft bgs)	Sample Number of Maximum Detect
4-Bromophenylphenyl ether	101-55-3	SVOA	ug/kg	11	0	0	340	380			8270	8270			
4-Chloro-3-methylphenol	59-50-7	SVOA	ug/kg	12	0	0	68	380			8270	8270			
4-Chloroaniline	106-47-8	SVOA	ug/kg	11	0	0	340	380			8270	8270			
4-Chlorophenylphenyl ether	7005-72-3	SVOA	ug/kg	11	0	0	340	380			8270	8270			
4-Methylphenol (cresol- p-)	106-44-5	SVOA	ug/kg	11	0	0	340	380			8270	8270			
4-Nitroaniline	100-01-6	SVOA	ug/kg	11	0	0	860	950			8270	8270			
4-Nitrophenol	100-02-7	SVOA	ug/kg	12	0	0	660	950			8270	8270			
Acenaphthene	83-32-9	SVOA	ug/kg	12	0	0	68	380			8270	8270			
Acenaphthylene	208-96-8	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Anthracene	120-12-7	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Benzo(a)anthracene	56-55-3	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Benzo(a)pyrene	50-32-8	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Benzo(b)fluoranthene	205-99-2	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Benzo(ghi)perylene	191-24-2	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Benzo(k)fluoranthene	207-08-9	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Bis(2-Chloroethoxy)methane	111-91-1	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Bis(2-chloro-1-methylethyl)ether	108-60-1	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Bis(2-chloroethyl) ether	111-44-4	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Bis(2-ethylhexyl) phthalate	117-81-7	SVOA	ug/kg	11	9	81.81818182	350	370	19.471	68.974	8270	8270	20	22	B16539
Butyl Stearate	123-95-5	SVOA		1	1	100			230	230	8270	8270	25	27	B16HB6-A
Butylbenzylphthalate	85-68-7	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Carbazole	86-74-8	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Chrysene	218-01-9	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Di-n-butylphthalate	84-74-2	SVOA	ug/kg	11	3	27.27272727	340	380	44	170	8270	8270	16	17	B15YB9
Di-n-octylphthalate	117-84-0	SVOA	ug/kg	11	0	0	340	380			8270	8270			

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Constituent	CAS Number	Constituent Class	Units	Number of Results	Number of Detects	Frequency of Detects (%)	Minimum Nondetect	Maximum Nondetect	Minimum Detect	Maximum Detect	Analytical Method for Minimum Detect (or nondetect)	Analytical Method for Maximum Detect (or nondetect)	Start Depth of Maximum Detect (ft bgs)	End Depth of Maximum Depth (ft bgs)	Sample Number of Maximum Detect
Dibenz[a-h]anthracene	53-70-3	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Dibenzofuran	132-64-9	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Diethylphthalate	84-66-2	SVOA	ug/kg	12	1	8.333333333	340	380	360	360	8270	8270	25	27	B16HB6-A
Dimethyl phthalate	131-11-3	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Eicosane	112-95-8	SVOA	ug/kg	1	1	100			170	170	8270	8270	25	27	B16HB6-A
Fluoranthene	206-44-0	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Fluorene	86-73-7	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Hexachlorobenzene	118-74-1	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Hexachlorobutadiene	87-68-3	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Hexachlorocyclopentadiene	77-47-4	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Hexachloroethane	67-72-1	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Hexadecanoic acid-butyl ester	111-06-8	SVOA	ug/kg	1	1	100			300	300	8270	8270	25	27	B16HB6-A
Indeno(1-2-3-cd)pyrene	193-39-5	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Isophorone	78-59-1	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Naphthalene	91-20-3	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Nitrobenzene	98-95-3	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Pentachlorophenol	87-86-5	SVOA	ug/kg	12	0	0	310	950			8270	8270			
Phenanthrene	85-01-8	SVOA	ug/kg	11	0	0	340	380			8270	8270			
Phenol	108-95-2	SVOA	ug/kg	12	0	0	100	380			8270	8270			
Pyrene	129-00-0	SVOA	ug/kg	12	0	0	68	380			8270	8270			
Tributyl phosphate	126-73-8	SVOA	ug/kg	12	0	0	68	380			8270	8270			
n-Nitrosodi-n-dipropylamine	621-64-7	SVOA	ug/kg	12	0	0	68	380			8270	8270			
n-Nitrosodiphenylamine	86-30-6	SVOA	ug/kg	11	0	0	340	380			8270	8270			
1-1-1-Trichloroethane	71-55-6	VOA	ug/kg	12	0	0	1.7	6			8260	8260			
1-1-2-2-Tetrachloroethane	79-34-5	VOA	ug/kg	12	0	0	1.7	6			8260	8260			
1-1-2-Trichloroethane	79-00-5	VOA	ug/kg	12	0	0	1.7	6			8260	8260			

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Constituent	CAS Number	Constituent Class	Units	Number of Results	Number of Detects	Frequency of Detects (%)	Minimum Nondetect	Maximum Nondetect	Minimum Detect	Maximum Detect	Analytical Method for Minimum Detect (or nondetect)	Analytical Method for Maximum Detect (or nondetect)	Start Depth of Maximum Detect (ft bgs)	End Depth of Maximum Depth (ft bgs)	Sample Number of Maximum Detect
1-1-Dichloroethane	75-34-3	VOA	ug/kg	12	0	0	1.7	6			8260	8260			
1-1-Dichloroethene	75-35-4	VOA	ug/kg	12	0	0	1.7	6			8260	8260			
1-2-Dichloroethane	107-06-2	VOA	ug/kg	12	0	0	1.7	6			8260	8260			
1-2-Dichloroethene (Total)	540-59-0	VOA	ug/kg	12	0	0	1.7	6			8260	8260			
1-2-Dichloropropane	78-87-5	VOA	ug/kg	12	0	0	1.7	6			8260	8260			
1-Propanol	71-23-8	VOA	ug/kg	12	0	0	4300	28000			8015	8015			
2-Butanone	78-93-3	VOA	ug/kg	12	0	0	1.7	13			8260	8260			
2-Hexanone	591-78-6	VOA	ug/kg	12	0	0	1.7	13			8260	8260			
2-Pentanone-4-Methyl	108-10-1	VOA	ug/kg	12	0	0	1.7	13			8260	8260			
Acetone	67-64-1	VOA	ug/kg	12	5	41.66666667	1.7	12	2	10	8260	8260	16	17	B15YB9
Benzene	71-43-2	VOA	ug/kg	12	0	0	1.7	6			8260	8260			
Bromodichloromethane	75-27-4	VOA	ug/kg	12	0	0	1.7	6			8260	8260			
Bromoform	75-25-2	VOA	ug/kg	12	0	0	1.7	6			8260	8260			
Bromomethane	74-83-9	VOA	ug/kg	12	0	0	1.7	13			8260	8260			
Carbon disulfide	75-15-0	VOA	ug/kg	12	0	0	1.7	6			8260	8260			
Carbon tetrachloride	56-23-5	VOA	ug/kg	12	0	0	1.7	6			8260	8260			
Chlorobenzene	108-90-7	VOA	ug/kg	12	0	0	1.7	6			8260	8260			
Chloroethane	75-00-3	VOA	ug/kg	12	0	0	1.7	13			8260	8260			
Chloroform	67-66-3	VOA	ug/kg	12	0	0	1.7	6			8260	8260			
Chloromethane	74-87-3	VOA	ug/kg	12	0	0	1.7	13			8260	8260			
Dibromochloromethane	124-48-1	VOA	ug/kg	12	0	0	1.7	6			8260	8260			
Ethanol	64-17-5	VOA	ug/kg	12	0	0	4300	28000			8015	8015			
Ethylbenzene	100-41-4	VOA	ug/kg	12	0	0	1.7	6			8260	8260			
Methylene chloride	75-09-2	VOA	ug/kg	12	10	83.33333333	1.7	6	6	18	8260	8260	150	152	B16KB0
Styrene	100-42-5	VOA	ug/kg	12	0	0	1.7	6			8260	8260			
Tetrachloroethene	127-18-4	VOA	ug/kg	12	0	0	1.7	6			8260	8260			
Toluene	108-88-3	VOA	ug/kg	12	0	0	1.7	6			8260	8260			
Trichloroethene	79-01-6	VOA	ug/kg	12	0	0	1.7	6			8260	8260			
Vinyl chloride	75-01-4	VOA	ug/kg	12	0	0	1.7	13			8260	8260			
Xylenes (total)	1330-20-7	VOA	ug/kg	12	0	0	1.7	6			8260	8260			
cis-1-3-Dichloropropene	10061-01-5	VOA	ug/kg	12	0	0	1.7	6			8260	8260			

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Constituent	CAS Number	Constituent Class	Units	Number of Results	Number of Detects	Frequency of Detects (%)	Minimum Nondetect	Maximum Nondetect	Minimum Deteet	Maximum Detect	Analytical Method for Minimum Detect (or nondetect)	Analytical Method for Maximum Detect (or nondetect)	Start Depth of Maximum Detect (ft bgs)	End Depth of Maximum Depth (ft bgs)	Sample Number of Maximum Detect
trans-1-3-Dichloropropene	10061-02-6	VOA	ug/kg	12	0	0	1.7	6			8260	8260			
Ammonia	7664-41-7	WETCHEM	ug/kg	11	1	9.090909091	3020	6320	3450	3450	350.3	350.3	20	22	B16538
Ammonium ion	14798-03-9	WETCHEM		1	1	100			100	100	300.7_CATIONS_IC	300.7_CATIONS_IC	25	27	B16HB6-A
Bromide	24959-67-9	WETCHEM	ug/kg	1	0	0	450	450			300	300			
Chloride	16887-00-6	WETCHEM	ug/kg	12	11	91.66666667	1280	1280	1900	31900	300	300	20	22	B16539
Cyanide	57-12-5	WETCHEM	ug/kg	12	0	0	200	530			335.2	9010			
Fluoride	16984-48-8	WETCHEM	ug/kg	12	1	8.333333333	1280	1400	718	718	300	300	25	27	B16HB6-A
Nitrate	14797-55-8	WETCHEM	ug/kg	12	3	25	221	1430	1380	1580	300	300	20	22	B16539
Nitrite	14797-65-0	WETCHEM	ug/kg	12	0	0	296	1430			300	300			
Nitrogen in Nitrite and Nitrate	NO2+NO3-N	WETCHEM	ug/kg	12	6	50	170	240	159	1400	353.2	353.2	25	27	B16HB6
Phosphate	14265-44-2	WETCHEM	ug/kg	12	1	8.333333333	399	1400	2400	2400	300	300	199.9	201.9	B16543
Sulfate	14808-79-8	WETCHEM	ug/kg	12	11	91.66666667	1280	1280	2500	36200	300	300	20	22	B16539
Sulfide	18496-25-8	WETCHEM	ug/kg	12	4	33.33333333	23200	43900	12400	97400	9030	9030	25	27	B16545
216-S-10P															
Aroclor-1016	12674-11-2	GENORG	ug/kg	19	0	0	34	49			8082	8082			
Aroclor-1221	11104-28-2	GENORG	ug/kg	19	0	0	68	99			8082	8082			
Aroclor-1232	11141-16-5	GENORG	ug/kg	19	0	0	34	49			8082	8082			
Aroclor-1242	53469-21-9	GENORG	ug/kg	19	0	0	34	49			8082	8082			
Aroclor-1248	12672-29-6	GENORG	ug/kg	19	0	0	34	49			8082	8082			
Aroclor-1254	11097-69-1	GENORG	ug/kg	19	0	0	34	49			8082	8082			
Aroclor-1260	11096-82-5	GENORG	ug/kg	19	0	0	34	49			8082	8082			
Total petroleum hydrocarbons - diesel range	TPHDIESEL	GENORG	ug/kg	19	0	0	4100	13000			WDOE TPH	WDOE TPH			
Total petroleum hydrocarbons - kerosene rang	TPHKEROSENE	GENORG	ug/kg	8	0	0	12400	13000			WDOE TPH	WDOE TPH			
Arsenic	7440-38-2	METAL	ug/kg	21	21	100			1500	5300	6010	6010	99.5	101.5	B0X0B3
Barium	7440-39-3	METAL	ug/kg	21	21	100			52400	180000	6010	6010	20	21	B15YJ9
Beryllium	7440-41-7	METAL	ug/kg	21	21	100			180	450	6010	6010	150.1	152.1	B0X0B5
Cadmium	7440-43-9	METAL	ug/kg	21	9	42.85714286	30	40	40	500	6010	6010	179.9	181.9	B0X0B6
Chromium	7440-47-3	METAL	ug/kg	21	21	100			7000	39000	6010	6010	197.4	199.3	B0X0B7
Copper	7440-50-8	METAL	ug/kg	21	21	100			10600	21300	6010	6010	16	17	B15YM4
Hexavalent Chromium	18540-29-9	METAL	ug/kg	21	4	19.04761905	100	470	420	1570	7196	7196	20	21	B15YM5
Lead	7439-92-1	METAL	ug/kg	21	21	100			2700	10300	6010	6010	50	52	B0X0B1
Mercury	7439-97-6	METAL	ug/kg	19	5	26.31578947	20	20	20	260	7471	7471	17	18	B15YJ8
Nickel	7440-02-0	METAL	ug/kg	21	21	100			9200	25200	6010	6010	197.4	199.3	B0X0B7
Selenium	7782-49-2	METAL	ug/kg	21	6	28.57142857	290	450	560	2000	6010	6010	179.9	181.9	B0X0B6
Silver	7440-22-4	METAL	ug/kg	21	2	9.523809524	60	150	140	470	6010	6010	17	18	B15YJ8
Uranium	7440-61-1	METAL	ug/kg	21	21	100			265	2140	KPA	KPA	35	37	B0X0B0
Vanadium	7440-62-2	METAL	ug/kg	21	21	100			25400	87500	6010	6010	150.1	152.1	B0X0B5

Deep Zone Nonradionuclides															
Constituent	**CAS Number**	**Constituent Class**	**Units**	**Number of Results**	**Number of Detects**	**Frequency of Detects (%)**	**Minimum Nondetect**	**Maximum Nondetect**	**Minimum Detect**	**Maximum Detect**	**Analytical Method for Minimum Detect (or nondetect)**	**Analytical Method for Maximum Detect (or nondetect)**	**Start Depth of Maximum Detect (ft bgs)**	**End Depth of Maximum Depth (ft bgs)**	**Sample Number of Maximum Detect**
Zinc	7440-66-6	METAL	ug/kg	21	21	100			29500	201000	6010	6010	197.4	199.3	B0X0B7
pH Measurement	PH	PHYSICAL	ug/kg	21	21	100			8.04	9.1	9045	9045	50	52	B0X0B1
1-2-4-Trichlorobenzene	120-82-1	SVOA	ug/kg	19	0	0	340	570			8270	8270			
1-2-Dichlorobenzene	95-50-1	SVOA	ug/kg	19	0	0	340	570			8270	8270			
1-3-Dichlorobenzene	541-73-1	SVOA	ug/kg	19	0	0	340	570			8270	8270			
1-4-Dichlorobenzene	106-46-7	SVOA	ug/kg	19	0	0	340	570			8270	8270			
2-4-5-Trichlorophenol	95-95-4	SVOA	ug/kg	19	0	0	850	1400			8270	8270			
2-4-6-Trichlorophenol	88-06-2	SVOA	ug/kg	19	0	0	340	570			8270	8270			
2-4-Dichlorophenol	120-83-2	SVOA	ug/kg	19	0	0	340	570			8270	8270			
2-4-Dimethylphenol	105-67-9	SVOA	ug/kg	19	0	0	340	570			8270	8270			
2-4-Dinitrophenol	51-28-5	SVOA	ug/kg	19	0	0	850	1400			8270	8270			
2-4-Dinitrotoluene	121-14-2	SVOA	ug/kg	19	0	0	340	570			8270	8270			
2-6-Dinitrotoluene	606-20-2	SVOA	ug/kg	19	0	0	340	570			8270	8270			
2-Chloronaphthalene	91-58-7	SVOA	ug/kg	19	0	0	340	570			8270	8270			
2-Chlorophenol	95-57-8	SVOA	ug/kg	19	0	0	340	570			8270	8270			
2-Methylnaphthalene	91-57-6	SVOA	ug/kg	19	0	0	340	570			8270	8270			
2-Methylphenol (cresol- o-)	95-48-7	SVOA	ug/kg	19	0	0	340	570			8270	8270			
2-Nitroaniline	88-74-4	SVOA	ug/kg	19	0	0	850	1400			8270	8270			
2-Nitrophenol	88-75-5	SVOA	ug/kg	19	0	0	340	570			8270	8270			
3-3'-Dichlorobenzidine	91-94-1	SVOA	ug/kg	19	0	0	340	570			8270	8270			
3-Nitroaniline	99-09-2	SVOA	ug/kg	19	0	0	850	1400			8270	8270			
4-6-Dinitro-2-methylphenol	534-52-1	SVOA	ug/kg	19	0	0	850	1400			8270	8270			
4-Bromophenylphenyl ether	101-55-3	SVOA	ug/kg	19	0	0	340	570			8270	8270			

Deep Zone Nonradionuclides

Constituent	CAS Number	Constituent Class	Units	Number of Results	Number of Detects	Frequency of Detects (%)	Minimum Nondetect	Maximum Nondetect	Minimum Detect	Maximum Detect	Analytical Method for Minimum Detect (or nondetect)	Analytical Method for Maximum Detect (or nondetect)	Start Depth of Maximum Detect (ft bgs)	End Depth of Maximum Depth (ft bgs)	Sample Number of Maximum Detect
4-Chloro-3-methylphenol	59-50-7	SVOA	ug/kg	19	0	0	340	570			8270	8270			
4-Chloroaniline	106-47-8	SVOA	ug/kg	19	0	0	340	570			8270	8270			
4-Chlorophenylphenyl ether	7005-72-3	SVOA	ug/kg	19	0	0	340	570			8270	8270			
4-Methylphenol (cresol- p-)	106-44-5	SVOA	ug/kg	19	0	0	340	570			8270	8270			
4-Nitroaniline	100-01-6	SVOA	ug/kg	19	0	0	850	1400			8270	8270			
4-Nitrophenol	100-02-7	SVOA	ug/kg	19	0	0	850	1400			8270	8270			
Acenaphthene	83-32-9	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Acenaphthylene	208-96-8	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Anthracene	120-12-7	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Benzo(a)anthracene	56-55-3	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Benzo(a)pyrene	50-32-8	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Benzo(b)fluoranthene	205-99-2	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Benzo(ghi)perylene	191-24-2	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Benzo(k)fluoranthene	207-08-9	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Bis(2-Chloroethoxy)methane	111-91-1	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Bis(2-chloro-1-methylethyl)ether	108-60-1	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Bis(2-chloroethyl) ether	111-44-4	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Bis(2-ethylhexyl) phthalate	117-81-7	SVOA	ug/kg	19	5	26.31578947	340	570	24	260	8270	8270	179.9	181.9	B0X0B6
Butylbenzylphthalate	85-68-7	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Carbazole	86-74-8	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Chrysene	218-01-9	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Di-n-butylphthalate	84-74-2	SVOA	ug/kg	19	1	5.263157895	340	570	100	100	8270	8270	24	25	B15YM6
Di-n-octylphthalate	117-84-0	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Dibenz[a-h]anthracene	53-70-3	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Dibenzofuran	132-64-9	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Diethylphthalate	84-66-2	SVOA	ug/kg	19	0	0	340	570			8270	8270			

Deep Zone Nonradionuclides															
Constituent	CAS Number	Constituent Class	Units	Number of Results	Number of Detects	Frequency of Detects (%)	Minimum Nondetect	Maximum Nondetect	Minimum Detect	Maximum Detect	Analytical Method for Minimum Detect (or nondetect)	Analytical Method for Maximum Detect (or nondetect)	Start Depth of Maximum Detect (ft bgs)	End Depth of Maximum Depth (ft bgs)	Sample Number of Maximum Detect
Dimethyl phthalate	131-11-3	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Fluoranthene	206-44-0	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Fluorene	86-73-7	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Hexachlorobenzene	118-74-1	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Hexachlorobutadiene	87-68-3	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Hexachlorocyclopentadiene	77-47-4	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Hexachloroethane	67-72-1	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Indeno(1-2-3-cd)pyrene	193-39-5	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Isophorone	78-59-1	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Naphthalene	91-20-3	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Nitrobenzene	98-95-3	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Pentachlorophenol	87-86-5	SVOA	ug/kg	19	0	0	850	1400			8270	8270			
Phenanthrene	85-01-8	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Phenol	108-95-2	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Pyrene	129-00-0	SVOA	ug/kg	19	0	0	340	570			8270	8270			
Tributyl phosphate	126-73-8	SVOA	ug/kg	11	0	0	340	360			8270	8270			
n-Nitrosodi-n-dipropylamine	621-64-7	SVOA	ug/kg	19	0	0	340	570			8270	8270			
n-Nitrosodiphenylamine	86-30-6	SVOA	ug/kg	19	0	0	340	570			8270	8270			
1-1-1-Trichloroethane	71-55-6	VOA	ug/kg	19	0	0	5	6			8260	8260			
1-1-2-2-Tetrachloroethane	79-34-5	VOA	ug/kg	19	0	0	5	6			8260	8260			
1-1-2-Trichloroethane	79-00-5	VOA	ug/kg	19	0	0	5	6			8260	8260			
1-1-Dichloroethane	75-34-3	VOA	ug/kg	19	0	0	5	6			8260	8260			
1-1-Dichloroethene	75-35-4	VOA	ug/kg	19	0	0	5	6			8260	8260			
1-2-Dichloroethane	107-06-2	VOA	ug/kg	19	0	0	5	6			8260	8260			

Deep Zone Nonradionuclides

Constituent	CAS Number	Constituent Class	Units	Number of Results	Number of Detects	Frequency of Detects (%)	Minimum Nondetect	Maximum Nondetect	Minimum Detect	Maximum Detect	Analytical Method for Minimum Detect (or nondetect)	Analytical Method for Maximum Detect (or nondetect)	Start Depth of Maximum Detect (ft bgs)	End Depth of Maximum Depth (ft bgs)	Sample Number of Maximum Detect
1-2-Dichloroethene (Total)	540-59-0	VOA	ug/kg	19	0	0	5	6			8260	8260			
1-2-Dichloropropane	78-87-5	VOA	ug/kg	19	0	0	5	6			8260	8260			
1-Propanol	71-23-8	VOA	ug/kg	19	0	0	4600	29000			8015	8015			
2-Butanone	78-93-3	VOA	ug/kg	19	2	10.52631579	10	12	2	12	8260	8260	99.5	101.5	B0X0B3
2-Hexanone	591-78-6	VOA	ug/kg	19	0	0	10	12			8260	8260			
2-Pentanone- 4-Methyl	108-10-1	VOA	ug/kg	19	0	0	10	12			8260	8260			
Acetone	67-64-1	VOA	ug/kg	19	10	52.63157895	10	12	5	33	8260	8260	99.5	101.5	B0X0B3
Benzene	71-43-2	VOA	ug/kg	19	0	0	5	6			8260	8260			
Bromodichloromethane	75-27-4	VOA	ug/kg	19	0	0	5	6			8260	8260			
Bromoform	75-25-2	VOA	ug/kg	19	0	0	5	6			8260	8260			
Bromomethane	74-83-9	VOA	ug/kg	19	0	0	10	12			8260	8260			
Carbon disulfide	75-15-0	VOA	ug/kg	19	0	0	5	6			8260	8260			
Carbon tetrachloride	56-23-5	VOA	ug/kg	19	0	0	5	6			8260	8260			
Chlorobenzene	108-90-7	VOA	ug/kg	19	0	0	5	6			8260	8260			
Chloroethane	75-00-3	VOA	ug/kg	19	0	0	10	12			8260	8260			
Chloroform	67-66-3	VOA	ug/kg	19	0	0	5	6			8260	8260			
Chloromethane	74-87-3	VOA	ug/kg	19	0	0	10	12			8260	8260			
Dibromochloromethane	124-48-1	VOA	ug/kg	19	0	0	5	6			8260	8260			
Ethanol	64-17-5	VOA	ug/kg	19	0	0	4600	29000			8015	8015			
Ethylbenzene	100-41-4	VOA	ug/kg	19	0	0	5	6			8260	8260			
Methylene chloride	75-09-2	VOA	ug/kg	19	17	89.47368421	6	6	4	23	8260	8260	16	17	B15YM4
Styrene	100-42-5	VOA	ug/kg	19	0	0	5	6			8260	8260			
Tetrachloroethene	127-18-4	VOA	ug/kg	19	0	0	5	6			8260	8260			
Toluene	108-88-3	VOA	ug/kg	19	0	0	5	6			8260	8260			
Trichloroethene	79-01-6	VOA	ug/kg	19	0	0	5	6			8260	8260			
Vinyl chloride	75-01-4	VOA	ug/kg	19	0	0	10	12			8260	8260			
Xylenes (total)	1330-20-7	VOA	ug/kg	19	0	0	5	6			8260	8260			
cis-1-3-Dichloropropene	10061-01-5	VOA	ug/kg	19	0	0	5	6			8260	8260			
trans-1-3-Dichloropropene	10061-02-6	VOA	ug/kg	19	0	0	5	6			8260	8260			
Ammonia	7664-41-7	WETCHEM	ug/kg	19	3	15.78947368	1580	3230	1700	2070	350.3	350.3	50	52	B0X0B2
Chloride	16887-00-6	WETCHEM	ug/kg	21	19	90.47619048	1400	2000	1500	3960	300	300	16	17	B15YM4
Cyanide	57-12-5	WETCHEM	ug/kg	19	0	0	278	580			335.2	9010			
Fluoride	16984-48-8	WETCHEM	ug/kg	21	0	0	1000	2900			300	300			

Deep Zone Nonradionuclides															
Constituent	**CAS Number**	**Constituent Class**	**Units**	**Number of Results**	**Number of Detects**	**Frequency of Detects (%)**	**Minimum Nondetect**	**Maximum Nondetect**	**Minimum Detect**	**Maximum Detect**	**Analytical Method for Minimum Detect (or nondetect)**	**Analytical Method for Maximum Detect (or nondetect)**	**Start Depth of Maximum Detect (ft bgs)**	**End Depth of Maximum Depth (ft bgs)**	**Sample Number of Maximum Detect**
Nitrate	14797-55-8	WETCHEM	ug/kg	21	18	85.71428571	1300	1400	1300	134000	300	300	16	17	B15YM4
Nitrite	14797-65-0	WETCHEM	ug/kg	21	0	0	657	1500			300	300			
Nitrogen in Nitrite and Nitrate	NO2+NO3-N	WETCHEM	ug/kg	21	18	85.71428571	220	500	270	22700	353.2	353.1	16	17	B15YM4
Phosphate	14265-44-2	WETCHEM	ug/kg	21	4	19.04761905	1300	5000	1400	2600	300	300	179.9	181.9	B0X0B6
Sulfate	14808-79-8	WETCHEM	ug/kg	21	20	95.23809524	1300	1300	2400	12400	300	300	179.9	181.9	B0X0B6
Sulfide	18496-25-8	WETCHEM	ug/kg	19	7	36.84210526	2000	42000	4000	43800	9030	9030	24	25	B15YM6

APPENDIX C

DOE/RL-2008-53, *Hanford Facility Dangerous Waste Closure/Postclosure Plan for the 216-A-29 Ditch*

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APPENDIX C

DOE/RL-2008-53, *Hanford Facility Dangerous Waste Closure/Postclosure Plan for the 216-A-29 Ditch*

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Table 5-1. Comparison of 216-A-29 Ditch Groundwater Data to Clean-Closure Levels. 5-3

TERMS

200-CS-1	200-CS-1 Chemical Sewer Group
CFR	*Code of Federal Regulations*
DOE	U.S. Department of Energy
DQO	data quality objectives
Ecology	Washington State Department of Ecology
GW	groundwater
HEIS	*Hanford Environmental Information System* database
MCL	maximum contaminant level
N/A	not applicable
ND	not detected
OU	operable unit
PUREX	Plutonium-Uranium Extraction Plant
RCRA	*Resource Conservation and Recovery Act of 1976*
RI	remedial investigation
SMCL	secondary maximum contaminant level
Tri-Party Agreement	Ecology et al., 1989a, *Hanford Federal Facility Agreement and Consent Order*
Tri-Party Agreement Action Plan	Ecology et al., 1989b, *Hanford Federal Facility Agreement and Consent Order Action Plan*
TSD	treatment, storage, and/or disposal
WAC	*Washington Administrative Code*

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METRIC CONVERSION CHART

Into Metric Units			Out of Metric Units		
If You Know	*Multiply By*	*To Get*	*If You Know*	*Multiply By*	*To Get*
Length			**Length**		
inches	25.4	Millimeters	millimeters	0.039	inches
inches	2.54	Centimeters	centimeters	0.394	inches
feet	0.305	Meters	meters	3.281	feet
yards	0.914	Meters	meters	1.094	yards
miles	1.609	Kilometers	kilometers	0.621	miles
Area			**Area**		
sq. inches	6.452	sq. centimeters	sq. centimeters	0.155	sq. inches
sq. feet	0.093	sq. meters	sq. meters	10.76	sq. feet
sq. yards	0.0836	sq. meters	sq. meters	1.196	sq. yards
sq. miles	2.6	sq. kilometers	sq. kilometers	0.4	sq. miles
acres	0.405	Hectares	hectares	2.47	acres
Mass (weight)			**Mass (weight)**		
ounces	28.35	Grams	grams	0.035	ounces
pounds	0.454	Kilograms	kilograms	2.205	pounds
ton	0.907	metric ton	metric ton	1.102	ton
Volume			**Volume**		
teaspoons	5	Milliliters	milliliters	0.033	fluid ounces
tablespoons	15	Milliliters	liters	2.1	pints
fluid ounces	30	Milliliters	liters	1.057	quarts
cups	0.24	Liters	liters	0.264	gallons
pints	0.47	Liters	cubic meters	35.315	cubic feet
quarts	0.95	Liters	cubic meters	1.308	cubic yards
gallons	3.8	Liters			
cubic feet	0.028	cubic meters			
cubic yards	0.765	cubic meters			
Temperature			**Temperature**		
Fahrenheit	subtract 32, then multiply by 5/9	Celsius	Celsius	multiply by 9/5, then add 32	Fahrenheit
Radioactivity			**Radioactivity**		
picocuries	37	Millibecquerel	millibecquerel	0.027	picocuries

2

1.0 INTRODUCTION

The original closure plan for the 216-A-29 Ditch (DOE/RL-93-74, *200-BP-11 Operable Unit RFI/CMS and 216-B-3 Main Pond, 216-B-63 Trench, and 216-A-29 Ditch Work/Closure Plan*) was submitted to the Washington State Department of Ecology (Ecology) pursuant to Ecology et al., 1989a, *Hanford Federal Facility Agreement and Consent Order* (Tri-Party Agreement) Milestone M-20-36 in April 1995. An updated version of the 216-A-29 Ditch closure plan was submitted to Ecology in March 2006 (Draft A of DOE/RL-2005-63, *Feasibility Study for the 200-CS-1 Chemical Sewer Group Operable Unit*, Appendix E) to supersede the April 1995 closure plan. This closure plan has been rewritten to update and finalize the March 2006 closure plan.

The 216-A-29 Ditch treatment, storage, and/or disposal (TSD) unit will be incorporated into a future revision of the WA789000896, *Hanford Facility Resource Conservation and Recovery Act Permit, Dangerous Waste Portion, Revision 8C, for the Treatment, Storage, and Disposal of Dangerous Waste,*). When the TSD unit is incorporated, the provisions of Permit Condition II.Y.2.c will apply. Permit Condition II.Y.2.c establishes the corrective-action status of the waste site following certification of closure.

Because this closure plan is being coordinated with the activities associated with the 200-CS-1 Chemical Sewer Group (200-CS-1) Operable Unit (OU), the closure plan is written to address only the constituents of concern relating to *Resource Conservation and Recovery Act of 1976* (RCRA) TSD unit operations. Any other constituents of concern described in DOE/RL-2005-63, *Feasibility Study for the 200-CS-1 Chemical Sewer Group Operable Unit* (pending), are related to past-practice activities at this waste site and will be addressed under past-practice authority, in accordance with Permit Condition II.Y.2. Deferral of pre-existing contamination to other authorities that occurred prior to dangerous waste management activities is described in Ecology Publication 94-111, *Guidance for Clean Closure of Dangerous Waste Units and Facilities*, Section 2.8. Any physical activities necessary to complete remediation of non-TSD unit constituents is outside the scope of this closure plan and will be performed in conjunction with Tri-Party Agreement past-practice activities for the 200-CS-1 OU and the 200-PO-1 Groundwater OU.

The development of this closure plan has been coordinated with the 200-CS-1 OU remediation activities. This coordinated approach was established in June 2002 following the completion of negotiations between the U.S. Department of Energy (DOE), the U.S. Environmental Protection Agency, and Ecology on the modifications to 200 Areas waste site cleanup milestones through Tri-Party Agreement change requests M-13-02-01, M-15-02-01, M-16-02-01, and M-20-02-01. As a result, much of the text contained in this closure plan has been obtained from existing 200-CS-1 OU *Comprehensive Environmental Response, Compensation, and Liability Act of 1980* documentation.

The proposed closure strategy for the 216-A-29 Ditch soils is clean closure following remediation of the soils; the groundwater strategy is clean closure following certification of closure. The soil strategy is based on analytical data provided in DOE/RL-2005-63, Appendices A and B and verification sampling activities, which will be completed following 200-CS-1 OU soil remediation activities. Groundwater data from the *Hanford Environmental*

Information System (HEIS) database were used to show that the TSD unit has not impacted groundwater. Analytical data from vadose zone characterization activities (DOE/RL-2005-63, Appendices A and B) were used to show that the TSD unit will not impact groundwater in the future. Sampling of the soils will be performed to verify that contaminant removal is complete, as well as to confirm waste site remedy selection was implemented to achieve clean closure.

2.0 UNIT DESCRIPTION

This chapter provides a physical description of the 216-A-29 Ditch and describes security related to the ditch.

2.1 PHYSICAL DESCRIPTION AND OPERATIONS

The 216-A-29 Ditch is located to the east of the 200 East Area of the Hanford Facility (Figure 2-1). The 216-A-29 Ditch received discharge from the Plutonium-Uranium Extraction (PUREX) Plant (A Plant) Chemical Sewer. The ditch was uncovered and unlined and followed the natural topography. The ditch originated from the southeastern side of the A Tank Farm (east of the AP Tank Farm) outside the 200 East Area perimeter fence. The ditch was estimated to be 1,220 m (4,000 ft) long, 1.8 m (6 ft) wide, and from 0.6 to 4.6 m (2 to 15 ft) deep. The head end of the ditch was modified in 1983 to allow for the construction of the AP Tank Farm. The end of the ditch connects to the 216-B-3-3 Ditch and finally to the 216-B-3 Pond.

The PUREX Plant Chemical Sewer operated between November 1955 and July 1991. At the beginning of its operation, the 216-A-29 Ditch received discharge from the PUREX Plant cooling water and discharge from the Chemical Sewer. In early 1980, because of effluent monitoring requirements, the chemical sewer lines feeding the 216-A-29 Ditch required upgrades to allow for monitoring and diversion capabilities. The basin received contaminated diversions from the PUREX Plant Chemical Sewer line, cooling water line, and steam condensate discharge. During 1990, plans were developed and approved to discontinue discharges to and close the 216-A-29 Ditch, and in 1991, all discharges were discontinued. Stabilization of the 216-A-29 Ditch was performed in three phases from July to October 1991.

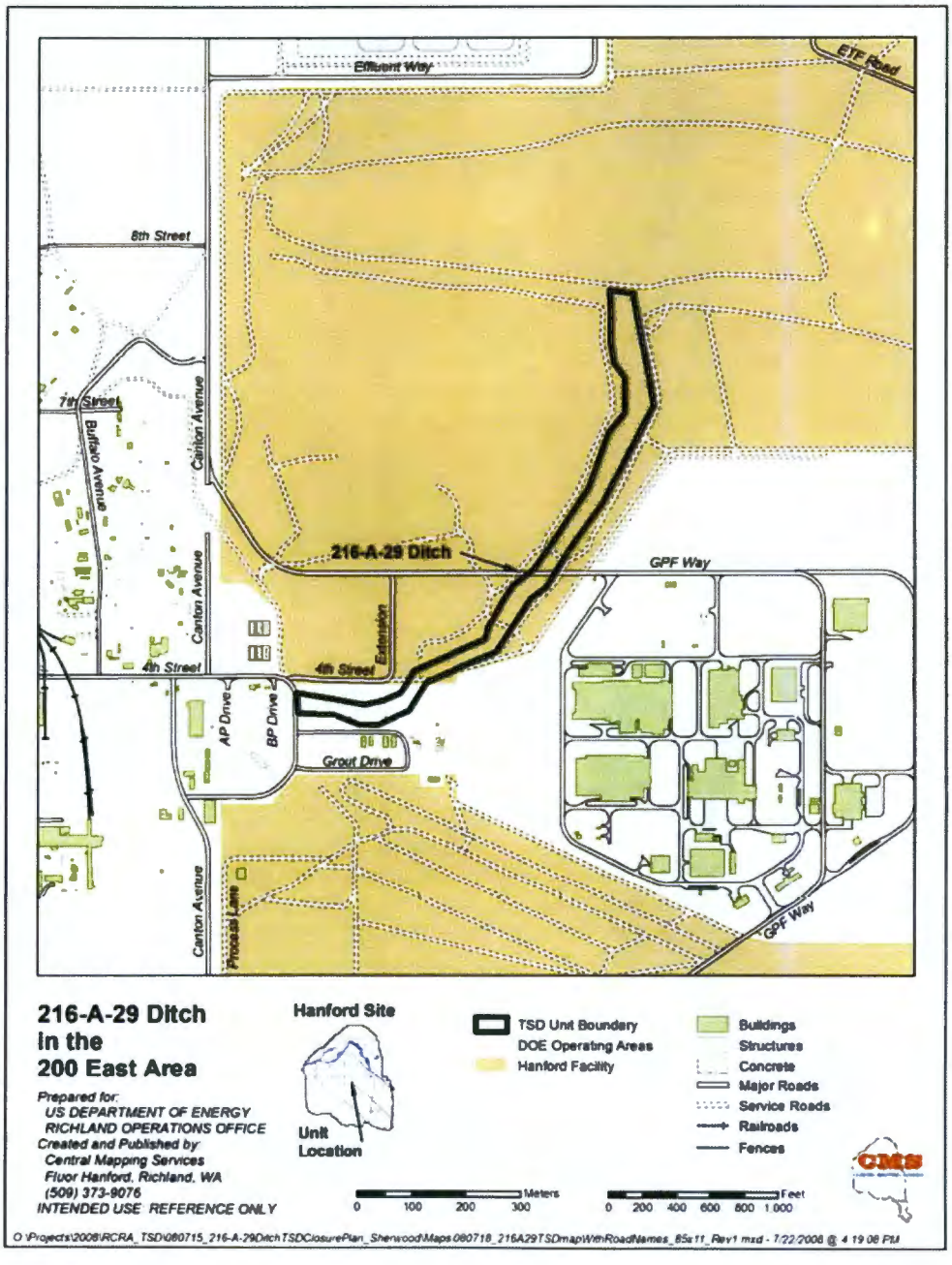
During construction for the Waste Treatment Plant, activities to place needed infrastructure were undertaken in the area around the 216-A-29 Ditch, near the grout disposal site, the 4th Street Extension, and access road (GPF Way), which crossed the ditch to the north of the grout disposal site. Above ground-bermed raw and sanitary water, pipelines and liquid effluent pipelines for service to the Waste Treatment Plant also cross over the 216-A-29 Ditch in various places. Liquid effluent pipelines that cross the ditch are routed along the south side of the GPF Way and the 4th Street Extension, while the water lines cross the ditch on the north side of GPF Way. Utilities lines also are present at the 216-A-29 Ditch.

2.2 SECURITY

Security information for the Hanford Facility is discussed in Permit Condition II.M and Attachment 33 to the Permit (WA789000896). Because the 216-A-29 Ditch is located near the 200 East Area, the security information pertaining to the 200 Areas applies to this TSD unit.

Changes to security are expected to occur during the course of 200 East Area deactivation and decommissioning activities. Security measures will remain in place that limit entry to authorized personnel and that preclude unknowing access by unauthorized individuals. Following clean-closure certification of this TSD unit (Section 7.8), security provisions no longer will apply.

Figure 2-1. 216-A-29 Ditch Location and Site Plan.



3.0 PROCESS INFORMATION

A variety of waste streams contributed to the 216-A-29 Ditch and are summarized in the stream-specific report, WHC-EP-0342, Addendum 2, *PUREX Plant Chemical Sewer Stream-Specific Report.*

Section 7.1 provides additional information on physical isolation of the TSD unit.

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4.0 WASTE CHARACTERISTICS

This chapter identifies the estimate of maximum inventory and the characteristics of the waste disposed at the 216-A-29 Ditch.

4.1 ESTIMATE OF MAXIMUM INVENTORY OF WASTE

During operations, approximately 22,700,000 L/d (6,000,000 gal/d) of liquid wastewater reached the 216-A-29 Ditch. The ditch was equipped with a meter for measuring flow rate. Flow rates varied from approximately 378 to 5,290 L/min (100 to 1,400 gal/min), depending on the operating conditions of the PUREX Plant. The average flow was about 3,760 L/min (970 gal/min).

4.2 WASTE CHARACTERISTICS

Chemical discharges to the 216-A-29 Ditch after the effective date of regulation (non-radioactive hazardous waste: November 19, 1980) that designate as a dangerous waste constitute the waste codes appearing on the Hanford Facility Dangerous Waste Part A Permit Application form for the 216-A-29 Ditch (02-RCA-0385, "Transfer of Hanford Facility Dangerous Waste Part A Permit Application, Form 3s for Certification in Support of Contract Transition for Central Plateau") The waste codes on the form are based on known documented discharges to the TSD unit. These discharges are identified in WHC-EP-0342, Addendum 2; DOE/RL-89-28, *216-B-3 Expansion Pond Closure Plan* (Attachment 23 to Revision 6 of the Permit [WA7890008967]); and DOE/RL-2004-17, *Remedial Investigation Report for the 200-CS-1 Chemical Sewer Group Operable Unit*, Table B-2.

The dangerous waste received at the 216-A-29 Ditch included nitric acid, sulfuric acid, sodium hydroxide, potassium hydroxide, hydrazine, hydroxylamine nitrate, cadmium nitrate, ammonium fluoride, and ammonium nitrate. Some of these chemicals are regulated under WAC 173-303, "Dangerous Waste Regulations," as dangerous wastes because they displayed the characteristic of corrosivity (D002) (closure parameter is pH). Cadmium nitrate is regulated because of the cadmium (D006) (closure parameter is cadmium). Hydrazine is regulated because it is in the listed waste code (U133) (closure parameter is hydrazine). In addition, other constituents are regulated because the state-only WT02 waste code was mentioned at a basis. There are no closure parameters from waste codes D002 and WT02, because disassociated anions/cations of acids, bases, and salts, do not result in a dangerous waste designation. They are not subject to the numerical closure performance standard comparison in WAC 173-303-610(2)(b)(i), "Closure Performance Standard," because none of them constitute a "dangerous waste, dangerous waste constituent, or residue."

Based on the dangerous waste received at the 216-A-29 Ditch, the TSD unit constituents of concern for RCRA closure are pH, cadmium, and hydrazine. These constituents constitute the scope of the TSD unit RCRA closure activities (Table 4-1). The pH range for the ditch soils is from 9.3 to 9.5 and is well within the noncorrosive range from WAC 173-303-090(6), "Characteristic of Corrosivity."

Table 4-1. Comparison of 216-A-29 Ditch Remedial Investigation Data to Residential [a] Clean-Closure Levels.

TSD Unit Constituent Related to Part A Waste Code D002	Maximum Concentration Shallow-Zone Soil (mg/kg) [b]	Maximum Concentration Deep Zone Soil (mg/kg) [b]	90th Percentile Lognormal Hanford Site Background (mg/kg) [c]	Soil Concentration Protective of Groundwater [d] (mg/kg)	Human Health Protection Soil Direct Contact [e] (mg/kg)		Screening Levels for Ecological Protection (mg/kg) [f]	Clean Closure Driver [g]	Meet Clean Closure Standard?
					Carcinogen	Non-carcinogen			
pH	9.3	9.5	N/A	N/A	N/A	N/A	N/A	Non corrosive (>2.0 and <12.5)	Yes
Cadmium	28	0.32	1.0	4.7 [h]	N/A	80	14	Soil Concentration Protective of Groundwater	No
Hydrazine	ND	ND	ND	Practical quantitation limit [i]	0.333	N/A	N/A	Practical quantitation limit	Yes [j]

Shaded cells indicate the constituent is above clean closure standards.

[a] Clean closure evaluations for TSD units are required to use residential levels in WAC 173-340-740(3), "Method B Soil Cleanup Levels for Unrestricted Land Use," based on WAC 173-303-610(2)(b)(i), "Closure Performance Standard."

[b] DOE/RL-2005-63, *Feasibility Study for the 200-CS-1 Chemical Sewer Group Operable Unit*, Appendices A and B. Shallow zone is surface to 15 feet.

[c] DOE/RL-92-24, *Hanford Site Background: Part 1, Soil Background for Nonradioactive Analytes*, Vol. I.

[d] WAC 173-340-740(3)(b)(iii)(A), "Ground Water Protection." Point of compliance is soils throughout the site (WAC 173-340-740(6), "Point of Compliance").

[e] WAC 173-340-740(3)(b)(iii)(B)(I), ""Noncarcinogens," and (II), "Carcinogens." Equations are found in (I) and (II) for human health direct contact. Point of compliance is surface to 15 ft (WAC 173-340-740(6)).

[f] WAC 173-340-740(3)(b)(ii), "Environmental Protection," however only wildlife for industrial values from Table 749-3 are used [WAC 173-340-7493(2)(a)(i), "The Chemicals of Ecological Concern."]. Point of compliance is surface to 15 ft (WAC 173-340-7490(4)(b), "Standard Point of Compliance").

[g] Represents the most restrictive level after ensuring the most restrictive level is not less than natural background and for analytical considerations, as indicated in WAC 173-340-700(6)(d), "Natural Background and Analytical Considerations."

[h] 4.7 mg/kg is proposed as the clean closure standard based on site specific calculations, which changed infiltration, groundwater flow rate, and the thickness of the mixing zone parameters in equations 747-A, 747-3, 747-4, and 747-5. Otherwise, 0.69 mg/kg would be the cleanup standard, which is below background.

[i] The practical quantitation limit for hydrazine exceeds the soil concentration protective of groundwater standard of 0.0000625. Therefore, the practical quantitation limit is used for clean-closure determinations.

[j] Hydrazine was not identified as a constituent of concern during the 200-CS-1 Operable Unit data quality objectives process. Contained-in determinations for listed waste code U133 for hydrazine in soils have been approved by the Washington State Department of Ecology. Clean closure is based on the data quality objectives process and the contained-in determination.

Part A = Hanford Facility Dangerous Waste Part A Permit Application form for the 216-A-29 Trench (02-RCA-0385, "Transfer of Hanford Facility Dangerous Waste Part A Permit Application, Forms 3s for Certification in Support of Contract Transition for the Central Plateau").

N/A = not applicable.
ND = not detected.
TSD = treatment, storage, and/or disposal.
WAC = *Washington Administrative Code*.

5.0 GROUNDWATER MONITORING

The 216-A-29 Ditch groundwater closure approach is clean closure, in accordance with the Ecology et al., 1989b, *Hanford Federal Facility Agreement and Consent Order Action Plan* (Tri-Party Agreement Action Plan), Section 6.3.1, where any TSD unit is eligible for clean closure at the Hanford Site. The clean closure approach is based on the data gathered to date from the monitoring network (PNNL-13047, *Groundwater Monitoring Plan for the 216-A-29 Ditch*), data contained in the HEIS database, vadose zone characterization data, and DOE/RL-2008-01, *Hanford Site Groundwater Monitoring for Fiscal Year 2007*, Section 2.11.3.4 for the 216-A-29 Ditch. Following clean closure of the groundwater, OU groundwater monitoring will continue, as appropriate, in the 200-PO-1 Groundwater OU for constituents under past-practice processes of the Tri-Party Agreement. Table 5-1 shows a comparison of the TSD unit constituent levels in groundwater to clean-closure levels. The clean-closure levels for groundwater are the maximum contaminant levels (when available), or the most restrictive level of the WAC 173-340-740(3)(b)(iii)(B)(I), "Noncarcinogens," and (II), "Carcinogens," value for groundwater (unless this value is lower than analytical considerations as indicated in WAC 173-340-700(6)(d), "Natural Background and Analytical Considerations"). For pH, the clean closure level is non-corrosive (pH range > 2.0 and <12.5). Following closure certification of the 216-A-29 Ditch (Section 7.8), the TSD unit groundwater monitoring program for the 216-A-29 Ditch will be discontinued.

The current interim-status groundwater monitoring plan (as required by WAC 173-303-400 "Interim Status Facility Standards," and 40 CFR 265, Subpart F, "Ground-Water Monitoring") is contained in a separate document, DOE/RL-2008-58, *Interim Status Groundwater Monitoring Plan for the 216-A-29 Ditch* (pending). This document contains further details regarding the geology, hydrology, and current groundwater monitoring programs for the TSD unit.

Excerpts from DOE/RL-2008-01 provide more recent monitoring network and groundwater conditions.

> The groundwater beneath the 216-A-29 ditch is monitored for evidence (detection) of hazardous waste migration as required by interim status RCRA regulations (40 CFR 265.93(b) as referenced by WAC 173-303-400). The nine wells of the groundwater monitoring network are sampled semiannually for contamination indicator parameters and annually for groundwater quality parameters and site-specific constituents. The well network is adequate for the current groundwater flow directions. Groundwater samples were collected and analyzed as scheduled at all nine wells monitoring the 216-A-29 ditch in FY 2007.
>
> Specific conductance continues to remain above the critical mean in downgradient wells 299-E25-35, 299-E25-48, and 299-E26-13 during both semiannual sampling events. Sulfate, nitrate, chloride, and the major cations are also rising in these wells. Wells 299-E25-28 (deep completion) and 299-E25-34 appear to be least affected by these trends. The cause of this rise is unknown, but appears to coincide with a general, multi-year increase in ionic strength throughout much of the 200 East Area and adjacent areas, and as such cannot be uniquely attributed to the 216-A-29 ditch. None of these constituents exceed drinking water standards. The remaining three contamination-indicator parameters (pH, total organic carbon, and total organic halides) were below critical means for all wells in the 216-A-29 network during FY 2007.

Based on general interpretations of the water table map in the 200 East Area the direction of groundwater flow near the 216-A-29 ditch is generally to the south or southwest. The water-table gradient in the immediate vicinity of the 216-A-29 ditch is too low to provide confidence in estimates of flow direction or rate.

5.1 HISTORY OF RCRA GROUNDWATER MONITORING

The RCRA groundwater monitoring of the 216-A-29 Ditch began in November 1988 with an interim-status indicator parameter evaluation (detection-level) program (DOE/RL-92-03, *Annual Report for RCRA Groundwater Monitoring Projects at Hanford Site Facilities for 1991*). The wells were sampled quarterly for one year to establish background levels. Background sampling was completed in August 1989. The program was elevated to an assessment-level program in 1990 because of elevated specific conductance beyond the critical mean in one downgradient well. The results of the groundwater quality assessment, which concluded in 1995, are reported in WHC-SD-EN-EV-032, *Results of the Groundwater Quality Assessment Program at the 216-A-29 Ditch.* The program then reverted to indicator evaluation monitoring in October 1996.

5.2 AQUIFER IDENTIFICATION

The uppermost or unconfined aquifer beneath the 216-A-29 Ditch is approximately 2 to 24 m (7 to 79 ft) thick and is contained within sediments of the Hanford formation and the Ringold Formation. The aquifer extends from the water table to the top of the basalt or, in some areas, the lower mud unit of the Ringold Formation. The direction of groundwater flow near the 216-A-29 Ditch is generally to the south or southwest. The water-table gradient in the immediate vicinity of the 216-A-29 Ditch is too low to provide confidence in estimates of flow direction or rate (DOE/RL-2008-01). The water table beneath the ditch has declined significantly since the discharges to the 216-B-3 Pond system ceased.

5.3 WELL LOCATION AND DESIGN

At the end of the assessment monitoring program, the monitoring well network reverted to a smaller group of ten wells. There were two upgradient wells (699-43-43 and 699-43-45) and eight downgradient wells. Well 699-43-43 no longer produces representative groundwater samples and was removed from the sampling schedule in 2001. The downgradient wells (prefixed by 299-) are E25-26, E25-28, E25-32P, E25-34, E25-35, E25-48, E26-12, and E26-13 (Figure 5-1). All of the wells are sampled semiannually with dedicated sampling pumps. Under the revised monitoring plan (DOE/RL-2008-58), wells 299-E25-32P and 699-43-43 were removed from the monitoring network.

Construction of the wells followed the RCRA standard well-construction specifications. The standards in WAC 173-160, "Minimum Standards for Construction and Maintenance of Wells," were used to set the basic design requirements. The revised interim-status groundwater monitoring network for the 216-A-29 Ditch includes eight wells constructed from 1985 through 1992. Seven of the wells are constructed with screens at the water table, and the remaining well is screened above the top of the basalt. Construction summaries and details of drilling and design specifications for all wells in the interim-status groundwater monitoring system are contained in several reports and are available upon request.

Table 5-1. Comparison of 216-A-29 Ditch Groundwater Data to Clean-Closure Levels.

TSD Unit Constituent Related to Part A Waste Codes D002, D006, U133	Maximum Concentration in Groundwater from HEIS (µg/L)[a]	Groundwater Clean Closure Cleanup Level (µg/L)[b]	Clean Closure Driver[b]	Meet Clean Closure standard?
pH	7.79 - 8.77 pH units	Non corrosive	WAC 173-303-090(6)	Yes
Cadmium	ND (.058-4)	5	MCL	Yes
Hydrazine	No Data	Practical quantitation limit[c]	Practical quantitation limit	Yes

[a] HEIS queries date range back through 2002.

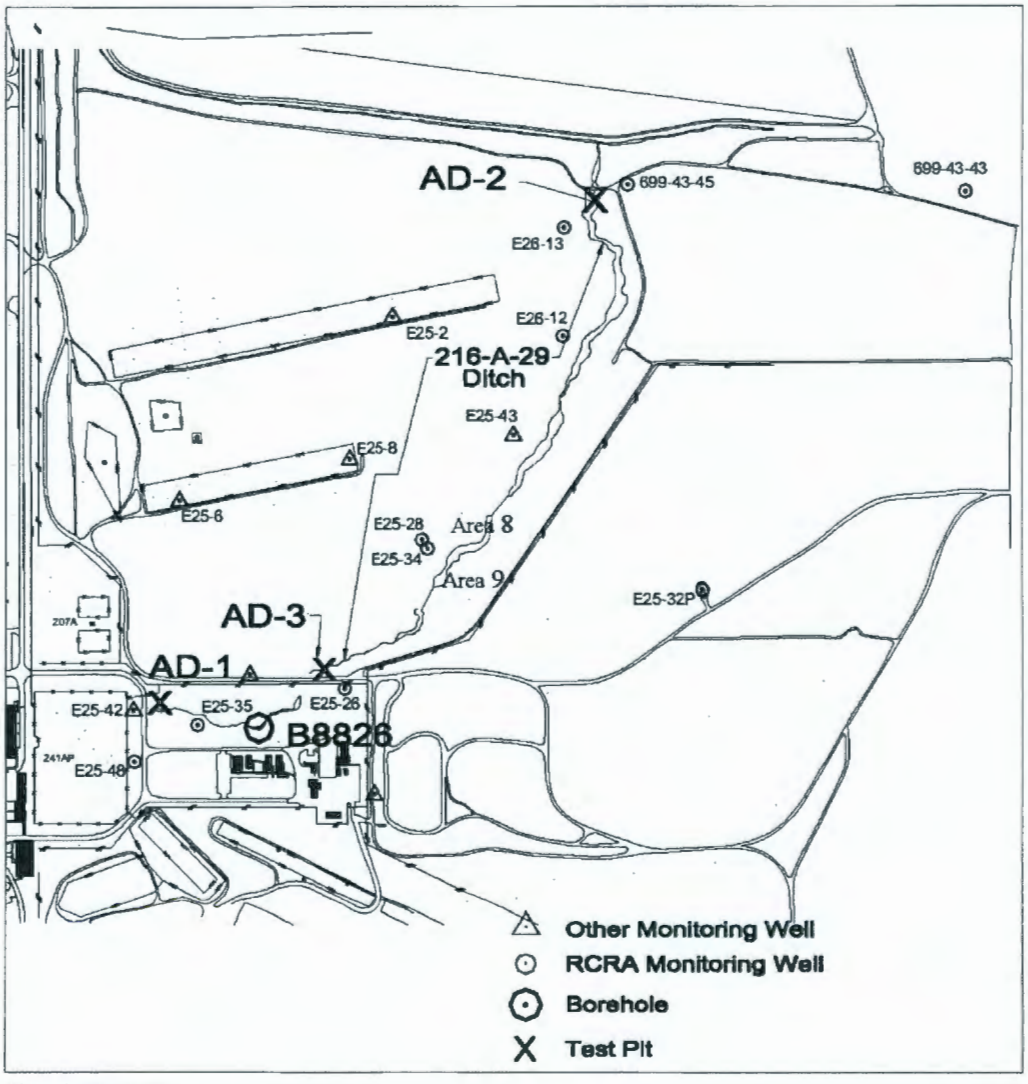
[b] Except for pH, listed values represent in the following order of priority: (1) the MCL (when available), (2) the most restrictive level of the Method B carcinogen or non-carcinogen value for groundwater unless this value is lower than analytical considerations as indicated in WAC 173-340-700(6)(d), "Natural Background and Analytical Considerations."

[c] The cleanup level of 0.0146 µg/l (Method B carcinogen) is below the practical quantitation limit. Clean closure is based on the practical quantitation limit.

Part A = Hanford Facility Dangerous Waste Part A Permit Application form for the 216-A-29 Trench (02-RCA-0385, "Transfer of Hanford Facility Dangerous Waste Part A Permit Application, Forms 3s for Certification in Support of Contract Transition for the Central Plateau").
WAC 173-303-090(6), "Characteristic of Corrosivity."

HEIS = *Hanford Environmental Information System.*
MCL = maximum contaminant level.
ND = not detected.
TSD = treatment, storage, and/or disposal.
WAC = Washington Administrative Code.

1 Figure 5-1. Borehole and Test Pit Location Map for the 216-A-29 Ditch.



2 G:\Maps\042999M.DWG

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5.4 RESULTS OF RCRA INTERIM-STATUS GROUNDWATER MONITORING DATA

The RCRA indicator parameters are specific conductance, pH, total organic carbon, and total organic halides. Site-specific parameters include inductively coupled plasma metals, anions, alkalinity, and turbidity. Except turbidity, these constituents are analyzed annually, although the wells are sampled semiannually. Groundwater quality parameters are chloride, iron (filtered), manganese (filtered), phenols, sodium (filtered), and sulfate. From 1990, when the 216-A-29 Ditch was placed into an assessment-level groundwater monitoring program, to 1995, comprehensive sampling and analysis were performed to determine the cause of the specific conductance exceedance. The assessment report (WHC-SD-EN-EV-032) concluded that elevated specific conductance was caused by high concentrations of sulfate, sodium, and calcium in the groundwater beneath the 216-A-29 Ditch. None of these contaminants could be conclusively linked to discharges to the 216-A-29 Ditch and are not considered dangerous wastes. The TSD unit reverted to an indicator parameter evaluation program.

Unfiltered chromium and iron historically have exceeded drinking water standards in several wells, but filtered results have not exceeded the drinking water standard. These concentrations have been attributed to well construction and oxidizing conditions in the aquifer.

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6.0 CLOSURE STRATEGY AND PERFORMANCE STANDARDS

This chapter identifies the 216-A-29 Ditch closure strategy and closure performance standards for soils. Groundwater is discussed in Section 5.0.

6.1 CLOSURE STRATEGY

The standards for closure of Hanford Site TSD units are in WAC 173-303-610, "Closure and Post-Closure." The option to clean close a surface impoundment or pursue landfill closure of a surface impoundment is identified in WAC 173-303-650(6), "Closure and Post-Closure Care.". The possibility for clean closure for all TSD units at the Hanford Site is described in the Tri-Party Agreement Action Plan, Section 6.3.1.

The 216-A-29 Ditch is expected to meet clean-closure standards for soils following removal of soil and verification sampling.

6.2 CLOSURE PERFORMANCE STANDARDS

This section identifies general clean-closure performance standards and the specific closure standards for the soils.

6.2.1 Treatment, Storage, and/or Disposal Unit Closure Performance Standards

The closure performance standards of WAC 173-303-610(2)(a)(i - iii), "Closure Performance Standard," require the owner or operator of a TSD unit to close the unit in a manner that ensures the following:

1. "Minimizes the need for further maintenance"
2. "Controls, minimizes, or eliminates to the extent necessary to protect human health and the environment, postclosure escape of dangerous waste, dangerous waste constituents, leachate, contaminated runoff, or dangerous waste decomposition products to the ground, surface water, groundwater, or the atmosphere"
3. "Returns the land to the appearance and use of surrounding land areas to the degree possible given the nature of the previous dangerous waste activity."

These standards can be met by one of the following methods:

1. Clean-closure according to the removal or decontamination standard of WAC 173-303-610(2)(b) based on WAC 173-303-650(6)(a)(i)
2. By landfill closure according to WAC 173-303-650(6)(a)(ii)
3. By implementing the alternative closure requirements of WAC 173-303-610(1)(e), "Applicability."

Potential contaminant exposures and health impacts to humans are largely dependent on land use. The land use for the 200 Areas selected by the DOE through 64 FR 61615, "Record of Decision: Hanford Comprehensive Land-Use Plan Environmental Impact Statement (HCP EIS)," is

industrial-exclusive. Industrial cleanup standards are identified in WAC 173-340-745(5), "Method C Industrial Soil Cleanup Levels.". Before WAC 173-340-745(5) standards are applied, however, the owner/operator can choose to pursue a clean-closure evaluation based on the traditional application of residential standards under WAC 173-340-740(3), "Method B Soil Cleanup Levels for Unrestricted Land Use," as described in WAC 173-303-610(2)(b)(i). If necessary, and if Ecology agrees, the standards in WAC 173-340-745(5) can be imposed through the alternative closure requirements of WAC 173-303-610(1)(e).

The first approach to examine for TSD unit closure is clean closure. Clean closure will eliminate the need for future inspections and maintenance necessitated by TSD unit constituent contamination. Clean closure also will eliminate the need for future postclosure monitoring and maintenance of the soils. Clean closure using the WAC 173-340-740(3) residential values were examined first because if the DOE/RL-2005-63, Appendices A and B data showed that the soils met WAC 173-340-740(3) residential values without further remediation, then TSD unit clean closure can occur independent of the OU remediation activities.

If the TSD unit constituents cannot meet the WAC 173-340-740(3) residential values as is, then before choosing a postclosure pathway, the OU remediation activities are examined to see if removal of soils is needed for past practice contaminants. If removal of soils will be pursued for the OU remediation activities, then clean closure using WAC 173-340-740(3) residential values for TSD unit constituents through verification sampling and analysis can still be used. Clean closure can then be pursued for the soils, and the closure approach for groundwater must be considered (Section 5.0).

If neither of the clean closure approaches can achieve the outcome, then the TSD unit will need to pursue some form of postclosure. The classical landfill closure option described in WAC 173-303-650(6)(a)(ii) would result in the construction of a barrier and long term postclosure care. Before pursuing a landfill closure option with a barrier, however, other options can be explored, with Ecology's approval through use of the alternative closure requirement in WAC 173-303-610(1)(e), provided the conditions are met. Since the alternative requirements allow Ecology to replace all of the closure requirements except the general closure performance standards of WAC 173-303-610(2)(a), closure approaches other than landfill closure could be pursued.

6.2.2 Soil Closure Standards

The clean-closure requirements are established in WAC 173-303-610(2)(b) and the surface impoundment standards are established in WAC 173-303-650(6)(a) to remove or decontaminate unit soils contaminated above clean-closure standards. These soil clean-closure cleanup levels are the numeric levels identified in WAC 173-340-740(3) that are either levels calculated using the most restrictive WAC 173-340-740(3) formulas for unrestricted use, or background levels (DOE/RL-92-24, *Hanford Site Background: Part 1, Soil Background for Nonradioactive Analytes*) when the most restrictive WAC 173-340-740(3) formulas are more stringent than Hanford Site background concentrations. WAC 173-340-740(3) formulas for unrestricted use can include site specific parameters.

WAC 173-340-740(3) contains the following potential clean-closure standards: environmental protection related to ecological receptors, soil concentrations protective of groundwater, soil direct-contact carcinogens, soil direct-contact noncarcinogens, soil direct-contact petroleum vapors, and soil vapors. The environmental protection related to ecological receptors, soil concentration protective of groundwater, soil direct-contact carcinogens, and soil direct-contact noncarcinogens are applicable and are identified in Table 4-1. The soil direct-contact petroleum vapors and soil vapors standards do not apply, because there are no petroleum compounds and no volatile organic compounds related to TSD unit closure, respectively.

Historical listed waste (U133) hydrazine discharges will not prevent clean closure of the 216-A-29 Ditch. Hydrazine was ruled out as a potential contaminant of concern during the data quality objectives (DQO) process for the 200-CS-1 OU. The DQO report (BHI-01276, *200-CS-1 Operable Unit DQO Summary Report*) states: "Hydrazine is a listed waste that was potentially discharged with the cooling waters. However, because hydrazine is extremely reactive and volatile, it no longer is present in any media associated with the 200-CS-1 OU." The practical quantitation limit for hydrazine exceeds the soil concentration protective of groundwater standard of 0.0146 µg/L; therefore, the practical quantitation limit is used for clean-closure determinations. Furthermore, 216-A-29 Ditch hydrazine was subject to a contained-in determination by Ecology (00-GWVZ-050, 2000, "200 Area Hydrazine Contained-In Determination Request;" 02-RCA-0261, 2002, "216-A-29 Ditch Hydrazine Contained – In Determination (CID) Request"). This contained-in determination addressed the 216-A-29 Ditch soils. Clean closure can be pursued for hydrazine at the 216-A-29 Ditch, and the U133 waste code no longer applies to 216-A-29 Ditch soils. Clean closure for hydrazine is based on the DQO process and the contained-in determinations.

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7.0 CLOSURE ACTIVITIES

This chapter summarizes clean-closure activities for the 216-A-29 Ditch performed in coordination with the 200-CS-1 OU remediation process. Physical closure activities included TSD unit physical isolation, borehole and test pit drilling, soil sampling and analysis, removal of 216-A-29 Ditch contaminated soils (i.e., soil with concentrations above standards protective of human health and the environment), and verification sampling following contaminated soil removal.

The unit soils are planned to be clean closed based on the results of DOE/RL-2005-63, Appendices A and B, remediation of the 216-A-29 Ditch contaminated soils, and sampling of the soils to verify that contaminant removal is complete, as well as to confirm waste site remedy selection was implemented to achieve clean closure. Contaminated soil will be removed, require subsequent designation according to WAC 173-303-070(3), "Designation Procedures," and (5), "Additional Designation Required," and managed as part of closure. Because soils are not expected to be designated as dangerous waste, treatment of the soils is not expected before they are disposed of at the Environmental Restoration Disposal Facility.

7.1 TREATMENT, STORAGE, AND/OR DISPOSAL UNIT PHYSICAL ISOLATION

To preclude any further discharges to the unit and in support of TSD unit closure, the 216-A-29 Ditch was physically isolated from receipt of the PUREX Plant Chemical Sewer effluent. Stabilization of the 216-A-29 Ditch was performed in three phases from July to October 1991. The trench no longer can accept dangerous waste.

7.2 TREATMENT, STORAGE, AND/OR DISPOSAL UNIT SAMPLING AND ANALYSIS

The following sections describe sampling and analyses activities that have been completed for the 216-A-29 Ditch. Additional sampling of the soils will be performed to verify that contaminant removal is complete, as well as to confirm waste site remedy selection was implemented to achieve clean closure.

7.2.1 Completed Soil Sampling and Analysis

As part of the 200-CS-1 OU remedial investigation, data were collected to characterize the nature and vertical extent of contamination and the physical conditions in the vadose zone underlying the 216-A-29 Ditch. Drilling, test pit excavation, surface and borehole geophysical surveys, and soil sampling and analysis were conducted during the field activities. Figure 5-1 shows borehole and test pit locations.

Borehole B8826 was drilled and sampled in the 216-A-29 Ditch east of the AP Tank Farm in the 200 East Area. Test Pits AD-1 through AD-3 were excavated and sampled at the

216-A-29 Ditch in fiscal year 2002, and details are summarized in DOE/RL-2004-17. Data collected from Test Pit AD-3 was additional to the data required by DOE/RL-99-44, *200-CS-1 Operable Unit RI/FS Work Plan and RCRA TSD Unit Sampling Plan*, and was used to support the decision-making process for locating a proposed waste transfer line to the Waste Vitrification Plant.

Borehole B8826 was drilled and sampled during fiscal year 2003. The borehole was drilled through the 216 A-29 Ditch, from the ground surface to a depth of 83.2 m (273 ft). The borehole was logged using a high-resolution spectral gamma-ray logging system and a neutron-moisture logging system. The borehole was drilled to better define stratigraphy and to assess the nature and vertical extent of contamination, as well as to determine the physical properties of the soil beneath the TSD unit.

The test pit locations were prepared by removing 0.3 to 0.6 m (1 to 2 ft) of topsoil from the site. The test pits were excavated to a maximum depth of 7 m (25 ft) below ground surface using a trackhoe. Samples were obtained directly from the trackhoe bucket at intervals of approximately 0.7 m (2.5 ft). Before being placed in a sample jar, soil samples were screened in the field to assist in selecting sample points, to support worker health and safety, and to provide shipping information. Samples were analyzed for chemical and physical properties. The test pits were backfilled in the reverse order from which they were excavated, using the trackhoe.

Soils from the boreholes and test pits were screened in the field both for indications of contamination and for assisting in determining the discrete sample locations or depths before the samples were collected. Soil samples were collected for analysis and determination of physical properties. The sampling approach generally required a greater sample frequency near the bottom of the TSD unit, which is the area of highest suspected contamination. Sample collection always was attempted at depths of 4.6 and 7.6 m (15 and 25 ft) below ground surface to define contamination profiles. Sample frequency generally was reduced to 6.1 to 15.2 m (20 to 50 ft) intervals below a depth of 7.6 m (25 ft) in the boreholes.

Soil samples were analyzed for the constituents of concern from DOE/RL-2004-17. Samples were analyzed selectively for field bulk density and moisture content. In addition, ditch bottom samples from each of the test pits were analyzed for an expanded list of compounds, to satisfy waste-designation requirements. Soil descriptions were recorded to better define stratigraphic relationships in the OU. The results obtained from previous characterization activities also were evaluated as part of this remedial investigation.

7.2.2 Soil Sample Results and Verification Sampling

Analytical results obtained from the remedial investigation were intended for refining and/or validating the site conceptual contaminant distribution model and are defensible for use in this closure plan for determining constituents of concern (DOE/RL-99-44, Appendix B). Table 4-1 identifies the maximum concentration of TSD unit constituents in shallow soils and deep-zone soils from DOE/RL-2005-63, Appendices A and B. The maximum values are compared to the clean-closure levels described in Section 6.2.2.

After comparing the TSD unit constituent concentrations found in DOE/RL-2005-63, Appendices A and B to the WAC 173-340-740(3) residential values, the TSD unit was not eligible for clean closure without remediation. The TSD unit constituent concentrations were then compared to the WAC 173-340-745(5) industrial values with the same result. Not all constituents met the WAC 173-340-745(5) standard without remediation because the soil concentration protective of groundwater cleanup level was the same. Remediation of the 216-A-29 Ditch soils will prevent the need for barrier construction.

Table 4-1 shows that two of the three TSD unit constituents (pH and hydrazine) meet the clean-closure standard, or, in the case of hydrazine, other provisions are used to demonstrate clean closure. Cadmium is the TSD unit constituent that does not meet the clean-closure standard. To meet WAC 173-340-740(3) residential cleanup levels, 216-A-29 Ditch contaminated soils will require removal. As the 200-CS-1 OU is removing the 216-A-29 Ditch contaminated soils, the TSD unit clean-closure approach for the soils also will be to remove the 216-A-29 Ditch contaminated soils and conduct verification sampling. The sampling and analysis plan for verifying that contaminant removal is complete is contained in DOE/RL-2005-63, Appendix K.

7.2.3 Confirm Waste Site Remedy Selection was Implemented to Achieve Clean Closure

Additional sampling and analysis of the soil is planned to confirm waste site remedy selection was implemented to achieve clean closure. The sampling will be documented and developed, as described in DOE/RL-2005-63, Appendix K.

7.3 OTHER ACTIVITIES REQUIRED FOR CLOSURE

The 200-CS-1 OU activities planned to support clean closure of the TSD unit include the removal of the 216-A-29 Ditch contaminated soils. This activity is expected to achieve clean closure for the TSD unit soils. In addition, a DQO process with follow-on sampling will be performed to determine if the clean-closure levels have been met, in coordination with the 200-CS-1 OU activities (DOE/RL-2005-63, Appendix K). After closure, appearance of the land will be consistent with land-use determinations of the Hanford Site.

7.4 INSPECTIONS

The TSD unit has been inspected to meet interim-status requirements. Annual inspections are performed based on Ecology approval in 2003. Following closure certification as described in Section 7.8, inspections for the 216-A-29 Ditch will be discontinued.

7.5 TRAINING

A dangerous waste training plan has been maintained for the TSD unit to meet interim-status requirements. The duties associated with dangerous waste management activities include

performing inspections, notifying Ecology of any potential threats to human health and the environment, and performing groundwater monitoring. Following closure certification as described in Section 7.8, the dangerous waste training plan addressing the 216-A-29 Ditch waste management duties will be discontinued.

7.6 SCHEDULE FOR CLOSURE

The remaining closure activities for this TSD unit include: (1) removal of the 216-A-29 Ditch contaminated soils, (2) completion of a DQO process for verification sampling, and (3) verification sampling of the soils. These activities will be conducted as part of the 200-CS-1 OU activities. Following submittal of this closure plan to Ecology, Ecology's 90-day review period begins in accordance with the Tri-Party Agreement Action Plan, Figure 9-2.

7.7 AMENDMENT OF CLOSURE PLAN

As required by WAC 173-303-610(3)(b), "Closure Plan; Amendment of Plan," the closure plan will be amended if changes to closure activities require a modification of the approved closure plan. Modifications to this plan could occur as a result of the activities identified in Section 7.6.

7.8 CERTIFICATION OF CLOSURE

Upon removal of the 216-A-29 Ditch contaminated soils, sampling will be performed to verify that contaminant removal is complete, as well as to confirm waste site remedy selection was implemented to achieve clean closure. When sampling results have been evaluated, closure activities under this closure plan are planned to have been completed.

In accordance with WAC 173-303-610(6), "Certification of Closure," within 60 days of completion of TSD unit closure, the DOE will submit to Ecology a certification of closure. Both DOE and the Co-Operator identified on the current Part A Permit Application for the TSD unit will sign the certification of closure, and an independent Registered Professional Engineer will state that the unit has been closed in accordance with the approved closure plan. The certification will be submitted by registered mail or an equivalent delivery service. Documentation supporting the independent Registered Professional Engineer's certification will be placed in the Administrative Record.

8.0 POSTCLOSURE PLAN

The closure strategy for the 216-A-29 Ditch is clean closure with regard to TSD unit constituents for soils and groundwater; therefore, no postclosure plan is anticipated. If the verification sampling following removal of the 216-A-29 Ditch contaminated soils does not demonstrate clean closure, then a postclosure plan will be prepared for the 216-A-29 Ditch. The postclosure plan will be submitted to Ecology within 180 days following certification of closure, or as otherwise agreed to by Ecology, based on 200-CS-1 OU schedules.

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9.0 REFERENCES

02-RCA-0261, 2002, "216-A-29 Ditch Hydrazine Contained – In Determination (CID) Request," (Letter to J. Price, 200 Area Section Manager Nuclear Waste Program, Department of Ecology, Kennewick, Washington, from J. Hebdon), U.S. Department of Energy, Richland Operations Office, Richland, Washington, April 4.

02-RCA-0385, 2002, "Transfer of Hanford Facility Dangerous Waste Part A Permit Application, Form 3s for Certification in Support of Contract Transition for Central Plateau," (letter to M. A. Wilson, Washington State Department of Ecology, from J. Hebdon), U.S. Department of Energy, Richland Operations Office, Richland, Washington, July 1.

40 CFR 265, Subpart F, "Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities," Subpart F, "Ground-Water Monitoring," Title 40, *Code of Federal Regulations*, Part 265, as amended.

40 CFR 265.93(b), "Interim Status for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities," "Preparation, Evaluation, and Response," Title 40, *Code of Federal Regulations*, Part 265.93(b), as amended.

64 FR 61615, "Record of Decision: Hanford Comprehensive Land-Use Plan Environmental Impact Statement (HCP EIS)," *Federal Register*, Vol. 64, No. 218, pp. 61615-61625, November 12, 1999.

00-GWVZ-050, 2000, "200 Area Hydrazine Contained-In Determination Request," (letter to E. R. Skinnarland, Washington State Department of Ecology, from K. M. Thompson), U.S. Department of Energy, Richland Operations Office, Richland, Washington, June 12.

BHI-01276, 1999, *200-CS-1 Operable Unit DQO Summary Report*, Rev. 0, Bechtel Hanford, Inc., Richland, Washington.

Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 USC 9601 et seq.

DOE/RL-89-28, 1994, *216-B-3 Expansion Ponds Closure Plan*, Rev. 2, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

DOE/RL-92-03, 1992, *Annual Report for RCRA Groundwater Monitoring Projects at Hanford Site Facilities for 1991*, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

DOE/RL-92-24, 1997, *Hanford Site Background: Part 1, Soil Background for Nonradioactive Analytes*, Rev. 3, 2 vols., U.S. Department of Energy, Richland Operations Office, Richland, Washington.

DOE/RL-93-74, 1995, *200-BP-11 Operable Unit RFI/CMS and 216-B-3 Main Pond, 216-B-63 Trench, and 216-A-29 Ditch Work/Closure Plan*, Rev. 0, Draft B, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

DOE/RL-99-44, 2000, *200-CS-1 Operable Unit RI/FS Work Plan and RCRA TSD Unit Sampling Plan*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

DOE/RL-2004-17, *Remedial Investigation Report for the 200-CS-1 Chemical Sewer Group Operable Unit*, Rev. 0, U. S. Department of Energy, Richland Operations Office, Richland, Washington.

DOE/RL-2005-63, 2006, *Feasibility Study for the 200-CS-1 Chemical Sewer Group Operable Unit*, Draft A, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

DOE/RL-2005-63, pending, *Feasibility Study for the 200-CS-1 Chemical Sewer Group Operable Unit*, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

DOE/RL-2008-01, 2008, *Hanford Site Groundwater Monitoring for Fiscal Year 2007*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

DOE/RL-2008-58, pending, *Interim Status Groundwater Monitoring Plan for the 216-A-29 Ditch*, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

Ecology, EPA, and DOE, 1989a, *Hanford Federal Facility Agreement and Consent Order*, Washington State Department of Ecology, U.S. Environmental Protection Agency, and U.S. Department of Energy, Olympia, Washington, as amended.

Ecology, EPA, and DOE, 1989b, *Hanford Federal Facility Agreement and Consent Order Action Plan*, Washington State Department of Ecology, U.S. Environmental Protection Agency, and U.S. Department of Energy, Olympia, Washington.

Ecology Publication 94-111, 2005, *Guidance for Clean Closure of Dangerous Waste Units and Facilities*, as amended, Washington State Department of Ecology, Olympia, Washington.

Hanford Environmental Information System, Hanford Site database.

PNNL-13047, 1999, *Groundwater Monitoring Plan for the 216-A-29 Ditch*, Pacific Northwest National Laboratory, Richland, Washington.

Resource Conservation and Recovery Act of 1976, 42 USC 6901, et seq.

WA7890008967, 2007, *Hanford Facility Resource Conservation and Recovery Act Permit, Dangerous Waste Portion, Revision 8C, for the Treatment, Storage, and Disposal of Dangerous Waste*, Washington State Department of Ecology, Richland, Washington.

WAC 173-160, "Minimum Standards for Construction and Maintenance of Wells," *Washington Administrative Code*, as amended, Washington State Department of Ecology, Olympia, Washington.

WAC 173-303, "Dangerous Waste Regulations," *Washington Administrative Code*, as amended, Washington State Department of Ecology, Olympia, Washington.

- 173-303-070(3), "Designation Procedures."
- 173-303-070(5), "Additional Designation Required."
- 173-303-090(6), "Characteristic of Corrosivity."
- 173-303-400, "Interim Status Facility Standards."
- 173-303-610, "Closure and Post-Closure."
- 173-303-610(1), "Applicability."
- 173-303-610(2), "Closure Performance Standard."
- 173-303-610(3), "Closure Plan; Amendment of Plan."
- 173-303-610(6), "Certification of Closure."
- 173-303-650(6), "Closure and Post-Closure Care."

WAC 173-340, "Model Toxics Control Act – Cleanup," *Washington Administrative Code*, as amended, Washington State Department of Ecology, Olympia, Washington.

- 173-340-700(6)(d), "Natural Background and Analytical Considerations."
- 173-340-740(3), "Method B Soil Cleanup Levels for Unrestricted Land Use."
- 173-340-740(3)(b)(ii), "Environmental Protection."
- 173-340-740(3)(b)(iii)(A), "Ground Water Protection."
- 173-340-740(3)(b)(iii)(B)(I) and (II), "Noncarcinogens" and "Carcinogens."
- 173-340-740(6), "Point of Compliance."
- 173-340-745(5), "Method C Industrial Soil Cleanup Levels."
- 173-340-7490(4)(b), "Standard Point of Compliance."
- 173-340-7493, "The Chemicals of Ecological Concern."

WHC-EP-0342, 1990, Addendum 2, *PUREX Plant Chemical Sewer Stream-Specific Report*, Westinghouse Hanford Company, Richland, Washington.

WHC-SD-EN-EV-032, 1995, *Results of the Groundwater Quality Assessment Program at the 216-A-29 Ditch*, Rev. 0, Westinghouse Hanford Company, Richland Washington.

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APPENDIX D

DOE/RL-2006-11, *Hanford Facility Dangerous Waste Closure/Postclosure Plan for the 216-B-63 Trench*

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APPENDIX D

DOE/RL-2006-11, *HANFORD FACILITY DANGEROUS WASTE CLOSURE/POSTCLOSURE PLAN FOR THE 216-B-63 TRENCH*

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TERMS

200-CS-1	200-CS-1 Chemical Sewer Group
CFR	*Code of Federal Regulations*
DOE	U.S. Department of Energy
Ecology	Washington State Department of Ecology
HEIS	*Hanford Environmental Information System* database
N/A	not applicable
OU	operable unit
RCRA	*Resource Conservation and Recovery Act of 1976*
Tri-Party Agreement	Ecology et al., 1989a, *Hanford Federal Facility Agreement and Consent Order*
Tri-Party Agreement Action Plan	Ecology et al., 1989b, *Hanford Federal Facility Agreement and Consent Order Action Plan*
TSD	treatment, storage, and/or disposal
WAC	*Washington Administrative Code*

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METRIC CONVERSION CHART

Into Metric Units			Out of Metric Units		
If You Know	*Multiply By*	*To Get*	*If You Know*	*Multiply By*	*To Get*
Length			**Length**		
inches	25.4	Millimeters	millimeters	0.039	inches
inches	2.54	Centimeters	centimeters	0.394	inches
feet	0.305	Meters	meters	3.281	feet
yards	0.914	Meters	meters	1.094	yards
miles	1.609	Kilometers	kilometers	0.621	miles
Area			**Area**		
sq. inches	6.452	sq. centimeters	sq. centimeters	0.155	sq. inches
sq. feet	0.093	sq. meters	sq. meters	10.76	sq. feet
sq. yards	0.0836	sq. meters	sq. meters	1.196	sq. yards
sq. miles	2.6	sq. kilometers	sq. kilometers	0.4	sq. miles
acres	0.405	Hectares	hectares	2.47	acres
Mass (weight)			**Mass (weight)**		
ounces	28.35	Grams	grams	0.035	ounces
pounds	0.454	Kilograms	kilograms	2.205	pounds
ton	0.907	metric ton	metric ton	1.102	ton
Volume			**Volume**		
teaspoons	5	Milliliters	milliliters	0.033	fluid ounces
tablespoons	15	Milliliters	liters	2.1	pints
fluid ounces	30	Milliliters	liters	1.057	quarts
cups	0.24	Liters	liters	0.264	gallons
pints	0.47	Liters	cubic meters	35.315	cubic feet
quarts	0.95	Liters	cubic meters	1.308	cubic yards
gallons	3.8	Liters			
cubic feet	0.028	cubic meters			
cubic yards	0.765	cubic meters			
Temperature			**Temperature**		
Fahrenheit	subtract 32, then multiply by 5/9	Celsius	Celsius	multiply by 9/5, then add 32	Fahrenheit
Radioactivity			**Radioactivity**		
picocuries	37	Millibecquerel	millibecquerel	0.027	picocuries

2

1.0 INTRODUCTION

The original closure plan for the 216-B-63 Trench (DOE/RL-93-74, *200-BP-11 Operable Unit RFI/CMS and 216-B-3 Main Pond, 216-B-63 Trench, and 216-A-29 Ditch Work/Closure Plan*) was submitted to the Washington State Department of Ecology (Ecology) pursuant to Ecology et al., 1989a, *Hanford Federal Facility Agreement and Consent Order* (Tri-Party Agreement) Milestone M-20-36 in April 1995. The Draft A version of this document was submitted to Ecology in March 2006 to supersede the April 1995 closure plan. This closure plan has been written to update and finalize the March 2006 closure plan.

