August 16, 2012

Mr. Mike Travaglini
U.S. Department of Energy
Oak Ridge Office
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Oak Ridge, TN 37831

**SUBJECT: DOE CONTRACT NO. DE-AC0506OR23100
INDEPENDENT VERIFICATION SURVEY REPORT FOR ZONE 1
OF THE EAST TENNESSEE TECHNOLOGY PARK
IN OAK RIDGE, TENNESSEE
DCN 0450-SR-01-0**

Dear Mr. Travaglini:

Oak Ridge Associated Universities, through the Oak Ridge Institute for Science and Education contract, is pleased to provide the enclosed final report detailing the verification survey activities performed at the East Tennessee Technology Park in Oak Ridge, Tennessee. The verification activities were conducted in accordance with the 2008 project-specific plan; approved responses to comments on the draft report (DNC 0450-SR-01-DRAFT) have been incorporated.

Please contact me at 865-574-0685 or Erika Bailey at 865-576-6659 if you have any questions or require additional information.

Sincerely,

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Project Manager/Sr. Health Physicist
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DAK:fr

Enclosure

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INDEPENDENT VERIFICATION REPORT FOR ZONE 1 OF THE EAST TENNESSEE TECHNOLOGY PARK IN OAK RIDGE, TENNESSEE

D.A. King

Prepared for the U.S. Department of Energy

ORISE

Approved for public release; further dissemination unlimited.

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**INDEPENDENT VERIFICATION SURVEY REPORT FOR ZONE 1
OF THE EAST TENNESSEE TECHNOLOGY PARK
IN OAK RIDGE, TENNESSEE**

Prepared by

D.A. King

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Prepared for the
U.S. Department of Energy

FINAL REPORT

AUGUST 2012

Prepared by Oak Ridge Associated Universities under the Oak Ridge Institute of Science and Education contract, number DE-AC05-06OR23100, with the U.S. Department of Energy.

**INDEPENDENT VERIFICATION SURVEY REPORT FOR ZONE 1
OF THE EAST TENNESSEE TECHNOLOGY PARK
IN OAK RIDGE, TENNESSEE**

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FINAL REPORT

AUGUST 2012

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ACRONYMS

COC	contaminant of concern
cpm	counts per minute
DOE	U.S. Department of Energy
DOECAP	U.S. Department of Energy Consolidated Audit Program
DVS	dynamic verification strategy
EPA	U.S. Environmental Protection Agency
ETTP	East Tennessee Technology Park
EU	exposure unit
EUG	exposure unit group
GPS	global positioning system
IV	independent verification
NaI	sodium iodide
ORAU	Oak Ridge Associated Universities
ORISE	Oak Ridge Institute for Science and Education
PCB	polychlorinated biphenyl
pCi/g	picocuries per gram
PSP	project-specific plan
RL	remediation level
ROD	Record of Decision
SMO	Sample Management Office
SU	soil unit
SVOC	semivolatile organic compound
VOC	volatile organic compound

INDEPENDENT VERIFICATION SURVEY REPORT FOR ZONE 1 OF THE EAST TENNESSEE TECHNOLOGY PARK IN OAK RIDGE, TENNESSEE

1. INTRODUCTION

The U.S. Department of Energy (DOE) Oak Ridge Office of Environmental Management selected Oak Ridge Associated Universities (ORAU), through the Oak Ridge Institute for Science and Education (ORISE) contract, to perform independent verification (IV) at Zone 1 of the East Tennessee Technology Park (ETTP) in Oak Ridge, Tennessee. ORAU has concluded in-process inspection reviews and IV surveys, per the project-specific plan (PSP), covering 10% of the 80 Zone 1 exposure units (EUs) (ORISE 2008). The objective of this effort is to verify the following:

- The remediation contractor correctly implemented the dynamic verification strategy (DVS) (BJC 2005)
- Target EUs comply with requirements in the Zone 1 Record of Decision (ROD) (DOE 2002)
- Commitments designed in the DVS were adequately implemented, as verified via IV surveys and soil sampling

Due to competing DOE prioritization, the Zone 1 IV process was conducted during two distinct time periods, referenced here as Phase 1 and Phase 2. The Phase 1 period ranged from approximately April 2007 through July 2008 and included the bulk of IV activities. Activities resumed under Phase 2 in October 2011 will functionally conclude with DOE acceptance of this report.

2. SITE DESCRIPTION

In 1945, operations began at the Oak Ridge Gaseous Diffusion Plant, later known as the K-25 site and now as ETTP, in Oak Ridge, Tennessee. The original mission was to produce uranium hexafluoride (UF_6) to various enrichments of U-235 and was executed under the guidance of the Manhattan Engineering District-Atomic Energy Commission, predecessor to DOE. To meet projected demands for enriched uranium, the Atomic Energy Commission expanded the site between 1946 and 1954. By 1985, the demand for enriched uranium had declined. The enrichment process was placed in a standby mode and was subsequently shut down in 1987. DOE's mission at the site shifted from production to environmental restoration and reindustrialization in an effort to reduce the federal footprint within the Oak Ridge Reservation.

ETTP is sub-divided into Zones 1 and 2 based on the potential for contamination. Zone 1, the focus of this investigation, primarily consists of land that is adjacent to and surrounds former production areas. Zone 1 has been further divided into the 80 EUs that range in size from 4.3 to 34.9 acres, as illustrated in Fig. 2.1 (DOE 2006). Zone 1 remedial actions focused on soil units (SUs) and not EUs. These SUs serve as the basis for designing the remediation contractor's sampling plans to determine if further action is required. SUs are defined independently of EUs, so a single SU may be crossed by multiple EU boundaries. The EU clusters, or EU groups (EUGs), subject to IV activities are listed in Table 2.1, which presents the EU target for IV, adjacent EUs covered in the effort, and associated EUG.

The Zone 1 ROD establishes average and maximum remediation levels (RLs) for significant contaminants of concern (COCs), including uranium, cesium, neptunium, radium, thorium, arsenic, beryllium, mercury, and polychlorinated biphenyls (PCBs). Table 2.2 lists COCs with associated average and maximum RLs. Additional radiological and chemical contaminants were also identified during past characterization and monitoring actions, though the ROD does not present RLs for these potential COCs. IV activities focused on the identification and quantification of ROD-specific COCs with RLs. However, a percentage of soil samples were analyzed for a broad suite of potential contaminants.

Fig. 2