The 216-B-63 Trench treatment, storage, and/or disposal (TSD) unit will be incorporated into a future revision of the WA789000896, *Hanford Facility Resource Conservation and Recovery Act Permit, Dangerous Waste Portion, Revision 8C, for the Treatment, Storage, and Disposal of Dangerous Waste*. When the TSD unit is incorporated, the provisions of Permit Condition II.Y.2.c will apply. Permit Condition II.Y.2.c establishes the corrective-action status of the waste site following certification of closure.

Because this closure plan is being coordinated with the activities associated with the 200-CS-1 Chemical Sewer Group (200-CS-1) Operable Unit (OU), the closure plan is written to address only the constituents of concern relating to *Resource Conservation and Recovery Act of 1976* (RCRA) TSD unit operations. Any other constituents of concern described in DOE/RL-2005-63, *Feasibility Study for the 200-CS-1 Chemical Sewer Group Operable Unit* (pending), are related to past-practice activities at this waste site and will be addressed under past-practice authority, in accordance with Permit Condition II.Y.2. Deferral of pre-existing contamination to other authorities that occurred prior to dangerous waste management activities is described in Ecology Publication 94-111, *Guidance for Clean Closure of Dangerous Waste Units and Facilities*, Section 2.8. Any physical activities necessary to complete remediation of non-TSD unit constituents is outside the scope of this closure plan and will be performed in conjunction with Tri-Party Agreement past-practice activities for the 200-CS-1 OU and the 200-BP-5 Groundwater OU.

The development of this closure plan has been coordinated with the 200-CS-1 OU remediation activities. This coordinated approach was established in June 2002 following the completion of negotiations between the U.S. Department of Energy (DOE), the U.S. Environmental Protection Agency, and Ecology on the modifications to 200 Areas waste-site cleanup milestones through Tri-Party Agreement change requests M-13-02-01, M-15-02-01, M-16-02-01, and M-20-02-01. As a result, much of the text contained in this closure plan has been obtained from existing 200-CS-1 OU *Comprehensive Environmental Response, Compensation, and Liability Act of 1980* documentation.

The proposed closure strategy for the 216-B-63 Trench soils, structures, and groundwater is clean closure without the need for further field activities. This strategy is based on analytical data provided in DOE/RL-2005-63, Appendices A and B and groundwater data contained in the *Hanford Environmental Information System* (HEIS) database. Groundwater data from the HEIS database were used to show that the TSD unit has not impacted groundwater. Analytical data from vadose zone characterization activities (DOE/RL-2005-63, Appendices A and B) were used to show that the TSD unit will not impact groundwater in the future. Sampling of the soils will be performed to confirm waste site remedy selection was implemented to achieve clean closure.

2.0 UNIT DESCRIPTION

This chapter provides a physical description of the 216-B-63 Trench and describes security related to the trench.

2.1 PHYSICAL DESCRIPTION AND OPERATIONS

The 216-B-63 Trench is located in the 200 East Area of the Hanford Site (Figure 2-1). The 216-B-63 Trench was constructed before 1970 as a percolation trench to receive emergency cooling water and chemical sewer waste from the 221-B Plant Canyon Building (B Plant). The trench was taken out of service in 1992. The trench was an open, unlined, artificial, earthen trench that was closed at one end (it did not convey effluent to another facility). The trench was approximately 427 m (1,400 ft) long, 1.2 m (4 ft) wide, and averaged 3 m (10 ft) deep. The side slope was 1:1.5. The first 3.1 m (10 ft) of the trench contained a 5.1 cm (2 in.) rockfill. The TSD unit also includes a 38 cm (15 in.) diameter vitrified clay pipe extending from the 207-B Retention Basin to the trench. The 38 cm (15 in.) diameter pipe ends in a 40.6 m (16-in.) diameter carbon steel inlet pipe, approximately 1.5 m (5 ft) long, that branched off into the trench approximately 1 m (3 ft) below grade and an approximately 4 m (13-ft) long valved-off dead leg. The dead leg was isolated at the tee where the 40.6 m (16-in.) inlet pipe branches off. The 40.6 m (16 in.) inlet pipe fed into a 1.8 by 2.1 m (6 by 7 ft) weir box before emptying into the trench. The weir box has been filled with concrete. The carbon steel pipe and weir box are not identified in the Hanford Facility Dangerous Waste Part A Permit Application form for the 216-B-63 Trench (02-RCA-0385, "Transfer of Hanford Facility Dangerous Waste Part A Permit Application, Form 3s for Certification in Support of Contract Transition for Central Plateau"), but will be included as part of the structures subject to the closure plan.

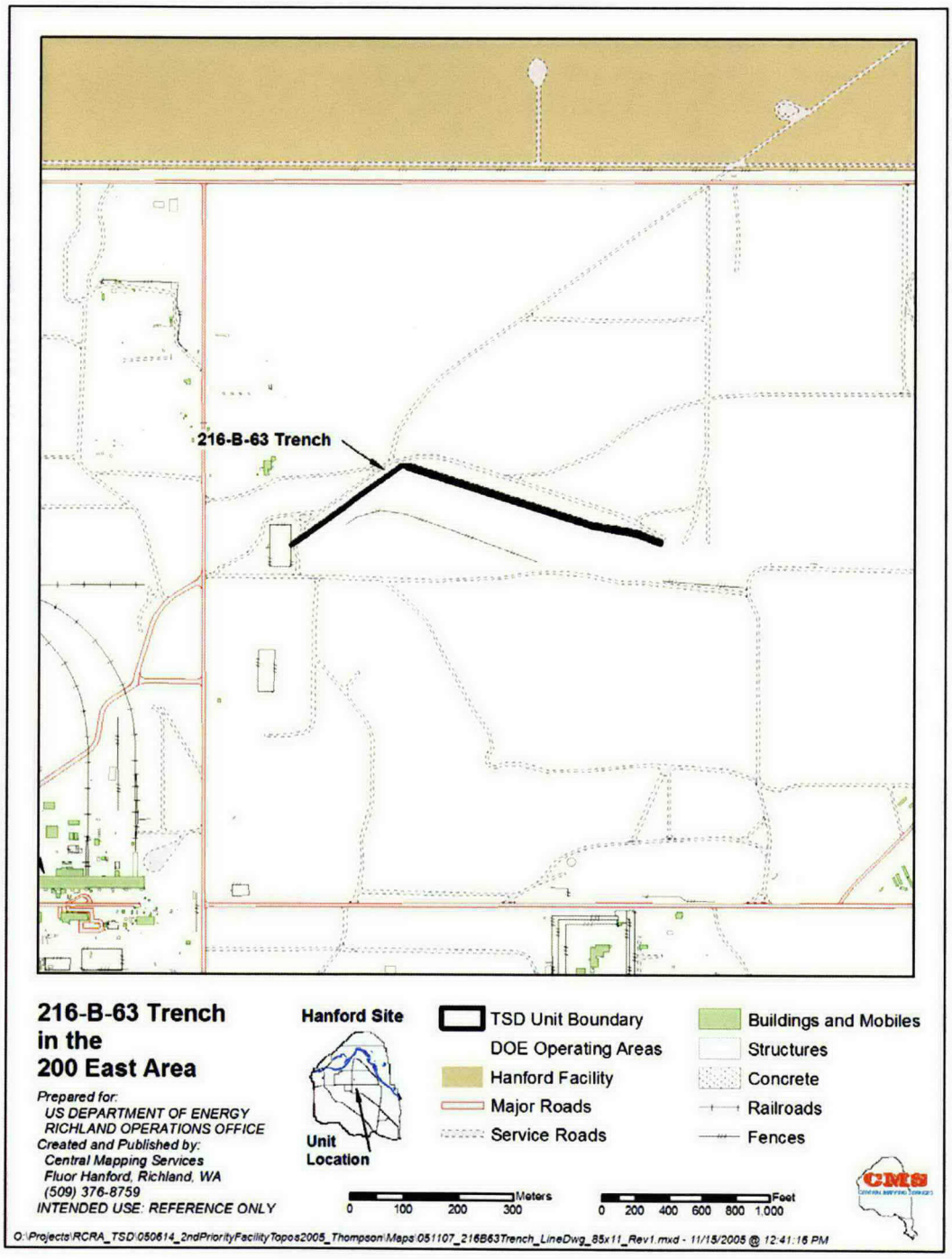
The 216-B-63 Trench received waste between March 1970 and February 1992. The 216-B-63 Trench received effluent from many buildings at the B Plant Complex. The trench terminated south of the 218-E-12B Burial Ground. It was designed to receive diverted emergency cooling water, to prevent the diverted water from reaching the 216-B-3 Pond. In February 1992, the B Plant Chemical Sewer effluent was combined with the B Plant cooling water effluent and discharged into the 216-B-3 Pond.

2.2 SECURITY

Security information for the Hanford Facility is discussed in Permit Condition II.M and Attachment 33 to the Permit (WA7890008967). Because the 216-B-63 Trench is located in the 200 East Area, the security information pertaining to the 200 Areas applies to this TSD unit.

Changes to security are expected to occur during the course of 200 East Area deactivation and decommissioning activities. Security measures will remain in place that limit entry to authorized personnel and that preclude unknowing access by unauthorized individuals. Following clean-closure certification of this TSD unit (Section 7.8), security provisions no longer will apply.

Figure 2-1. 216-B-63 Trench Location and Site Plan.



3.0 PROCESS INFORMATION

The B Plant Chemical Sewer was discharged to the 216-B-63 Trench. The major sources of waste contributions to the 216-B-63 Trench were the 2902-B High Tank (potable sanitary water), cooling water from the B Plant, 225-B Waste Encapsulation and Storage Facility air-compressor after-coolers, a portion of the B Plant steam condensate, and the demineralizer effluent. Minor contributions came from chemical makeup overflow systems, air conditioning units, and space heaters. These minor contributions were determined to be controlled to levels below dangerous waste designation limits. Further information regarding these sources is in WHC-EP-0342, Addendum 6, *B Plant Chemical Sewer Stream-Specific Report*. Section 7.1 provides additional information on physical isolation of the TSD unit.

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4.0 WASTE CHARACTERISTICS

This section identifies the estimate of maximum inventory and the characteristics of the waste disposed of at the 216-B-63 Trench.

4.1 ESTIMATE OF MAXIMUM INVENTORY OF WASTE

The approximate average flow rate of wastewater discharged to the 216-B-63 Trench varied from 378,000 to 1,408,000 L/d (100,000 to 400,000 gal/d). Approximately 68,100,000 kg/yr (473,000 L/d [125,000 gal/d]) of corrosive wastes were managed in the 216-B-63 Trench for the period from 1970 to 1985.

4.2 WASTE CHARACTERISTICS

Chemical discharges to the 216-B-63 Trench after the effective date of regulation (non-radioactive hazardous waste: November 19, 1980) that designate as a dangerous waste constitute the waste codes appearing on the Hanford Facility Dangerous Waste Part A Permit Application form for the 216-B-63 Trench (02-RCA-0385). The waste codes on the form are based on documented discharges to the TSD unit. These discharges are identified in WHC-EP-0342, Addendum 6.

The primary dangerous wastes received at the 216-B-63 Trench are sodium hydroxide, sulfuric acid, and nitric acid. These chemicals are regulated under WAC 173-303, "Dangerous Waste Regulations," as dangerous wastes because they displayed the characteristic of corrosivity (D002) (closure parameter is pH). The 216-B-63 Trench received corrosive dangerous waste from the regeneration of B Plant Facility demineralizers (271-B Building) and a spill. The demineralizer column effluents were routine corrosive discharges (D002) of sulfuric acid and sodium hydroxide solutions. The corrosive discharges occurred from 1970 until October 1985. After 1985, the cation column effluent was treated with sodium carbonate and the anion column effluent was treated with monosodium phosphate to maintain a combined pH of between 4 and 10. Dangerous waste flows from the demineralizer columns to the trench ceased in 1985 and all liquid flows to the trench ceased in 1992. A 2,858 kg (6,300-lb) nitric acid spill to the trench occurred in April 1987. For additional information, refer to WHC-EP-0342, Addendum 6. There are no other closure parameters because disassociated anions/cations of acids and bases do not result in a dangerous waste designation. They are not subject to the numerical closure performance standard comparison in WAC 173-303-610(2)(b)(i), "Closure Performance Standard," because none of them constitute a "dangerous waste, dangerous waste constituent, or residue."

Based on the dangerous waste received at the 216-B-63 Trench, the TSD unit constituent of concern for RCRA closure is pH. This parameter constitutes the scope of the TSD unit RCRA closure activities (Table 4-1). The pH for the trench soils is 9.5 and is well within the noncorrosive range from WAC 173-303-090(6), "Characteristic of Corrosivity."

Table 4-1. Comparison of 216-B-63 Trench Remedial Investigation Data to Residential [a] Clean-Closure Levels.

TSD Unit Constituent Related to Part A Waste Code D002	Maximum Concentration Shallow-Zone Soil (mg/kg) [b]	Maximum Concentration Deep Zone Soil (mg/kg) [b]	90th Percentile Lognormal Hanford Site Background (mg/kg) [c]	Soil Concentration Protective of Groundwater [d] (mg/kg)	Human Health Protection Soil Direct Contact [e] (mg/kg)		Screening Levels for Ecological Protection (mg/kg) [f]	Clean Closure Driver [g]	Meet Clean Closure Standard?
					Carcinogen	Non-carcinogen			
pH	9.5	9.5	N/A	N/A	N/A	N/A	N/A	Non corrosive (>2.0 and <12.5)	Yes

[a] Clean closure evaluations for TSD units are required to use residential levels in WAC 173-340-740(3), "Method B Soil Cleanup Levels for Unrestricted Land Use," based on WAC 173-303-610(2)(b)(i), "Closure Performance Standard."

[b] DOE/RL-2005-63, *Feasibility Study for the 200-CS-1 Chemical Sewer Group Operable Unit,* Appendices A and B. Shallow zone is 0 to 15 ft.

[c] DOE/RL-92-24, *Hanford Site Background: Part 1, Soil Background for Nonradioactive Analytes*, Vol. I.

[d] WAC 173-340-740(3)(b)(iii)(A), "Ground Water Protection." Point of compliance is soils throughout the site (WAC 173-340-740(6), "Point of Compliance").

[e] WAC 173-340-740(3)(b)(iii)(B)(I), ""Noncarcinogens," and (II), "Carcinogens." Equations are found in (I) (noncarcinogens) and (II) (carcinogens) for human health direct contact. Point of compliance is surface to 15 ft (WAC 173-340-740(6)).

[f] WAC 173-340-740(3)(b)(ii), "Environmental Protection," however only wildlife for industrial values from Table 749-3 are used [WAC 173-340-7493(2)(a)(i), "The Chemicals of Ecological Concern"]. Point of compliance is surface to 15 ft (WAC 173-340-7490(4)(b), "Standard Point of Compliance").

[g] Represents the most restrictive level after ensuring the most restrictive level is not less than natural background and for analytical considerations, as indicated in WAC 173-340-700(6)(d), "Natural Background and Analytical Considerations."

Part A = Hanford Facility Dangerous Waste Part A Permit Application form for the 216-B-63 Trench (02-RCA-0385, "Transfer of Hanford Facility Dangerous Waste Part A Permit Application, Forms 3s for Certification in Support of Contract Transition for the Central Plateau").

N/A = not applicable.
TSD = treatment, storage, and/or disposal.
WAC = *Washington Administrative Code.*

5.0 GROUNDWATER MONITORING

The 216-B-63 Trench groundwater closure approach is clean closure, in accordance with the Ecology et al., 1989b, *Hanford Federal Facility Agreement and Consent Order Action Plan* (Tri-Party Agreement Action Plan), Section 6.3.1, where any TSD unit is eligible for clean closure at the Hanford Site. The clean-closure approach is based on the data gathered to date from the monitoring network (PNNL-14112, *Groundwater Monitoring Plan for the 216-B-63 Trench on the Hanford Site*), data contained in the HEIS database, vadose zone characterization data, and DOE/RL-2008-01, *Hanford Site Groundwater Monitoring for Fiscal Year 2007*, Section 2.10.3.2 for the 216-B-63 Trench. Following clean closure of the groundwater, OU groundwater monitoring will continue, as appropriate, in the 200-BP-5 Groundwater OU for constituents under past-practice processes of the Tri-Party Agreement. Table 5-1 shows a comparison of the TSD unit constituent levels in groundwater to clean-closure levels. The clean-closure levels for groundwater are the maximum contaminant levels (when available), or the most restrictive level of the WAC 173-340-740(3)(b)(iii)(B)(I) and (II), "Noncarcinogens" and "Carcinogens," value for groundwater (unless this value is lower than analytical considerations as indicated in WAC 173-340-700(6)(d), "Natural Background and Analytical Considerations"). For pH, the clean closure level is non-corrosive (pH range >2.0 and <12.5). Following clean-closure certification of the 216-B-63 Trench (Section 7.8), the TSD unit groundwater-monitoring program will be discontinued.

The current interim-status groundwater-monitoring plan (as required by WAC 173-303-400, "Interim Status Facility Standards," and 40 CFR 265, Subpart F, "Ground-Water Monitoring") is contained in a separate document, DOE/RL-2008-60, *Interim Status Groundwater Monitoring Plan for the 216-B-63 Trench* (pending). This document contains further details regarding the geology, hydrology, and current groundwater monitoring programs for the TSD unit.

The following excerpts from DOE/RL-2008-01 provide more recent monitoring network and groundwater conditions.

> Interim-status RCRA detection monitoring at the 216-B-63 trench requires that the 12 network wells be sampled semiannually for the four contamination/indicator parameters (total organic carbon, total organic halides, specific conductance, and pH), temperature, and turbidity. Groundwater quality parameters including alkalinity, metals, anions and phenols are also monitored on an annual schedule.
>
> No specific evidence for hazardous waste originating from the 216-B-63 trench has been detected in groundwater at the facility. None of the four contamination indicators exceeded critical means in any of the 216-B-63 wells during FY 2007. Specific conductance continued to rise in nearly all wells in the 216-B-63 network during FY 2007, with exception of wells 299-E27-11 and 299-E27-19, which remain relatively unchanged. This rise can be attributed to increasing concentrations of nitrate, sulfate, and chloride [associated with regional increases of these constituents]. These anions may have reached a peak in the western extremity of the network, while in other wells concentrations are still climbing. Wells near the center of the facility, along an east-west line (e.g., 299-E34-12, 299-E27-11), display less obvious trends in these constituents.

Table 5-1. Comparison of 216-B-63 Trench Groundwater Data to Clean-Closure Levels.

TSD Unit Constituent Related to Part A Waste Code D002	Maximum Concentration in Groundwater from HEIS (µg/L) [a]	Overall Groundwater Cleanup Level (µg/L) [b]	Clean Closure Driver [b]	Meet Clean Closure standard?
pH	7.9 - 8.67 pH units	Non corrosive	WAC 173-303-090(6)	Yes

[a] HEIS queries date range back through 2002.
[b] The reference to WAC 173-303-090(6) identified the corrosive waste designation range for dangerous waste. No other clean up level exists for pH.

Part A = Hanford Facility Dangerous Waste Part A Permit Application form for the 216-B-63 Trench (02-RCA-0385, "Transfer of Hanford Facility Dangerous Waste Part A Permit Application, Forms 3s for Certification in Support of Contract Transition for the Central Plateau").
WAC 173-303-090(6), "Characteristic of Corrosivity."

HEIS = *Hanford Environmental Information System* database. WAC = *Washington Administrative Code*.
TSD = treatment, storage, and/or disposal.

The monitoring well network for the 216-B-63 Trench is shared with Low-Level Waste Management Area 2. Samples are gathered twice a year in the spring and fall. Because of the low hydraulic gradient in the 200 East Area, the rate of groundwater movement near the 216-B-63 Trench is low; however flow rates are not available. The monitoring network for the 216-B-63 Trench currently meets RCRA requirements, as defined in the monitoring plan.

5.1 HISTORY OF RCRA GROUNDWATER MONITORING

Quarterly RCRA groundwater sampling of the 216-B-63 Trench monitoring network was started in the third quarter of 1988 with an interim-status indicator parameter evaluation (detection-level) program (WHC-SD-EN-AP-165, *Interim-Status Groundwater Monitoring Plan for the 216-B-63 Trench*). The wells were sampled quarterly through calendar year 1993, and then semiannual sampling for indicator parameters evaluation was initiated, and has been performed since 2002 under PNNL-14112. This plan has recently been revised and reissued as DOE/RL-2008-60.

5.2 AQUIFER IDENTIFICATION

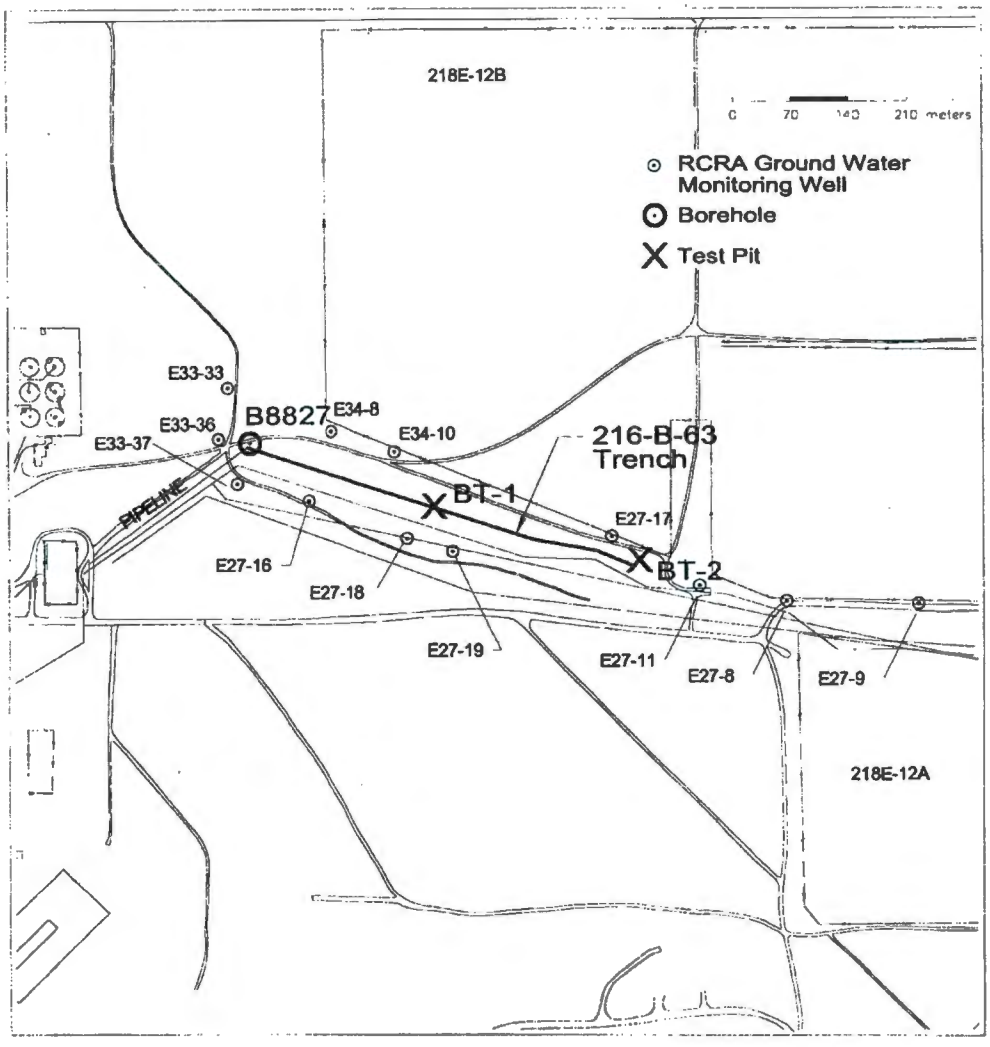
The uppermost or unconfined aquifer beneath the 216-B-63 Trench is 3.4 to 6.1 m (11.2 to 20.0 ft) thick and is contained within the sediments of the Hanford formation. The aquifer extends from the water table to the top of the basalt. The Ringold Formation is absent beneath the trench. Groundwater flow direction and rate beneath the 216-B-63 Trench remained indeterminate during fiscal year 2007. The hydraulic gradient is too low to define a dominant flow direction or rate with any degree of confidence. As such, the designation of upgradient and downgradient wells and the identification of specific sources of the anions is problematic. The pattern of increase and decline of anions, such as sulfate, in some wells suggests these constituents are possibly moving from northwest to southeast at the western end of the facility (DOE/RL-2008-01). Beneath the ditch, the water table is nearly flat and has been declining since discharges to the 216-B-3 Pond system ceased.

5.3 WELL LOCATION AND DESIGN

The revised monitoring well network consists of seven wells (Figure 5-1). These wells include three upgradient wells (i.e., 299-E27-11, 299-E27-17, and 299-E34-10) and four downgradient wells (i.e., 299-E27-16, 299-E27-19, 299-E33-36, and 299-E33-37). All of the wells are sampled semiannually with dedicated sampling pumps.

Construction of the wells followed RCRA standard well construction specifications. The standards in WAC 173-160, "Minimum Standards for Construction and Maintenance of Wells," were used to set the basic design requirements. The seven wells of the interim-status groundwater-monitoring network for the 216-B-63 Trench were constructed from 1987 through 1992. All of the wells are constructed with screens at the water table. Construction summaries and details of drilling and design specifications for all of the wells in the interim-status groundwater monitoring system are in PNNL-14112.

Figure 5-1. Borehole and Test Pit Location Map for the 216-B-63 Trench.



5.4 RESULTS OF RCRA INTERIM-STATUS GROUNDWATER MONITORING DATA

The RCRA indicator parameters are specific conductance, pH, total organic carbon, and total organic halides. Groundwater quality parameters are chloride, iron (filtered), manganese (filtered), phenols, sodium (filtered), and sulfate. The 216-B-63 Trench has been in an interim-status indicator parameter evaluation (detection-level) program since 1988. There are no RCRA indicator parameters exceedances, nor are there significant detections that could be attributed to this trench.

The groundwater near the 216-B-63 Trench displays pH at levels above interim drinking water standards, but they are not considered attributable to the TSD unit. Unfiltered chromium and iron historically have exceeded drinking water standards in several wells. These concentrations have been attributed to well construction and oxidizing conditions in the aquifer. Results for filtered samples have not exceeded the drinking water standard.

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6.0 CLOSURE STRATEGY AND PERFORMANCE STANDARDS

This chapter identifies the 216-B-63 Trench closure strategy and closure performance standards for structures and soils. Groundwater is discussed in Chapter 5.0.

6.1 CLOSURE STRATEGY

The standards for closure of Hanford Site TSD units are in WAC 173-303-610, "Closure and Post-Closure." The option to clean close a surface impoundment or pursue landfill closure of a surface impoundment is identified in WAC 173-303-650(6), "Closure and Post-Closure Care." The possibility of clean closure for all TSD units at the Hanford Site is described in the Tri-Party Agreement Action Plan, Section 6.3.1.

The 216-B-63 Trench meets the clean closure standards for soils and structures based on existing data.

6.2 CLOSURE PERFORMANCE STANDARDS

This section identifies general clean-closure performance standards and the specific closure standards for the structures and soils.

6.2.1 Treatment, Storage, and/or Disposal Unit Closure Performance Standards

The closure performance standards of WAC 173-303-610(2)(a)(i - iii) require the owner or operator of a TSD unit to close the unit in a manner that ensures the following:

1. "Minimizes the need for further maintenance"
2. "Controls, minimizes, or eliminates to the extent necessary to protect human health and the environment, postclosure escape of dangerous waste, dangerous waste constituents, leachate, contaminated runoff, or dangerous waste decomposition products to the ground, surface water, groundwater, or the atmosphere"
3. "Returns the land to the appearance and use of surrounding land areas to the degree possible given the nature of the previous dangerous waste activity."

These standards can be met by one of the following methods:

1. Clean-closure according to the removal or decontamination standard of WAC 173-303-610(2)(b) based on WAC 173-303-650(6)(a)(i)
2. By landfill closure according to WAC 173-303-650(6)(a)(ii)
3. By implementing the alternative closure requirements of WAC 173-303-610(1)(e), "Applicability."

Potential contaminant exposures and health impacts to humans largely are dependent on land use. The land use for the 200 Areas selected by the DOE through 64 FR 61615, "Record of Decision: Hanford Comprehensive Land-Use Plan Environmental Impact Statement (HCP EIS)," is

industrial-exclusive. Industrial cleanup standards are identified in WAC 173-340-745(5), "Method C Industrial Soil Cleanup Levels." Before WAC 173-340-745(5) standards are applied, however, the owner/operator can choose to pursue a clean-closure evaluation based on the traditional application of residential standards under WAC 173-340-740(3), "Method B Soil Cleanup Levels for Unrestricted Land Use," as described in WAC 173-303-610(2)(b)(i). If necessary, and if Ecology agrees, the standards in WAC 173-340-745(5) can be imposed through the alternative closure requirements of WAC 173-303-610(1)(e).

The first approach to examine for TSD unit closure is clean closure. Clean closure will eliminate the need for future inspections and maintenance necessitated by TSD unit constituent contamination. Clean closure also will eliminate the need for future postclosure monitoring and maintenance of the soils. Clean closure using the WAC 173-340-740(3) residential values were examined first because if the DOE/RL-2005-63, Appendices A and B data showed that the soils met WAC 173-340-740(3) residential values without further remediation, then the TSD unit clean closure could occur independent of the OU remediation activities.

If the TSD unit constituents cannot meet the WAC 173-340-740(3) residential values as is, then other closure strategies can be employed. Because the only parameter for clean closure is pH, other closure strategies are not described in this closure plan.

6.2.2 Soil Closure Standards

The clean-closure requirements are established in WAC 173-303-610(2)(b) and the surface impoundment standards are established in WAC 173-303-650(6)(a) to remove or decontaminate unit soils contaminated above clean-closure standards. These soil clean-closure cleanup levels are the numeric levels identified in WAC 173-340-740(3) that are either levels calculated using the most restrictive WAC 173-340-740(3) formulas for unrestricted use, or are background levels (DOE/RL-92-24, *Hanford Site Background: Part 1, Soil Background for Nonradioactive Analytes*) when the most restrictive WAC 173-340-740(3) formulas are more stringent than Hanford Site background concentrations. WAC 173-340-740(3) formulas for unrestricted use can include site-specific parameters.

WAC 173-340-740(3) contains the following potential clean-closure standards: environmental protection related to ecological receptors, soil concentrations protective of groundwater, soil direct-contact carcinogens, soil direct-contact non-carcinogens, soil direct-contact petroleum vapors, and soil vapors. The environmental protection related to ecological receptors, soil concentrations protective of groundwater, soil direct-contact carcinogens, and soil-direct contact noncarcinogens are applicable and are identified in Table 4-1. The soil direct-contact petroleum vapors and soil vapors standards do not apply because there are no petroleum compounds and no volatile organic compounds related to TSD unit closure, respectively.

6.2.3 Structure Closure Standard

The clean-closure standard for 216-B-63 Trench structures is established in accordance with WAC 173-303-610(2)(b)(ii) on a case-by-case basis. Structures identified as part of the TSD unit include the 38 cm (15-in.) diameter pipe extending from the 207-B Retention Basin to

the trench. However, for purposes of this closure plan, the 40.6 m (16 in.) piping and the weir box are included. Achievement of a clean-closure standard for the piping and weir box will be demonstrated through use of process knowledge (Chapter 3.0), knowledge of waste characteristics (Chapter 4.0), and the following.

The piping and weir box were not sampled as part of the remedial investigation activities. However, the piping and weir box meet clean-closure requirements without further investigation because they are not reasonably expected to be contaminated with TSD unit constituents above clean-closure levels (corrosive residues). The piping is considered to be empty and the weir box is filled with concrete. No liquid has been added since 1992, and the piping was sloped. Dangerous waste residues would not reasonably exist on internal piping and weir box surfaces contacted by waste, given that the effluent was primarily water (Section 4.1) and was very low in solids. Base on this, no reasonable potential exists for TSD unit constituents to exist in the piping or the weir box as residues at levels that could practically display the characteristic of corrosivity.

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7.0 CLOSURE ACTIVITIES

This chapter summarizes clean-closure activities for the 216-B-63 Trench performed in coordination with the 200-CS-1 OU remediation process. Physical closure activities included TSD unit physical isolation, borehole and test pit drilling, and sampling and analysis of soils. Except for sampling and analysis of the soils, these activities are completed.

The unit soils are planned to be clean closed, based on the results of DOE/RL-2005-63, Appendices A and B and sampling of the soils, to confirm waste site remedy selection was implemented to achieve clean closure.

7.1 TREATMENT, STORAGE, AND/OR DISPOSAL UNIT PHYSICAL ISOLATION

To preclude any further discharges to the unit, and in support of TSD unit closure, the 216-B-63 Trench was physically isolated from receipt of the B Plant Chemical Sewer effluent in 1992. The trench was backfilled with dirt in November 1994. The inlet pipe and weir box was filled with cement in December 1994. The trench no longer can accept dangerous waste.

7.2 TREATMENT, STORAGE, AND DISPOSAL UNIT SAMPLING AND ANALYSIS

The following sections describe sampling and analyses activities that have been completed for the 216-B-63 Trench. Additional sampling of the soils will be performed to confirm waste site remedy selection was implemented to achieve clean closure.

7.2.1 Completed Soil Sampling and Analysis

As part of the 200-CS-1 OU remedial investigation, data were collected to characterize the nature and vertical extent of contamination and the physical conditions in the vadose zone underlying the 216-B-63 Trench. Drilling, test pit excavation, surface and borehole geophysical surveys, and soil sampling and analysis were conducted during the field activities. Borehole and test pit locations are shown in Figure 5-1.

Borehole B8827 was drilled and sampled, and Test Pits BT-1 and BT-2A were excavated and sampled in the 216-B-63 Trench. The two samples scheduled to be taken from Test Pit BT-1 at depths of 6.1 and 7.6 m (20 and 25 ft) were not obtained, because the test pit caved in excessively. Excavation equipment regulated for use in contaminated environments was unavailable, so sampling at Test Pit BT-2 in fiscal year 2002 was terminated on November 2, 2001, after sampling at the 2.3 to 2.6 m (7.5 to 8.5 ft) depth. At that point, the soil was returned to the sampling pit in the reverse order from which it was excavated. Test Pit BT-2A was excavated and sampled to 7.6 m (25 ft) on November 11, 2002. This test pit was designated BT-2A to distinguish it from the fiscal year 2002 operations.

Borehole B8827 was drilled and sampled during fiscal year 2003. The borehole was drilled through the 216-B-63 Trench, from the ground surface to a depth of 31.4 m (103 ft). The borehole was logged using a high-resolution spectral gamma-ray logging system and a neutron-moisture logging system. The borehole was drilled to better define stratigraphy, to assess the nature and vertical extent of contamination, and to determine the physical properties of the soil beneath the TSD unit.

The test pit locations were prepared by removing 0.3 to 0.6 m (1 to 2 ft) of topsoil from the site. The test pits were excavated to a maximum depth of 7.6 m (25 ft) below ground surface, using a trackhoe. Samples were obtained directly from the trackhoe bucket at intervals of approximately 0.7 m (2.5 ft). Samples were analyzed for chemical and physical properties. The test pits were backfilled in the reverse order from which they were excavated, using the trackhoe, and a front-end loader was used to backfill the site with topsoil and/or gravel.

Soils from the boreholes and test pits were screened in the field both for indications of contamination and to assist in determining the discrete sample locations or depths before the samples were collected. Soil samples were collected for analysis and determination of physical properties. The sampling approach generally required a greater sample frequency near the bottom of the TSD unit, which is the area of highest suspected contamination. Sample collection always was attempted at depths of 4.6 and 7.6 m (15 and 25 ft) below ground surface to define contamination profiles. Sample frequency generally was reduced to 6.1 to 15.2 m (20 to 50 ft) intervals below a depth of 7.6 m (25 ft) in the boreholes.

Soil samples were analyzed for the constituents of concern from DOE/RL-2004-17, *Remedial Investigation Report for the 200-CS-1 Chemical Sewer Group Operable Unit.* Samples were analyzed selectively for field bulk density and moisture content. In addition, ditch bottom samples from each of the test pits were analyzed for an expanded list of compounds, to satisfy waste designation requirements. Soil descriptions were recorded to better define stratigraphic relationships in the OU. The results obtained from previous characterization activities also were evaluated as part of this remedial investigation.

7.2.2 Soil Sample Results and Verification Sampling

Analytical results obtained from the remedial investigation were intended for refining and/or validating the site conceptual contaminant distribution model and are defensible for use in this closure plan for determining constituents of concern (DOE/RL-99-44, *200-CS-1 Operable Unit RI/FS Work Plan and RCRA TSD Unit Sampling Plan*, Appendix B). Table 4-1 identifies the maximum concentration of TSD unit constituents in shallow soils and deep-zone soils from DOE/RL-2005-63, Appendices A and B. The maximum values are compared to the clean-closure levels described in Section 6.2.2. Table 4-1 shows that the TSD unit constituent, pH, meets the clean-closure standard. Further evaluation of data using the WAC 173-340-745(5) closure values was not necessary. Since achievement of clean closure does not require any soil removal, sampling and analysis verification of complete contaminant removal is not necessary.

7.2.3 Confirm Waste Site Remedy Selection was Implemented to Achieve Clean Closure

Additional sampling and analysis of the soil is planned to confirm waste site remedy selection was implemented to achieve clean closure. The sampling will be documented and developed as described in DOE/RL-2005-63, Appendix K.

7.3 OTHER ACTIVITIES REQUIRED FOR CLOSURE

A data quality objective process with follow-on sampling will be performed to determine if the clean-closure levels have been met, in coordination with the 200-CS-1 OU activities (DOE/RL-2005-63, Appendix K). After closure, the appearance of the land will be consistent with land-use determinations of the Hanford Site.

7.4 INSPECTIONS

The TSD unit has been inspected to meet interim-status requirements. Annual inspections are performed based on Ecology approval in 2003. Following closure certification (Section 7.8), inspections for the 216-B-63 Trench will be discontinued.

7.5 TRAINING

A dangerous waste training plan has been maintained for the TSD unit to meet interim-status requirements. The duties associated with dangerous waste management activities include performing inspections, notifying Ecology of any potential threats to human health and the environment, and performing groundwater monitoring. Following closure certification (Section 7.8), the dangerous waste training plan addressing the 216-B-63 Trench waste management duties will be discontinued.

7.6 SCHEDULE FOR CLOSURE

No OU-related activities are required for closure. Following submittal of this closure plan to Ecology, Ecology's 90-day review period begins in accordance with the Tri-Party Agreement Action Plan, Figure 9-2.

7.7 AMENDMENTS OF CLOSURE PLAN

As required by WAC 173-303-610(3)(b), "Closure Plan; Amendment of Plan," the closure plan will be amended if changes to closure activities require a modification of the approved closure plan. However, no changes are expected because closure activities relating to the soils, structures, and groundwater are complete.

7.8 CERTIFICATION OF CLOSURE

When sampling results have been evaluated, closure activities under this closure plan are planned to have been completed.

In accordance with WAC 173-303-610(6), "Certification of Closure," within 60 days of completion of TSD unit closure, the DOE will submit to the lead regulatory agency (Ecology) a certification of closure. Both the DOE and the Co-Operator identified on the current Part A Permit Application for the TSD unit will sign the certification of closure, and an independent registered professional engineer will state that the unit has been closed in accordance with the approved closure plan. The certification will be submitted by registered mail or an equivalent delivery service. Documentation supporting the independent registered professional engineer's certification will be placed in the Administrative Record.

8.0 POSTCLOSURE PLAN

The closure strategy for the 216-B-63 Trench is clean closure with regard to TSD unit constituents for soils, structures, and groundwater; therefore, no postclosure plan is required.

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9.0 REFERENCES

02-RCA-0385, 2002, "Transfer of Hanford Facility Dangerous Waste Part A Permit Application, Form 3s for Certification in Support of Contract Transition for Central Plateau," (letter to M. A. Wilson, Washington State Department of Ecology, from J. Hebdon), U.S. Department of Energy, Richland Operations Office, Richland, Washington, July 1.

40 CFR 265, Subpart F, "Ground-Water Monitoring," Title 40, *Code of Federal Regulations*, Part 265, Subpart F.

64 FR 61615, "Record of Decision: Hanford Comprehensive Land-Use Plan Environmental Impact Statement (HCP EIS)," *Federal Register*, Vol. 64, No. 218, pp. 61615-61625, November 12, 1999. http://www.epa.gov/EPA-IMPACT/1999/November/Day-12/i29325.htm

Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 USC 9601 et seq.

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. http://www2.hanford.gov/arpir/?content=detail&AKey=D196078863 and http://www2.hanford.gov/arpir/?content=detail&AKey=D196078869

DOE/RL-93-74, 1995, *200-BP-11 Operable Unit RFI/CMS and 216-B-3 Main Pond, 216-B-63 Trench, and 216-A-29 Ditch Work/Closure Plan*, Draft B, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

DOE/RL-99-44, 2000, *200-CS-1 Operable Unit RI/FS Work Plan and RCRA TSD Unit Sampling Plan*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

DOE/RL-2004-17, 2004, *Remedial Investigation Report for the 200-CS-1 Chemical Sewer Group Operable Unit*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

DOE/RL-2005-63, pending, *Feasibility Study for the 200-CS-1 Chemical Sewer Group Operable Unit*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

DOE/RL-2008-01, 2008, *Hanford Site Groundwater Monitoring for Fiscal Year 2007*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

DOE/RL-2008-60, pending, *Interim Status Groundwater Monitoring Plan for the 216-B-63 Trench*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

Ecology, EPA, and DOE, 1989a, *Hanford Federal Facility Agreement and Consent Order*, 2 vols., as amended, Washington State Department of Ecology, U.S. Environmental Protection Agency, and U.S. Department of Energy, Olympia, Washington. http://www.hanford.gov/?page=91&parent=0

Ecology, EPA, and DOE, 1989b, *Hanford Federal Facility Agreement and Consent Order Action Plan*, Washington State Department of Ecology, U.S. Environmental Protection Agency, and U.S. Department of Energy, Olympia, Washington.

Ecology Publication 94-111, 2005, *Guidance for Clean Closure of Dangerous Waste Units and Facilities*, as amended, Washington State Department of Ecology, Olympia, Washington.

Hanford Environmental Information System, Hanford Site database.

PNNL-14112, 2002, *Groundwater Monitoring Plan for the 216-B-63 Trench on the Hanford Site*, Pacific Northwest National Laboratory, Richland, Washington.

Resource Conservation and Recovery Act of 1976, 42 USC 6901, et seq.

WA7890008967, 2007, *Hanford Facility Resource Conservation and Recovery Act Permit, Dangerous Waste Portion, Revision 8C, for the Treatment, Storage, and Disposal of Dangerous Waste*, Washington State Department of Ecology, Richland, Washington.

WAC 173-160, "Minimum Standards for Construction and Maintenance of Wells," *Washington Administrative Code*, as amended, Washington State Department of Ecology, Olympia, Washington.

WAC 173-303, "Dangerous Waste Regulations," *Washington Administrative Code*, as amended, Washington State Department of Ecology, Olympia, Washington.

- 173-303-090(6), "Characteristic of Corrosivity."
- 173-303-400, "Interim Status Facility Standards."
- 173-303-610, "Closure and Post-Closure."
- 173-303-610(1), "Applicability."
- 173-303-610(2), "Closure Performance Standard."
- 173-303-610(3), "Closure Plan; Amendment of Plan."
- 173-303-610(6), "Certification of Closure."
- 173-303-650(6), "Closure and Post-Closure Care."

WAC 173-340, "Model Toxics Control Act – Cleanup Regulations," *Washington Administrative Code*, as amended, Washington State Department of Ecology, Olympia, Washington.

- 173-340-700(6)(d), "Natural Background and Analytical Considerations."
- 173-340-740(3), "Method B Soil Cleanup Levels for Unrestricted Land Use."
- 173-340-740(3)(b)(ii), "Environmental Protection."
- 173-340-740(3)(b)(iii)(A), "Ground Water Protection."
- 173-340-740(3)(b)(iii)(B), "Soil Direct Contact."
- 173-340-740(3)(b)(iii)(B)(I) and (II), "Noncarcinogens" and "Carcinogens."
- 173-340-740(6), "Point of Compliance."

- 173-340-745(5), "Method C Industrial Soil Cleanup Levels."
- 173-340-7490(4)(b), "Standard Point of Compliance."
- 173-340-7493(2)(a)(i), "The Chemicals of Ecological Concern."

WHC-EP-0342, 1990, Addendum 6, *B Plant Chemical Sewer Stream-Specific Report*, Westinghouse Hanford Company, Richland, Washington.

WHC-SD-EN-AP-165, 1995, *Interim-Status Groundwater Monitoring Plan for the 216-B-63 Trench*, Rev. 1, Westinghouse Hanford Company, Richland, Washington.

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APPENDIX E

DOE/RL-2006-12, *Hanford Facility Dangerous Waste Closure/Postclosure Plan for the 216-S-10 Pond and Ditch*

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APPENDIX E

DOE/RL-2006-12, *Hanford Facility Dangerous Waste Closure/Postclosure Plan for the 216-S-10 Pond and Ditch*

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TERMS

200-CS-1	200-CS-1 Chemical Sewer Group
CFR	*Code of Federal Regulations*
DOE	U.S. Department of Energy
Ecology	Washington State Department of Ecology
HEIS	*Hanford Environmental Information System* database
MCL	maximum contaminant level
N/A	not applicable
OU	operable unit
RCRA	*Resource Conservation and Recovery Act of 1976*
REDOX	Reduction-Oxidation (Plant or process)
Tri-Party Agreement	*Hanford Federal Facility Agreement and Consent Order* (Ecology et al. 1989)
Tri-Party Agreement Action Plan	Ecology et al., 1989b, *Hanford Federal Facility Agreement and Consent Order Action Plan*
TSD	treatment, storage, and/or disposal
WAC	*Washington Administrative Code*

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METRIC CONVERSION CHART

Into Metric Units			Out of Metric Units		
If You Know	*Multiply By*	*To Get*	*If You Know*	*Multiply By*	*To Get*
Length			**Length**		
inches	25.4	Millimeters	millimeters	0.039	inches
inches	2.54	Centimeters	centimeters	0.394	inches
feet	0.305	Meters	meters	3.281	feet
yards	0.914	Meters	meters	1.094	yards
miles	1.609	Kilometers	kilometers	0.621	miles
Area			**Area**		
sq. inches	6.452	sq. centimeters	sq. centimeters	0.155	sq. inches
sq. feet	0.093	sq. meters	sq. meters	10.76	sq. feet
sq. yards	0.0836	sq. meters	sq. meters	1.196	sq. yards
sq. miles	2.6	sq. kilometers	sq. kilometers	0.4	sq. miles
acres	0.405	Hectares	hectares	2.47	acres
Mass (weight)			**Mass (weight)**		
ounces	28.35	Grams	grams	0.035	ounces
pounds	0.454	Kilograms	kilograms	2.205	pounds
ton	0.907	metric ton	metric ton	1.102	ton
Volume			**Volume**		
teaspoons	5	Milliliters	milliliters	0.033	fluid ounces
tablespoons	15	Milliliters	liters	2.1	pints
fluid ounces	30	Milliliters	liters	1.057	quarts
cups	0.24	Liters	liters	0.264	gallons
pints	0.47	Liters	cubic meters	35.315	cubic feet
quarts	0.95	Liters	cubic meters	1.308	cubic yards
gallons	3.8	Liters			
cubic feet	0.028	cubic meters			
cubic yards	0.765	cubic meters			
Temperature			**Temperature**		
Fahrenheit	subtract 32, then multiply by 5/9	Celsius	Celsius	multiply by 9/5, then add 32	Fahrenheit
Radioactivity			**Radioactivity**		
picocuries	37	Millibecquerel	millibecquerel	0.027	picocuries

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1.0 INTRODUCTION

The original closure plan for the 216-S-10 Pond and Ditch was submitted in March 2006, in accordance with Ecology et al., 1989a, *Hanford Federal Facility Agreement and Consent Order* (Tri-Party Agreement) Milestone M-20-39, which required submittal of a closure plan for the 216-S-10 Pond and Ditch *Resource Conservation and Recovery Act of 1976* (RCRA) treatment, storage, and/or disposal (TSD) unit. This closure plan has been written to supersede the March 2006 closure plan.

The 216-S-10 Pond and Ditch TSD unit will be incorporated into a future revision of the WA7890008967, *Hanford Facility Resource Conservation and Recovery Act Permit, Dangerous Waste Portion, Revision 8C, for the Treatment, Storage, and Disposal of Dangerous Waste.* When the TSD unit is incorporated, the provisions of Permit Condition II.Y.2.c will apply. Permit Condition II.Y.2.c establishes the corrective-action status of the waste site following certification of closure.

Because this closure plan is being coordinated with the activities associated with the 200-CS-1 Chemical Sewer Group (200-CS-1) Operable Unit (OU), the closure plan is written to address only the constituents of concern relating to RCRA TSD unit operations. Any other constituents of concern described in DOE/RL-2005-63, *Feasibility Study for the 200-CS-1 Chemical Sewer Group Operable Unit* (pending), are related to past-practice activities at this waste site and will be addressed under past-practice authority, in accordance with Permit Condition II.Y.2. Deferral of pre-existing contamination to other authorities that occurred prior to dangerous waste management activities is described in Ecology Publication 94-111, *Guidance for Clean Closure of Dangerous Waste Units and Facilities,* Section 2.8. Any physical activities necessary to complete remediation of non-TSD unit constituents are outside the scope of this closure plan and will be performed in conjunction with Tri-Party Agreement past-practice activities for the 200-CS-1 OU and the 200-UP-1 Groundwater OU.

The development of this closure plan has been coordinated with the 200-CS-1 OU remediation activities. This coordinated approach was established in June 2002 following the completion of negotiations between the U.S. Department of Energy (DOE), the U.S. Environmental Protection Agency, and Washington State Department of Ecology (Ecology) on the modifications to 200 Areas waste site cleanup milestones through Tri-Party Agreement change requests M-13-02-01, M-15-02-01, M-16-02-01, and M-20-02-01. As a result, much of the text contained in this closure plan has been obtained from existing 200-CS-1 OU *Comprehensive Environmental Response, Compensation, and Liability Act of 1980* documentation.

The proposed closure strategy for the 216-S-10 Pond and Ditch soils is clean closure; the groundwater will require postclosure monitoring. The 216-S-10 Pond and Ditch soils do not meet the clean-closure standards without remediation. This strategy is based on analytical data provided in DOE/RL-2005-63, Appendices A and B. The postclosure groundwater strategy is based on groundwater data contained in the *Hanford Environmental Information System* database (HEIS). Sampling of the soils will be performed to verify that contaminant removal is complete as well as to confirm waste site remedy selection was implemented to achieve clean closure standards.

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2.0 UNIT DESCRIPTION

This chapter provides a physical description of the 216-S-10 Pond and Ditch and describes security related to the pond and ditch.

2.1 PHYSICAL DESCRIPTION AND OPERATIONS

The 216-S-10 Pond and Ditch are located on the Hanford Site near the 200 West Area (Figure 2-1) southwest of the Reduction-Oxidation (REDOX) Plant (S Plant) complex. The pond and ditch begin approximately 445 m (1,460 ft) southwest of the 202-S Canyon Plant Building and 4.05 m (133 ft) south of 10th Street and end approximately 1,330 m (4,364 ft) southwest of the 202-S Canyon Plant Building.

The 216-S-10 Ditch was an uncovered, unlined artificial ditch that received wastewater from the REDOX Facility. The ditch originated outside the 200 West Area perimeter fence and was estimated to be 686 m (2,250 ft) long, 1.8 m (6 ft) wide, and averaged 1.8 m (6 ft) in depth.

The 216-S-10 Pond was an irregular-shaped, artificial pond that covered approximately 7,139 m^2 (1.8 a) and included four finger-leach trenches. The pond was approximately 2.4 m (8 ft) at its deepest point. The 216-S-10 Ditch fed the pond. Both the ditch and pond were designed to dispose of liquids through percolation into the soil column.

The ditch was part of a system that included the 216-S-10 and 216-S-11 Ponds. In May 1954, an approximate 4,048 m^2 (1 a) overflow released an estimated 215 kg of uranium from the ditch. Later in September 1954, ammonium nitrate nonahydrate solution was inadvertently dumped into the ditch and plugged the soil at the ditch. During the summer of 1995, the ditch was dredged to improve percolation. The sludge was removed and placed in unknown low spots on both sides of the ditch. The ditch then was covered with 0.6 m (2 ft) of soil.

The south end of the 216-S-10 Ditch remained in use until 1984, when the ditch was backfilled and stabilized. The north end of the ditch remains open to a depth of approximately 3 m (10 ft), and last received discharges during 1991. The supplying pipeline was plugged with concrete near the outfall in July 1994. It is estimated that approximately 505 m (1,660 ft) of the ditch is open, and 180 m (590 ft) was backfilled and stabilized.

In 1984, concurrent with the 216-S-10 Ditch, the 216-S-10 Pond was stabilized.

2.2 SECURITY

Security information for the Hanford Facility is discussed in Permit Condition II.M and Attachment 33 of the Permit (WA7890008967). Because the 216-S-10 Pond and Ditch are located near the 200 West Area, the security information pertaining to the 200 Areas applies to this TSD unit.

Changes to security are expected to occur during the course of 200 West Area deactivation and decommissioning activities. Security measures will remain in place that limit entry to authorized personnel and that preclude unknowing access by unauthorized individuals.

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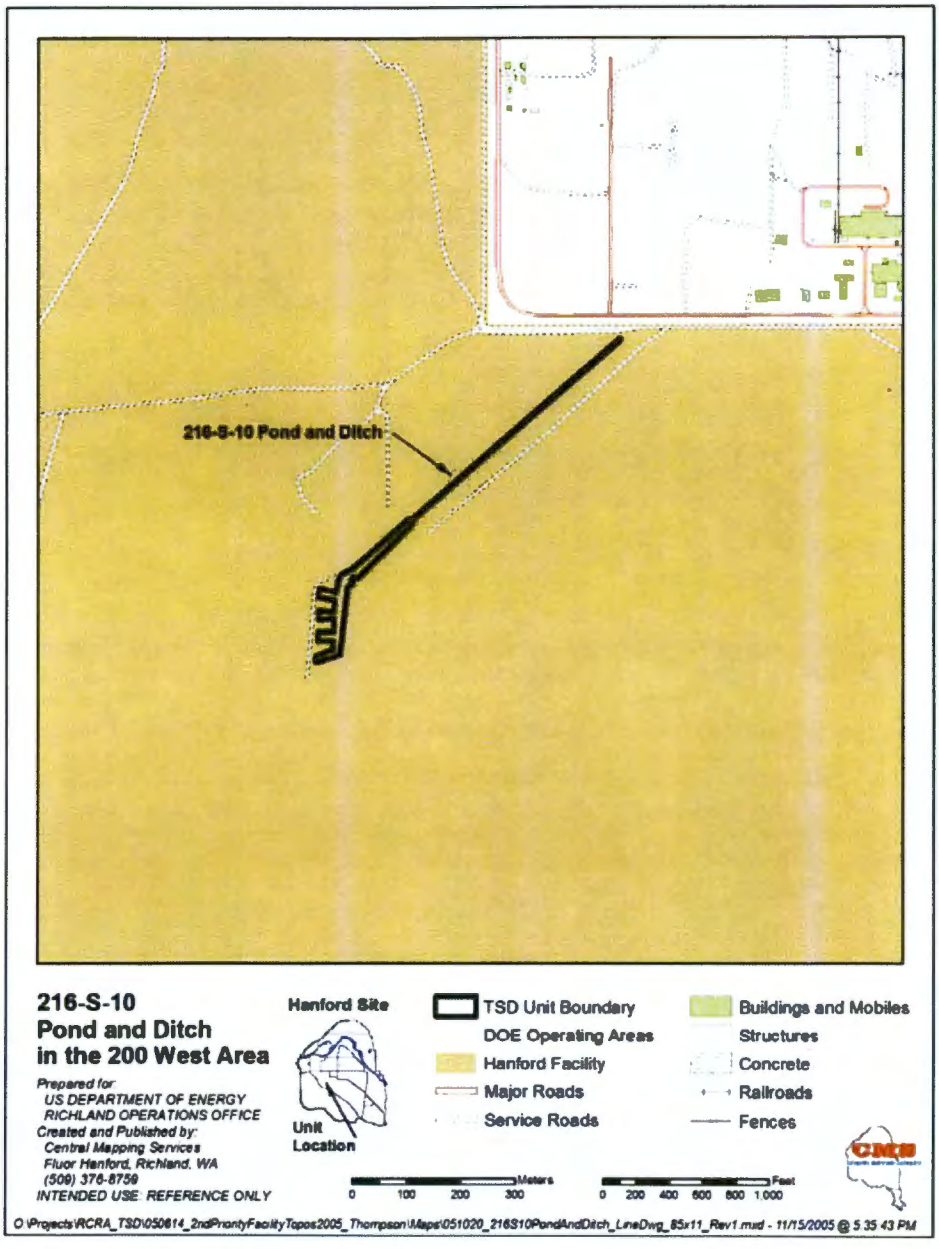
2 Figure 2-1. 216-S-10 Pond and Ditch Location and Site Plan.



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3.0 PROCESS INFORMATION

The 216-S-10 Pond and Ditch were designed to percolate approximately 570,000 L (150,000 gal) of waste per day. The process design capacity reflects the maximum volume of water discharged daily rather than the physical capacity of the 216-S-10 Pond and Ditch. Section 7.1 provides additional information on physical isolation of the TSD unit.

3.1 216-S-10 DITCH

The 216-S-10 Ditch started receiving discharge from the REDOX Facility in 1951. An unplanned released from the ditch of uranium occurred in May 1954. In September 1954, an inadvertently discharge of ammonium nitrate nonahydrate solution plugged the soil at the ditch. The ditch was dredged during the summer of 1995.

Approximately 50 waste streams contributed to the 216-S-10 Ditch. The routine waste stream sources include the compressor cooling water from the 202-S Canyon Plant Building and the sanitary water overflow from the water tower. The remaining sources were infrequent additions and include 202-S Canyon Building floor drains, chemical sewer line manholes, and 276-S Solvent Handling Facility floor drains. The effluent to the chemical sewer was composed of approximately 60 percent REDOX Facility raw water, 20 percent sanitary water, and 20 percent steam condensate.

3.2 216-S-10 POND

The 216-S-10 Pond received discharge from the REDOX Facility. Both the 216-S-10 Ditch and Pond were designed to dispose of liquids through percolation into the soil column. The 216-S-10 Pond was dug in 1954 at the southwest end of the 216-S-10 Ditch to provide additional leaching surface. The 216-S-10 Ditch fed the Pond. The contributors to the pond are similar to those of the 216-S-10 Ditch.

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4.0 WASTE CHARACTERISTICS

This chapter identifies the estimate of maximum inventory and the characteristics of the waste disposed of at the 216-S-10 Pond and Ditch.

4.1 ESTIMATE OF MAXIMUM INVENTORY OF WASTE

During operations, the maximum volume of wastewater discharged daily to the 216-S-10 Pond and Ditch was approximately 568,000 L/d (150,000 gal/d). The annual volume of effluent discharged was approximately 1.9×10^8 L (5.0×10^7 gal).

4.2 WASTE CHARACTERISTICS

Chemical discharges to the 216-S-10 Pond and Ditch after the effective date of regulation (non-radioactive hazardous waste: November 19, 1980) that designate as a dangerous waste constitute the waste codes appearing on the Hanford Facility Dangerous Waste Part A Permit Application form for the 216-S-10 Pond and Ditch (02-RCA-0385, "Transfer of Hanford Facility Dangerous Waste Part A Permit Application, Form 3s for Certification in Support of Contract Transition for Central Plateau"). The waste codes on the form are based on a documented discharge to the TSD unit. This discharge was identified in the original Part A form for the TSD unit (administrative record accession number D196003121).

The dangerous waste received at the 216-S-10 Pond and Ditch includes sodium nitrite, sodium hydroxide, sodium phosphate, sodium fluoride, sodium chloride, and potassium di-chromate. Some of these chemicals are regulated under WAC 173-303, "Dangerous Waste Regulations," as dangerous wastes because they displayed the characteristic of corrosivity (D002) (closure parameter is pH). Potassium di-chromate is regulated because of the chromium (D007) (closure parameter is total chromium). There are no other closure parameters from D002 because disassociated anions/cations of acids, bases, and salts do not result in a dangerous waste designation and are not subject to the numerical closure performance standard comparison in WAC 173-303-610(2)(b)(i), "Closure Performance Standard," because none of them constitute a "dangerous waste, dangerous waste constituent, or residue."

The 216-S-10 Pond and Ditch received one documented discharge of dangerous waste. This dangerous waste discharge occurred in September 1983 and was from the Chemical Engineering Laboratory. The discharge was sent via the sewer to the pond and ditch and consisted of 420 kg (110 gal) of simulated double-shell tank slurry (consisting of sodium nitrate [46 percent], sodium hydroxide [41 percent], and small quantities of sodium phosphate, sodium fluoride, sodium chloride, and potassium di-chromate).

Based on the dangerous waste received at the 216-S-10 Pond and Ditch, the TSD unit constituents of concern for RCRA closure are pH and total chromium. These constituents constitute the scope of the TSD unit RCRA closure activities (Table 4-1). The pH range for the 216-S-10 Pond and Ditch soils is from 9.3 to 9.4 and is well within the noncorrosive range from WAC 173-303-090(6), "Characteristic of Corrosivity."

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Table 4-1. Comparison of 216-S-10 Pond and Ditch Remedial Investigation Data to Residential [a] Clean-Closure Levels.

TSD Unit Constituent Related to Part A Waste Code D002	Maximum Concentration Shallow-Zone Soil (mg/kg) [b]	Maximum Concentration Deep Zone Soil (mg/kg) [b]	90th Percentile Lognormal Hanford Site Background (mg/kg) [c]	Soil Concentration Protective of Groundwater [d] (mg/kg)	Human Health Protection Soil Direct Contact [e] (mg/kg)		Screening Levels for Ecological Protection (mg/kg) [f]	Clean Closure Driver [g]	Meet Clean Closure Standard?
					Carcinogen	Non-carcinogen			
pH	9.4	9.3	N/A	N/A	N/A	N/A	N/A	Non corrosive (>2.0 and <12.5)	Yes
Chromium (total)	815	39	18.5	13,500 [h]	N/A	120,000	42 [i]	Ecological Protection [i]	No [i]

[a] Clean closure evaluations for TSD units are required to use residential levels in WAC 173-340-740(3), "Method B Soil Cleanup Levels for Unrestricted Land Use," based on WAC 173-303-610(2)(b)(i), "Closure Performance Standard."

[b] DOE/RL-2005-63, *Feasibility Study for the 200-CS-1 Chemical Sewer Group Operable Unit,* Appendices A and B. Shallow zone is surface to 15 ft.

[c] DOE/RL-92-24, *Hanford Site Background: Part 1, Soil Background for Nonradioactive Analytes*, Vol. I.

[d] WAC 173-340-740(3)(b)(iii)(A), "Ground Water Protection." Point of compliance is soils throughout the site (WAC 173-340-740(6), "Point of Compliance").

[e] WAC 173-340-740(3)(b)(iii)(B)(I), ""Noncarcinogens," and (II), "Carcinogens." Equations are found in (I) and (II) for human health direct contact. Point of compliance is surface to 15 ft (WAC 173-340-740(6)).

[f] WAC 173-340-740(3)(b)(ii), "Environmental Protection,". Point of compliance is surface to 15 ft (WAC 173-340-7490(4)(b), "Standard Point of Compliance").

[g] Represents the most restrictive level after ensuring the most restrictive level is not less than natural background and for analytical considerations, as indicated in WAC 173-340-700(6)(d), "Natural Background and Analytical Considerations."

[h] 13,500 mg/kg is proposed as the clean closure standard based on site specific calculations, which changed infiltration, groundwater flow rate, and the thickness of the mixing zone parameters in equations 747-A, 747-3, 747-4, and 747-5. Otherwise, 2,000 mg/kg would be the cleanup standard.

i If soil sample analytical results exceed these screening level results, the U.S. Department of Energy may develop another number to be used as the clean up level in accordance with the provisions of WAC 173-340, "Model Toxics Control Act – Cleanup." The screening level from Table 749-3 is not considered a closure performance standard.

Part A = Hanford Facility Dangerous Waste Part A Permit Application form for the 216-S-10 Pond and Ditch (02-RCA-0385, "Transfer of Hanford Facility Dangerous Waste Part A Permit Application, Forms 3s for Certification in Support of Contract Transition for the Central Plateau").

N/A = not applicable.
TSD = treatment, storage, and/or disposal (unit).
WAC = *Washington Administrative Code*.

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5.0 GROUNDWATER MONITORING

The 216-S-10 Pond and Ditch groundwater closure approach is postclosure monitoring under a final-status detection monitoring program. The closure approach is based on the data gathered to date from the monitoring network (PNNL-14070, *Groundwater Monitoring Plan for the 216-S-10 Pond and Ditch*) contained in the HEIS database, vadose zone characterization data, and DOE/RL-2008-01, *Hanford Site Groundwater Monitoring for Fiscal Year 2007*, Section 2.9.3.3 for the 216-S-10 Pond and Ditch. Groundwater monitoring, as described in this chapter, has shown an elevated level of chromium in an upgradient well. The source of this contamination has not been conclusively determined and, because chromium is a TSD unit constituent, the 216-S-10 Pond and Ditch cannot currently be ruled out as the source of the contamination; therefore, postclosure groundwater monitoring for chromium will be required. Postclosure activities are described in Chapter 8.0.

The current interim-status groundwater monitoring plan (as required by WAC 173-303-400, "Interim Status Facility Standards," and 40 CFR 265, Subpart F, "Ground-Water Monitoring") is in a separate document, DOE/RL-2008-61, *Interim Status Groundwater Monitoring Plan for the 216-S-10 Pond and Ditch* (pending). This document contains further details regarding the geology, hydrology, and current groundwater monitoring programs for the TSD unit.

5.1 HISTORY OF RCRA GROUNDWATER MONITORING

RCRA groundwater monitoring of the 216-S-10 Pond and Ditch began in the third quarter of 1991 with an interim-status indicator parameter evaluation (detection-level) program (DOE/RL-92-03, *Annual Report for RCRA Groundwater Monitoring Projects at Hanford Site Facilities for 1991*). The wells were sampled quarterly for one year to establish background levels. Semiannual sampling for indicator parameters evaluation was instituted in 1992. Upgradient wells were sampled quarterly in 1997 to reestablish the critical mean for total organic halides, and the wells were sampled semiannually thereafter (PNNL-11793, *Hanford Site Groundwater Monitoring for Fiscal Year 1997;* DOE/RL-2008-01). The only exceedance of maximum contaminant levels occurred in the shallow upgradient well 299-W26-7 for hexavalent chromium (above the 100 µg/L drinking water standard) (Figure 5-1).

5.2 AQUIFER IDENTIFICATION

The uppermost or unconfined aquifer beneath the 216-S-10 Pond and Ditch is about 61 m (200 ft) thick and is contained within sediments of the upper unit of the Ringold Formation (Ringold Unit 5). The depth to groundwater ranges from approximately 63 to 70 m (207 to 230 ft). The aquifer extends from the water table to the Ringold lower mud unit (unit 8) of the Ringold Formation. The groundwater flow has been generally to the east-southeast for the last several years. The average linear velocity has remained essentially the same as in fiscal year 2006 and ranges from 0.08 to 2.25 m/d or 29 to 820 m/yr (DOE/RL-2008-01). The water table beneath the pond and ditch has declined significantly since the discharges to the U Pond system ceased in 1984.

5.3 WELL LOCATION AND DESIGN

The current monitoring well network consists of five downgradient wells (299-W26-13, 299-W26-14, 699-33-75, 699-32-76, and 299-W27-2) and one upgradient well, (699-33-76) (Figure 5-1). Wells 299-W26-13, 699-33-75, and 699-32-76 monitors the uppermost aquifer downgradient of the 216-S-10 Pond, 299-W26-14 monitors the uppermost aquifer along the 216-S-10 Ditch, and 299-W27-2, located at the former discharge end of the 216-S-10 Ditch, is a deep monitoring well screened just above the top of the Ringold lower mud unit. Well 699-33-76 is an upgradient well located west of the 216-S-10 Ditch. Wells 699-33-75, 699-32-76, and 699-33-76 were installed in 2008 to support 200-UP-1 Operable Unit and 216-S-10 Pond and Ditch monitoring. Wells 699-33-75, 699-32-76, and 699-33-76 will be sampled quarterly until ambient conditions can be statistically established. Following that period, they will be sampled semiannually. All of the other wells are sampled semiannually with dedicated sampling pumps.

Construction of the wells followed RCRA standard well-construction specifications. The standards in WAC 173-160, "Minimum Standards for Construction and Maintenance of Wells," were used to set the basic design requirements. The initial six interim-status groundwater monitoring network wells for the 216-S-10 Pond and Ditch were constructed from 1990 through 1992. Five of these wells went dry because of regional groundwater declines. Wells 299-W26-13 and 299-W26-14 were added as replacements in 2000 and 2003, respectively; and wells 699-33-75, 699-32-76, and 699-33-76 were installed in 2008. Construction summaries for the current network are contained in DOE/RL-2008-61 and well construction reports.

5.4 RCRA INTERIM-STATUS GROUNDWATER MONITORING DATA

The RCRA indicator parameters are specific conductance, pH, total organic carbon, and total organic halides. Groundwater quality parameters are chloride, iron (filtered), manganese (filtered), phenols, sodium (filtered), and sulfate. The 216-S-10 Pond and Ditch have been in an interim-status indicator parameter evaluation (detection-level) program since 1991.

In fiscal years 1996 and 1997, total organic halides were detected in upgradient well 299-W26-8. Quarterly sampling of the upgradient wells occurred for one year to reestablish critical mean for total organic halides, and then the wells were sampled semiannually. The cause of the upgradient total organic halides is probably the upgradient carbon tetrachloride plume.

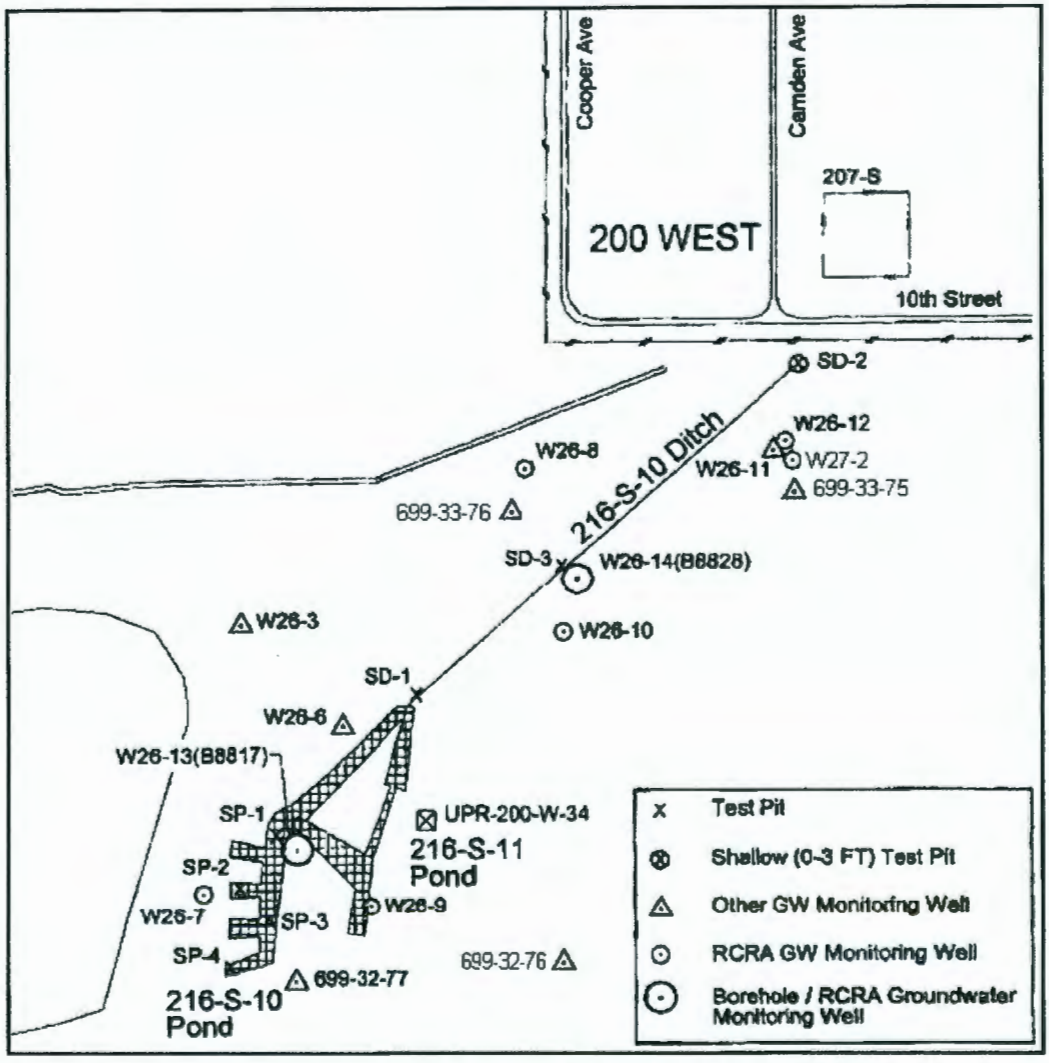
Chromium has been found at levels above the maximum contaminant level in upgradient well 299-W26-7, which is now dry. The source for this contamination has not been determined. Chromium concentrations in well 299-W26-7 varied in the 10 years before it went dry, and were above the 100 µg/L drinking water standard during most of the life of the well; this may be caused by short-term releases traveling through the vadose zone. The December 2002 chromium value was 204 µg/L and was the last sample collected from the well.

Concentrations of chromium have not been detected above drinking water standards in the downgradient wells. Chromium concentrations in well 299-W26-13 (first sampled in February 2000 and located downgradient of well 299-W26-7) were greatest in the most recent samples; January 2008 results were 28.4 (filtered) and 61.3 (unfiltered) µg/L.

Because the only upgradient well, 299-W26-7, went dry in year 2003, the comparison of RCRA indicator parameters (specific conductance, pH, total organic carbon, and total organic halides) between upgradient and downgradient wells was conducted using the most recent collected background values of contaminant indicator parameters from well 299-W26-7 before it went dry (see DOE/RL-2008-01, Appendix B). When data from the new upgradient well (699-33-76) become available, new background values will be calculated and used for the required upgradient/downgradient comparisons. Based on fiscal year 2004 statistical evaluations of the contamination indicator parameters, there are no statistically significant differences in down gradient wells (i.e., constituents in the downgradient wells are not elevated compared to the upgradient well). Therefore, this site remains in detection monitoring.

Based on regional groundwater elevations, the groundwater flow direction continues toward the east-southeast and the water-level elevation continues to decline. The average linear velocity ranges from 0.075 to 2.25 m/d (0.25 to 7.4 ft/d) (DOE/RL-2008-01).

Figure 5-1. Borehole and Test Pit Locations.



6.0 CLOSURE STRATEGY AND PERFORMANCE STANDARDS

This chapter identifies the 216-S-10 Pond and Ditch closure strategy and closure performance standards for soils. Groundwater is discussed in Chapters 5.0 and 8.0.

6.1 CLOSURE STRATEGY

The standards for closure of Hanford Site TSD units are in WAC 173-303-610, "Closure and Post-Closure." The option to clean close a surface impoundment or pursue landfill closure of a surface impoundment is identified in WAC 173-303-650(6), "Closure and Post-Closure Care." The possibility for clean closure for all TSD units at the Hanford Site is described in Ecology et al., 1989b, *Hanford Federal Facility Agreement and Consent Order Action Plan* (Tri-Party Agreement Action Plan), Section 6.3.1.

The 216-S-10 Pond and Ditch soils meet clean-closure standards for soils, with the exception of the ecological screening level for chromium. The closure strategy will remain removal of contaminated soils (i.e., soil with concentrations above standards protective of human health and the environment) to clean-closure levels; however, the Permittees may need to develop an ecological protection cleanup level to replace the screening level found in Table 4-1. Removal of contaminated soils can begin as soon as a decision is made on what the clean up level will be on for ecological protection for chromium.

6.2 CLOSURE PERFORMANCE STANDARDS

This section identifies general clean-closure performance standards and the specific closure standards for the soils.

6.2.1 Treatment, Storage, and/or Disposal Unit Closure Performance Standards

The closure performance standards of WAC 173-303-610(2)(a)(i - iii), "Closure Performance Standard," require the owner or operator of a TSD unit to close the unit in a manner that ensures the following:

1. "Minimizes the need for further maintenance"
2. "Controls, minimizes, or eliminates to the extent necessary to protect human health and the environment, postclosure escape of dangerous waste, dangerous waste constituents, leachate, contaminated runoff, or dangerous waste decomposition products to the ground, surface water, groundwater, or the atmosphere"
3. "Returns the land to the appearance and use of surrounding land areas to the degree possible given the nature of the previous dangerous waste activity."

These standards can be met by one of the following methods:

1. Clean-closure according to the removal or decontamination standard of WAC 173-303-610(2)(b) based on WAC 173-303-650(6)(a)(i)
2. By landfill closure according to WAC 173-303-650(6)(a)(ii)
3. By implementing the alternative closure requirements of WAC 173-303-610(1)(e), "Applicability."

Potential contaminant exposures and health impacts to humans are largely dependent on land use and related exposure scenarios. The land use for the 200 Areas selected by the DOE through 64 FR 61615, "Record of Decision: Hanford Comprehensive Land-Use Plan Environmental Impact Statement (HCP EIS)," is industrial-exclusive. However, the 216-S-10 Pond and Ditch are located outside of the industrial-exclusive zone, and are included in the conservation (mining) zone.

The first approach to examine for TSD unit closure is clean closure. Clean closure will eliminate the need for future inspections and maintenance necessitated by TSD unit constituent contamination. Clean closure also will eliminate the need for future postclosure monitoring and maintenance of the soils. Clean closure using WAC 173-340-740(3), "Method B Soil Cleanup Levels for Unrestricted Land Use," residential values were examined first because if the DOE/RL-2005-63, Appendices A and B data showed that the soils met the WAC 173-340-740(3) residential values without further remediation, then the TSD unit clean closure can occur independent of the OU remediation activities.

If the TSD unit constituents cannot meet the WAC 173-340-740(3) residential values as is, then before choosing a postclosure pathway, the OU remediation activities are examined to see if removal of soils is needed for past-practice contaminants. If removal of soils will be pursued for the OU remediation activities, then clean closure using WAC 173-340-740(3) residential values for TSD unit constituents through verification sampling and analysis can still be used. Clean closure can then be pursued for the soils, and the closure approach for groundwater must be considered (Section 5.0).

If neither of the clean-closure approaches can achieve the outcome, then the TSD unit will need to pursue some form of postclosure. The classical landfill closure option described in WAC 173-303-650(6)(a)(ii) would result in the construction of a barrier and long term postclosure care. Before pursuing a landfill closure option with a barrier, however, other options can be explored, with Ecology's approval, through use of the alternative closure requirement in WAC 173-303-610(1)(e), provided the conditions are met. Since the alternative requirements allow Ecology to replace all of the closure requirements except the general closure performance standards of WAC 173-303-610(2)(a), closure approaches other than landfill closure could be pursued.

6.2.2 Soil Closure Standards

The clean-closure requirements are established in WAC 173-303-610(2)(b) and the surface impoundment standards are established in WAC 173-303-650(6)(a) to remove or decontaminate unit soils contaminated above clean-closure standards. These soil clean-closure cleanup levels are the numeric levels identified in WAC 173-340-740(3) that are either levels calculated using the most restrictive WAC 173-340-740(3) formulas for unrestricted use, or are background levels (DOE/RL-92-24, *Hanford Site Background: Part 1, Soil Background for Nonradioactive Analytes*) when the most restrictive WAC 173-340-740(3) formulas are more stringent than Hanford Site background concentrations. WAC 173-340-740(3) formulas for unrestricted use can include site-specific parameters.

WAC 173-340-740(3) contains the following potential clean-closure standards: environmental protection related to ecological receptors, soil concentrations protective of groundwater, soil direct-contact carcinogens, soil direct-contact noncarcinogens, soil direct-contact petroleum vapors, and soil vapors. The environmental protection related to ecological receptors, soil concentrations protective of groundwater, soil direct-contact carcinogens, and soil direct-contact noncarcinogens are applicable and are identified in Table 4-1. The soil direct-contact petroleum vapors and soil vapors standards do not apply because there are no petroleum compounds and no volatile organic compounds related to TSD unit closure, respectively.

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7.0 CLOSURE ACTIVITIES

This chapter summarizes closure activities for the 216-S-10 Pond and Ditch soils performed in coordination with the 200-CS-1 OU remediation process. Physical closure activities included TSD unit physical isolation, borehole and test pit drilling, soil sampling and analysis, removal of 216-S-10 Pond and Ditch contaminated soils, and verification sampling following contaminated soil removal.

The unit soils are planned to be clean closed based on the results of DOE/RL-2005-63, Appendices A and B and remediation of the 216-S-10 Pond and Ditch contaminated soil. Furthermore, sampling of the soils to verify that contaminate removal is complete, as well as to confirm waste site remedy selection was implemented to achieve clean closure also will be performed. Contaminated soil will be removed, require subsequent designation according to WAC 173-303-070(3), "Designation Procedures," and (5), "Additional Designation Required," and managed as part of closure. Because soils are not expected to be designated as dangerous waste, treatment of the soils is not expected before they are disposed of at the Environmental Restoration Disposal Facility.

7.1 TREATMENT, STORAGE, AND/OR DISPOSAL UNIT PHYSICAL ISOLATION

The south end of the 216-S-10 Ditch remained in use until 1984, when two-thirds of the ditch was backfilled and stabilized. In 1984, concurrent with the 216-S-10 Ditch, the 216-S-10 Pond was stabilized. The north end of the 216-S-10 Ditch last received discharges during 1991, and the supplying pipeline was plugged with concrete near the outfall in June 1994. The concrete plug was poured in manhole #2 to achieve positive assurance of isolation.

7.2 TREATMENT, STORAGE, AND/OR DISPOSAL UNIT SAMPLING AND ANALYSIS

The following sections describe sampling and analysis activities that have been completed for the 216-S-10 Pond and Ditch. Additional sampling of the soils will be performed to verify that contaminant removal is complete, as well as to confirm waste site remedy selection was implemented to achieve clean closure.

7.2.1 Completed Soil Sampling and Analysis

As part of the 200-CS-1 OU remedial investigation, data were collected to characterize the nature and vertical extent of contamination and the physical conditions in the vadose zone underlying the 216-S-10 Ditch and Pond. Drilling, test pit excavation, surface and borehole geophysical surveys, and soil sampling and analysis were conducted during the field activities. Borehole and test pit locations are shown in Figure 5-1.

Test Pits SD-1, SD-2, and SD-3 were excavated and sampled in the 216-S-10 Ditch, and borehole B8828 was drilled and sampled adjacent to the 216-S-10 Ditch. Borehole B8828 was completed as a RCRA monitoring well and renumbered as well 299-W26-14 to support the RCRA monitoring program. Test Pit SD-3 was excavated in the 216-S-10 Ditch to gather characterization data below the waste site.

Test Pits SP-1, SP-2, SP-3, and SP-4 were excavated and sampled in the 216-S-10 Pond. Borehole B8817 was drilled and sampled adjacent to the 216-S-10 Pond in fiscal year 1999, and details are provided in PNNL-13198, *Borehole Data Package for the 216-S-10 Pond and Ditch Well 299-W26-13*. Borehole B8817 was completed as a RCRA monitoring well and renumbered as well 299-W26-13.

The test pit locations were prepared by removing 0.3 to 0.6 m (1 to 2 ft) of topsoil from the site. The test pits were excavated to a maximum depth of 7 m (25 ft) below ground surface using a trackhoe. Samples were obtained directly from the trackhoe bucket at intervals of approximately 0.7 m (2.5 ft). Samples were analyzed for chemical and physical properties. The test pits were backfilled in the reverse order from which they were excavated using the trackhoe, and a front-end loader was used to backfill the site with topsoil and/or gravel.

Soils from the boreholes and test pits were screened in the field both for indications of contamination and to assist in determining the discrete sample locations or depths before the samples were collected. Soil samples were collected for analysis and determination of physical properties. The sampling approach generally required a greater sample frequency near the bottom of the waste site, which is the area of highest suspected contamination. Sample collection was always attempted at depths of 4.6 and 7.6 m (15 and 25 ft) below ground surface to define contamination profiles. Sample frequency generally was reduced to 6.1 to 15.2 m (20 to 50 ft) intervals below a depth of 7.6 m (25 ft) in the boreholes.

Soil samples were analyzed for the constituents of concerns from DOE/RL-2004-17, *Remedial Investigation Report for the 200-CS-1 Chemical Sewer Group Operable Unit*. Samples were analyzed selectively for field bulk density and moisture content. In addition, pond and ditch bottom samples from each of the test pits were analyzed for an expanded list of compounds, to satisfy waste designation requirements. Soil descriptions were recorded to better define stratigraphic relationships in the OU. The results obtained from previous characterization activities also were evaluated as part of this remedial investigation.

7.2.2 Soil Sample Results and Verification Sampling

Analytical results obtained from the remedial investigation were intended for refining and/or validating the site conceptual contaminant distribution model and are defensible for use in this closure plan for determining constituents of concern (DOE/RL-99-44, Appendix B). Table 4-1 identifies the maximum concentration of TSD unit constituents in shallow soils and deep-zone soils from DOE/RL-2005-63, Appendices A and B. As a first review, the maximum values were compared to the clean-closure levels (Section 6.2.2).

After comparing the TSD unit constituent concentrations in DOE/RL-2005-63, Appendices A and B to the WAC 173-340-740(3) residential values, the TSD unit was not eligible for clean

closure without remediation. The TSD unit constituent concentrations were then compared to the WAC 173-340-745(5), "Method C Industrial Soil Cleanup Levels," industrial values with the same result as the ecological protection screening level was the same for both standards. Because the level of chromium exceeds the ecological protection screening level by over 12 times, it is believed that remediation of the 216-S-10 Pond and Ditch soils will prevent the need for barrier construction as part of the 200-CS-1 OU decision making. However, since the ecological protection screening levels are not cleanup levels, the Permittees may develop a cleanup level for chromium and propose a modification to amend the closure plan.

Table 4-1 shows that pH meets the clean-closure standard. Total chromium does not meet the ecological protection screening level. To meet WAC 173-340-740(3) residential cleanup levels, 216-S-10 Pond and Ditch contaminated soils will require removal. As the 200-CS-1 OU activities remove the 216-S-10 Pond and Ditch contaminated soils, the closure approach for the soils also will be to remove the 216-S-10 Pond and Ditch contaminated soils and conduct verification sampling. The sampling and analysis plan for verifying that contaminant removal is complete is contained in DOE/RL-2005-63, Appendix K.

7.2.3 Confirm Waste Site Remedy Selection was Implemented to Achieve Clean Closure

Additional sampling and analysis of the soil is planned to confirm waste site remedy selection was implemented to achieve clean closure. The sampling will be documented and developed as described in DOE/RL-2005-63, Appendix K.

7.3 OTHER ACTIVITIES REQUIRED FOR CLOSURE

The 200-CS-1 OU activities planned to support clean closure of the TSD unit include the removal of the 216-S-10 Pond and Ditch contaminated soils. This activity is expected to achieve clean closure for the TSD unit soils. In addition, a data quality objective process with follow-on sampling will be performed to determine if the clean-closure levels have been met, in coordination with the 200-CS-1 OU activities (DOE/RL-2005-63, Appendix K). After closure, appearance of the land will be consistent with land-use determinations of the Hanford Site.

7.4 INSPECTIONS

The TSD unit has been inspected to meet interim-status requirements. Annual inspections are performed based on Ecology approval in 2003. Following closure certification (Section 7.8), inspections for the 216-S-10 Pond and Ditch will be discontinued.

7.5 TRAINING

A dangerous waste training plan has been maintained for the TSD unit, to meet interim-status requirements. The duties associated with dangerous waste management activities include

performing inspections, notifying Ecology of any potential threats to human health and the environment, and performing groundwater monitoring. Following closure certification (Section 7.8), inspections for the 216-S-10 Pond and Ditch will be discontinued. A dangerous waste training plan will be maintained for groundwater monitoring during postclosure monitoring.

7.6 SCHEDULE OF CLOSURE

The remaining closure activities for this TSD unit include the following:

1. Removal of the 216-S-10 Pond and Ditch contaminated soils
2. Completion of a data quality object process for verification sampling
3. Verification sampling of the soils.

These activities will be conducted as part of the 200-CS-1 OU activities. Following submittal of this closure plan to Ecology, Ecology's 90-day review period begins in accordance with the Tri-Party Agreement Action Plan, Figure 9-2.

7.7 AMENDMENT OF CLOSURE PLAN

As required by WAC 173-303-610(3)(b), "Closure Plan; Amendment of Plan," the closure plan will be amended if changes to closure activities require a modification of the approved closure plan. Modifications to this plan could occur as a result of the activities identified in Section 7.6. Furthermore, a modification is expected when the environmental protection cleanup level for chromium is established.

7.8 CERTIFICATION OF CLOSURE

Upon removal of the 216-S-10 Pond and Ditch contaminated soils, sampling be performed to verify that contaminant removal is complete, as well as to confirm waste site remedy selection was implemented to achieve clean closure. When sampling results have been evaluated, closure activities under this closure plan are planned to have been completed (Chapter 8).

In accordance with WAC 173-303-610(6), "Certification of Closure," within 60 days of completion of TSD unit closure, the DOE will submit to Ecology a certification of closure. Both the DOE and the Co-Operator identified on the current Part A Permit Application for the TSD unit will sign the certification of closure, and an independent registered professional engineer will state that the unit has been closed in accordance with the approved closure plan. The certification will be submitted by registered mail or an equivalent delivery service. Documentation supporting the independent registered professional engineer's certification will be placed in the Administrative Record.

8.0 POSTCLOSURE PLAN

The closure strategy for the 216-S-10 Pond and Ditch is clean closure with regard to TSD unit constituents for soils; therefore, no postclosure plan for the soils is required.

Clean closure of the groundwater is not possible because of chromium contamination in the groundwater. A postclosure final-status detection monitoring program is required. Postclosure groundwater monitoring will be performed as described in a postclosure groundwater monitoring plan to meet the postclosure plan requirements of WAC 173-303-610(8)(b)(i), "Post-Closure Plan; Amendment of Plan," and WAC 173-303-645, "Releases from Regulated Units," stated in WAC 173-303-610(8)(b)(ii) (PNNL-15731, *Post-Closure RCRA Groundwater Monitoring Plan for the 216-S-10 Pond and Ditch*).

Postclosure requirements of WAC 173-303-610(8)(b)(ii) regarding planned maintenance activities and frequencies do not apply. Training requirements apply for the collection of groundwater monitoring samples.

The contact information required by WAC 173-303-610(8)(b)(iii) is as follows.

Name:	Director, Environmental Management Division, U.S. Department of Energy, Richland Operations Office
Address:	P.O. Box 500, Richland, Washington 99352
Phone Number:	(509) 372-0879

The alternative requirement provisions identified in WAC 173-303-610(8)(b)(iv) are not being applied to the groundwater monitoring of the 216-S-10 Pond and Ditch.

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9.0 REFERENCES

02-RCA-0385, 2002, "Transfer of Hanford Facility Dangerous Waste Part A Permit Application, Form 3s for Certification in Support of Contract Transition for Central Plateau," (letter to M. A. Wilson, Washington State Department of Ecology, from J. Hebdon), U.S. Department of Energy, Richland Operations Office, Richland, Washington, July 1.

40 CFR 265, Subpart F, "Ground-Water Monitoring," Title 40, *Code of Federal Regulations*, Part 265, Subpart F.

64 FR 61615, "Record of Decision: Hanford Comprehensive Land-Use Plan Environmental Impact Statement (HCP EIS)," *Federal Register*, Vol. 64, No. 218, pp. 61615-61625, November 12, 1999. http://www.epa.gov/EPA-IMPACT/1999/November/Day-12/i29325.htm

Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 USC 9601 et seq.

DOE/RL-92-03, 1992, *Annual Report for RCRA Groundwater Monitoring Projects at Hanford Site Facilities for 1991*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

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. http://www2.hanford.gov/arpir/?content=detail&AKey=D196078863 and http://www2.hanford.gov/arpir/?content=detail&AKey=D196078869

DOE/RL-2004-17, 2004, *Remedial Investigation Report for the 200-CS-1 Chemical Sewer Group Operable Unit*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

DOE/RL-2005-63, pending, *Feasibility Study for the 200-CS-1 Chemical Sewer Group Operable Unit*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

DOE/RL-2008-01, 2008, *Hanford Site Groundwater Monitoring for Fiscal Year 2007*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

DOE/RL-2008-61, pending, *Interim Status Groundwater Monitoring Plan for the* 216-S-10 Pond and Ditch, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

Ecology, EPA, and DOE, 1989a, *Hanford Federal Facility Agreement and Consent Order*, 2 vols., as amended, Washington State Department of Ecology, U.S. Environmental Protection Agency, and U.S. Department of Energy, Olympia, Washington. http://www.hanford.gov/?page=91&parent=0

Ecology, EPA, and DOE, 1989b, *Hanford Federal Facility Agreement and Consent Order Action Plan*, Washington State Department of Ecology, U.S. Environmental Protection Agency, and U.S. Department of Energy, Olympia, Washington.

Ecology Publication 94-111, 2005, *Guidance for Clean Closure of Dangerous Waste Units and Facilities*, as amended, Washington State Department of Ecology, Olympia, Washington.

Hanford Environmental Information System, Hanford Site database.

PNNL-11793, 1998, *Hanford Site Groundwater Monitoring for Fiscal Year 1997*, Pacific Northwest National Laboratory, Richland, Washington.

PNNL-13198, 2000, *Borehole Data Package for the 216-S-10 Pond and Ditch Well 299-W26-13*, Rev. 0, Pacific Northwest National Laboratory, Richland, Washington.

PNNL-14070, 2002, *Groundwater Monitoring Plan for the* 216-S-10 Pond *and Ditch*, Pacific Northwest National Laboratory, Richland, Washington, October 2002.

PNNL-15731, 2006, *Post-Closure RCRA Groundwater Monitoring Plan for the 216-S-10 Pond and Ditch*, Pacific Northwest National Laboratory, Richland, Washington.

Resource Conservation and Recovery Act of 1976, 42 USC 6901, et seq.

WA7890008967, 2007, *Hanford Facility Resource Conservation and Recovery Act Permit, Dangerous Waste Portion, Revision 8C, for the Treatment, Storage, and Disposal of Dangerous Waste*, Washington State Department of Ecology, Richland, Washington.

WAC 173-160, "Minimum Standards for Construction and Maintenance of Wells," *Washington Administrative Code*, as amended, Washington State Department of Ecology, Olympia, Washington.

WAC 173-303, "Dangerous Waste Regulations," *Washington Administrative Code*, as amended, Washington State Department of Ecology, Olympia, Washington.

- 173-303-070(3), "Designation Procedures."
- 173-303-070(5), "Additional Designation Required."
- 173-303-090(6), "Characteristic of Corrosivity."
- 173-303-400, "Interim Status Facility Standards."
- 173-303-610, "Closure and Post-Closure."
- 173-303-610(1), "Applicability."
- 173-303-610(2), "Closure Performance Standard."
- 173-303-610(3), "Closure Plan; Amendment of Plan."
- 173-303-610(6), "Certification of Closure."
- 173-303-610(8), "Post-Closure Plan; Amendment of Plant."
- 173-303-645, "Releases from Regulated Units."
- 173-303-650(6), "Closure and Post-Closure Care."

WAC 173-340, "Model Toxics Control Act – Cleanup," *Washington Administrative Code*, as amended, Washington State Department of Ecology, Olympia, Washington.

- 173-340-700(6)(d), "Natural Background and Analytical Considerations."
- 173-340-740(3), "Method B Soil Cleanup Levels for Unrestricted Land Use."
- 173-340-740(3)(b)(ii), "Environmental Protection."
- 173-340-740(3)(b)(iii)(A), "Ground Water Protection."
- 173-340-740(3)(b)(iii)(B)(I) and (II), "Noncarcinogens" and "Carcinogens."
- 173-340-740(6), "Point of Compliance."
- 173-340-745(5), "Method C Industrial Soil Cleanup Levels."
- 173-340-7490(4)(b), "Standard Point of Compliance."

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APPENDIX F

HUMAN-HEALTH RISK ASSESSMENT AND GROUNDWATER IMPACTS ANALYSIS FOR RADIOACTIVE CONTAMINATION AT THE 200-CS-1 OPERABLE UNIT

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APPENDIX F

HUMAN-HEALTH RISK ASSESSMENT AND GROUNDWATER IMPACTS ANALYSIS FOR RADIOACTIVE CONTAMINATION AT THE 200-CS-1 OPERABLE UNIT

F1.0 INTRODUCTION

This appendix describes the human-health risk assessment and groundwater impacts analysis performed for the radiological contaminants of potential concern (COPC) identified at the 200-CS-1 Operable Unit (OU). The waste sites included in the 200-CS-1 OU are the 216-A-29 Ditch, 216-B-63 Trench, 216-S-10 Ditch, and the 216-S-10 and 216-S-11 Ponds. The 216-S-11 Pond is considered analogous to the 216-S-10 Pond representative site and is not discussed in detail. The general characteristics of each site are listed in Table F-1.

For the human-health risk assessment, the following direct-contact exposure scenarios are considered:

- Rural Residential
- Industrial Worker
- Confederated Tribes of the Umatilla Indian Reservation (CTUIR)
- Yakama Nation
- Inadvertent Intruder.

Evaluation of the rural residential and Native American (CTUIR and Yakama Nation) exposure scenarios is performed using the current waste-site configurations in which there is a clean soil cover above the contamination. These scenarios reflect exposure conditions if the land use within the Central Plateau were released for unrestricted land use. The rural residential exposure scenario is evaluated for the baseline risk assessment because three of the waste sites (216-S-10 Ditch and 216-S-10 and 216-S-11 Ponds) are located outside the 200 Area industrial (exclusive) land-use boundary. The CTUIR and Yakama Nation exposure scenarios are included for the purpose of evaluating the balancing and modifying criteria in the detailed remedial alternatives analysis.

The industrial worker exposure scenario is evaluated for two different cases. The first case is used for the baseline risk assessment and represents the current waste-site configurations in which there is a clean soil cover above the contamination. This case is evaluated for the baseline risk assessment because it considers the current and reasonably anticipated future land use within the Central Plateau for those waste sites within the industrial-exclusive area. The second case is specifically included for the detailed analysis of remedial alternatives and considers a hypothetical excavation scenario in which the clean soil cover at each waste site is removed, exposing the upper contamination layer at the surface. This hypothetical scenario provides information about the direct-contact exposure risk that could be encountered at depth.

The inadvertent intruder exposure scenario also is evaluated using the current waste-site configurations and is included for the purpose of evaluating the balancing and modifying criteria in the detailed remedial alternatives analysis. This exposure scenario involves bringing contamination to the surface as a result of inadvertently intruding into the waste site assuming a loss of institutional controls (assumed to be 150 years in the future). Exposures are evaluated for a well driller and a post-drilling rural farmer exposure scenario.

Time-dependent annual radiation dose and excess lifetime cancer risk (ELCR) are calculated for each exposure scenario using ANL, 2007, *RESRAD*, Version 6.4. The RESRAD code was developed by Argonne National Laboratory to implement U.S. Department of Energy guidelines for allowable residual radioactive material in soil (DOE Order 5400.5, *Radiation Protection of the Public and the Environment*). The code is implemented in accordance with guidance provided in ANL/EAD-4, *User's Manual for RESRAD Version 6.*

A base simulation period of 1,000 years is used in all RESRAD runs. Annual radiation dose and ELCR are calculated at various time steps over this simulation period. For those waste sites with a peak annual dose rate greater than 15 mrem/yr for the direct-contact exposure pathway, the year at which the dose rate is less than or equal to 15 mrem/yr is reported. Where necessary to capture peaks, the simulation period is extended beyond 1,000 years. For comparative purposes, radiation dose and risk estimates are discussed relative to exposure times of 0, 50, 150, 500, and 1,000 years.

For the groundwater impacts analysis, the RESRAD software is used to identify the radionuclide COPCs that could pose a potential future risk to groundwater. Migration of radionuclide contamination currently in the soil column at each waste is simulated over a 1,000-year period assuming the waste sites are under their current configuration. For radionuclides projected to reach groundwater during the simulation period, the peak groundwater concentrations are compared to Federal maximum contaminant levels (MCL). Groundwater concentrations are considered for an industrial land-use case involving infiltration from precipitation only and an unrestricted land-use case involving infiltration from precipitation and irrigation.

F2.0 HUMAN-HEATLH RISK ASSESSMENT METHODOLOGY

A set of RESRAD input parameters is developed for each exposure scenario at each waste site. Input parameters for the rural residential, industrial worker, and Native American exposure scenarios are summarized by waste site in Tables F-2 through F-5. Input parameters for the inadvertent intruder exposure scenarios are summarized by waste site in Tables F-6 through F-9. These tables list the value used for each input parameter, the rationale for use of this value, and a reference to the source for the value. Exposure scenario descriptions and additional supporting information for key input parameters are provided in the following sections.

F2.1 EXPOSURE SCENARIOS FOR THE BASELINE RISK ASSESSMENT

The baseline risk assessment addresses both unrestricted and industrial land-use assumptions. A rural residential exposure scenario is used to represent unrestricted land use. An industrial worker exposure scenario is used to represent industrial land use.

F2.1.1 Rural Residential

The rural residential exposure scenario assumes that the waste sites are under their current configuration in which a clean soil cover is in place above the contamination. This exposure scenario represents an individual exposed to radiological contaminants from direct contact with soil and through the food chain. This exposure scenario assumes that radionuclides residing in soil from the ground surface to the groundwater table are the source of contamination for all exposure pathways. Potential exposure pathways include direct contact with soil (external

radiation, incidental ingestion, and inhalation of dust particulates) and food chain exposure from ingestion of fruits and vegetables grown in a backyard garden and consumption of beef and poultry that graze on and are penned on a rural pasture. Milk consumption also is included. Exposure from the food chain pathway is contributed from uptake of radionuclides that are currently in the soil and includes use of groundwater potentially contaminated by migration of contamination through the vadose zone. It does not consider groundwater that is currently contaminated beneath the 200-CS-1 OU. Drinking water ingestion and irrigation water use are activated in the RESRAD exposure analysis and it is assumed that 100 percent of drinking water, irrigation water, and livestock water is obtained from an on-site well.

F2.1.2 Industrial Worker

The industrial worker exposure scenario evaluated for the baseline risk assessment assumes that the waste sites are under their current configuration in which a clean soil cover is in place above the contamination. This exposure scenario assumes that radionuclides existing within the 0 to 4.6 m (15 ft) below ground surface (bgs) depth interval are the source of contamination for all exposure pathways. Potential exposure is evaluated for the direct-contact pathway, including external radiation, incidental soil ingestion, and inhalation of dust particulates. Exposures from drinking water ingestion and other water-dependent pathways are considered incomplete.

F2.2 EXPOSURE SCENARIOS FOR THE BALANCING AND MODIFYING CRITERIA EVALUATION

Risk evaluations included to support the detailed analysis of remedial alternatives and evaluation of balancing and modifying criteria include both unrestricted and industrial land-use assumptions as well as an assumption of institutional controls failure. Two Native American exposure scenarios (CTUIR and Yakama Nation) are used to represent unrestricted land use. A hypothetical excavation scenario is used to represent industrial land use. An inadvertent intruder scenario is used to represent failure of institutional controls.

F2.2.1 Hypothetical Excavation (Industrial Worker)

The hypothetical excavation exposure scenario evaluated for the balancing and modifying criteria evaluation assumes that the clean soil cover currently in place over each waste site is removed, exposing the upper contamination layer at the surface. This exposure scenario assumes that radionuclides existing within the upper contaminated zone at each waste site are the source of contamination for all exposure pathways. Based on evaluation of laboratory sampling and analysis data, the upper contamination zone at the 216-A-29 Ditch and 216-S-10 Pond extends to a depth of 4.6 m (15 ft) bgs; however, the upper contamination zone at the 216-B-63 Trench and 216-S-10 Ditch extends to a depth of 5.8 m (19 ft) bgs and 8.2 m (27 ft) bgs, respectively. Potential exposure is evaluated for the direct-contact pathway, including external radiation, incidental soil ingestion, and inhalation of dust particulates. Exposures from drinking water ingestion and other water-dependent pathways are considered incomplete.

F2.2.2 Native American

The CTUIR and Yakama Nation exposure scenarios assume that the waste sites are under their current configuration in which a clean soil cover is in place above the contamination. Both exposure scenarios represent an individual exposed to radiological contaminants from soil and through the food chain. Potential exposure pathways include direct contact with soil (external radiation, incidental ingestion, and inhalation of dust particulates) and food chain exposure from ingestion of fruits and vegetables grown in a backyard garden and consumption of beef and poultry that graze on and are penned on a rural pasture. Milk consumption is included in the Yakama Nation scenario (Ridolfi, 2007, *Yakama Nation Exposure Scenario for Hanford Site Risk Assessment*) but not the CTUIR scenario (Harris and Harper, 2004, *Exposure Scenario for CTUIR Traditional Subsistence Lifeways*). Exposure from the food chain pathway is contributed from uptake of radionuclides that are currently in the soil and includes use of groundwater potentially contaminated by migration of contamination through the vadose zone. It does not consider groundwater that is currently contaminated beneath the 200-CS-1 OU. Drinking water ingestion and irrigation water use are activated in the RESRAD exposure analysis and it is assumed that 100 percent of drinking water, irrigation water, and livestock water is obtained from an on-site well.

F2.2.3 Inadvertent Intruder

The inadvertent intruder exposure scenario involves bringing contamination to the surface as a result of inadvertently intruding into the waste site assuming a failure of institutional controls (assumed to be 150 years in the future). The waste sites are assumed to be in their current configuration at the time of intrusion. Exposures are evaluated for a well driller and a post-drilling rural farmer exposure scenario. The conceptual site model for the inadvertent intruder exposure scenario is illustrated in Figure F-1. Inadvertent intrusion is assumed to occur in the future but prior to any appreciable migration of radioactive contaminants away from the waste site. This analysis does not address the likelihood of inadvertent intrusion occurring but simply provides the projected dose to an individual under the assumption that inadvertent intrusion has occurred. In reality, inadvertent intrusion will be minimized by active and passive controls as required by U.S. Department of Energy (DOE), state, and Federal requirements.

The general methodology used for the inadvertent intruder analysis is adapted from the methodology used in recent Hanford Site Central Plateau low-level waste (LLW) disposal facility performance assessments, including DOE/ORP-2000-24, *Hanford Immobilized Low-Activity Waste Performance Assessment: 2001 Version*; BHI-00169, *Environmental Restoration Disposal Facility Performance Assessment*; and DOE/ORP-2005-01, *Initial Single-Shell Tank System Performance Assessment for the Hanford Site*. Preparation of performance assessments is required by DOE O 435.1, *Radioactive Waste Management*, and DOE M 435.1-1, *Radioactive Waste Management Manual*, to provide the DOE a reasonable expectation that LLW disposal will meet the radiological performance objectives established in DOE M 435.1-1. The methodology used in these performance assessments is considered an appropriate guide for the 200-CS-1 OU inadvertent intruder analysis because, although the objectives of the two types of analysis differ, their conceptual models and calculation methods are fundamentally the same.

The performance assessment methodology typically evaluates both acute and chronic inadvertent intruder exposure scenarios to demonstrate compliance with the 500 mrem effective dose

equivalent (EDE) acute and 100 mrem/yr EDE chronic intruder protection performance objectives established in DOE M 435.1-1. The present analysis similarly evaluates both acute (well driller) and chronic (rural farmer) exposure scenarios and generally follows the standard DOE M 435.1-1 approach except where necessary to address site-specific conditions and facilitate modeling with the RESRAD computer code.

It should be noted that the groundwater exposure pathway is not included in the inadvertent intruder analysis. This approach is consistent with current DOE M 435.1-1 regulatory practices as described in DOE, 1999, *Format and Content Guide for U.S. Department of Energy Low-Level Waste Disposal Facility Performance Assessments and Composite Analyses*. Under DOE M 435.1-1, the inadvertent intruder analysis only evaluates the effect on the intruder from inadvertent exposure to the exhumed waste through direct contact and food consumption pathways. The groundwater exposure pathway is considered explicitly in a separate performance assessment analysis that addresses protection of groundwater resources.

Well Driller

The well driller inadvertent intruder scenario estimates the radiation dose to an individual who inadvertently drills a well through a waste site and brings contaminated drill cuttings to the surface, thereby receiving an acute dose (i.e., contact with the waste for a relatively short period of time). The exposure routes evaluated are external gamma radiation, incidental soil ingestion, and inhalation of dust particulates for the direct-contact pathway.

The hypothetical well in this scenario is assumed to extend from the ground surface to the water table. The diameter of the well is assumed to be 0.3 m (12 in). Although this is consistent with well diameters used in prior Hanford Site performance assessments (DOE/ORP-2004-24; BHI-00169), it is larger than typical for domestic wells drilled near the Hanford Site. As discussed in HNF-SD-WM-TI-707, *Exposure Scenarios and Unit Factors for the Hanford Tank Waste Performance Assessment*, the typical diameter for domestic wells in the area is 0.15 m (6 in.). A diameter of 0.25 m (10 in.) is typical of wells drilled for small-scale irrigation, which require a larger pump than used for domestic service. The larger the well diameter the greater the volume of contaminated sediment brought to the surface. Thus, use of a 0.3 m (12 in.) diameter well in this analysis is considered conservative (i.e., tends to overestimate the expected dose).

The contamination exhumed during well drilling is assumed to be incorporated into clean soil over an area of 100 m^2 (1,076 ft^2) to a depth of 0.15 m (6 in.). This area is used as the contaminated zone for dose modeling in RESRAD. These dimensions are used for consistency with the garden dimensions assumed for the rural farmer inadvertent intruder scenario. Values of 100 m^2 (1,076 ft^2) and 0.15 m (6 in.) are input into RESRAD for the contaminated zone area and thickness, respectively, and an input value of zero is entered for cover thickness to represent the contaminated zone at the ground surface.

Rural Farmer

The rural farmer inadvertent intruder scenario estimates the radiation dose to an individual who inadvertently resides on and consumes plant and animal foods produced in the contamination exhumed by a well drilled through a waste site, as discussed in the inadvertent intruder well driller scenario. This individual receives a chronic dose (i.e., exposure over a number of years).

The rural farmer scenario includes potential exposure through direct contact and food chain pathways. The direct-contact exposure routes include external gamma radiation, incidental soil ingestion, and inhalation of dust particulates. The food chain exposure pathway includes consumption of homegrown plant, meat, and milk products. Food consumption exposures are wholly contributed from uptake of contaminants in the surface soil. They do not include any contribution of contamination that could occur from use of contaminated irrigation water or from consumption of contaminated drinking water by livestock. Migration of contamination currently in the vadose zone beneath the waste site is not evaluated. Drinking water and water used for production of crops and animal foods are assumed to come from uncontaminated sources.

The rural farmer is assumed to incorporate the contamination exhumed during well drilling into a garden area of 100 m^2 (1,076 ft^2) to a depth of 0.15 m (6 in.). As discussed in HNF-SD-WM-TI-707, a garden size of 100 m^2 (1,076 ft^2) is generally sufficient to supply an average person's garden produce needs and is consistent with the garden size used in prior Hanford Site performance assessments (DOE/ORP-2000-24; DOE/ORP-2005-01). Use of a 100 m^2 (1,076 ft^2) garden area is considered conservative in that use of a larger area would lower (or dilute) the radionuclide soil concentrations and resulting doses.

Tilling to prepare the surface soil for planting is assumed to affect only the top 15 cm (6 in.) of soil, consistent with prior Hanford Site performance assessments. A default value of 15 cm (6 in.) also is used in RESRAD for the depth of soil mixing (ANL/EAD-4). Use of this value is conservative in that the deeper the soil is tilled, the more dilute the radionuclide concentrations in the contaminated zone become. Although some garden plants have root systems that penetrate deeper than 15 cm (6 in.), a depth of 15 cm (6 in.) is typical of the root systems for most garden vegetables (HNF-SD-WM-TI-707).

To estimate exposure to the rural farmer, two separate RESRAD analyses are performed. The first analysis is made with a 100 m^2 (1,076 ft^2) contaminated zone area with a thickness of 0.15 m (6 in.) and is used to estimate the dose contributions from plant ingestion and from the direct-contact exposure pathway (direct radiation exposure, dust inhalation, and soil ingestion). The rural farmer scenario also includes exposure from milk and meat ingestion. An area of 100 m^2 (1,076 ft^2) is not large enough to support the production of livestock for milk and meat consumption (ANL/EAD-4). Estimates of the area needed to provide fodder and forage for a single milk cow range from 5,000 m^2 (53,800 ft^2) (HNF-SD-WM-TI-707) to 10,000 m^2 (107,600 ft^2) or more (ANL/EAD-4). An area of 10,000 m^2 (107,600 ft^2) is assumed for purposes of this analysis to be sufficient to supply livestock for an average person's milk and meat needs. A second RESRAD analysis is made using a 10,000 m^2 (107,600 ft^2) contaminated zone area with a thickness of 0.15 m (6 in.) and is used only to estimate the dose contributions from milk and meat ingestion. The dose outputs from the two RESRAD analyses are summed to provide the total dose for the rural farmer scenario. This approach is considered conservative because it assumes the rural farmer simultaneously tills 100 percent of the exhumed contamination into both the small garden area and the larger pasture area. In reality, the fraction of exhumed contamination tilled into one area would not be available to till into the other area.

F2.3 WASTE-SITE SOIL MODELS

Table F-10 summarizes the hydrostratigraphy at each waste site. Graphic representations of the layers identified for use in RESRAD at each waste site are presented in Figures F-2 through F-6. The 216-A-29 Ditch is long enough that two soil columns, representing the head and outlet ends, are

prepared for this site. This information is defined based on the geologic, hydrogeologic, and contaminant distribution data described in DOE/RL-2004-17, *Remedial Investigation Report for the 200-CS-1 Chemical Sewer Group Operable Unit*, and other pertinent site-specific documents such as PNNL-13047, *Groundwater Monitoring Plan for the 216-A-29 Ditch.*

RESRAD allows the soil column to be divided into four different layers (uncontaminated cover, contaminated, unsaturated, and saturated). Two or three contaminated soil layers are identified at each waste site. The radioactive contaminants are represented as uniformly distributed throughout each contaminated layer. Because RESRAD works with only one contaminated layer at a time, it is necessary to model different contaminated soil layers separately and later combine the results. Thus, each waste site has two (216-A-29 Ditch, 216-B-63 Trench, 216-S-10 Ditch) or three (216-S-10 Pond) separate soil contamination models, each representing a different contamination layer (Figures F-2 through F-6). Although the deep contaminated zone extends to the water table at the 216-A-29 Ditch and 216-B-63 Trench, the RERAD model requires an unsaturated layer beneath the contaminated zone. A thin (0.3 m [1 ft]) unsaturated layer is therefore included in the deep-layer model for these two waste sites (Figures F-2 through F-6).

F2.4 HYDRAULIC PARAMETERS

Hydraulic properties and associated RESRAD input parameters are assigned to each of the hydrostratigraphic layers by matching them to the soil hydraulic property classes described in PNNL-14702, *Vadose Zone Hydrogeology Data Package for Hanford Assessments*. Table F-11 summarizes the hydraulic properties for the different soil classes. Several of the cover and contaminated zone layers identified in the soil contamination models consist of two or more hydrologic units (Figures F-2 through F-6). RESRAD requires the hydraulic properties in each layer to be homogeneous. Hydraulic parameters of the homogeneous layers are calculated as thickness-weighted averages of the parameters for the included hydrologic units. For example, the upper contaminated layer at the 216-A-29 Ditch (head end) includes 3.04 m (10 ft) of backfill (B) and 4.57 m (15 ft) of Hanford gravelly sand (Hgs) (Figure F-2). The hydraulic conductivities (Ksat) of the B and Hgs units are 188.6 and 209.7 m/yr, respectively (Table F-11). The thickness-weighted average hydraulic conductivity is calculated as shown below.

$$\text{Average Ksat} = \frac{(6\,\text{ft})(188.6\,\text{m/y}) + (5\,\text{ft})(209.7\,\text{m/y})}{11\,\text{ft}} = 198.2\,\text{m/y}$$

The average values for the other hydraulic parameters are calculated in the same manner as the hydraulic conductivity. In Figure F-2, note that the two Hgs layers above and below the 16.8 m (55 ft) thick Hcs layer are combined into one layer for input to RESRAD. This is necessary because RESRAD allows only five layers in the unsaturated zone.

F2.5 INFILTRATION RATE

Infiltration rates are assigned based on information given in PNNL-14702 (Table 4.15). For the rural residential, industrial worker, and Native American exposure scenarios, the values assigned correspond to the estimated recharge rate for the major soil type at each waste site assuming each site stabilizes and evolves to a young shrub-steppe community. The recharge rate is assumed to remain constant over the entire simulation period. The 216-A-29 Ditch and 216-S-10 Ditch and Pond are assigned an annual recharge rate of 0.008 m/yr. The 216-B-63 Trench is assigned an annual recharge rate of 0.003 m/yr. For the well driller inadvertent intruder scenario, a value of

0.063 m/yr is used for all four waste sites to represent disturbed soil with no vegetation. For the rural farmer inadvertent intruder scenario, a value of 0.004 m/yr is used for all four waste sites to represent the disturbed soil following re-vegetation.

The unitless evapotranspiration coefficient (C_e) is used in RESRAD to calculate the infiltration rate (I) through the unsaturated zone. The infiltration rate cannot be explicitly specified in RESRAD. It is calculated implicitly by RESRAD as (Equation E.4 in ANL/EAD-4):

$$I = (1 - C_e)[(1 - C_r)P_r + I_{rr}],$$

where

C_r = run-off coefficient (unitless)
P_r = precipitation (m/yr)
I_{rr} = irrigation rate (m/yr).

The run-off coefficient, precipitation, and irrigation rate are defined in Tables F-2 through F-9 for the different scenarios considered for this analysis. The evapotranspiration coefficient is calculated as:

$$C_e = 1 - \frac{I}{(1-C_r)P_r + I_{rr}}$$

The assigned infiltration rates are used in this equation. For the rural residential, industrial worker, and Native American exposure scenarios, the resulting evapotranspiration coefficients are 0.955 for the 216-A-29 Ditch and 216-S-10 Ditch and Pond and 0.983 for the 216-B-63 Trench. For the inadvertent intruder exposure scenario, the resulting evapotranspiration coefficients are 0.644 for the well driller scenario and 0.977 for the rural farmer scenario.

F2.6 EXPOSURE POINT CONCENTRATIONS

The contaminant-specific exposure point concentrations (EPC) used for the RESRAD analysis of the rural residential, industrial worker, and Native American exposure scenarios are the radiological COPC concentrations identified for shallow- and deep-zone soils at each waste site. The COPC selection process is described in Chapter 3.0 of the feasibility study (Section 3.3). Results of the COPC selection process are provided in Section 3.3.2.6. Tables F-12 and F-13 summarize the contaminant-specific EPCs for the shallow and deep contaminated zones, respectively, at each waste site. Analytical results for the plutonium isotopes (Pu-239/240) are not differentiated. Because in most cases Pu-239 is the dominant isotope, it is reasonable to assume that Pu-239/240 is all Pu-239. Similarly, it is commonly accepted that U-234 is the dominant isotope so it is reasonable to assume that analytical results for undifferentiated U-233/234 are all U-234. The radionuclides listed in Tables F-12 and F-13 with zero concentrations represent the daughter products of the parent radionuclides selected for this analysis.

The contaminant-specific EPCs for the well driller inadvertent intruder scenario are calculated as:

$$EPC_i = C_{i,\max} f$$

where:

$C_{i,max}$ = maximum concentration of radionuclide i (pCi/g) within an individual contaminated depth interval

f = scenario-based dilution factor (unitless).

The $C_{i,max}$ values for the well driller scenario at each waste site are shown in Tables F-14 through F-17. These values are the same as the EPCs shown in Tables F-12 and F-13.

The dilution factor is calculated as:

$$f = \frac{V_w}{V_{cz}},$$

$$V_w = \pi r^2 d_w$$

$$V_{cz} = A_{cz} d_s$$

where

r = well radius (m)

d_w = thickness of the contamination within the well drilled through the contaminated zone (m)

A_{cz} = scenario-based drill cuttings mixing area (m^2)

d_s = drilling cuttings mixing depth (m).

The thickness of the contamination (d_w) intercepted by the well varies by waste site and contaminated zone, as indicated in Tables F-14 through F-17. As previously discussed, A_{cz} is always assumed to equal 100 m^2 and r is always assumed to equal 0.15 m. The calculated dilution factors and resulting well driller scenario EPCs are shown in Tables F-14 through F-17.

Contaminant-specific EPCs for the rural farmer inadvertent intruder scenario are calculated for both the small and large areas using the same formula as for the well driller scenario. The dilution factors used for the small area rural farmer scenario are the same as for the well driller scenario, because the contaminated area and contaminated soil thickness are the same for both cases. As a result, the EPCs are also the same. The dilution factors for the large area rural farmer scenario are two orders of magnitude smaller because the contaminated area is two orders of magnitude larger. The dilution factors and corresponding EPCs for the small and large area rural farmer scenario are provided in Tables F-14 through F-17. Note that characterization drilling inside the 216-A-29 Ditch provides data on contaminant distribution between the ground surface and the water table at the head end of the ditch (borehole B8826) but not the outlet. Hence, no inadvertent intruder analysis is performed for the 216-A-29 Ditch outlet end.

F2.7 DISTRIBUTION COEFFICIENTS

An additional parameter required for RESRAD input of the EPCs is the distribution coefficient (K_d) for each radionuclide. The radionuclide K_ds used for this analysis are presented in Table F-18. These K_ds are based on the best estimate values obtained from PNNL-14702 (Table 4.11, Waste Chemistry/Source Category 4: Low Organic/Low Salt/Near Neutral). The K_d values for Pb, Ni, and Pa, are based on soil data from PNNL-13895, *Hanford Contaminant Distribution Coefficient Database and Users Guide*, and Geibert and Usbeck, 2004, "The Adsorption of Thorium and Protactinium onto Different Particle Types: Experimental Findings." They are considered best estimate values.

RESRAD allows each radionuclide to be assigned a different K_d value for each layer of soil. Significant gravel content is known to reduce K_d values. For gravel-dominated layers, K_d values were reduced as described in PNNL-14702 (Section 4.3) and shown in Table F-18. In PNNL-14702, K_d values depend on the type of waste liquid and the soil class. The K_d classes chosen for the 200-CS-1 OU soil units are shown in Table F-11. Gravel-corrected K_d values are used for soil units with a 4I2 K_d class notation (Hg, Rg, Hg_W, Rg_W).

F3.0 HUMAN-HEALTH RISK ASSESSMENT RESULTS

F3.1 BASELINE RISK ASSESSMENT

Results of the radiological human-health risk assessment for the baseline risk assessment are summarized in Tables F-19 through F-21 and discussed below. A rural residential exposure scenario (Tables F-19 and F-20) is evaluated to represent unrestricted land use and an industrial worker exposure scenario (Table F-21) is evaluated to represent industrial land use.

F3.1.1 216-A-29 Ditch

Rural Residential Scenario (Head End). The peak ELCR of 1.5×10^{-5} is below the risk threshold value of 10^{-4}. The peak annual dose rate of 0.45 mrem/yr occurs 17 years from the present and is substantially below the threshold value of 15 mrem/yr.

Note that, as discussed below in Section F5.1, questionable groundwater concentration output is obtained when the uranium isotope activity levels at the 216-A-29 Ditch are input into the RESRAD code. These results indicate that the RESRAD code is not a valid model for predicting the impact of uranium on groundwater beneath the 216-A-29 Ditch. Consequently, the uranium isotopes are omitted from the RESRAD analysis of the rural residential scenario water-dependent pathways (i.e., drinking water ingestion and irrigation water use) at the 216-A-29 Ditch but they are included for the analysis of water-independent pathways (i.e., direct contact and water-independent food chain pathways).

Rural Residential Scenario (Outlet End). The peak ELCR of 4.0×10^{-5} is below the risk threshold value of 10^{-4}. The peak annual dose rate of 1.3 mrem/yr occurs 16 years from the present and is substantially below the threshold value of 15 mrem/yr.

As noted above, the uranium isotopes are omitted from the RESRAD analysis of the rural residential scenario water-dependent pathways (i.e., drinking water ingestion and irrigation water use) at the 216-A-29 Ditch but they are included for the analysis of water-independent pathways (i.e., direct contact and water-independent food chain pathways).

Industrial Worker Scenario (Head End). The peak ELCR of 1.4×10^{-12} is substantially below the risk threshold value of 10^{-4}. The peak annual dose rate of 7.2×10^{-8} mrem/yr occurs in 10,000 years and is substantially below the threshold value of 15 mrem/yr.

Industrial Worker Scenario (Outlet End). The peak ELCR of 1.2×10^{-11} is substantially below the risk threshold value of 10^{-4}. The peak annual dose rate of 6.3×10^{-7} mrem/yr occurs in 10,000 years and is substantially below the threshold value of 15 mrem/yr.

F3.1.2 216-B-63 Trench

Rural Residential Scenario. The peak ELCR of 3.5×10^{-5} is below the risk threshold value of 10^{-4}. The peak annual dose rate of 0.66 mrem/yr occurs 506 years from the present and is substantially below the threshold value of 15 mrem/yr.

Industrial Worker Scenario. The peak ELCR of 2.4×10^{-14} is substantially below the risk threshold value of 10^{-4}. The peak annual dose rate of 1.3×10^{-9} mrem/yr occurs in 10,000 years and is substantially below the threshold value of 15 mrem/yr.

F3.1.3 216-S-10 Ditch

Rural Residential Scenario. The peak ELCR of 1.8×10^{-5} is below the risk threshold value of 10^{-4}. The peak annual dose rate of 1.7 mrem/yr occurs 3,299 years from the present and is substantially below the threshold value of 15 mrem/yr.

Industrial Worker Scenario. The peak ELCR of 2.5×10^{-8} is substantially below the risk threshold value of 10^{-4}. The peak annual dose rate of 1.3×10^{-3} mrem/yr occurs in 10,000 years and is substantially below the threshold value of 15 mrem/yr.

F3.1.4 216-S-10 Pond

Rural Residential Scenario. The peak ELCR of 8.8×10^{-14} is below the risk threshold value of 10^{-4}. The peak annual dose rate of 5.6×10^{-9} mrem/yr occurs 321 years from the present and is substantially below the threshold value of 15 mrem/yr.

Industrial Worker Scenario. The peak ELCR of 5.5×10^{-15} is substantially below the risk threshold value of 10^{-4}. The peak annual dose rate of 2.9×10^{-10} mrem/yr occurs in 10,000 years and is substantially below the threshold value of 15 mrem/yr.

F3.2 RISK EVALUATIONS TO SUPPORT THE BALANCING AND MODIFYING CRITERIA EVALUATION

Results of the radiological human-health risk assessment to support the detailed analysis of remedial alternatives and balancing and modifying criteria evaluation are summarized in Tables F-22 through F-28 and discussed below. A hypothetical excavation exposure scenario (Table F-22) is evaluated to represent industrial land use and two Native American exposure scenarios (CTUIR, Tables F-23 and F-24; and Yakama Nation, Tables F-25 and F-26) are evaluated to represent unrestricted land use. Additionally, an inadvertent intruder scenario (Well Driller, Table F-27; and Rural Farmer, Table F-28) is evaluated to represent failure of institutional controls.

As explained in Section F5.1, the RESRAD code is not considered a valid model for predicting the impact of uranium on groundwater beneath the 216-A-29 Ditch. Therefore, the uranium isotopes were omitted from the water-dependent pathways of the CTUIR and Yakama Nation scenarios for the 216-A-29 Ditch.

F3.2.1 216-A-29 Ditch

Hypothetical Excavation -- Industrial Worker Scenario (Head and Outlet End). The peak ELCR of 5.9×10^{-4} is at time zero and is approximately equal to the risk threshold value of 10^{-4}. The primary contributor to risk at time zero is Cs-137 (76 percent contribution) and the primary exposure route is external radiation. The ELCR is reduced to levels below 6.3×10^{-5} within 150 years. The peak annual dose rate of 49 mrem/yr occurs at time zero with the primary contributor to dose being Cs-137. The radiation dose rate is reduced to levels below 15 mrem/yr within 100 years.

CTUIR Scenario (Head End). The peak ELCR of 4.5×10^{-5} is in 17 years and is less than the risk threshold value of 10^{-4}. The peak annual dose rate of 1.1 mrem/yr occurs in 17 years and is below the annual dose threshold of 15 mrem/yr. The primary contributor to risk and dose in the 17-year timeframe is from the presence of tritium through the drinking water ingestion route.

CTUIR Scenario (Outlet End). The peak ELCR of 1.4×10^{-4} is in 16 years and is within the range of the risk threshold value of 10^{-4}. The peak annual dose rate of 3.5 mrem/yr occurs in 16 years and is below the annual dose threshold of 15 mrem/yr. The primary contributor to risk and dose in the 16-year timeframe is from the presence of tritium through the drinking water ingestion route.

Yakama Nation Scenario (Head End). The peak ELCR of 4.5×10^{-5} is in 17 years and is less than the risk threshold value of 10^{-4}. The peak annual dose rate of 1.1 mrem/yr occurs in 17 years and is below the annual dose threshold of 15 mrem/yr. The primary contributor to risk and dose in the 17-year timeframe is from the presence of tritium through the drinking water ingestion route.

Yakama Scenario (Outlet End). The peak ELCR of 1.5×10^{-4} is in 16 years and is within the range of the risk threshold value of 10^{-4}. The peak annual dose rate of 3.7 mrem/yr occurs in 16 years and is below the annual dose threshold of 15 mrem/yr. The primary contributor to risk and dose in the 16-year timeframe is from the presence of tritium through the drinking water ingestion route.

Inadvertent Intruder – Well Driller Scenario (Head End). The peak annual dose rate is 0.00136 mrem/yr at the time that active institutional controls are assumed to fail (150 years from the present) and is less than the acute dose threshold value of 500 mrem/yr.

Inadvertent Intruder – Post Drilling Rural Farmer Scenario (Head End). The peak annual dose rate is 0.36 mrem/yr at the time that active institutional controls are assumed to fail (150 years from the present) and is less than the chronic dose threshold value of 100 mrem/yr.

F3.2.2 216-B-63 Trench

Hypothetical Excavation – Industrial Worker Scenario. The peak ELCR of 2.0×10^{-5} is at time zero and is less than the risk threshold value of 10^{-4}. The peak annual dose rate of 1.5 mrem/yr occurs in 6,627 years, which is below the 15 mrem/yr threshold value.

CTUIR Scenario. The peak ELCR of 1.1×10^{-4} is in 506 years and is within the range of the risk threshold value of 10^{-4}. The peak annual dose rate of 2.0 mrem/yr occurs in 506 years and is below the annual dose threshold of 15 mrem/yr. The primary contributor to risk and dose at the 506-year timeframe is from the presence of Tc-99 through the drinking water ingestion route.

Yakama Scenario. The peak ELCR of 1.2×10^{-4} is in 506 years and is within the range of the risk threshold value of 10^{-4}. The peak annual dose rate of 2.0 mrem/yr occurs in 506 years and is below the annual dose threshold of 15 mrem/yr. The primary contributor to risk and dose at the 506-year timeframe is from the presence of Tc-99 through the drinking water ingestion route.

Inadvertent Intruder – Well Driller Scenario. The peak annual dose rate is 2.3×10^{-4} mrem/yr at the time that active institutional controls are assumed to fail (150 years from the present) and is less than the acute dose threshold value of 500 mrem/yr.

Inadvertent Intruder – Post Drilling Rural Farmer Scenario. The peak annual dose rate is 0.0088 mrem/yr at the time that active institutional controls are assumed to fail (150 years from the present) and is less than the chronic dose threshold value of 100 mrem/yr.

F3.2.3 216-S-10 Ditch

Hypothetical Excavation – Industrial Worker Scenario. The peak ELCR of 4.9×10^{-5} is at time zero and is less than the risk threshold value of 10^{-4}. The peak annual dose rate of 3.5 mrem/yr occurs at time zero, which is below the 15 mrem/yr threshold value.

CTUIR Scenario. The peak ELCR of 1.8×10^{-4} is in 3,299 years and is within the range of the risk threshold value of 10^{-4}. The peak annual dose rate of 7.0 mrem/yr occurs in 3,299 years and is below the annual dose threshold of 15 mrem/yr. The primary contributor to risk and dose at the 3,299-year timeframe is from the presence of Pu-239 from the plant consumption route.

Yakama Scenario. The peak ELCR of 1.9×10^{-4} is in 3,299 years and is within the range of the risk threshold value of 10^{-4}. The peak annual dose rate of 7.3 mrem/yr occurs in 3,299 years and is below the annual dose threshold of 15 mrem/yr. The primary contributor to risk and dose at the 3,299-year timeframe is from the presence of Pu-239 from the plant consumption route.

Inadvertent Intruder – Well Driller Scenario. The peak annual dose rate is 2.1×10^{-4} mrem/yr at the time that active institutional controls are assumed to fail (150 years from the present) and is less than the acute dose threshold value of 500 mrem/yr.

Inadvertent Intruder – Post Drilling Rural Farmer Scenario. The peak annual dose rate is 0.022 mrem/yr at the time that active institutional controls are assumed to fail (150 years from the present) and is less than the chronic dose threshold value of 100 mrem/yr.

F3.2.4 216-S-10 Pond

Hypothetical Excavation – Industrial Worker Scenario. The peak ELCR of 2.4×10^{-5} is in 4,082 years and is less than the risk threshold value of 10^{-4}. The peak annual dose rate of 1.3 mrem/yr is in 4,082 years, which is below the 15 mrem/yr threshold value.

CTUIR Scenario. The peak ELCR of 3.2×10^{-10} is in 2,572 years and is less than the risk threshold value of 10^{-4}. The peak annual dose rate of 1.5×10^{-5} mrem/yr occurs at 2,572 years and is below the annual dose threshold of 15 mrem/yr. The primary contributor to risk and dose at the 2,572-year timeframe is from the presence of Pu-239 in contaminated zone 3 from the drinking water ingestion route.

Yakama Scenario. The peak ELCR of 3.5×10^{-10} is in 2,572 years and is less than the risk threshold value of 10^{-4}. The peak annual dose rate of 1.7×10^{-5} mrem/yr occurs at 2,572 years and is below the annual dose threshold of 15 mrem/yr. The primary contributor to risk and dose

at the 2,572-year timeframe is from the presence of Pu-239 in contaminated zone 3 from the drinking water ingestion route.

Inadvertent Intruder – Well Driller Scenario. The peak annual dose rate is 7.0×10^{-5} mrem/yr 350 years from the time that active institutional controls are assumed to fail (500 years from the present) and is less than the acute dose threshold value of 500 mrem/yr.

Inadvertent Intruder – Post Drilling Rural Farmer Scenario. The peak annual dose rate is 0.007 mrem/yr 350 years from the time that active institutional controls are assumed to fail (500 years from the present) and is less than the chronic dose threshold value of 100 mrem/yr.

F4.0 GROUNDWATER IMPACTS ANALYSIS METHODOLOGY

The impacts to groundwater from radionuclides in the soil column at the 200-CS-1 OU waste sites is estimated using the RESRAD computer code, Version 6.4 (ANL, 2007). RESRAD incorporates a simplified model of contaminant transport from the contaminated zone through the unsaturated zone and the aquifer. It is assumed that the radioactive constituents are evenly distributed within the homogeneous contaminated zone that has a specified thickness and specified physical properties. The radionuclides released from the contaminated zone are subject to transport through the vadose zone. RESRAD employs a one-dimensional simplification of advective flow in the vadose zone. However, the major processes affecting radionuclide transport such as advection, sorption, and radioactive decay and ingrowths are included. RESRAD allows for modeling up to five unsaturated zone layers with different hydrogeologic properties beneath the contaminated zone. The saturated zone is assumed to be homogeneous. Transport in the saturated zone includes dilution. This simplified one-dimensional model leads to conservative estimates of the potential impact to the groundwater because it does not account for other processes that can reduce the contaminant concentrations in the groundwater such as longitudinal and transverse dispersion, mineral precipitation/dissolution, and other site-specific hydrogeologic influences.

Contaminant transport is incorporated in RESRAD as a part of the exposure analysis. The transport calculations are performed when one or more of the water-related exposure pathways are activated. To evaluate soil impact on groundwater, all water-dependent pathways including the drinking water pathway are activated in RESRAD. For this analysis it is assumed that a groundwater well is installed at the down-gradient boundary of the waste site. The well is pumped during the entire 1,000-year period of interest. This implementation of RESRAD results in leaching of radionuclides from the contaminated zone and travel with the infiltrating water downward through the unsaturated zone. The radionuclides that reach groundwater during the period of interest travel down-gradient in the groundwater in the horizontal direction. The radionuclides that reach the groundwater are then captured at the well. Time-dependent contaminant concentrations at the well are calculated and compared to their respective Federal MCL.

Two methods are provided in RESRAD to calculate the contaminant concentrations in groundwater from the well. The nondispersion model is used in this analysis to allow for simulating radionuclide transport in the aquifer downward from the site and to implement vertical mixing in the saturated zone. The contaminant travel time in the groundwater to the well is calculated as a function of the saturated zone hydraulic conductivity and gradient, length of the

contaminant zone parallel to the hydraulic gradient, distance of the well intake below the water table, aquifer-effective porosity, depth of contamination within the saturated zone at the well location, and radionuclide-specific parameters. The contaminant concentration in the well is adjusted by the dilution in the saturated zone. Calculated concentrations are a function of the contaminated area, infiltration rate, well-pumping rate, depth of contamination within the saturated zone at the well location, and the effective pumping interval width.

Groundwater concentrations are considered for two land-use assumptions including industrial and unrestricted. For industrial land use, there is no irrigation at the site (the irrigation rate is equal to zero) but there is infiltration through precipitation. For unrestricted land use, there is irrigation at the site (irrigation rate of 0.76 m/yr) in addition to infiltration through precipitation. A set of RESRAD input parameters is developed for both land-use assumptions. The input parameters (other than irrigation rate) for both land-use cases are the same as defined in Tables F-2 through F-5 for the rural residential exposure scenario. These tables provide the value for each input parameter, the rationale for this value, and a reference to the source for the value. The site-specific soil contamination models for both land-use cases are the same as shown in Figures F-2 through F-6. The contaminant-specific EPCs for shallow- and deep-zone soils at each waste site are the same as shown in Tables F-12 and F-13. Because RESRAD cannot simultaneously model multiple contaminated zones, each contaminated zone is modeled separately. If a radionuclide reaches groundwater from both shallow and deep contaminated zones at a waste site, the concentration output data for the two zones are summed.

F5.0 GROUNDWATER IMPACTS ANALYSIS RESULTS

The results of the radionuclide groundwater impact analysis are presented below for each of the waste sites. The analysis includes calculations for both the shallow and deep contaminated zones at each waste site and considers both industrial and unrestricted land-use conditions.

F5.1 216-A-29 DITCH

The results of the groundwater impact analysis for the 216-A-29 Ditch are presented in Table F-29. Radionuclide COPCs present in the shallow contaminated zone (or contamination zone 1) do not reach the groundwater table during the 1,000-year period of interest. Tritium is the only radiological COPC identified in contamination zone 2. Tritium reaches the groundwater table in 16 or 17 years for unrestricted land-use conditions (application of irrigation water) and tritium reaches groundwater in 19 or 20 years for industrial land-use conditions (no application of irrigation water). Peak tritium concentrations in groundwater range from 961 pCi/L to 12,710 pCi/L, all of which are less than the drinking water MCL of 20,000 pCi/L.

It should be noted that questionable RESRAD output is obtained when the uranium isotope activity levels are input into the RESRAD code. The soil model developed for the head and outlet ends of the 216-A-29 Ditch suggests that the relatively low uranium isotope levels currently measured in soil would reach groundwater between 1,600 and 2,400 years at concentrations considerably above the uranium drinking water MCL of 30 µg/L. Similarly, when Hanford Site 90th percentile lognormal background levels for U-234, U-235 and U-238 isotopes are input into the soil models developed for the head and outlet ends of the 216-A-29 Ditch, the uranium isotopes reach groundwater in a similar time frame at

concentrations considerably above the uranium MCL. These results indicate that the RESRAD code is not a valid model for predicting the impact of uranium on groundwater beneath the 216-A-29 Ditch. The results of the RESRAD analysis for uranium isotopes will not be discussed further in the groundwater impacts analysis. However, a full analysis of uranium isotopes was performed for the 216-A-29 Ditch waste site and is provided in the uncertainty analysis in Chapter 3.0 of the feasibility study (Section 3.7).

F5.2 216-B-63 TRENCH

The results of the groundwater impact analysis for the 216-B-63 Trench are presented in Table F-30. Among the radionuclide COPCs present in the shallow contaminated zone (or contamination zone 1), only Tc-99 is predicted to reach the groundwater table during the 1,000-year period of interest. The peak Tc-99 groundwater concentration for unrestricted land use (application of irrigation water) is 670 pCi/L at 507 years. The peak Tc-99 groundwater concentration for industrial land use (no application of irrigation water) is 147 pCi/L at 2,315 years. The peak Tc-99 groundwater concentrations under both land-use conditions are less than the drinking water MCL of 900 pCi/L.

Nickel-63 is the only radiological COPC identified in contamination zone 2. The peak Ni-63 groundwater concentration for unrestricted land use (application of irrigation water) is 0.0025 pCi/L at 963 years, which is less than the drinking water MCL of 50 pCi/L. Nickel-63 did not reach the groundwater table in the industrial land-use scenario because the infiltration rate used (0.003 m/yr) is about seven times smaller than the infiltration rate used in the unrestricted land-use scenario (0.02 m/yr).

F5.3 216-S-10 DITCH

The results of the groundwater impact analysis for the 216-S-10 Ditch are presented in Table F-31. Radionuclide COPCs present in the shallow contaminated zone (or contamination zone 1) do not reach the groundwater table during the 1,000-year period of interest. Nickel-63 is the only radiological COPC identified in contamination zone 2. The peak Ni-63 groundwater concentration for unrestricted land use (application of irrigation water) is 2.6×10^{-13} pCi/L at 3,936, which is less than the drinking water MCL of 50 pCi/L. Nickel-63 did not reach the groundwater table in the industrial land-use scenario because the infiltration rate used (0.008 m/yr) is about five times smaller than the infiltration rate used in the unrestricted land-use scenario (0.04 m/yr).

F5.4 216-S-10 POND

The results of the groundwater impact analysis for the 216-S-10 Pond are presented in Table F-32. Among the radionuclide COPCs present in the shallow contaminated zone (CZ1), only tritium is predicted to reach the groundwater table during the 1,000-year period of interest. The peak tritium groundwater concentration for unrestricted land use (application of irrigation water) is 7.4×10^{-05} pCi/L at 321 years and is less than the drinking water MCL of 20,000 pCi/L. Tritium did not reach the groundwater table in the industrial land-use scenario because the infiltration rate used (0.008 m/yr) is about five times smaller than the infiltration rate used in the unrestricted land-use scenario (0.04 m/yr). Radiological COPCs identified in CZ2 and CZ3 do not reach the groundwater table for either land-use condition.

F6.0 REFERENCES

40 CFR 141, "National Primary Drinking Water Regulations," Title 40, *Code of Federal Regulations*, Part 141.

ANL, 2007, *RESRAD for Windows*, Version 6.4, Environmental Assessment Division, Argonne National Laboratory, Argonne, Illinois.

ANL/EAD-4, 2001, *User's Manual for RESRAD Version 6*, Environmental Assessment Division, Argonne National Laboratory, Argonne, Illinois.

BHI-00169, 1995, *Environmental Restoration Disposal Facility Performance Assessment*, Rev. 0, Bechtel Hanford, Inc., Richland, Washington.

DOE, 1999, *Format and Content Guide for U.S. Department of Energy Low-Level Waste Disposal Facility Performance Assessments and Composite Analyses*, U.S. Department of Energy, Washington, D.C.

DOE M 435.1-1, 2001, *Radioactive Waste Management Manual*, U.S. Department of Energy, Washington, D.C.

DOE O 435.1, 2001, *Radioactive Waste Management*, U.S. Department of Energy, Washington, D.C.

DOE/ORP-2000-24, 2001, *Hanford Immobilized Low-Activity Waste Performance Assessment: 2001 Version*, Rev. 0, U.S. Department of Energy, Office of River Protection, Richland, Washington.

DOE/ORP-2005-01, 2006, *Initial Single-Shell Tank System Performance Assessment for the Hanford Site*, Rev. 0, U.S. Department of Energy, Office of River Protection, Richland, Washington.

DOE/RL-96-17, 2005, *Remedial Design Report/Remedial Action Work Plan for the 100 Area*, Rev. 5, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

DOE/RL-2004-17, 2004, *Remedial Investigation Report for the 200-CS-1 Chemical Sewer Group Operable Unit*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

EPA, 1991, *Risk Assessment Guidance for Superfund Volume 1: Human Health Evaluation Manual Supplemental Guidance, "Standard Default Exposure Factors" (Interim Final)*, OSWER Directive 9285.6-03, Office of Emergency and Remedial Response Toxics Integration Branch, U.S. Environmental Protection Agency, Washington D.C.

EPA, 2002, *Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites*, OSWER 9355.4-24, Solid Waste and Emergency Response, U.S. Environmental Protection Agency, Washington, D.C.

EPA 402-R-99-044B, 1999, *Understanding Variation in Partition Coefficient, Kd, Values, Volume II, Review of Geochemistry and Available K_d Values for Cadmium, Cesium, Chromium, Lead, Plutonium, Radon, Strontium, Thorium, Tritium (^3H), and Uranium*, U.S. Environmental Protection Agency, Washington D.C.

EPA/520/66-78-007a, 1978, *Radionuclide Interactions with Soil and Rock Media, Volume I: Processes Influencing Radionuclide Mobility and Retention, Element Chemistry and Geochemistry, Conclusions and Evaluation*, U.S. Environmental Protection Agency, Washington, D.C.

EPA/540/R-00/007, 2000, *Soil Screening Guidance for Radionuclides: User's Guide*, OSWER Directive No. 9355.4-16A, Office of Solid Waste and Emergency Response, U.S. Environmental Protection Agency, Washington, D.C.

EPA/540/R-99/006, 1999, *Radiation Risk Assessment At CERCLA Sites: Q&A*, OSWER Directive 9200.4-31P, Office of Emergency and Remedial Response, Office of Radiation and Indoor Air, U.S. Environmental Protection Agency, Washington, D.C.

EPA/600/8-89/043, 1989, *Exposure Factors Handbook*, Office of Health and Environmental Assessment, Exposure Assessment Group, U.S. Environmental Protection Agency, Washington, D.C.

EPA/600/P-95/002Fa, 1997, *Exposure Factors Handbook Volume 1: General Factors*, U.S. Environmental Protection Agency, National Center for Environmental Assessment, Washington, D.C.

Geibert, W., and R. Usbeck, 2004, "The Adsorption of Thorium and Protactinium onto different particle types: Experimental Findings," *Geochimica et cosmochimica acta*, Vol. 68, No. 7, pp. 1489-1501.

Harris, S., and B. Harper, 2004, *Exposure Scenario for CTUIR Traditional Subsistence Lifeways*, dated September 15, Confederated Tribes of the Umatilla Indian Reservation, Department of Science and Engineering, Pendleton, Oregon.

HNF-SD-WM-TI-707, 2007, *Exposure Scenarios and Unit Dose Factors for Hanford Tank Waste Performance Assessments*, Rev. 5, Fluor Federal Services, Inc., Richland, Washington

ORNL/TM-13401, 1997, *Performance Assessment for the Class L-II Disposal Facility*, Oak Ridge National Laboratory, Oak Ridge, Tennessee.

PNNL-12086, 1999, *Hanford Site Groundwater Monitoring for Fiscal Year 1998*, Pacific Northwest National Laboratory, Richland, Washington.

PNNL-13047, 1999, *Groundwater Monitoring Plan for the 216-A-29 Ditch*, Pacific Northwest National Laboratory, Richland, Washington.

PNNL-13895, 2003, *Hanford Contaminant Distribution Coefficient Database and Users Guide*, Rev. 1, Pacific Northwest National Laboratory, Richland, Washington.

PNNL-14702, 2006, *Vadose Zone Hydrogeology Data Package for Hanford Assessments*, Rev. 1, Pacific Northwest National Laboratory, Richland, Washington.

PNNL-14753, 2006, *Groundwater Data Package for Hanford Assessments*, Rev. 1, Pacific Northwest National Laboratory, Richland, Washington.

PNNL-15160, 2005, *Hanford Site Climatological Summary for 2004 with Historical Data*, Pacific Northwest National Laboratory, Richland, Washington.

PNNL-15731, 2006, *Post-Closure RCRA Groundwater Monitoring Plan for the 216-S-10 Pond and Ditch*, Pacific Northwest National Laboratory, Richland, Washington.

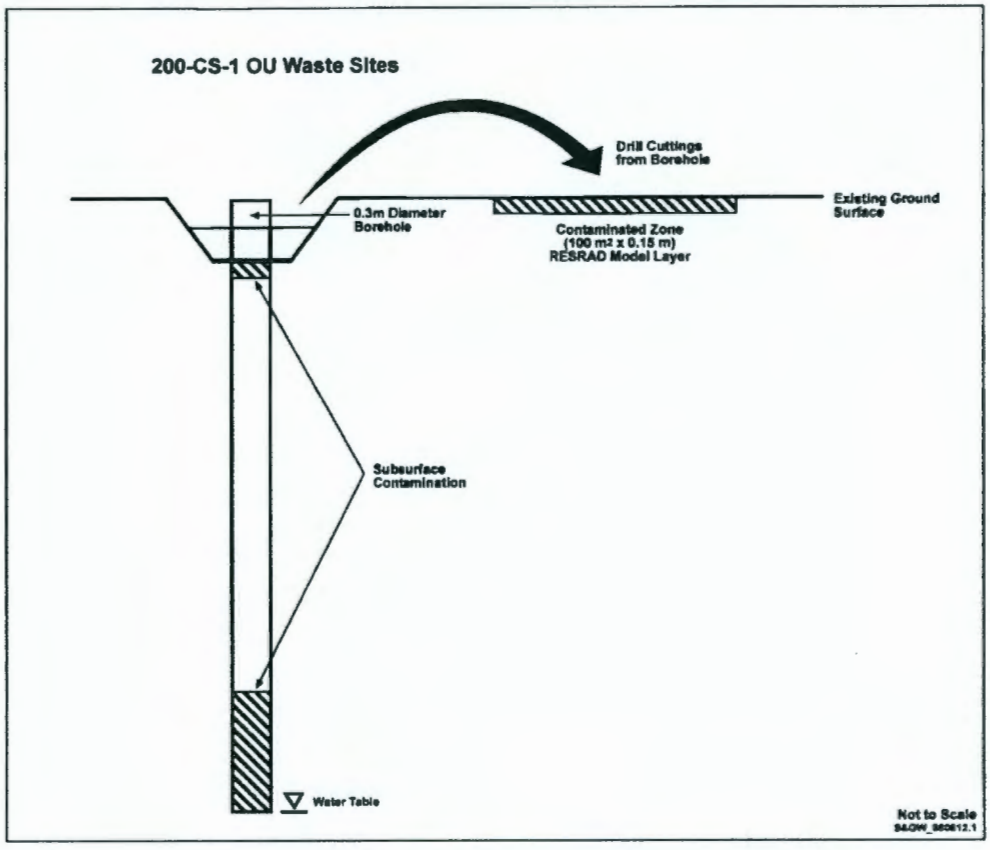
Resource Conservation and Recovery Act of 1976, 42 USC 6901, et seq.

Ridolfi Inc., 2007, *Yakama Nation Exposure Scenario for Hanford Site Risk Assessment*, Seattle, Washington.

Waste Information Data System Report, Hanford Site database.

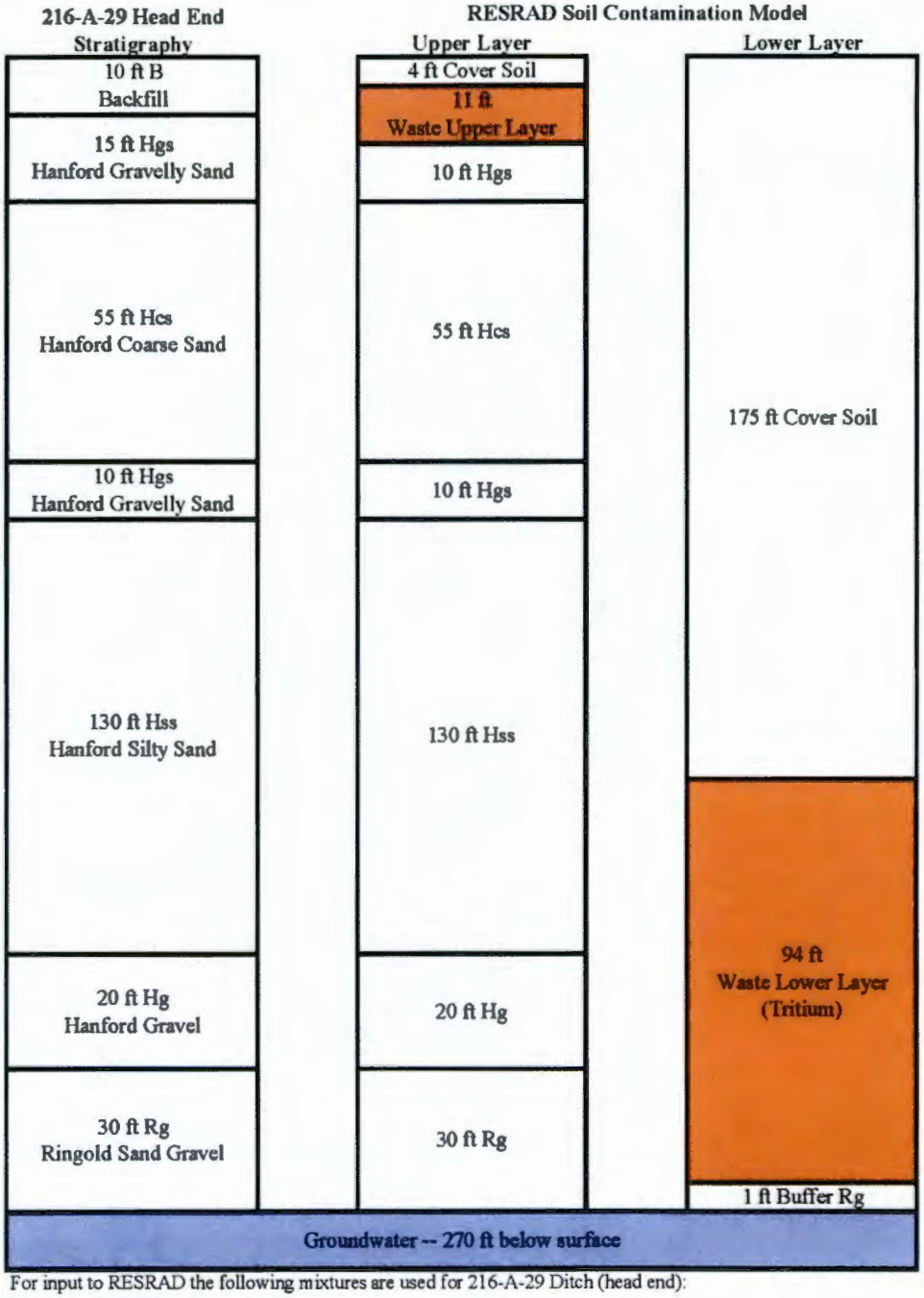
WDOH/320-15, 1997, *Hanford Guidance for Radiological Cleanup*, Rev. 1, Washington State Department of Health, Olympia, Washington.

Figure F-1. Conceptual Site Model for the Inadvertent Intruder Exposure Scenario.



* Contaminated zone depicted in figure (100 m^2 x 0.15 m) is used to estimate inadvertent intruder well driller scenario direct-contact exposure and inadvertent intruder rural farmer scenario direct-contact and plant ingestion exposures. A second contaminated zone (10,000 m^2 x 0.15 m), not depicted in figure, is used for inadvertent intruder rural farmer scenario milk and meat ingestion exposures.

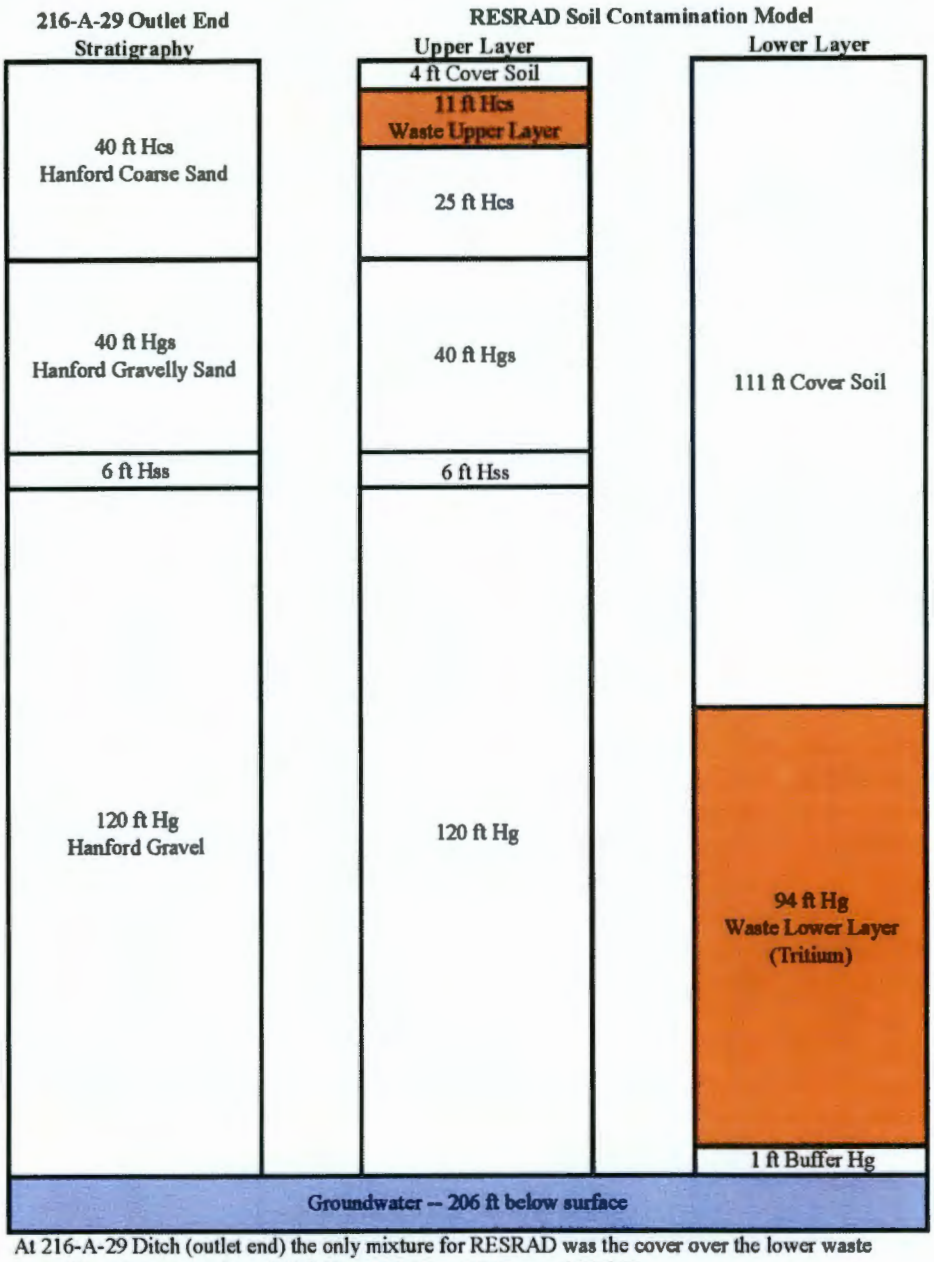
Figure F-2. RESRAD Soil Contamination Model - 216-A-29 Ditch – Head End.



For input to RESRAD the following mixtures are used for 216-A-29 Ditch (head end):

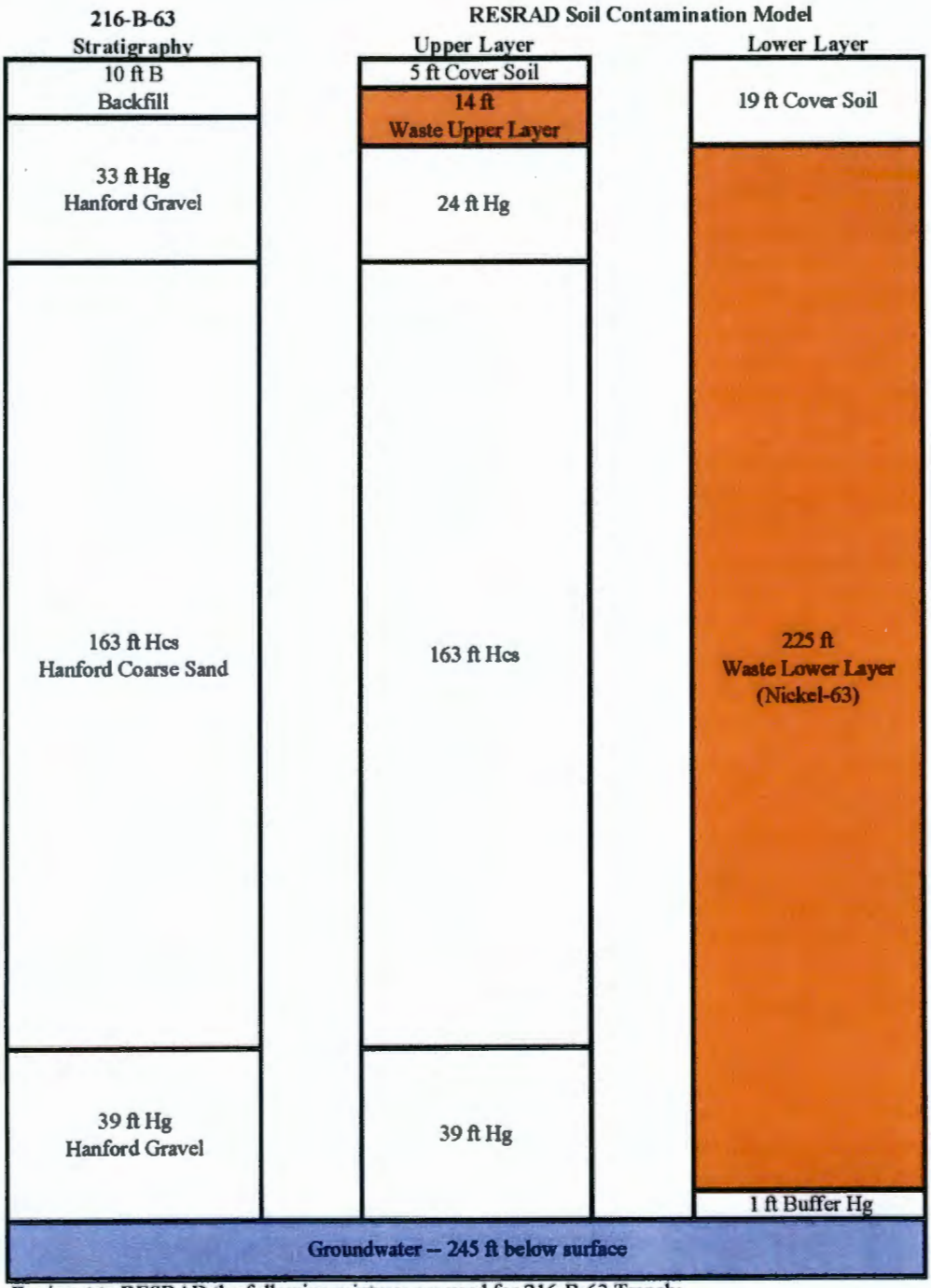
- The upper waste layer is a mixture of 6 ft B and 5 ft Hgs.
- The lower layer of waste is a mixture of 45 ft Hss, 20 ft Hg, and 29 ft Rg.
- The cover above the lower waste layer is a mixture of 10 ft B, 25 ft Hgs, 55 ft Hcs and 85 ft Hss.

Figure F-3. RESRAD Soil Contamination Model - 216-A-29 Ditch – Outlet End.



At 216-A-29 Ditch (outlet end) the only mixture for RESRAD was the cover over the lower waste layer. The mixture consists of 40 ft Hcs, 40 ft Hgs, 6 ft Hss, and 25 ft Hg.

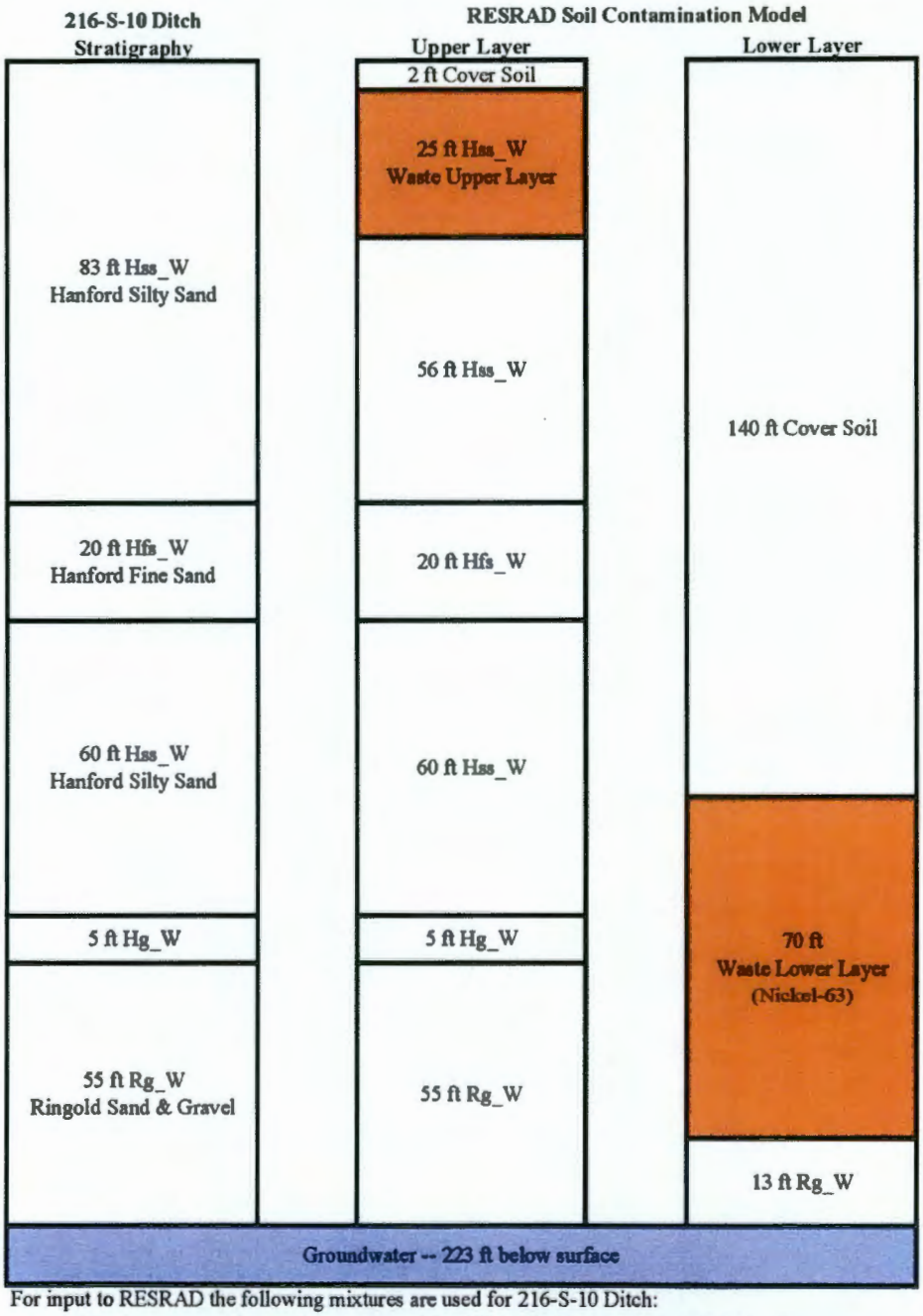
Figure F-4. RESRAD Soil Contamination Model – 216-B-63 Trench.



For input to RESRAD the following mixtures are used for 216-B-63 Trench:

- The upper waste layer is a mixture of 5 ft B and 9 ft Hg.
- The lower layer of waste is a mixture of 62 ft Hg and 163 ft Hcs.
- The cover above the lower layer is a mixture of 10 ft backfill (B) and 9 ft Hg.

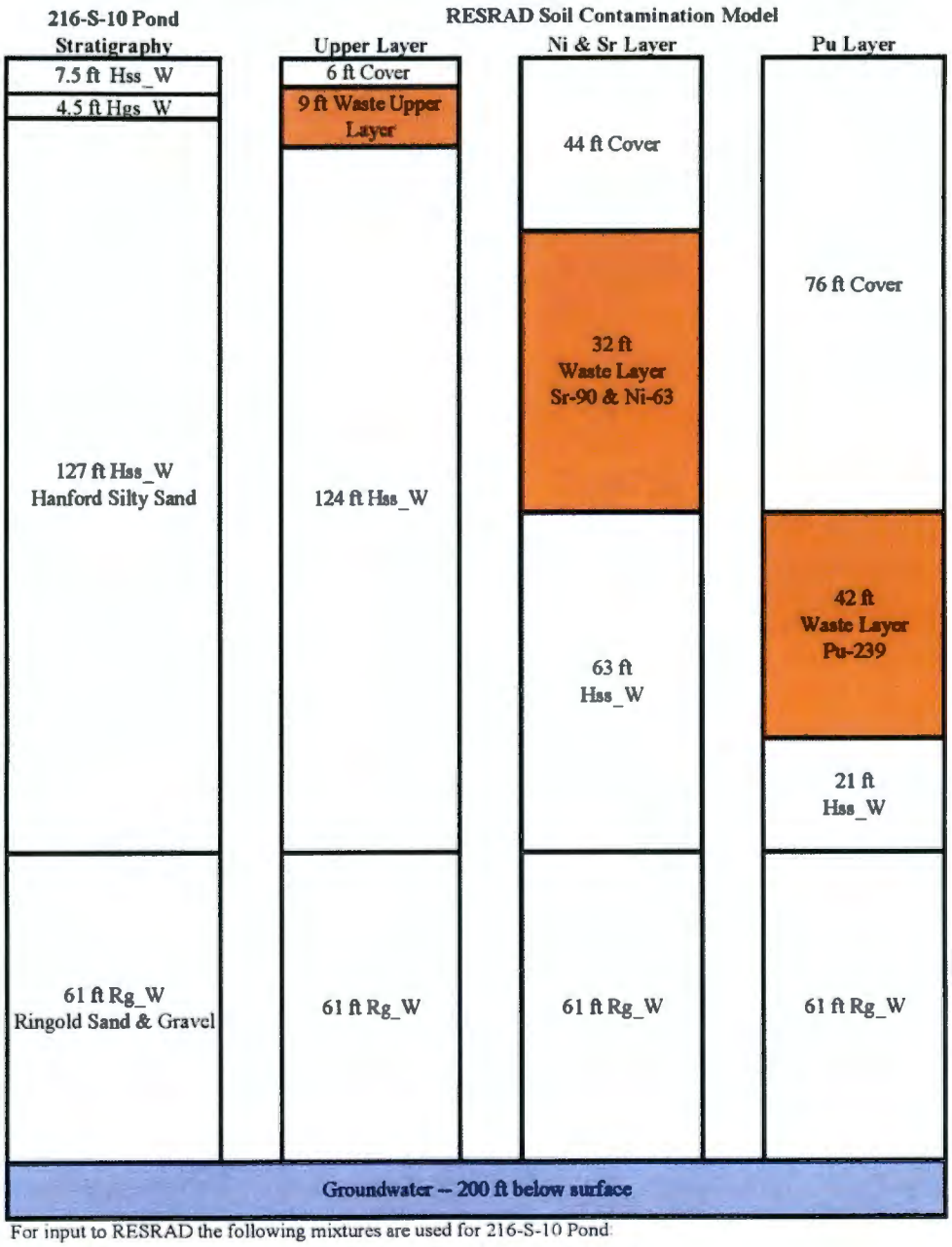
Figure F-5. RESRAD Soil Contamination Model – 216-S-10 Ditch.



For input to RESRAD the following mixtures are used for 216-S-10 Ditch:

- The lower layer of waste is a mixture of 23 ft Hss_W, 5 ft Hg_W, and 42 ft Rg_W.
- The cover above the lower layer is a mixture of 120 ft Hss_W and 20 ft Hfs_W.

Figure F-6. RESRAD Soil Contamination Model – 216-S-10 Pond.



For input to RESRAD the following mixtures are used for 216-S-10 Pond:

- The upper waste layer is a mixture of 4.5 ft Hss_W and 4.5 ft Hgs_W.
- The cover above the Ni & Sr waste layer is a mixture of 39.5 ft Hss_W and 4.5 ft Hgs_W.
- The cover above the Pu waste layer is a mixture of 71.5 ft Hss_W and 4.5 ft Hgs_W.

1

Table F-1. Waste Site Dimensions and Aquifer Depth.

Parameter	216-A-29 Ditch	216-B-63 Trench	216-S-10 Ditch	216-S-10 Pond	216-S-11 Pond
Contaminated length	4000 ft (1220 m)	1400 ft (427 m)	2250 ft (686 m)	1040 ft (317 m)	500 ft (152 m)
Contaminated width	6 ft (1.83 m)	4 ft (1.22 m)	4 ft (1.22 m)	85 ft (25.9 m)	200 ft (61.0 m)
Horizontal area	0.55 acre (2230 m^2)	0.13 acre (520 m^2)	0.21 acre (836 m^2)	2.03 acre (8210 m^2)	2.3 acre (9290 m^2)
Depth to groundwater	270.2 ft (82.4 m)	245 ft (74.7 m)	223 ft (68.0 m)	200.5 ft (61.1 m)	200.5 ft (61.1 m)

NOTES:

216-A-29 Ditch was a meandering ditch carrying water from the 284-E Powerhouse and later the Plutonium-Uranium Extraction Plant. Some water entered the soil column, but most of the water reached the 216-B-3 Pond. It was backfilled in 1991.

216-B-63 Trench was constructed to accept B Plant water. It never was connected to the B Pond system and was backfilled in 1994. Known to have overflowed into or received overflow from adjacent ditches.

216-S-10 Ditch was constructed to accept water from Reduction-Oxidation Plant facilities. It drained into the 216-S-10 Pond. In 1984, the pond and the southern two-thirds of the ditch were backfilled using material dredged from the northern third. Clean cover soil was added. The northern two-thirds of 216-S-10 Ditch is still a ditch.

216-S-11 Pond was constructed to accept overflow from the 216-S-10 Pond. It was backfilled in stages before the 216-S-10 Pond was backfilled.

Table F-2. 216-A-29 Ditch Summary of RESRAD Input Parameters for the Industrial Worker, Rural Residential, and Native American Exposure Scenarios. (12 Pages)

Description	Parameter	Units	Industrial Worker Scenario	Rural Residential Scenario	CTUIR Scenario	Yakama Nation Scenario	Rationale and Citation
Exposure Pathways	External gamma: Inhalation: Plant ingestion: Meat ingestion: Milk ingestion: Aquatic foods: Drinking water: Soil ingestion: Radon:	Not applicable	Active Active Suppressed Suppressed Suppressed Suppressed Suppressed Active Suppressed	Active Active Active Active Active Suppressed Active Active Suppressed	Active Active Active Active Suppressed Suppressed Active Active Suppressed	Active Active Active Active Active Suppressed Active Active Suppressed	
R011 – Contaminated Zone (CZ)	Area of CZ	m^2 (ft^2)	2,230 (24,004)	2,230 (24,004)	2,230 (24,004)	2,230 (24,004)	*Waste Information Data System* database. See Table F-1.
	Thickness of CZ (upper)	m (ft)	3.35 (11)	3.35 (11)	3.35 (11)	3.35 (11)	Site-specific data. See Figures F-2 and F-3.
	Thickness of CZ (lower)	m (ft)	Not applicable	28.65 (94)	28.65 (94)	28.65 (94)	Site-specific data. See Figures F-2 and F-3.
	Length parallel to aquifer flow	m (ft)	1220 (4000)	1220 (4000)	1220 (4000)	1220 (4000)	*Waste Information Data System* database. Value represents full length of ditch. See Table F-1.
	Radiation dose limit (industrial scenario)	mrem/ year	15	15	15	15	40 CFR 141; OSWER Directive 9200.4-31P.
	Elapsed time since waste placement	year	0	0	0	0	Environmental samples are decayed to current calendar year.
Exposure Point Concentrations	EPCs	pCi/g	Contaminant-specific	Contaminant-specific	Contaminant-specific	Contaminant-specific	EPCs for both shallow and deep contaminated zones are the radionuclide contaminant of potential concern concentrations identified in Chapter 3.0 of the feasibility study. See Tables F-12 and F-13.
R013 – Cover and CZ Hydrological Data	Cover depth (upper CZ)	m (ft)	1.22 (4) with cover 0.0 (0.0) without cover	1.22 (4) head end 1.22 (4) outlet end	1.22 (4) head end 1.22 (4) outlet end	1.22 (4) head end 1.22 (4) outlet end	Site-specific data. See Figures F-2 and F-3.
	Cover depth (lower CZ)	m (ft)	Not applicable	53.3 (175) head end 33.8 (111) outlet end	53.3 (175) head end 33.8 (111) outlet end	53.3 (175) head end 33.8 (111) outlet end	Site-specific data. See Figures F-2 and F-3.
	Cover material density (upper CZ)	g/cm^3	1.94 (head end) 1.67 (outlet end)	1.94 (head end) 1.67 (outlet end)	1.94 (head end) 1.67 (outlet end)	1.94 (head end) 1.67 (outlet end)	PNNL-14702 (Table 4.5), values for B (head end) and Hcs (outlet end). See Figures F-2 and F-3 and Table F-11.

Table F-2. 216-A-29 Ditch Summary of RESRAD Input Parameters for the Industrial Worker, Rural Residential, and Native American Exposure Scenarios. (12 Pages)

Description	Parameter	Units	Industrial Worker Scenario	Rural Residential Scenario	CTUIR Scenario	Yakama Nation Scenario	Rationale and Citation
	Cover material density (lower CZ)	g/cm^3	Not applicable	1.69 (head end) 1.82 (outlet end)	1.69 (head end) 1.82 (outlet end)	1.69 (head end) 1.82 (outlet end)	PNNL-14702 (Table 4.5), weighted average of values for Hgs, Hcs, and Hss (head end) and for Hcs, Hgs, Hss, and Hg (outlet end). See Figures F-2 and F-3 and Table F-11.
	Cover erosion rate	m/year	0.00001	0.00001	0.00001	0.00001	Value selected prevents appreciable erosion of the cover currently present over the waste site during the simulation period.
	Density of CZ (upper CZ)	g/cm^3	1.94 (head end) 1.67 (outlet end)	1.94 (head end) 1.67 (outlet end)	1.94 (head end) 1.67 (outlet end)	1.94 (head end) 1.67 (outlet end)	PNNL-14702 (Table 4.5), weighted average of values for B and Hgs (head end) and value for Hcs (outlet end). See Figures F-2 and F-3 and Table F-11.
	Density of CZ (lower CZ)	g/cm^3	Not applicable	1.77 (head end) 1.93 (outlet end)	1.77 (head end) 1.93 (outlet end)	1.77 (head end) 1.93 (outlet end)	PNNL-14702 (Table 4.5), weighted average of values for Hss, Hg, and Rg (head end) and value for Hg (outlet end). See Figures F-2 and F-3 and Table F-11.
	CZ erosion rate	m/year	0.00001	0.00001	0.00001	0.00001	Value selected prevents appreciable erosion of the contaminated zone.
	CZ total porosity (upper CZ)	unitless	0.251 (head end) 0.349 (outlet end)	0.251 (head end) 0.349 (outlet end)	0.251 (head end) 0.349 (outlet end)	0.251 (head end) 0.349 (outlet end)	PNNL-14702 (Table 4.5), weighted average of values for B and Hgs (head end) and value for Hcs (outlet end). See Figures F-2 and F-3 and Table F-11.
	CZ total porosity (lower CZ)	unitless	Not applicable	0.303 (head end) 0.167 (outlet end)	0.303 (head end) 0.167 (outlet end)	0.303 (head end) 0.167 (outlet end)	PNNL-14702 (Table 4.5), weighted average of values for Hss, Hg, and Rg (head end) and value for Hg (outlet end). See Figures F-2 and F-3 and Table F-11.

Table F-2. 216-A-29 Ditch Summary of RESRAD Input Parameters for the Industrial Worker, Rural Residential, and Native American Exposure Scenarios. (12 Pages)

Description	Parameter	Units	Industrial Worker Scenario	Rural Residential Scenario	CTUIR Scenario	Yakama Nation Scenario	Rationale and Citation
	CZ field capacity (upper CZ)	unitless	0.0314 (head end) 0.027 (outlet end)	0.0314 (head end) 0.027 (outlet end)	0.0314 (head end) 0.027 (outlet end)	0.0314 (head end) 0.027 (outlet end)	PNNL-14702 (Table 4.5), weighted average of values for B and Hgs (head end) and value for Hcs (outlet end). See Figures F-2 and F-3 and Table F-11.
	CZ field capacity (lower CZ)	unitless	Not applicable	.0472 (head end) 0.022(outlet end)	.0472 (head end) 0.022(outlet end)	.0472 (head end) 0.022(outlet end)	PNNL-14702 (Table 4.5), weighted average of values for Hss, Hg, and Rg (head end) and value for Hg (outlet end). See Figures F-2 and F-3 and Table F-11.
	CZ hydraulic conductivity (upper CZ)	m/year	198 (head end) 716 (outlet end)	198 (head end) 716 (outlet end)	198 (head end) 716 (outlet end)	198 (head end) 716 (outlet end)	PNNL-14702 (Table 4.5), weighted average of values for B and Hgs (head end) and value for Hcs (outlet end). See Figures F-2 and F-3 and Table F-11.
	CZ hydraulic conductivity (lower CZ)	m/year	Not applicable	75.3 (head end) 104 (outlet end)	75.3 (head end) 104 (outlet end)	75.3 (head end) 104 (outlet end)	PNNL-14702 (Table 4.5), weighted average of values for Hss, Hg, and Rg (head end) and value for Hg (outlet end). See Figures F-2 and F-3 and Table F-11.
	CZ b parameter (upper CZ)	unitless	4.05 (head end) 4.05 (outlet end)	4.05 (head end) 4.05 (outlet end)	4.05 (head end) 4.05 (outlet end)	4.05 (head end) 4.05 (outlet end)	Determined from soil textures listed in ANL/EAD-4 (Table E.2). The upper CZ hydrogeologic units have little of the finer material (silt and clay) listed in Table E.2 and hence are assigned value of 4.05 for sand.
	CZ b parameter (lower CZ)	unitless	Not applicable	4.46 (head end) 4.05 (outlet end)	4.46 (head end) 4.05 (outlet end)	4.46 (head end) 4.05 (outlet end)	Determined from soil textures listed in ANL/EAD-4 (Table E.2). Except for Hss, the lower CZ hydrogeologic units have little of the finer material (silt and clay) listed in Table E.2 and hence are assigned value of 4.05 for sand. Hss is assigned value of 4.9 for sandy loam (used in calculating weighted average for head end).

Table F-2. 216-A-29 Ditch Summary of RESRAD Input Parameters for the Industrial Worker, Rural Residential, and Native American Exposure Scenarios. (12 Pages)

Description	Parameter	Units	Industrial Worker Scenario	Rural Residential Scenario	CTUIR Scenario	Yakama Nation Scenario	Rationale and Citation
	Humidity in air	g/m^3	5.5	5.5	5.5	5.5	PNNL-15160. Used in RESRAD only for computation of tritium concentration in air.
	Evapotranspiration coefficient	Unitless	0.955	0.955	0.955	0.955	Value assigned results in an annual recharge rate of 0.8 cm/yr. See Section F2.5.
	Wind speed	m/s	3.4	3.4	3.4	3.4	PNNL-15160 (Table 5.1).
	Precipitation	m/year	0.177	0.177	0.177	0.177	PNNL-15160 (Table 4.1).
	Irrigation rate	m/year	0	0.76	0.76	0.76	DOE/RL-96-17 (Table B-1).
	Irrigation mode	Overhead or ditch	Not applicable	Overhead	Overhead	Overhead	RESRAD default.
	Runoff coefficient	Unitless	0	0	0	0	Runoff coefficient of zero indicates all precipitation soaks into the ground.
	Watershed area for nearby stream or pond	m^2	Not applicable	1.00E+06	1.00E+06	1.00E+06	RESRAD default.
	Accuracy for water/soil computations	unitless	Not applicable	0.001	0.001	0.001	RESRAD default.
R014 – Saturated Zone (SZ) Hydrological Data	Density of SZ	g/cm^3	Not applicable	1.90 (head end) 1.93 (outlet end)	1.90 (head end) 1.93 (outlet end)	1.90 (head end) 1.93 (outlet end)	PNNL-14702 (Table 4.5), values for Rg (head end) and Hg (outlet end). See Figures F-2 and F-3 and Table F-11.
	SZ total porosity	unitless	Not applicable	0.2 (head end) 0.2 (outlet end)	0.2 (head end) 0.2 (outlet end)	0.2 (head end) 0.2 (outlet end)	PNNL-12086 (Table 3.3-1). Value used is mid-point of range 0.1 to 0.3.
	SZ effective porosity	unitless	Not applicable	0.2 (head end) 0.2 (outlet end)	0.2 (head end) 0.2 (outlet end)	0.2 (head end) 0.2 (outlet end)	PNNL-12086 (Table 3.3-1). Value used is mid-point of range 0.1 to 0.3.
	SZ field capacity	unitless	Not applicable	0.1 (head end) 0.1 (outlet end)	0.1 (head end) 0.1 (outlet end)	0.1 (head end) 0.1 (outlet end)	Saturated zone field capacities are equated with specific yields listed in Table 5.2 of PNNL-14753 (Unit 1).
	SZ hydraulic conductivity	m/year	Not applicable	6570 (head end) 6570 (outlet end)	6570 (head end) 6570 (outlet end)	6570 (head end) 6570 (outlet end)	PNNL-12086 (Table 3.3-1).

Table F-2. 216-A-29 Ditch Summary of RESRAD Input Parameters for the Industrial Worker, Rural Residential, and Native American Exposure Scenarios. (12 Pages)

Description	Parameter	Units	Industrial Worker Scenario	Rural Residential Scenario	CTUIR Scenario	Yakama Nation Scenario	Rationale and Citation
	SZ hydraulic gradient	unitless	Not applicable	0.0005 (head end) 0.0005 (outlet end)	0.0005 (head end) 0.0005 (outlet end)	0.0005 (head end) 0.0005 (outlet end)	PNNL-12086 (Table 3.3-1).
	SZ b parameter	unitless	Not applicable	4.05 (head end) 4.05 (outlet end)	4.05 (head end) 4.05 (outlet end)	4.05 (head end) 4.05 (outlet end)	Determined from soil textures listed in ANL/EAD-4 (Table E.2). Saturated zone hydrogeologic units (Rg, Hg) have little of the finer material (silt and clay) listed in Table E.2 and hence are assigned value of 4.05 for sand.
	Water table drop rate	m/year	Not applicable	0.0001	0.0001	0.0001	Value selected results in little change in the depth of the groundwater during the simulation period.
	Well pump intake depth below water table	m	Not applicable	4.6	4.6	4.6	WDOH/320-015. Typical RCRA screen depth.
	Model for water transport	Nondispersion (ND) or mass-balance	Not applicable	ND	ND	ND	RESRAD default.
	Well pumping rate	m^3/year	Not applicable	90	90	90	HNF-SD-WM-TI-707. Based on representative household use.
R015 – Uncontaminated and Unsaturated Strata Hydrological Data	Number of unsaturated strata (upper CZ)	Not applicable	Not applicable	5 (head end) 4 (outlet end)	5 (head end) 4 (outlet end)	5 (head end) 4 (outlet end)	Site-specific data. See Figures F-2 and F-3.
	Number of unsaturated strata (lower CZ)	Not applicable	Not applicable	1 (head end) 1 (outlet end)	1 (head end) 1 (outlet end)	1 (head end) 1 (outlet end)	Site-specific data. See Figures F-2 and F-3.
	Thickness (upper CZ)	m	Not applicable	6.10, 16.76, 39.62, 6.10, 9.14 (head end) 7.62, 12.19, 1.83, 36.58 (outlet end)	6.10, 16.76, 39.62, 6.10, 9.14 (head end) 7.62, 12.19, 1.83, 36.58 (outlet end)	6.10, 16.76, 39.62, 6.10, 9.14 (head end) 7.62, 12.19, 1.83, 36.58 (outlet end)	Site-specific data. See Figures F-2 and F-3.
	Thickness (lower CZ)	m	Not applicable	0.3 (head end) 0.3 (outlet end)	0.3 (head end) 0.3 (outlet end)	0.3 (head end) 0.3 (outlet end)	Site-specific data. See Figures F-2 and F-3.
	Soil density (upper CZ)	g/cm^3	Not applicable	1.94, 1.67, 1.61, 1.93, 1.90 (head end) 1.67, 1.94, 1.61, 1.93 (outlet end)	1.94, 1.67, 1.61, 1.93, 1.90 (head end) 1.67, 1.94, 1.61, 1.93 (outlet end)	1.94, 1.67, 1.61, 1.93, 1.90 (head end) 1.67, 1.94, 1.61, 1.93 (outlet end)	Values for each unit obtained from PNNL-14702 (Table 4.5). See Table F-11.

Table F-2. 216-A-29 Ditch Summary of RESRAD Input Parameters for the Industrial Worker, Rural Residential, and Native American Exposure Scenarios. (12 Pages)

Description	Parameter	Units	Industrial Worker Scenario	Rural Residential Scenario	CTUIR Scenario	Yakama Nation Scenario	Rationale and Citation
	Soil density (lower CZ)	g/cm^3	Not applicable	1.90 (head end) 1.93 (outlet end)	1.90 (head end) 1.93 (outlet end)	1.90 (head end) 1.93 (outlet end)	Values for each unit obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Total porosity (upper CZ)	unitless	Not applicable	0.238, 0.349, 0.445, 0.167, 0.177 (head end) 0.349, 0.238, 0.445, 0.167 (outlet end)	0.238, 0.349, 0.445, 0.167, 0.177 (head end) 0.349, 0.238, 0.445, 0.167 (outlet end)	0.238, 0.349, 0.445, 0.167, 0.177 (head end) 0.349, 0.238, 0.445, 0.167 (outlet end)	Values for each unit obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Total porosity (lower CZ)	unitless	Not applicable	0.177 (head end) 0.167 (outlet end)	0.177 (head end) 0.167 (outlet end)	0.177 (head end) 0.167 (outlet end)	Values for each unit obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Effective porosity (upper CZ)	unitless	Not applicable	0.238, 0.349, 0.445, 0.167, 0.177 (head end) 0.349, 0.238, 0.445, 0.167 (outlet end)	0.238, 0.349, 0.445, 0.167, 0.177 (head end) 0.349, 0.238, 0.445, 0.167 (outlet end)	0.238, 0.349, 0.445, 0.167, 0.177 (head end) 0.349, 0.238, 0.445, 0.167 (outlet end)	Values for each unit obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Effective porosity (lower CZ)	unitless	Not applicable	0.177 (head end) 0.167 (outlet end)	0.177 (head end) 0.167 (outlet end)	0.177 (head end) 0.167 (outlet end)	Values for each unit obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Field capacity (upper CZ)	unitless	Not applicable	0.027, 0.033, 0.072, 0.022, 0.026 (head end) 0.027, 0.033, 0.072, 0.022 (outlet end)	0.027, 0.033, 0.072, 0.022, 0.026 (head end) 0.027, 0.033, 0.072, 0.022 (outlet end)	0.027, 0.033, 0.072, 0.022, 0.026 (head end) 0.027, 0.033, 0.072, 0.022 (outlet end)	Values for each unit obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Field capacity (lower CZ)	unitless	Not applicable	0.026 (head end) 0.022 (outlet end)	0.026 (head end) 0.022 (outlet end)	0.026 (head end) 0.022 (outlet end)	Values for each unit obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Hydraulic conductivity (upper CZ)	m/year	Not applicable	210, 716, 27.1, 104, 130 (head end) 716, 210, 27.1, 104 (outlet end)	210, 716, 27.1, 104, 130 (head end) 716, 210, 27.1, 104 (outlet end)	210, 716, 27.1, 104, 130 (head end) 716, 210, 27.1, 104 (outlet end)	Values for each unit obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Hydraulic conductivity (lower CZ)	m/year	Not applicable	130 (head end) 104 (outlet end)	130 (head end) 104 (outlet end)	130 (head end) 104 (outlet end)	Values for each unit obtained from PNNL-14702 (Table 4.5). See Table F-11.

Table F-2. 216-A-29 Ditch Summary of RESRAD Input Parameters for the Industrial Worker, Rural Residential, and Native American Exposure Scenarios. (12 Pages)

Description	Parameter	Units	Industrial Worker Scenario	Rural Residential Scenario	CTUIR Scenario	Yakama Nation Scenario	Rationale and Citation
	Soil-specific b parameter (upper CZ)	unitless	Not applicable	4.05, 4.05, 4.90, 4.05, 4.05 (head end) 4.05, 4.05, 4.90, 4.05 (outlet end)	4.05, 4.05, 4.90, 4.05, 4.05 (head end) 4.05, 4.05, 4.90, 4.05 (outlet end)	4.05, 4.05, 4.90, 4.05, 4.05 (head end) 4.05, 4.05, 4.90, 4.05 (outlet end)	Determined from soil textures listed in ANL/EAD-4 (Table E.2). Except for Hss, unsaturated units have little of the finer material (silt and clay) listed in Table E.2 and hence are assigned value of 4.05 for sand. Hss is assigned value of 4.9 for sandy loam.
	Soil-specific b parameter (lower CZ)	unitless	Not applicable	4.05 (head end) 4.05 (outlet end)	4.05 (head end) 4.05 (outlet end)	4.05 (head end) 4.05 (outlet end)	Determined from soil textures listed in ANL/EAD-4 (Table E.2). Unsaturated units have little of the finer material (silt and clay) listed in Table E.2 and hence are assigned value of 4.05 for sand.
R016 – Distribution Coefficients and Leach Rates for Individual Radionuclides	Distribution coefficients (K_d) for contaminated zone, uncontaminated zone and saturated zone	cm^3/g	Contaminant-specific	Contaminant-specific	Contaminant-specific	Contaminant-specific	Best estimate values from PNNL-14702 (Table 4.11), Waste Chemistry/Source Category 4: Low Organic/Low Salt/Near Neutral. K_d values for Pb, Ni, and Pa derived from data in PNNL-13895 and Geibert and Usbeck, 2004. See Table F-18.
	Saturated leach rate	yr^{-1}	Contaminant-specific	Contaminant-specific	Contaminant-specific	Contaminant-specific	RESRAD default.
	Saturated solubility	mol/L	0	0	0	0	RESRAD default.
R017 – Inhalation and External Gamma	Inhalation rate	m^3/year	2,500	7,000	10,950	9,490	Industrial worker scenario assumes rate of 10 m^3/day (250 days/yr) (EPA/600/P-95/002Fa). Rural residential scenario assumes rate of 20 m^3/day (350 days/yr) (EPA/600/P-95/002Fa). CTUIR scenario assumes rate of 30 m^3/day (365 days/yr) (Harris and Harper, 2004). Yakama Nation scenario assumes rate of 26 m^3/day (365 days/yr) (Ridolfi, 2007).

Table F-2. 216-A-29 Ditch Summary of RESRAD Input Parameters for the Industrial Worker, Rural Residential, and Native American Exposure Scenarios. (12 Pages)

Description	Parameter	Units	Industrial Worker Scenario	Rural Residential Scenario	CTUIR Scenario	Yakama Nation Scenario	Rationale and Citation
	Mass loading for inhalation	g/m^3	0.0001	0.0001	0.0001	0.0001	WDOH/320-015.
	Exposure duration	year	25	30	70	70	EPA, 1991; Harper and Harris, 2004; Ridolfi, 2007.
	Indoor dust filtration factor	unitless	0.4	0.4	0.4	0.4	RESRAD default.
	External gamma shielding factor	unitless	0.4	0.4	0.4	0.4	EPA/540-R-00/007 (Equation 4).
	Indoor time fraction	unitless	0.171	0.6	0.5	0.5	Industrial worker scenario assumes 6 h/day indoors, 250 days/yr (1,500 h/8,760 h). Rural residential scenario assumes 15 h/day indoors, 350 days/yr (5,250 h/8,760 h). CTUIR and Yakama Nation scenarios assume 12 h/day indoors, 365 days/yr (4,380 h/8,740 h).
	Outdoor time fraction	unitless	0.057	0.12	0.25	0.25	Industrial worker scenario assumes 2 h/day outdoors, 250 days/yr (500 h/8,760 h). Rural residential scenario assumes 3 h/day outdoors, 350 days/yr (1,050 h/8,760 h). CTUIR and Yakama Nation scenarios assume 6 h/day outdoors, 365 days/yr (2,190 h/8,760 h).
	Shape factor	Not Applicable	Circular	Circular	Circular	Circular	RESRAD default.
R018 – Ingestion Pathway Data, Dietary Parameters	Soil ingestion intake	g/yr	12.5	35	146	73	Industrial worker scenario based on 50 mg/day (250 days/year). Rural residential scenario based on 100 mg/day (350 days/yr). CTUIR scenario based on 400 mg/day (365 days/yr) (Harris and Harper, 2004). Yakama Nation scenario based on 300 mg/day (365 days/yr) (Ridolfi, 2007).

Table F-2. 216-A-29 Ditch Summary of RESRAD Input Parameters for the Industrial Worker, Rural Residential, and Native American Exposure Scenarios. (12 Pages)

Description	Parameter	Units	Industrial Worker Scenario	Rural Residential Scenario	CTUIR Scenario	Yakama Nation Scenario	Rationale and Citation
	Drinking water intake	L/yr	Not applicable	700	1,460	1,460	Rural residential scenario based on 2 L/day (350 days/yr) (EPA/600/P-95/002Fa). CTUIR and Yakama Nation scenarios based on 4 L/day (365 days/yr) (Harris and Harper, 2004; Ridolfi, 2007).
	Leafy vegetable consumption	kg/yr	Not applicable	69.8	100	100	Rural residential scenario based on average homegrown intake for western farm households (EPA/600/8-89/043, Table 3-12). For CTUIR, Harris and Harper (2004, Table 5) provides value of 1,225 g/day (447 kg/yr) summed across categories of roots, greens, and "other." For Yakama Nation, Ridolfi (2007, Table 7) provides value of 1,118 g/day (408 kg/yr) summed across categories of wild roots, stalks/leaves, and vegetables. A maximum value of 100 kg/yr can be input into RESRAD, the remaining portion (347 or 308 kg/yr, respectively) is assigned to "fruits, vegetables, and grains."

Table F-2. 216-A-29 Ditch Summary of RESRAD Input Parameters for the Industrial Worker, Rural Residential, and Native American Exposure Scenarios. (12 Pages)

Description	Parameter	Units	Industrial Worker Scenario	Rural Residential Scenario	CTUIR Scenario	Yakama Nation Scenario	Rationale and Citation
	Fruits, vegetables, and grain consumption	kg/yr	Not applicable	47.3	393	417	Rural residential scenario based on average homegrown intake for western farm households (EPA/600/8-89/043, Table 13-17). For CTUIR, Harris and Harper (2004, Table 5) provides value of 125 g/day (45.6 kg/yr). Includes 347 kg/yr from leafy vegetable consumption. For Yakama Nation, Ridolfi (2007, Table 7) provides value of 299 g/day (109 kg/yr) summed across categories of fruits and wild berries. Includes 308 kg/yr from leafy vegetable consumption.
	Milk consumption	L/yr	Not applicable	100	Not applicable	438	Rural residential scenario based on WDOH/320-015. No value for CTUIR given in Harper and Harris (2004). For Yakama Nation, Ridolfi (2007, Table 7) provides rate of 1.2 L/day (365 day/yr).
	Meat and poultry consumption	kg/yr	Not applicable	61.6	27.4	154	Rural residential scenario based on average homegrown intake for western farm households (EPA/600/8-89/043, Table 13-22). CTUIR scenario assumes 60 percent of combined rate for game and fowl consumption (125 g/day) is from penned livestock. Yakama Nation scenario assumes 60 percent of combined rate for game and meat (704 g/day) is from penned livestock.
	Fish consumption	kg/yr	Not applicable	Not applicable	Not applicable	Not applicable	The consumption of fish is considered an incomplete exposure pathway for waste site operable units within the Central Plateau.

Table F-2. 216-A-29 Ditch Summary of RESRAD Input Parameters for the Industrial Worker, Rural Residential, and Native American Exposure Scenarios. (12 Pages)

Description	Parameter	Units	Industrial Worker Scenario	Rural Residential Scenario	CTUIR Scenario	Yakama Nation Scenario	Rationale and Citation
	Other seafood consumption	kg/yr	Not applicable	Not applicable	Not applicable	Not applicable	The consumption of seafood is considered an incomplete exposure pathway for waste site operable units within the Central Plateau.
	Drinking water contamination fraction	Unitless	Not applicable	1	1	1	RESRAD default.
	Household water contamination fraction	Unitless	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable.
	Livestock water contamination fraction	Unitless	Not applicable	1	1	1	RESRAD default.
	Irrigation water contamination fraction	Unitless	Not applicable	1	1	1	RESRAD default.
	Aquatic food contamination fraction	Unitless	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable.
	Plant food contamination fraction	Unitless	Not applicable	-1	-1	-1	RESRAD default.
	Meat contamination fraction	Unitless	Not applicable	-1	-1	-1	RESRAD default.
	Milk contamination fraction	Unitless	Not applicable	-1	-1	-1	RESRAD default.
R019 – Ingestion Pathway Data, Nondietary	Livestock fodder intake for meat	kg/d	Not applicable	68	68	68	RESRAD default.
	Livestock fodder intake for milk	kg/d	Not applicable	55	55	55	RESRAD default.
	Livestock water intake for meat	L/d	Not applicable	50	50	50	RESRAD default.
	Livestock water intake for milk	L/d	Not applicable	160	160	160	RESRAD default.
	Livestock intake of soil	kg/d	Not applicable	0.5	0.5	0.5	RESRAD default.
	Mass loading for foliar deposition	g/m^3	Not applicable	0.0001	0.0001	0.0001	RESRAD default.

Table F-2. 216-A-29 Ditch Summary of RESRAD Input Parameters for the Industrial Worker, Rural Residential, and Native American Exposure Scenarios. (12 Pages)

Description	Parameter	Units	Industrial Worker Scenario	Rural Residential Scenario	CTUIR Scenario	Yakama Nation Scenario	Rationale and Citation
	Depth of soil mixing layer	m	0.15	0.15	0.15	0.15	RESRAD default.
	Depth of roots	m	Not applicable	0.9	0.9	0.9	RESRAD default.
R020 – Groundwater Usage	Groundwater fractional usage – drinking water	unitless	Not applicable	1	1	1	RESRAD default.
	Groundwater fractional usage – household usage	unitless	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable.
	Groundwater fractional usage – livestock water	unitless	Not applicable	1	1	1	RESRAD default.
	Groundwater fractional usage – irrigation	unitless	Not applicable	1	1	1	WDOH/320-015.

Table F-3. 216-B-63 Trench Summary of RESRAD Input Parameters for the Industrial Worker, Rural Residential, and Native American Exposure Scenarios. (10 Pages)

Description	Parameter	Units	Industrial Worker Scenario	Rural Residential Scenario	CTUIR Scenario	Yakama Nation Scenario	Rationale and Citation
Exposure Pathways	External gamma: Inhalation: Plant ingestion: Meat ingestion: Milk ingestion: Aquatic foods: Drinking water: Soil ingestion: Radon:	Not applicable	Active Active Suppressed Suppressed Suppressed Suppressed Suppressed Active Suppressed	Active Active Active Active Active Suppressed Active Active Suppressed	Active Active Active Active Suppressed Suppressed Active Active Suppressed	Active Active Active Active Active Suppressed Active Active Suppressed	
R011 – Contaminated Zone (CZ)	Area of CZ	m^2 (ft^2)	520 (5,600)	520 (5,600)	520 (5,600)	520 (5,600)	*Waste Information Data System* database. See Table F-1.
	Thickness of CZ (upper)	m (ft)	4.27 (14)	4.27 (14)	4.27 (14)	4.27 (14)	Site-specific data. See Figure F-4.
	Thickness of CZ (lower)	m (ft)	Not applicable	68.58 (228)	68.58 (228)	68.58 (228)	Site-specific data. See Figure F-4.

Table F-3. 216-B-63 Trench Summary of RESRAD Input Parameters for the Industrial Worker, Rural Residential, and Native American Exposure Scenarios. (10 Pages)

Description	Parameter	Units	Industrial Worker Scenario	Rural Residential Scenario	CTUIR Scenario	Yakama Nation Scenario	Rationale and Citation
	Length parallel to aquifer flow	m (ft)	427 (1400)	427 (1400)	427 (1400)	427 (1400)	*Waste Information Data System* database. Value represents full length of trench. See Table F-1.
	Radiation dose limit (industrial scenario)	mrem/ year	15	15	15	15	40 CFR 141; OSWER Directive 9200.4-31P.
	Elapsed time since waste placement	year	0	0	0	0	Environmental samples are decayed to current calendar year.
Exposure Point Concentrations	EPCs	pCi/g	Contaminant-specific	Contaminant-specific	Contaminant-specific	Contaminant-specific	EPCs for both shallow and deep contaminated zones are the radionuclide contaminant of potential concern concentrations identified in Chapter 3.0 of the feasibility study. See Tables F-12 and F-13.
R013 – Cover and CZ Hydrological Data	Cover depth (upper CZ)	m (ft)	1.52 (5) with cover 0.0 (0.0) without cover	1.52 (5)	1.52 (5)	1.52 (5)	Site-specific data. See Figure F-4.
	Cover depth (lower CZ)	m (ft)	Not applicable	5.79 (19)	5.79 (19)	5.79 (19)	Site-specific data. See Figure F-4.
	Cover material density (upper CZ)	g/cm^3	1.94	1.94	1.94	1.94	PNNL-14702 (Table 4.5), value for B. See Figure F-4 and Table F-11.
	Cover material density (lower CZ)	g/cm^3	Not applicable	1.94	1.94	1.94	PNNL-14702 (Table 4.5), weighted average of values for B and Hg. See Figure F-4 and Table F-11.
	Cover erosion rate	m/year	0.00001	0.00001	0.00001	0.00001	Value selected prevents appreciable erosion of the cover currently present over the waste site during the simulation period.
	Density of CZ (upper CZ)	g/cm^3	1.934	1.934	1.934	1.934	PNNL-14702 (Table 4.5), weighted average of values for B and Hg. See Figure F-4 and Table F-11.
	Density of CZ (lower CZ)	g/cm^3	Not applicable	1.74	1.74	1.74	PNNL-14702 (Table 4.5), weighted average of values for Hg and Hcs. See Figure F-4 and Table F-11.
	CZ erosion rate	m/year	0.00001	0.00001	0.00001	0.00001	Value selected prevents appreciable erosion of the contaminated zone.

Table F-3. 216-B-63 Trench Summary of RESRAD Input Parameters for the Industrial Worker, Rural Residential, and Native American Exposure Scenarios. (10 Pages)

Description	Parameter	Units	Industrial Worker Scenario	Rural Residential Scenario	CTUIR Scenario	Yakama Nation Scenario	Rationale and Citation
	CZ total porosity (upper CZ)	unitless	0.237	0.237	0.237	0.237	PNNL-14702 (Table 4.5), weighted average of values for B and Hg. See Figure F-4 and Table F-11.
	CZ total porosity (lower CZ)	unitless	Not applicable	0.299	0.299	0.299	PNNL-14702 (Table 4.5), weighted average of values for Hg and Hcs. See Figure F-4 and Table F-11.
	CZ field capacity (upper CZ)	unitless	0.025	0.025	0.025	0.025	PNNL-14702 (Table 4.5), weighted average of values for B and Hg. See Figure F-4 and Table F-11.
	CZ field capacity (lower CZ)	unitless	Not applicable	0.0256	0.0256	0.0256	PNNL-14702 (Table 4.5), weighted average of values for Hg and Hcs. See Figure F-4 and Table F-11.
	CZ hydraulic conductivity (upper CZ)	m/year	134	134	134	134	PNNL-14702 (Table 4.5), weighted average of values for B and Hg. See Figure F-4 and Table F-11.
	CZ hydraulic conductivity (lower CZ)	m/year	Not applicable	547	547	547	PNNL-14702 (Table 4.5), weighted average of values for Hg and Hcs. See Figure F-4 and Table F-11.
	CZ b parameter (upper CZ)	unitless	4.05	4.05	4.05	4.05	Determined from soil textures listed in ANL/EAD-4 (Table E.2). The upper CZ hydrogeologic units have little of the finer material (silt and clay) listed in Table E.2 and hence are assigned value of 4.05 for sand.
	CZ b parameter (lower CZ)	unitless	Not applicable	4.05	4.05	4.05	Determined from soil textures listed in ANL/EAD-4 (Table E.2). The lower CZ hydrogeologic units have little of the finer material (silt and clay) listed in Table E.2 and hence are assigned value of 4.05 for sand.
	Humidity in air	g/m^3	5.5	5.5	5.5	5.5	PNNL-15160. Used in RESRAD only for computation of tritium concentration in air.
	Evapotranspiration coefficient	Unitless	0.983	0.983	0.983	0.983	Value assigned results in an annual recharge rate of 0.003 m/yr. See Section F2.5.
	Wind speed	m/s	3.4	3.4	3.4	3.4	PNNL-15160 (Table 5.1).
	Precipitation	m/year	0.177	0.177	0.177	0.177	PNNL-15160 (Table 4.1).

Table F-3. 216-B-63 Trench Summary of RESRAD Input Parameters for the Industrial Worker, Rural Residential, and Native American Exposure Scenarios. (10 Pages)

Description	Parameter	Units	Industrial Worker Scenario	Rural Residential Scenario	CTUIR Scenario	Yakama Nation Scenario	Rationale and Citation
	Irrigation rate	m/year	0	0.76	0.76	0.76	DOE/RL-96-17 (Table B-1).
	Irrigation mode	Overhead or ditch	Not applicable	Overhead	Overhead	Overhead	RESRAD default.
	Runoff coefficient	Unitless	0	0	0	0	Runoff coefficient of zero indicates all precipitation soaks into the ground.
	Watershed area for nearby stream or pond	m^2	Not applicable	1.00E+06	1.00E+06	1.00E+06	RESRAD default.
	Accuracy for water/soil computations	unitless	Not applicable	0.001	0.001	0.001	RESRAD default.
R014 – Saturated Zone (SZ) hydrological data	Density of SZ	g/cm^3	Not applicable	1.93	1.93	1.93	PNNL-14702 (Table 4.5), value for Hg. See Figure F-4 and Table F-11.
	SZ total porosity	unitless	Not applicable	0.2	0.2	0.2	PNNL-12086 (Table 3.3-1). Value used is mid-point of range 0.1 to 0.3.
	SZ effective porosity	unitless	Not applicable	0.2	0.2	0.2	PNNL-12086 (Table 3.3-1). Value used is mid-point of range 0.1 to 0.3.
	SZ field capacity	unitless	Not applicable	0.1	0.1	0.1	Saturated zone field capacity equated with specific yield listed in Table 5.2 of PNNL-14753 (Unit 1).
	SZ hydraulic conductivity	m/year	Not applicable	18,980	18,980	18,980	PNNL-12086 (Table 3.3-1). Value based on low end of range 52 to 200 m/day.
	SZ hydraulic gradient	unitless	Not applicable	0.00005	0.00005	0.00005	PNNL-12086 (Table 3.3-1). Value used is low end of range 0.00005 to 0.003.
	SZ b parameter	unitless	Not applicable	4.05	4.05	4.05	Determined from soil textures listed in ANL/EAD-4 (Table E.2). Saturated zone hydrogeologic unit (Hg) has little of the finer material (silt and clay) listed in Table E.2 and hence is assigned value of 4.05 for sand.
	Water table drop rate	m/year	Not applicable	0.0001	0.0001	0.0001	Value selected results in little change in the depth of the groundwater during the simulation period.

Table F-3. 216-B-63 Trench Summary of RESRAD Input Parameters for the Industrial Worker, Rural Residential, and Native American Exposure Scenarios. (10 Pages)

Description	Parameter	Units	Industrial Worker Scenario	Rural Residential Scenario	CTUIR Scenario	Yakama Nation Scenario	Rationale and Citation
	Well pump intake depth below water table	m	Not applicable	4.6	4.6	4.6	WDOH/320-015. Typical RCRA screen depth.
	Model for water transport	Nondispersion (ND) or mass-balance	Not applicable	ND	ND	ND	RESRAD default.
	Well pumping rate	m^3/year	Not applicable	90	90	90	HNF-SD-WM-TI-707. Based on representative household use.
R015 – Uncontaminated and Unsaturated Strata Hydrological Data	Number of unsaturated strata (upper CZ)	Not applicable	Not applicable	3	3	3	Site-specific data. See Figure F-4.
	Number of unsaturated strata (lower CZ)	Not applicable	Not applicable	1	1	1	Site-specific data. See Figure F-4.
	Thickness (upper CZ)	m	Not applicable	7.32, 49.68, 11.89	7.32, 49.68, 11.89	7.32, 49.68, 11.89	Site-specific data. See Figure F-4.
	Thickness (lower CZ)	m	Not applicable	0.3	0.3	0.3	Site-specific data. See Figure F-4.
	Soil density (upper CZ)	g/cm^3	Not applicable	1.93, 1.67, 1.93	1.93, 1.67, 1.93	1.93, 1.67, 1.93	Value for each unit obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Soil density (lower CZ)	g/cm^3	Not applicable	1.93	1.93	1.93	Value obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Total porosity (upper CZ)	unitless	Not applicable	0.167, 0.349, 0.167	0.167, 0.349, 0.167	0.167, 0.349, 0.167	Value for each unit obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Total porosity (lower CZ)	unitless	Not applicable	0.167	0.167	0.167	Value obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Effective porosity (upper CZ)	unitless	Not applicable	0.167, 0.349, 0.167	0.167, 0.349, 0.167	0.167, 0.349, 0.167	Value for each unit obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Effective porosity (lower CZ)	unitless	Not applicable	0.167	0.167	0.167	Value obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Field capacity (upper CZ)	unitless	Not applicable	0.022. 0.027, 0.022	0.022. 0.027, 0.022	0.022. 0.027, 0.022	Value for each unit obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Field capacity (lower CZ)	unitless	Not applicable	0.022	0.022	0.022	Value obtained from PNNL-14702 (Table 4.5). See Table F-11.

Table F-3. 216-B-63 Trench Summary of RESRAD Input Parameters for the Industrial Worker, Rural Residential, and Native American Exposure Scenarios. (10 Pages)

Description	Parameter	Units	Industrial Worker Scenario	Rural Residential Scenario	CTUIR Scenario	Yakama Nation Scenario	Rationale and Citation
	Hydraulic conductivity (upper CZ)	m/year	Not applicable	104, 716, 104	104, 716, 104	104, 716, 104	Value for each unit obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Hydraulic conductivity (lower CZ)	m/year	Not applicable	104	104	104	Value obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Soil-specific b parameter (upper CZ)	unitless	Not applicable	4.05, 4.05, 4.05	4.05, 4.05, 4.05	4.05, 4.05, 4.05	Determined from soil textures listed in ANL/EAD-4 (Table E.2). Unsaturated units have little of the finer material (silt and clay) listed in Table E.2 and hence are assigned value of 4.05 for sand.
	Soil-specific b parameter (lower CZ)	unitless	Not applicable	4.05	4.05	4.05	Determined from soil textures listed in ANL/EAD-4 (Table E.2). Unsaturated units have little of the finer material (silt and clay) listed in Table E.2 and hence are assigned value of 4.05 for sand.
R016 – Distribution Coefficients and Leach Rates for Individual Radionuclides	Distribution coefficients (K_d) for contaminated zone, uncontaminated zone and saturated zone	cm^3/g	Contaminant-specific	Contaminant-specific	Contaminant-specific	Contaminant-specific	Best estimate values from PNNL-14702 (Table 4.11), Waste Chemistry/Source Category 4: Low Organic/Low Salt/Near Neutral. K_d values for Pb, Ni, and Pa derived from data in PNNL-13895 and Geibert and Usbeck, 2004. See Table F-18.
	Saturated leach rate	yr^{-1}	Contaminant-specific	Contaminant-specific	Contaminant-specific	Contaminant-specific	RESRAD default.
	Saturated solubility	mol/L	0	0	0	0	RESRAD default.
R017 – Inhalation and External Gamma	Inhalation rate	m^3/year	2,500	7,000	10,950	9,490	Industrial worker scenario assumes rate of 10 m^3/day (250 days/yr) (EPA/600/P-95/002Fa). Rural residential scenario assumes rate of 20 m^3/day (350 days/yr) (EPA/600/P-95/002Fa). CTUIR scenario assumes rate of 30 m^3/day (365 days/yr) (Harris and Harper. 2004). Yakama Nation scenario assumes rate of 26 m^3/day (365 days/yr) (Ridolfi, 2007).

Table F-3. 216-B-63 Trench Summary of RESRAD Input Parameters for the Industrial Worker, Rural Residential, and Native American Exposure Scenarios. (10 Pages)

Description	Parameter	Units	Industrial Worker Scenario	Rural Residential Scenario	CTUIR Scenario	Yakama Nation Scenario	Rationale and Citation
	Mass loading for inhalation	g/m^3	0.0001	0.0001	0.0001	0.0001	WDOH/320-015.
	Exposure duration	year	25	30	70	70	EPA, 1991; Harper and Harris, 2004; and Ridolfi, 2007.
	Indoor dust filtration factor	unitless	0.4	0.4	0.4	0.4	RESRAD default.
	External gamma shielding factor	unitless	0.4	0.4	0.4	0.4	EPA/540-R-00/007 (Equation 4).
	Indoor time fraction	unitless	0.171	0.6	0.5	0.5	Industrial worker scenario assumes 6 h/day indoors, 250 days/yr (1,500 h/8,760 h). Rural residential scenario assumes 15 h/day indoors, 350 days/yr (5,250 h/8,760 h). CTUIR and Yakama Nation scenarios assume 12 h/day indoors, 365 days/yr (4380 h/8,740 h).
	Outdoor time fraction	unitless	0.057	0.12	0.25	0.25	Industrial worker scenario assumes 2 h/day outdoors, 250 days/yr (500 h/8,760 h). Rural residential scenario assumes 3 h/day outdoors, 350 days/yr (1,050 h/8,760 h). CTUIR and Yakama Nation scenarios assume 6 h/day outdoors, 365 days/yr (2,190 h/8,760 h).
	Shape factor	Not applicable	Circular	Circular	Circular	Circular	RESRAD default.
R018 – Ingestion Pathway Data, Dietary Parameters	Soil ingestion intake	g/yr	12.5	35	146	73	Industrial worker scenario based on 50 mg/day (250 days/year). Rural residential scenario based on 100 mg/day (350 days/yr). CTUIR scenario based on 400 mg/day (365 days/yr) (Harris and Harper 2004). Yakama Nation scenario based on 300 mg/day (365 days/yr) (Ridolfi ,2007).
	Drinking water intake	L/yr	Not applicable	700	1,460	1,460	Rural residential scenario based on 2 L/day (350 days/yr) (EPA/600/P-95/002Fa). CTUIR and Yakama Nation scenarios based on 4 L/day (365 days/yr) (Harris and Harper, 2004; Ridolfi, 2007).

Table F-3. 216-B-63 Trench Summary of RESRAD Input Parameters for the Industrial Worker, Rural Residential, and Native American Exposure Scenarios. (10 Pages)

Description	Parameter	Units	Industrial Worker Scenario	Rural Residential Scenario	CTUIR Scenario	Yakama Nation Scenario	Rationale and Citation
	Leafy vegetable consumption	kg/yr	Not applicable	69.8	100	100	Rural residential scenario based on average homegrown intake for western farm households (EPA/600/8-89/043, Table 3-12). For CTUIR, Harris and Harper (2004, Table 5) provides value of 1,225 g/day (447 kg/yr) summed across categories of roots, greens, and "other." For Yakama Nation, Ridolfi (2007, Table 7) provides value of 1,118 g/day (408 kg/yr) summed across categories of wild roots, stalks/leaves, and vegetables. A maximum value of 100 kg/yr can be input into RESRAD, the remaining portion (347 or 308 kg/yr, respectively) is assigned to "fruits, vegetables, and grains."
	Fruits, vegetables, and grain consumption	kg/yr	Not applicable	47.3	393	417	Rural residential scenario based on average homegrown intake for western farm households (EPA/600/8-89/043, Table 13-17). For CTUIR, Harris and Harper (2004, Table 5) provides value of 125 g/day (45.6 kg/yr). Includes 347 kg/yr from leafy vegetable consumption. For Yakama Nation, Ridolfi (2007, Table 7) provides value of 299 g/day (109 kg/yr) summed across categories of fruits and wild berries. Includes 308 kg/yr from leafy vegetable consumption.
	Milk consumption	L/yr	Not applicable	100	Not applicable	438	Rural residential scenario based on WDOH/320-015. No value for CTUIR given in Harper and Harris (2004). For Yakama Nation, Ridolfi (2007, Table 7) provides rate of 1.2 L/day (365 day/yr).

Table F-3. 216-B-63 Trench Summary of RESRAD Input Parameters for the Industrial Worker, Rural Residential, and Native American Exposure Scenarios. (10 Pages)

Description	Parameter	Units	Industrial Worker Scenario	Rural Residential Scenario	CTUIR Scenario	Yakama Nation Scenario	Rationale and Citation
	Meat and poultry consumption	kg/yr	Not applicable	61.6	27.4	154	Rural residential scenario based on average homegrown intake for western farm households (EPA/600/8-89/043, Table 13-22). CTUIR scenario assumes 60 percent of combined rate for game and fowl consumption (125 g/day) is from penned livestock. Yakama Nation scenario assumes 60 percent of combined rate for game and meat (704 g/day) is from penned livestock.
	Fish consumption	kg/yr	Not applicable	Not applicable	Not applicable	Not applicable	The consumption of fish is considered an incomplete exposure pathway for waste site operable units within the Central Plateau.
	Other seafood consumption	kg/yr	Not applicable	Not applicable	Not applicable	Not applicable	The consumption of seafood is considered an incomplete exposure pathway for waste site operable units within the Central Plateau.
	Drinking water contamination fraction	Unitless	Not applicable	1	1	1	RESRAD default.
	Household water contamination fraction	Unitless	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable.
	Livestock water contamination fraction	Unitless	Not applicable	1	1	1	RESRAD default.
	Irrigation water contamination fraction	Unitless	Not applicable	1	1	1	RESRAD default.
	Aquatic food contamination fraction	Unitless	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable.
	Plant food contamination fraction	Unitless	Not applicable	-1	-1	-1	RESRAD default.

Table F-3. 216-B-63 Trench Summary of RESRAD Input Parameters for the Industrial Worker, Rural Residential, and Native American Exposure Scenarios. (10 Pages)

Description	Parameter	Units	Industrial Worker Scenario	Rural Residential Scenario	CTUIR Scenario	Yakama Nation Scenario	Rationale and Citation
	Meat contamination fraction	Unitless	Not applicable	-1	-1	-1	RESRAD default.
	Milk contamination fraction	Unitless	Not applicable	-1	-1	-1	RESRAD default.
R019 – Ingestion Pathway Data, Nondietary	Livestock fodder intake for meat	kg/d	Not applicable	68	68	68	RESRAD default.
	Livestock fodder intake for milk	kg/d	Not applicable	55	55	55	RESRAD default.
	Livestock water intake for meat	L/d	Not applicable	50	50	50	RESRAD default.
	Livestock water intake for milk	L/d	Not applicable	160	160	160	RESRAD default.
	Livestock intake of soil	kg/d	Not applicable	0.5	0.5	0.5	RESRAD default.
	Mass loading for foliar deposition	g/m^3	Not applicable	0.0001	0.0001	0.0001	RESRAD default.
	Depth of soil mixing layer	m	0.15	0.15	0.15	0.15	RESRAD default.
	Depth of roots	m	Not applicable	0.9	0.9	0.9	RESRAD default.
R020 – Groundwater Usage	Groundwater fractional usage – drinking water	unitless	Not applicable	1	1	1	RESRAD default.
	Groundwater fractional usage – household usage	unitless	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable.
	Groundwater fractional usage – livestock water	unitless	Not applicable	1	1	1	RESRAD default.
	Groundwater fractional usage – irrigation	unitless	Not applicable	1	1	1	WDOH/320-015.

Table F-4. 216-S-10 Ditch Summary of RESRAD Input Parameters for the Industrial Worker, Rural Residential, and Native American Exposure Scenarios. (10 Pages)

Description	Parameter	Units	Industrial Worker Scenario	Rural Residential Scenario	CTUIR Scenario	Yakama Nation Scenario	Rationale and Citation
Exposure Pathways	External gamma: Inhalation: Plant ingestion: Meat ingestion: Milk ingestion: Aquatic foods: Drinking water: Soil ingestion: Radon:	Not applicable	Active Active Suppressed Suppressed Suppressed Suppressed Suppressed Active Suppressed	Active Active Active Active Active Suppressed Active Active Suppressed	Active Active Active Active Suppressed Suppressed Active Active Suppressed	Active Active Active Active Active Suppressed Active Active Suppressed	
R011 – Contaminated Zone (CZ)	Area of CZ	m^2 (ft^2)	836 (9000)	836 (9000)	836 (9000)	836 (9000)	*Waste Information Data System* database. See Table F-1.
	Thickness of CZ (upper)	m (ft)	7.62 (25)	7.62 (25)	7.62 (25)	7.62 (25)	Site-specific data. See Figure F-5.
	Thickness of CZ (lower)	m (ft)	Not applicable	21.34 (70)	21.34 (70)	21.34 (70)	Site-specific data. See Figure F-5.
	Length parallel to aquifer flow	m (ft)	686 (2250)	686 (2250)	686 (2250)	686 (2250)	*Waste Information Data System* database. Value represents full length of ditch. See Table F-1.
	Radiation dose limit (industrial scenario)	mrem/ year	15	15	15	15	40 CFR 141; OSWER Directive 9200.4-31P.
	Elapsed time since waste placement	year	0	0	0	0	Environmental samples are decayed to current calendar year.
Exposure Point Concentrations	EPCs	pCi/g	Contaminant-specific	Contaminant-specific	Contaminant-specific	Contaminant-specific	EPCs for both shallow and deep contaminated zones are the radionuclide contaminant of potential concern concentrations identified in Chapter 3.0 of the feasibility study. See Tables F-12 and F-13.
R013 – Cover and CZ Hydrological Data	Cover depth (upper CZ)	m (ft)	0.61 (2) with cover 0.0 (0.0) without cover	0.61 (2)	0.61 (2)	0.61 (2)	Site-specific data. See Figure F-5.
	Cover depth (lower CZ)	m (ft)	Not applicable	42.67 (140)	42.67 (140)	42.67 (140)	Site-specific data. See Figure F-5.
	Cover material density (upper CZ)	g/cm^3	1.668	1.668	1.668	1.668	PNNL-14702 (Table 4.5), value for Hss_W. See Figure F-5 and Table F-11.

Table F-4. 216-S-10 Ditch Summary of RESRAD Input Parameters for the Industrial Worker, Rural Residential, and Native American Exposure Scenarios. (10 Pages)

Description	Parameter	Units	Industrial Worker Scenario	Rural Residential Scenario	CTUIR Scenario	Yakama Nation Scenario	Rationale and Citation
	Cover material density (lower CZ)	g/cm^3	Not applicable	1.673	1.673	1.673	PNNL-14702 (Table 4.5), weighted average of values for Hss_W and Hfs_W. See Figure F-5 and Table F-11.
	Cover erosion rate	m/year	0.00001	0.00001	0.00001	0.00001	Value selected prevents appreciable erosion of the cover currently present over the waste site during the simulation period.
	Density of CZ (upper CZ)	g/cm^3	1.668	1.668	1.668	1.668	PNNL-14702 (Table 4.5), value for Hss_W. See Figure F-5 and Table F-11.
	Density of CZ (lower CZ)	g/cm^3	Not applicable	1.786	1.786	1.786	PNNL-14702 (Table 4.5), weighted average of values for Hss_W, Hg_W, and Rg_W. See Figure F-5 and Table F-11.
	CZ erosion rate	m/year	0.00001	0.00001	0.00001	0.00001	Value selected prevents appreciable erosion of the contaminated zone.
	CZ total porosity (upper CZ)	unitless	0.398	0.398	0.398	0.398	PNNL-14702 (Table 4.5), value for Hss_W. See Figure F-5 and Table F-11.
	CZ total porosity (lower CZ)	unitless	Not applicable	0.3182	0.3182	0.3182	PNNL-14702 (Table 4.5), weighted average of values for Hss_W, Hg_W, and Rg_W. See Figure F-5 and Table F-11.
	CZ field capacity (upper CZ)	unitless	0.057	0.057	0.057	0.057	PNNL-14702 (Table 4.5), value for Hss_W. See Figure F-5 and Table F-11.
	CZ field capacity (lower CZ)	unitless	Not applicable	0.0450	0.0450	0.0450	PNNL-14702 (Table 4.5), weighted average of values for Hss_W, Hg_W, and Rg_W. See Figure F-5 and Table F-11.
	CZ hydraulic conductivity (upper CZ)	m/year	6.02	6.02	6.02	6.02	PNNL-14702 (Table 4.5), value for Hss_W. See Figure F-5 and Table F-11.
	CZ hydraulic conductivity (lower CZ)	m/year	Not applicable	53.6	53.6	53.6	PNNL-14702 (Table 4.5), weighted average of values for Hss_W, Hg_W, and Rg_W. See Figure F-5 and Table F-11.

Table F-4. 216-S-10 Ditch Summary of RESRAD Input Parameters for the Industrial Worker, Rural Residential, and Native American Exposure Scenarios. (10 Pages)

Description	Parameter	Units	Industrial Worker Scenario	Rural Residential Scenario	CTUIR Scenario	Yakama Nation Scenario	Rationale and Citation
	CZ b parameter (upper CZ)	unitless	4.90	4.90	4.90	4.90	Determined from soil textures listed in ANL/EAD-4 (Table E.2). The upper CZ hydrogeologic unit (Hss_W) is assigned value of 4.90 for sandy loam.
	CZ b parameter (lower CZ)	unitless	Not applicable	4.33	4.33	4.33	Determined from soil textures listed in ANL/EAD-4 (Table E.2). Weighted average of values assigned to lower CZ hydrogeologic units (Hss_W = 4.9 for sandy loam; Hg_W and Rg_W = 4.05 for sand).
	Humidity in air	g/m^3	5.5	5.5	5.5	5.5	PNNL-15160. Used in RESRAD only for computation of tritium concentration in air.
	Evapotranspiration coefficient	Unitless	0.955	0.955	0.955	0.955	Value assigned results in an annual recharge rate of 0.008 m/yr. See Section F2.5.
	Wind speed	m/s	3.4	3.4	3.4	3.4	PNNL-15160 (Table 5.1).
	Precipitation	m/year	0.177	0.177	0.177	0.177	PNNL-15160 (Table 4.1).
	Irrigation rate	m/year	0	0.76	0.76	0.76	DOE/RL-96-17 (Table B-1).
	Irrigation mode	Overhead or ditch	Not applicable	Overhead	Overhead	Overhead	RESRAD default.
	Runoff coefficient	Unitless	0	0	0	0	Runoff coefficient of zero indicates all precipitation soaks into the ground.
	Watershed area for nearby stream or pond	m^2	Not applicable	1.00E+06	1.00E+06	1.00E+06	RESRAD default.
	Accuracy for water/soil computations	unitless	Not applicable	0.001	0.001	0.001	RESRAD default.
R014 – Saturated Zone (SZ) Hydrological Data	Density of SZ	g/cm^3	Not applicable	1.838	1.838	1.838	PNNL-14702 (Table 4.5), value for Rg_W. See Figure F-5 and Table F-11.
	SZ total porosity	unitless	Not applicable	0.15	0.15	0.15	PNNL-15731. Value used is mid-point of range 0.1 to 0.2.
	SZ effective porosity	unitless	Not applicable	0.15	0.15	0.15	PNNL-15731. Value used is mid-point of range 0.1 to 0.2.

Table F-4. 216-S-10 Ditch Summary of RESRAD Input Parameters for the Industrial Worker, Rural Residential, and Native American Exposure Scenarios. (10 Pages)

Description	Parameter	Units	Industrial Worker Scenario	Rural Residential Scenario	CTUIR Scenario	Yakama Nation Scenario	Rationale and Citation
	SZ field capacity	unitless	Not applicable	0.11	0.11	0.11	Saturated zone field capacity equated with specific yield listed in Table 5.2 of PNNL-14753 (Unit 5).
	SZ hydraulic conductivity	m/year	Not applicable	3,650	3,650	3,650	PNNL-15731. Value based on low end of range 10 to 150 m/day.
	SZ hydraulic gradient	unitless	Not applicable	0.0015	0.0015	0.0015	PNNL-15731.
	SZ b parameter	unitless	Not applicable	4.05	4.05	4.05	Determined from soil textures listed in ANL/EAD-4 (Table E.2). Saturated zone hydrogeologic unit (Rg_W) has little of the finer material (silt and clay) listed in Table E.2 and hence is assigned value of 4.05 for sand.
	Water table drop rate	m/year	Not applicable	0.0001	0.0001	0.0001	Value selected results in little change in the depth of the groundwater during the simulation period.
	Well pump intake depth below water table	m	Not applicable	4.6	4.6	4.6	WDOH/320-015. Typical RCRA screen depth.
	Model for water transport	Nondispersion (ND) or mass-balance	Not applicable	ND	ND	ND	RESRAD default.
	Well pumping rate	m^3/year	Not applicable	90	90	90	HNF-SD-WM-TI-707. Based on representative household use.
R015 – Uncontaminated and Unsaturated Strata Hydrological Data	Number of unsaturated strata (upper CZ)	Not applicable	Not applicable	5	5	5	Site-specific data. See Figure F-5.
	Number of unsaturated strata (lower CZ)	Not applicable	Not applicable	1	1	1	Site-specific data. See Figure F-5.
	Thickness (upper CZ)	m	Not applicable	17.1, 6.10, 18.29, 1.52, 16.76	17.1, 6.10, 18.29, 1.52, 16.76	17.1, 6.10, 18.29, 1.52, 16.76	Site-specific data. See Figure F-5.
	Thickness (lower CZ)	m	Not applicable	3.96	3.96	3.96	Site-specific data. See Figure F-5.
	Soil density (upper CZ)	g/cm^3	Not applicable	1.668, 1.70, 1.668, 1.891, 1.838	1.668, 1.70, 1.668, 1.891, 1.838	1.668, 1.70, 1.668, 1.891, 1.838	Value for each unit obtained from PNNL-14702 (Table 4.5). See Table F-11.

Table F-4. 216-S-10 Ditch Summary of RESRAD Input Parameters for the Industrial Worker, Rural Residential, and Native American Exposure Scenarios. (10 Pages)

Description	Parameter	Units	Industrial Worker Scenario	Rural Residential Scenario	CTUIR Scenario	Yakama Nation Scenario	Rationale and Citation
	Soil density (lower CZ)	g/cm^3	Not applicable	1.838	1.838	1.838	Value obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Total porosity (upper CZ)	unitless	Not applicable	0.398, 0.356, 0.398, 0.154, 0.294	0.398, 0.356, 0.398, 0.154, 0.294	0.398, 0.356, 0.398, 0.154, 0.294	Value for each unit obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Total porosity (lower CZ)	unitless	Not applicable	0.294	0.294	0.294	Value obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Effective porosity (upper CZ)	unitless	Not applicable	0.398, 0.356, 0.398, 0.154, 0.294	0.398, 0.356, 0.398, 0.154, 0.294	0.398, 0.356, 0.398, 0.154, 0.294	Value for each unit obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Effective porosity (lower CZ)	unitless	Not applicable	0.294	0.294	0.294	Value obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Field capacity (upper CZ)	unitless	Not applicable	0.057, 0.042, 0.057, 0.024, 0.041	0.057, 0.042, 0.057, 0.024, 0.041	0.057, 0.042, 0.057, 0.024, 0.041	Value for each unit obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Field capacity (lower CZ)	unitless	Not applicable	0.041	0.041	0.041	Value obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Hydraulic conductivity (upper CZ)	m/year	Not applicable	6.02, 11.6, 6.02, 442, 33.4	6.02, 11.6, 6.02, 442, 33.4	6.02, 11.6, 6.02, 442, 33.4	Value for each unit obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Hydraulic conductivity (lower CZ)	m/year	Not applicable	33.4	33.4	33.4	Value obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Soil-specific b parameter (upper CZ)	unitless	Not applicable	4.90, 4.38, 4.90, 4.05, 4.05	4.90, 4.38, 4.90, 4.05, 4.05	4.90, 4.38, 4.90, 4.05, 4.05	Determined from soil textures listed in ANL/EAD-4 (Table E.2). Values assigned to unsaturated units are Hss_W = 4.90 for sandy loam; Hfs_W = 4.38 for loamy sand; and Hg_W and Rg_W = 4.05 for sand.
	Soil-specific b parameter (lower CZ)	unitless	Not applicable	4.05	4.05	4.05	Determined from soil textures listed in ANL/EAD-4 (Table E.2). Unsaturated unit (Rg_W) has little of the finer material (silt and clay) listed in Table E.2 and hence is assigned value of 4.05 for sand.

Table F-4. 216-S-10 Ditch Summary of RESRAD Input Parameters for the Industrial Worker, Rural Residential, and Native American Exposure Scenarios. (10 Pages)

Description	Parameter	Units	Industrial Worker Scenario	Rural Residential Scenario	CTUIR Scenario	Yakama Nation Scenario	Rationale and Citation
R016 – Distribution Coefficients and Leach Rates for Individual Radionuclides	Distribution coefficients (K_d) for contaminated zone, uncontaminated zone and saturated zone	cm^3/g	Contaminant-specific	Contaminant-specific	Contaminant-specific	Contaminant-specific	Best estimate values from PNNL-14702 (Table 4.11), Waste Chemistry/Source Category 4: Low Organic/Low Salt/Near Neutral. K_d values for Pb, Ni, and Pa derived from data in PNNL-13895 and Geibert and Usbeck, 2004. See Table F-18.
	Saturated leach rate	yr^{-1}	Contaminant-specific	Contaminant-specific	Contaminant-specific	Contaminant-specific	RESRAD default.
	Saturated solubility	mol/L	0	0	0	0	RESRAD default.
R017 – Inhalation and External Gamma	Inhalation rate	m^3/year	2,500	7,000	10,950	9,490	Industrial worker scenario assumes rate of 10 m^3/day (250 days/yr) (EPA/600/P-95/002Fa). Rural residential scenario assumes rate of 20 m^3/day (350 days/yr) (EPA/600/P-95/002Fa). CTUIR scenario assumes rate of 30 m^3/day (365 days/yr) (Harris and Harper, 2004). Yakama Nation scenario assumes rate of 26 m^3/day (365 days/yr) (Ridolfi, 2007).
	Mass loading for inhalation	g/m^3	0.0001	0.0001	0.0001	0.0001	WDOH/320-015.
	Exposure duration	year	25	30	70	70	EPA, 1991; Harper and Harris, 2004; Ridolfi, 2007.
	Indoor dust filtration factor	unitless	0.4	0.4	0.4	0.4	RESRAD default.
	External gamma shielding factor	unitless	0.4	0.4	0.4	0.4	EPA/540-R-00/007 (Equation 4).
	Indoor time fraction	unitless	0.171	0.6	0.5	0.5	Industrial worker scenario assumes 6 h/day indoors, 250 days/yr (1,500 h/8,760 h). Rural residential scenario assumes 15 h/day indoors, 350 days/yr (5,250 h/8,760 h). CTUIR and Yakama Nation scenarios assume 12 h/day indoors, 365 days/yr (4380 h/8,740 h).

Table F-4. 216-S-10 Ditch Summary of RESRAD Input Parameters for the Industrial Worker, Rural Residential, and Native American Exposure Scenarios. (10 Pages)

Description	Parameter	Units	Industrial Worker Scenario	Rural Residential Scenario	CTUIR Scenario	Yakama Nation Scenario	Rationale and Citation
	Outdoor time fraction	unitless	0.057	0.12	0.25	0.25	Industrial worker scenario assumes 2 h/day outdoors, 250 days/yr (500 h/8,760 h). Rural residential scenario assumes 3 h/day outdoors, 350 days/yr (1,050 h/8,760 h). CTUIR and Yakama Nation scenarios assume 6 h/day outdoors, 365 days/yr (2,190 h/8,760 h).
	Shape factor	Not applicable	Circular	Circular	Circular	Circular	RESRAD default.
R018 – Ingestion Pathway Data, Dietary Parameters	Soil ingestion intake	g/yr	12.5	35	146	73	Industrial worker scenario based on 50 mg/day (250 days/year). Rural residential scenario based on 100 mg/day (350 days/yr). CTUIR scenario based on 400 mg/day (365 days/yr) (Harris and Harper, 2004). Yakama Nation scenario based on 300 mg/day (365 days/yr) (Ridolfi, 2007).
	Drinking water intake	L/yr	Not applicable	700	1,460	1,460	Rural residential scenario based on 2 L/day (350 days/yr) (EPA/600/P-95/002Fa). CTUIR and Yakama Nation scenarios based on 4 L/day (365 days/yr) (Harris and Harper, 2004; Ridolfi, 2007).

Table F-4. 216-S-10 Ditch Summary of RESRAD Input Parameters for the Industrial Worker, Rural Residential, and Native American Exposure Scenarios. (10 Pages)

Description	Parameter	Units	Industrial Worker Scenario	Rural Residential Scenario	CTUIR Scenario	Yakama Nation Scenario	Rationale and Citation
	Leafy vegetable consumption	kg/yr	Not applicable	69.8	100	100	Rural residential scenario based on average homegrown intake for western farm households (EPA/600/8-89/043, Table 3-12). For CTUIR, Harris and Harper (2004, Table 5) provides value of 1,225 g/day (447 kg/yr) summed across categories of roots, greens, and "other." For Yakama Nation, Ridolfi (2007, Table 7) provides value of 1,118 g/day (408 kg/yr) summed across categories of wild roots, stalks/leaves, and vegetables. A maximum value of 100 kg/yr can be input into RESRAD, the remaining portion (347 or 308 kg/yr, respectively) is assigned to "fruits, vegetables, and grains."
	Fruits, vegetables, and grain consumption	kg/yr	Not applicable	47.3	393	417	Rural residential scenario based on average homegrown intake for western farm households (EPA/600/8-89/043, Table 13-17). For CTUIR, Harris and Harper (2004, Table 5) provides value of 125 g/day (45.6 kg/yr). Includes 347 kg/yr from leafy vegetable consumption. For Yakama Nation, Ridolfi (2007, Table 7) provides value of 299 g/day (109 kg/yr) summed across categories of fruits and wild berries. Includes 308 kg/yr from leafy vegetable consumption.
	Milk consumption	L/yr	Not applicable	100	Not applicable	438	Rural residential scenario based on WDOH/320-015. No value for CTUIR given in Harper and Harris (2004). For Yakama Nation, Ridolfi (2007, Table 7) provides rate of 1.2 L/day (365 day/yr).

Table F-4. 216-S-10 Ditch Summary of RESRAD Input Parameters for the Industrial Worker, Rural Residential, and Native American Exposure Scenarios. (10 Pages)

Description	Parameter	Units	Industrial Worker Scenario	Rural Residential Scenario	CTUIR Scenario	Yakama Nation Scenario	Rationale and Citation
	Meat and poultry consumption	kg/yr	Not applicable	61.6	27.4	154	Rural residential scenario based on average homegrown intake for western farm households (EPA/600/8-89/043, Table 13-22). CTUIR scenario assumes 60 percent of combined rate for game and fowl consumption (125 g/day) is from penned livestock. Yakama Nation scenario assumes 60 percent of combined rate for game and meat (704 g/day) is from penned livestock.
	Fish consumption	kg/yr	Not applicable	Not applicable	Not applicable	Not applicable	The consumption of fish is considered an incomplete exposure pathway for waste site operable units within the Central Plateau.
	Other seafood consumption	kg/yr	Not applicable	Not applicable	Not applicable	Not applicable	The consumption of seafood is considered an incomplete exposure pathway for waste site operable units within the Central Plateau.
	Drinking water contamination fraction	Unitless	Not applicable	1	1	1	RESRAD default.
	Household water contamination fraction	Unitless	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable.
	Livestock water contamination fraction	Unitless	Not applicable	1	1	1	RESRAD default.
	Irrigation water contamination fraction	Unitless	Not applicable	1	1	1	RESRAD default.
	Aquatic food contamination fraction	Unitless	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable.
	Plant food contamination fraction	Unitless	Not applicable	-1	-1	-1	RESRAD default.
	Meat contamination fraction	Unitless	Not applicable	-1	-1	-1	RESRAD default.

Table F-4. 216-S-10 Ditch Summary of RESRAD Input Parameters for the Industrial Worker, Rural Residential, and Native American Exposure Scenarios. (10 Pages)

Description	Parameter	Units	Industrial Worker Scenario	Rural Residential Scenario	CTUIR Scenario	Yakama Nation Scenario	Rationale and Citation
	Milk contamination fraction	Unitless	Not applicable	-1	-1	-1	RESRAD default.
R019 – Ingestion Pathway Data, Nondietary	Livestock fodder intake for meat	kg/d	Not applicable	68	68	68	RESRAD default.
	Livestock fodder intake for milk	kg/d	Not applicable	55	55	55	RESRAD default.
	Livestock water intake for meat	L/d	Not applicable	50	50	50	RESRAD default.
	Livestock water intake for milk	L/d	Not applicable	160	160	160	RESRAD default.
	Livestock intake of soil	kg/d	Not applicable	0.5	0.5	0.5	RESRAD default.
	Mass loading for foliar deposition	g/m^3	Not applicable	0.0001	0.0001	0.0001	RESRAD default.
	Depth of soil mixing layer	m	0.15	0.15	0.15	0.15	RESRAD default.
	Depth of roots	m	Not applicable	0.9	0.9	0.9	RESRAD default.
R020 – Groundwater Usage	Groundwater fractional usage – drinking water	unitless	Not applicable	1	1	1	RESRAD default.
	Groundwater fractional usage – household usage	unitless	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable.
	Groundwater fractional usage – livestock water	unitless	Not applicable	1	1	1	RESRAD default.
	Groundwater fractional usage – irrigation	unitless	Not applicable	1	1	1	WDOH/320-015.

Table F-5. 216-S-10 Pond Summary of RESRAD Input Parameters for the Industrial Worker, Rural Residential, and Native American Exposure Scenarios. (12 Pages)

Description	Parameter	Units	Industrial Worker Scenario	Rural Residential Scenario	CTUIR Scenario	Yakama Nation Scenario	Rationale and Citation
Exposure Pathways	External gamma: Inhalation: Plant ingestion: Meat ingestion: Milk ingestion: Aquatic foods: Drinking water: Soil ingestion: Radon:	Not applicable	Active Active Suppressed Suppressed Suppressed Suppressed Suppressed Active Suppressed	Active Active Active Active Active Suppressed Active Active Suppressed	Active Active Active Active Suppressed Suppressed Active Active Suppressed	Active Active Active Active Active Suppressed Active Active Suppressed	
R011 – Contaminated Zone (CZ)	Area of CZ	m^2 (ft^2)	17,500 (188,000)	17,500 (188,000)	17,500 (188,000)	17,500 (188,000)	*Waste Information Data System* database. See Table F-1.
	Thickness of CZ (upper)	m (ft)	2.74 (9)	2.74 (9)	2.74 (9)	2.74 (9)	Site-specific data. See Figure F-6.
	Thickness of CZ (middle)	m (ft)	Not applicable	9.75 (32)	9.75 (32)	9.75 (32)	Site-specific data. See Figure F-6.
	Thickness of CZ (lower)	m (ft)	Not applicable	12.8 (42)	12.8 (42)	12.8 (42)	Site-specific data. See Figure F-6.
	Length parallel to aquifer flow	m (ft)	305 (1000)	305 (1000)	305 (1000)	305 (1000)	*Waste Information Data System* database. Value represents full length of ditch. See Table F-1.
	Radiation dose limit (industrial scenario)	mrem/ year	15	15	15	15	40 CFR 141; OSWER Directive 9200.4-31P.
	Elapsed time since waste placement	year	0	0	0	0	Environmental samples are decayed to current calendar year.
Exposure Point Concentrations	EPCs	pCi/g	Contaminant-specific	Contaminant-specific	Contaminant-specific	Contaminant-specific	EPCs for both shallow and deep contaminated zones are the radionuclide contaminant of potential concern concentrations identified in Chapter 3.0 of the feasibility study. See Tables F-12 and F-13.
R013 – Cover and CZ Hydrological Data	Cover depth (upper CZ)	m (ft)	1.83 (6) with cover 0.0 (0.0) without cover	1.83 (6)	1.83 (6)	1.83 (6)	Site-specific data. See Figure F-6.
	Cover depth (middle CZ)	m (ft)	Not applicable	13.41 (44)	13.41 (44)	13.41 (44)	Site-specific data. See Figure F-6.

Table F-5. 216-S-10 Pond Summary of RESRAD Input Parameters for the Industrial Worker, Rural Residential, and Native American Exposure Scenarios. (12 Pages)

Description	Parameter	Units	Industrial Worker Scenario	Rural Residential Scenario	CTUIR Scenario	Yakama Nation Scenario	Rationale and Citation
	Cover depth (lower CZ)	m (ft)	Not applicable	23.16 (76)	23.16 (76)	23.16 (76)	Site-specific data. See Figure F-6.
	Cover material density (upper CZ)	g/cm^3	1.668	1.668	1.668	1.668	PNNL-14702 (Table 4.5), value for Hss_W. See Figure F-6 and Table F-11.
	Cover material density (middle CZ)	g/cm^3	Not applicable	1.683	1.683	1.683	PNNL-14702 (Table 4.5), weighted average of values for Hss_W and Hgs_W. See Figure F-6 and Table F-11.
	Cover material density (lower CZ)	g/cm^3	Not applicable	1.676	1.676	1.676	PNNL-14702 (Table 4.5), weighted average of values for Hss_W and Hgs_W. See Figure F-6 and Table F-11.
	Cover erosion rate	m/year	0.00001	0.00001	0.00001	0.00001	Value selected prevents appreciable erosion of the cover currently present over the waste site during the simulation period.
	Density of CZ (upper CZ)	g/cm^3	1.739	1.739	1.739	1.739	PNNL-14702 (Table 4.5), weighted average of values for Hss_W and Hgs_W. See Figure F-6 and Table F-11.
	Density of CZ (middle CZ)	g/cm^3	Not applicable	1.668	1.668	1.668	PNNL-14702 (Table 4.5), value for Hss_W. See Figure F-6 and Table F-11.
	Density of CZ (lower CZ)	g/cm^3	Not applicable	1.668	1.668	1.668	PNNL-14702 (Table 4.5), value for Hss_W. See Figure F-6 and Table F-11.
	CZ erosion rate	m/year	0.00001	0.00001	0.00001	0.00001	Value selected prevents appreciable erosion of the contaminated zone.
	CZ total porosity (upper CZ)	unitless	0.336	0.336	0.336	0.336	PNNL-14702 (Table 4.5), weighted average of values for Hss_W and Hgs_W. See Figure F-6 and Table F-11.
	CZ total porosity (middle CZ)	unitless	Not applicable	0.398	0.398	0.398	PNNL-14702 (Table 4.5), value for Hss_W. See Figure F-6 and Table F-11.

Table F-5. 216-S-10 Pond Summary of RESRAD Input Parameters for the Industrial Worker, Rural Residential, and Native American Exposure Scenarios. (12 Pages)

Description	Parameter	Units	Industrial Worker Scenario	Rural Residential Scenario	CTUIR Scenario	Yakama Nation Scenario	Rationale and Citation
	CZ total porosity (lower CZ)	unitless	Not applicable	0.398	0.398	0.398	PNNL-14702 (Table 4.5), value for Hss_W. See Figure F-6 and Table F-11.
	CZ field capacity (upper CZ)	unitless	0.044	0.044	0.044	0.044	PNNL-14702 (Table 4.5), weighted average of values for Hss_W and Hgs_W. See Figure F-6 and Table F-11.
	CZ field capacity (middle CZ)	unitless	Not applicable	0.057	0.057	0.057	PNNL-14702 (Table 4.5), value for Hss_W. See Figure F-6 and Table F-11.
	CZ field capacity (lower CZ)	unitless	Not applicable	0.057	0.057	0.057	PNNL-14702 (Table 4.5), value for Hss_W. See Figure F-6 and Table F-11.
	CZ hydraulic conductivity (upper CZ)	m/year	40.1	40.1	40.1	40.1	PNNL-14702 (Table 4.5), weighted average of values for Hss_W and Hgs_W. See Figure F-6 and Table F-11.
	CZ hydraulic conductivity (middle CZ)	m/year	Not applicable	6.023	6.023	6.023	PNNL-14702 (Table 4.5), value for Hss_W. See Figure F-6 and Table F-11.
	CZ hydraulic conductivity (lower CZ)	m/year	Not applicable	6.023	6.023	6.023	PNNL-14702 (Table 4.5), value for Hss_W. See Figure F-6 and Table F-11.
	CZ b parameter (upper CZ)	unitless	4.48	4.48	4.48	4.48	Determined from soil textures listed in ANL/EAD-4 (Table E.2). Weighted average of values assigned to upper CZ hydrogeologic units (Hss_W = 4.90 for sandy loam, Hgs_W = 4.05 for sand).
	CZ b parameter (middle CZ)	unitless	Not applicable	4.90	4.90	4.90	Determined from soil textures listed in ANL/EAD-4 (Table E.2). The middle CZ hydrogeologic unit (Hss_W) is assigned value of 4.90 for sandy loam.

Table F-5. 216-S-10 Pond Summary of RESRAD Input Parameters for the Industrial Worker, Rural Residential, and Native American Exposure Scenarios. (12 Pages)

Description	Parameter	Units	Industrial Worker Scenario	Rural Residential Scenario	CTUIR Scenario	Yakama Nation Scenario	Rationale and Citation
	CZ b parameter (lower CZ)	unitless	Not applicable	4.90	4.90	4.90	Determined from soil textures listed in ANL/EAD-4 (Table E.2). The lower CZ hydrogeologic unit (Hss_W) is assigned value of 4.90 for sandy loam.
	Humidity in air	g/m^3	5.5	5.5	5.5	5.5	PNNL-15160. Used in RESRAD only for computation of tritium concentration in air.
	Evapotranspiration coefficient	Unitless	0.955	0.955	0.955	0.955	Value assigned results in an annual recharge rate of 0.8 cm/yr. See Section F2.5.
	Wind speed	m/s	3.4	3.4	3.4	3.4	PNNL-15160 (Table 5.1).
	Precipitation	m/year	0.177	0.177	0.177	0.177	PNNL-15160 (Table 4.1).
	Irrigation rate	m/year	0	0.76	0.76	0.76	DOE/RL-96-17 (Table B-1).
	Irrigation mode	Overhead or ditch	Not applicable	Overhead	Overhead	Overhead	RESRAD default.
	Runoff coefficient	Unitless	0	0	0	0	Runoff coefficient of zero indicates all precipitation soaks into the ground.
	Watershed area for nearby stream or pond	m^2	Not applicable	1.00E+06	1.00E+06	1.00E+06	RESRAD default.
	Accuracy for water/soil computations	unitless	Not applicable	0.001	0.001	0.001	RESRAD default.
R014 – Saturated Zone (SZ) Hydrological Data	Density of SZ	g/cm^3	Not applicable	1.838	1.838	1.838	PNNL-14702 (Table 4.5), value for Rg_W. See Figure F-6 and Table F-11.
	SZ total porosity	unitless	Not applicable	0.15	0.15	0.15	PNNL-15731. Value used is mid-point of range 0.1 to 0.2.
	SZ effective porosity	unitless	Not applicable	0.15	0.15	0.15	PNNL-15731. Value used is mid-point of range 0.1 to 0.2.
	SZ field capacity	unitless	Not applicable	0.11	0.11	0.11	Saturated zone field capacity equated with specific yield listed in Table 5.2 of PNNL-14753 (Unit 5).

Table F-5. 216-S-10 Pond Summary of RESRAD Input Parameters for the Industrial Worker, Rural Residential, and Native American Exposure Scenarios. (12 Pages)

Description	Parameter	Units	Industrial Worker Scenario	Rural Residential Scenario	CTUIR Scenario	Yakama Nation Scenario	Rationale and Citation
	SZ hydraulic conductivity	m/year	Not applicable	3,650	3,650	3,650	PNNL-15731. Value based on low end of range 10 to 150 m/day.
	SZ hydraulic gradient	unitless	Not applicable	0.0015	0.0015	0.0015	PNNL-15731.
	SZ b parameter	unitless	Not applicable	4.05	4.05	4.05	Determined from soil textures listed in ANL/EAD-4 (Table E.2). Saturated zone hydrogeologic unit (Rg_W) has little of the finer material (silt and clay) listed in Table E.2 and hence is assigned value of 4.05 for sand.
	Water table drop rate	m/year	Not applicable	0.0001	0.0001	0.0001	Value selected results in little change in the depth of the groundwater during the simulation period.
	Well pump intake depth below water table	m	Not applicable	4.6	4.6	4.6	WDOH/320-015. Typical RCRA screen depth.
	Model for water transport	Nondispersion (ND) or mass-balance	Not applicable	ND	ND	ND	RESRAD default.
	Well pumping rate	m^3/year	Not applicable	90	90	90	HNF-SD-WM-TI-707. Based on representative household use.
R015 – Uncontaminated and Unsaturated Strata Hydrological Data	Number of unsaturated strata (upper CZ)	Not applicable	Not applicable	2	2	2	Site-specific data. See Figure F-6.
	Number of unsaturated strata (middle CZ)	Not applicable	Not applicable	2	2	2	Site-specific data. See Figure F-6.
	Number of unsaturated strata (lower CZ)	Not applicable	Not applicable	2	2	2	Site-specific data. See Figure F-6.
	Thickness (upper CZ)	m	Not applicable	37.8, 18.6	37.8, 18.6	37.8, 18.6	Site-specific data. See Figure F-6.
	Thickness (middle CZ)	m	Not applicable	19.2, 18.6	19.2, 18.6	19.2, 18.6	Site-specific data. See Figure F-6.

Table F-5. 216-S-10 Pond Summary of RESRAD Input Parameters for the Industrial Worker, Rural Residential, and Native American Exposure Scenarios. (12 Pages)

Description	Parameter	Units	Industrial Worker Scenario	Rural Residential Scenario	CTUIR Scenario	Yakama Nation Scenario	Rationale and Citation
	Thickness (lower CZ)	m	Not applicable	6.4, 18.6	6.4, 18.6	6.4, 18.6	Site-specific data. See Figure F-6.
	Soil density (upper CZ)	g/cm^3	Not applicable	1.668, 1.838	1.668, 1.838	1.668, 1.838	Value for each unit obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Soil density (middle CZ)	g/cm^3	Not applicable	1.668, 1.838	1.668, 1.838	1.668, 1.838	Value obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Soil density (lower CZ)	g/cm^3	Not applicable	1.668, 1.838	1.668, 1.838	1.668, 1.838	Value obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Total porosity (upper CZ)	unitless	Not applicable	0.398, 0.294	0.398, 0.294	0.398, 0.294	Value for each unit obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Total porosity (middle CZ)	unitless	Not applicable	0.398, 0.294	0.398, 0.294	0.398, 0.294	Value obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Total porosity (lower CZ)	unitless	Not applicable	0.398, 0.294	0.398, 0.294	0.398, 0.294	Value obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Effective porosity (upper CZ)	unitless	Not applicable	0.398, 0.294	0.398, 0.294	0.398, 0.294	Value for each unit obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Effective porosity (middle CZ)	unitless	Not applicable	0.398, 0.294	0.398, 0.294	0.398, 0.294	Value obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Effective porosity (lower CZ)	unitless	Not applicable	0.398, 0.294	0.398, 0.294	0.398, 0.294	Value obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Field capacity (upper CZ)	unitless	Not applicable	0.057, 0.041	0.057, 0.041	0.057, 0.041	Value for each unit obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Field capacity (middle CZ)	unitless	Not applicable	0.057, 0.041	0.057, 0.041	0.057, 0.041	Value obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Field capacity (lower CZ)	unitless	Not applicable	0.057, 0.041	0.057, 0.041	0.057, 0.041	Value obtained from PNNL-14702 (Table 4.5). See Table F-11.

Table F-5. 216-S-10 Pond Summary of RESRAD Input Parameters for the Industrial Worker, Rural Residential, and Native American Exposure Scenarios. (12 Pages)

Description	Parameter	Units	Industrial Worker Scenario	Rural Residential Scenario	CTUIR Scenario	Yakama Nation Scenario	Rationale and Citation
	Hydraulic conductivity (upper CZ)	m/year	Not applicable	6.02, 33.4	6.02, 33.4	6.02, 33.4	Value for each unit obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Hydraulic conductivity (middle CZ)	m/year	Not applicable	6.02, 33.4	6.02, 33.4	6.02, 33.4	Value obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Hydraulic conductivity (lower CZ)	m/year	Not applicable	6.02, 33.4	6.02, 33.4	6.02, 33.4	Value obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Soil-specific b parameter (upper CZ)	unitless	Not applicable	4.90, 4.05	4.90, 4.05	4.90, 4.05	Determined from soil textures listed in ANL/EAD-4 (Table E.2). Values assigned to unsaturated units are Hss_W = 4.90 for sandy loam and Rg_W = 4.05 for sand.
	Soil-specific b parameter (middle CZ)	unitless	Not applicable	4.90, 4.05	4.90, 4.05	4.90, 4.05	Determined from soil textures listed in ANL/EAD-4 (Table E.2). Values assigned to unsaturated units are Hss_W = 4.90 for sandy loam and Rg_W = 4.05 for sand.
	Soil-specific b parameter (lower CZ)	unitless	Not applicable	4.90, 4.05	4.90, 4.05	4.90, 4.05	Determined from soil textures listed in ANL/EAD-4 (Table E.2). Values assigned to unsaturated units are Hss_W = 4.90 for sandy loam and Rg_W = 4.05 for sand.
R016 – Distribution Coefficients and Leach Rates for Individual Radionuclides	Distribution coefficients (K_d) for contaminated zone, uncontaminated zone and saturated zone	cm^3/g	Contaminant-specific	Contaminant-specific	Contaminant-specific	Contaminant-specific	Best estimate values from PNNL-14702 (Table 4.11), Waste Chemistry/Source Category 4: Low Organic/Low Salt/Near Neutral. K_d values for Pb, Ni, and Pa derived from data in PNNL-13895 and Geibert and Usbeck, 2004. See Table F-18.
	Saturated leach rate	yr^{-1}	Contaminant-specific	Contaminant-specific	Contaminant-specific	Contaminant-specific	RESRAD default.
	Saturated solubility	mol/L	0	0	0	0	RESRAD default.

Table F-5. 216-S-10 Pond Summary of RESRAD Input Parameters for the Industrial Worker, Rural Residential, and Native American Exposure Scenarios. (12 Pages)

Description	Parameter	Units	Industrial Worker Scenario	Rural Residential Scenario	CTUIR Scenario	Yakama Nation Scenario	Rationale and Citation
R017 – Inhalation and External Gamma	Inhalation rate	m^3/year	2,500	7,000	10,950	9,490	Industrial worker scenario assumes rate of 10 m^3/day (250 days/yr) (EPA/600/P-95/002Fa). Rural residential scenario assumes rate of 20 m^3/day (350 days/yr) (EPA/600/P-95/002Fa). CTUIR scenario assumes rate of 30 m^3/day (365 days/yr) (Harris and Harper 2004). Yakama Nation scenario assumes rate of 26 m^3/day (365 days/yr) (Ridolfi, 2007).
	Mass loading for inhalation	g/m^3	0.0001	0.0001	0.0001	0.0001	WDOH/320-015.
	Exposure duration	year	25	30	70	70	EPA, 1991; Harper and Harris, 2004; Ridolfi, 2007.
	Indoor dust filtration factor	unitless	0.4	0.4	0.4	0.4	RESRAD default.
	External gamma shielding factor	unitless	0.4	0.4	0.4	0.4	EPA/540-R-00/007 (Equation 4).
	Indoor time fraction	unitless	0.171	0.6	0.5	0.5	Industrial worker scenario assumes 6 h/day indoors, 250 days/yr (1,500 h/8,760 h). Rural residential scenario assumes 15 h/day indoors, 350 days/yr (5,250 h/8,760 h). CTUIR and Yakama Nation scenarios assume 12 h/day indoors, 365 days/yr (4380 h/8,740 h).
	Outdoor time fraction	unitless	0.057	0.12	0.25	0.25	Industrial worker scenario assumes 2 h/day outdoors, 250 days/yr (500 h/8,760 h). Rural residential scenario assumes 3 h/day outdoors, 350 days/yr (1,050 h/8,760 h). CTUIR and Yakama Nation scenarios assume 6 h/day outdoors, 365 days/yr (2,190 h/8,760 h).
	Shape factor	Not applicable	Circular	Circular	Circular	Circular	RESRAD default.

Table F-5. 216-S-10 Pond Summary of RESRAD Input Parameters for the Industrial Worker, Rural Residential, and Native American Exposure Scenarios. (12 Pages)

Description	Parameter	Units	Industrial Worker Scenario	Rural Residential Scenario	CTUIR Scenario	Yakama Nation Scenario	Rationale and Citation
R018 – Ingestion Pathway Data, Dietary Parameters	Soil ingestion intake	g/yr	12.5	35	146	73	Industrial worker scenario based on 50 mg/day (250 days/year). Rural residential scenario based on 100 mg/day (350 days/yr). CTUIR scenario based on 400 mg/day (365 days/yr) (Harris and Harper 2004). Yakama Nation scenario based on 300 mg/day (365 days/yr) (Ridolfi, 2007).
	Drinking water intake	L/yr	Not applicable	700	1,460	1,460	Rural residential scenario based on 2 L/day (350 days/yr) (EPA/600/P-95/002Fa). CTUIR and Yakama Nation scenarios based on 4 L/day (365 days/yr) (Harris and Harper, 2004; Ridolfi, 2007).
	Leafy vegetable consumption	kg/yr	Not applicable	69.8	100	100	Rural residential scenario based on average homegrown intake for western farm households (EPA/600/8-89/043, Table 3-12). For CTUIR, Harris and Harper (2004, Table 5) provides value of 1,225 g/day (447 kg/yr) summed across categories of roots, greens, and "other." For Yakama Nation, Ridolfi (2007, Table 7) provides value of 1,118 g/day (408 kg/yr) summed across categories of wild roots, stalks/leaves, and vegetables. A maximum value of 100 kg/yr can be input into RESRAD, the remaining portion (347 or 308 kg/yr, respectively) is assigned to "fruits, vegetables, and grains."

Table F-5. 216-S-10 Pond Summary of RESRAD Input Parameters for the Industrial Worker, Rural Residential, and Native American Exposure Scenarios. (12 Pages)

Description	Parameter	Units	Industrial Worker Scenario	Rural Residential Scenario	CTUIR Scenario	Yakama Nation Scenario	Rationale and Citation
	Fruits, vegetables, and grain consumption	kg/yr	Not applicable	47.3	393	417	Rural residential scenario based on average homegrown intake for western farm households (EPA/600/8-89/043, Table 13-17). For CTUIR, Harris and Harper (2004, Table 5) provides value of 125 g/day (45.6 kg/yr). Includes 347 kg/yr from leafy vegetable consumption. For Yakama Nation, Ridolfi (2007, Table 7) provides value of 299 g/day (109 kg/yr) summed across categories of fruits and wild berries. Includes 308 kg/yr from leafy vegetable consumption.
	Milk consumption	L/yr	Not applicable	100	Not applicable	438	Rural residential scenario based on WDOH/320-015. No value for CTUIR given in Harper and Harris (2004). For Yakama Nation, Ridolfi (2007, Table 7) provides rate of 1.2 L/day (365 day/yr).
	Meat and poultry consumption	kg/yr	Not applicable	61.6	27.4	154	Rural residential scenario based on average homegrown intake for western farm households (EPA/600/8-89/043, Table 13-22). CTUIR scenario assumes 60 percent of combined rate for game and fowl consumption (125 g/day) is from penned livestock. Yakama Nation scenario assumes 60 percent of combined rate for game and meat (704 g/day) is from penned livestock.
	Fish consumption	kg/yr	Not applicable	Not applicable	Not applicable	Not applicable	The consumption of fish is considered an incomplete exposure pathway for waste site operable units within the Central Plateau.

Table F-5. 216-S-10 Pond Summary of RESRAD Input Parameters for the Industrial Worker, Rural Residential, and Native American Exposure Scenarios. (12 Pages)

Description	Parameter	Units	Industrial Worker Scenario	Rural Residential Scenario	CTUIR Scenario	Yakama Nation Scenario	Rationale and Citation
	Other seafood consumption	kg/yr	Not applicable	Not applicable	Not applicable	Not applicable	The consumption of seafood is considered an incomplete exposure pathway for waste site operable units within the Central Plateau.
	Drinking water contamination fraction	Unitless	Not applicable	1	1	1	RESRAD default.
	Household water contamination fraction	Unitless	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable.
	Livestock water contamination fraction	Unitless	Not applicable	1	1	1	RESRAD default.
	Irrigation water contamination fraction	Unitless	Not applicable	1	1	1	RESRAD default.
	Aquatic food contamination fraction	Unitless	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable.
	Plant food contamination fraction	Unitless	Not applicable	-1	-1	-1	RESRAD default.
	Meat contamination fraction	Unitless	Not applicable	-1	-1	-1	RESRAD default.
	Milk contamination fraction	Unitless	Not applicable	-1	-1	-1	RESRAD default.
R019 – Ingestion Pathway Data, Nondietary	Livestock fodder intake for meat	kg/d	Not applicable	68	68	68	RESRAD default.
	Livestock fodder intake for milk	kg/d	Not applicable	55	55	55	RESRAD default.
	Livestock water intake for meat	L/d	Not applicable	50	50	50	RESRAD default.
	Livestock water intake for milk	L/d	Not applicable	160	160	160	RESRAD default.
	Livestock intake of soil	kg/d	Not applicable	0.5	0.5	0.5	RESRAD default.
	Mass loading for foliar deposition	g/m^3	Not applicable	0.0001	0.0001	0.0001	RESRAD default.

Table F-5. 216-S-10 Pond Summary of RESRAD Input Parameters for the Industrial Worker, Rural Residential, and Native American Exposure Scenarios. (12 Pages)

Description	Parameter	Units	Industrial Worker Scenario	Rural Residential Scenario	CTUIR Scenario	Yakama Nation Scenario	Rationale and Citation
	Depth of soil mixing layer	m	0.15	0.15	0.15	0.15	RESRAD default.
	Depth of roots	m	Not applicable	0.9	0.9	0.9	RESRAD default.
R020 – Groundwater Usage	Groundwater fractional usage – drinking water	unitless	Not applicable	1	1	1	RESRAD default.
	Groundwater fractional usage – household usage	unitless	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable.
	Groundwater fractional usage – livestock water	unitless	Not applicable	1	1	1	RESRAD default.
	Groundwater fractional usage – irrigation	unitless	Not applicable	1	1	1	WDOH/320-015.

Table F-6. 216-A-29 Ditch (Head End) Summary of RESRAD Input Parameters for the Inadvertent Intruder Exposure Scenarios. (7 Pages)

Description	Parameter	Units	Well Driller Scenario	Rural Farmer Scenario	Rationale and Citation
Exposure Pathways	External gamma: Inhalation: Plant ingestion: Meat ingestion: Milk ingestion: Aquatic foods: Drinking water: Soil ingestion: Radon:		Active Active Suppressed Suppressed Suppressed Suppressed Suppressed Active Suppressed	Active Active Active Active Active Suppressed Suppressed Active Suppressed	The rural farmer scenario includes two separate analyses that are summed to provide total dose. The contaminated zone area of 100 m^2 evaluates the external gamma, inhalation, plant ingestion, and soil ingestion pathways. The contaminated zone area of 10,000 m^2 evaluates the milk and meat ingestion pathways only.
R011 – Contaminated Zone (CZ)	Area of CZ	m^2	100	100 10,000 (Milk and Meat Ingestion Only)	Area is consistent with current Hanford Site performance assessments (HNF-SD-WM-TI-707; ORNL-TM/13401).
	Thickness of CZ	m	0.15	0.15	Assumes depth of contamination is limited to the top 0.15 m (6 in.) for both well driller and rural farmer scenarios.
	Length parallel to aquifer flow	m	Not applicable	10 (100 m^2 area) 100 (10,000 m^2 area)	Value calculated as square root of contaminated zone area.

Table F-6. 216-A-29 Ditch (Head End) Summary of RESRAD Input Parameters for the Inadvertent Intruder Exposure Scenarios. (7 Pages)

Description	Parameter	Units	Well Driller Scenario	Rural Farmer Scenario	Rationale and Citation
	Radiation dose limit	mrem/ year	500	100	DOE M 435.1-1 performance measures for chronic and acute inadvertent intruder exposure scenarios.
	Elapsed time since waste placement	year	150	150	Environmental samples are decayed to 150 years in the future.
Exposure Point Concentrations	EPCs	pCi/g	Contaminant-specific	contaminant-specific	See Table F-14.
R013 – Cover and CZ Hydrological Data	Cover depth	m	0	0	No cover assumed for either exposure scenario.
	Cover material density	g/cm^3	Not applicable	Not applicable	Not applicable.
	Cover erosion rate	m/year	Not applicable	Not applicable	Not applicable.
	Density of CZ	g/cm^3	1.94	1.94	PNNL-14702 (Table 4.5). Assumed to equate with 216-A-29 Ditch (head end) upper contaminated zone. Weighted average of values for B and Hgs. See Figure F-2 and Table F-11.
	CZ erosion rate	m/year	0.00001	0.00001	Value selected prevents appreciable erosion of the contaminated zone during the simulation period.
	CZ total porosity	unitless	0.251	0.251	PNNL-14702 (Table 4.5). Assumed to equate with 216-A-29 Ditch (head end) upper contaminated zone. Weighted average of values for B and Hgs. See Figure F-2 and Table F-11.
	CZ field capacity	unitless	0.0314	0.0314	PNNL-14702 (Table 4.5). Assumed to equate with 216-A-29 Ditch (head end) upper contaminated zone. Weighted average of values for B and Hgs. See Figure F-2 and Table F-11.
	CZ hydraulic conductivity	m/year	198	198	PNNL-14702 (Table 4.5). Assumed to equate with 216-A-29 Ditch (head end) upper contaminated zone. Weighted average of values for B and Hgs. See Figure F-2 and Table F-11.
	CZ b parameter	unitless	4.05	4.05	Assumed to equate with 216-A-29 Ditch (head end) upper contaminated zone. Determined from soil textures listed in ANL/EAD-4 (Table E.2). The upper contaminated zone hydrogeologic units have little of the finer material (silt and clay) listed in Table E.2 and hence are assigned value of 4.05 for sand.
	Humidity in air	g/cm^3	5.5	5.5	PNNL-15160. Used in RESRAD only for computation of tritium in air.

Table F-6. 216-A-29 Ditch (Head End) Summary of RESRAD Input Parameters for the Inadvertent Intruder Exposure Scenarios. (7 Pages)

Description	Parameter	Units	Well Driller Scenario	Rural Farmer Scenario	Rationale and Citation
	Evapotranspiration coefficient	unitless	0.644	0.977	Well driller value equates to assumed annual infiltration rate of 6.3 cm/yr for disturbed site clear of vegetation (PNNL-14702, Table 4.15). Rural farmer value equates to assumed annual infiltration rate of 0.4 cm/yr for re-vegetated site (PNNL-14702, Table 4.15).
	Wind speed	m/s	3.4	3.4	PNNL-15160 (Table 5.1).
	Precipitation	m/year	0.177	0.177	PNNL-15160 (Table 4.1).
	Irrigation rate	m/year	Not applicable	0	All water in rural farmer scenario assumed to come from clean source.
	Irrigation mode	Not applicable	Not applicable	Overhead	RESRAD default.
	Runoff coefficient		0	0	Zero value indicates all precipitation soaks into the ground.
	Watershed area for nearby stream or pond	m^2	Not applicable	1.00E+06	RESRAD default.
	Accuracy for water/soil computations	unitless	Not applicable	0.001	RESRAD default.
R014 – Saturated Zone (SZ) Hydrological Data	Density of SZ	g/cm^3	Not applicable	1.90	PNNL-14702 (Table 4.5). Assumed to equate with value for 216-A-29 Ditch (head end) (value for Rg). See Figure F-2 and Table F-11.
	SZ total porosity	unitless	Not applicable	0.2	PNNL-12086 (Table 3.3-1). Assumed to equate with value for 216-A-29 Ditch (head end). Value used is mid-point of range 0.1 to 0.3.
	SZ effective porosity	unitless	Not applicable	0.2	PNNL-12086 (Table 3.3-1). Assumed to equate with value for 216-A-29 Ditch (head end). Value used is mid-point of range 0.1 to 0.3.
	SZ field capacity	unitless	Not applicable	0.1	Assumed to equate with value for 216-A-29 Ditch (head end). Saturated zone field capacity equated with specific yield listed in Table 5.2 of PNNL-14753 (Unit 1).
	SZ hydraulic conductivity	m/year	Not applicable	6570	Assumed to equate with value for 216-A-29 Ditch (head end). PNNL-12086 (Table 3.3-1).
	SZ hydraulic gradient	unitless	Not applicable	0.0005	Assumed to equate with value for 216-A-29 Ditch (head end). PNNL-12086 (Table 3.3-1).

Table F-6. 216-A-29 Ditch (Head End) Summary of RESRAD Input Parameters for the Inadvertent Intruder Exposure Scenarios. (7 Pages)

Description	Parameter	Units	Well Driller Scenario	Rural Farmer Scenario	Rationale and Citation
	SZ b parameter	unitless	Not applicable	4.05	Assumed to equate with value for 216-A-29 Ditch (head end). Determined from soil textures listed in ANL/EAD-4 (Table E.2). Saturated zone hydrogeologic unit (Rg) has little of the finer material (silt and clay) listed in Table E.2 and hence is assigned value of 4.05 for sand.
	Water table drop rate	m/year	Not applicable	0.0001	Value selected results in little change in the depth of the groundwater during the time simulation period.
	Well pump intake depth below water table	m	Not applicable	4.6	WDOH/320-015. Typical RCRA screen depth.
	Nondispersion (ND) or mass-balance	Not applicable	Not applicable	ND	RESRAD default.
	Well pumping rate	m^3/year	Not applicable	90	HNF-SD-WM-TI-707. Based on representative household use.
R015 – Uncontaminated and Unsaturated Strata Hydrological Data	Number of unsaturated strata	Not applicable	Not applicable	5	Sediment stratigraphy assumed to equate with 216-A-29 Ditch (head end) upper contaminated zone. See Figure F-2.
	Thickness	m	Not applicable	6.10, 16.76, 39.62, 6.10, 9.14	Site-specific data. See Figure F-2.
	Soil density	g/cm^3	Not applicable	1.94, 1.67, 1.61, 1.93, 1.90	Value for each unit obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Total porosity	unitless	Not applicable	0.238, 0.349, 0.445, 0.167, 0.177	Value for each unit obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Effective porosity	unitless	Not applicable	0.238, 0.349, 0.445, 0.167, 0.177	Value for each unit obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Field capacity	unitless	Not applicable	0.027, 0.033, 0.072, 0.022, 0.026	Value for each unit obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Hydraulic conductivity	m/year	Not applicable	210, 716, 27.1, 104, 130	Value for each unit obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Soil-specific b parameter	unitless	Not applicable	4.05, 4.05, 4.90, 4.05, 4.05	Determined from soil textures listed in ANL/EAD-4 (Table E.2). Except for Hss, unsaturated units have little of the finer material (silt and clay) listed in Table E.2 and hence are assigned value of 4.05 for sand. Hss is assigned value of 4.9 for sandy loam.

Table F-6. 216-A-29 Ditch (Head End) Summary of RESRAD Input Parameters for the Inadvertent Intruder Exposure Scenarios. (7 Pages)

Description	Parameter	Units	Well Driller Scenario	Rural Farmer Scenario	Rationale and Citation
R016 – Distribution Coefficients and Leach Rates for Individual Radionuclides	Distribution coefficients (K_d) for contaminated zone, uncontaminated zone and saturated zone	cm^3/g	Contaminant-specific	Contaminant-specific	Best estimate values from PNNL-14702 (Table 4.11), Waste Chemistry/Source Category 4: Low Organic/Low Salt/Near Neutral. K_d values for Pb, Ni, and Pa derived from data in PNNL-13895 and Geibert and Usbeck, 2004. See Table F-18.
	Saturated leach rate	yr^{-1}	Contaminant-specific	Contaminant-specific	RESRAD default.
	Saturated solubility		0	0	RESRAD default.
R017 – Inhalation and External Gamma	Inhalation rate	m^3/year	50	7,000	Well driller scenario assumes rate of 10 m^3/day over a total of five days (EPA/600/P-95/002Fa). Rural farmer scenario assumes rate of 20 m^3/day (350 days/yr) (EPA/600/P-95/002Fa).
	Mass loading for inhalation	g/m^3	0.0001	0.0001	WDOH/320-015.
	Exposure duration	year	1	30	EPA, 1991.
	Indoor dust filtration factor	unitless	0.4	0.4	RESRAD default.
	External gamma shielding factor	unitless	0	0.4	EPA/540-R-00/007 (Equation 4).
	Indoor time fraction	unitless	0	0.6	Well driller scenario assumes zero time indoors. Rural farmer scenario assumes 15 h/day indoors, 350 days/yr (5,250 h/8,760 h).
	Outdoor time fraction	unitless	0.0046	0.12	Well driller scenario assumes total of 40 hours spent outdoors over an entire year (40 h/8,760 h). Rural farmer scenario assumes 3 h/day spent outdoors, 350 days/yr (1,050 h/8,760 h).
	Shape factor	Not applicable	Circular	Circular	RESRAD default.
R018 – Ingestion Pathway Data, Dietary Parameters	Soil ingestion intake	g/yr	1.65	35	Well driller scenario assumes incidental ingestion rate of 330 mg/day over 5 days (EPA, 2002). Rural farmer scenario based on 100 mg/day (350 days/yr).
	Drinking water intake	L/yr	Not applicable	Not applicable	Rural farmer scenario assumes drinking water is obtained from an offsite (clean) source.
	Leafy vegetable consumption	kg/yr	Not applicable	69.8 (100 m^2 area) N/A (10,000 m^2 area)	Based on the average homegrown intake for western farm households (EPA/600/8-89/043, Table 13-12).
	Fruits, vegetables, and grain consumption	kg/yr	Not applicable	47.3 (100 m^2 area) N/A (10,000 m^2 area)	Based on the average homegrown intake for western farm households (EPA/600/8-89/043, Table 13-17).
	Milk consumption	L/yr	Not applicable	N/A (100 m^2 area) 100 (10,000 m^2 area)	WDOH/320-015.

Table F-6. 216-A-29 Ditch (Head End) Summary of RESRAD Input Parameters for the Inadvertent Intruder Exposure Scenarios. (7 Pages)

Description	Parameter	Units	Well Driller Scenario	Rural Farmer Scenario	Rationale and Citation
	Meat and poultry consumption	kg/yr	Not applicable	N/A (100 m^2 area) 61.6 (10,000 m^2 area)	Based on the average homegrown intake for western farm households (EPA/600/8-89/043, Table 13-22).
	Fish consumption	kg/yr	Not applicable	Not applicable	The consumption of fish is considered an incomplete exposure pathway for waste site operable units within the Central Plateau.
	Other seafood consumption	kg/yr	Not applicable	Not applicable	The consumption of seafood is considered an incomplete exposure pathway for waste site operable units within the Central Plateau.
	Drinking water contamination fraction	Unitless	Not applicable	Not applicable	Not applicable.
	Household water contamination fraction	Unitless	Not applicable	Not applicable	Not applicable.
	Livestock water contamination fraction	Unitless	Not applicable	N/A (100 m^2 area) 1 (10,000 m^2 area)	RESRAD default.
	Irrigation water contamination fraction	Unitless	Not applicable	1	RESRAD default.
	Aquatic food contamination fraction	Unitless	Not applicable	Not applicable	Not applicable.
	Plant food contamination fraction	Unitless	Not applicable	-1 (100 m^2 area) N/A (10,000 m^2 area)	RESRAD default.
	Meat Contamination Fraction	Unitless	Not applicable	N/A (100 m^2 area) -1 (10,000 m^2 area)	RESRAD default.
	Milk contamination fraction	Unitless	Not applicable	N/A (100 m^2 area) -1 (10,000 m^2 area)	RESRAD default.
R019 – Ingestion Pathway Data, Nondietary	Livestock fodder intake for meat	kg/d	Not applicable	N/A (100 m^2 area) 68 (10,000 m^2 area)	RESRAD default.
	Livestock fodder intake for milk	kg/d	Not applicable	N/A (100 m^2 area) 55 (10,000 m^2 area)	RESRAD default.
	Livestock water intake for meat	L/d	Not applicable	N/A (100 m^2 area) 0 (10.000 m^2 area)	Assumes livestock drinking water is obtained from offsite source.
	Livestock water intake for milk	L/d	Not applicable	N/A (100 m^2 area) 0 (10,000 m^2 area)	Assumes livestock drinking water is obtained from offsite source.
	Livestock intake of soil	kg/d	Not applicable	N/A (100 m^2 area) 0.5 (10,000 m^2 area)	RESRAD default.
	Mass loading for foliar deposition	g/m^3	Not applicable	0.0001	RESRAD default.
	Depth of soil mixing layer	m	0.15	0.15	RESRAD default.
	Depth of roots	m	Not applicable	0.9	RESRAD default.

Table F-6. 216-A-29 Ditch (Head End) Summary of RESRAD Input Parameters for the Inadvertent Intruder Exposure Scenarios. (7 Pages)

Description	Parameter	Units	Well Driller Scenario	Rural Farmer Scenario	Rationale and Citation
R020 – Groundwater Usage	Groundwater fractional usage – drinking water	unitless	Not applicable	Not applicable	Not applicable.
	Groundwater fractional usage – household usage	unitless	Not applicable	Not applicable	Not applicable.
	Groundwater fractional usage – livestock water	unitless	Not applicable	N/A (100 m^2 area) 1 (10,000 m^2 area)	RESRAD default.
	Groundwater usage –irrigation	unitless	Not applicable	1	RESRAD default.

Table F-7. 216-B-63 Trench Summary of RESRAD Input Parameters for the Inadvertent Intruder Exposure Scenarios. (6 Pages)

Description	Parameter	Units	Well Driller Scenario	Rural Farmer Scenario	Rationale and Citation
Exposure Pathways	External gamma: Inhalation: Plant ingestion: Meat ingestion: Milk ingestion: Aquatic foods: Drinking water: Soil ingestion: Radon:		Active Active Suppressed Suppressed Suppressed Suppressed Suppressed Active Suppressed	Active Active Active Active Active Suppressed Suppressed Active Suppressed	The rural farmer scenario includes two separate analyses that are summed to provide total dose. The contaminated zone area of 100 m^2 evaluates the external gamma, inhalation, plant ingestion, and soil ingestion pathways. The contaminated zone area of 10,000 m^2 evaluates the milk and meat ingestion pathways only.
R011 – Contaminated Zone (CZ)	Area of CZ	m^2	100	100 10,000 (Milk and Meat Ingestion Only)	Area is consistent with current Hanford Site performance assessments (HNF-SD-WM-TI-707, Rev. 5; ORNL-TM/13401).
	Thickness of CZ	m	0.15	0.15	Assumes depth of contamination is limited to the top 0.15 m (6 in.) for both well driller and rural farmer scenarios.
	Length parallel to aquifer flow	m	Not applicable	10 (100 m^2 area) 100 (10,000 m^2 area)	Value calculated as square root of contaminated zone area.
	Radiation dose limit	mrem/ year	500	100	DOE M 435.1-1 performance measures for chronic and acute inadvertent intruder exposure scenarios.
	Elapsed time since waste placement	year	150	150	Environmental samples are decayed to 150 years in the future.
Exposure Point Concentrations	EPCs	pCi/g	Contaminant-specific	contaminant-specific	See Table F-15.
R013 – Cover and CZ Hydrological Data	Cover depth	m	0	0	No cover assumed for either exposure scenario.
	Cover material density	g/cm^3	Not applicable	Not applicable	Not applicable.
	Cover erosion rate	m/year	Not applicable	Not applicable	Not applicable.

Table F-7. 216-B-63 Trench Summary of RESRAD Input Parameters for the Inadvertent Intruder Exposure Scenarios. (6 Pages)

Description	Parameter	Units	Well Driller Scenario	Rural Farmer Scenario	Rationale and Citation
	Density of CZ	g/cm^3	1.934	1.934	PNNL-14702 (Table 4.5). Assumed to equate with 216-B-63 Trench upper contaminated zone. Weighted average of values for B and Hg. See Figure F-4 and Table F-11.
	CZ erosion rate	m/year	0.00001	0.00001	Value selected prevents appreciable erosion of the contaminated zone during the simulation period.
	CZ total porosity	unitless	0.237	0.237	PNNL-14702 (Table 4.5). Assumed to equate with 216-B-63 Trench upper contaminated zone. Weighted average of values for B and Hg. See Figure F-4 and Table F-11.
	CZ field capacity	unitless	0.025	0.025	PNNL-14702 (Table 4.5). Assumed to equate with 216-B-63 Trench upper contaminated zone. Weighted average of values for B and Hg. See Figure F-4 and Table F-11.
	CZ hydraulic conductivity	m/year	134	134	PNNL-14702 (Table 4.5). Assumed to equate with 216-B-63 Trench upper contaminated zone. Weighted average of values for B and Hg. See Figure F-4 and Table F-11.
	CZ b parameter	unitless	4.05	4.05	PNNL-14702 (Table 4.5). Assumed to equate with 216-B-63 Trench upper contaminated zone. Determined from soil textures listed in ANL/EAD-4 (Table E.2). The upper CZ hydrogeologic units have little of the finer material (silt and clay) listed in Table E.2 and hence are assigned value of 4.05 for sand.
	Humidity in air	g/cm^3	5.5	5.5	PNNL-15160. Used in RESRAD only for computation of tritium in air.
	Evapotranspiration coefficient	unitless	0.644	0.977	Well driller value equates to assumed annual infiltration rate of 6.3 cm/yr for disturbed site clear of vegetation (PNNL-14702, Table 4.15). Rural farmer value equates to assumed annual infiltration rate of 0.4 cm/yr for re-vegetated site (PNNL-14702, Table 4.15).
	Wind speed	m/s	3.4	3.4	PNNL-15160 (Table 5.1).
	Precipitation	m/year	0.177	0.177	PNNL-15160 (Table 4.1).
	Irrigation rate	m/year	Not applicable	0	All water in rural farmer scenario assumed to come from clean source.
	Irrigation mode	Not applicable	Not applicable	Overhead	RESRAD default.
	Runoff coefficient		0	0	Zero value indicates all precipitation soaks into the ground.

Table F-7. 216-B-63 Trench Summary of RESRAD Input Parameters for the Inadvertent Intruder Exposure Scenarios. (6 Pages)

Description	Parameter	Units	Well Driller Scenario	Rural Farmer Scenario	Rationale and Citation
	Watershed area for nearby stream or pond	m^2	Not applicable	1.00E+06	RESRAD default.
	Accuracy for water/soil computations	unitless	Not applicable	0.001	RESRAD default.
R014 – Saturated Zone (SZ) Hydrological Data	Density of SZ	g/cm^3	Not applicable	1.93	PNNL-14702 (Table 4.5). Assumed to equate with value for 216-B-63 Trench (value for Hg). See Figure F-4 and Table F-11.
	SZ total porosity	unitless	Not applicable	0.2	PNNL-12086 (Table 3.3-1). Assumed to equate with value for 216-B-63 Trench. Value used is mid-point of range 0.1 to 0.3.
	SZ effective porosity	unitless	Not applicable	0.2	PNNL-12086 (Table 3.3-1). Assumed to equate with value for 216-B-63 Trench. Value used is mid-point of range 0.1 to 0.3.
	SZ field capacity	unitless	Not applicable	0.1	Assumed to equate with value for 216-B-63 Trench. Saturated zone field capacity equated with specific yield listed in Table 5.2 of PNNL-14753 (Unit 1).
	SZ hydraulic conductivity	m/year	Not applicable	18,980	Assumed to equate with value for 216-B-63 Trench. PNNL-12086 (Table 3.3-1), value based on low end of range 52 to 200 m/day.
	SZ hydraulic gradient	unitless	Not applicable	0.00005	Assumed to equate with value for 216-B-63 Trench. PNNL-12086 (Table 3.3-1), value based on low end of range 0.00005 to 0.003.
	SZ b parameter	unitless	Not applicable	4.05	Assumed to equate with value for 216-B-63 Trench. Determined from soil textures listed in ANL/EAD-4 (Table E.2). Saturated zone hydrogeologic unit (Hg) has little of the finer material (silt and clay) listed in Table E.2 and hence is assigned value of 4.05 for sand.
	Water table drop rate	m/year	Not applicable	0.0001	Value selected results in little change in the depth of the groundwater during the time simulation period.
	Well pump intake depth below water table	m	Not applicable	4.6	WDOH/320-015. Typical RCRA screen depth.
	Nondispersion (ND) or mass-balance	Not applicable	Not applicable	ND	RESRAD default.
	Well pumping rate	m^3/year	Not applicable	90	HNF-SD-WM-TI-707. Based on representative household use.
R015 – Uncontaminated and Unsaturated Strata	Number of unsaturated strata	Not applicable	Not applicable	3	Sediment stratigraphy assumed to equate with 216-B-63 Trench upper contaminated zone. See Figure F-4.

Table F-7. 216-B-63 Trench Summary of RESRAD Input Parameters for the Inadvertent Intruder Exposure Scenarios. (6 Pages)

Description	Parameter	Units	Well Driller Scenario	Rural Farmer Scenario	Rationale and Citation
Hydrological Data	Thickness	m	Not applicable	7.32, 49.68, 11.89	Site-specific data. See Figure F-4.
	Soil density	g/cm^3	Not applicable	1.93, 1.67, 1.93	Value for each unit obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Total porosity	unitless	Not applicable	0.167, 0.349, 0.167	Value for each unit obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Effective porosity	unitless	Not applicable	0.167, 0.349, 0.167	Value for each unit obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Field capacity	unitless	Not applicable	0.022. 0.027, 0.022	Value for each unit obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Hydraulic conductivity	m/year	Not applicable	104, 716, 104	Value for each unit obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Soil-specific b parameter	unitless	Not applicable	4.05, 4.05, 4.05	Determined from soil textures listed in ANL/EAD-4 (Table E.2). Unsaturated units have little of the finer material (silt and clay) listed in Table E.2 and hence are assigned value of 4.05 for sand.
R016 – Distribution Coefficients and Leach Rates for Individual Radionuclides	Distribution coefficients (K_d) for contaminated zone, uncontaminated zone and saturated zone	cm^3/g	Contaminant-specific	Contaminant-specific	Best estimate values from PNNL-14702 (Table 4.11), Waste Chemistry/Source Category 4: Low Organic/Low Salt/Near Neutral. K_d values for Pb, Ni, and Pa derived from data in PNNL-13895 and Geibert and Usbeck, 2004. See Table F-18.
	Saturated leach rate	yr^{-1}	Contaminant-specific	Contaminant-specific	RESRAD default.
	Saturated solubility		0	0	RESRAD default.
R017 – Inhalation and External Gamma	Inhalation rate	$m^3/year$	50	7,000	Well driller scenario assumes rate of 10 m^3/day over a total of five days (EPA/600/P-95/002Fa). Rural farmer scenario assumes rate of 20 m^3/day (350 days/yr) (EPA/600/P-95/002Fa).
	Mass loading for inhalation	g/m^3	0.0001	0.0001	WDOH/320-015.
	Exposure duration	year	1	30	EPA, 1991.
	Indoor dust filtration factor	unitless	0.4	0.4	RESRAD default.
	External gamma shielding factor	unitless	0	0.4	EPA/540-R-00/007 (Equation 4).
	Indoor time fraction	unitless	0	0.6	Well driller scenario assumes zero time indoors. Rural farmer scenario assumes 15 h/day indoors, 350 days/yr (5,250 h/8,760 h).
	Outdoor time fraction	unitless	0.0046	0.12	Well driller scenario assumes total of 40 hours spent outdoors over an entire year (40 h/8,760 h). Rural farmer scenario assumes 3 h/day spent outdoors, 350 days/yr (1,050 h/8,760 h).

Table F-7. 216-B-63 Trench Summary of RESRAD Input Parameters for the Inadvertent Intruder Exposure Scenarios. (6 Pages)

Description	Parameter	Units	Well Driller Scenario	Rural Farmer Scenario	Rationale and Citation
	Shape factor	Not applicable	Circular	Circular	RESRAD default.
R018 – Ingestion Pathway Data, Dietary Parameters	Soil ingestion intake	g/yr	1.65	35	Well driller scenario assumes incidental ingestion rate of 330 mg/day over 5 days (EPA 2004). Rural farmer scenario based on 100 mg/day (350 days/yr).
	Drinking water intake	L/yr	Not applicable	Not applicable	Rural farmer scenario assumes drinking water is obtained from an offsite (clean) source.
	Leafy vegetable consumption	kg/yr	Not applicable	69.8 (100 m^2 area) N/A (10,000 m^2 area)	Based on the average homegrown intake for western farm households (EPA/600/8-89/043, Table 13-12).
	Fruits, vegetables, and grain consumption	kg/yr	Not applicable	47.3 (100 m^2 area) N/A (10,000 m^2 area)	Based on the average homegrown intake for western farm households (EPA/600/8-89/043, Table 13-17).
	Milk consumption	L/yr	Not applicable	N/A (100 m^2 area) 100 (10,000 m^2 area)	WDOH/320-015.
	Meat and poultry consumption	kg/yr	Not applicable	N/A (100 m^2 area) 61.6 (10,000 m^2 area)	Based on the average homegrown intake for western farm households (EPA/600/8-89/043, Table 13-22).
	Fish consumption	kg/yr	Not applicable	Not applicable	The consumption of fish is considered an incomplete exposure pathway for waste site operable units within the Central Plateau.
	Other seafood consumption	kg/yr	Not applicable	Not applicable	The consumption of seafood is considered an incomplete exposure pathway for waste site operable units within the Central Plateau.
	Drinking water contamination fraction	Unitless	Not applicable	Not applicable	Not applicable.
	Household water contamination fraction	Unitless	Not applicable	Not applicable	Not applicable.
	Livestock water contamination fraction	Unitless	Not applicable	N/A (100 m^2 area) 1 (10,000 m^2 area)	RESRAD default.
	Irrigation water contamination fraction	Unitless	Not applicable	1	RESRAD default.
	Aquatic food contamination fraction	Unitless	Not applicable	Not applicable	Not applicable.
	Plant food contamination fraction	Unitless	Not applicable	-1 (100 m^2 area) N/A (10,000 m^2 area)	RESRAD default.
	Meat Contamination Fraction	Unitless	Not applicable	N/A (100 m^2 area) -1 (10,000 m^2 area)	RESRAD default.
	Milk contamination fraction	Unitless	Not applicable	N/A (100 m^2 area) -1 (10,000 m^2 area)	RESRAD default.

Table F-7. 216-B-63 Trench Summary of RESRAD Input Parameters for the Inadvertent Intruder Exposure Scenarios. (6 Pages)

Description	Parameter	Units	Well Driller Scenario	Rural Farmer Scenario	Rationale and Citation
R019 – Ingestion Pathway Data, Nondietary	Livestock fodder intake for meat	kg/d	Not applicable	N/A (100 m^2 area) 68 (10,000 m^2 area)	RESRAD default.
	Livestock fodder intake for milk	kg/d	Not applicable	N/A (100 m^2 area) 55 (10,000 m^2 area)	RESRAD default.
	Livestock water intake for meat	L/d	Not applicable	N/A (100 m^2 area) 0 (10.000 m^2 area)	Assumes livestock drinking water is obtained from offsite source.
	Livestock water intake for milk	L/d	Not applicable	N/A (100 m^2 area) 0 (10,000 m^2 area)	Assumes livestock drinking water is obtained from offsite source.
	Livestock intake of soil	kg/d	Not applicable	N/A (100 m^2 area) 0.5 (10,000 m^2 area)	RESRAD default.
	Mass loading for foliar deposition	g/m^3	Not applicable	0.0001	RESRAD default.
	Depth of soil mixing layer	m	0.15	0.15	RESRAD default.
	Depth of roots	m	Not applicable	0.9	RESRAD default.
R020 – Groundwater Usage	Groundwater fractional usage – drinking water	unitless	Not applicable	Not applicable	Not applicable.
	Groundwater fractional usage – household usage	unitless	Not applicable	Not applicable	Not applicable.
	Groundwater fractional usage – livestock water	unitless	Not applicable	N/A (100 m^2 area) 1 (10,000 m^2 area)	RESRAD default.
	Groundwater usage –irrigation	unitless	Not applicable	1	RESRAD default.

Table F-8. 216-S-10 Ditch Summary of RESRAD Input Parameters for the Inadvertent Intruder Exposure Scenarios. (6 Pages)

Description	Parameter	Units	Well Driller Scenario	Rural Farmer Scenario	Rationale and Citation
Exposure Pathways	External gamma: Inhalation: Plant ingestion: Meat ingestion: Milk ingestion: Aquatic foods: Drinking water: Soil ingestion: Radon:		Active Active Suppressed Suppressed Suppressed Suppressed Suppressed Active Suppressed	Active Active Active Active Active Suppressed Suppressed Active Suppressed	The rural farmer scenario includes two separate analyses that are summed to provide total dose. The contaminated zone area of 100 m^2 evaluates the external gamma, inhalation, plant ingestion, and soil ingestion pathways. The contaminated zone area of 10,000 m^2 evaluates the milk and meat ingestion pathways only.
R011 – Contaminated Zone (CZ)	Area of CZ	m^2	100	100 10,000 (Milk and Meat Ingestion Only)	Area is consistent with current Hanford Site performance assessments (HNF-SD-WM-TI-707, Rev. 5; ORNL-TM/13401).

Table F-8. 216-S-10 Ditch Summary of RESRAD Input Parameters for the Inadvertent Intruder Exposure Scenarios. (6 Pages)

Description	Parameter	Units	Well Driller Scenario	Rural Farmer Scenario	Rationale and Citation
	Thickness of CZ	m	0.15	0.15	Assumes depth of contamination is limited to the top 0.15 m (6 in.) for both well driller and rural farmer scenarios.
	Length parallel to aquifer flow	m	Not applicable	10 (100 m^2 area) 100 (10,000 m^2 area)	Value calculated as square root of contaminated zone area.
	Radiation dose limit	mrem/ year	500	100	DOE M 435.1-1 performance measures for chronic and acute inadvertent intruder exposure scenarios.
	Elapsed time since waste placement	year	150	150	Environmental samples are decayed to 150 years in the future.
Exposure Point Concentrations	EPCs	pCi/g	Contaminant-specific	contaminant-specific	See Table F-16.
R013 – Cover and CZ Hydrological Data	Cover depth	m	0	0	No cover assumed for either exposure scenario.
	Cover material density	g/cm^3	Not applicable	Not applicable	Not applicable.
	Cover erosion rate	m/year	Not applicable	Not applicable	Not applicable.
	Density of CZ	g/cm^3	1.668	1.668	PNNL-14702 (Table 4.5). Assumed to equate with 216-S-10 Ditch upper contaminated zone. Value for Hss-W. See Figure F-5 and Table F-11.
	CZ erosion rate	m/year	0.00001	0.00001	Value selected prevents appreciable erosion of the contaminated zone during the simulation period.
	CZ total porosity	unitless	0.398	0.398	PNNL-14702 (Table 4.5). Assumed to equate with 216-S-10 Ditch upper contaminated zone. Value for Hss-W. See Figure F-5 and Table F-11.
	CZ field capacity	unitless	0.057	0.057	PNNL-14702 (Table 4.5). Assumed to equate with 216-S-10 Ditch upper contaminated zone. Value for Hss-W. See Figure F-5 and Table F-11.
	CZ hydraulic conductivity	m/year	6.02	6.02	PNNL-14702 (Table 4.5). Assumed to equate with 216-S-10 Ditch upper contaminated zone. Value for Hss-W. See Figure F-5 and Table F-11.
	CZ b parameter	unitless	4.90	4.90	PNNL-14702 (Table 4.5). Assumed to equate with 216-S-10 Trench upper contaminated zone. Determined from soil textures listed in ANL/EAD-4 (Table E.2). The upper CZ hydrogeologic unit (Hss_W) is assigned value of 4.90 for sandy loam.
	Humidity in air	g/cm^3	5.5	5.5	PNNL-15160. Used in RESRAD only for computation of tritium in air.

Table F-8. 216-S-10 Ditch Summary of RESRAD Input Parameters for the Inadvertent Intruder Exposure Scenarios. (6 Pages)

Description	Parameter	Units	Well Driller Scenario	Rural Farmer Scenario	Rationale and Citation
	Evapotranspiration coefficient	unitless	0.644	0.977	Well driller value equates to assumed annual infiltration rate of 6.3 cm/yr for disturbed site clear of vegetation (PNNL-14702, Table 4.15). Rural farmer value equates to assumed annual infiltration rate of 0.4 cm/yr for re-vegetated site (PNNL-14702, Table 4.15).
	Wind speed	m/s	3.4	3.4	PNNL-15160 (Table 5.1).
	Precipitation	m/year	0.177	0.177	PNNL-15160 (Table 4.1).
	Irrigation rate	m/year	Not applicable	0	All water in rural farmer scenario assumed to come from clean source.
	Irrigation mode	Not applicable	Not applicable	Overhead	RESRAD default.
	Runoff coefficient		0	0	Zero value indicates all precipitation soaks into the ground.
	Watershed area for nearby stream or pond	m^2	Not applicable	1.00E+06	RESRAD default.
	Accuracy for water/soil computations	unitless	Not applicable	0.001	RESRAD default.
R014 – Saturated Zone (SZ) Hydrological Data	Density of SZ	g/cm^3	Not applicable	1.838	PNNL-14702 (Table 4.5). Assumed to equate with value for 216-S-10 Ditch (value for Rg_W). See Figure F-5 and Table F-11.
	SZ total porosity	unitless	Not applicable	0.15	PNNL-12086 (Table 3.3-1). Assumed to equate with value for 216-S-10 Ditch. Value used is mid-point of range 0.1 to 0.2.
	SZ effective porosity	unitless	Not applicable	0.15	PNNL-12086 (Table 3.3-1). Assumed to equate with value for 216-S-10 Ditch. Value used is mid-point of range 0.1 to 0.2.
	SZ field capacity	unitless	Not applicable	0.11	Assumed to equate with value for 216-S-10 Ditch. Saturated zone field capacity equated with specific yield listed in Table 5.2 of PNNL-14753 (Unit 5).
	SZ hydraulic conductivity	m/year	Not applicable	3,650	Assumed to equate with value for 216-S-10 Ditch. PNNL-12086 (Table 3.3-1), value based on low end of range 10 to 150 m/day.
	SZ hydraulic gradient	unitless	Not applicable	0.0015	Assumed to equate with value for 216-S-10 Ditch. PNNL-15731.

Table F-8. 216-S-10 Ditch Summary of RESRAD Input Parameters for the Inadvertent Intruder Exposure Scenarios. (6 Pages)

Description	Parameter	Units	Well Driller Scenario	Rural Farmer Scenario	Rationale and Citation
	SZ b parameter	unitless	Not applicable	4.05	Assumed to equate with value for 216-S-10 Ditch. Determined from soil textures listed in ANL/EAD-4 (Table E.2). Saturated zone hydrogeologic unit (Rg_W) has little of the finer material (silt and clay) listed in Table E.2 and hence is assigned value of 4.05 for sand.
	Water table drop rate	m/year	Not applicable	0.0001	Value selected results in little change in the depth of the groundwater during the time simulation period.
	Well pump intake depth below water table	m	Not applicable	4.6	WDOH/320-015. Typical RCRA screen depth.
	Nondispersion (ND) or mass-balance	Not applicable	Not applicable	ND	RESRAD default.
	Well pumping rate	m^3/year	Not applicable	90	HNF-SD-WM-TI-707. Based on representative household use.
R015 – Uncontaminated and Unsaturated Strata Hydrological Data	Number of unsaturated strata	Not applicable	Not applicable	5	Sediment stratigraphy assumed to equate with 216-S-10 Ditch upper contaminated zone. See Figure F-5.
	Thickness	m	Not applicable	17.1, 6.10, 18.29, 1.52, 16.76	Site-specific data. See Figure F-5.
	Soil density	g/cm^3	Not applicable	1.668, 1.70, 1.668, 1.891, 1.838	Value for each unit obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Total porosity	unitless	Not applicable	0.398, 0.356, 0.398, 0.154, 0.294	Value for each unit obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Effective porosity	unitless	Not applicable	0.398, 0.356, 0.398, 0.154, 0.294	Value for each unit obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Field capacity	unitless	Not applicable	0.057, 0.042, 0.057, 0.024, 0.041	Value for each unit obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Hydraulic conductivity	m/year	Not applicable	6.02, 11.6, 6.02, 442, 33.4	Value for each unit obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Soil-specific b parameter	unitless	Not applicable	4.90, 4.38, 4.90, 4.05, 4.05	Determined from soil textures listed in ANL/EAD-4 (Table E.2). Values assigned to unsaturated units are Hss_W = 4.90 for sandy loam; Hfs_W = 4.38 for loamy sand; and Hg_W and Rg_W = 4.05 for sand.
R016 – Distribution Coefficients and Leach Rates for Individual Radionuclides	Distribution coefficients (K_d) for contaminated zone, uncontaminated zone and saturated zone	cm^3/g	Contaminant-specific	Contaminant-specific	Best estimate values from PNNL-14702 (Table 4.11), Waste Chemistry/Source Category 4: Low Organic/Low Salt/Near Neutral. K_d values for Pb, Ni, and Pa derived from data in PNNL-13895 and Geibert and Usbeck, 2004. See Table F-18.
	Saturated leach rate	yr^{-1}	Contaminant-specific	Contaminant-specific	RESRAD default.

Table F-8. 216-S-10 Ditch Summary of RESRAD Input Parameters for the Inadvertent Intruder Exposure Scenarios. (6 Pages)

Description	Parameter	Units	Well Driller Scenario	Rural Farmer Scenario	Rationale and Citation
	Saturated solubility		0	0	RESRAD default.
R017 – Inhalation and External Gamma	Inhalation rate	m^3/year	50	7,000	Well driller scenario assumes rate of 10 m^3/day over a total of five days (EPA/600/P-95/002Fa). Rural farmer scenario assumes rate of 20 m^3/day (350 days/yr) (EPA/600/P-95/002Fa).
	Mass loading for inhalation	g/m^3	0.0001	0.0001	WDOH/320-015.
	Exposure duration	year	1	30	EPA, 1991.
	Indoor dust filtration factor	unitless	0.4	0.4	RESRAD default.
	External gamma shielding factor	unitless	0	0.4	EPA/540-R-00/007 (Equation 4).
	Indoor time fraction	unitless	0	0.6	Well driller scenario assumes zero time indoors. Rural farmer scenario assumes 15 h/day indoors, 350 days/yr (5,250 h/8,760 h).
	Outdoor time fraction	unitless	0.0046	0.12	Well driller scenario assumes total of 40 hours spent outdoors over an entire year (40 h/8,760 h). Rural farmer scenario assumes 3 h/day spent outdoors, 350 days/yr (1,050 h/8,760 h).
	Shape factor	Not applicable	Circular	Circular	RESRAD default.
R018 – Ingestion Pathway Data, Dietary Parameters	Soil ingestion intake	g/yr	1.65	35	Well driller scenario assumes incidental ingestion rate of 330 mg/day over 5 days (EPA 2004). Rural farmer scenario based on 100 mg/day (350 days/yr).
	Drinking water intake	L/yr	Not applicable	Not applicable	Rural farmer scenario assumes drinking water is obtained from an offsite (clean) source.
	Leafy vegetable consumption	kg/yr	Not applicable	69.8 (100 m^2 area) N/A (10,000 m^2 area)	Based on the average homegrown intake for western farm households (EPA/600/8-89/043, Table 13-12).
	Fruits, vegetables, and grain consumption	kg/yr	Not applicable	47.3 (100 m^2 area) N/A (10,000 m^2 area)	Based on the average homegrown intake for western farm households (EPA/600/8-89/043, Table 13-17).
	Milk consumption	L/yr	Not applicable	N/A (100 m^2 area) 100 (10,000 m^2 area)	WDOH/320-015.
	Meat and poultry consumption	kg/yr	Not applicable	N/A (100 m^2 area) 61.6 (10,000 m^2 area)	Based on the average homegrown intake for western farm households (EPA/600/8-89/043, Table 13-22).
	Fish consumption	kg/yr	Not applicable	Not applicable	The consumption of fish is considered an incomplete exposure pathway for waste site operable units within the Central Plateau.

Table F-8. 216-S-10 Ditch Summary of RESRAD Input Parameters for the Inadvertent Intruder Exposure Scenarios. (6 Pages)

Description	Parameter	Units	Well Driller Scenario	Rural Farmer Scenario	Rationale and Citation
	Other seafood consumption	kg/yr	Not applicable	Not applicable	The consumption of seafood is considered an incomplete exposure pathway for waste site operable units within the Central Plateau.
	Drinking water contamination fraction	Unitless	Not applicable	Not applicable	Not applicable.
	Household water contamination fraction	Unitless	Not applicable	Not applicable	Not applicable.
	Livestock water contamination fraction	Unitless	Not applicable	N/A (100 m^2 area) 1 (10,000 m^2 area)	RESRAD default.
	Irrigation water contamination fraction	Unitless	Not applicable	1	RESRAD default.
	Aquatic food contamination fraction	Unitless	Not applicable	Not applicable	Not applicable.
	Plant food contamination fraction	Unitless	Not applicable	-1 (100 m^2 area) N/A (10,000 m^2 area)	RESRAD default.
	Meat Contamination Fraction	Unitless	Not applicable	N/A (100 m^2 area) -1 (10,000 m^2 area)	RESRAD default.
	Milk contamination fraction	Unitless	Not applicable	N/A (100 m^2 area) -1 (10,000 m^2 area)	RESRAD default.
R019 – Ingestion Pathway Data, Nondietary	Livestock fodder intake for meat	kg/d	Not applicable	N/A (100 m^2 area) 68 (10,000 m^2 area)	RESRAD default.
	Livestock fodder intake for milk	kg/d	Not applicable	N/A (100 m^2 area) 55 (10,000 m^2 area)	RESRAD default.
	Livestock water intake for meat	L/d	Not applicable	N/A (100 m^2 area) 0 (10.000 m^2 area)	Assumes livestock drinking water is obtained from offsite source.
	Livestock water intake for milk	L/d	Not applicable	N/A (100 m^2 area) 0 (10,000 m^2 area)	Assumes livestock drinking water is obtained from offsite source.
	Livestock intake of soil	kg/d	Not applicable	N/A (100 m^2 area) 0.5 (10,000 m^2 area)	RESRAD default.
	Mass loading for foliar deposition	g/m^3	Not applicable	0.0001	RESRAD default.
	Depth of soil mixing layer	m	0.15	0.15	RESRAD default.
	Depth of roots	m	Not applicable	0.9	RESRAD default.
R020 – Groundwater Usage	Groundwater fractional usage – drinking water	unitless	Not applicable	Not applicable	Not applicable.
	Groundwater fractional usage – household usage	unitless	Not applicable	Not applicable	Not applicable.
	Groundwater fractional usage – livestock water	unitless	Not applicable	N/A (100 m^2 area) 1 (10,000 m^2 area)	RESRAD default.
	Groundwater usage –irrigation	unitless	Not applicable	1	RESRAD default.

Table F-9. 216-S-10 Pond Summary of RESRAD Input Parameters for the Inadvertent Intruder Exposure Scenarios. (6 Pages)

Description	Parameter	Units	Well Driller Scenario	Rural Farmer Scenario	Rationale and Citation
Exposure Pathways	External gamma: Inhalation: Plant ingestion: Meat ingestion: Milk ingestion: Aquatic foods: Drinking water: Soil ingestion: Radon:		Active Active Suppressed Suppressed Suppressed Suppressed Suppressed Active Suppressed	Active Active Active Active Active Suppressed Suppressed Active Suppressed	The rural farmer scenario includes two separate analyses that are summed to provide total dose. The contaminated zone area of 100 m^2 evaluates the external gamma, inhalation, plant ingestion, and soil ingestion pathways. The contaminated zone area of 10,000 m^2 evaluates the milk and meat ingestion pathways only.
R011 – Contaminated Zone (CZ)	Area of CZ	m^2	100	100 10,000 (Milk and Meat Ingestion Only)	Area is consistent with current Hanford Site performance assessments (HNF-SD-WM-TI-707, Rev. 5; ORNL-TM/13401).
	Thickness of CZ	m	0.15	0.15	Assumes depth of contamination is limited to the top 0.15 m (6 in.) for both well driller and rural farmer scenarios.
	Length parallel to aquifer flow	m	Not applicable	10 (100 m^2 area) 100 (10,000 m^2 area)	Value calculated as square root of contaminated zone area.
	Radiation dose limit	mrem/year	500	100	DOE M 435.1-1 performance measures for chronic and acute inadvertent intruder exposure scenarios.
	Elapsed time since waste placement	year	150	150	Environmental samples are decayed to 150 years in the future.
Exposure Point Concentrations	EPCs	pCi/g	Contaminant-specific	contaminant-specific	See Table F-17.
R013 – Cover and CZ Hydrological Data	Cover depth	m	0	0	No cover assumed for either exposure scenario.
	Cover material density	g/cm^3	Not applicable	Not applicable	Not applicable.
	Cover erosion rate	m/year	Not applicable	Not applicable	Not applicable.
	Density of CZ	g/cm^3	1.739	1.739	PNNL-14702 (Table 4.5). Assumed to equate with 216-S-10 Pond upper contaminated zone. Weighted average of values for Hss-W and Hgs_W. See Figure F-6 and Table F-11.
	CZ erosion rate	m/year	0.00001	0.00001	Value selected prevents appreciable erosion of the contaminated zone during the simulation period.
	CZ total porosity	unitless	0.336	0.336	PNNL-14702 (Table 4.5). Assumed to equate with 216-S-10 Pond upper contaminated zone. Weighted average of values for Hss-W and Hgs_W. See Figure F-6 and Table F-11.

Table F-9. 216-S-10 Pond Summary of RESRAD Input Parameters for the Inadvertent Intruder Exposure Scenarios. (6 Pages)

Description	Parameter	Units	Well Driller Scenario	Rural Farmer Scenario	Rationale and Citation
	CZ field capacity	unitless	0.044	0.044	PNNL-14702 (Table 4.5). Assumed to equate with 216-S-10 Pond upper contaminated zone. Weighted average of values for Hss-W and Hgs_W. See Figure F-6 and Table F-11.
	CZ hydraulic conductivity	m/year	40.1	40.1	PNNL-14702 (Table 4.5). Assumed to equate with 216-S-10 Pond upper contaminated zone. Weighted average of values for Hss-W and Hgs_W. See Figure F-6 and Table F-11.
	CZ b parameter	unitless	4.48	4.48	PNNL-14702 (Table 4.5). Assumed to equate with 216-S-10 Pond upper contaminated zone. Determined from soil textures listed in ANL/EAD-4 (Table E.2). Weighted average of values assigned to upper CZ hydrogeologic units (Hss_W = 4.90 for sandy loam, Hgs_W = 4.05 for sand).
	Humidity in air	g/cm^3	5.5	5.5	PNNL-15160. Used in RESRAD only for computation of tritium in air.
	Evapotranspiration coefficient	unitless	0.644	0.977	Well driller value equates to assumed annual infiltration rate of 6.3 cm/yr for disturbed site clear of vegetation (PNNL-14702, Table 4.15). Rural farmer value equates to assumed annual infiltration rate of 0.4 cm/yr for re-vegetated site (PNNL-14702, Table 4.15).
	Wind speed	m/s	3.4	3.4	PNNL-15160 (Table 5.1).
	Precipitation	m/year	0.177	0.177	PNNL-15160 (Table 4.1).
	Irrigation rate	m/year	Not applicable	0	All water in rural farmer scenario assumed to come from clean source.
	Irrigation mode	Not applicable	Not applicable	Overhead	RESRAD default.
	Runoff coefficient		0	0	Zero value indicates all precipitation soaks into the ground.
	Watershed area for nearby stream or pond	m^2	Not applicable	1.00E+06	RESRAD default.
	Accuracy for water/soil computations	unitless	Not applicable	0.001	RESRAD default.
R014 – Saturated Zone (SZ) Hydrological Data	Density of SZ	g/cm^3	Not applicable	1.838	PNNL-14702 (Table 4.5). Assumed to equate with value for 216-S-10 Pond (value for Rg_W). See Figure F-6 and Table F-11.
	SZ total porosity	unitless	Not applicable	0.15	PNNL-12086 (Table 3.3-1). Assumed to equate with value for 216-S-10 Pond. Value used is mid-point of range 0.1 to 0.2.

Table F-9. 216-S-10 Pond Summary of RESRAD Input Parameters for the Inadvertent Intruder Exposure Scenarios. (6 Pages)

Description	Parameter	Units	Well Driller Scenario	Rural Farmer Scenario	Rationale and Citation
	SZ effective porosity	unitless	Not applicable	0.15	PNNL-12086 (Table 3.3-1). Assumed to equate with value for 216-S-10 Pond. Value used is mid-point of range 0.1 to 0.2.
	SZ field capacity	unitless	Not applicable	0.11	Assumed to equate with value for 216-S-10 Pond. Saturated zone field capacity equated with specific yield listed in Table 5.2 of PNNL-14753 (Unit 5).
	SZ hydraulic conductivity	m/year	Not applicable	3,650	Assumed to equate with value for 216-S-10 Pond. PNNL-12086 (Table 3.3-1), value based on low end of range 10 to 150 m/day.
	SZ hydraulic gradient	unitless	Not applicable	0.0015	Assumed to equate with value for 216-S-10 Pond. PNNL-15731.
	SZ b parameter	unitless	Not applicable	4.05	Assumed to equate with value for 216-S-10 Pond. Determined from soil textures listed in ANL/EAD-4 (Table E.2). Saturated zone hydrogeologic unit (Rg_W) has little of the finer material (silt and clay) listed in Table E.2 and hence is assigned value of 4.05 for sand.
	Water table drop rate	m/year	Not applicable	0.0001	Value selected results in little change in the depth of the groundwater during the time simulation period.
	Well pump intake depth below water table	m	Not applicable	4.6	WDOH/320-015. Typical RCRA screen depth.
	Nondispersion (ND) or mass-balance	Not applicable	Not applicable	ND	RESRAD default.
	Well pumping rate	m^3/year	Not applicable	90	HNF-SD-WM-TI-707. Based on representative household use.
R015 – Uncontaminated and Unsaturated Strata Hydrological Data	Number of unsaturated strata	Not applicable	Not applicable	2	Sediment stratigraphy assumed to equate with 216-S-10 Pond upper contaminated zone. See Figure F-6.
	Thickness	m	Not applicable	37.8, 18.6	Site-specific data. See Figure F-6.
	Soil density	g/cm^3	Not applicable	1.668, 1.838	Value for each unit obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Total porosity	unitless	Not applicable	0.398, 0.294	Value for each unit obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Effective porosity	unitless	Not applicable	0.398, 0.294	Value for each unit obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Field capacity	unitless	Not applicable	0.057, 0.041	Value for each unit obtained from PNNL-14702 (Table 4.5). See Table F-11.
	Hydraulic conductivity	m/year	Not applicable	6.02, 33.4	Value for each unit obtained from PNNL-14702 (Table 4.5). See Table F-11.

Table F-9. 216-S-10 Pond Summary of RESRAD Input Parameters for the Inadvertent Intruder Exposure Scenarios. (6 Pages)

Description	Parameter	Units	Well Driller Scenario	Rural Farmer Scenario	Rationale and Citation
	Soil-specific b parameter	unitless	Not applicable	4.90, 4.05	Determined from soil textures listed in ANL/EAD-4 (Table E.2). Values assigned to unsaturated units are Hss_W = 4.90 for sandy loam and Rg_W = 4.05 for sand.
R016 – Distribution Coefficients and Leach Rates for Individual Radionuclides	Distribution coefficients (K_d) for contaminated zone, uncontaminated zone and saturated zone	cm^3/g	Contaminant-specific	Contaminant-specific	Best estimate values from PNNL-14702 (Table 4.11), Waste Chemistry/Source Category 4: Low Organic/Low Salt/Near Neutral. K_d values for Pb, Ni, and Pa derived from data in PNNL-13895 and Geibert and Usbeck, 2004. See Table F-18.
	Saturated leach rate	yr^{-1}	Contaminant-specific	Contaminant-specific	RESRAD default.
	Saturated solubility		0	0	RESRAD default.
R017 – Inhalation and External Gamma	Inhalation rate	m^3/year	50	7,000	Well driller scenario assumes rate of 10 m^3/day over a total of 5 days (EPA/600/P-95/002Fa). Rural farmer scenario assumes rate of 20 m^3/day (350 days/yr) (EPA/600/P-95/002Fa).
	Mass loading for inhalation	g/m^3	0.0001	0.0001	WDOH/320-015.
	Exposure duration	year	1	30	EPA, 1991.
	Indoor dust filtration factor	unitless	0.4	0.4	RESRAD default.
	External gamma shielding factor	unitless	0	0.4	EPA/540-R-00/007 (Equation 4).
	Indoor time fraction	unitless	0	0.6	Well driller scenario assumes zero time indoors. Rural farmer scenario assumes 15 h/day indoors, 350 days/yr (5,250 h/8,760 h).
	Outdoor time fraction	unitless	0.0046	0.12	Well driller scenario assumes total of 40 hours spent outdoors over an entire year (40 h/8,760 h). Rural farmer scenario assumes 3 h/day spent outdoors, 350 days/yr (1,050 h/8,760 h).
	Shape factor	Not applicable	Circular	Circular	RESRAD default.
R018 – Ingestion Pathway Data, Dietary Parameters	Soil ingestion intake	g/yr	1.65	35	Well driller scenario assumes incidental ingestion rate of 330 mg/day over 5 days (EPA 2004). Rural farmer scenario based on 100 mg/day (350 days/yr).
	Drinking water intake	L/yr	Not applicable	Not applicable	Rural farmer scenario assumes drinking water is obtained from an offsite (clean) source.
	Leafy vegetable consumption	kg/yr	Not applicable	69.8 (100 m^2 area) N/A (10,000 m^2 area)	Based on the average homegrown intake for western farm households (EPA/600/8-89/043, Table 13-12).
	Fruits, vegetables, and grain consumption	kg/yr	Not applicable	47.3 (100 m^2 area) N/A (10,000 m^2 area)	Based on the average homegrown intake for western farm households (EPA/600/8-89/043, Table 13-17).

Table F-9. 216-S-10 Pond Summary of RESRAD Input Parameters for the Inadvertent Intruder Exposure Scenarios. (6 Pages)

Description	Parameter	Units	Well Driller Scenario	Rural Farmer Scenario	Rationale and Citation
	Milk consumption	L/yr	Not applicable	N/A (100 m^2 area) 100 (10,000 m^2 area)	WDOH/320-015.
	Meat and poultry consumption	kg/yr	Not applicable	N/A (100 m^2 area) 61.6 (10,000 m^2 area)	Based on the average homegrown intake for western farm households (EPA/600/8-89/043, Table 13-22).
	Fish consumption	kg/yr	Not applicable	Not applicable	The consumption of fish is considered an incomplete exposure pathway for waste site operable units within the Central Plateau.
	Other seafood consumption	kg/yr	Not applicable	Not applicable	The consumption of seafood is considered an incomplete exposure pathway for waste site operable units within the Central Plateau.
	Drinking water contamination fraction	Unitless	Not applicable	Not applicable	Not applicable.
	Household water contamination fraction	Unitless	Not applicable	Not applicable	Not applicable.
	Livestock water contamination fraction	Unitless	Not applicable	N/A (100 m^2 area) 1 (10,000 m^2 area)	RESRAD default.
	Irrigation water contamination fraction	Unitless	Not applicable	1	RESRAD default.
	Aquatic food contamination fraction	Unitless	Not applicable	Not applicable	Not applicable.
	Plant food contamination fraction	Unitless	Not applicable	-1 (100 m^2 area) N/A (10,000 m^2 area)	RESRAD default.
	Meat Contamination Fraction	Unitless	Not applicable	N/A (100 m^2 area) -1 (10,000 m^2 area)	RESRAD default.
	Milk contamination fraction	Unitless	Not applicable	N/A (100 m^2 area) -1 (10,000 m^2 area)	RESRAD default.
R019 – Ingestion Pathway Data, Nondietary	Livestock fodder intake for meat	kg/d	Not applicable	N/A (100 m^2 area) 68 (10,000 m^2 area)	RESRAD default.
	Livestock fodder intake for milk	kg/d	Not applicable	N/A (100 m^2 area) 55 (10,000 m^2 area)	RESRAD default.
	Livestock water intake for meat	L/d	Not applicable	N/A (100 m^2 area) 0 (10.000 m^2 area)	Assumes livestock drinking water is obtained from offsite source.
	Livestock water intake for milk	L/d	Not applicable	N/A (100 m^2 area) 0 (10,000 m^2 area)	Assumes livestock drinking water is obtained from offsite source.
	Livestock intake of soil	kg/d	Not applicable	N/A (100 m^2 area) 0.5 (10,000 m^2 area)	RESRAD default.
	Mass loading for foliar deposition	g/m^3	Not applicable	0.0001	RESRAD default.
	Depth of soil mixing layer	m	0.15	0.15	RESRAD default.

Table F-9. 216-S-10 Pond Summary of RESRAD Input Parameters for the Inadvertent Intruder Exposure Scenarios. (6 Pages)

Description	Parameter	Units	Well Driller Scenario	Rural Farmer Scenario	Rationale and Citation
	Depth of roots	m	Not applicable	0.9	RESRAD default.
R020 – Groundwater Usage	Groundwater fractional usage – drinking water	unitless	Not applicable	Not applicable	Not applicable.
	Groundwater fractional usage – household usage	unitless	Not applicable	Not applicable	Not applicable.
	Groundwater fractional usage – livestock water	unitless	Not applicable	N/A (100 m^2 area) 1 (10,000 m^2 area)	RESRAD default.
	Groundwater usage – irrigation	unitless	Not applicable	1	RESRAD default.

Table F-10. Hydrostratigraphic Thicknesses and Associated Soil Classes. (2 Pages)

Hydrogeologic Unit	Thick	Depth	Soil Class
216-A-29 Ditch Head End (B8826)			
Backfill	3 m 10 ft	3 m 10 ft	B
Hanford Gravelly Sand	4.5 m 15 ft	7.6 m 25 ft	Hgs
Hanford Coarse Sand	16.8 m 55 ft	24.4 m 80 ft	Hcs
Hanford Gravelly Sand	3 m 10 ft	27.4 m 90 ft	Hgs
Hanford Silty Sand	39.6 m 130 ft	67.1 m 220 ft	Hss
Hanford Gravel	6.1 m 20 ft	73.2 m 240 ft	Hg
Ringold Sand and Gravel	9.1 m 30 ft	82.3 m 270 ft	Rg
216-A-29 Ditch Outlet End (299-E26-13)			
Hanford Coarse Sand	12.2 m 40 ft	12.2 m 40 ft	Hcs
Hanford Gravelly Sand	12.2 m 40 ft	24.4 m 80 ft	Hgs
Hanford Silty Sand	1.8 m 6 ft	26.2 m 86 ft	Hss
Hanford Gravel	36.6 m 120 ft	61.9 m 206 ft	Hg
216-B-63 Trench (DOE/RL-2004-17)			
Backfill	3 m 10 ft	3 m 10 ft	B
Hanford Gravel	10.1 m 33 ft	13.1 m 43 ft	Hg
Hanford Coarse Sand	49.7 m 163 ft	61.9 m 206 ft	Hcs
Hanford Gravel	11.9 m 39 ft	74.7 m 245 ft	Hg
216-S-10 Ditch (DOE/RL-2004-17)			
Hanford Silty Sand	25.3 m 83 ft	25.3 m 83 ft	Hss_W
Hanford Fine Sand	6.1 m 20 ft	31.4 m 103 ft	Hfs_W
Hanford Silty Sand	18.3 m 60 ft	49.7 m 163 ft	Hss_W
Cold Creek Sandy Gravel	1.5 m 5 ft	51.2 m 168 ft	Hg_W
Ringold Sand and Gravel	16.8 m 55 ft	68 m 223 ft	Rg_W

Table F-10. Hydrostratigraphic Thicknesses and Associated Soil Classes. (2 Pages)

Hydrogeologic Unit	Thick	Depth	Soil Class
216-S-10 Pond (DOE/RL-2004-17)			
Hanford Silty Sand	2.3 m 7.5 ft	2.3 m 7.5 ft	Hss_W
Hanford Gravelly Sand	1.4 m 4.5 ft	3.7 m 12 ft	Hgs_W
Hanford Silty Sand	38.7 m 127 ft	42.4 m 139 ft	Hss_W
Ringold Sand and Gravel	2.7 m 9 ft	45.1 m 148 ft	Rg_W
Ringold Sandy Gravel	15.8 m 52 ft	61 m 200 ft	Rg_W

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Table F-11. Hydraulic Properties of Soil Classes.

Hydraulic Property	Bulk Density (kg/L)	Porosity	Residual Moisture	Ksat	K_d Class	RESRAD "b"
Hanford Site Average						
B – Backfill	1.94	0.262	0.030	188.6	4H	4.05
Hss – Hanford Silty Sand	1.61	0.445	0.072	27.06	4H	4.90
Hcs – Hanford Coarse to Medium Sand	1.67	0.349	0.027	715.9	4I1	4.05
Hgs – Hanford Gravelly Sand	1.94	0.238	0.033	209.7	4I1	4.05
Hg – Hanford Gravel	1.93	0.167	0.022	104.1	4I2	4.05
Rg – Ringold Sand and Gravel	1.90	0.177	0.026	130.2	4I2	4.05
200 West Area Average						
Hss_W – Hanford Silty Sand	1.668	0.398	0.057	6.023	4H	4.90
Hfs_W – Hanford Fine Sand	1.700	0.356	0.042	11.57	4I1	4.38
Hgs_W – Hanford Gravelly Sand	1.810	0.273	0.030	74.11	4I1	4.05
Hg_W – Hanford Gravel	1.891	0.154	0.024	441.5	4I2	4.05
Rg_W – Ringold Sand and Gravel	1.838	0.294	0.041	33.43	4I2	4.05

The RESRAD "b" parameter was assigned based on soil texture. The other information is from PNNL-14702, Appendix B.

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Table F-12. Radionuclide-Specific Exposure Point Concentrations (pCi/g) for the Upper Contaminated Zone at Each Waste Site.

Radionuclide	216-A-29 Ditch (0 to 15 ft bgs)	216-B-63 Trench (0 to 15 ft bgs)	216-B-63 Trench (0 to 19 ft bgs)	216-S-10 Ditch (0 to 15 ft bgs)	216-S-10 Ditch (0 to 27 ft bgs)	216-S-10 Pond (0 to 15 ft bgs)
Am-241	145	0.0345	0.0345	1.84	1.84	0.395
Cs-137	98.4	3.56	3.56	9.13	9.13	1.77
H-3	0	0	0.33	0	0.061	1.53
Ni-63	0	0	23	0	38.4	0
Np-237	0.124	0.054	0.054	0	0	0.062
Pu-238	15.7	0	0.081	0	0	0
Pu-239/240	667	0	0.026	5.33	5.33	2.33
Ra-226	0.895	0	0	0	0	0
Sb-125	1.67	0	0	0	0	0
Sr-90	0.779	29.5	29.5	0.462	0.462	1.26
Tc-99	0	0	0.406	0	0	0
Th-230	1.49	1.48	1.48	1.34	1.38	1.59
U-233/234	2.31	0	0	0	0	0
U-235	0.439	0	0	0	0	0
U-238	1.81	0	0	0	0	0
Daughter Radionuclides						
Ac-227	0	0	0	0	0	0
Pa-231	0	0	0	0	0	0
Pb-210	0	0	0	0	0	0
Th-229	0	0	0	0	0	0
U-233	0	0	0	0	0	0
U-234	0	0	0	0	0	0
U-235	0	0	0	0	0	0

NOTE: Used for RESRAD analysis of the rural residential, industrial worker, CTUIR, and Yakama Nation exposure scenarios and for the groundwater impacts analysis.

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Table F-13. Radionuclide-Specific Exposure Point Concentrations (pCi/g) for the Deep Contaminated Zone at Each Waste Site.

Radionuclide	216-A-29 Ditch (Head End) (175 to 269 ft bgs)	216-A-29 Ditch (Outlet End) (111 to 205 ft bgs)	216-B-63 Trench (19 to 244 ft bgs)	216-S-10 Ditch (140 to 210 ft bgs)	216-S-10 Pond (Middle Layer) (44 to 76 ft bgs)	216-S-10 Pond (Bottom Layer) (76 to 118 ft bgs)
H-3	7.05	7.05	0	0	0	0
Ni-63	0	0	5.68	10.7	2.46	0
Pu-239/240	0	0	0	0	0	0.117
Sr-90	0	0	0	0	1.57	0
Daughter Radionuclides						
Ac-227	0	0	0	0	0	0
Pa-231	0	0	0	0	0	0
U-233	0	0	0	0	0	0

NOTE: Used for RESRAD analysis of the rural residential, CTUIR, and Yakama Nation exposure scenarios and for the groundwater impacts analysis.

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Table F-14. 216-A-29 Ditch (Head End) Inadvertent Intruder Scenario Exposure Point Concentrations.

Dilution Factor Calculations	Upper Contaminated Zone (4 ft to 15 ft bgs)				Lower Contaminated Zone (175 ft to 269 ft bgs)			
	Max. Conc. (pCi/g)	Well Driller Scenario	Rural Farmer Scenario (Small Area)	Rural Farmer Scenario (Large Area)	Max. Conc. (pCi/g)	Well Driller Scenario	Rural Farmer Scenario (Small Area)	Rural Farmer Scenario (Large Area)
Well radius (m)	--	0.15	0.15	0.15	--	0.15	0.15	0.15
Contaminated zone thickness (ft)	--	11	11	11	--	94	94	94
Contaminated zone thickness (m)	--	3.35	3.35	3.35	--	28.7	28.7	28.7
Cuttings mixing area (m^2)	--	100	100	10000	--	100	100	10000
Cuttings mixing depth (m)	--	0.15	0.15	0.15	--	0.15	0.15	0.15
Exposure area volume (m^3)	--	15	15	1500	--	15	15	1500
Exhumed contamination volume (m^3)	--	0.237	0.237	0.237	--	2.03	2.03	2.03
Dilution factor	--	1.58E-02	1.58E-02	1.58E-04	--	1.35E-01	1.35E-01	1.35E-03
Exposure Point Concentrations	--	EPC (pCi/g)	EPC (pCi/g)	EPC (pCi/g)	--	EPC (pCi/g)	EPC (pCi/g)	EPC (pCi/g)
Americium-241	145	2.29	2.29	0.02	--	--	--	--
Antimony-125	1.67	0.0264	0.0264	0.000264	--	--	--	--
Cesium-137	98.4	1.55	1.55	0.0155	--	--	--	--
Neptunium-237	0.124	0.00196	0.00196	0.0000196	--	--	--	--
Plutonium-238	15.7	0.248	0.248	0.00248	--	--	--	--
Plutonium-239/240	667	10.5	10.5	0.105	--	--	--	--
Radium-226	0.895	0.0141	0.0141	0.000141	--	--	--	--
Thorium-230	1.49	0.0235	0.0235	0.000235	--	--	--	--
Total beta radiostrontium	0.779	0.0123	0.0123	0.000123	--	--	--	--
Tritium	--	--	--	--	7.05	0.952	0.952	0.00952
Uranium-233/234	2.31	0.0365	0.0365	0.000365	--	--	--	--
Uranium-235	0.439	0.00694	0.00694	0.0000694	--	--	--	--
Uranium-238	1.81	0.0286	0.0286	0.000286	--	--	--	--

Table F-15. 216-B-63 Trench Inadvertent Intruder Scenario Exposure Point Concentrations.

Dilution Factor Calculations	Upper Contaminated Zone (5 ft to 19 ft bgs)				Lower Contaminated Zone (19 ft to 244 ft bgs)			
	Max. Conc. (pCi/g)	Well Driller Scenario	Rural Farmer Scenario (Small Area)	Rural Farmer Scenario (Large Area)	Max. Conc. (pCi/g)	Well Driller Scenario	Rural Farmer Scenario (Small Area)	Rural Farmer Scenario (Large Area)
Well radius (m)	--	0.15	0.15	0.15	--	0.15	0.15	0.15
Contaminated zone thickness (ft)	--	14	14	14	--	225	225	225
Contaminated zone thickness (m)	--	4.27	4.27	4.27	--	68.6	68.6	68.6
Cuttings mixing area (m^2)	--	100	100	10000	--	100	100	10000
Cuttings mixing depth (m)	--	0.15	0.15	0.15	--	0.15	0.15	0.15
Exposure area volume (m^3)	--	15	15	1500	--	15	15	1500
Exhumed contamination volume (m^3)	--	0.302	0.302	0.302	--	4.85	4.85	4.85
Dilution factor	--	2.01E-02	2.01E-02	2.01E-04	--	3.23E-01	3.23E-01	3.23E-03
Exposure Point Concentrations	--	EPC (pCi/g)	EPC (pCi/g)	EPC (pCi/g)	--	EPC (pCi/g)	EPC (pCi/g)	EPC (pCi/g)
Americium-241	0.0345	0.000694	0.000694	0.00000694	--	--	--	--
Cesium-137	3.56	0.0716	0.0716	0.000716	--	--	--	--
Neptunium-237	0.054	0.00109	0.00109	0.0000109	--	--	--	--
Nickel-63*	23	0.463	0.463	0.00463	5.68	1.84	1.84	0.0184
Plutonium-238	0.081	0.00163	0.00163	0.0000163	--	--	--	--
Plutonium-239/240	0.026	0.000523	0.000523	0.00000523	--	--	--	--
Technetium-99	0.406	0.00816	0.00816	0.0000816				
Thorium-230	1.48	0.0298	0.0298	0.000298	--	--	--	--
Total beta radiostrontium	29.5	0.593	0.593	0.00593	--	--	--	--
Tritium	0.33	0.00664	0.00664	0.0000664	--	--	--	--

*For Nickel-63, the sum of EPCs from upper and lower contaminated zones is input to RESRAD for each scenario.

Table F-16. 216-S-10 Ditch Inadvertent Intruder Scenario Exposure Point Concentrations.

Dilution Factor Calculations	Upper Contaminated Zone (2 ft to 27 ft bgs)				Lower Contaminated Zone (140 ft to 210 ft bgs)			
	Max. Conc. (pCi/g)	Well Driller Scenario	Rural Farmer Scenario (Small Area)	Rural Farmer Scenario (Large Area)	Max. Conc. (pCi/g)	Well Driller Scenario	Rural Farmer Scenario (Small Area)	Rural Farmer Scenario (Large Area)
Well radius (m)	--	0.15	0.15	0.15	--	0.15	0.15	0.15
Contaminated zone thickness (ft)	--	25	25	25	--	70	70	70
Contaminated zone thickness (m)	--	7.62	7.62	7.62	--	21.3	21.3	21.3
Cuttings mixing area (m2)	--	100	100	10000	--	100	100	10000
Cuttings mixing depth (m)	--	0.15	0.15	0.15	--	0.15	0.15	0.15
Exposure area volume (m3)	--	15	15	1500	--	15	15	1500
Exhumed contamination volume (m3)	--	0.539	0.539	0.539	--	1.51	1.51	1.51
Dilution factor	--	3.59E-02	3.59E-02	3.59E-04	--	1.01E-01	1.01E-01	1.01E-03
Exposure Point Concentrations	--	**EPC (pCi/g)**	**EPC (pCi/g)**	**EPC (pCi/g)**	--	**EPC (pCi/g)**	**EPC (pCi/g)**	**EPC (pCi/g)**
Americium-241	1.84	0.0661	0.0661	0.000661	--	--	--	--
Cesium-137	9.13	0.328	0.328	0.00328	--	--	--	--
Nickel-63*	38.4	1.38	1.38	0.0138	10.7	1.08	1.08	0.0108
Plutonium-239/240	5.33	0.191	0.191	0.00191	--	--	--	--
Thorium-230	1.38	0.0496	0.0496	0.000496	--	--	--	--
Total beta radiostrontium	0.462	0.0166	0.0166	0.000166	--	--	--	--
Tritium	0.061	0.00219	0.00219	0.0000219	--	--	--	--

*For Nickel-63, the sum of EPCs from upper and lower contaminated zones is input to RESRAD for each scenario.

Table F-17. 216-S-10 Pond Inadvertent Intruder Scenario Exposure Point Concentrations. (2 pages)

Dilution Factor Calculations	Upper Contaminated Zone (6 ft to 15 ft bgs)				Middle Contaminated Zone (44 ft to 76 ft bgs)				Lower Contaminated Zone (76 ft to 118 ft bgs)			
	Max. Conc. (pCi/g)	Well Driller Scenario	Rural Farmer Scenario (Small Area)	Rural Farmer Scenario (Large Area)	Max. Conc. (pCi/g)	Well Driller Scenario	Rural Farmer Scenario (Small Area)	Rural Farmer Scenario (Large Area)	Max. Conc. (pCi/g)	Well Driller Scenario	Rural Farmer Scenario (Small Area)	Rural Farmer Scenario (Large Area)
Well radius (m)	--	0.15	0.15	0.15	--	0.15	0.15	0.15	--	0.15	0.15	0.15
Contaminated zone thickness (ft)	--	9	9	9	--	32	32	32	--	42	42	42
Contaminated zone thickness (m)	--	2.74	2.74	2.74	--	9.75	9.75	9.75	--	12.8	12.8	12.8
Cuttings mixing area (m^2)	--	100	100	10000	--	100	100	10000	--	100	100	10000
Cuttings mixing depth (m)	--	0.15	0.15	0.15	--	0.15	0.15	0.15	--	0.15	0.15	0.15
Exposure area volume (m^3)	--	15	15	1500	--	15	15	1500	--	15	15	1500
Exhumed contamination volume (m^3)	--	0.194	0.194	0.194	--	0.69	0.69	0.69	--	0.90	0.90	0.90
Dilution factor	--	1.29E-02	1.29E-02	1.29E-04	--	4.60E-02	4.60E-02	4.60E-04	--	6.03E-02	6.03E-02	6.03E-04
Exposure Point Concentrations	--	**EPC (pCi/g)**	**EPC (pCi/g)**	**EPC (pCi/g)**	--	**EPC (pCi/g)**	**EPC (pCi/g)**	**EPC (pCi/g)**	--	**EPC (pCi/g)**	**EPC (pCi/g)**	**EPC (pCi/g)**
Americium-241	0.395	0.00511	0.00511	0.0000511	--	--	--	--	--	--	--	--
Cesium-137	1.77	0.0229	0.0229	0.000229	--	--	--	--	--	--	--	--
Neptunium-237	0.062	0.000801	0.000801	0.00000801	--	--	--	--	--	--	--	--
Nickel-63	--	--	--	--	2.46	0.113	0.113	0.00113	--	--	--	--
Plutonium-239/240*	2.33	0.0301	0.0301	0.000301	--	--	--	--	0.117	0.00706	0.00706	0.0000706
Thorium-230	1.59	0.0206	0.0206	0.000206	--	--	--	--	--	--	--	--
Total beta radiostrontium*	1.26	0.0163	0.0163	0.000163	1.57	0.0722	0.0722	0.000722	--	--	--	--
Tritium	1.53	0.0198	0.0198	0.000198	--	--	--	--	--	--	--	--

*For plutonium-239/240 and strontium, the sum of EPCs from two contaminated zones is input to RESRAD for each scenario.

Table F-18. Distribution Coefficients for Radionuclides.

Element	Symbol	K_d (mL/g)		Reference
		Sand+	Gravel	
Actinium	Ac	200	62	Same as europium
Americium	Am	200	62	Same as europium
Antimony	Sb	1.4	0.14	EPA/520/66-78-007a
Carbon	C	0	0	PNNL-14702 Best Estimate
Cesium	Cs	2000	620	PNNL-14702 Best Estimate
Europium	Eu	200	62	PNNL-14702 Best Estimate
Hydrogen (as tritiated water)	H	0	0	PNNL-14702 Best Estimate
Lead	Pb	70,000	7000	PNNL-13895
Neptunium	Np	10	1	PNNL-14702 Best Estimate
Nickel	Ni	200	20	PNNL-13895
Protactinium	Pa	200,000	20,000	Geibert and Usbeck, 2004
Plutonium	Pu	600	190	PNNL-14702 Best Estimate
Radium	Ra	22	7	Same as strontium
Strontium	Sr	22	7	PNNL-14702 Best Estimate
Technetium	Tc	0	0	PNNL-14702 Best Estimate
Thorium	Th	20	2	EPA 402-R-99-044B
Uranium	U	0.8	0.08	PNNL-14702 Best Estimate

NOTES:
The gravel soil classes are Hanford Gravel (Hg) and Ringold Sand and Gravel (Rg).
The K_d numbers from PNNL-14702 are the best estimate values. Similarly, the K_d values for Pb, Ni, and Pa were derived as best estimates.
K_d values for gravel were reduced as described in PNNL-14702, Section 4.3. In general, a factor of 10% is applied to the K_d for sandy soils.
The K_d for hydrogen is for tritiated water.

EPA 402-R-99-044B, *Understanding Variation in Partition Coefficient, Kd, Values, Volume II, Review of Geochemistry and Available K_d Values for Cadmium, Cesium, Chromium, Lead, Plutonium, Radon, Strontium, Thorium, Tritium (^3H), and Uranium.*
EPA/520/66-78-007a, *Radionuclide Interactions with Soil and Rock Media, Volume I: Processes Influencing Radionuclide Mobility and Retention, Element Chemistry and Geochemistry, Conclusions and Evaluation.*
Geibert, W., and R. Usbeck, 2004, "The Adsorption of Thorium and Protactinium onto different particle types: Experimental Findings."
PNNL-13895, *Hanford Contaminant Distribution Coefficient Database and Users Guide.*
PNNL-14702, *Vadose Zone Hydrogeology Data Package for Hanford Assessments.*

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Table F-19. Summary of Excess Lifetime Cancer Risks Rural Residential Scenario for Baseline Risk Assessment.

Calculation Period (yr)	Contamination Zone	Excess Lifetime Cancer Risk				
		216-A-29 Ditch		216-B-63 Trench	216-S-10 Ditch	216-S-10 Pond
		Head End	Outlet End			
0	CZ1	1.61E-12	2.24E-11	2.20E-16	1.16E-05	9.47E-17
	CZ2	1.97E-05	5.77E-05	0	0	0
	CZ3	--	--	--	--	0
	Total ELCR	**1.97E-05**	**5.77E-05**	**2.20E-16**	**1.16E-05**	**9.47E-17**
50	CZ1	1.40E-12	1.76E-11	7.69E-16	5.05E-06	3.70E-16
	CZ2	1.80E-06	3.72E-06	0	0	0
	CZ3	--	--	--	--	0
	Total ELCR	**1.80E-06**	**3.72E-06**	**7.69E-16**	**5.05E-06**	**3.70E-16**
150	CZ1	1.33E-12	1.56E-11	1.89E-15	3.36E-06	8.99E-16
	CZ2	2.65E-09	2.29E-09	0	0	0
	CZ3	--	--	--	--	0
	Total ELCR	**2.65E-09**	**2.30E-09**	**1.89E-15**	**3.36E-06**	**8.99E-16**
500	CZ1	1.35E-12	1.54E-11	3.07E-05	7.15E-06	2.46E-15
	CZ2	3.23E-19	1.32E-20	0	0	0
	CZ3	--	--	--	--	1.61E-11
	Total ELCR	**1.35E-12**	**1.54E-11**	**3.07E-05**	**7.15E-06**	**1.61E-11**
1,000	CZ1	1.36E-12	1.70E-08	8.69E-13	1.17E-05	4.00E-15
	CZ2	0	0	3.20E-11	0	0
	CZ3	--	--	--	--	5.03E-11
	Total ELCR	**1.36E-12**	**1.70E-08**	**3.29E-11**	**1.17E-05**	**5.03E-11**
Peak Year	CZ1	1.51E-12	2.02E-11	3.52E-05	1.84E-05	8.76E-14
	CZ2	1.47E-05	4.23E-05	0	0	0
	CZ3	--	--	--	--	0
	Total ELCR	**1.47E-05**	**4.23E-05**	**3.52E-05**	**1.84E-05**	**8.76E-14**
		17 yr (H3)	16 yr (H3)	506 (Tc-99)	3,299 (Pu-239)	321 (H3)
Peak Year	CZ1	--	--	3.21E-12	1.81E-05	5.65E-15
	CZ2	--	--	4.18E-11	5.49E-21	0
	CZ3	--	--	--	--	6.61E-11
	Total ELCR	**--**	**--**	**4.50E-11**	**1.81E-05**	**6.61E-11**
				963 (Ni-63)	3,936 (Ni-63)	2,572 (Pu-239)

ELCR = excess lifetime cancer risk.

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Table F-20. Summary of Annual Dose Rates Rural Residential Scenario for Baseline Risk Assessment.

Annual Radiation Dose (mrem/y)						
Calculation Period: (yr)	Contamination Zone	216-A-29 Ditch		216-B-63 Trench	216-S-10 Ditch	216-S-10 Pond
		Head End	Outlet End			
0	CZ1	7.56E-08	1.11E-06	2.99E-12	1.1	6.35E-13
	CZ2	0.0053	0.017	0	0	0
	CZ3	--	--	--	--	0
	Total Dose	**0.0053**	**0.017**	**2.99E-12**	**1.1**	**6.35E-13**
50	CZ1	6.28E-08	8.08E-07	2.66E-11	0.67	1.27E-11
	CZ2	0.069	0.15	0	0	0
	CZ3	0.069	--	--	--	0
	Total Dose	**0.14**	**0.15**	**2.66E-11**	**0.67**	**1.26E-11**
150	CZ1	5.81E-08	6.87E-07	7.55E-11	0.57	3.61E-11
	CZ2	1.01E-04	9.05E-05	0	0	0
	CZ3	--	--	--	--	0
	Total Dose	**1.01E-04**	**9.11E-05**	**7.55E-11**	**0.57**	**3.53E-11**
500	CZ1	5.90E-08	6.74E-07	2.37E-10	0.85	1.05E-10
	CZ2	1.23E-14	5.23E-16	0	0	0
	CZ3	--	--	--	--	1.62E-06
	Total Dose	**5.90E-08**	**6.74E-07**	**2.37E-10**	**0.85**	**5.62E-05**
1,000	CZ1	5.94E-08	6.56E-07	2.24E-08	1.2	1.74E-10
	CZ2	8.28E-29	0	9.45E-07	0	0
	CZ3	--	--	--	--	5.59E-06
	Total Dose	**5.94E-08**	**6.56E-07**	**9.67E-07**	**1.2**	**5.59E-06**
Peak Year	CZ1	6.97E-08	9.70E-07	0.66	1.7	5.63E-09
	CZ2	0.45	1.3	0	0	0
	CZ3	--	--	--	--	0
	Total Dose	**0.45**	**1.3**	**0.66**	**1.7**	**5.63E-09**
		17 yr (H3)	16 yr (H3)	506 (Tc-99)	3,299 (Pu-239)	321 (H3)
Peak Year	CZ1	--	--	8.20E-08	1.6	2.47E-10
	CZ2	--	--	1.23E-06	1.42E-16	0
	CZ3	--	--	--	--	7.47E-06
	Total Dose	**--**	**--**	**1.32E-06**	**1.6**	**7.47E-06**
				963 (Ni-63)	3,936 (Ni-63)	2,572 (Pu-239)

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Table F-21. Summary of Annual Dose Rates and Excess Lifetime Cancer Risks Industrial Worker Scenario for Baseline Risk Assessment.

Calculation Period (yr)	216-A-29 Ditch		216-B-63 Trench	216-S-10 Ditch	216-S-10 Pond
	Head End	Outlet End			
Annual Radiation Dose (mrem/y)					
0	2.64E-08	3.86E-07	1.04E-12	2.28E-04	2.22E-13
50	2.22E-08	2.85E-07	9.30E-12	8.82E-05	4.48E-12
150	2.10E-08	2.50E-07	2.66E-11	5.40E-05	1.30E-11
500	2.32E-08	2.71E-07	8.54E-11	1.48E-04	4.06E-11
1,000	2.65E-08	3.05E-07	1.63E-10	2.75E-04	7.48E-11
Peak: 10000	7.22E-08	6.33E-07	1.27E-09	0.0013	2.90E-10
Excess Lifetime Cancer Risk					
0	4.73E-13	6.64E-12	5.63E-17	3.34E-09	2.36E-17
50	4.14E-13	5.23E-12	2.16E-16	1.41E-09	1.05E-16
150	4.01E-13	4.76E-12	5.47E-16	1.07E-09	2.66E-16
500	4.45E-13	5.18E-12	1.67E-15	2.88E-09	7.91E-16
1,000	5.07E-13	5.82E-12	3.15E-15	5.29E-09	1.44E-15
Peak: 10000	1.38E-12	1.21E-11	2.43E-14	2.51E-08	5.54E-15

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Table F-22. Summary of Annual Dose Rates and Excess Lifetime Cancer Risks Hypothetical Excavation Industrial Worker Scenario for Balancing and Modifying Criteria Evaluation.

Calculation Period (yr)	216-A-29 Ditch		216-B-63 Trench	216-S-10 Ditch	216-S-10 Pond
	Head End	Outlet End			
Radiation Dose (mrem/y)					
0	49	49	1.4	3.5	0.75
50	23	23	0.49	1.2	0.31
150	12	12	0.17	0.29	0.19
500	9.9	9.9	0.37	0.40	0.44
1,000	9.3	9.2	0.65	0.66	0.73
Peak: 0	49	49	1.496 (6627 yr)	3.5	1.28 (4082 yr)
Excess Lifetime Cancer Risk					
0	5.88E-04	5.88E-04	2.04E-05	4.94E-05	1.05E-05
50	2.17E-04	2.17E-04	7.39E-06	1.65E-05	4.38E-06
150	6.27E-05	6.27E-05	3.13E-06	3.99E-06	3.13E-06
500	4.23E-05	4.21E-05	7.01E-06	6.64E-06	7.81E-06
1,000	3.99E-05	3.96E-05	1.23E-05	1.15E-05	1.33E-05
Peak: 0	5.88E-04	5.88E-04		4.94E-05	2.4E-5 (4,082 yr)

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Table F-23. Summary of Excess Lifetime Cancer Risks CTUIR Scenario for Balancing and Modifying Criteria Evaluation.

Calculation Period (yr)	Contamination Zone	Excess Lifetime Cancer Risk				
		216-A-29 Ditch		216-B-63 Trench	216-S-10 Ditch	216-S-10 Pond
		Head End	Outlet End			
0	CZ1	4.41E-12	5.90E-11	1.28E-15	7.81E-05	5.99E-16
	CZ2	7.14E-05	2.20E-04	0	0	0
	CZ3	--	--	--	--	0
	Total ELCR	**7.14E-05**	**2.20E-04**	**1.28E-15**	**7.81E-05**	**5.99E-16**
50	CZ1	4.00E-12	4.90E-11	2.90E-15	3.98E-05	1.40E-15
	CZ2	5.50E-06	1.21E-05	0	0	0
	CZ3	--	--	--	--	0
	Total ELCR	**5.50E-06**	**1.21E-05**	**2.90E-15**	**3.98E-05**	**1.40E-15**
150	CZ1	3.87E-12	4.54E-11	6.15E-15	3.39E-05	2.92E-15
	CZ2	8.08E-09	7.44E-09	0	0	0
	CZ3	--	--	--	--	0
	Total ELCR	**8.08E-09**	**7.49E-09**	**6.15E-15**	**3.39E-05**	**2.92E-15**
500	CZ1	3.94E-12	4.50E-11	1.11E-04	7.19E-05	7.39E-15
	CZ2	9.85E-19	4.30E-20	0	0	0
	CZ3	--	--	--	--	8.73E-11
	Total ELCR	**3.94E-12**	**4.50E-11**	**1.11E-04**	**7.19E-05**	**8.73E-11**
1,000	CZ1	3.96E-12	8.00E-07	2.79E-12	1.15E-04	1.18E-14
	CZ2	0	0	1.33E-10	0	0
	CZ3	--	--	--	--	2.45E-10
	Total ELCR	**3.96E-12**	**8.00E-07**	**1.36E-10**	**1.15E-04**	**2.45E-10**
Peak Year	CZ1	4.21E-12	5.46E-11	1.14E-04	1.79E-04	2.02E-13
	CZ2	4.52E-05	1.39E-04	0	0	0
	CZ3	--	--	--	--	1.44E-13
	Total ELCR	**4.52E-05**	**1.39E-04**	**1.14E-04**	**1.79E-04**	**3.46E-13**
		17 yr (H3)	16 yr (H3)	506 (Tc-99)	3,299 (Pu-239)	321 (H3)
Peak Year	CZ1	--	--	1.03E-11	1.77E-04	1.65E-14
	CZ2	--	--	1.74E-10	2.50E-20	0
	CZ3	--	--	--	--	3.17E-10
	Total ELCR	**--**	**--**	**1.84E-10**	**1.77E-04**	**3.17E-10**
				963 (Ni-63)	3936 (Ni-63)	2,572 (Pu-239)

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Table F-24. Summary of Annual Dose Rates CTUIR Scenario for Balancing and Modifying Criteria Evaluation.

Annual Radiation Dose (mrem/y)						
Calculation Period (yr)	Contamination Zone	216-A-29 Ditch		216-B-63 Trench	216-S-10 Ditch	216-S-10 Pond
		Head End	Outlet End			
0	CZ1	9.45E-08	1.38E-06	3.74E-12	4.4	7.94E-13
	CZ2	0.013	0.047	0	0	0
	CZ3	--	--	--	--	0
	Total Dose	**0.013**	**0.047**	**3.74E-12**	**4.4**	**6.35E-13**
50	CZ1	7.85E-08	1.01E-06	3.32E-11	2.8	1.59E-11
	CZ2	0.18	0.42	0	0	0
	CZ3		--	--	--	0
	Total Dose	**0.18**	**0.42**	**3.32E-11**	**2.8**	**1.26E-11**
150	CZ1	7.26E-08	8.58E-07	9.43E-11	2.4	4.51E-11
	CZ2	2.59E-04	2.56E-04	0	0	0
	CZ3	--	--	--	--	0
	Total Dose	**2.59E-04**	**2.57E-04**	**9.43E-11**	**2.4**	**3.53E-11**
500	CZ1	7.37E-08	8.43E-07	2.96E-12	3.6	1.31E-10
	CZ2	3.16E-14	1.48E-15	0	0	0
	CZ3	--	--	--	--	3.35E-06
	Total Dose	**7.37E-08**	**6.74E-07**	**2.96E-12**	**3.6**	**5.62E-05**
1,000	CZ1	7.43E-08	8.20E-07	4.99E-08	4.9	2.17E-10
	CZ2	2.17E-28	0	1.94E-06	0	0
	CZ3	--	--	--	--	1.15E-05
	Total Dose	**5.94E-08**	**6.56E-07**	**1.99E-06**	**4.9**	**5.59E-06**
Peak Year	CZ1	8.68E-08	1.21E-06	2.0	7.0	1.25E-08
	CZ2	1.1	3.5	0	0	0
	CZ3	--	--	--	--	0
	Total Dose	**1.1**	**3.5**	**2.0**	**7.0**	**111**
		17 yr (H3)	16 yr (H3)	506 (Tc-99)	3,299 (Pu-239)	321 (H3)
Peak Year	CZ1	--	--	1.84E-07	6.9	3.08E-10
	CZ2	--	--	2.52E-06	2.87E-16	0
	CZ3	--	--		--	1.54E-05
	Total Dose	**0**	**0**	**2.70E-06**	**6.9**	**1.54E-05**
				963 (Ni-63)	3936 (Ni-63)	2,572 (Pu-239)

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Table F-25. Summary of Excess Lifetime Cancer Risks Yakama Nation Scenario for Balancing and Modifying Criteria Evaluation.

Calculation Period (yr)	Contamination Zone	Excess Lifetime Cancer Risk				
		216-A-29 Ditch		216-B-63 Trench	216-S-10 Ditch	216-S-10 Pond
		Head End	Outlet End			
0	CZ1	4.41E-12	5.90E-11	1.28E-15	8.62E-05	5.99E-16
	CZ2	7.14E-05	2.34E-04	0	0	0
	CZ3	--	--	--	--	0
	Total ELCR	**7.14E-05**	**2.34E-04**	**1.28E-15**	**8.62E-05**	**5.99E-16**
50	CZ1	4.00E-12	4.90E-11	2.90E-15	4.34E-05	1.40E-15
	CZ2	5.50E-06	1.28E-05	0	0	0
	CZ3	--	--	--	--	0
	Total ELCR	**5.50E-06**	**1.28E-05**	**2.90E-15**	**4.34E-05**	**1.40E-15**
150	CZ1	3.87E-12	4.54E-11	6.15E-15	3.60E-05	2.92E-15
	CZ2	8.08E-09	7.91E-09	0	0	0
	CZ3	--	--	--	--	
	Total ELCR	**8.08E-09**	**7.96E-09**	**6.15E-15**	**3.60E-05**	**2.92E-15**
500	CZ1	3.94E-12	4.50E-11	1.13E-04	7.57E-05	7.39E-15
	CZ2	9.85E-19	4.57E-20	0	0	0
	CZ3	--	--	--	--	9.57E-11
	Total ELCR	**3.94E-12**	**4.50E-11**	**1.13E-04**	**7.57E-05**	**9.57E-11**
1,000	CZ1	3.96E-12	8.00E-07	2.84E-12	1.22E-04	1.18E-14
	CZ2	0	0	1.47E-10	0	0
	CZ3	--	--	--	--	2.68E-10
	Total ELCR	**3.96E-12**	**8.00E-07**	**1.50E-10**	**1.22E-04**	**2.68E-10**
Peak Year	CZ1	4.21E-12	5.46E-11	1.16E-04	1.89E-04	2.54E-13
	CZ2	4.52E-05	1.47E-04	0	0	0
	CZ3	--	--	--	--	1.58E-13
	Total ELCR	**4.52E-05**	**1.47E-04**	**1.16E-04**	**1.89E-04**	**4.12E-13**
		17 yr (H3)	16 yr (H3)	506 (Tc-99)	3,299 (Pu-239)	321 (H3)
Peak Year	CZ1	--	--	1.05E-11	1.86E-04	1.65E-14
	CZ2	--	--	1.92E-10	2.87E-20	0
	CZ3	--	--	--	--	3.48E-10
	Total ELCR	**0**	**0**	**2.03E-10**	**1.86E-04**	**3.48E-10**
				963 (Ni-63)	3,936 (Ni-63)	2,572 (Pu-239)

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Table F-26. Summary of Annual Dose Rates Yakama Nation Scenario for Balancing and Modifying Criteria Evaluation.

Annual Radiation Dose (mrem/y)						
Calculation Period (yr)	Contamination Zone	216-A-29 Ditch		216-B-63 Trench	216-S-10 Ditch	216-S-10 Pond
		Head End	Outlet End			
0	CZ1	9.45E-08	1.38E-06	3.74E-12	4.8	7.94E-13
	CZ2	0.013	0.049	0	0	0
	CZ3	--	--	--	--	0
	Total Dose	**0.013**	**0.049**	**3.74E-12**	**4.8**	**6.35E-13**
50	CZ1	7.85E-08	1.01E-06	3.32E-11	2.9	1.59E-11
	CZ2	0.18	0.44	0	0	0
	CZ3	--	--	--	--	0
	Total Dose	**0.18**	**0.44**	**3.32E-11**	**2.9**	**1.26E-11**
150	CZ1	7.26E-08	8.58E-07	9.43E-11	2.5	4.51E-11
	CZ2	2.59E-04	2.70E-04	0	0	0
	CZ3	--	--	--	--	0
	Total Dose	**2.59E-04**	**2.71E-04**	**9.43E-11**	**2.5**	**3.53E-11**
500	CZ1	7.37E-08	8.43E-07	2.96E-10	3.7	1.31E-10
	CZ2	3.16E-14	1.56E-15	0	0	0
	CZ3	--	--	--	--	3.61E-06
	Total Dose	**7.37E-08**	**6.74E-07**	**2.96E-10**	**3.7**	**5.62E-05**
1,000	CZ1	7.43E-08	8.20E-07	5.05E-08	5.2	2.17E-10
	CZ2	2.17E-28	0.00E+00	2.09E-06	0	0
	CZ3	--	--	--	--	1.24E-05
	Total Dose	**5.94E-08**	**6.56E-07**	**2.14E-06**	**5.2**	**5.59E-06**
Peak Year	CZ1	8.68E-08	1.21E-06	2.0	7.3	1.54E-08
	CZ2	1.1	3.7	0	0	0
	CZ3	--	--	--	--	0
	Total Dose	**1.1**	**3.7**	**2.0**	**7.3**	**111**
		17 yr (H3)	16 yr (H3)	506 (Tc-99)	3,299 (Pu-239)	321 (H3)
Peak Year	CZ1	--	--	1.87E-07	7.3	3.08E-10
	CZ2	--	--	2.73E-06	3.21E-16	0
	CZ3	--	--	--	--	1.66E-05
	Total Dose	**--**	**--**	**2.92E-06**	**7.3**	**1.66E-05**
				963 (Ni-63)	3,936 (Ni-63)	2,572 (Pu-239)

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Table F-27. Summary of Annual Dose Rates Inadvertent Intruder - Well Driller Scenario.

Annual Radiation Dose (mrem/y)				
Calculation Period (yr)	216-A-29 Ditch	216-B-63 Trench	216-S-10 Ditch	216-S-10 Pond
150	1.36E-03	1.18E-04	2.13E-04	4.85E-05
500	5.19E-04	1.67E-04	1.63E-04	6.95E-05
1,000	2.85E-04	2.28E-04	1.33E-04	5.87E-05

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Table F-28. Summary of Annual Dose Rates Inadvertent Intruder - Post-Drilling Rural Residential Scenario.

Annual Radiation Dose (mrem/y)				
Calculation Period (yr)	**216-A-29 Ditch**	**216-B-63 Trench**	**216-S-10 Ditch**	**216-S-10 Pond**
150	3.58E-01	8.78E-03	2.22E-02	5.04E-03
500	2.63E-01	1.39E-02	1.78E-02	6.56E-03
1,000	2.18E-01	1.89E-02	1.46E-02	5.55E-03

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Table F-29. Peak Radionuclide Groundwater Concentrations at the 216-A-29 Ditch.

Layer	Nuclide	Peak Concentration	Peak from 2008	EPA MCL
Groundwater Concentration for 216-A-29 Ditch Head End Unrestricted Land Use				
Upper Layer (CZ1)	NA	NA	NA	NA
Lower Layer (CZ2)	H-3	6,356 pCi/L	17 years	20,000 pCi/L
Groundwater Concentration for 216-A-29 Ditch Outlet End Unrestricted Land Use				
Upper Layer (CZ1)	NA	NA	NA	NA
Lower Layer (CZ2)	H-3	12,710 pCi/L	16 years	20,000 pCi/L
Groundwater Concentration for 216-A-29 Ditch Head End Industrial Land Use				
Upper Layer (CZ1)	NA	NA	NA	NA
Lower Layer (CZ2)	H-3	961 pCi/L	20 years	20,000 pCi/L
Groundwater Concentration for 216-A-29 Ditch Outlet End Industrial Land Use				
Upper Layer (CZ1)	NA	NA	NA	NA
Lower Layer (CZ2)	H-3	2,763 pCi/L	19 years	20,000 pCi/L

NA indicates the contaminants did not reach groundwater within 10,000 years.
MCL = maximum contaminant level.

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Table F-30. Peak Radionuclide Groundwater Concentrations at the 216-B-63 Trench.

Layer	Nuclide	Peak	Peak from 2008	EPA MCL
Groundwater Concentration for 216-B-63 Trench Unrestricted Land Use				
Upper Layer (CZ1)	Tc-99	670 pCi/L	507 years	900 pCi/L
Lower Layer (CZ2)	Ni-63	0.0025 pCi/L	963 years	50 pCi/L
Groundwater Concentration for 216-B-63 Trench Industrial Land Use				
Upper Layer (CZ1)	Tc-99	147 pCi/L	2,315 years	900 pCi/L
Lower Layer (CZ2)	Ni-63	NA	NA	NA

NA indicates the contaminants did not reach groundwater within 10,000 years.
MCL = maximum contaminant level.

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Table F-31. Peak Radionuclide Groundwater Concentrations at the 216-S-10 Ditch.

Layer	Nuclide	Peak	Peak from 2008	EPA MCL
Groundwater Concentration for 216-B-63 Trench Unrestricted Land Use				
Upper Layer (CZ1)	NA	NA	NA	NA
Lower Layer (CZ2)	Ni-63	2.6E-13 pCi/L	3,936 years	NA
Groundwater Concentration for 216-S-10 Ditch Industrial Land Use				
Upper Layer (CZ1)	NA	NA	NA	NA
Lower Layer (CZ2)	Ni-63	NA	NA	NA

NA indicates the contaminants did not reach groundwater within 10,000 years.
MCL = maximum contaminant level.

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Table F-32. Peak Radionuclide Groundwater Concentrations at the 216-S-10 Pond.

Layer	Nuclide	Peak	Peak from 2008	EPA MCL
Groundwater Concentration for 216-S-10 Pond Unrestricted Land Use				
Upper Layer (CZ1)	H-3	7.38E-05 pCi/L	321 years	20,000 pCi/L
Lower Layer (CZ2)	Ni-63 and Sr-90	NA	NA	NA
Bottom Layer (CZ3)	Pu-239	NA	NA	NA
Groundwater Concentration for 216-S-10 Pond Industrial Land Use				
Upper Layer (CZ1)	H-3	NA	NA	20,000 pCi/L
Lower Layer (CZ2)	Ni-63 and Sr-90	NA	NA	NA
Bottom Layer (CZ3)	Pu-239	NA	NA	NA

NA indicates the contaminants did not reach groundwater within 10,000 years.
MCL = maximum contaminant level.

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APPENDIX G

WAC 173-340 CLEANUP LEVELS AND RISK CALCULATIONS

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APPENDIX G

WAC 173-340 CLEANUP LEVELS AND RISK CALCULATIONS

Table G-1. WAC 173-340 Cleanup Levels And Risk Calculations. (3 Pages)

Constituent Name	CLARC Table Method B	CLARC Table Method C	CLARC Table Soil Conc. Protective of GW	Cw	Source	K_d	Source	Henry's Law	Source
1,2-Dichloroethane	1.10E+01	1.44E+03	2.32E-03	4.81E-01	MTCA B	3.80E-02	CLARC 3.1 $K_d = K_{oc}$ /1000	4.01E-02	CLARC 3.1
Acenaphthene	4.80E+03	2.10E+05	1.21E+02	9.60E+02	MTCA B	4.90E+00	CLARC 3.1 $K_d = K_{oc}$ /1000	6.36E-03	CLARC 3.1
Acetone	7.20E+04	3.15E+06	2.89E+01	7.20E+03	MTCA B	5.75E-04	CLARC 3.1 $K_d = K_{oc}$ /1000	1.59E-03	CLARC 3.1
Anthracene	2.40E+04	1.05E+06	1.14E+03	2.40E+03	MTCA B	2.35E+01	CLARC 3.1 $K_d = K_{oc}$ /1000	2.67E-03	CLARC 3.1
Aroclor-1254	5.00E-01	6.56E+01	6.64E-02	4.38E-02	Calculations	7.56E+01	ORNL	1.16E-02	ORNL
Arsenic	6.67E-01	8.75E+01	3.40E-02	5.83E-02	MTCA B	2.90E+01	CLARC 3.1	0.00E+00	CLARC 3.1
Benzene	1.82E+01	2.39E+03	4.48E-03	7.95E-01	MTCA B	6.20E-02	CLARC 3.1 $K_d = K_{oc}$ /1000	2.28E-01	CLARC 3.1
Benzo(a)anthracene	1.37E+00	1.80E+02	8.56E-01	1.20E-01	MTCA B	3.57E+02	CLARC 3.1 $K_d = K_{oc}$ /1000	1.37E-04	CLARC 3.1
Benzo(a)pyrene	1.37E-01	1.80E+01	2.32E-01	1.20E-02	MTCA B	9.69E+02	CLARC 3.1 $K_d = K_{oc}$ /1000	4.63E-05	CLARC 3.1
Benzo(b)fluoranthene	1.37E+00	1.80E+02	2.95E+00	1.20E-01	MTCA B	1.23E+03	CLARC 3.1 $K_d = K_{oc}$ /1000	4.55E-03	CLARC 3.1
Benzo(ghi)perylene	2.40E+03	1.05E+05	6.55E+02	4.80E+02	MTCA B	6.80E+01	CLARC 3.1 $K_d = K_{oc}$ /1000	4.51E-04	CLARC 3.1
Benzo(k)fluoranthene	1.37E+01	1.80E+03	2.95E+01	1.20E+00	MTCA B	1.23E+03	CLARC 3.1 $K_d = K_{oc}$ /1000	3.40E-05	CLARC 3.1
Bis(2-ethylhexyl) phthalate	7.14E+01	9.38E+03	1.39E+01	6.00E+00	MCL	1.11E+02	CLARC 3.1 $K_d = K_{oc}$ /1000	4.18E-06	CLARC 3.1
Boron	1.60E+04	7.00E+05	2.10E+02	3.20E+03	Calculations	3.00E+00	ORNL	1.00E+00	ORNL
Butylbenzylphthalate	1.60E+04	7.00E+05	8.93E+02	3.20E+03	MTCA B	1.38E+01	CLARC 3.1 $K_d = K_{oc}$ /1000	5.17E-05	CLARC 3.1
Cadmium	4.00E+01	1.75E+03	6.90E-01	5.00E+00	MCL	6.70E+00	CLARC 3.1	0.00E+00	CLARC 3.1
Carbazole	5.00E+01	6.56E+03	3.14E-01	4.38E+00	MTCA B	3.39E+00	CLARC 3.1 $K_d = K_{oc}$ /1000	6.26E-07	CLARC 3.1
Chromium	1.20E+05	5.25E+06	2.00E+03	1.00E+02	MCL	1.00E+03	CLARC 3.1	0.00E+00	CLARC 3.1
Chrysene	1.37E+02	1.80E+04	9.56E+01	1.20E+01	MTCA B	3.98E+02	CLARC 3.1 $K_d = K_{oc}$ /1000	3.88E-03	CLARC 3.1
Copper	2.96E+03	1.30E+05	2.63E+02	5.92E+02	MTCA B	2.20E+01	CLARC 3.1	0.00E+00	CLARC 3.1
Cyanide	1.60E+03	7.00E+04	8.00E-01	2.00E+02	MCL	0.00E+00	Conservative Assumption	0.00E+00	Conservative Assumption

Table G-1. WAC 173-340 Cleanup Levels And Risk Calculations. (3 Pages)

Constituent Name	CLARC Table Method B	CLARC Table Method C	CLARC Table Soil Conc. Protective of GW	Cw	Source	K_d	Source	Henry's Law	Source
Dibenz[a,h]anthracene	1.37E-01	1.80E+01	4.29E-01	1.20E-02	MTCA B	1.79E+03	CLARC 3.1 $K_d = K_{oc}$ /1000	6.03E-07	CLARC 3.1
Diethylphthalate	6.40E+04	2.80E+06	7.22E+01	1.28E+04	MTCA B	8.20E-02	CLARC 3.1 $K_d = K_{oc}$ /1000	1.85E-05	CLARC 3.1
Di-n-butylphthalate	8.00E+03	3.50E+05	5.65E+01	1.60E+03	MTCA B	1.57E+00	CLARC 3.1 $K_d = K_{oc}$ /1000	3.85E-08	CLARC 3.1
Fluoranthene	3.20E+03	1.40E+05	6.31E+02	6.40E+02	MTCA B	4.91E+01	CLARC 3.1 $K_d = K_{oc}$ /1000	6.60E-04	CLARC 3.1
Fluorene	3.20E+03	1.40E+05	1.01E+02	6.40E+02	MTCA B	7.71E+00	CLARC 3.1 $K_d = K_{oc}$ /1000	2.61E-03	CLARC 3.1
Fluoride	4.80E+03	2.10E+05	2.41E+01	4.00E+03	MCL	1.43E-02	ORNL	1.00E+00	ORNL
Hexavalent Chromium	2.40E+02	1.05E+04	1.84E+01	4.80E+01	MTCA B	1.90E+01	CLARC 3.1	0.00E+00	CLARC 3.1
Indeno(1,2,3-cd)pyrene	1.37E+00	1.80E+02	8.33E+00	1.20E-01	MTCA B	3.47E+03	CLARC 3.1 $K_d = K_{oc}$ /1000	6.56E-05	CLARC 3.1
Lead1	2.50E+02	--	2.70E+02	1.50E+01	MCL	9.00E+02	ORNL	1.00E+00	ORNL
Mercury	2.40E+01	1.05E+03	2.09E+00	2.00E+00	MCL	5.20E+01	CLARC 3.1	4.70E-01	CLARC 3.1
Methylene chloride	1.33E+02	1.75E+04	2.18E-02	5.00E+00	MCL	1.00E-02	CLARC 3.1 $K_d = K_{oc}$ /1000	8.98E-02	CLARC 3.1
Nickel	1.60E+03	7.00E+04	1.30E+02	1.00E+02	MCL (WAC 246-290-310)	6.50E+01	CLARC 3.1	0.00E+00	CLARC 3.1
Nitrate as N	1.28E+05	5.60E+06	4.00E+01	1.00E+04	MCL	0.00E+00	Conservative Assumption	0.00E+00	Conservative Assumption
Nitrate	5.67E+05	2.48E+07	--	--	--	--	--	--	--
Nitrite as N	8.00E+03	3.50E+05	4.00E+00	1.00E+03	MCL	0.00E+00	Conservative Assumption	0.00E+00	Conservative Assumption
Nitrite	2.63E+04	1.15E+06	--	--	--	--	--	--	--
Phenanthrene	2.40E+04	1.05E+06	1.14E+03	2.40E+03	MTCA B	2.35E+01	CLARC 3.1 $K_d = K_{oc}$ /1000	2.67E-03	CLARC 3.1
Pyrene	2.40E+03	1.05E+05	6.55E+02	4.80E+02	MTCA B	6.80E+01	CLARC 3.1 $K_d = K_{oc}$ /1000	4.51E-04	CLARC 3.1
Selenium	4.00E+02	1.75E+04	5.20E+00	5.00E+01	MCL	5.00E+00	CLARC 3.1	0.00E+00	CLARC 3.1
Silver	4.00E+02	1.75E+04	1.36E+01	8.00E+01	MTCA B	8.30E+00	CLARC 3.1	0.00E+00	CLARC 3.1
Tetrachloroethene	1.85E+00	2.43E+02	8.59E-04	8.10E-02	MTCA B	2.65E-01	CLARC database $K_d = K_{oc}$ /1000	7.54E-01	CLARC database
Thallium	5.60E+00	2.45E+02	1.59E+00	1.12E+00	MTCA B	7.10E+01	CLARC 3.1	0.00E+00	CLARC 3.1

Table G-1. WAC 173-340 Cleanup Levels And Risk Calculations. (3 Pages)

Constituent Name	CLARC Table Method B	CLARC Table Method C	CLARC Table Soil Conc. Protective of GW	Cw	Source	K_d	Source	Henry's Law	Source
Toluene	6.40E+03	2.80E+04	4.65E+00	6.40E+02	Calculations	1.40E-01	CLARC 3.1 $K_d = K_{oc}$ /1000	2.72E-01	CLARC 3.1
Total petroleum hydrocarbons - diesel range*	2.00E+03	--	--	--	--	--	--	--	--
Total petroleum hydrocarbons - kerosene range*	4.00E+03	--	--	--	--	--	--	--	--
Total petroleum hydrocarbons - motor oil (high boiling) *	2.00E+03	--	--	--	--	--	--	--	--
Tributyl phosphate	1.85E+02	2.43E+04	--	--	--	--	--	--	--
Uranium	2.40E+02	1.05E+04	1.32E+00	3.00E+01	MCL	2.00E+00	100 Area RDR/RAWP	0.00E+00	CLARC 3.1
Vanadium	5.60E+02	2.45E+04	2.24E+03	1.12E+02	MTCA B	1.00E+03	CLARC 3.1	0.00E+00	CLARC 3.1
Xylenes (total)	1.60E+04	7.81E+04	1.46E+01	1.60E+03	MTCA B	2.33E-01	CLARC 3.1 $K_d = K_{oc}$ /1000	2.79E-01	CLARC 3.1
Zinc	2.40E+04	1.05E+06	5.97E+03	4.80E+03	MTCA B	6.20E+01	CLARC 3.1	0.00E+00	CLARC 3.1

Nitrate Conversion = 4.4268.
Nitrite Conversion = 3.2845.
* Reference Method A values .

Ecology Publication 94-145, 2001, *Cleanup Levels and Risk Calculations under the Model Toxics Control Act Cleanup Regulation; CLARC, Version 3.1.*
RCW 70.105D, "Public Health and Safety," "Hazardous Waste Cleanup -- Model Toxics Control Act."
WAC 173-340, "Model Toxics Control Act – Cleanup."
WAC 246-290-310, "Public Water Supplies,"Maximum Contaminant Levels (MCLs) and Maximum Residual Disinfectant Levels (MRDLs)."

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CLARC = cleanup levels and risk calculations (Ecology 94-145).
Cw = Total petroleum hydrocarbon groundwater cleanup level.
GW = groundwater.
K_d = distribution coefficient.
K_{oc} = soil organic carbon-water partition coefficient.
MCL = maximum contaminant level.
MTCA = Model Toxics Control Act.
ORNL = Oak Ridge National Laboratory.

REFERENCES

Ecology Publication 94-145, 2001, *Cleanup Levels and Risk Calculations under the Model Toxics Control Act Cleanup Regulation; CLARC, Version 3.1*, Washington State Department of Ecology, Olympia, Washington

RCW 70.105D, "Public Health and Safety," "Hazardous Waste Cleanup -- Model Toxics Control Act," Title 70, Chapter 105D, *Revised Code of Washington*, as amended, Washington State Department of Ecology, Olympia, Washington.

WAC 173-340, "Model Toxics Control Act -- Cleanup," *Washington Administrative Code*, as amended, Washington State Department of Ecology, Olympia, Washington.

WAC 246-290-310, "Public Water Supplies,"Maximum Contaminant Levels (MCLs) and Maximum Residual Disinfectant Levels (MRDLs)," *Washington Administrative Code*, as amended, Washington State Department of Health, Olympia, Washington.

APPENDIX H

COMPARISON OF MAXIMUM SOIL CONCENTRATIONS TO U.S. ENVIRONMENTAL PROTECTION AGENCY REGION 6 MEDIA-SPECIFIC SCREENING LEVELS

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Table H-3. 216-B-63 Trench - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) Below Ground Surface to Unrestricted Land Use Direct-Contact Cleanup Levels. H-5

Table H-4. 216-B-63 Trench - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) Below Ground Surface to Industrial Use Cleanup Levels. H-6

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Table H-8. 216-S-10 Pond - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) Below Ground Surface to Industrial Use Cleanup Levels. H-12

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APPENDIX H

COMPARISON OF MAXIMUM SOIL CONCENTRATIONS TO U.S. ENVIRONMENTAL PROTECTION AGENCY REGION 6 MEDIA-SPECIFIC SCREENING LEVELS

Table H-1. 216-A-29 Ditch - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) Below Ground Surface to Unrestricted Land Use Direct-Contact Cleanup Levels. (2 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m (15 ft) (m [ft] bgs)	Region 6 Media-Specific Soil Screening Levels for the Rural Resident	Excess Lifetime Cancer Risk	Hazard Quotient
Metals Analyses (mg/kg)					
Arsenic	12.2	2.6 [8.5] - 2.9 [9.5]	3.90E-01	3.13E-05	
Boron	3.4	1.2 [4] - 1.5 [5.0]	1.56E+04		2.18E-04
Cadmium	28	1.2 [4] - 1.5 [5.0]	3.90E+01		7.18E-01
Chromium	36.8	1.2 [4] - 1.5 [5.0]	1.00E+05		3.68E-04
Copper	172	1.2 [4] - 1.5 [5.0]	2.91E+03		5.92E-02
Hexavalent Chromium	8.8	2.3 [7.5] - 2.6 [8.5]	3.01E+01		2.92E-01
Lead	390	2.3 [7.5] - 2.6 [8.5]	4.00E+02		
Mercury	5.2	1.2 [4] - 1.5 [5.0]	2.35E+01		2.22E-01
Nickel	27.6	1.2 [4] - 1.5 [5.0]	1.56E+03		1.76E-02
Selenium	2.52	2.7 [9] - 3.5 [11.5]	3.91E+02		6.44E-03
Silver	42	1.2 [4] - 1.5 [5.0]	3.91E+02		1.07E-01
Thallium	0.52	1.8 [6] - 2.1 [7]	5.48E+00		9.50E-02
Uranium	5.28	2.3 [7.5] - 2.6 [8.5]	2.30E+02		2.30E-02
Vanadium	104	2.3 [7.5] - 2.6 [8.5]	3.91E+02		2.66E-01
Zinc	224	1.2 [4] - 1.5 [5.0]	2.35E+04		9.55E-03
Semivolatile Organic Compounds (mg/kg)					
Benzo(a)anthracene	0.18	1.2 [4] - 1.5 [5.0]	1.48E-01	1.22E-06	
Benzo(a)pyrene	0.16	1.2 [4] - 1.5 [5.0]	1.48E-02	1.08E-05	
Benzo(b)fluoranthene	0.24	1.2 [4] - 1.5 [5.0]	1.48E-01	1.63E-06	
Bis(2-ethylhexyl) phthalate	6.2	1.2 [4] - 1.5 [5.0]	3.47E+01	1.78E-07	
Butylbenzylphthalate	0.29	1.2 [4] - 1.5 [5.0]	2.40E+02		1.21E-03
Chrysene	0.21	1.2 [4] - 1.5 [5.0]	1.48E+01	1.42E-08	

Table H-1. 216-A-29 Ditch - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) Below Ground Surface to Unrestricted Land Use Direct-Contact Cleanup Levels. (2 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m (15 ft) (m [ft] bgs)	Region 6 Media-Specific Soil Screening Levels for the Rural Resident	Excess Lifetime Cancer Risk	Hazard Quotient
Diethylphthalate	0.33	2.7 [9] - 3.5 [11.5]	4.89E+04		6.75E-06
Di-n-butylphthalate	2.740798	1.2 [4] - 1.5 [5.0]	6.11E+03		4.49E-04
Fluoranthene	0.37	1.2 [4] - 1.5 [5.0]	2.29E+03		1.61E-04
Phenanthrene	0.37	1.2 [4] - 1.5 [5.0]	2.19E+04		1.69E-05
Pyrene	0.35	1.2 [4] - 1.3 [4.3]	2.31E+03		1.52E-04
Tributyl phosphate	0.543205	1.2 [4] - 2.0 [6.5]	Not available		
Volatile Organic Compounds (mg/kg)					
1,2-Dichloroethane	0.013	1.2 [4] - 1.5 [5.0]	3.47E-01	3.75E-08	
Acetone	0.03	2.3 [7.5] - 2.6 [8.5]	1.42E+04		2.12E-06
Methylene chloride	0.078	1.2 [4] - 1.5 [5.0]	8.90E+00	8.77E-09	
Tetrachloroethene	0.006	1.2 [4] - 1.5 [5.0]	5.54E-01	1.08E-08	
General Inorganic Chemistry (mg/kg)					
Fluoride	5.26	2.7 [9] - 3.5 [11.5]	3.67E+03		1.43E-03
Nitrate	927	1.2 [4] - 1.5 [5.0]	1.30E+05		7.13E-03
Miscellaneous Organic Analyses (mg/kg)					
Aroclor-1254	0.094	1.2 [4] - 1.5 [5.0]	2.22E-01	4.24E-07	
Total petroleum hydrocarbons - kerosene range	0.44	1.2 [4] - 2.0 [6.5]	Not available		
Total petroleum hydrocarbons - motor oil (high boiling)	0.76	1.2 [4] - 1.5 [5.0]	Not available		
Total Excess Lifetime Cancer Risk = 4.57E-05					
Hazard Index: 1.83E+00					

Shaded cells indicate either that the excess lifetime cancer risk is greater than 1×10^{-6} or that the hazard quotient is greater than 1.
Blank cells indicate not applicable.

bgs = below ground surface.

Table H-2. 216-A-29 Ditch - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) Below Ground Surface to Industrial Use Cleanup Levels. (2 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m (15 ft) (m [ft] bgs)	Region 6 Media-Specific Soil Screening Levels for the Industrial Worker	Excess Lifetime Cancer Risk	Hazard Quotient
Metals Analyses (mg/kg)					
Arsenic	12.2	2.6 [8.5] - 2.9 [9.5]	3.80E+00	3.21E-06	
Boron	3.4	1.2 [4] - 1.5 [5.0]	1.00E+05		3.40E-05
Cadmium	28	1.2 [4] - 1.5 [5.0]	1.02E+03		2.74E-02
Chromium	36.8	1.2 [4] - 1.5 [5.0]	1.00E+05		3.68E-04
Copper	172	1.2 [4] - 1.5 [5.0]	7.59E+04		2.27E-03
Hexavalent Chromium	8.8	2.3 [7.5] - 2.6 [8.5]	6.40E+01		1.37E-01
Lead	390	2.3 [7.5] - 2.6 [8.5]	8.00E+02		
Mercury	5.2	1.2 [4] - 1.5 [5.0]	6.13E+02		8.48E-03
Nickel	27.6	1.2 [4] - 1.5 [5.0]	4.09E+04		6.75E-04
Selenium	2.52	2.7 [9] - 3.5 [11.5]	1.02E+04		2.47E-04
Silver	42	1.2 [4] - 1.5 [5.0]	1.02E+04		4.11E-03
Thallium	0.52	1.8 [6] - 2.1 [7]	1.43E+02		3.63E-03
Uranium	5.28	2.3 [7.5] - 2.6 [8.5]	3.10E+03		1.70E-03
Vanadium	104	2.3 [7.5] - 2.6 [8.5]	1.02E+04		1.02E-02
Zinc	224	1.2 [4] - 1.5 [5.0]	1.00E+05		2.24E-03
Semivolatile Organic Compounds (mg/kg)					
Benzo(a)anthracene	0.18	1.2 [4] - 1.5 [5.0]	7.84E+00	2.30E-08	
Benzo(a)pyrene	0.16	1.2 [4] - 1.5 [5.0]	7.84E-01	2.04E-07	
Benzo(b)fluoranthene	0.24	1.2 [4] - 1.5 [5.0]	7.84E+00	3.06E-08	
Bis(2-ethylhexyl) phthalate	6.2	1.2 [4] - 1.5 [5.0]	4.09E+02	1.52E-08	
Butylbenzylphthalate	0.29	1.2 [4] - 1.5 [5.0]	2.40E+02		1.21E-03
Chrysene	0.21	1.2 [4] - 1.5 [5.0]	7.84E+02	2.68E-10	
Diethylphthalate	0.33	2.7 [9] - 3.5 [11.5]	1.00E+05		3.30E-06
Di-n-butylphthalate	2.740798	1.2 [4] - 1.5 [5.0]	1.00E+05		2.74E-05
Fluoranthene	0.37	1.2 [4] - 1.5 [5.0]	8.17E+04		4.53E-06
Phenanthrene	0.37	1.2 [4] - 1.5 [5.0]	1.00E+05		3.70E-06

Table H-2. 216-A-29 Ditch - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) Below Ground Surface to Industrial Use Cleanup Levels. (2 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m (15 ft) (m [ft] bgs)	Region 6 Media-Specific Soil Screening Levels for the Industrial Worker	Excess Lifetime Cancer Risk	Hazard Quotient
Pyrene	0.35	1.2 [4] - 1.3 [4.3]	5.42E+04		6.45E-06
Tributyl phosphate	0.543205	1.2 [4] - 2.0 [6.5]	Not available		
Volatile Organic Compounds (mg/kg)					
1,2-Dichloroethane	0.013	1.2 [4] - 1.5 [5.0]	7.66E-01	1.70E-08	
Acetone	0.03	2.3 [7.5] - 2.6 [8.5]	5.61E+04		5.35E-07
Methylene chloride	0.078	1.2 [4] - 1.5 [5.0]	2.06E+01	3.79E-09	
Tetrachloroethene	0.006	1.2 [4] - 1.5 [5.0]	1.83E+00	3.28E-09	
General Inorganic Chemistry (mg/kg)					
Fluoride	5.26	2.7 [9] - 3.5 [11.5]	1.00E+05		5.26E-05
Nitrate	927	1.2 [4] - 1.5 [5.0]	1.60E+06		5.79E-04
Miscellaneous Organic Analyses (mg/kg)					
Aroclor-1254	0.094	1.2 [4] - 1.5 [5.0]	2.86E+00	3.29E-08	
Total petroleum hydrocarbons - kerosene range	0.44	1.2 [4] - 2.0 [6.5]	Not available		
Total petroleum hydrocarbons - motor oil (high boiling)	0.76	1.2 [4] - 1.5 [5.0]	Not available		
Total Excess Lifetime Cancer Risk = 3.54E-06					
Hazard Index: 2.01E-01					

Shaded cells indicate either that the excess lifetime cancer risk is greater than 1×10^{-6} or that the hazard quotient is greater than 1.
Blank cells indicate not applicable.

bgs = below ground surface.

Table H-3. 216-B-63 Trench - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) Below Ground Surface to Unrestricted Land Use Direct-Contact Cleanup Levels.

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m (15 ft) (m [ft] bgs)	Region 6 Media-Specific Soil Screening Levels for the Rural Resident	Excess Lifetime Cancer Risk	Hazard Quotient
Metals Analyses (mg/kg)					
Boron	5.8	1.5 [5] - 1.8 [6]	1.56E+04		3.71E-04
Chromium	21.9	3.8 [12.5] - 4.4 [14.5]	1.00E+05		2.19E-04
Copper	30.6	3.7 [12] - 4.0 [13]	2.91E+03		1.05E-02
Hexavalent Chromium	0.45	2.9 [9.5] - 3.2 [10.5]	3.01E+01		1.50E-02
Selenium	0.75	2.3 [7.5] - 2.6 [8.5]	3.91E+02		1.92E-03
Thallium	0.53	1.8 [6] - 2.1 [7]	5.48E+00		9.68E-02
Vanadium	86.9	2.3 [7.5] - 2.6 [8.5]	3.91E+02		2.22E-01
Zinc	80.8	3.7 [12] - 4.0 [13]	2.35E+04		3.44E-03
Semivolatile Organic Compounds (mg/kg)					
Bis(2-ethylhexyl) phthalate	0.021	2.4 [8] - 2.9 [9.5]	3.47E+01	6.04E-10	6.04E-04
Volatile Organic Compounds (mg/kg)					
Acetone	0.066	1.5 [5] - 1.8 [6]	1.42E+04		4.66E-06
Benzene	0.008	1.5 [5] - 1.8 [6]	6.56E-01	1.22E-08	
Methylene chloride	0.027	2.9 [9.5] - 3.2 [10.5]	8.90E+00	3.03E-09	
Toluene	0.003	2.1 [7] - 2.4 [8]	5.21E+02		5.76E-06
General Inorganic Chemistry (mg/kg)					
Nitrate	833	1.5 [5] - 1.8 [6]	1.30E+05		6.41E-03
Nitrite	0.821	2.9 [9.5] - 3.2 [10.5]	7.80E+03		1.05E-04
Miscellaneous Organic Analyses (mg/kg)					
Aroclor-1254	77	3.0 [10] - 4.0 [13]	2.22E-01	3.47E-04	
Total Excess Lifetime Cancer Risk = 3.47E-04					
Hazard Index: 3.58E-01					

Shaded cells indicate either that the excess lifetime cancer risk is greater than 1 x 10^{-6} or that the hazard quotient is greater than 1.
Blank cells indicate not applicable.

bgs = below ground surface.

Table H-4. 216-B-63 Trench - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) Below Ground Surface to Industrial Use Cleanup Levels.

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m (15 ft) (m [ft] bgs)	Region 6 Media-Specific Soil Screening Levels for the Industrial Worker	Excess Lifetime Cancer Risk	Hazard Quotient
Metals Analyses (mg/kg)					
Boron	5.8	1.5 [5] - 1.8 [6]	1.00E+05		5.80E-05
Chromium	21.9	3.8 [12.5] - 4.4 [14.5]	1.00E+05		2.19E-04
Copper	30.6	3.7 [12] - 4.0 [13]	7.59E+04		4.03E-04
Hexavalent Chromium	0.45	2.9 [9.5] - 3.2 [10.5]	6.40E+01		7.03E-03
Selenium	0.75	2.3 [7.5] - 2.6 [8.5]	1.02E+04		7.34E-05
Thallium	0.53	1.8 [6] - 2.1 [7]	1.43E+02		3.70E-03
Vanadium	86.9	2.3 [7.5] - 2.6 [8.5]	1.02E+04		8.50E-03
Zinc	80.8	3.7 [12] - 4.0 [13]	1.00E+05		8.08E-04
Semivolatile Organic Compounds (mg/kg)					
Bis(2-ethylhexyl) phthalate	0.021	2.4 [8] - 2.9 [9.5]	4.09E+02	5.14E-11	5.14E-05
Volatile Organic Compounds (mg/kg)					
Acetone	0.066	1.5 [5] - 1.8 [6]	5.61E+04		1.18E-06
Benzene	0.008	1.5 [5] - 1.8 [6]	1.46E+00	5.49E-09	
Methylene chloride	0.027	2.9 [9.5] - 3.2 [10.5]	2.06E+01	1.31E-09	
Toluene	0.003	2.1 [7] - 2.4 [8]	5.21E+02		5.76E-06
General Inorganic Chemistry (mg/kg)					
Nitrate	833	1.5 [5] - 1.8 [6]	1.60E+06		5.21E-04
Nitrite	0.821	2.9 [9.5] - 3.2 [10.5]	1.00E+05		8.21E-06
Miscellaneous Organic Analyses (mg/kg)					
Aroclor-1254	77	3.0 [10] - 4.0 [13]	2.86E+00	2.69E-05	
Total Excess Lifetime Cancer Risk = 2.69E-05					
Hazard Index: 2.14E-02					

Shaded cells indicate either that the excess lifetime cancer risk is greater than 1×10^{-5} or that the hazard quotient is greater than 1.
Blank cells indicate not applicable.

bgs = below ground surface.

Table H-5. 216-S-10 Ditch - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) Below Ground Surface to Unrestricted Land Use Direct-Contact Cleanup Levels. (2 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m (15 ft) (m [ft] bgs)	Region 6 Media-Specific Soil Screening Levels for the Rural Resident	Excess Lifetime Cancer Risk	Hazard Quotient
Metals Analyses (mg/kg)					
Boron	1.5	0 [0] - 0.5 [1.5]	1.56E+04		9.60E-05
Chromium	815	0 [0] - 0.5 [1.5]	1.00E+05		8.15E-03
Copper	244	0 [0] - 0.5 [1.5]	2.91E+03		8.40E-02
Hexavalent Chromium	14.1	0.5 [1.5] - 0.9 [3]	3.01E+01		4.68E-01
Lead	30	0 [0] - 0.5 [1.5]	4.00E+02		
Mercury	4.3	0 [0] - 0.5 [1.5]	2.35E+01		1.83E-01
Nickel	20.3	0 [0] - 0.5 [1.5]	1.56E+03		1.30E-02
Selenium	0.44	2.6 [8.5] - 2.9 [9.5]	3.91E+02		1.13E-03
Silver	30.4	0 [0] - 0.5 [1.5]	3.91E+02		7.77E-02
Thallium	0.99	0 [0] - 0.5 [1.5]	5.48E+00		1.81E-01
Vanadium	87.5	2.6 [8.5] - 2.9 [9.5]	3.91E+02		2.24E-01
Zinc	506	0 [0] - 0.5 [1.5]	2.35E+04		2.16E-02
Semivolatile Organic Compounds (mg/kg)					
Acenaphthene	0.061	0 [0] - 0.5 [1.5]	3.68E+03		1.66E-05
Anthracene	0.15	0 [0] - 0.5 [1.5]	2.19E+04		6.85E-06
Benzo(a)anthracene	0.55	0 [0] - 0.5 [1.5]	1.48E-01	3.73E-06	
Benzo(a)pyrene	0.6	0 [0] - 0.5 [1.5]	1.48E-02	4.06E-05	
Benzo(b)fluoranthene	0.53	0 [0] - 0.5 [1.5]	1.48E-01	3.59E-06	
Benzo(ghi)perylene	0.66	0 [0] - 0.5 [1.5]	2.31E+03		2.86E-04
Benzo(k)fluoranthene	0.45	0 [0] - 0.5 [1.5]	1.48E+00	3.05E-07	
Bis(2-ethylhexyl) phthalate	0.58	0 [0] - 0.5 [1.5]	3.47E+01	1.67E-08	
Butylbenzylphthalate	0.58	0 [0] - 0.5 [1.5]	2.40E+02		2.41E-03
Carbazole	0.097	0 [0] - 0.5 [1.5]	2.43E+01	3.99E-09	

Table H-5. 216-S-10 Ditch - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) Below Ground Surface to Unrestricted Land Use Direct-Contact Cleanup Levels. (2 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m (15 ft) (m [ft] bgs)	Region 6 Media-Specific Soil Screening Levels for the Rural Resident	Excess Lifetime Cancer Risk	Hazard Quotient
Chrysene	0.68	0 [0] - 0.5 [1.5]	1.48E+01	4.61E-08	
Dibenz(a,h)anthracene	0.11	Not available	1.48E-02	7.45E-06	
Di-n-butylphthalate	2.3	0 [0] - 0.5 [1.5]	6.11E+03		3.76E-04
Fluoranthene	1.5	0 [0] - 0.5 [1.5]	2.29E+03		6.54E-04
Fluorene	0.059	0 [0] - 0.5 [1.5]	2.64E+03		2.23E-05
Indeno(1,2,3-cd) pyrene	0.4	Not available	1.48E-01	2.71E-06	
Phenanthrene	0.93	0 [0] - 0.5 [1.5]	2.19E+04		4.25E-05
Pyrene	1.6	0 [0] - 0.5 [1.5]	2.31E+03		6.93E-04
Volatile Organic Compounds (mg/kg)					
Acetone	0.009	4.1 [13.5] - 4.4 [14.5]	1.42E+04		6.36E-07
Methylene chloride	0.01	0.5 [1.5] - 0.9 [3]	8.90E+00	1.12E-09	
General Inorganic Chemistry (mg/kg)					
Nitrate	80.6	0 [0] - 0.5 [1.5]	1.30E+05		6.20E-04
Nitrite	1.15	2.6 [8.5] - 2.9 [9.5]	7.80E+03		1.47E-04
Miscellaneous Organic Analyses (mg/kg)					
Aroclor-1254	3.7	0 [0] - 0.5 [1.5]	2.22E-01	1.67E-05	
Total petroleum hydrocarbons - diesel range	31	0 [0] - 0.5 [1.5]	Not available		
Total Excess Lifetime Cancer Risk = 7.52E-05					
Hazard Index: 1.27E+00					

Shaded cells indicate either that the excess lifetime cancer risk is greater than 1×10^{-6} or that the hazard quotient is greater than 1.
Blank cells indicate not applicable.

bgs = below ground surface.

Table H-6. 216-S-10 Ditch - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) Below Ground Surface to Industrial Use Cleanup Levels. (2 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (0 to 15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m (0 to 15 ft) (m [ft] bgs)	Region 6 Media-Specific Soil Screening Levels for the Industrial Worker	Excess Lifetime Cancer Risk	Hazard Quotient
Metals Analyses (mg/kg)					
Boron	1.5	0 [0] - 0.5 [1.5]	1.00E+05		1.50E-05
Chromium	815	0 [0] - 0.5 [1.5]	1.00E+05		8.15E-03
Copper	244	0 [0] - 0.5 [1.5]	7.59E+04		3.21E-03
Hexavalent Chromium	14.1	0.5 [1.5] - 0.9 [3]	6.40E+01		2.20E-01
Lead	30	0 [0] - 0.5 [1.5]	8.00E+02		
Mercury	4.3	0 [0] - 0.5 [1.5]	6.13E+02		7.01E-03
Nickel	20.3	0 [0] - 0.5 [1.5]	4.09E+04		4.97E-04
Selenium	0.44	2.6 [8.5] - 2.9 [9.5]	1.02E+04		4.31E-05
Silver	30.4	0 [0] - 0.5 [1.5]	1.02E+04		2.97E-03
Thallium	0.99	0 [0] - 0.5 [1.5]	1.43E+02		6.92E-03
Vanadium	87.5	2.6 [8.5] - 2.9 [9.5]	1.02E+04		8.56E-03
Zinc	506	0 [0] - 0.5 [1.5]	1.00E+05		5.06E-03
Semivolatile Organic Compounds (mg/kg)					
Acenaphthene	0.061	0 [0] - 0.5 [1.5]	3.84E+04		1.59E-06
Anthracene	0.15	0 [0] - 0.5 [1.5]	1.00E+05		1.50E-06
Benzo(a)anthracene	0.55	0 [0] - 0.5 [1.5]	7.84E+00	7.02E-08	
Benzo(a)pyrene	0.6	0 [0] - 0.5 [1.5]	7.84E-01	7.65E-07	
Benzo(b)fluoranthene	0.53	0 [0] - 0.5 [1.5]	7.84E+00	6.76E-08	
Benzo(ghi)perylene	0.66	0 [0] - 0.5 [1.5]	5.42E+04		
Benzo(k)fluoranthene	0.45	0 [0] - 0.5 [1.5]	7.84E+01	5.74E-09	
Bis(2-ethylhexyl) phthalate	0.58	0 [0] - 0.5 [1.5]	4.09E+02	1.42E-09	
Butylbenzylphthalate	0.58	0 [0] - 0.5 [1.5]	2.40E+02		2.41E-03
Carbazole	0.097	0 [0] - 0.5 [1.5]	2.86E+02	3.39E-10	

Table H-6. 216-S-10 Ditch - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) Below Ground Surface to Industrial Use Cleanup Levels. (2 Pages)

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (0 to 15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m (0 to 15 ft) (m [ft] bgs)	Region 6 Media-Specific Soil Screening Levels for the Industrial Worker	Excess Lifetime Cancer Risk	Hazard Quotient
Chrysene	0.68	0 [0] - 0.5 [1.5]	7.84E+02	8.67E-10	
Dibenz(a,h)anthracene	0.11	0 [0] - 0.5 [1.5]	7.84E-01	1.40E-07	
Di-n-butylphthalate	2.3	0 [0] - 0.5 [1.5]	1.00E+05		2.30E-05
Fluoranthene	1.5	0 [0] - 0.5 [1.5]	8.17E+04		1.84E-05
Fluorene	0.059	0 [0] - 0.5 [1.5]	3.32E+04		1.78E-06
Indeno(1,2,3-cd) pyrene	0.4	0 [0] - 0.5 [1.5]	7.84E+00	5.10E-08	
Phenanthrene	0.93	0 [0] - 0.5 [1.5]	1.00E+05		9.30E-06
Pyrene	1.6	0 [0] - 0.5 [1.5]	5.42E+04		2.95E-05
Volatile Organic Compounds (mg/kg)					
Acetone	0.009	4.1 [13.5] - 4.4 [14.5]	5.61E+04		1.60E-07
Methylene chloride	0.01	0.5 [1.5] - 0.9 [3]	2.06E+01	4.86E-10	
General Inorganic Chemistry (mg/kg)					
Nitrate	80.6	0 [0] - 0.5 [1.5]	1.60E+06		5.04E-05
Nitrite	1.15	2.6 [8.5] - 2.9 [9.5]	1.00E+05		1.15E-05
Miscellaneous Organic Analyses (mg/kg)					
Aroclor-1254	3.7	0 [0] - 0.5 [1.5]	2.86E+00	1.29E-06	
Total petroleum hydrocarbons - diesel range	31	0 [0] - 0.5 [1.5]	Not available		
Total Excess Lifetime Cancer Risk = 2.40E-06					
Hazard Index: 2.65E-01					

Shaded cells indicate either that the excess lifetime cancer risk is greater than 1 x 10^{-6} or that the hazard quotient is greater than 1.
Blank cells indicate not applicable.

bgs = below ground surface.

Table H-7. 216-S-10 Pond - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) Below Ground Surface to Unrestricted Land Use Direct-Contact Cleanup Levels.

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m (15 ft) (m [ft] bgs)	Region 6 Media-Specific Soil Screening Levels for the Rural Resident	Excess Lifetime Cancer Risk	Hazard Quotient
Metals Analyses (mg/kg)					
Boron	1	1.8 [6] - 2.1 [7]	1.56E+04		6.40E-05
Chromium	26.2	2.7 [9] - 3.0 [10]	1.00E+05		2.62E-04
Hexavalent Chromium	2.7	2.1 [7] - 2.4 [8]	3.01E+01		8.97E-02
Mercury	0.43	3.5 [11.5] - 3.8 [12.5]	2.35E+01		1.83E-02
Selenium	0.46	2.7 [9] - 3.0 [10]	3.91E+02		1.18E-03
Silver	8.3	2.7 [9] - 3.0 [10]	3.91E+02		2.12E-02
Thallium	0.62	1.2 [4] - 1.5 [5.0]	5.48E+00		1.13E-01
Semivolatile Organic Compounds (mg/kg)					
Bis(2-ethylhexyl) phthalate	0.14	1.2 [4] - 1.5 [5.0]	3.47E+01	4.03E-09	
Volatile Organic Compounds (mg/kg)					
Acetone	0.026	2.6 [8.5] - 2.9 [9.5]	1.42E+04		1.84E-06
Methylene chloride	0.015	2.9 [9.5] - 3.2 [10.5]	8.90E+00	1.69E-09	
Toluene	0.0042	2.9 [9.5] - 3.2 [10.5]	5.21E+02		8.06E-06
Xylenes (total)	0.001388	1.8 [6] - 2.1 [7]	2.14E+02		6.47E-06
General Inorganic Chemistry (mg/kg)					
Cyanide	0.2	2.9 [9.5] - 3.2 [10.5]	6.11E+03		3.27E-05
Nitrite	1.58	2.9 [9.5] - 3.2 [10.5]	7.80E+03		
Total Excess Lifetime Cancer Risk = 5.72E-09					
Hazard Index: 2.44E-01					

Blank cells indicate not applicable.

bgs = below ground surface.

Table H-8. 216-S-10 Pond - Shallow Zone Soil Comparison of Maximum Soil Concentrations from 0 to 4.6 m (15 ft) Below Ground Surface to Industrial Use Cleanup Levels.

Constituent Name	Maximum Detected Concentration from 0 to 4.6 m (15 ft) bgs	Depth of Maximum Detected from 0 to 4.6 m (15 ft) (m [ft] bgs)	Region 6 Media-Specific Soil Screening Levels for the Industrial Worker	Excess Lifetime Cancer Risk	Hazard Quotient
Metals Analyses (mg/kg)					
Boron	1	1.8 [6] - 2.1 [7]	1.00E+05		1.00E-05
Chromium	26.2	2.7 [9] - 3.0 [10]	1.00E+05		2.62E-04
Hexavalent Chromium	2.7	2.1 [7] - 2.4 [8]	6.40E+01		4.22E-02
Mercury	0.43	3.5 [11.5] - 3.8 [12.5]	6.13E+02		7.01E-04
Selenium	0.46	2.7 [9] - 3.0 [10]	1.02E+04		4.50E-05
Silver	8.3	2.7 [9] - 3.0 [10]	1.02E+04		8.12E-04
Thallium	0.62	1.2 [4] - 1.5 [5.0]	1.43E+02		4.33E-03
Semivolatile Organic Compounds (mg/kg)					
Bis(2-ethylhexyl) phthalate	0.14	1.2 [4] - 1.5 [5.0]	4.09E+02	3.43E-10	
Volatile Organic Compounds (mg/kg)					
Acetone	0.026	2.6 [8.5] - 2.9 [9.5]	5.61E+04		4.64E-07
Methylene chloride	0.015	2.9 [9.5] - 3.2 [10.5]	2.06E+01	7.29E-10	
Toluene	0.0042	2.9 [9.5] - 3.2 [10.5]	5.21E+02		8.06E-06
Xylenes (total)	0.001388	1.8 [6] - 2.1 [7]	2.14E+02		6.47E-06
General Inorganic Chemistry (mg/kg)					
Cyanide	0.2	2.9 [9.5] - 3.2 [10.5]	1.00E+05		2.00E-06
Nitrite	1.58	2.9 [9.5] - 3.2 [10.5]	1.00E+05		1.58E-05
Total Excess Lifetime Cancer Risk = 1.07E-09					
Hazard Index: 4.84E-02					

Blank cells indicate not applicable.

bgs = below ground surface.

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APPENDIX I

2 **POTENTIAL APPLICABLE OR RELEVANT**
3 **AND APPROPRIATE REQUIREMENTS**

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TERMS

200-CS-1	200-CS-1 Chemical Sewer Group
ALARA	as low as reasonably achievable
ARAR	applicable or relevant and appropriate requirement
CERCLA	*Comprehensive Environmental Response, Compensation, and Liability Act of 1980*
CFR	*Code of Federal Regulations*
EPA	U.S. Environmental Protection Agency
ERDF	Environmental Restoration Disposal Facility
MCL	maximum contaminant level
ODS	ozone-depleting substance
OU	operable unit
PCB	polychlorinated biphenyl
RACT	reasonably available control technology
RCRA	*Resource Conservation and Recovery Act of 1976*
TBC	to be considered
TSD	treatment, storage, and disposal (unit)
WAC	*Washington Administrative Code*

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APPENDIX I

POTENTIAL APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

I1.0 IDENTIFICATION OF POTENTIAL APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS FOR THE 200-CS-1 OPERABLE UNITS

This appendix identifies and evaluates potential applicable or relevant and appropriate requirements (ARARs) for waste site remediation in the 200-CS-1 Chemical Sewer Group (200-CS-1) Operable Unit (OU). The potential ARARs identified in this appendix form the basis for the levels to which contaminants will be remediated to protect human health and the environment. The *Comprehensive Environmental Response, Compensation, and Liability Act of 1980* (CERCLA) provides for the identification of to-be-considered (TBC), nonpromulgated advisories, criteria, guidance, or proposed standards that may be consulted to interpret remediation goals when ARARs are insufficient or do not exist. Independent of the TBC and ARARs identification process at the Hanford Site, the requirements of U.S. Department of Energy directives must be met.

Waste sites undergoing remedial action in the 200-CS-1 OU will be required to meet ARARs in as established in the record of decision. This appendix identifies and evaluates potential ARARs for these sites. In many cases, the ARARs form the basis for the preliminary remediation goals to which contaminants will be remediated to protect human health and the environment. In other cases, the ARARs define or restrict how specific remedial measures can be implemented.

The ARARs identification process is based on CERCLA guidance (EPA/540/G-89/004, *Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA, Interim Final*, OSWER 9355.3-01; EPA/540/G-89/006, *CERCLA Compliance with Other Laws Manual: Interim Final*). CERCLA, Section 121 requires, in part, that any applicable or relevant and appropriate standard, requirement, criterion, or limitation promulgated under any Federal environmental law, or any more stringent state requirement promulgated pursuant to a state environmental statute, be met (or a waiver justified) for any hazardous substance, pollutant, or contaminant that will remain on site after completion of remedial action.

An applicable requirement is a requirement that a person would have to comply with by law if the same action were being undertaken apart from CERCLA authority. All jurisdictional prerequisites of the requirement must be met for the requirement to be applicable.

A requirement is applicable if the specific terms or jurisdictional prerequisites of the law or regulations directly address the circumstances at a site. If not applicable, a requirement may nevertheless be relevant and appropriate if two conditions are met: (1) circumstances at the site are, based on best professional judgment, sufficiently similar to the problems or situations regulated by the requirement and (2) the requirement's use is well suited to the site. (40 CFR 300.5, "National Oil and Hazardous Substances Pollution Contingency Plan," "Definitions"). An ARAR may not meet one or more jurisdictional prerequisites for applicability but still may make sense at the site, given the circumstances of the site and the release. In evaluating the relevance and appropriateness of a requirement, the following eight comparison factors in 40

CFR 300.400(g)(2), "Identification of Applicable or Relevant and Appropriate Requirements," are considered:

1. The purpose of the requirement and the purpose of the CERCLA action
2. The medium regulated or affected by the requirement and the medium contaminated or affected at the CERCLA site
3. The substances regulated by the requirement and the substances found at the CERCLA site
4. The actions or activities regulated by the requirement and the remedial action contemplated at the CERCLA site
5. Any variances, waivers, or exemptions of the requirement and their availability for the circumstances at the CERCLA site
6. The type of place regulated and the type of place affected by the release or CERCLA action
7. The type and size of structure or facility regulated and the type and size of structure or facility affected by the release or contemplated by the CERCLA action
8. Any consideration of use or potential use of affected resources in the requirement and the use or potential use of the affected resource at the CERCLA site.

In addition, potential ARARs were evaluated to determine if they fall into one of three categories: chemical-specific, location-specific, or action-specific. These categories are defined as follows.

- Chemical-specific requirements are usually health- or risk-based numerical values or methodologies that, when applied to site-specific conditions, result in the establishment of public- and worker-safety levels and site-cleanup levels.
- Location-specific requirements are restrictions placed on the concentration of dangerous substances or the conduct of activities solely because they occur in special geographic areas.
- Action-specific requirements are usually technology- or activity-based requirements or limitations triggered by the remedial actions performed at the site.

Only the substantive requirements (e.g., use of control/containment equipment, compliance with numerical standards) associated with ARARs apply to CERCLA on-site activities. Requirements of associated administrative requirements are by definition not applicable to onsite CERCLA activities. In addition, permits are not applicable to CERCLA on-site activities (CERCLA, Section 121[e][1]). In general, this CERCLA permitting exemption will be extended to all remedial and corrective action activities conducted at the 200-CS-1 OU, with the exception of the *Resource Conservation and Recovery Act of 1976* (RCRA) treatment, storage, and/or

disposal units, which will be incorporated into WA7890008967, *Hanford Facility Resource Conservation and Recovery Act Permit, Dangerous Waste Portion, Revision 8, for the Treatment, Storage, and Disposal of Dangerous Waste*.

TBC information is nonpromulgated advisories or guidance issued by Federal or state governments that is not legally binding and does not have the status of ARARs. In some circumstances, TBC issues will be included with ARARs in determining the remedial action necessary for protection of human health and the environment. The TBC information in such circumstances will complement the ARARs in determining protectiveness at a site or implementation of certain actions. For example, because soil cleanup standards do not exist for all contaminants, health advisories, which are TBC, may be helpful in defining appropriate remedial action goals.

I1.1 Waivers from Applicable or Relevant and Appropriate Requirements

The U.S. Environmental Protection Agency (EPA) may waive ARARs and select a remedial action that does not attain the same level of site cleanup as that identified by the ARARs. The *Superfund Amendments and Reauthorization Act of 1986*, Section 121 identifies six circumstances in which the EPA may waive ARARs for on-site remedial actions. The six circumstances are as follows.

- The remedial action selected is only a part of a total remedial action (such as an interim action), and the final remedy will attain the ARAR upon its completion.
- Compliance with the ARAR will result in a greater risk to human health and the environment than alternative options.
- Compliance with the ARAR is technically impracticable from an engineering perspective.
- An alternative remedial action will attain an equivalent standard of performance using another method or approach.
- The ARAR is a state requirement that the state has not consistently applied (or demonstrated the intent to apply consistently) in similar circumstances.
- In the case of Section 104 (Superfund-financed remedial actions), compliance with the ARAR will not provide a balance between protecting human health and the environment and the availability of Superfund money for response at other facilities.

No waivers are being requested for the 200-CS-1 OU.

I1.2 Potential Applicable or Relevant and Appropriate Requirements Applicable to Remedial Actions for Waste Sites in the 200-CS-1 Operable Units

Potential Federal and state ARARs are presented in Tables F-1 and F-2, respectively. The chemical-specific ARARs likely to be relevant and appropriate to remediation of the 200-CS-1 OU are elements of the Washington State regulations that implement WAC 173-340, "Model Toxics Control Act -- Cleanup." Specifically, provisions associated with developing risk-based concentrations for cleanup (WAC 173-340-745, "Soil Cleanup Standards for Industrial Properties") will help establish soil cleanup levels that are protective for nonradioactive contaminants at waste sites. The state air emission standards are likely to be important in identifying air emission limits and control requirements for any remedial actions that produce air emissions. RCRA land disposal restrictions will be important standards during the management of any dangerous or mixed wastes that may be generated during implementation of remedial action.

I1.2.1 Waste Management Standards

A variety of waste streams would be generated under the proposed remedial action alternatives. It is anticipated that most of the waste will designate as LLW. However, quantities of dangerous or mixed waste, PCB waste, and asbestos and asbestos-containing material also could be generated. The great majority of the waste will be in a solid form. However, some aqueous solutions might be generated (e.g., liquid in railcars).

Radioactive waste is managed by DOE under the authority of the *Atomic Energy Act of 1954*.

The identification, storage, treatment, and disposal of hazardous waste and the hazardous component of mixed waste are governed by RCRA. The State of Washington, which implements RCRA requirements under Washington Administrative Code (WAC) 173-303, has been authorized to implement most elements of the RCRA program. The dangerous waste standards for generation and storage would apply to the management of any dangerous or mixed waste generated and stored for removal from the 200-MG-2 OU waste sites. Treatment standards for dangerous or mixed waste subject to RCRA land disposal restrictions are specified in WAC 173-303-140, which incorporates 40 CFR 268 by reference.

The management and disposal of PCB wastes are governed by the *Toxic Substances Control Act* (TSCA) *of 1976*, and regulations at 40 CFR 761. The TSCA regulations contain specific provisions for PCB waste, including PCB waste that contains a radioactive component. PCBs also are considered underlying hazardous constituents under RCRA and thus could be subject to WAC 173-303 and 40 CFR 268 requirements if present in a dangerous or mixed waste matrix.

Removal and disposal of asbestos and asbestos-containing material are regulated under the *Clean Air Act* (40 CFR 61, Subpart M). These regulations provide for special precautions to prevent environmental releases or exposure to personnel of airborne emissions of asbestos fibers during remedial actions.

It is assumed that LLW that meets ERDF acceptance criteria will be disposed at ERDF, which is engineered to meet appropriate performance standards. Alternate potential disposal locations may be considered during implementation of the remedial action if a suitable and cost effective location is identified. Any potential alternate disposal location will be evaluated for appropriate performance standards to assure that it is adequately protective of human health and the environment.

Waste designated as dangerous or mixed waste would be treated as appropriate to meet land disposal restrictions and ERDF acceptance criteria, and disposed at ERDF. ERDF is engineered to meet minimum technical requirements for landfills under WAC 173-303-665. Applicable packaging and pre-transportation requirements for dangerous or mixed waste generated at the 200-MG-2 OU waste sites would be identified and implemented before movement of any waste.

Some of the aqueous waste designated as LLW, dangerous, or mixed waste would be transported to ETF for treatment and disposal. The ETF is an RCRA-permitted facility authorized to treat aqueous waste streams generated on the Hanford Site and dispose of these streams at a designated state-approved land disposal site in accordance with applicable requirements.

Waste designated as PCB remediation waste likely would be disposed at ERDF, depending on whether it meets the waste acceptance criteria. PCB waste that does not meet ERDF waste acceptance criteria would be sent to a PCB storage area meeting the requirements for TSCA storage and would be transported for future disposal at an appropriate disposal facility.

Asbestos and asbestos-containing material would be removed, packaged as appropriate, and disposed in ERDF.

CERCLA Section 104(d)(4) states that where two or more noncontiguous facilities are reasonably related on the basis of geography, or on the basis of the threat or potential threat to the public health or welfare or the environment, the facilities can be treated as one for purposes of CERCLA response actions. Consistent with this, the 200-MG-2 OU waste sites and ERDF would be considered onsite for purposes of Section 104 of CERCLA, and waste may be transferred between the facilities without requiring a permit.

All alternatives can be performed in compliance with the waste management ARARs. Waste streams will be evaluated, designated, and managed in compliance with the ARAR requirements. Before disposal, waste will be managed in a protective manner to prevent releases to the environment or unnecessary exposure to personnel.

I1.2.2 Standards Controlling Emissions to the Environment

The proposed remedial action alternatives have the potential to generate both radioactive and toxic/criteria airborne emissions.

I1.2.2.1 Radiological Air Emissions

The Revised Code of Washington (RCW) 70.94, "Washington Clean Air Act," requires regulation of radioactive air pollutants. The state implementing regulation WAC 173-480, "Ambient Air Quality Standards and Emission Limits for Radionuclides," sets standards that are as stringent or more so than the federal *Clean Air Act of 1990* and Amendments (42 United States Code 7401 et seq.), and under the federal implementing regulation, 40 CFR 61, Subpart H, "National Emission Standards for Emissions of Radionuclides Other than Radon from Department of Energy Facilities." EPA's partial delegation of the 40 CFR 61 authority to the State of Washington includes all substantive emissions monitoring, abatement, and reporting aspects of the federal regulation. The state standards protect the public by conservatively establishing exposure standards applicable to the maximally exposed public individual. Under the Washington Administrative Code [WAC 246-247-030(15)], the "maximally exposed individual" (MEI) is any member of the public (real or hypothetical) who abides or resides in an unrestricted area, and may receive the highest total effective dose equivalent (TEDE) from the emission unit(s) under consideration, taking into account all exposure pathways affected by the radioactive air emissions. All combined radionuclide airborne emissions from the DOE Hanford Site "facility" are not to exceed amounts that would cause an exposure to any member of the public of greater than 10 mrem/yr effective dose equivalent. The state implementing regulation WAC 246-247, "Radiation Protection – Air Emissions," which adopts the WAC 173-480 standards, and the 40 CFR 61 Subpart H standard, require verification of compliance with the 10 mrem/yr standard, and would potentially be applicable to the remedial action.

The WAC 246-247 further addresses sources emitting radioactive airborne emissions by requiring monitoring of such sources. Such monitoring requires physical measurement (i.e., sampling) of the effluent or ambient air. The substantive provisions of WAC 246-247 that require monitoring of radioactive airborne emissions would potentially be applicable to the remedial action.

The above state implementing regulations further address control of radioactive airborne emissions where economically and technologically feasible [WAC 246-247-040(3) and -040(4), "Radiation Protection - Air Emissions," "General Standards," and associated definitions]. To address the substantive aspect of these potential requirements, best or reasonably achieved control technology could be addressed by ensuring that applicable emission control technologies (those successfully operated in similar applications) would be used when economically and technologically feasible (i.e., based on cost/benefit). If it is determined that there are substantive aspects of the requirement for control of radioactive airborne emissions once ARARs are finalized, then controls will be administered as appropriate using the best methods from among those that are reasonable and effective.

I1.2.2.2 Criteria/Toxic Air Emissions

Under WAC 173-400, "General Regulations for Air Pollution Sources," and WAC 173-460, "Controls for New Sources of Toxic Air Pollutants," requirements are established for the regulation of emissions of criteria/toxic air pollutants. The primary nonradioactive emissions resulting from this remedial action will be fugitive particulate matter. In accordance with WAC 173-400-040, "General Standards for Maximum Emissions," reasonable precautions must

be taken to (1) prevent the release of air contaminants associated with fugitive emissions resulting from excavation, materials handling, or other operations; and (2) prevent fugitive dust from becoming airborne from fugitive sources of emissions. The use of treatment technologies that would result in emissions of toxic air pollutants that would be subject to the substantive applicable requirements of WAC 173-460 are not anticipated to be a part of this remedial action. Treatment of some waste encountered during the remedial action may be required to meet ERDF waste acceptance criteria. In most cases, the type of treatment anticipated would consist of solidification/stabilization techniques such as macroencapsulation or grouting, and WAC 173-460 would not be considered an ARAR. If more aggressive treatment is required that would result in the emission of regulated air pollutants, the substantive requirements of WAC 173-400-113(2) and WAC 173-460-060 would be evaluated to determine applicability.

Emissions to the air will be minimized during implementation of the remedial action through use of standard industry practices such as the application of water sprays and fixatives. These techniques are considered reasonable precautions to control fugitive emissions as required by the regulatory standards.

Table I-1. Identification of Potential Federal Applicable or Relevant and Appropriate Requirements and To Be Considered for the Remedial Action Sites. (3 Pages)

ARAR Citation	ARAR or TBC	Requirement	Rationale for Use
40 CFR 761, "Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions"			
40 CFR 761.50, "Applicability" Specific Subsections: 40 CFR 761.50(b)(1) 40 CFR 761.50(b)(2) 40 CFR 761.50(b)(3) 40 CFR 761.50(b)(4) 40 CFR 761.50(b)(7) 40 CFR 761.50(c)	ARAR	These regulations establish standards for the storage and disposal of PCB wastes.	The substantive requirements of these regulations are applicable to the storage and disposal of PCB liquids, items, remediation waste, and bulk product waste at ≥ 50 p/m. The specific subsections identified from 40 CFR 761.50(b) reference the specific sections for the management of PCB waste type. The disposal requirements for radioactive PCB waste are addressed in 40 CFR 761.50(b)(7). This is a chemical-specific requirement.
Archeological and Historic Preservation Act, 16 USC 469aa-mm	ARAR	Requires that remedial actions at 200-CS-1 OU waste sites do not cause the loss of any archaeological or historic data. This act mandates preservation of the data and does not require protection of the actual waste site or facility.	Archeological and historic sites have been identified within the 200 Areas; therefore, the substantive requirements of this act are applicable to actions that might disturb these sites. This is a location-specific requirement.
National Historic Preservation Act of 1966, 16 USC 470, Section 106	ARAR	Requires federal agencies to consider the impacts of their undertaking on cultural properties through identification, evaluation and mitigation processes, and consultation with interested parties.	Cultural and historic sites have been identified within the 200 Areas, and therefore the substantive requirements of this act are applicable to actions that might disturb these types of sites. This is a location-specific requirement.
Native American Graves Protection and Repatriation Act, 25 USC 3001, et seq.	ARAR	Establishes federal agency responsibility for discovery of human remains, associated and unassociated funerary objects, sacred objects and items of cultural patrimony.	Substantive requirements of this act are applicable if remains and sacred objects are found during remediation and will require Native American Tribal consultation in the event of discovery. This is a location-specific requirement.
Endangered Species Act	ARAR	Prohibits actions by federal	Substantive requirements of this act are applicable if

Table I-1. Identification of Potential Federal Applicable or Relevant and Appropriate Requirements and To Be Considered for the Remedial Action Sites. (3 Pages)

ARAR Citation	ARAR or TBC	Requirement	Rationale for Use
of 1973, 16 USC 1531, et seq., subsection 16 USC 1536(c)		agencies that are likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification or critical habitat. If remediation is within critical habitat or buffer zones surrounding threatened or endangered species, mitigation measures must be taken to protect the resource.	threatened or endangered species are identified in areas where remedial actions will occur. This is a location-specific requirement.
40 CFR 61, Subpart M, "National Emission Standard for Asbestos;" 40 CFR 61.140, "Applicability"			
40 CFR 61.145, "Standard for Demolition and Renovation"	ARAR	Specifies that facilities be inspected for the presence of asbestos before demolition. The standard defines regulated asbestos-containing materials and establishes removal requirements based on quantity present and handling requirements. These requirements also specify handling and disposal requirements for regulated sources that have the potential to emit asbestos. Specifically, no visible emissions are allowed during handling, packaging, and transport of asbestos-containing materials.	Although asbestos-containing materials are not anticipated, substantive requirements of this standard are applicable, should this remedial action include abatement of asbestos and asbestos-containing materials on pipelines or buried asbestos. As a result, there is potential to emit asbestos to unrestricted areas, and the requirements for the removal, handling, and packaging of asbestos apply. This is an action-specific requirement.
40 CFR 61.150, "Standard for Waste Disposal for Manufacturing, Fabricating, Demolition, Renovation, and Spraying Operations"	ARAR	Identifies the requirements for the removal and disposal of asbestos from demolition and renovation activities.	Although asbestos-containing materials are not anticipated, the substantive requirements of this standard are applicable, should asbestos-containing material be located during remedial-action activities of associated pipelines and buried asbestos. This is an action-specific requirement.
Regulations pursuant to the *Resource Conservation and Recovery Act of 1976* and implemented through WAC 173-303, "Dangerous Waste Regulations" (Table C-2).			
40 CFR 82, "Protection of Stratospheric Ozone"			
40 CFR 82.156, "Required Practices" 40 CFR 82.158, "Standards for Recycling and Recovery Equipment" 40 CFR 82.161, "Technician Certification"	ARAR	Specifies the procedures and processes that will be followed for recycling and recovering ODS. Establishes the required performance standards for ODS recycling and recovery equipment; and requires appropriate certification for workers who recover or recycle ODS.	The substantive requirements are applicable to the selected remedy. The remedy may include the recycling or recovery of ODS that must be conducted in accordance with the applicable requirements and work practices. This is an action-specific requirement.

Table I-1. Identification of Potential Federal Applicable or Relevant and Appropriate Requirements and To Be Considered for the Remedial Action Sites. (3 Pages)

ARAR Citation	ARAR or TBC	Requirement	Rationale for Use

ARAR = applicable or relevant and appropriate requirement.
CFR = *Code of Federal Regulations*.
MCL = maximum contaminant level.
ODS = ozone-depleting substance.
OU = operable unit.
PCB = polychlorinated biphenyl.
TBC = to be considered.
WAC = *Washington Administrative Code*.

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Table I-2. Identification of Potential State Applicable and Relevant or Appropriate Requirements and To Be Considered for the Remedial Action Sites. (7 Pages)

ARAR Citation	ARAR or TBC	Requirement	Rationale for Use
WAC 173-303, "Dangerous Waste Regulations"			
WAC 173-303-016, "Identifying Solid Waste"	ARAR	Identifies those materials that are and are not solid wastes.	Substantive requirements of these regulations are applicable, because these define how to determine which materials are subject to the designation regulations. Specifically, materials that are generated for removal from the CERCLA site during the remedial action would be subject to the procedures for identification of solid waste to ensure proper management. This is an action-specific requirement.
WAC 173-303-070(3), "Designation of Dangerous Waste,"	ARAR	Establishes the method for determining whether a solid waste is or is not a dangerous waste or an extremely hazardous waste.	Substantive requirements of these regulations are applicable to materials encountered during the remedial action. Specifically, solid waste that is generated for removal from the CERCLA site during this remedial action would be subject to the dangerous waste designation procedures to ensure proper management. This is an action-specific requirement.
WAC 173-303-071, "Excluded Categories of Waste"	ARAR	Describes those categories of wastes that are excluded from the requirements of WAC 173-303 (excluding WAC 173-303-050).	The conditions of this requirement are applicable to remedial actions in the 200-CS-1 OU, should wastes identified in WAC 173-303-071 be encountered. This is an action-specific requirement.
WAC 173-303-073, "Conditional Exclusion of Special Wastes"	ARAR	Establishes the conditional exclusion and the management requirements of special wastes, as defined in WAC 173-303-040.	Substantive requirements of these regulations are applicable to materials encountered during the remedial action. Specifically, the substantive standards for management of special waste are applicable to the interim management of certain waste that will be generated during the remedial action. This is an action-specific requirement.
WAC 173-303-077, "Requirements for Universal Waste"	ARAR	Identifies those wastes exempted from regulation under WAC 173-303-140 and WAC 173-303-170 through 173-303-9907 (excluding WAC 173-303-960). These wastes are subject to regulation under WAC 173-303-573.	Substantive requirements of these regulations are applicable to materials encountered during the remedial action. Specifically, the substantive standards for management of universal waste are applicable to the interim management of certain waste that will be generated during the remedial action. This is an action-specific requirement.

Table I-2. Identification of Potential State Applicable and Relevant or Appropriate Requirements and To Be Considered for the Remedial Action Sites. (7 Pages)

ARAR Citation	ARAR or TBC	Requirement	Rationale for Use
WAC 173-303-120, "Recycled, Reclaimed, and Recovered Wastes" Specific Subsections: WAC 173-303-120(3) WAC 173-303-120(5)	ARAR	These regulations define the requirements for recycling materials that are solid and dangerous waste. Specifically, WAC 173-303-120(3) provides for the management of certain recyclable materials, including spent refrigerants, antifreeze, and lead-acid batteries. WAC 173-303-120(5) provides for the recycling of used oil.	Substantive requirements of these regulations are applicable to certain materials that might be encountered during the remedial action. Recyclable materials that are exempt from regulation as dangerous waste and that are not otherwise subject to CERCLA as hazardous substances can be recycled and/or conditionally excluded from certain dangerous waste requirements. This is an action-specific requirement.
WAC 173-303-140(4), "Land Disposal Restrictions,"	ARAR	This regulation establishes state standards for land disposal of dangerous waste and incorporates, by reference, Federal land-disposal restrictions of 40 CFR 268 that are applicable to solid waste that is designated as dangerous or mixed waste, in accordance with WAC 173-303-070(3).	The substantive requirements of this regulation are applicable to materials encountered during the remedial action. Specifically, dangerous/mixed waste that is generated and removed from the CERCLA site during the remedial action for off-site or noncontiguous onsite (as defined by CERCLA) land disposal would be subject to the identification of applicable land disposal restrictions at the point of generation of the waste. The actual treatment of such waste would be ARAR to this remedial action as specified in the receiving facility's ROD, if disposed at a noncontiguous onsite location, but the disposal would instead be subject to all applicable laws and regulations if disposed offsite. This is an action-specific requirement.
WAC 173-303-170, "Requirements for Generators of Dangerous Waste"	ARAR	Establishes the requirements for dangerous waste generators.	Substantive requirements of these regulations are applicable to materials encountered during the remedial action. Specifically, the substantive standards for management of dangerous/mixed waste are applicable to the interim management of certain waste that will be generated during the remedial action. For purposes of this remedial action, WAC 173-303-170(3) includes the substantive provisions of WAC 173-303-200 by reference. WAC 173-303-200 further includes certain substantive standards from WAC 173-303-630 and -640 by reference. This is an action-specific requirement.
WAC 173-303-610, "Closure and Post-closure"	ARAR	This regulation establishes the closure performance standards applicable to all Hanford Site TSD units.	These requirements are applicable to the closure of the RCRA TSD units: 216-A-29 Ditch, 216-B-63 Trench, and 216-S-10 Pond/Ditch. This is an action-specific requirement.
WAC 173-303-665, "Landfills" Specific subsection: WAC 173-303-665(6)	ARAR	Specifies closure and post-closure requirements for landfills.	This regulation is applicable to the 216-A-29 Ditch, 216-B-63 Trench, and 216-S-10 Pond/Ditch TSD units, because these units are landfills, and are subject to the closure requirements identified in WAC 173-303-665(6). This is an action-specific requirement.

Table I-2. Identification of Potential State Applicable and Relevant or Appropriate Requirements and To Be Considered for the Remedial Action Sites. (7 Pages)

ARAR Citation	ARAR or TBC	Requirement	Rationale for Use
WAC 173-340, "Model Toxics Control Act -- Cleanup"			
WAC 173-340-745(5)(b), "Soil Cleanup Standards for Industrial Properties"	ARAR	Identifies the methods used to identify risk-based concentrations and their use in the selection of a cleanup action. Cleanup and remediation levels are based on protection of human health and the environment, the location of the site, and other regulations that apply to the site. The standard specifies cleanup goals that implement the strictest Federal or state cleanup criteria.	The State-established risk-based concentrations for soils and protection of groundwater are relevant and appropriate to the 200-CS-1 OU waste-site remedial actions, because no Federal standard exists. This is a chemical-specific requirement.
WAC 173-350, "Solid Waste Handling Standards"			
WAC 173-350-300(2), "On-Site Storage, Collection and Transportation Standards"	ARAR	Establishes the requirements for the temporary storage of solid waste in a container on site and the collecting and transporting of the solid waste.	The substantive requirements of this regulation are relevant and appropriate to the on-site collection and temporary storage of solid wastes at the 200-CS-1 OU remediation waste sites. Compliance with this regulation is being implemented in phases for existing facilities. This is an action-specific requirement.
WAC 246-247, "Radiation Protection -- Air Emissions"			
WAC 246-247-035(1)(a)(ii), "National Standards Adopted by Reference for Sources of Radionuclide Emissions"	ARAR	This regulation establishes requirements of 40 CFR 61, Subpart H, by reference. Radionuclide airborne emissions from the facility shall be controlled so as not to exceed amounts that would cause an exposure to any member of the public of greater than 10 millirem per year effective dose equivalent.	Substantive requirements of this standard are applicable because this remedial action may include activities such as excavation, decontamination and stabilization of contaminated areas and equipment, and operation of exhausters and vacuums, each of which may provide airborne emissions of radioactive particulates to unrestricted areas. As a result, requirements limiting emissions apply. This is a risk-based standard for the purposes of protecting human health and the environment. This is an action-specific requirement.
WAC 246-247-040, "Standards," WAC 246-247-040(3) WAC 246-247-040(4)	ARAR	Emissions shall be controlled to ensure that emission standards are not exceeded.	Substantive requirements of this standard are applicable because fugitive, diffuse, and point source emissions of radionuclides to the ambient air may result from activities, such as excavation of contaminated soils and operation of exhauster and vacuums, performed during the remedial action. This standard exists to ensure compliance with emission standards. This is an action-specific requirement.

Table I-2. Identification of Potential State Applicable and Relevant or Appropriate Requirements and To Be Considered for the Remedial Action Sites. (7 Pages)

ARAR Citation	ARAR or TBC	Requirement	Rationale for Use
WAC 246-247-075, "Monitoring, Testing and Quality Assurance," WAC 246-247-075(1) and –(2) and –(4)	ARAR	Establishes the monitoring, testing, and quality assurance requirements for radioactive air emissions from major sources. Effluent flow rate measurements shall be made and the effluent stream shall be directly monitored continuously with an in-line detector or representative samples of the effluent stream shall be withdrawn continuously from the sampling site following the specified guidance. The requirements for continuous sampling are applicable to batch processes when the unit is in operation. Periodic sampling (grab samples) may be used only with lead agency prior approval. Such approval may be granted in cases where continuous sampling is not practical and radionuclide emission rates are relatively constant. In such cases, grab samples shall be collected with sufficient frequency to provide a representative sample of the emissions. When it is impractical to measure the effluent flow rate at a source in accordance with the requirements or to monitor or sample an effluent stream at a source in accordance with the site selection and sample extraction requirements, the facility owner or operator may use alternative effluent flow rate measurement procedures or site selection and sample extraction procedures as approved by the lead agency. Emissions from nonpoint and fugitive sources of airborne radioactive material shall be measured. Measurement techniques may include, but are not limited to sampling, calculation, smears, or other reasonable method for identifying emissions as determined by the lead agency.	Substantive requirements of this standard are applicable because fugitive and nonpoint source emissions of radionuclides to the ambient air may result from activities, such as excavation of contaminated soils and operation of exhauster and vacuums, performed during the remedial action. This standard exists to ensure compliance with emission standards. This is an action-specific requirement.
WAC 246-247-075(3), "Monitoring, Testing and Quality Assurance"	ARAR	Methods to implement periodic confirmatory monitoring for minor sources may include estimating the emissions or other methods as approved by the lead agency.	Fugitive and diffuse emissions from the excavation and related activities will require periodic confirmatory measurements to verify low emissions and requirements are applicable. This is an action-specific requirement.

Table I-2. Identification of Potential State Applicable and Relevant or Appropriate Requirements and To Be Considered for the Remedial Action Sites. (7 Pages)

ARAR Citation	ARAR or TBC	Requirement	Rationale for Use
WAC 246-247-075(8), "Monitoring, Testing and Quality Assurance"	ARAR	Facility (site) emissions resulting from non-point and fugitive sources of airborne radioactive material shall be measured. Measurement techniques may include ambient air measurements, in-line radiation detector or withdrawal of representative samples from the effluent stream, or other methods, as determined by the lead agency.	Fugitive and diffuse emissions of airborne radioactive material due to excavation and related activities will require measurement and requirements are applicable. This is an action-specific requirement.
WAC 246-247-040(4), "General Standards" and WAC 173-480-050(1), "General Standards for Maximum Permissible Emissions"	ARAR	At a minimum, all emission units shall make every reasonable effort to maintain radioactive materials in effluents to unrestricted areas, ALARA. Control equipment of facilities operating under ALARA shall be defined as RACT and ALARACT.	The potential for fugitive and diffuse emissions due to excavation and related activities will require efforts to minimize those emissions and are applicable. This is an action-specific requirement.
WAC 173-480-070(2), "Emission Monitoring and Compliance Procedures"	ARAR	Determine compliance with the public dose standard by calculating exposure at the point of maximum annual air concentration in an unrestricted area where any member of the public may be.	Fugitive and diffuse emissions resulting from excavation and related activities will require assessment and reporting and requirements are applicable. This is an action-specific requirement.
WAC 173-400, "General Regulations for Air Pollution Sources"			
WAC 173-400-040, "General Standards for Maximum Emissions"	ARAR	Requires all sources of air contaminants meet standards for visible emissions, fallout, fugitive emissions, odors, emissions detrimental to persons or property, sulfur dioxide, concealment and masking, and fugitive dust. Requires use of RACT.	Substantive requirements are applicable to the selected remedy. The remedy will likely include or result in various sources of air contaminant emissions (e.g., construction and demolition debris, blowing dust or particulate) that will need to be controlled in accordance with these requirements. This is an action-specific requirement.
WAC 173-400-050, "Emission Standards for Combustion and Incineration Units" WAC 173-400-060, "Emission Standards for General Process Units" WAC 173-400-070, "Emission Standards for Certain Source Categories" WAC 173-400-075, "Emission Standards for Sources Emitting Hazardous Air Pollutants"	ARAR	Requires specifically identified types of emission sources to meet additional standards beyond the general emission standards imposed by WAC 173-400-040. Incorporates the applicable federal requirements from 40 CFR 60 and 63. Requires use of either RACT, best available control technology, or maximum achievable control technology, depending on the specific type of emission source.	The substantive requirements are applicable to the selected remedy. The remedy may include or result in one or more defined types of emission sources that would need to be controlled in accordance with these requirements. This is an action-specific requirement.

Table I-2. Identification of Potential State Applicable and Relevant or Appropriate Requirements and To Be Considered for the Remedial Action Sites. (7 Pages)

ARAR Citation	ARAR or TBC	Requirement	Rationale for Use
WAC 173-400-113, "Requirements for New Sources in Attainment or Unclassifiable Areas"	ARAR	Incorporates by reference the applicable federal requirements from 40 CFR 60 (NSPS), 61 (NESHAP), and 63 (maximum achievable control technology). Requires controls to minimize the release of air contaminants resulting from new or modified sources of regulated criteria and toxic air emissions. Emissions are to be minimized through application of best available control technology.	The Hanford Site is located in an area currently designated as being in attainment for all criteria air pollutants. The substantive requirements are applicable to the selected remedy. The remedy may include or result in one or more defined types of emission sources that would need to be controlled in accordance with these requirements. The selected remedy may include or result in the emission of regulated pollutants that would need to be controlled in accordance with these requirements. This is an action-specific requirement.
WAC 173-460, "Controls for New Sources of Toxic Air Pollutants"			
WAC 173-460-030, "Requirements, Applicability and Exemptions" WAC 173-460-060, "Control Technology Requirements" WAC 173-460-070, "Ambient Impact Requirement" WAC 173-460-080, "Demonstrating Ambient Impact Compliance" WAC 173-460-150, "Class A Toxic Air Pollutants: Known, Probable and Potential Human Carcinogens and Acceptable Source Impact Levels." WAC 173-460-160, "Class B Toxic Air Pollutants and Acceptable Source Impact Levels"	ARAR	Requires best available control technology for regulated emissions of toxic air pollutants and demonstration that emissions of toxic air pollutants will not endanger human health or safety.	The substantive requirements are applicable to the selected remedy. The remedy may include or result in the emission of regulated toxic air pollutants that would need to be controlled in accordance with these requirements. This is an action-specific requirement.
"Asbestos," *Benton Clean Air Authority,* Regulation 1, Article 8			
Section 8.02, "CFR Adoption by Reference" Section 8.03, "General Requirements"	ARAR	Incorporates the federal requirements of 40 CFR 61 Subpart M and 40 CFR 763 Subpart E by reference. Requires established controls and work practices for managing and disposing regulated asbestos-containing material.	The substantive requirements are applicable to the selected remedy. The remedy may include the removal or disturbance of regulated asbestos containing material that must be conducted in accordance with the applicable requirements and work practices. This is an action-specific requirement.

Table I-2. Identification of Potential State Applicable and Relevant or Appropriate Requirements and To Be Considered for the Remedial Action Sites. (7 Pages)

ARAR Citation	ARAR or TBC	Requirement	Rationale for Use
To-Be-Considered pursuant to relevant waste acceptance criteria			
WCH-191, *Environmental Restoration Disposal Facility Waste Acceptance Criteria*	TBC	This document establishes waste acceptance criteria for the Environmental Restoration Disposal Facility.	This document establishes waste acceptance criteria for the Environmental Restoration Disposal Facility.

ALARA = as low as reasonably achievable.
ARAR = applicable or relevant and appropriate requirement.
CERCLA = *Comprehensive Environmental Response, Compensation, and Liability Act of 1980.*
CFR = *Code of Federal Regulations.*
OU = operable unit.
RACT = reasonably available control technology.
RCRA = *Resource Conservation and Recovery Act of 1976.*
TBC = to be considered.
TSD = treatment, storage, and disposal.
WAC = *Washington Administrative Code.*

12.0 REFERENCES

10 CFR 61, "Licensing Requirements for Land Disposal of Radioactive Waste," Title 10, *Code of Federal Regulations*, Part 61.

40 CFR 60, "Standards of Performance for New Stationary Sources," Title 40, *Code of Federal Regulations*, Part 60.

40 CFR 61, "National Emission Standards for Hazardous Air Pollutants," Title 40, *Code of Federal Regulations*, Part 61.

- 40 CFR 61, Subpart H, "National Emission Standards for Emissions of Radionuclides Other than Radon from Department of Energy Facilities."
- 40 CFR 61, Subpart M, "National Emission Standard for Asbestos."
- 40 CFR 61.52, "Emission Standard."
- 40 CFR 61.140, "Applicability."
- 40 CFR 61.145, "Standard for Demolition and Renovation."
- 40 CFR 61.150, "Standard for Waste Disposal for Manufacturing, Fabricating, Demolition, Renovation, and Spraying Operations."

40 CFR 63, "National Emission Standards for Hazardous Air Pollutants for Source Categories," Title 40, *Code of Federal Regulations*, Part 63.

40 CFR 82, "Protection of Stratospheric Ozone," Title 40, *Code of Federal Regulations*, Part 82.

- 40 CFR 82.156,"Required Practices."
- 40 CFR 82.158, "Standards for Recycling and Recovery Equipment."
- 40 CFR 82.161,"Technician Certification."

40 CFR 268, "Land Disposal Restrictions," Title 40, *Code of Federal Regulations*, Part 268.

40 CFR 300.5, "National Oil and Hazardous Substances Pollution Contingency Plan," "Definitions," Title 40, *Code of Federal Regulations*, Part 300.5.

40 CFR 300.400, "National Oil and Hazardous Substances Pollution Contingency Plan," "General," Title 40, *Code of Federal Regulations*, Part 300.400.

- 40 CFR 300.400(g), "Identification of Applicable or Relevant and Appropriate Requirements."

40 CFR 761, "Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions," Title 40, *Code of Federal Regulations*, Part 761.

- 40 CFR 761.50(b), "Applicability," "PCB Waste."
- 40 CFR 761.50(c), "Applicability," "Storage for Disposal."

40 CFR 763, Subpart E, "Asbestos-Containing Materials in Schools," Title 40, *Code of Federal Regulations*, Part 763, Subpart E.

Archeological and Historic Preservation Act (1960), 16 USC 469a, et seq.

Atomic Energy Act of 1954, 42 USC 2011, et seq.

Benton Clean Air Authority, 2005, Regulation 1, Benton County, Washington.

Clean Air Act of 1990, 42 USC 7401, et seq., Pub. L. 101-549.

Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 USC 9601, et seq.

DOE O 435.1, *Radioactive Waste Management*, U.S. Department of Energy, Washington, D.C.

Endangered Species Act of 1973, 16 USC 1531, et seq.

EPA/540/G-89/004, 1988, *Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA, Interim Final*, OSWER 9355.3-01, Office of Solid Waste and Emergency Response, U.S. Environmental Protection Agency, Washington, D.C.

EPA/540/G-89/006, 1988, *CERCLA Compliance with Other Laws Manual: Interim Final*, U.S. Environmental Protection Agency, Washington, D.C.

National Historic Preservation Act of 1966, 16 USC 470, et seq.

Native American Graves Protection and Repatriation Act, 25 USC 3001, et seq.

RCW 70.94, "Public Health and Safety," "Washington Clean Air Act," Title 70, Chapter 94, *Revised Code of Washington*, as amended, Washington State, Olympia, Washington.

Resource Conservation and Recovery Act of 1976, 42 USC 6901, et seq.

Superfund Amendments and Reauthorization Act of 1986, 42 USC 103, et seq.

Toxic Substances Control Act of 1976, 15 USC 2601, et seq.

WA7890008967, 2006, *Hanford Facility Resource Conservation and Recovery Act Permit, Dangerous Waste Portion, Revision 8, for the Treatment, Storage, and Disposal of Dangerous Waste*, as amended, Washington State Department of Ecology, Richland, Washington.

WAC 173-303, "Dangerous Waste Regulations," *Washington Administrative Code*, as amended, Washington State Department of Ecology, Olympia, Washington.

- 173-303-016, "Identifying Solid Waste."
- 173-303-017, "Recycling Processes Involving Solid Waste."
- 173-303-040, "Definitions."
- 173-303-050, "Department of Ecology Cleanup Authority."
- 173-303-070(3), "Designation of Dangerous Waste," "Designation Procedures."
- 173-303-071, "Excluded Categories of Waste."

- 173-303-073, "Conditional Exclusion of Special Wastes."
- 173-303-077, "Requirements for Universal Waste."
- 173-303-120, "Recycled, Reclaimed, and Recovered Wastes."
- 173-303-140, "Land Disposal Restrictions."
- 173-303-140(4), "Land Disposal Restrictions and Prohibitions."
- 173-303-170, "Requirements for Generators of Dangerous Waste."
- 173-303-200, "Accumulating Dangerous Waste On-Site."
- 173-303-573, "Standards for Universal Waste Management."
- 173-303-610, "Closure and Post-closure."
- 173-303-630, "Use and Management of Containers."
- 173-303-640, "Tank Systems."
- 173-303-665, "Landfills."
- 173-303-960, "Special Powers and Authorities of the Department."
- 173-303-170 through 173-303-9907, "Requirements for Generators of Dangerous Waste," through "Reserved," *Washington Administrative Code,* as amended, Washington State Department of Ecology, Olympia, Washington.

WAC 173-340, "Model Toxics Control Act -- Cleanup," *Washington Administrative Code*, as amended, Washington State Department of Ecology, Olympia, Washington.

- 173-340-745, "Soil Cleanup Standards for Industrial Properties."
- 173-340-745(5)(b), "Soil Cleanup Standards for Industrial Properties," "Method C Industrial Soil Cleanup Levels," "Standard Method C Industrial Soil Cleanup Levels."

WAC 173-350, "Solid Waste Handling Standards," *Washington Administrative Code*, as amended, Washington State Department of Ecology, Olympia, Washington.

- 173-350-300, "On-Site Storage, Collection, and Transportation Standards."

WAC 173-400, "General Regulations for Air Pollution Sources," *Washington Administrative Code*, as amended, Washington State Department of Ecology, Olympia, Washington.

- 173-400-040, "General Standards for Maximum Emissions."
- 173-400-050, "Emission Standards for Combustion and Incineration Units."
- 173-400-060, "Emission Standards for General Process Units."
- 173-400-070, "Emission Standards for Certain Source Categories."
- 173-400-075, "Emission Standards for Sources Emitting Hazardous Air Pollutants."
- 173-400-113, "Requirements for New Sources in Attainment or Unclassifiable Areas."

WAC 173-460, "Controls for New Sources of Toxic Air Pollutants," *Washington Administrative Code*, as amended, Washington State Department of Ecology, Olympia, Washington.

- 173-460-030, "Requirements, Applicability and Exemptions."
- 173-460-060, "Control Technology Requirements."
- 173-460-070, "Ambient Impact Requirement."
- 173-460-080, "Demonstrating Ambient Impact Compliance."

- 173-460-150, ""Class A Toxic Air Pollutants: Known, Probable and Potential Human Carcinogens and Acceptable Source Impact Levels."
- 173-460-160, "Class B Toxic Air Pollutants and Acceptable Source Impact Levels."

WAC 173-480, "Ambient Air Quality Standards and Emission Limits for Radionuclides," *Washington Administrative Code*, as amended, Washington State Department of Ecology, Olympia, Washington.

- 173-480-050, "Standards."
- 173-480-070, "Emission Monitoring and Compliance Procedures."

WAC 246-247, "Radiation Protection -- Air Emissions," *Washington Administrative Code*, as amended, Washington State Department of Health, Olympia, Washington.

- 246-247-035, "National Standards Adopted by Reference for Sources of Radionuclide Emissions."
- 246-247-040, "General Standards."
- 246-247-075, "Monitoring, Testing and Quality Assurance."

WCH-191, 2008, *Environmental Restoration Disposal Facility Waste Acceptance Criteria*, Washington Closure Hanford, Richland, Washington. http://www.wch-rcc.com/pgs/readroom/WCH/wch191.pdf

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APPENDIX J

COMPARATIVE COST ESTIMATE

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TERMS

ERDF	Environmental Restoration Disposal Facility
ET	evapotranspiration
FH	Fluor Hanford, Inc.
FP	fixed price
FS	feasibility study
IC	institutional controls
MESC/MNA/IC	maintain existing soil cover, monitored natural attenuation, and institutional controls
QA	quality assurance
RCT	radiological control technician
RL	U.S. Department of Energy, Richland Operations Office
RTD	removal, treatment, and disposal

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APPENDIX J

COMPARATIVE COST ESTIMATE

J1.0 INTRODUCTION

The feasibility study (FS) provides a logical progression for evaluating sites that require remedial action. During the detailed analysis portion of the FS, two threshold and five balancing criteria were evaluated to determine the relative performance of each remedial alternative. The remaining two modifying criteria are assessed during the review and comment period. One balancing criterion is the cost to implement the various alternative remedial actions.

Cost estimates for the FS have an accuracy of +50 percent, -30 percent, which is the accuracy specified in EPA/540/R-00/002, *A Guide to Developing and Documenting Cost Estimates During the Feasibility Study*, OSWER 9355.0-75. The cost estimates provide a discriminator for deciding between similar protective and implemental alternatives for a specific waste site. Therefore, the costs are relational and not absolute for the evaluation of the alternatives. Cost estimates by waste site were developed using the MAESTRO cost models developed by the Fluor Hanford, Inc. (FH) Project Controls Estimating department.

The various cost elements are taken from EPA/540/R-00/002; the FH contract with the U.S. Department of Energy (DE-AC06-96RL13200, *Contract Between the U.S. Department of Energy, Richland Operations Office, and Fluor Daniel Hanford, Inc.*); Means databases; and technical and historical site information. Contingency is applied to the cost estimate to cover potential cost overruns. Contingency covers two types of cost overruns: scope and bid. Scope contingency covers the unknown elements of the alternative as remedial design proceeds, while bid contingency covers the unknown elements of remedial action and operations and maintenance as they proceed. A contingency of 25 percent is applied based on the level of engineering information available at this time. This FS does not evaluate the economies associated with implementing multiple sites or groups with a common alternative or aggregated remediation. They will be considered in the future as part of long-range planning and through the post-record of decision activities, such as remedial design. Potential areas of cost sharing to reduce overall remediation costs include the following:

- Remediating all waste sites with a common preferred alternative at the same time
- Sharing mobilization/demobilization costs
- Sharing surveillance and maintenance costs
- Sharing barrier performance monitoring costs
- Sharing training costs.

Present net worth costs were estimated using the real discount rate published in Appendix C of the OMB Circular No. A-94, *Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs*, which is effective through the end of January 2009. Programs with durations longer than 30 years use the 30-year interest rate of 3.0 percent. Present net worth costs are discussed for each alternative in the following subsections.

Nondiscounted costs were calculated because of recommendations presented in EPA/540/R-00/002. Nondiscounted constant dollar costs demonstrate the impact of a discount rate on the total present-value cost. The nondiscounted costs are presented for comparison purposes only.

Major assumptions are covered in Chapter J3.0. These assumptions are necessary to provide the level of detail necessary for independent review.

J2.0 ALTERNATIVE COST ESTIMATES

This section describes the cost estimates based on the remedial alternatives developed in Chapter 6.0 of the FS. This section also summarizes the alternatives considered and the total present-worth costs, and provides summary and backup information for costs by waste site or group. Table J-1 provides site details used as the basis for the capital and annual/periodic cost estimates.

J2.1 ALTERNATIVE 1 – NO ACTION

The no-action alternative represents a situation where no legal restrictions, access controls, or active remedial measures are applied to the waste site. No action is justified by a site condition where no contaminant of concern exceeds a concentration level within a depth and extent envelope that requires a response for the protection of human health and the environment. No maintenance or other long-term activities would be instituted or continued. The concentration value and envelope are determined by the site characterization and risk assessment presented in Chapter 3.0. Chapter 6.0 of the FS describes the no-action alternative.

Because the no-action alternative assumes that no further maintenance or long-term monitoring actions will be taken at a waste site, those costs are assumed to be zero. Each site will undergo a sampling process to show that this action is justified. The sampling process is described in Section J3.2. For this alternative, the present-worth cost and nondiscounted cost occur in the first year.

J2.2 ALTERNATIVE 2 – MAINTAIN EXISTING SOIL COVER, MONITORED NATURAL ATTENUATION, AND INSTITUTIONAL CONTROLS

Chapter 6.0 of the FS provides a description of the maintain existing soil cover, monitored natural attenuation, and institutional controls alternative. The cost model for this alternative is discussed in detail in Section J3.3. The primary annual/periodic costs associated with this alternative are surveillance and maintenance of the existing covers and natural attenuation. This alternative also includes the cost of long-term groundwater monitoring. The costs for these annual/periodic activities were estimated based on the area and existing conditions of the individual waste sites or groups.

The unit cost for site surveillance and maintenance was assumed to be the same as the current unit cost for similar activities at other sites. The unit cost accounts for such activities as site radiation surveys and existing soil cover repair. Because the existing soil cover is maintained annually, costs for replacing all or large portions of the existing cover at specified intervals (i.e., every 20 years) are considered unnecessary.

The costs associated with natural attenuation monitoring are divided into three components: radiological surveys of surface soils, spectral gamma logging of vadose-zone boreholes, and groundwater monitoring. The costs to perform radiological surveys of surface soils at the study sites are assumed to be similar to those for current survey practices at the other sites and are included in the surveillance and maintenance costs.

Vadose-zone monitoring costs assume spectral gamma logging of one borehole per waste site to a 15 m (50 ft) depth once every 5 years until the site meets all preliminary remediation goals. This monitoring is considered for sites with high concentrations of contaminants in the shallow zone or near the bottom of crib and trench structures. It also assumes that the service life of vadose-zone boreholes is 30 years. Costs are included for logging and periodic replacement of these boreholes until all preliminary remediation goals are met for the site (assume 150 years).

Groundwater-monitoring costs likely will be incurred for sites that have high concentrations of mobile contaminants deep within the vadose zone and/or where groundwater contamination is known to have occurred. However, for the purpose of this FS, the groundwater sampling activity will be considered as a periodic cost.

Institutional controls, which can have one-time or recurring costs (capital, annual operation and maintenance, or periodic), are non-engineering or legal/administrative measures to reduce or minimize the potential for exposure to site contamination or hazards by limiting or restricting site access. Examples include institutional controls plan, restrictive covenants, property easements, zoning, deed notices, advisories, groundwater-use restrictions, and a site information database.

An institutional controls plan would describe site controls and how to implement them. A site information database would provide a system for managing data necessary to characterize the current nature and extent of contamination. Institutional controls are project-specific costs that can be an important component of a remedial alternative and, as such, generally should be estimated separately from other costs, usually as a sub-element. Institutional controls may need to be updated or maintained, either annually or periodically.

The institutional control cost model used for this alternative was developed by the FH Project Controls and Estimating Department. The duration for institutional controls only considers the initial, year-one period. The annual/periodic activities were based on the assumed length of time required to reach the preliminary remediation goals of 150 years. The combined present net worth costs for surveillance and maintenance, natural attenuation monitoring, and institutional control activities represent the present-worth cost for this alternative. The real discount rate of 2.8 percent is used for discounting real (constant dollar) flows for the duration until all preliminary remediation goals are reached at each site (assume 150 years). The nondiscounted cost for the 150-year project duration is presented for comparison purposes.

J2.3 ALTERNATIVE 3 – REMOVAL, TREATMENT, AND DISPOSAL

Chapter 6.0 of this FS describes the removal, treatment, and disposal (RTD) alternative. The cost model for each of the sites is discussed in detail in Section J3.4. With the exception of the 216-S-10 Ditch, annual/periodic and institutional control costs were not added to the RTD alternative because the contaminants are assumed to be removed to concentrations at or below the preliminary remediation goals and nominal institutional controls are addressed by 200 East and 200 West Area-wide programs. The 216-S-10 Ditch has groundwater monitoring cost assumed for approximately 30 years. This alternative removes the human health and ecological risks associated with the contaminated soils at each site evaluated in this FS.

The RTD construction activities represent the present-worth cost for this alternative. For this alternative, the present-worth cost and nondiscounted cost are zero once the RTD activities are complete.

J2.4 ALTERNATIVE 4 – ENGINEERED BARRIER

Chapter 6.0 of this FS provides a description of the barrier alternative. The cost model used for this alternative is discussed in detail in Section J3.5. Figure J-1 shows details of the assumed barrier design for the Evapotranspiration (ET) Monofill Barrier.

Operation and maintenance costs for the barrier alternative include barrier performance monitoring and repair costs. For purposes of this FS, the alternative will assume annual repairs to the barrier (replacement of 60.8 cm [2 ft] of topsoil layer and revegetation over 10 percent of the barrier area). This is considered a conservative estimate because the barrier has been designed to require minimal maintenance, particularly after vegetation has been established.

Institutional controls are an integral component of the barrier alternative and would be required to prevent both intrusion to the barrier area and activities that might alter the integrity and effectiveness of the barrier. Groundwater monitoring likely would be a part of the barrier alternative; however, the cost estimate considers groundwater sampling periodic costs. Therefore, they are not considered in the capital cost estimates.

The institutional control cost model used for this alternative was developed by the FH Project Controls and Estimating Department. The duration for institutional controls only considers the initial, year-one period. The annual/periodic activities were based on the assumed length of time required to reach the preliminary remediation goals of 150 years.

The combined present net worth costs for removal and disposal construction activities, surveillance and maintenance activities, and natural attenuation monitoring and institutional control activities represent the present-worth cost for this alternative. The real discount rate of 2.8 percent is used for discounting real (constant dollar) flows for the duration until all preliminary remediation goals are reached at each site (assume 150 years). The nondiscounted cost for the 150-year project duration is presented for comparison purposes.

J2.5 COST SUMMARY

The capital costs breakdown for each alternative by site is provided in Tables J-2, J-3, J-4, and J-5. Tables J-6, J-7, J-8, and J-9 provide a comparison of the capital, periodic, nondiscounted, and present-worth costs for Alternatives 1, 2, 3, and 4, respectively. Table J-10 compares the present-worth and nondiscounted costs for all of the alternatives.

J3.0 ASSUMPTIONS

Assumptions used for the alternatives are discussed in the following sections.

J3.1 GLOBAL ASSUMPTIONS

J3.1.1 Labor

Fixed-price construction craft labor rates are those listed in Appendix A of the *Site Stabilization Agreement for All Construction Work for the U.S. Department of Energy at the Hanford Site.* The Hanford Site Stabilization Agreement rates include base wage, fringe benefits, and other compensation as negotiated between FH and the National Building and Construction Trades Department American Federation of Labor Congress of Industrial Organizations. Other factors to cover additional costs for Workman's Compensation, *Federal Insurance Contributions Act*, and state and Federal unemployment insurance to develop a fully burdened rate by craft have been incorporated. The labor rates used are for 2008.

FH labor rates for management, engineering, safety oversight, and technical support are based on the FH-approved planning rates for fiscal year 2008.

J3.1.2 Markups

J3.1.2.1 Direct Cost Factors

- Sales tax has been applied to all materials and equipment purchases at 8.3 percent.
- Construction consumables are estimated at 3.5 percent of fixed price (FP) direct craft labor costs to allow for small items (e.g., small tools, tape, plastics, and gloves).
- A general foreman factor of 3 percent has been applied to FP craft labor hours.

J3.1.2.2 Indirect Cost Factors

- FP contractor overhead, profit, bond, and insurance costs have been applied at 26.5 percent on FP labor, materials, and equipment.
- FH general and administration overhead of 14.8 percent has been applied to all U.S. Department of Energy, Richland Operations Office (RL) contractor labor,

material, and equipment. The general and administration overhead also is applied to the FP contractor costs.

J3.1.3 General Assumptions

- FH Cost Estimating Templates for site remediation were used as the basis for each waste site. Standard templates used include RTD (trench/ditch/pond) and ET Monofill Barrier.
- Construction labor, material, and equipment units have been estimated based on standard commercial estimating resources and databases: Means databases, *Rental Rate Blue Book for Construction Equipment* database, and Richardson's *Process Plant Construction Estimating Standards*. The units may have been factored or adjusted by the estimator as appropriate to reflect influences by contract, work site, or other identified project or special conditions.
- Quotes from local commercial sources have been used for materials that need to be acquired for the construction of barriers or temporary improvements.
- Equipment Rates are based on 21 working days per month.
- Equipment operation is based on one shift of eight hours per day.
- One workweek equals five days per week.
- Work stoppages or shutdowns due to inclement weather are not factored into the estimates or planning schedules for this study.
- Work delays or stoppages caused by waiting for laboratory results or approval for backfilling waste-site excavations are not factored into the estimates or planning schedules for this study.
- The cost estimates do include costs for design, work plan preparation, or any other preparation costs normally associated with activities occurring before field mobilization.
- Remedial Design Capital Costs are based on EPA/540/R-00/002, Exhibit 5-8. The following guide is used in this study.
  - For projects with construction costs less than $100,000, remedial design is planned at 20 percent of construction costs.
  - For projects with construction costs from $100,000 to $500,000, remedial design is planned at 15 percent of construction costs.
  - For projects with construction costs from $500,000 to $2,000,000, remedial design is planned at 12 percent of construction costs.

  - For projects with construction costs from $2,000,000 to $10,000,000, remedial design is planned at 8 percent of construction costs.

- Escalation has not been included in the calculations. All costs are present day (fiscal year 2008).
- Contingency rates are based on EPA/540/R-00/002, Section 5.4.

J3.1.4 Long-Term Groundwater-Monitoring Costs

Under each alternative that includes annual inspections and maintenance costs (Alternatives 2 and 4) there will be a cost for periodic groundwater monitoring. In addition, the 216-S-10 Ditch also will require groundwater monitoring under Alternative 3, due to this site's *Resource Conservation and Recovery Act of 1976* TSD post-closure requirements. Groundwater monitoring for the 216-S-10 Ditch is assumed to continue for a 30-year period. The cost associated with periodic groundwater monitoring is distributed equally over applicable closure zones. The following is a description of the periodic groundwater costs.

Periodic groundwater sampling will be performed in each closure zone. Each closure zone will contain three monitoring wells that will be sampled during the periodic sampling event. The present-worth cost for the periodic groundwater-monitoring program will be the same for each closure zone. That cost then will be divided equally among all the waste sites within that closure zone. A summary of the facility closure zones associated with this FS is presented below.

Closure Zone	Number of Sites in Each Closure Zone
200 East Area Ponds	50
200 West Area Ponds	26
Solid Waste	29

Based on historical information from similar Hanford Site planning, the cost to install a compliant monitoring well is approximately $180,000[1] per well. It is assumed that this cost includes all required labor and material. In addition, each of the wells will need to be replaced every 30 years (with the exception of the 216-S-10 wells. See Section J3.4.2.).

Cost to install wells (3 wells)	= $180,000/well x 3 wells
	= $540,000
Replacement costs (3 wells)	= $180,000/well x 3 wells
	= $540,000 every 30 years

[1] Installation/replacement, maintenance, and sampling costs have been rounded-off to facilitate explanation of long-term groundwater program costs.

Maintenance will need to be performed on each of the wells every 5 years during the 150-year active monitoring period.

Maintenance costs (3 wells) = $5,000/well x 3 wells
= $15,000 every 5 years

During each sampling event, three groundwater samples will be collected for analysis.

Total analytical cost per sampling event = $1,599

The labor cost of doing all the paper work, labeling, monitoring, and delivery to the laboratory is approximately $300 per well sampled.

Total labor cost = $300/well x 3 wells
= $900/sampling event

Total cost to collect and analyze samples per sampling event = $2,499

Sampling events will occur at the following frequencies:

Year 1	Quarterly (4 sampling events)
Year 2	Semi-annually (2 sampling events)
Years 3 through 5	Annually (3 sampling events)
Years 6 through 10	Every 2 years (3 sampling events)
Years 11 through 50	Every 5 years (8 sampling events)
Years 51 through 150	Every 10 years (10 sampling events).

The present-worth cost to conduct a periodic groundwater-monitoring program for each closure zone for 150 years was calculated.

Present-worth cost for long-term groundwater program = $557,583/closure zone.

As a comparison, the nondiscounted present-worth cost for the long-term groundwater program was calculated to compare the effect of a discount rate on the total project cost.

Present-worth, nondiscounted costs for long-term groundwater program = $3,089,808/closure zone.

The present-worth cost, on a per site basis, will be added to the calculated costs. Because there are a different number of sites in each closure zone, the following list presents the long-term groundwater-monitoring cost per site for each closure zone and the sites included in this FS. The nondiscounted long-term groundwater-monitoring cost per site is presented in parentheses.

Closure Zone	Number of Sites in Each Closure Zone	Cost Per Site
200 East Area Ponds	50	$11,152 ($61,796)
200 West Area Ponds	26	$21,445 ($118,839)
Solid Waste	29	$19,227 ($106,545)

Lastly, the following lists the sites included in this cost estimate, their associated closure zone, and the cost that will be added into the costs for Alternatives 2 and 4. Nondiscounted costs are presented in parentheses.

Closure Zone	Cost Per Site
200 East Area Ponds 216-A-29 Ditch	$11,152 ($61,796)
200 West Area Ponds 216-S-10 Ditch 216-S-10 Pond 216-S-11 Pond	$21,445 ($118,839)
Solid Waste Zone 216-B-63	$19,227 ($106,545)

J3.2 ALTERNATIVE 1 – NO ACTION

J3.2.1 General Description and Assumptions

The general assumptions for Alternative 1 are as follows.

- Each site will require that 30 verification samples be taken at the contaminated zone of each waste site.
- Onsite personnel and equipment will be used for this work. Mobilization of equipment and the setup of office/storage/change trailers will not be required because existing facilities will be used.
- Verification Process Sampling:
  - The planning cost per sample is $7,856/sample for onsite laboratory analysis and $1,458 for offsite laboratory analysis and shipping, a total of $9,314/sample.
  - Sites will be sampled using a truck-mounted auger drill rig.
  - A sampling crew will have two operators, one teamster, one laborer, one field sampler, one radiological control technician (RCT), and one facility person in charge.
  - Equipment will be a truck-mounted auger drill rig and a 1-ton pickup truck with trailer.
  - Sample rate will be 2 hours per sample.
  - The sample prep before laboratory analysis, and the follow-up report will require a sample technician for 4 hours and a supervisor for 0.5 hours for each group of four samples.
  - One sample will be taken from each borehole. The planned depth of the sample will be determined by analysis of the waste site data and history.
  - Drill cuttings will be used as backfill of the borehole.

- Confirmatory Process Final Report
  - After the completion of site sampling, including analysis report, a preliminary report will be produced to help the determination for future action at each waste site. The report will include the preliminary site information from the remedial engineering phase of the work.
  - The following preparation time is planned for the confirmatory process final report: environmental engineer/scientist 80, hours; drafter/engineer technician, 40 hours; and survey crew, 9 hours.

J3.3 ALTERNATIVE 2 – MAINTAIN EXISTING SOIL COVER/MONITORED NATURAL ATTENUATION/INSTITUTIONAL CONTROLS

J3.3.1 General Assumptions

The general assumptions for Alternative 2 are as follows.

- Alternative 2 costs were calculated using a similar methodology as estimates for Alternatives 3 and 4. Cost calculation methodologies were consistent for each site and are presented later in this appendix.
- Site areas can range significantly in size. Because of this difference in size, larger construction crews will be used for sites larger than 9,290 m^2 (100,000 ft^2). For example, existing cover maintenance will use five trucks to haul material to the site for areas greater than 9,290 m^2 (100,000 ft^2) and one truck for sites less than 9,290 m^2 (100,000 ft^2).
- Fencing and monuments/signs for institutional controls and fencing maintenance are considered institutional costs and are considered in this cost estimate.
- Periodic groundwater-monitoring costs will be added to long-term monitoring costs as indicated in Section J3.1.4.
- Alternative 2 consists of seven general activities: institutional controls, site inspection and surveillance, existing cover maintenance, natural attenuation monitoring, reporting, site reviews, and monitoring. These activities are described for the representative sites in the following sections.
- Cost estimate prices were obtained from one of the following sources:
  - Means, 2001, *ECHOS Environmental Remediation Cost Data – Unit Price*
  - Means, 2007, *Facility Construction Cost Data*
  - *Rental Rate Blue Book for Construction Equipment* database
  - Experience on similar projects.

J3.3.2 Typical Waste Site

Institutional Controls Implementation: Preparing and implementing institutional controls is a capital cost and includes office or administrative costs to implement deed restrictions, land-use

restrictions, and groundwater-use restrictions. Costs presented in the cost estimates are based on the following:

- Time to produce institutional controls = 200 hours x 3 people (assumption)
- Labor rate = $56/h (assumption).

Site Inspection and Surveillance: The cost associated with site inspection and surveillance is an operation and maintenance cost. This cost is incurred annually as long as the alternative is in use. The activities performed under site inspection and surveillance include radiation surveys of surface soil and physical site inspection. Costs for activities to control deep burrowing animals and deep-rooted plants through herbicide use or physical removal are not included.

Site radiation surveys: For costing purposes, sites 0.4 ha (1 a) or smaller are assumed to cost $8,712 for every surveying event. An additional $1,000 will be required for site radiation surveys for every additional 465 m^2 (5,000 ft^2) of site area above 0.4 ha (1 a).

Physical site inspection: For costing purposes, sites 0.4 ha (1 a) or smaller are assumed to require a team of two inspectors to perform the activities associated with site inspection and surveillance. An additional crew time will be needed for site areas larger than 0.4 ha (1 a). The cost for site inspections for 0.4 ha (1 a) is $781 and $896 for each additional 4,645 m^2 (50,000 ft^2) of waste area.

Existing Cover Maintenance: The cost associated with existing cover maintenance is an operation and maintenance cost. This cost will be incurred annually as long as the alternative is in use. Because cover maintenance is performed annually, including costs for replacing all or large portions of the existing cover at specified intervals is unnecessary. Rather, cover maintenance is assumed to include replacing cover soils over 10 percent of the area to a depth of 0.61 m (2 ft) on an annual basis. The soil used to repair the existing cover is a silt loam and pea gravel mixture. The pea gravel is used to make the soil resistant to wind erosion.

For costing purposes, it is assumed that the silt loam can be acquired for no material cost from an onsite borrow source (Area C) and that pea gravel must be purchased at an off-site location. Both materials (silt loam and pea gravel) must be mixed before being transported and placed at the site. It is assumed that periodically a large volume of silt and pea gravel will be mixed and stockpiled by a subcontractor at Area C. This mixture will be for the repair of barrier surfaces. The material and transportation cost of pea gravel, excavation, hauling of the silt, and the blending and stockpiling by the subcontractor are estimated to cost $8.95/0.76 m^3 ($8.95/yd^3) for the mixture in stockpile at Area C.

For waste sites with areas greater than 9,290 m^2 (100,000 ft^2), it is assumed for transporting the silt loam/pea gravel mixture to the waste site, that one front end loader with operator will load dump trucks for transportation to the site. To transport the silt loam to the site, it is assumed that five dump trucks and five drivers will be used and each dump truck will be able to make two trips an hour to the site carrying 9.2 m^3 (12 yd^3) per trip. For waste sites less than 9,290 m^2 (100,000 ft^2) in size, one front end loader with one operator will directly load two dump trucks making two trips an hour to the site.

Once the material is at the waste site, it is assumed that the silt loam/pea gravel mixture will be unloaded at the repair area and spread with a low-ground-pressure dozer over the area. An

11,356 to 15,142 L (3,000- to 4,000-gal) water truck will be used for dust control during the spreading process. For sites with areas less than 9,290 m^2 (100,000 ft^2), one low-ground-pressure dozer will be used. For sites with areas greater than 9,290 m^2 (100,000 ft^2), two low-ground-pressure dozers will be used. Once the silt loam and pea gravel are in place, these areas will need to be revegetated. It is assumed that a revegetation crew can reseed 0.4 ha (1 a) in an hour.

In addition to the transportation, spreading, and revegetation costs, it is assumed that the RL contractor will have a site engineer on site during cover maintenance activities to provide oversight.

For planning purposes, the repair of a 0.4 ha (1 a) waste site will require 247 m^3 (323 yd^3) of silt loam/pea gravel mixture, three hours to load and transport, 4 hours to spread, and one hour to reseed. With supervisory oversight, the cost per 0.4 ha (1 a) is $5,728. Waste sites less than 0.4 ha (1 a) in size are assumed to cost the same.

Weed and Pest Control: The cost associated with weed and pest control is an operation and maintenance cost and will happen monthly or as required for as long as the alternative is in use. The work involves controlling weeds by spraying and removal or trapping of animals from the waste site. RCT time is included in the cost for this work. For costing purposes, sites 0.4 ha (1 a) or smaller are assumed to cost $1,036 per year. For sites larger than 0.4 ha (1 a), the cost will increase by $248 per 0.4 ha (1 a) over the initial $1,036/0.4 ha ($1,036/a).

Waste Site/Fence Maintenance: The cost associated with waste site/fence maintenance is an operation and maintenance cost and will occur four times per year for as long as the alternative is in use. The work involves removal of windblown trash/weeds and repair of the existing perimeter fences and signs. RCT time is included in the cost for this work. It is expected that a crew can maintain a 2 ha (5 a) site per day. The costs are assumed to be $2,135 per 0.4 ha per year ($2,135/a/ per year).

Natural Attenuation Monitoring: The cost associated with monitoring natural attenuation is an operation and maintenance cost. This cost will be incurred annually as long as the alternative is in use. The cost for monitoring natural attenuation includes spectral gamma logging of vadose-zone boreholes.

Vadose-zone monitoring costs assume spectral gamma logging of one borehole per waste site to a depth of 15 m (50 ft) once every five years. The service life of a vadose-zone borehole is assumed to be 30 years. Therefore, every 30 years a replacement borehole will be drilled. Costs are based on the following:

- Unit cost for vadose-zone monitoring = $75 per 0.30 m (1 ft) of borehole
- Length of borehole drilling = 15 m (50 ft)
- Cost of vadose-zone monitoring = $75 per 0.30 m x 15 m (1 ft x 50 ft)
- Total cost of vadose-zone monitoring = $3,750
- Installation cost of borehole = $50 per 0.30 m (1 ft) of borehole
- Length of borehole installation = 15 m (50 ft)
- Cost of borehole installation = $50 per 0.30 m x 15 m) (1 ft x 50 ft)

- Total cost of borehole installation = $2,500
- Oversight (assumption) = 1 day = 8 hours ($56/h).

Other costs associated with installing replacement boreholes are included on the cost estimate sheets. These items include, but are not limited to, mobilization of a drill rig, decontamination of a drill rig, and handling of investigation-derived waste.

Reporting: Annual and periodic activities will be recorded in an annual report. The report will contain descriptions of activities that occurred during the year. Reports will contain all appropriate/required backup and material purchase information. The cost for the annual reports is based on the following assumption:

- Annual reports = $10,000/report.

Site Reviews: The cost associated with site reviews is an operation-and-maintenance cost. This cost will be incurred every 5 years as long as the alternative is in use. Site reviews will be conducted to assess site conditions and to evaluate the selected alternative and determine whether additional steps toward remediation are required. The cost for the 5-year site reviews is based on the following assumption:

- 5-year site review = $20,000/review.

Monitoring: Monitoring includes collecting groundwater samples from down-gradient wells to evaluate the performance of the barrier system. Refer to Section J3.1.4.

J3.4 ALTERNATIVE 3 – REMOVAL, TREATMENT, AND DISPOSAL

Ditches and ponds are excavated, as required, and contaminated material is removed to the Environmental Restoration Disposal Facility (ERDF) for disposal, then sites are backfilled and reseeded.

J3.4.1 General Description and Assumptions

The general assumptions for Alternative 3 are as follows.

The fieldwork (e.g., mobilization/demobilization, excavation, backfill, revegetation, and some post construction) will be contracted to an FP contractor. The project management, RCT support, field sampling, sampling analysis, and safety oversight will be performed by the RL contractor. The waste disposal work involved with hauling from the waste site to the ERDF and the disposal work at the ERDF will be performed by the environmental restoration contractor responsible for the operation of the ERDF.

Mobilization and startup include site training; mobilization of equipment and personnel; installing temporary construction fences; construction of staging/container storage areas and access roads; setting up office, change, and storage trailers with utilities; temporary survey buildings; and decontamination areas. Ten days are planned for this activity. The contractor will

set up office trailers, a change trailer, and a storage container. The setup costs are considered part of the rental costs. The rental cost of the trailers and utilities also will include and are based on the duration of the work. A temporary staging area will be constructed at a lump sum cost of $40,014. The contractor will construct a temporary survey building and decontamination areas at a lump sum cost of $22,868 for the building and $13,752 for the decontamination area. Site access roads will be constructed at a cost of $11,785.

Demobilization shall include demobilization of equipment and personnel, removing temporary construction fences, access roads, and office/storage trailers. This activity is planned for 10 days. The staging area and roads will be scarified as part of demobilization and the planning costs is $505. The office trailers and storage containers will be removed by a contractor or an off-site vender and are considered part of the rental cost. The temporary survey building and decontamination area will be removed at a lump sum cost of $17,217.

Typical heavy equipment mobilized to and demobilized from the site includes the following:

- One large dozer
- One 1.5 to 2.3 m^3 (2 to 3 yd^3) excavator
- One 3.8 m^3 (5 yd^3) wheel loader
- Backhoe loader
- Two farm tractors
- Motor grader
- One soil compactor with blade
- Five highway 12 m^3 (16 yd^3) end dump trucks with 12 m^3 (16 yd^3) end dump trailers
- Two 15,142 to 22,712 L (4,000- to 6,000-gal) water trucks
- One flatbed truck
- Three trucks with tilt container beds
- Revegetation equipment-seed drill, mulcher, and tiller.

The cost of moving equipment 56 km (35 mi) from a commercial storage yard to the waste site is planned at $12,733. The cost to demobilize is planned at $21,401, which includes the decontamination of the equipment, moving the equipment to the storage yard, and the FP labor to clean the equipment. The RL contractor RCT labor hours support to decontaminate the construction equipment is 40 hours and is planned at $2,769.

Contractor personnel are given hazardous waste worker, radiological, and other required site training before the start of work at the site. The cost of training is planned at $169,717, which includes the crew time and tuition costs. The training will meet site requirements to work at a waste site on the Hanford Site. The four typical crews were used to calculate the cost of training.

A temporary fence will be constructed around the waste site work area. It will be a steel post with orange mesh fabric. During demobilization, the fence will be removed. The planning cost for this site is the linear footage around the waste site plus 15 m (50 ft) of construction zone on all sides of the site.

Before remediation work starts at the waste site, the contractor performs a boundary/ topographic/location survey. The planning cost for this work is based on the area of the waste site with soil with contaminant concentrations at or above the preliminary remediation goals.

For excavation sites that have soil with contaminant concentrations at or above the preliminary remediation goals, the contaminated soil will be removed to a maximum depth of 4.6 m (15 ft). The sides of the excavation will be sloped at 1:1.5 (rise/run) to the bottom of the excavation, except sites originally constructed using 1:2 slopes (rise/run). For sites where the total depth of excavation is less than 1.5 m (5 ft), the sloping of the sides of the excavation is not required. During the waste removal process, heavy equipment will be kept out of the contaminated areas of the excavation site.

For excavation sites, overburden will be removed with a 1.5 to 2.3 m^3 (2 to 3 yd^3) excavator, and two haul trucks. The soil will be stockpiled near by the waste site. A 15,142 L (4,000-gal) water truck is used to control dust during this activity. The production rate for one crew is 112 m^3/h (146 yd^3/h).

Soil with contaminant concentrations at or above the preliminary remediation goals will be removed using a 1.5 to 2.3 m^3 (2 to 3 yd^3) hydraulic crawler excavator. The contaminated soil will be directly placed into lined ERDF containers and hauled from the excavation site. A highway truck with water tank trailer is used to control dust during this activity. Depending on the volume of waste to be removed, one to four crews can be working at a site. Crew labor consists of one operator, one laborer, and one truck driver. The production rate for one crew is 46 m^3/h (60 yd^3/h). An RL contractor RCT supports the work at 1.5 hours per excavation crew hour.

Soil samples will be taken of the overburden, from ERDF containers, and for verification that the requirements for waste removal have been met. The soil-sampling cost developed is as follows:

- Noncontaminated Soil Sampling
  - Maximum of six samples or one sample per cubic yard, whichever is less.
  - Quality assurance (QA) sample required is one.
  - The planning cost per sample is $1,262/sample.
  - The soil being sampled is the uncontaminated overburden and will not be removed from the site.
- Sampling Required for ERDF Waste
  - One sample is required for every 70 containers.
  - There will be a minimum of six samples per site.
  - Required QA samples are either a minimum of one sample or 5 percent of the total of ERDF samples, whichever is greater.
  - The planning cost per sample is $452/sample.

- Pre-Verification Process Sampling
  - One sample will be required per 2,500 m^2 (50 m x 50 m) (26,899 ft^2).
  - There will be a minimum of six samples per site.
  - Required QA samples are either a minimum of two samples or five percent of the total samples, whichever is greater.
  - The planning cost per sample is $2,227/sample.
  - These samples are the preliminary samples needed to see if all of the required waste has been removed from a site being excavated.
  - This process is expected to happen twice during the excavation process.
  - If the samples show that the site has met the requirement, then the verification process will start.
- Verification Process Sampling
  - There will be 30 samples per site.
  - The planning cost is $7,856/sample for onsite laboratory analysis and $1,458 for offsite laboratory analysis and shipping, a total of $9,314/sample.
  - These samples are the final samples needed to see if all of the required waste has been removed from the excavation site.
  - This process happens once during the excavation process.
- Sampling Crews
  - Verification and pre-verification sampling requires 2 hours for each sample taken by a crew made up of an RL contractor RCT and a sampler technician.
  - Other sampling (air, ERDF, noncontaminated) requires one hour for each sample taken by a crew made up of an RL contractor RCT and a sampler technician.

The ERDF container handling and loading process starts with a site haul truck picking up an empty container at the staging area. The container is moved to a preparation area where laborers install a bed liner and it is inspected by a half-time RCT. The haul truck and container proceed to the loading area. After loading, the liner is sealed and the container is secured by laborers. The container is moved to the survey building where a team of three RCTs inspect and survey the container and truck for contamination. From there, the haul truck is driven to the storage area and the container is unloaded from the truck. Three trucks are required to support each contaminated excavation crew.

The ERDF disposal fee, transportation, and handling costs are estimated at $869 per container. An environmental restoration contractor driver and truck/trailer will move a loaded container from the storage area to the ERDF and place an empty container in the storage area. The estimated costs include the rental of the containers used. For planning purposes, the capacity of an ERDF container is 9.9 m^3 (13 yd^3) of contaminated soil.

Backfilling is performed by the three following operations.

- Moving the stockpiled overburden back to the excavation site will require one crew. The equipment used by a crew is one 3.1 to 3.8 m^3 (4 to 5 yd^3) loader, and two haul trucks. Labor is one operator, and two truck drivers. The production rate for one crew is 210 m^3/h (275 yd^3/h).

- The moving of borrow material to the excavation site typically is performed by one crew hauling from an onsite pit source. The equipment used by a crew is one 3.8 m^3 (5 yd^3) loader, five 12 m^3 (16 yd^3) highway end dump trucks with 12 m^3 (16 yd^3) end dump trailers, and one water truck. Labor is one operator and six truck drivers. The production rate for one crew is 141 m^3/h (185 yd^3/h).

- One crew performs spreading and compacting backfill at the site. The equipment used per crew is one 300-hp dozer and one water truck. The crew consists of one operator, one truck driver, and one laborer. The production rate for one crew is 141 m^3/h (185 yd^3/h).

Revegetation of the waste site includes planting native dry land grass using tractors with seed drills and hand broadcasting, hand planting sagebrush seedlings, and irrigation four times in the spring or early summer. All disturbed areas such as the waste site, stockpile, staging areas, and access roads are to be replanted.

The RL contractor project management team is made up of a part-time project manager, a full-time field supervisor, and part-time engineering support. QA, Radiological Control, and Safety also provide oversight, along with other support for contract management, and project controls. Total hours for this staff are planned at 22.5 hours per day. The duration of this work is based on the total project duration.

The FP contractor field supervisory team is made up of a full-time construction manager and field supervisor, along with part-time QA, construction safety, and clerical support. Two pickup trucks are included in the cost. Total hours for this staff are planned at 21 hours per day. The duration of this work is based on total project duration.

Demobilization includes demobilization of equipment and personnel, removing temporary construction fences, construction of staging/container storage areas, access roads, office/change/storage trailers, truck scales, temporary survey buildings, and decontamination areas.

Excavation and backfill quantities listed below are based on loose or truck cubic yards. The swell factor used is 15 percent.

Miscellaneous site cleanup covers the labor and equipment for weekly work area cleanup.

J3.4.2 Annual Cost

No annual costs are associated with Alternative 3 except at the 216-S-10 Ditch. No site monitoring is required at most sites because the contaminants are assumed to be removed to concentrations at or below the preliminary remediation goals. At the 216-S-10 Ditch, collection of groundwater samples is required to satisfy *Resource Conservation and Recovery Act of 1976* TSD post-closure requirements (Section J3.1.4).

J3.4.3 Special Site Conditions

J3.4.3.1 Site 216-A-29 Ditch

This cost estimate assumes that the ditch from test pit AD-1 to borehole B8816 (head end) and from test area #8 to test pit AD-2 (tail end) is to be excavated using the methods described above. Remedial design sampling will determine the actual excavation scope. This excavation site will require approximately 2,579 m^3 (2,820 yd^3) of additional backfill to bring the low areas level with the surrounding topography. The low areas resulted from the terraces built during the last work performed at the site. The volume of pre-level material required is based on field observations.

J3.4.3.2 Site 216-S-10 Ditch

This cost estimate assumes that the test pits SD-2 to SD-3 (head end) ditch is to be excavated using the methods described above. Remedial design sampling will determine the actual excavation scope. The 216-S-10 Ditch was not entirely filled in during the last work performed at the ditch. The site will require approximately 4,300 m^3 (5,623 yd^3) of additional backfill to bring the site level with the surrounding area after the remediation excavation has been completed. The volume of additional backfill material required is based on field observation.

J3.4.3.3 Site 216-B-63 Trench

This cost estimate assumes that only the eastern 152 m (500 ft) (tail end) of this trench is to be excavated using the methods described above. Remedial design sampling will determine the actual excavation scope. This site already has been backfilled to match existing ground surface. No additional fill is required for this site.

J3.5 ALTERNATIVE 4 – ENGINEERED BARRIER

ET Monofill Barriers are planned to be constructed over the waste sites. For planning purposes, the side overlap for all types of barriers will be 6.1 m (20 ft) for all exterior sides.

J3.5.1 General Description and Assumptions

The work involved for Alternative 4 is as follows.

The fieldwork (e.g., mobilization/demobilization, borrow site excavation, barrier fill, revegetation, and some post-construction work) will be contracted to an FP contractor. The project management, RCT support, sampling, and safety oversight will be performed by the RL contractor.

Mobilization and startup include site training, mobilization of equipment and personnel, installing temporary construction fences, construction of an access road, setting up offices, and storage trailers with utilities. Fifteen days are planned for this activity. The contractor will set up or construct a temporary staging area, office trailers change trailer, and storage container at a lump sum cost of $1,565. The rental costs of the trailers and utilities are also included and are based on the duration of the work. Site access roads also will be constructed at a cost of $8,935.

Typical heavy equipment mobilized to and demobilized from the site are as follows:

- Large dozer
- Two low-ground-pressure dozers
- Two 3.8 m^3 (5 yd^3) wheel loaders
- One small loader
- Motor grader
- Two 12-ton vibratory single drum roller
- Pug mill with hoppers and belt loaders
- Two farm tractors
- Five highway 12 m^3 (16 yd^3) end dump trucks and 12 m^3 (16 yd^3) end dump trailers
- Two 15,142 to 22,712 L (4,000- to 6,000-gal) water trucks
- Flatbed truck
- Revegetation equipment – seed drill, mulcher, and tiller.

The cost of moving equipment 56 km (35 mi) from a commercial storage yard to the waste site is planned at $11,469 to mobilize and $11,469 to demobilize.

Contractor personnel are given training before the start of work at the site. The cost of training is planned at $189,009. The training will meet site requirements to work at a waste site.

A temporary fence is constructed around the waste site work area. It will be a steel post with orange mesh fabric. The fence will be removed as part of demobilization.

Before remediation work starts at the waste site, a boundary/topographic/location survey is performed by the FP contractor. The planning cost for this work is based on the area of the waste site.

Environmental air sampling will be performed at the start and end of work and on a quarterly basis. Planning cost is $520 per air sample. The RL contractor will perform all sampling required. The sampling crew is made up of one sampler and an RCT.

Revegetation of the waste site barrier includes planting native dry land grass using tractors with seed drills and hand broadcasting, hand planting sagebrush seedlings, and irrigation four times in the spring or early summer. All disturbed areas, such as the around the barrier, stockpile, staging areas and access roads, are to be replanted.

The RL contractor project management team is made up of a part-time project manager, a full-time field supervisor, and part-time engineering support. QA, Radiological Control, and Safety also provide oversight along with other support for contract management, and project controls. Total hours for this staff are planned at 22.5 hours per day. The duration of this work is based on total project duration. The RL contractor survey crew's final mapping and the decontamination and demolition report are part of the final reports required for a barrier construction. The cost of the final mapping is based on the final area of the barrier while the cost for the final decontamination and demolition report is a lump sum cost of $2,467.

The FP contractor field supervisory team is made up of a full-time construction manager and field supervisor, along with part-time QA, construction safety, and clerical support. Two pickup trucks are included in the cost. Total hours for this staff are planned at 21 hours per day. The duration of this work is based on total project duration. A field engineer prepares the final decontamination and demolition report, which covers the cost of the contractor to turn over submittals required to close out the work. The activity is a lump sum cost of $8,636.

Demobilization shall include demobilization of equipment and personnel, removing temporary construction fences, access roads, and office/storage trailers. This activity is planned for 10 days. The staging area and roads will be scarified as part of demobilization and the planning costs is $712. The office trailers and storage containers will be removed by the contractor or offsite vender and are considered a part to the rental cost.

There are two onsite sources for the fill materials to construct the three soil/fill the layers. The source for engineered fill is located at Pit 30, approximately halfway between 200 East Areas and 200 West Areas. This pit is assumed to have the sufficient quantity for this project. The source for the silt required for Layers 1 and 2 is located at Area C about 3.2 km (2 mi) south of the 200 West Area.

The crushed ballast, crushed base course, and fractured basalt will be supplied by offsite vendors or from commercial gravel pits. These materials are delivered to the waste site by the vendor.

All barrier sites are considered to have settled and are compacted enough to support construction of a barrier without further settling. Dynamic compaction is not used for these barriers.

Sites that will get an ET Monofill Barrier will be required to be level before constructing the barrier. The pre-leveling construction process is the same as the bottom layer of a barrier.

At waste sites where the top of the contamination layer is less than 5.2 m (17 ft) from the ground surface, a bio intrusion barrier will be constructed. This layer is constructed of 30 cm (12 in.) of crushed road ballast topped with 10 cm (4 in.) of 1.5 in. crushed surfacing base course rock for a total depth of 41 cm (16 in.). The rock is from a commercial source and is delivered to the waste site by the supplier's trucks. The spreading and compaction equipment used at the bio-barrier is a 3.8 m^3 (5 yd^3) loader to haul/place the rock, a 250- to 300-hp dozer with a U-blade to spread the rock, and one 12-ton vibratory roller. A 15,142 L (4,000-gal) water truck will be used for dust control. One laborer supports the placement work.

The ET Monofill Barrier is constructed of three different layers. The bottom layer will be constructed of engineered or screened fill material, which has a minimum thickness of 20 cm (8 in.). The construction of the engineered fill requires the excavation of suitable borrow from an onsite pit source. The estimated time to complete the fill is based on the production rate of a of a 3.8 m^3 (5 yd^3) loader excavating at a borrow pit. All material is screened with a grizzly mounted on a surge bin to remove 10 cm (4 in.) or larger rocks. The five highway end dump trucks with 12 m^3 (16 yd^3) end dump trailers are needed to keep up with the loader. A 15,142 L (4,000-gal) water truck provides dust control at the pit. The production rate for this work is 141 m^3/h (185 yd^3/h). The spreading and compaction equipment used at the barrier is a 250- to 300-hp dozer with a U-blade to spread fill, and two 12-ton vibratory single drum rollers. A 15,142 L (4,000-gal) water truck will be used for dust control. To produce a smooth surface to prevent low areas and have a cross slope of two percent, the surface of engineered fill is fine graded. Work involves a small dozer with laser controls, a 3.8 m^3 (5 yd^3) loader, one 12-ton vibratory single drum roller, and a water truck. The production rate is 4,181 m^2/day (5,000 yd^2/day) for the engineered fill surface area. One laborer supports the dozer and loader operators. Two engineer technicians set up the grade and elevation control.

The second layer will be constructed of 69 cm (27 in.) of silt fill. The construction of this layer involves excavating and hauling the silt from the onsite pit to the barrier. The production rate is based on a 3.8 m^3 (5 yd^3) loader excavating and loading at the pit. There are five highway 12 m^3 (16 yd^3) end dump trucks with 12 m^3 (16 yd^3) end dump trailers. The production rate for this work is 141 m^3/h (185 yd^3/h) based on the production of the loader. At the barrier, the silt is spread with two small low-ground-pressure dozers. The silt is scarified to prevent over-compaction. One laborer supports the two dozers. A 15,142 L (4,000-gal) water truck is used for dust control at the pit and the barrier.

The top layer will be constructed of 31.8 cm (12.5 in.) of silt/pea gravel fill. The fill material is made up of silt with 15 percent pea gravel added by weight. The silt is excavated with a 3.8 m^3 (5 yd^3) loader and hauled from the site silt source by two dump trucks to a process area near the pit. The pea gravel will come from an offsite commercial source and will be stockpiled at the silt process area. A 3.8 m^3 (5 yd^3) loader and a pug mill with belt loader are used to mix the silt and gravel. The hauling from the process area and the spreading of the material are the same as described for the second layer.

The side slopes of the barrier will be covered with fractured basalt 0.3 m (1 ft) deep with silt filling the voids in the rock. The side slopes of the barrier are graded before placing any fractured basalt. The work involves a 100- to 150-hp dozer with laser controls, 3.8 m^3 (5 yd^3) loader, one 12-ton vibratory single drum roller, and a water truck. The production rate is 2,090 m^2/h (2,500 yd^2/h) for the engineered fill surface area. One laborer supports the dozer operator and water truck. Two engineer technicians set up the grade and elevation control.

A non-woven geotextile is placed on top of side slopes. This work covers the placement of needle-punched 120 mil polypropylene geotextile over the prepared surface of the slopes. The production rate is 125 m^2/h (150 yd^2/h). Three laborers place and splice the fabric. An operator with a small loader and a teamster with a flatbed truck support this work.

The fractured basalt with silt layer is the last layer of the barrier to be constructed. The fractured basalt will come from a commercial source and will be delivered and stockpiled at the construction site. The delivered cost of the rock is based on vendor quotes of \$21.61/0.79 m^3 (\$21.61/yd^3). The silt will come from the same source as Layer 2. The silt will be delivered and stockpiled at the barrier site when the silt for Layer 2 is being hauled. One loader and a 300-hp dozer are used to place the basalt on the fill slope. One laborer supports the work. The production rate is 54 m^3/h (70 yd^3/h). A quarter-time water truck and driver are used for dust control.

Instrumentation is not included for this barrier.

After completion of the barrier construction work, a 1.2 m (4-ft) steel post with chain fence is constructed around the site. The fence location is at the toe of the barrier slope.

During the construction of the barrier, compaction testing will be performed on the three layers of fill. The lower level will require that a minimum level of compaction has been reached, while the top two layers will be tested to ensure that the fill does not become over-compacted.

Miscellaneous site cleanup covers the labor and equipment for weekly work area cleanup.

J3.5.2 Surveillance and Cap Maintenance

The costs associated with surveillance and cap maintenance are operation and maintenance costs and are incurred annually. The activities performed during surveillance and cap maintenance are expected to be the same as those described for site inspection/surveillance and existing cover maintenance cost items under Alterative 2. Refer to the Alternative 2 assumptions for these cost items.

J3.5.3 Monitoring

Monitoring includes collecting groundwater samples from down-gradient wells to evaluate the performance of the cap system. Refer to Section J3.1.4.

J3.5.4 Special Site Conditions

J3.5.4.1 Site 216-A-29 Ditch

This cost estimate assumes that the ditch from test pit AD-1 to borehole B8816 (head end) and from test area #8 to test pit AD-2 (tail end) will require a barrier. Remedial design sampling will determine the actual barrier scope. The barrier is to be constructed using the methods described above. Each barrier site will require 2,579 m^3 (2,820 yd^3) pre-leveling before the start of construction of the barrier because of the terraces built during the last work performed at the site. The volume of pre-level material required is based on field observations.

J3.5.4.2 Site 216-S-10 Ditch

This cost estimate assumes that the ditch from test pits SD-2 to SD-3 (head end) will require a barrier. Remedial design sampling will determine the actual barrier scope. The barrier is to be constructed using the methods described above. The site will require approximately 4,300 m^3 (5,623 yd^3) pre-leveling before the start of construction of the barrier because the northern 317 m (1,040 ft) of the ditch has not been backfilled. The volume of pre-level material required is based on field observations.

Figure J-1. Evapotranspiration Monofill Barrier Design.

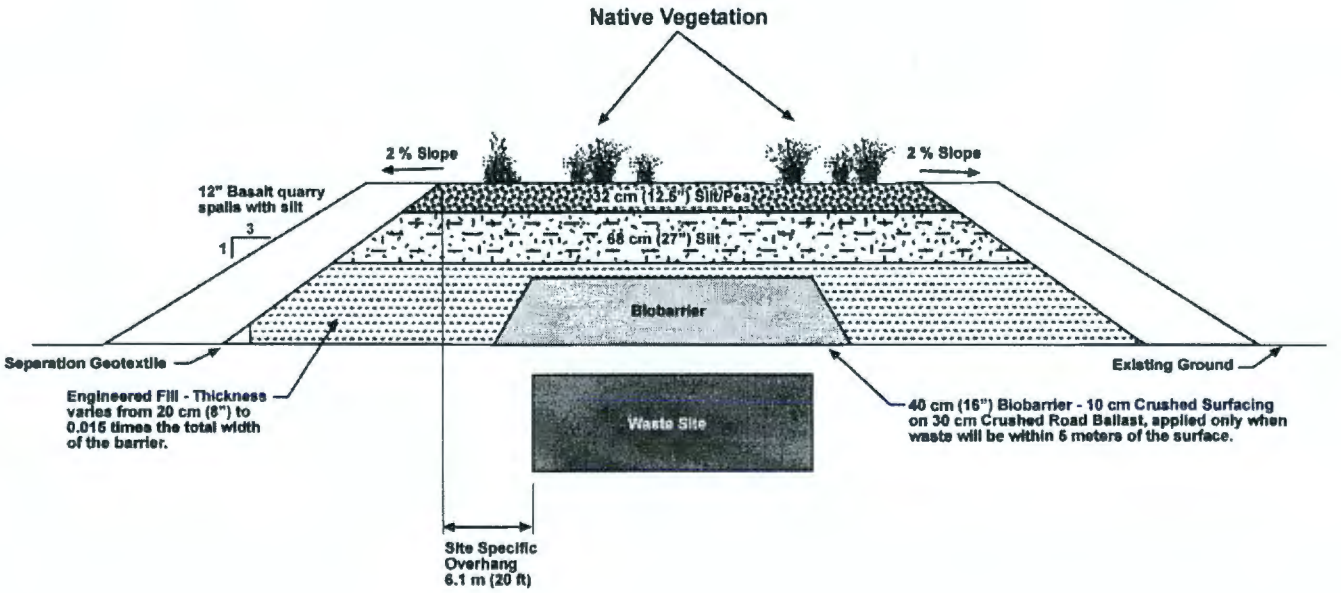

Table J-1. Alternatives 1, 2, 3, and 4 Site Information.

Waste Site	Site Description	Alternative 1 No Action and Alternative 2 MESC/MNA/ICs							Alternative 3 RTD											Alternative 4 ET Barrier					
		Site Dimensions (ft)							Excavation Dimensions (ft)				Contam. Soil Volume (yd^3)	Contam. Debris (yd^3)	Excav. Vol. (yd^3)	Overburden Soil Volume (yd^3)	Contam. Soil Volume (yd^3)	Contam. Debris (yd^3)	Excav. Vol. (yd^3)	Capping Dimensions (ft)		Acres of Capping	Preleveling Fill (yd^3)	Duration (days)	Cap Type
		Length (Bottom) (ft)	Width (Bottom) (ft)	Ground Water Depth (bgs)	Clean Soil Depth (bgs)	Side Slope (Assumed)	End Slope (Assumed)	Surface Area (Ac)	Length (Top) (ft)	Width (Top) (ft)	Excavation Depth (ft)	Clean Overburden Depth (ft)								Length (ft)	Width (ft)				
216-A-29 Ditch	AD-1 to B8826	468	6	285	2	1.5	1.5	0.06	494	32	8.5	2	676	0	2889	1788	1101	N/A	425	540	85	1.1	425	N/A	ET Monofill
	B8826 to Area #8	905	6	285	2	1.5	1.5	0.12	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Area #8 to AD-2	2627	6	285	2	1.5	1.5	0.36	2653	32	8.5	2	3795	0	15633	9443	6190	N/A	2395	2706	85	5.3	2395	N/A	ET Monofill
Complete site		4000	6	285	2	1.5	1.5	0.55	3146	32	8.5	2	4471	0	18522	11231	7291	70	2820	3246	85	6.3	2820	77	--
216-S-10 Ditch*	SD-2 to SD-3	1040	6	240	6	1.5	1.5	0.14	1085	51	15	0	3467	0	17104	8015	9090	54	5623	1119	85	2.2	5623	48	N/A
	SD-3 to SD-1	600	6	240	0	1.5	1.5	0.08	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	SD-1 to SP-1	610	6	240	0	1.5	1.5	0.08	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ET Monofill
Complete site		2250	6	240	0-6	1.5	1.5	0.31	1085	51	N/A	N/A	3467	0	17104	8015	9090	54	N/A	1119	85	2.2	5623	48	--
216-B-63 Trench	Trench	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
216-S-10	Pond	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
216-S-11	Pond	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

* Uncovered portion of ditch is 10 ft deep.

bgs = Below ground surface.
ET = evapotranspiration.
MESC/MNA/IC = maintain existing soil cover, monitored natural attenuation, and institutional controls.
N/A = not applicable.
RTD = removal, treatment, and disposal.

Table J-2. Alternative 1 Capital-Cost Breakdown.

Alternative 1 - No Action					
	216-A-29 Ditch	**216-S-10 Ditch**	**216-B-63 Trench**	**216-S-10 Pond**	**216-S-11 Pond**
Mobilization/ Demobilization	$0	$0	$0	$0	$0
Monitoring & Sampling	$353,382	$353,382	$353,382	$353,382	$353,382
Site Work	$0	$0	$0	$0	$0
Soil Excavation	$0	$0	$0	$0	$0
Cap	$0	$0	$0	$0	$0
Construction Staff	$0	$0	$0	$0	$0
Project Management	$29,816	$29,816	$29,816	$29,816	$29,816
Sub Total	$383,198	$383,198	$383,198	$383,198	$383,198
Contingency (25%)	$95,800	$95,800	$95,800	$95,800	$95,800
Remedial Design *	$71,850	$71,850	$71,850	$71,850	$71,850
Total Project	$550,847	$550,847	$550,847	$550,847	$550,847

* Remedial Design Capital Costs are based on EPA/540/R-00/002, *A Guide to Developing and Documenting Cost Estimates During the Feasibility Study*, OSWER 9355.0-75, Exhibit 5-8.
For projects with construction costs from $100,000 to $500,000, remedial design is planned at 15% of construction costs.
For projects with construction costs from $500,000 to $2,000,000, remedial design is planned at 12% of construction costs.

Table J-3. Alternative 2 Capital-Cost Breakdown.

Alternative 2 - MESC/MNA/IC					
	216-A-29 Ditch	**216-S-10 Ditch**	**216-B-63 Trench**	**216-S-10 Pond**	**216-S-11 Pond**
Institutional Controls	$20,000	$20,000	$0	$0	$0
Monitoring & Sampling	$0	$0	$0	$0	$0
Site Work	$0	$0	$0	$0	$0
Soil Excavation	$0	$0	$0	$0	$0
Cap	$0	$0	$0	$0	$0
Construction Staff	$1,200	$1,200	$0	$0	$0
Project Management	$2,400	$2,400	$0	$0	$0
Sub Total	$23,600	$23,600	$0	$0	$0
Contingency (25%)	$5,900	$5,900	$0	$0	$0
Remedial Design *	$5,900	$5,900	$0	$0	$0
Total Project	$35,400	$35,400	$0	$0	$0

* Remedial Design Capital Costs are based on EPA/540/R-00/002, *A Guide to Developing and Documenting Cost Estimates During the Feasibility Study*, OSWER 9355.0-75, Exhibit 5-8.
For projects with construction costs less than $100,000, remedial design is planned at 20% of construction costs.
MESC/MNA/IC = maintain existing soil cover, monitored natural attenuation, and institutional controls.

Table J-4. Alternative 3 Capital-Cost Breakdown.

Alternative 3 - Removal, Treatment, And Disposal					
	216-A-29 Ditch	**216-S-10 Ditch**	**216-B-63 Trench**	**216-S-10 Pond**	**216-S-11 Pond**
Mobilization/ Demobilization	$444,299	$385,413	$0	$0	$0
Monitoring & Sampling	$507,165	$439,858	$0	$0	$0
Site Work	$445,284	$270,731	$0	$0	$0
Soil Excavation	$790,829	$609,760	$0	$0	$0
Cap	$0	$0	$0	$0	$0
Construction Staff	$255,435	$199,457	$0	$0	$0
Project Management	$165,124	$126,303	$0	$0	$0
Sub Total	$2,608,136	$2,031,522	$0	$0	$0
Contingency (25%)	$652,034	$507,881	$0	$0	$0
Remedial Design *	$260,814	$203,152	$0	$0	$0
Total Project	$3,520,984	$2,742,555	$0	$0	$0

* Remedial Design Capital Costs are based on EPA/540/R-00/002, *A Guide to Developing and Documenting Cost Estimates During the Feasibility Study*, OSWER 9355.0-75, Exhibit 5-8.
For projects with construction costs from $500,000 to $2,000,000, remedial design is planned at 12% of construction costs.
For projects with construction costs from $2,000,000 to $10,000,000, remedial design is planned at 8% of construction costs.

Table J-5. Alternative 4 Capital-Cost Breakdown.

Alternative 4 - Barrier					
	216-A-29 Ditch	**216-S-10 Ditch**	**216-B-63 Trench**	**216-S-10 Pond**	**216-S-11 Pond**
Mobilization/ Demobilization	$334,173	$286,326	$0	$0	$0
Monitoring & Sampling	$3,269	$3,269	$0	$0	$0
Site Work	$179,598	$53,788	$0	$0	$0
Soil Excavation	$0	$0	$0	$0	$0
Cap	$1,024,279	$434,265	$0	$0	$0
Construction Staff	$241,057	$154,003	$0	$0	$0
Project Management	$179,323	$111,869	$0	$0	$0
Sub Total	$1,961,699	$1,043,520	$0	$0	$0
Contingency (25%)	$490,425	$260,880	$0	$0	$0
Remedial Design *	$196,170	$156,528	$0	$0	$0
Total Project	$2,648,294	$1,460,928	$0	$0	$0

* Remedial Design Capital Costs are based on EPA/540/R-00/002, *A Guide to Developing and Documenting Cost Estimates During the Feasibility Study*, OSWER 9355.0-75, Exhibit 5-8.
For projects with construction costs from $500,000 to $2,000,000, remedial design is planned at 12% of construction costs.
For projects with construction costs from $2,000,000 to $10,000,000, remedial design is planned at 8% of construction costs.

Table J-6. Alternative 1 - Site Summary Sheet - Trench, Ditch, Pond - Capital Costs, Periodic Costs, Nondiscounted Costs, and Present-Worth Costs.

Site	Alternatives	Total Capital Cost	Nondiscounted Annual & Periodic Cost	Nondiscounted Cost	Total Present-Worth Cost
216-A-29 Ditch	No Action	$550,847	$0	$550,847	$550,847
216-B-63 Trench	No Action	$550,847	$0	$550,847	$550,847
216-S-10 Ditch	No Action	$550,847	$0	$550,847	$550,847
216-S-10 Pond	No Action	$550,847	$0	$550,847	$550,847
216-S-11 Pond	No Action	$550,847	$0	$550,847	$550,847

Table J-7. Alternative 2 - Site Summary Sheet - Trench, Ditch, Pond - Capital Costs, Periodic Costs, Nondiscounted Costs, and Present-Worth Costs.

Site	Alternative	Total Capital Cost	Nondiscounted Annual & Periodic Cost	Nondiscounted Cost	Total Present-Worth Cost
216-A-29 Ditch	MESC/MNA/IC	$35,400	$4,977,109	$5,012,509	$1,183,857
216-B-63 Trench	MESC/MNA/IC	N/A	$0	$0	$0
216-S-10 Ditch	MESC/MNA/IC	$35,400	$5,025,843	$5,061,243	$1,193,646
216-S-10 Pond	MESC/MNA/IC	N/A	$0	$0	$0
216-S-11 Pond	MESC/MNA/IC	N/A	$0	$0	$0

MESC/MNA/IC = maintain existing soil cover, monitored natural attenuation, and institutional controls.
N/A = not applicable.

Table J-8. Alternative 3 - Site Summary Sheet - Trench, Ditch, Pond - Capital Costs, Periodic Costs, Nondiscounted Costs, and Present-Worth Costs.

Site	Alternative	Total Capital Cost	Nondiscounted Annual & Periodic Cost	Nondiscounted Cost	Total Present-Worth Cost
216-A-29 Ditch	Removal, Treatment, and Disposal	$3,520,984	$0	$3,520,984	$3,520,984
216-B-63 Trench	Removal, Treatment, and Disposal	$0	$0	$0	$0
216-S-10 Ditch *	Removal, Treatment, and Disposal	$2,742,555	$4,806	$2,747,360	$2,745,652
216-S-10 Pond	Removal, Treatment, and Disposal	$0	$0	$0	$0
216-S-11 Pond	Removal, Treatment, and Disposal	$0	$0	$0	$0

* Includes 30 years of groundwater monitoring.

Table J-9. Alternative 4 - Site Summary Sheet - Trench, Ditch, Pond - Capital Costs, Periodic Costs, Nondiscounted Costs, and Present-Worth Costs.

Site	Alternative	Total Capital Cost	Nondiscounted Annual & Periodic Cost	Nondiscounted Cost	Total Present-Worth Cost
216-A-29 Ditch	ET Monofill Barrier & IC	$2,648,294	$18,633,625	$21,281,919	$6,996,803
216-B-63 Trench	ET Monofill Barrier & IC	$0	$0	$0	$0
216-S-10 Ditch	ET Monofill Barrier & IC	$1,460,928	$7,947,391	$9,408,319	$3,186,456
216-S-10 Pond	ET Monofill Barrier & IC	$0	$0	$0	$0
216-S-11 Pond	ET Monofill Barrier & IC	$0	$0	$0	$0

IC = institutional controls.

Table J-10. Alternatives 1, 2, 3, and 4 Present Net Worth and Nondiscounted Comparison Costs.

Net Present-Worth Cost Estimates.					
Waste Site/Group		Alternative 1: No Action	Alternative 2: MESC/NA/ICs	Alternative 3: RTD	Alternative 4: Barrier & ICs
216-A-29 Ditch	Present-Worth Cost	$550,847	$1,183,857	$3,520,984	$6,996,803
	Nondiscounted cost	$550,847	$5,012,509	$3,520,984	$21,281,919
216-B-63 Trench	Present-Worth Cost	$550,847	$0	$0	$0
	Nondiscounted cost	$550,847	$0	$0	$0
216-S-10 Ditch *	Present-Worth Cost	$550,847	$1,193,646	$2,745,652	$3,186,456
	Nondiscounted cost	$550,847	$5,061,243	$2,747,360	$9,408,319
216-S-10 Pond	Present-Worth Cost	$550,847	$0	$0	$0
	Nondiscounted cost	$550,847	$0	$0	$0
216-S-11 Pond	Present-Worth Cost	$550,847	$0	$0	$0
	Nondiscounted cost	$550,847	$0	$0	$0

* Alternative 3 includes 30 years of groundwater monitoring.
MESC/MNA/IC= maintain existing soil cover, monitored natural attenuation, and institutional controls.

J4.0 REFERENCES

DE-AC06-96RL13200, 1996, *Contract Between the U.S. Department of Energy, Richland Operations Office, and Fluor Daniel Hanford, Inc.*, U.S. Department of Energy, Richland Operations Office, Richland, Washington, as amended.

EPA/540/R-00/002, 2000, *A Guide to Developing and Documenting Cost Estimates During the Feasibility Study*, OSWER 9355.0-75, U.S. Environmental Protection Agency, Washington, D.C.

Federal Insurance Contributions Act (FICA, *The Social Security Act of 1935*), 26 USC 21, et seq. http://www.law.cornell.edu/uscode/26/usc_sup_01_26_10_C_20_21.html

Means, R. S., 2001, *ECHOS Environmental Remediation Cost Data – Unit Price*, 7th annual ed., Robert S. Means Company, Kingston, Massachusetts.

Means, R. S., 2007, *Facility Construction Cost Data*, 22nd Annual Edition, Robert S. Means Company, Kingston, Massachusetts.

OMB Circular No. A-94, 2002, *Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs,* Office of Management and Budget, Washington, D.C., as revised.

Rental Rate Blue Book for Construction Equipment, Equipment Watch, San Jose CA. http://www.equipmentwatch.com/Marketing/RRBB_overview.jsp?private=cig

Resource Conservation and Recovery Act of 1976, 42 USC 6901, et seq.

Richardson's *Process Plant Construction Estimating Standards*, Richardson Engineering Services, Inc., Mesa, Arizona. http://internet.processmanual.com/ipmcontent/RICH_PROPLANT.htm

Site Stabilization Agreement for All Construction Work for the U.S. Department of Energy at the Hanford Site, 1984, as amended, commonly known as the Hanford Site Stabilization Agreement (original title, Site Stabilization Agreement, Hanford Site, between J. A. Jones Construction Services Company and Morrison-Knudsen Company, Inc., and the Building and Construction Trades Department of the AFL-CIO and its affiliated international unions, and the International Brotherhood of Teamsters, Chauffeurs, Warehousemen, and Helpers of America).

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APPENDIX K

PROPOSED SOIL SAMPLING APPROACH TO ADDRESS SAMPLING NEEDS REMAINING IN THE 200-CS-1 OPERABLE UNIT

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APPENDIX K

PROPOSED SOIL SAMPLING APPROACH TO ADDRESS SAMPLING NEEDS REMAINING IN THE 200-CS-1 OPERABLE UNIT

K1.0 INTRODUCTION

The implementation of the 200-CS-1 Operable Unit (OU) record of decision will require additional soil sampling. This section describes those additional sampling needs and recommends an approach to fill them. All sampling designs discussed below are recognized as subject to regulatory approval prior to their implementation but are described here to facilitate later, formal discussions that will occur as part of a data quality objective (DQO) process during the remedial design phase of the OU implementation. This early planning reflects recognition of the importance of statistical sampling designs to the project and as noted by the U.S. Environmental Protection Agency (EPA), "the sample collection design of a soil sampling program is a fundamental part of data collection for scientifically based decision making. A well developed sampling design plays a critical role in ensuring that data are sufficient to draw the conclusions needed" (EPA/240/R-02/005, *Guidance on Choosing a Sampling Design for Environmental Data Collection*, EPA QA/G-5S).

This section proposes use of statistical sampling designs to verify that contaminant removal is complete, and to confirm that the selected waste site remedy was implemented to achieve remedial action objectives and that clean closure of treatment, storage, and/or disposal waste sites has been achieved within the 200-CS-1 OU. Soil sampling needed to refine the size of a removal action also is discussed. A statistical sampling approach implements Washington State Department of Ecology (Ecology) guidance (Chapter K2.0) and supports more informed decision making. Initial sampling designs are proposed to address three areas requiring the collection of additional data. Examples are provided using site-specific data. Key features of the statistical designs presented here are as follows:

- Establishes statistical confidence on decisions
- Number of samples have a documented basis
- Fulfills regulatory guidance
- Uses site-specific data
- Implemented using the Visual Sample Plan (VSP) software (as developed for the EPA statistical sampling guidelines) (PNNL, 2007, *Visual Sample Plan*)
- Not cost prohibitive.

The VSP software is DQO-based systematic planning to determine the number and location of samples to ensure confident, statistically defensible decisions and to perform statistical and data quality assessment in support of the decision-making process. The VSP is currently sponsored by and in use by EPA, U.S. Department of Energy, U.S. Department of Defense, U.S. Department of Homeland Security, and the U.S. Centers for Disease Control.

The flexibility incorporated into the VSP software is expected to facilitate understanding and analysis of these proposed designs along with rapid evaluation of alternative design approaches that would occur during a DQO process to finalize the sampling designs.

Table K-1 summarizes additional soil sampling needs for each waste site within the 200-CS-1 OU. These data needs are in addition to the previously identified soil sampling needs documented and addressed during the implementation of the remedial investigation/feasibility study process for the 200-CS-1 OU. An "X" indicates the need for a sampling design to address the noted issue at the specified waste site.

Table K-1. Sampling Needs for Each Waste Site Within the 200-CS-1 Operable Unit.

	216-A-29 Ditch	216-B-63 Ditch	216-S-10 Ditch	216-S-10 Pond
Verify that contaminant removal is complete	X	Not required	X	Not required
Confirm waste site remedy selection was implemented to achieve remedial action objectives and clean closure of soils.	X	X	X	X
Refine the size of the soil removal effort	X	Not required	X	Not required

An approach to address each sampling need is discussed below. Examples are provided, as appropriate.

K2.0 VERIFICATION SAMPLING AFTER CONTAMINANT REMOVAL

Ecology guidance is used to establish the statistical approach for making the decision. Ecology publishes clean-closure guidance (Ecology Publication 94-111, *Guidance for Clean Closure of Dangerous Waste Units and Facilities*) that references additional guidance. This collection of guidance is used to address both the final decision relating to the remedial action objectives and clean closure of the treatment, storage, and/or disposal waste sites.

Ecology clean-closure guidance (Ecology Publication 94-111, Section 7.2) for designing a sampling program states the following:

> Facility owners/operators are encouraged to rely on Ecology's *Guidance on Sampling and Data Analysis Methods* (January 1994, updated in 1995, Publication #94-49) for specific guidance on the preparation of sampling programs. For additional information on sampling, facility owners/operators may consult U.S. EPA (1986b), U.S. EPA (1984), and Schweitzer, et al. (1984); see Section 14.0 for a complete reference.

Ecology clean-closure guidance (Ecology Publication 94-111, Section 7.4) for statistical guidelines states the following:

> Ecology will typically make decisions regarding clean closure by direct comparison of sampling data to the site specific clean closure levels. If contamination at or from the closing unit is widespread, Ecology may require that the *Statistical Guidance for Ecology Site Managers* (August 1992, Ecology Publication #92-54) be used to confirm that clean closure levels have been achieved.

When a background comparison is used to determine cleanup levels, the *Statistical Guidance for Ecology Site Managers* or an equivalent method must be used to confirm that clean closure levels have been achieved.

For more information on statistical analysis, facility owners/operators can consult U.S. EPA (1986b) and Schweitzer, et al. (1984); see Section 14.0 of this guidance for complete citations.

Ecology guidance states that an appropriate statistical method for evaluating compliance (for cleanup levels based on chronic or carcinogenic effects) is a "procedure in which a confidence interval for each hazardous substance is established from site sampling data and the soil cleanup level is compared to the upper confidence level and statistical tests should be performed at a Type 1 error level of 5 percent." (Ecology Publication 92-54, *Statistical Guidance for Ecology Site Managers*).

Ecology guidance indicates that the need for statistical analysis for soil sampling applies after cleanup is conducted. Guidance also states that after a cleanup action, the location of soil samples must be along the excavation and sidewalls (and not from the spoil piles) to establish whether cleanup levels are met. The decision on whether a sampled area complies with cleanup levels is based on the following criteria (Ecology Publication 94-49, *Guidance on Sampling and Data Analysis Methods*, Section 1.1).

- The upper 95 percent upper confidence limit on the true population mean cannot exceed the cleanup level.
- No sample concentration exceeds twice the cleanup level.
- Less than 10 percent of the samples can exceed the cleanup level.

It is proposed to address the first criterion (the comparison of the true population mean to various cleanup levels) through use of the VSP. Specifically, the use of the sampling goal, as labeled in VSP, "Compare Average to a Fixed Threshold," is proposed. Data collected during the feasibility phase of the 200-CS-1 OU remedial investigation/feasibility study are necessary and can be used for implementation of a statistical process.

Sample placement will assume a systematic grid sampling recognizing Ecology guidance (Ecology Publication 94-49). Locating the sample points over a systematic grid with a random start ensures spatial coverage of the site. Statistical analyses of systematically collected data are valid if a random start to the grid is used. One disadvantage of systematically collected samples is that spatial variability or patterns may not be discovered if the grid spacing is large relative to the spatial patterns.

It also is proposed to incorporate only those analytes key to the removal effort into the statistical test design. A comparison of the upper 95 percent upper confidence limit to the appropriate cleanup level will be conducted after the completion of each removal action. Should the data indicate that the cleanup is incomplete, additional removal will be considered after consultation with the regulatory authorities. An example of this approach is provided below using information from the 216-S-10 Ditch.

Table K-2 provides the site-specific information needed to implement the sampling design: analyte name, sample deviation, and cleanup level for the 216-S-10 Ditch. The sample deviation is computed from samples taken in the clean areas of the ditch. A similar value would be expected after soil removal from the contaminated section. The cleanup level is the lowest

cleanup level associated with the following exposure pathways: protection of groundwater site-specific, unrestricted land use for direct contact (WAC 173-340-740[3], "Method B Soil Cleanup Levels for Unrestricted Land Use"), industrial land use (WAC 173-340-745[5], "Method C Industrial Soil Cleanup Levels"), and ecological protection values.

Table K-2. 216-S-10 Ditch Statistical Data for Visual Sample Plan Example.

Contaminant	Standard Deviation* (mg/kg)	Sample Mean* (mg/kg)	Cleanup Level
Aroclor-1254	u	u	0.5
Benzo(a)pyrene	u	u	0.14
Copper	1.3	14.3	217
Silver	2.7	0.72	14
Zinc	4	51	360

* Based on soil samples from "clean" sections of the ditch.
u = insufficient data to calculate.

Table K-3 summarizes the sampling design developed that implements systematic sampling for comparing a median with a fixed threshold (i.e., nonparametric – [NUREG-1575, *Multi-Agency Radiation Survey and Site Investigation Manual*] [MARSSIM]). A nonparametric systematic sampling approach with a random start was used to determine the number of samples and to specify sampling locations. A nonparametric formula was chosen because the conceptual model and historical information (e.g., historical data from this site or a very similar site) indicate that typical parametric assumptions may not be true.

Table K-3. Summary of Sampling Design. (2 Pages)

Primary Objective of Design	Compare a site mean or median to a fixed threshold
Type of Sampling Design	Nonparametric
Sample Placement (Location) in the Field	Systematic with a random start location
Working (Null) Hypothesis	The median (mean) value at the site exceeds the threshold
Formula for calculating number of sampling locations	Sign Test - MARSSIM version
Calculated total number of samples	15
Number of samples on map [a]	15
Number of selected sample areas [b]	1
Specified sampling area [c]	4348.15 m^2
Size of grid/Area of grid cell [d]	32.2501 x 96.7503 ft/3120.21 ft^2
Grid pattern	Rectangular
Total cost of sampling [e]	$95,000.00

Table K-3. Summary of Sampling Design. (2 Pages)

[a] This number may differ from the calculated number because of (1) grid edge effects, (2) adding judgment samples, or (3) selecting or unselecting sample areas.
[b] The number of selected sample areas is the number of colored areas on the map of the site. These sample areas contain the locations where samples are collected.
[c] The sampling area is the total surface area of the selected colored sample areas on the map of the site.
[d] Size of grid/Area of grid cell gives the linear and square dimensions of the grid used to systematically place samples.
[e] Including measurement analyses and fixed overhead costs. See the cost-of-sampling section for an explanation of the costs presented here.

MARSSIM = NUREG-1575, *Multi-Agency Radiation Survey and Site Investigation Manual.*

Both parametric and nonparametric equations rely on assumptions about the population. Typically, however, nonparametric equations require fewer assumptions and allow for more uncertainty about the statistical distribution of values at the site. The trade-off is that if the parametric assumptions are valid, the required number of samples is usually less than if a nonparametric equation was used.

Figure K-1 shows the sampling locations in the field. The values of the inputs that result in the calculated number of sampling locations are found in Table K-4. The assumptions associated with the formulas for computing the number of samples are as follows.

1. The computed sign test statistic is normally distributed.
2. The variance estimate (S^2) is reasonable and representative of the population being sampled.
3. The population values are not spatially or temporally correlated.
4. The sampling locations will be selected probabilistically.

The first three assumptions will be assessed in a post-data collection analysis. The last assumption is valid because the gridded sample locations were selected based on a random start.

Figure K-1. Sampling Locations at the 216-S-10 Ditch.

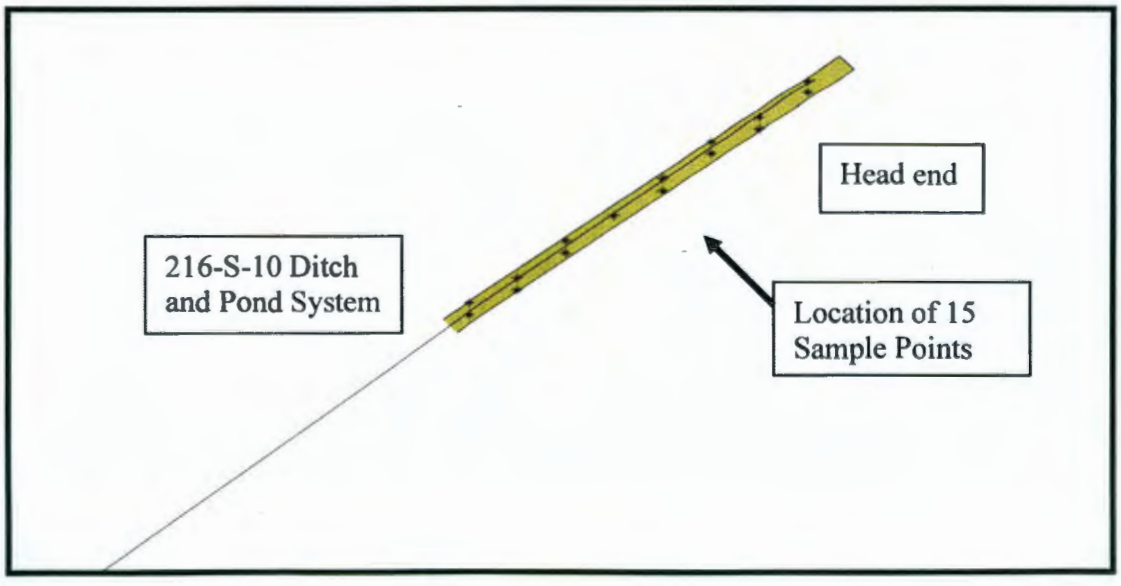


Table K-4. Input Data for 216-S-10 Ditch.

Analyte	n[a]	Parameter					
		S	Δ	α	β	$Z_{1-\alpha}$ [b]	$Z_{1-\beta}$ [c]
Silver	15	2.7 mg/kg	4 mg/kg	0.05	0.1	1.64485	1.28155
Copper	11	1.3 mg/kg	65 mg/kg	0.05	0.1	1.64485	1.28155
Zinc	11	4 mg/kg	108 mg/kg	0.05	0.1	1.64485	1.28155

[a] The final number of samples has been increased by the NUREG-1575, *Multi-Agency Radiation Survey and Site Investigation Manual*, overage of 20%.
[b] This value is automatically calculated by the Visual Sample Plan based on the user-defined value of α (5%).
[c] This value is automatically calculated by the Visual Sample Plan based on the user-defined value of β (10%).
And
n is the number of samples,
S is the estimated standard deviation of the measured values including analytical error,
Δ is the width of the gray region,
α is the acceptable probability of incorrectly concluding the site median (mean) is less than the threshold,
β is the acceptable probability of incorrectly concluding the site median (mean) exceeds the threshold,
$Z_{1-\alpha}$ is the value of the standard normal distribution such that the proportion of the distribution less than $Z_{1-\alpha}$ is 1-α,
$Z_{1-\beta}$ is the value of the standard normal distribution such that the proportion of the distribution less than $Z_{1-\beta}$ is 1-β.

The total cost of the completed sampling program depends on several cost inputs, some of which are fixed, and others that are based on the number of samples collected and measured. Based on the numbers of samples determined above, the estimated total cost of sampling and analysis at this site is $95,000.00. Table K-5 summarizes the inputs and resulting cost estimates.

Table K-5. Cost Information for the Head End of the 216-S-10 Ditch.

Cost Details	Per Analysis	Per Sample	15 Samples
Field collection costs		$1,000.00	$15,000.00
Analytical costs	$2,000.00	$2,000.00	$30,000.00
Sum of Field & Analytical costs		**$3,000.00**	**$45,000.00**
Fixed planning and validation costs			$50,000.00
Total cost			**$95,000.00**

K3.0 CONFIRMATION OF REMEDY SELECTION IMPLEMENTATION

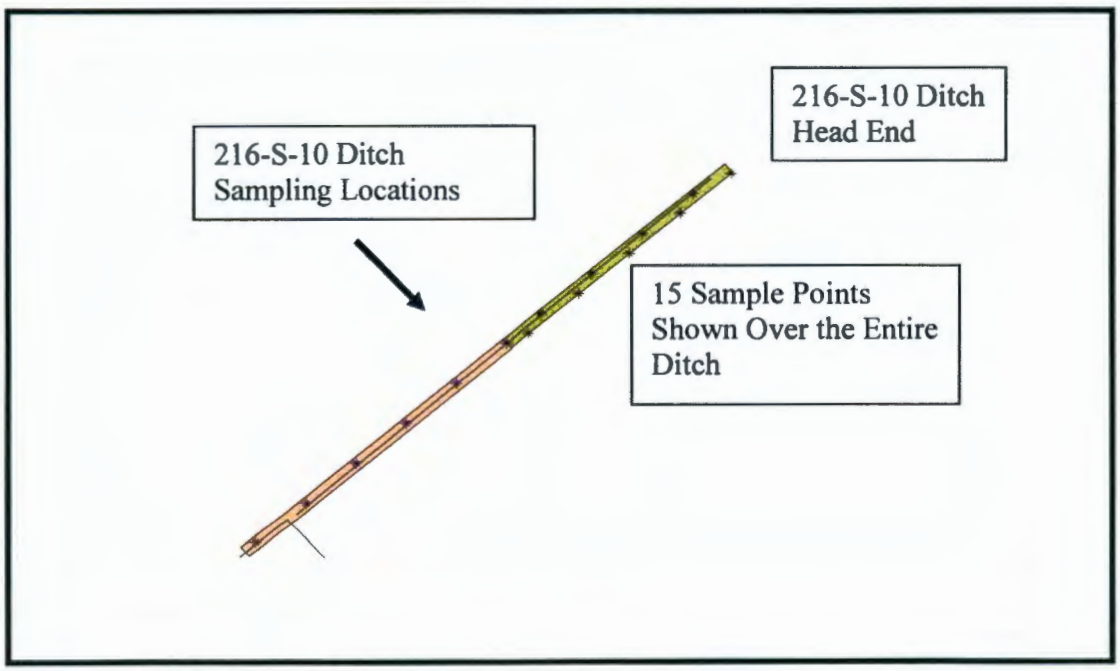
Two examples of sampling designs are provided to demonstrate the approach for a design that confirms that waste site remedy selection was implemented to achieve remedial action objectives and clean closure of treatment, storage, and/or disposal waste sites. Statistical sampling designs are developed for the 216-S-10 Ditch and 216-S-10 Pond and discussed below. Each example establishes the number of samples needed to make the decision.

K3.1 216-S-10 DITCH

The soil data from the lower end of the 216-S-10 Ditch indicate that this part of the ditch is not contaminated (i.e., above cleanup levels). The sampling design proposed to establish the condition of "not contaminated" is very similar to the discussion provided above. The approach for the 216-B-63 Trench is similar to the 216-S-10 Ditch example. This sampling program would be implemented after removal of contaminated soil from the head end of the 216-S-10 Ditch and would use samples from the entire length of the ditch. Cost of sampling the tail end of the ditch is appreciably higher because of the existing clean fill found in the ditch.

This design uses the same statistical models and inputs as described in Chapter K2.0. Figure K-2 presents a map of proposed sample locations for the 216-S-10 Ditch assuming the head end has been remediated and is incorporated into the sampling plan design. As before, 15 sample locations are necessary to meet the desired DQOs. In practice, data gathered during the cleanup of the head end of the ditch would be incorporated into the development of the sampling design, which likely would adjust the number of samples required.

Figure K-2. Sampling Design for the Lower End of the 216-S-10 Ditch.



The total cost of the completed sampling program depends on several cost inputs, some of which are fixed, and others that are based on the number of samples collected and measured. Based on the numbers of samples determined above, the estimated total cost of sampling and analysis at this site is $305,000.00. Sampling costs are appreciably higher than the previous example because of the higher cost of sample collection in the filled tail end of the ditch. Table K-6 summarizes the inputs and resulting cost estimates.

Table K-6. Cost Information for All of the 216-S-10 Ditch.

Cost Details	Per Analysis	Per Sample	15 Samples
Field collection costs		$15,000.00	$225,000.00
Analytical costs	$2,000.00	$2,000.00	$30,000.00
Sum of Field & Analytical costs		**$17,000.00**	**$255,000.00**
Fixed planning and validation costs			$50,000.00
Total cost			**$305,000.00**

K3.2 216-S-10 POND

The second example of a soil-sampling design for a waste site that is not proposed for a waste retrieval action is provided below for the 216-S-10 Pond. The approach for the 216-A-29 Ditch is similar to the 216-S-10 Pond example. Using site-specific data as shown in Table K-7, the number of samples is computed to verify with a 95 percent confidence level that the pond soil contaminant levels are below action levels. Three contaminants guide the design. Because the existing data do not have any values above the cleanup levels, these contaminants were subjectively selected based on their condition of being nearest to a cleanup level than other contaminants. The cleanup level shown in Table K-7 is the lowest cleanup level associated with the following exposure pathways: protection of groundwater site-specific, unrestricted land use for direct contact (WAC 173-340-740[3]), industrial land use (WAC 173-340-745[5]), and ecological protection values.

Table K-7. 216-S-10 Pond Statistical Data for Visual Sample Plan Example.

Contaminant	Standard Deviation* (mg/kg)	Sample Mean* (mg/kg)	Cleanup Level
Thallium	0.08	0.6	1.59
Silver	2.7	0.72	14
Arsenic	1	3.27	6.7

* Based on soil samples from "clean" sections of the ditch.

Table K-8 summarizes the sampling design developed based on systematic sampling locations for comparing a median with a fixed threshold (i.e., nonparametric – MARSSIM). Once again, the statistical design details are explained in Chapter K2.0. This design did have different inputs. The values of the inputs that result in the calculated number of sampling locations are found in Table K-9. Table K-10 provides cost estimates for the 216-S-10 Pond. It is important to note the high cost associated with collecting each sample. Figure K-3 shows the sampling locations within the 216-S-10 Pond.

Table K-8. Summary of Sampling Design. (2 Pages)

Primary Objective of Design	Compare a site mean or median to a fixed threshold
Type of Sampling Design	Nonparametric
Sample Placement (Location) in the Field	Systematic with a random start location
Working (Null) Hypothesis	The median (mean) value at the site exceeds the threshold
Formula for calculating number of sampling locations	Sign Test - MARSSIM version
Calculated total number of samples	15
Number of samples on map [a]	15
Number of selected sample areas [b]	1
Specified sampling area [c]	7139.49 m^2
Size of grid/Area of grid cell [d]	76.9144 ft/5123.26 ft^2
Grid pattern	Triangular
Total cost of sampling [e]	$215,000.00

[a] This number may differ from the calculated number because of (1) grid edge effects, (2) adding judgment samples, or (3) selecting or unselecting sample areas.
[b] The number of selected sample areas is the number of colored areas on the map of the site. These sample areas contain the locations where samples are collected.
[c] The sampling area is the total surface area of the selected colored sample areas on the map of the site.
[d] Size of grid/Area of grid cell gives the linear and square dimensions of the grid used to systematically place samples.
[e] Including measurement analyses and fixed overhead costs. See the cost-of-sampling section for an explanation of the costs presented here.

MARSSIM = NUREG-1575, *Multi-Agency Radiation Survey and Site Investigation Manual.*

Table K-9. Visual Sample Plan Input Data for 216-S-10 Pond.

Analyte	n[a]	Parameter					
		S	Δ	α	β	$Z_{1-\alpha}$ [b]	$Z_{1-\beta}$ [c]
Silver	11	2.7 mg/kg	11.2 mg/kg	0.05	0.1	1.64485	1.28155
Thallium	11	0.08 mg/kg	0.5 mg/kg	0.05	0.1	1.64485	1.28155
Arsenic	12	1 mg/kg	2 mg/kg	0.05	0.1	1.64485	1.28155

[a] The final number of samples has been increased by the NUREG-1575, *Multi-Agency Radiation Survey and Site Investigation Manual*, overage of 20%.
[b] This value is automatically calculated by the Visual Sample Plan based on the user-defined value of α (5%).
[c] This value is automatically calculated by the Visual Sample Plan based on the user-defined value of β (10%).

And
n is the number of samples,
S is the estimated standard deviation of the measured values including analytical error,
Δ is the width of the gray region,
α is the acceptable probability of incorrectly concluding the site median(mean) is less than the threshold,
β is the acceptable probability of incorrectly concluding the site median(mean) exceeds the threshold,
$Z_{1-\alpha}$ is the value of the standard normal distribution such that the proportion of the distribution less than $Z_{1-\alpha}$ is $1-\alpha$,
$Z_{1-\beta}$ is the value of the standard normal distribution such that the proportion of the distribution less than $Z_{1-\beta}$ is $1-\beta$.

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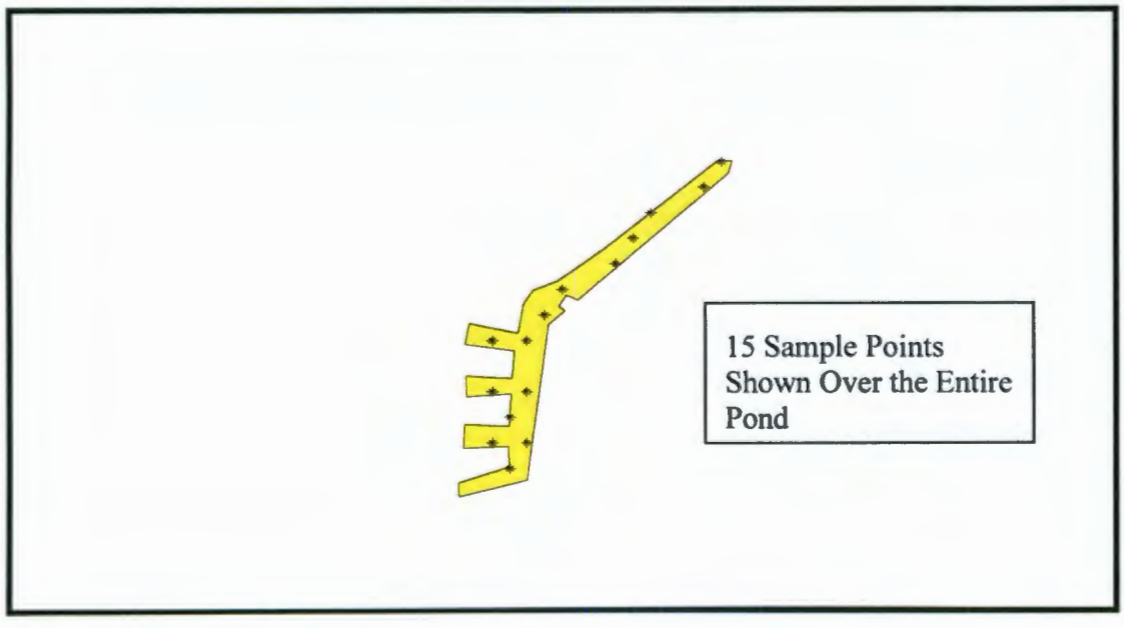
Table K-10. Cost Information for the 216-S-10 Pond.

Cost Details	Per Analysis	Per Sample	15 Samples
Field collection costs		$12,000.00	$180,000.00
Analytical costs	$2,000.00	$2,000.00	$30,000.00
Sum of Field & Analytical costs		**$14,000.00**	**$210,000.00**
Fixed planning and validation costs			$5,000.00
Total cost			**$215,000.00**

Figure K-3. Sampling Design for 216-S-10 Pond.



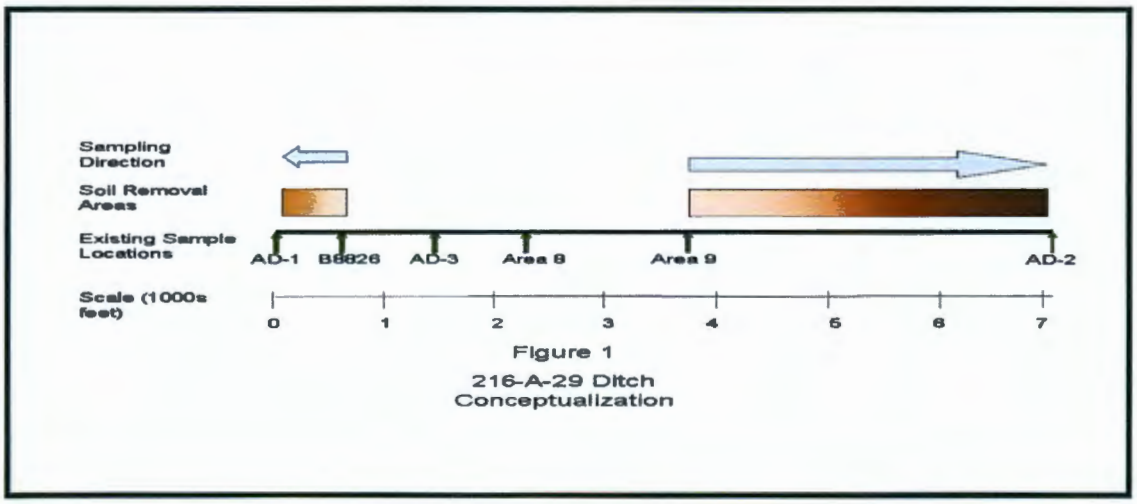
K4.0 REFINE THE SIZE OF THE REMOVAL ACTION

Table K-1 identifies two waste sites that are planned for soil removal actions: the 216-A-29 Ditch and 216-S-10 Ditch. The 216-A-29 Ditch is used as an example site to discuss the approach to refine the areal extent of a soils removal action. Existing contaminant information supports removal of soil from the head and tail end of the 216-A-29 Ditch (Figure K-4). Before the initiation of soil removal, it is proposed to collect soil samples in such a manner so as to refine the expected location of the end of each removal action. This would attempt to reduce the amount of disruption to the ecosystem and reduce the amount of clean soil removed from the waste site. Current data sampling locations are too sparse to adequately identify the total extent of the removal action. Identification of the approximate extent of the excavation before the start is considered important to the efficient implementation of the removal action. No easily measured indicator analyte has been identified to guide day-to-day excavation for this site. Currently, field-screening methods also are not considered adequate to provide

information in a timely manner to support day-to-day field activity. This assumption will be readdressed before the initiation of fieldwork.

To refine the size of the removal action, it is proposed to iteratively select sampling locations halfway between an initial "clean" historic sample location and a "contaminated" sample location. The distance between a "clean" site and a "contaminated" site would continue to be halved until contamination is found at two contiguous sample locations. For example, to determine the extent of excavation at the tail end of the 216-A-29 Ditch, an initial sampling location would be selected halfway between the existing two sites, called Area 9 and AD-2 (Figure K-4). Should that new location return soil levels below the relevant action levels, a second sample location would be chosen halfway between the new "clean" site and AD-2. This process would continue until a contaminated site is identified. Once a "contaminated" site is identified, then the process may be applied to locate a "clean" site in a similar manner but moving in the opposite direction. This sample location process is similar to the process identified and accepted in the 200 Area 200-CS-1 OU sampling and analysis plan (DOE/RL-2006-57, *Sampling and Analysis Plan for Supplemental Remedial Investigation Activities at Model Group-5, Large Area Ponds, Waste Sites*, p. 3-16) for refinement of the extent of the contaminated area in the 216-B-3 Pond.

Figure K-4. Schematic of the 216-A-29 Ditch.



It is suggested that the suite of analytes be confined to only those that have tested above action levels and that provide the reason for the removal action. A co-analyte that is reported with the selected analyte as a result of the laboratory methodology also will be reported.

The design of the removal action for the 216-S-10 Ditch would select sampling locations and analytes in a similar manner.

K5.0 REFERENCES

DOE/RL-2006-57, 2007, *Sampling and Analysis Plan for Supplemental Remedial Investigation Activities at Model Group-5, Large Area Ponds, Waste Sites*, Rev. 0 Reissue, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

Ecology Publication 92-54, 1992, *Statistical Guidance for Ecology Site Managers*, Toxics Cleanup Program, Washington State Department of Ecology, Olympia, Washington. http://www.ecy.wa.gov/pubs/9254.pdf

Ecology Publication 94-49, 1995, *Guidance on Sampling and Data Analysis Methods*, Washington State Department of Ecology, Olympia, Washington.

Ecology Publication 94-111, 2005, *Guidance for Clean Closure of Dangerous Waste Units and Facilities*, as amended, Washington State Department of Ecology, Olympia, Washington.

EPA/240/R-02/005, 2002, *Guidance on Choosing a Sampling Design for Environmental Data Collection*, EPA QA/G-5S, Office of Environmental Information, U.S. Environmental Protection Agency, Washington, D.C.

NUREG-1575, 2000, *Multi-Agency Radiation Survey and Site Investigation Manual*, Rev. 1, U.S. Environmental Protection Agency, U.S. Department of Energy, U.S. Department of Defense, and U.S. Nuclear Regulatory Commission, Washington, D.C.

PNNL, 2007, *Visual Sample Plan*, Version 5.0, Pacific Northwest National Laboratory, Richland, Washington.

Schweitzer, G. E., and J. A. Santolucito, 1984, "Environmental Sampling for Hazardous Wastes," *ACS Symposium Series No. 267*, American Chemical Society, Washington, D.C.

SW-846, 1986, *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods*, 3rd edition, Office of Solid Waste and Emergency Response, U.S. Environmental Protection Agency, Washington, D.C. (Cited as U.S. EPA 1986[b] in quoted text).

WAC 173-340-740(3), "Method B Soil Cleanup Levels for Unrestricted Land Use," *Washington Administrative Code*, as amended, Washington State Department of Ecology, Olympia, Washington.

WAC 173-340-745(5), "Method C Industrial Soil Cleanup Levels," *Washington Administrative Code*, as amended, Washington State Department of Ecology, Olympia, Washington.

APPENDIX L

METHODOLOGY FOR SITE-SPECIFIC SOIL CONCENTRATIONS PROTECTIVE OF GROUNDWATER

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APPENDIX L

METHODOLOGY FOR SITE-SPECIFIC SOIL CONCENTRATIONS PROTECTIVE OF GROUNDWATER

L1.0 INTRODUCTION

This appendix addresses the change to soil cleanup levels protective of groundwater that can be expected using site-specific data, as allowed under WAC 173-340, "Model Toxics Control Act -- Cleanup." The results of this appendix are used in Chapter 3.0 of the feasibility study to compute a site-specific level of soil contamination that is protective of groundwater. The State of Washington uses a fixed-parameter three-phase partitioning model with default values to compare measured soil contaminant levels to determine the need for possible cleanup. WAC 173-340 allows for site-specific information for either this initial comparison and/or for the estimation of soil cleanup levels to support remediation. This use of the WAC 173-340 three-phase model with site-specific data is a valuable and appropriate tool in the context of the conduct of risk assessments (consistent with risk assessment guidance) and Federal risk assessment guidelines that indicate that such (less complex) tools can and should be used before invoking the need for more sophisticated risk characterization methods (e.g., modeling). The application of this method is not intended as a substitute for more rigorous risk characterization methods, but rather as a method/tool capable of effectively screening/determining the need for more sophisticated risk assessment tools.

The WAC 173-340 three-phase model defines a parameter called the dilution factor (DF). State guidance allows for substitution of site information into the estimate of this parameter and other elements of the model. This appendix only addresses site-specific data needed to compute the DF. The parameters used to calculate the DF include site-specific infiltration and aquifer property information. Using a Hanford Site-specific infiltration and groundwater flow leads to the following DFs that can be used to calculate soil concentrations protective of groundwater for the 200 West Area and the 200-CS-1 Operable Unit waste sites.

The computation of a Hanford 200 West Area generalized site cleanup DF is used to demonstrate the process of applying the WAC 173-340 variable parameters at the Hanford Site. The waste-site-specific parameters are then substituted to calculate waste-site-specific DFs. These waste-site-specific DFs are used in the risk evaluation process of the protection of groundwater for each waste site.

- Hanford 200 West Area generalized site cleanup DF:
  - A DF increase of 6.75 times greater than soil concentrations protective of groundwater as provided under WAC 173-340 default assumptions.
- 200-CS-1 Operable Unit waste site DFs:
  - A DF increase of 6.1 for the 216-S10 Pond and Ditch
  - A DF increase of 15.5 for the 216-A-29 Ditch
  - A DF increase of 31 for the 216-B-63 Ditch.

A comparison of the results from past remedial investigations indicates that if site-specific data were used to develop site-specific soil concentrations protective of groundwater cleanup levels, the focus on contaminants with a need for cleanup would be narrowed and waste sites in need of cleanup more clearly defined. The use of site-specific data (and information) is part of the regulation and does not require formal regulatory acceptance as described for the use of alternative models or alternate fate and transport modeling.

L2.0 WASHINGTON STATE THREE-PHASE PARTITIONING MODEL – WAC 173-340-747(4)

The following discussion is taken from WAC 173-340-747(4), "Fixed Parameter Three-Phase Partitioning Model," and modified to address only inorganics. Elements of the equation that address organic contaminants have been removed to simplify the discussion.

The three-phase partitioning model is described by the following equation:

$$C_s = C_w \text{ (UCF) DF } [K_d + \theta_w/\rho_h] \text{ from Equation 747-1 (WAC 173-340)}$$

where:

C_s = Soil concentration (mg/kg)

C_w = Groundwater cleanup level established under WAC 173-340-720, "Ground Water Cleanup Standards" (µg/l)

UCF = Unit conversion factor (1 mg/1,000 µg)

DF = Dilution factor (dimensionless: 20 for unsaturated zone soil; see (e) of this subsection for saturated zone soil)

K_d = Distribution coefficient (L/kg; see (c) of this subsection)

θ_w = Water-filled soil porosity (mL water/mL soil: 0.3 for unsaturated zone soil; see (e) of this subsection for saturated zone soil)

ρ_h = Dry soil bulk density (1.5 kg/L).

This equation is specifically applicable to a site where:

1. There exists sufficient contamination to reach groundwater in appreciable quantities
2. Soil contamination will reach groundwater in the not-too-distant future.

Default parameters used in the estimate of the DF of 20 include the use of a generalized waste site size of 0.5 acres (EPA/540/R-96/018, *Soil Screening Guidance: Users Guide*, Directive 9355.4-23, p. 31). Other factors in the estimation of the DF are infiltration, aquifer hydraulic conductivity, hydraulic gradient, and the thickness of the mixing zone caused by the intrusion of mobile contaminants into the aquifer.

WAC 173-340 provides discretion to use site-specific information for all the parameters in Equation 747-1. As stated previously, this paper only addresses the use of site-specific data in the estimation of the DF.

L3.0 REGULATORY CONSIDERATIONS

This section provides specific references to WAC 173-340 (Figures L-1 to L-3) that discuss pertinent elements of the three-phase model, describes the DF, and provides guidance on the use of site-specific data. Key wording is emphasized in *italics*. Referenced sections are not complete to simplify the discussion.

Figure L-1. Variable Parameter Three-Phase Partitioning Model.

WAC 173-340-747 (5) Variable parameter three-phase partitioning model

(a) Overview. This section specifies the procedures and requirements to derive site-specific input parameters for use in the three-phase partitioning model. ***This method may be used to establish soil concentrations for any hazardous substance.***

This method allows for the substitution of site-specific values for the default values in Equation 747-1 for one or more of the following five input parameters: Distribution coefficient, soil bulk density, soil volumetric water content, soil air content, and ***dilution factor.***

WAC 173-340-747 (5) (f) Site-specific estimates of infiltration and ground water flow volume may be used in the following equation to derive a site-specific dilution factor:

[Equation 747-3]

$$DF = (Q_p + Q_a)/Q_p$$

Where

DF = Dilution factor (dimensionless)
Q_a = Volume of water infiltrating (m^3/yr)
Q_a = Ground water flow (m^3/yr)

This equation requires an estimate of Q_a and Q_p to compute the DF, which is used by Equation 747-1.

Figure L-2. Calculating Groundwater Flow Volume.

WAC 173-340-747 (5) (i) Calculating ground water flow volume The following equation shall be used under this method to calculate the volume of ground water flow (Q_a):

[Equation 747-4]

$$Q_a = K \times A \times I$$

Where:

Q_a = Ground water flow volume (m^3/year)

K = Hydraulic conductivity (m/year) Site-specific measurements shall be used to derive this parameter.

A = Aquifer mixing zone (m^2). The aquifer mixing zone thickness shall not exceed 5 meters in depth and be equal to a unit width of 1 meter, unless it can be demonstrated empirically that the mixing zone thickness exceeds 5 meters.

I = Gradient (m/m) Site-specific measurements shall be used to derive this parameter.

Figure L-3. Calculating or Estimating Infiltration.

WAC 173-340-747 (5) (ii) Calculating or estimating infiltration. The following equation shall be used under this method to calculate the volume of water infiltrating (Q_p):

[Equation 747-5]

$$Q_p = L \times W \times Inf$$

Where:

Q_p = Volume of water infiltrating (m^3/year)

L = Estimated length of contaminant source area parallel to ground water flow (m)

W = Unit width of contaminant source area (1 meter)

Inf = Infiltration (m/year)

WAC 173-340-747 (5) (ii) (A)If a default annual infiltration value (Inf) is used, the value shall meet the following requirements. For sites west of the Cascade Mountains, the default annual infiltration value shall be 70 percent of the average annual precipitation amount. For sites east of the Cascade Mountains, the **default annual infiltration value shall be 25 percent of the average annual precipitation amount.**

Combining Equations 747-1 with 747-4 and 747-5 leads to following equation for the DF:

$$DF = 1 + (K\ I\ d) / (Inf\ L) \quad \text{Equation 1}$$

Estimation of a site-specific DF requires the development of site-specific parameters as indicated by Equation 1. Specific data needs are as follows:

K – Hydraulic Conductivity (m/yr)
I – hydraulic gradient (unitless)
d – thickness of the mixing zone (m)
Inf – Infiltration (m/yr)
L – Assumed unchanged from the default.

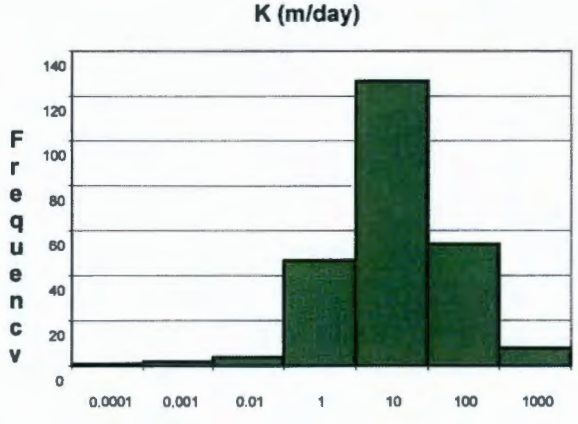
L4.0 SITE-SPECIFIC DATA

The use of site-specific data is described below.

Hydraulic Conductivity

The estimate of average hydraulic conductivity for the 200 West Area is 21 m/day (7,665 m/year). This estimate is based on the average of 244 measurements and reflects the average property associated with the Ringold Unit E. Groundwater in the 200 West Area is found almost entirely within the Ringold Unit E. Tabulation of specific references is found in DOE/RL-2007-28, *Feasibility Study for the 200-ZP-1 Groundwater Operable Unit*, Draft A, pp. D-100 to D-103, and is provided in Attachment A of this report. A histogram of the hydraulic conductivity measurements is provided in Figure L-4 to demonstrate the variability in this parameter. The original histogram is found in DOE/RL-2007-28, Figure D-1).

Figure L-4. Hydraulic Conductivity.



Hydraulic gradient

The average hydraulic gradient in the 200 West Area is 0.0017. Table L-1 presents eight published estimates for this parameter which, when averaged together, provide good coverage of the area of interest.

Table L-1. Hydraulic Gradient in the 200 West Area. (2 Pages)

Site/Location	Hydraulic Gradient (Unitless)	Reference
UP-1	0.0009	DOE/RL-2008-02, page 2-11
ZP-1	0.0018	DOE/RL-2007-28
Low-Level Waste Management Area 3	0.0018	PNNL-16346, Appendix B.1
Low-Level Waste Management Area 3	0.004	PNNL-16346, Appendix B.1
Single-Shell Tank Waste Management Area TX-TY	0.001	PNNL-16346, Appendix B.1

Table L-1. Hydraulic Gradient in the 200 West Area. (2 Pages)

Site/Location	Hydraulic Gradient (Unitless)	Reference
Single-Shell Tank Waste Management Area U	0.0021	PNNL-16346, Appendix B.1
S-10 Pond	0.0015	PNNL-16346, Appendix B.1
U-12 Crib	0.001	PNNL-16346, Appendix B.1
Average	**0.0017**	

DOE/RL-2007-28, *Feasibility Study for the 200-ZP-1 Groundwater Operable Unit.*
DOE/RL-2008-02, *Fiscal Year 2007 Annual Summary Report for 200-UP-1 and 200-ZP-1 Pump-and-Treat Operations.*
PNNL-16346, *Hanford Site Groundwater Monitoring for Fiscal Year 2006.*

Thickness of the mixing zone (D)

Technetium-99 concentrations measured in groundwater collected at discrete depth intervals at 29 groundwater wells located within the 200 West Area were used to estimate the thickness of the mixing zone. Technetium-99 results were selected as an indication of thickness because they represent a mobile, nonreactive contaminant with essentially no background levels to confuse natural and anthropogenic sources.

Figure L-5 presents the Tc-99 analysis results for every groundwater well in the 200 West Area as found in the *Hanford Environmental Information System* database as of January 1, 2008. Data supporting Figure L-5 are presented in Attachment B. Laboratory results that were "qualified" by the laboratory as too low to quantify were excluded from the analysis. In a few cases, the analytical method was able to detect the presence of Tc-99 but could not accurately quantify its level. This exclusion of qualified data likely leads to an underestimation of the thickness of the mixing zone.

Figure L-5. Thickness of Mixing Zone in the 200 West Area.

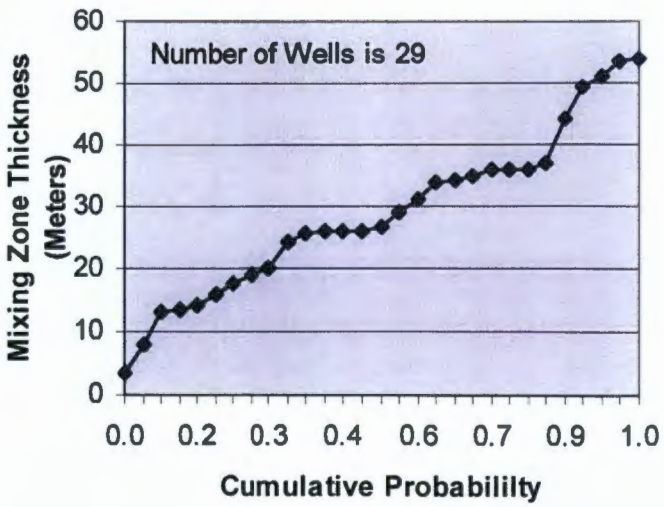


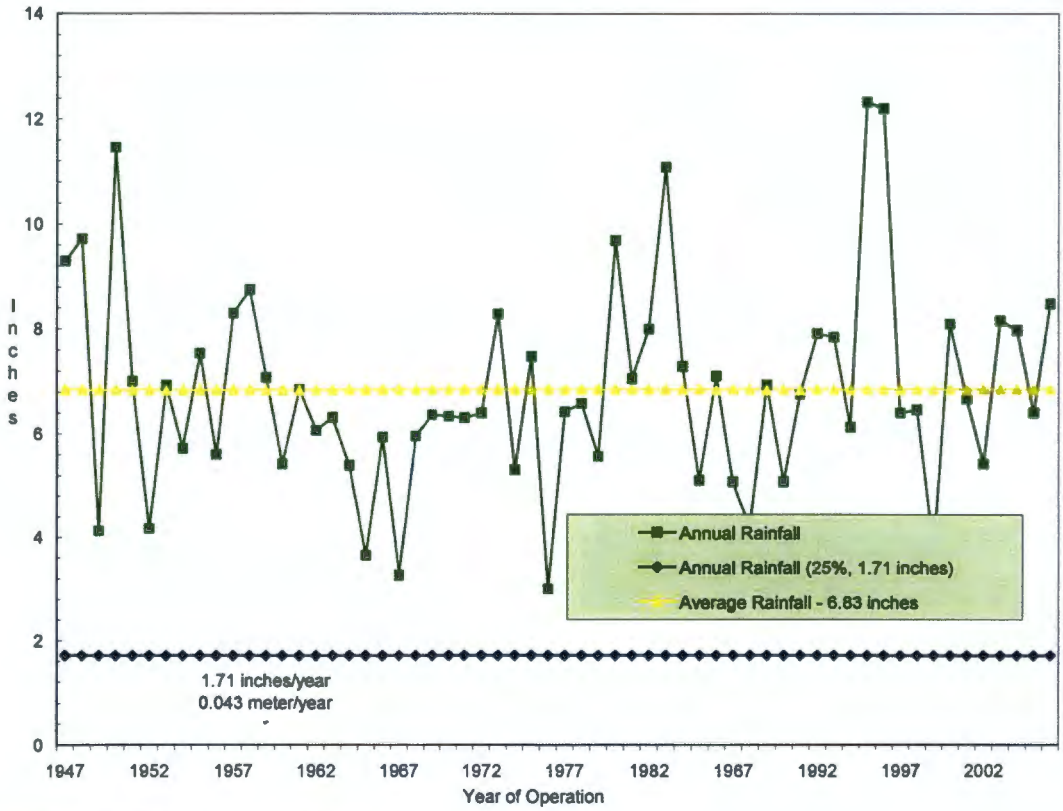
Figure L-5 indicates that the median measured thickness of the contaminated groundwater aquifer is 26 m in the 200 West Area. Fifteen percent of the measurements show contamination at thicknesses greater than 36 m; 70 percent of the measurements show contamination at thicknesses greater than 20 m. A mixing depth of 20 m is selected (instead of the median depth of 26 m) to support a bias toward the conservatism designed into the WAC 173-340 regulations. Attachment C shows the average aquifer properties of the Ringold E unit in the 200 West Area.

Infiltration

The default annual infiltration (25 percent of the annual precipitation) was used as referenced in WAC 173-340. Figure L-6 shows this value to be 0.043 m/yr (43 mm/year). Measured infiltration rates on the Hanford Site generally are less than 5 mm/year (PNNL-14725, *Geographic and Operational Site Parameters List (GOSPL) for Hanford Assessments*. A lower infiltration rate will lead a proportionately lower DF.

Figure L-6 shows that the average rainfall at the Hanford Site is 6.83 in/yr (0.1735 m/yr). The infiltration rate is assumed to be 25 percent of the average rainfall rate (0.25 * 0.1735 m/yr = 0.0434 m/yr).

Figure L-6. Hanford Meteorological Station Rainfall (Inches).



Source http://hms.pnl.gov/products.htm

Length of the Waste Site Parallel to Flow

Original references (EPA/540/R-96/018, p. 31) for the three-phase model assume a contaminated area of 2023 m^2 (0.5 a), although the contaminated site size is assumed to be the default area of

2023 m^2 and represents a 45 by 45 m area. However, the unit width of 1 m is used in the assignment of the cross-sectional area parallel to the direction of groundwater flow, where L = the length dimension parallel to groundwater flow.

Computation of the Dilution Factor

A conservative estimate of the D as used in Equation 747-1 for the 200 West Area of the Hanford Site is 136, based on Equation 1 and the results of the previous discussion and summed below:

Infiltration rate = 0.043 m/yr
Mixing zone thickness = 20 m
Hydraulic gradient = 0.0017
Hydraulic conductivity = 21 m/day (7665 m/year)
Contaminated site size = 2023 m^2 (0.5 a)
L = 45 m.

The resulting site-specific DF is 136, which is a factor of 6.75 greater than the default DF of 20.

L5.0 INDIVIDUAL WASTE-SITE COMPUTATIONS

The equations and assumptions described in the previous sections were applied to waste site-specific data (Table L-2) to compute DFs for each waste site within the 200-CS-1 Operable Unit. Data for the 216-S-10 Pond and Ditch are described above and repeated in Table L-2. Data and their sources are provided in Table L-2 for the 216-A-29 and 216-B-63 Ditches. The infiltration rate for all 200-CS-1 Operable Unit waste sites remained constant at 0.043 m/yr (1.71 in/yr).

Table L-2. Site-Specific Data for the 200-CS-1 Operable Unit Waste Sites.

	Hydraulic Gradient	Hydraulic Conductivity (m/day)	Mixing Depth (m)	Length Parallel to Flow[a] (m)	Dilution Factor	Ratio of Site-Specific DF to WAC 173-340 Default DF
216-S-10 Pond	0.0017	21	20	50	122	6.1
216-S-10 Ditch	0.0017	21	20	50	122	6.1
216-A-29 Ditch	0.0005[b]	3041[c]	5	200	310	15.5
216-B-63 Ditch	0.0005[b]	3041[c]	5	100	620	31.0

[a] Measured from QMAP assuming an eastward flow.
[b] Gradient is average gradient of the 216-A-29 ditch, 216-B-3 Pond, Integrated Disposal Facility, Liquid Effluent Retention Facility, Nonradioactive Dangerous Waste Landfill, Plutonium-Uranium Extraction Plant cribs, Solid Waste Landfill and WMA A-AX as reported in PNNL-16346, *Hanford Site Groundwater Monitoring for Fiscal Year 2006*, Appendix B.
[c] DOE/RL-95-100, *RCRA Facility Investigation Report for the 200-PO-1 Operable Unit*, p. 3F-17.

WAC 173-340, "Model Toxics Control Act -- Cleanup."

DF = dilution factor.
QMAP = *Hanford Geospatial Map Portal.*
RCRA = *Resource Conservation and Recovery Act of 1976.*

The last column of Table L-2 indicates that using the flexibility in WAC 173-340 and use of a site-specific DF results in a soil concentration protective of groundwater for the 216-S-10 Pond and Ditch that is 6.1 times greater than the default levels in WAC 173-340-740(3), "Method B Soil Cleanup Levels for Unrestricted Land Use." Similarly, soil concentrations protective of groundwater are 15.5 and 31 times greater than the default soil levels in WAC 173-340 -740(3) for the 216-A-29 Ditch and 216-B-63 Ditch, respectively.

LEVEL OF CONSERVATIVENESS

With the use of the waste site-specific DFs, the three-phase model continues to provide a conservative estimate of the potential impact of soil contamination on Hanford Site groundwater. Other features affecting the rate of contaminant transport and the impact on groundwater specific to the Hanford Site include the following:

- Vadose-zone thickness of over 61 m (200 ft)
- Variability of soil types
- Moisture dependent anisotropy
- Arid climate.

Incorporation of these features into a model of the site will lead to a higher effective DF. The exclusion of these features maintains a conservative estimate of the level of soil contamination it will take to have a significant impact on groundwater at the Hanford Site. The three-phase model, even when site-specific data are included, remains a conservative tool for the estimation of soil concentrations protective of groundwater.

L6.0 REFERENCES

DOE/RL-95-100, 1997, *RCRA Facility Investigation Report for the 200-PO-1 Operable Unit*, Rev. 1, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

DOE/RL-2007-28, 2007, *Feasibility Study for the 200-ZP-1 Groundwater Operable Unit*, Draft A, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

DOE/RL-2008-02, 2008, *Fiscal Year 2007 Annual Summary Report for 200-UP-1 and 200-ZP-1 Pump-and-Treat Operations*, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

EPA/540/R-96/018, 1996, *Soil Screening Guidance: Users Guide*, Directive 9355.4-23, Office of Solid Waste and Emergency Response, U.S. Environmental Protection Agency, Washington, D.C. http://www.epa.gov/superfund/health/conmedia/soil/index.htm.

Hanford Environmental Information System, Hanford Site database.

Hanford Geospatial Map Portal, Hanford Site database.

PNNL-14725, 2006, *Geographic and Operational Site Parameters List (GOSPL) for Hanford Assessments*, Rev. 1, Pacific Northwest National laboratory, Richland, Washington.

PNNL-16346, 2007, *Hanford Site Groundwater Monitoring for Fiscal Year 2006*, Pacific Northwest National Laboratory, Richland, Washington.

Resource Conservation and Recovery Act of 1976, 42 USC 6901, et seq.

WAC 173-340, "Model Toxics Control Act -- Cleanup," *Washington Administrative Code*, as amended, Washington State Department of Ecology, Olympia, Washington.

WAC 173-340-720, *Washington Administrative Code,* as amended, Washington State Department of Ecology, Olympia, Washington.

WAC 173-340-740(3), "Method B Soil Cleanup Levels for Unrestricted Land Use," *Washington Administrative Code*, as amended, Washington State Department of Ecology, Olympia, Washington.

WAC 173-340-747(4), "Fixed Parameter Three-Phase Partitioning Model," *Washington Administrative Code*, as amended, Washington State Department of Ecology, Olympia, Washington.

ATTACHMENT A

REFERENCES FOR HYDRAULIC PROPERTY INFORMATION

Table LA-1. Parameter Data Sources. (5 Pages)

Ref No.	Document Number	Organization	Report Title	Author(s)	Year
1	BHI-00459, Rev. 0	BHI	*Numerical Analysis of Carbon Tetrachloride Movement in the Saturated and Unsaturated Zones in the 200 West Area, Hanford Site*	M. G. Piepho	1996
2	BHI-01126, Rev. 0	BHI	*Fiscal Year 1997 Annual Report for the 100-NR-2, 200 UP-1, and 200-ZP-1 Pump and Treat Operations and Operable Units*		1998
3	DOE/RL-2000-71, Rev. 0	RL	*Fiscal Year 2000 Annual Summary Report for 200-UP-1 and 200-ZP-1 Pump-and-Treat Operations*		2001
4	DOE/RL-2001-53, Rev. 0	RL	*Fiscal Year 2001 Annual Summary Report for 200-UP-1 and 200-ZP-1 Pump-and-Treat Operations*		2002
5	DOE/RL-2002-67, Rev. 0	RL	*Fiscal Year 2002 Annual Summary Report for 200-UP-1 and 200-ZP-1 Pump-and-Treat Operations*		2003
6	DOE/RL-2003-58, Rev. 0	RL	*Fiscal Year 2003 Annual Summary Report for 200-UP-1 and 200-ZP-1 Pump-and-Treat Operations*		2004
7	DOE/RL-2004-72, Rev. 0	RL	*Fiscal Year 2004 Annual Summary Report for 200-UP-1 and 200-ZP-1 Pump-and-Treat Operations*		2005
8	DOE/RL-2005-91, Rev. 0	RL	*Fiscal Year 2005 Annual Summary Report for 200-UP-1 and 200-ZP-1 Pump-and-Treat Operations*		2006
9	DOE/RL-91-61, Rev. 0	RL	*T Plant Source Aggregate Area Management Study Report*		1992
10	DOE/RL-96-07, Rev. 1	RL	*200-ZP-1 IRM Phase II and III Remedial Design Report*		1996
11	DOE/RL-98-38, Rev. 0	RL	*Fiscal Year 1997 Annual Report for the 100-NR-2, 200 UP-1, and 200-ZP-1 Pump and Treat Operations and Operable Units*		1998
12	DOE/RL-99-02, Rev. 0	RL	*Fiscal Year 1998 Annual Report for the 200-UP-1, 200-ZP-1, and 100-NR-2 Pump-and-Treat Operations and Operable Units*		1999
13	DOE/RL-99-79, Rev. 0	RL	*Fiscal Year 1998 Annual Report for the 200-UP-1, 200-ZP-1, and 100-NR-2 Pump-and-Treat Operations and Operable Units*		2000

Table LA-1. Parameter Data Sources. (5 Pages)

Ref No.	Document Number	Organization	Report Title	Author(s)	Year
14	PNL-10698	PNL	*Groundwater Monitoring Report for 1994*	P. E. Dresel, P. D. Thorne, S. P. Luttrell, B. M. Gillespie, W. D. Webber, J. K. Merz, J. T. Rieger, M. A. Chamness, S. K. Wurstner, and B. E. Opitz	1995
15	PNNL-10886	PNNL	*Development of a Three-Dimensional Ground-water Model of the Hanford Site Unconfined Aquifer System: FY 1995 Status Report*	S. K. Wurstner, P. D. Thorne, M. A. Chamness, M. D. Freshley, and M. D. Williams	1995
16	PNL-11470	PNL	*Hanford Site Groundwater Monitoring Report for Fiscal Year 1996*	M. J. Hartman (ed.)	1997
17	PNL-11973	PNL	*Hanford Site Groundwater Monitoring Report for Fiscal Year 1997*	M. J. Hartman (ed.)	1998
18	PNL-12086	PNL	*Hanford Site Groundwater Monitoring Report for Fiscal Year 1998*	M. J. Hartman (ed.)	1999
19	PNL-13116	PNL	*Hanford Site Groundwater Monitoring Report for Fiscal Year 1999*	M. J. Hartman (ed.)	2000
20	PNL-7144	PNL	*An Initial Inverse Calibration of the Ground-Water Flow Model for the Hanford Unconfined Aquifer*	E. A. Jacobsen and M. D. Freshley	1990
21	PNNL-13404	PNNL	*Summary of Hanford Site Groundwater Monitoring for Fiscal Year 2000*	M. J. Hartman (ed.)	2001
22	PNNL-13447	PNNL	*Transient Inverse Calibration of Hanford Site-Wide Groundwater Model to Hanford Operational Impact - 1943 to 1996*	C. R. Cole, M. P. Bergeron, S. K. Wurstner, P. K. Thorne, S. Orr, and M. I. McKinley	2001
23	PNNL-13560	PNNL	*Assessment of Carbon Tetrachloride Groundwater Transport in Support of the Hanford Carbon Tetrachloride Innovative Technology Demonstration Program*	M. J. Truex, C. J. Murray, C. R. Cole, R. J. Cameron, M. D. Johnson, R. S. Skeen, C. and D. Johnson	2001
24	PNNL-13788	PNNL	*Summary of Hanford Site Groundwater Monitoring for Fiscal Year 2001*	M. J. Hartman (ed.)	2002
25	PNNL-13858, Rev. 0	PNNL	*Revised Hydrogeology for the Suprabasalt Aquifer System, 200-West Area and Vicinity, Hanford, Washington*	B. A. Williams, B. N. Bjornstad, R. Schalla, and W. D. Webber	2002

Table LA-1. Parameter Data Sources. (5 Pages)

Ref No.	Document Number	Organization	Report Title	Author(s)	Year
26	PNNL-14187	PNNL	*Summary of Hanford Site Groundwater Monitoring for Fiscal Year 2002*	M. J. Hartman (ed.)	2003
27	PNNL-14548	PNNL	*Summary of Hanford Site Groundwater Monitoring for Fiscal Year 2003*	M. J. Harman (ed.)	2004
28	PNNL-14618, Rev. 0	PNNL	*A Geostatistical Analysis of Historical Field Data on Tritium, Technetium-99, Iodine-129, and Uranium*	C. J. Murray, Y. Chien, and P. D. Thorne	2004
29	PNNL-14702, Rev. 1	PNNL	*Vadose Zone Hydrogeology Data Package for the 2004 Composite Analysis*	G. V. Last, E. J. Freeman, K. J. Cantrell, M. J. Fayer, G. W. Gee, W. E. Nichols, B. N. Bjornstad, and D. G. Horton	2006
30	PNNL-14804	PNNL	*Results of Detailed Hydrologic Characterization Tests Fiscal Year 2003*	F. A. Spane and D. R. Newcomer	2004
31	PNNL-14855, Rev. 1	PNNL	*Recent Site-Wide Transport Modeling Related to Carbon Tetrachloride Plume at the Hanford Site*	M. P. Bergeron and C. R. Cole	2005
32	PNNL-14895	PNNL	*Three-Dimensional Modeling of DNAPL in the Subsurface of the 216-Z-9 Trench at the Hanford Site*	M. Oostrom, M. L. Rockhold, P. D. Thorne, G. V. Last, and M. J. Truex	2004
33	PNNL-15301 (Draft)	PNNL	*RCRA Assessment Plan for Single-Shell Tank Waste Management Area T*	D. G. Horton	2005
34	PNNL-15760	PNNL	*Summary of Hanford Site Groundwater Monitoring for Fiscal Year 2005*	M. J. Hartman (ed.)	2006
35	PNNL-15914	PNNL	*Carbon Tetrachloride Flow and Transport in the Subsurface of the 216-Z-9 Trench at the Hanford Site: Heterogeneous Model Development and Soil Vapor Extraction Modeling*	M. Oostrom, M. L. Rockhold, P. D. Thorne, G. V. Last, and M. J. Truex	2006
36	PNNL-16198	PNNL	*Carbon Tetrachloride Flow and Transport in the Subsurface of the 216-Z-18 Crib and the 216-Z1-A Tile Field at the Hanford Site: Multifluid Flow Simulations and Conceptual Model Update*	M. Oostrom, M. L. Rockhold, P. D. Thorne, G. V. Last, and M. J. Truex	2006

Table LA-1. Parameter Data Sources. (5 Pages)

Ref No.	Document Number	Organization	Report Title	Author(s)	Year
37	RPP-6296, Rev. 0	CHG	*Modeling Data Package For S-SX Field Investigation Report (FIR)*	R. Khaleel, T. E. Jones, A. J. Kneep, F. M. Mann, D. A. Myers, P. M. Rogers, R. J. Serne, and M. I. Wood	2000
38	WHC-EP-0883, Rev. 0	WHC	*Variability and Scaling of Hydraulic Properties for 200 Area Soils, Hanford Site*	R. Khaleel and E. J. Freeman	1995
39	WHC-SD-EN-TI-112, Rev. 0	WHC	*Vadose Zone Modeling of Carbon Tetrachloride in 200 West Area at the Hanford Site*	M. G. Piepho, A. G. Law, M. P. Connelly and K. A. Lindsey	1993
40	WMP-22817, Rev. 0	FH	*Geologic Contacts Database for the 200 Areas of the Hanford Site*	B. N. Bjornstad	2004
41	PNNL-16509, Rev. 0	PNNL	*Letter Report: Geostatistical Analysis of the Inventory of Carbon Tetrachloride in the 200 West Area of the Hanford Site*	C. Murray, Y.-J Bott, and M. Truex	2007
42	PNL-10422	PNL	*Geology, Hydrology, Chemistry, and Microbiology of the In Situ Bioremediation Demonstration Site*	D. R. Newcomer, L. A. Doremus, S. H. Hall, M. J. Truex, V. R. Vermeul, and R. E. Engelman	1995
43	ARH-CD-745	ARH	*Input and Decayed Values of Radioactive Liquid Wastes Discharged to the Groundwater in the 200 Areas Through 1975*	J. D. Anderson	1976
44	BHI-00861, Rev. 0	BHI	*Hanford Soil Partitioning and Vapor Extraction Study*	D. Yonge, A. Hossain, R. Cameron, H. Ford, and C. Storey	1996
45	PNNL-13672, Rev.1	PNNL	*A Catalog of Vadose Zone Hydraulic Properties for the Hanford Site*	E. J. Freeman, R. Khaleel, and P. R. Heller	2004
46	WMP-17524, Rev. 0	FH	*Vadose Zone Hydraulic Property Letter Reports*	E. J. Freeman and G. V. Last	2003
47	PNL-8337	PNL	*Summary and Evaluation of Available Hydraulic Property Data for the Hanford Site Unconfined Aquifer System*	P. D. Thorne and D. R. Newcomer	1992
48	WHC-SD-EN-TI-014, Rev. 0	WHC	*Hydrogeologic Model for the 200 West Groundwater Aggregate Area*	M.J. Connelly, B. H. Ford, and J. V. Borghese	1992
49	PNNL-14058	PNNL	*Prototype Database and User's Guide of Saturated Zone Hydraulic Properties for the Hanford Site*	P. D. Thorne and D. R. Newcomer	2002
50	PNNL-13378	PNNL	*Results of Detailed Hydrologic Characterization Tests - Fiscal Year 1999*	F. A. Spane, Jr., P. D. Thorne, and D. R. Newcomer	2001

Table LA-1. Parameter Data Sources. (5 Pages)

Ref No.	Document Number	Organization	Report Title	Author(s)	Year
51	PNNL-13514	PNNL	*Results of Detailed Hydrologic Characterization Tests - Fiscal Year 2000*	F. A. Spane, Jr., P. D. Thorne, and D. R. Newcomer	2001
52	PNNL-14113	PNNL	*Results of Detailed Hydrologic Characterization Tests - Fiscal Year 2001*	F. A. Spane, Jr., P. D. Thorne, and D. R. Newcomer	2002
53	PNNL-14186	PNNL	*Results of Detailed Hydrologic Characterization Tests - Fiscal Year 2002*	F. A. Spane, Jr., P. D. Thorne, and D. R. Newcomer	2003
54	PNNL-13342	PNNL	*Analysis of the Hydrologic Response Associated with Shutdown and Restart of the 200-ZP-1 Pump-and-Treat System*	F. A. Spane, Jr. and P. D. Thorne	2000
55	PNNL-14804	PNNL	*Results of Detailed Hydrologic Characterization Tests Fiscal Year 2003*	F. A. Spane, Jr. and D. R. Newcomer	2004
57	DOE/RL-2006-51, Draft A	RL	*Remedial Investigation Report for the Plutonium/Organic-Rich Process Condensate/Process Waste Group Operable Unit: Includes the 200-PW-1, 200-PW-3, and 200-PW-6 Operable Units*		2006
58	PNNL-15239	PNNL	*Carbon Tetrachloride and Chloroform Partition Coefficients Derived from Aqueous Desorption of Contaminated Hanford Sediments*	R. G. Riley, D. S. Sklarew, C. F. Brown, P. M. Gent, J. E. Szecsody, A. V. Mitroshkov, and C. J. Thompson	2005

BHI = Bechtel Hanford, Inc.
CHG = CH2M HILL Hanford Group, Inc.
FH = Fluor Hanford, Inc.
PNL = Pacific Northwest Laboratory.
PNNL = Pacific Northwest National Laboratory.
RL = U.S. Department of Energy, Richland Operations Office.
WHC = Westinghouse Hanford Company.

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ATTACHMENT B

MIXING DEPTH DATA

Table LB-1. 200 West Groundwater Wells with Vertical Data (as found in the *Hanford Environmental Information System* Database – January 15, 2008).

Groundwater Well	Depth of Tc-99 Contamination (m)	Comments
299-W22-87	22	Not detected above limiting criteria
299-W22-86	25.5	
299-W22-72	20.5	Not detected above limiting criteria
299-W22-69	7.9	Found deeper but at levels not above limiting criteria
299-W22-50	3.5	
299-W22-47	29	
299-W21-2	37	
299-W19-107	26	Not detected above limiting criteria
299-W19-105	36	
299-W19-104	-	Not detected above limiting criteria
299-W19-101	35.8	Not detected above limiting criteria
299-W19-50	17.5	Not detected above limiting criteria
299-W19-49	26.7	Found deeper but at levels not above limiting criteria
299-W19-48	26	
299-W19-46	35	
299-W18-16	26	
299-W15-50	31	Found deeper but at levels not above limiting criteria
299-W15-49	49.2	
299-W15-46	19	
299-W15-44	17.6	Found deeper but at levels not above limiting criteria
299-W15-43	34	
299-W15-42	13.2	
299-W14-72	26	Found deeper but at levels not above limiting criteria
299-W14-71	19.9	Found deeper but at levels not above limiting criteria
299-W14-19	15.8	Found deeper at low but quantifiable levels
299-W14-14	24.3	Found deeper at low but quantifiable levels
299-W14-11	35.8	
299-W11-86	44.2	
299-W11-48	36	
299-W11-47	14.2	Found deeper at low but quantifiable levels
299-W11-45	13.3	Found deeper but at levels not above limiting criteria
299-W11-43	53.9	Values erratic
299-W11-25B	51	
299-W10-33	33.9	Found deeper at low but quantifiable levels
299-W10-24	53.4	

Rows marked in grey were not used in the estimate of a mixing depth.

ATTACHMENT C

RINGOLD E AQUIFER PROPERTIES IN 200 WEST

Table LC-1. Average Aquifer Properties of the Ringold E Unit Found in the 200 West Area.

Parameter	Units	No. of Measurements	Minimum	Maximum	Average
Bulk density	g/cm^3	30	1.41	2.32	1.95
Effective porosity	cm^3/cm^3	64	0.02	0.46	0.14
Total porosity	cm^3/cm^3	49	0.07	0.46	0.23
Hydraulic conductivity	m/day	244	8.E-05	1,280	21
Transmissivity	m^2/day	61	0.6	5,295	673
Storage		26	2.3E-05	4.0E-02	4.4E-03

Source: DOE/RL-2007-28, *Feasibility Study for the 200-ZP-1 Groundwater Operable Unit*, Draft A.

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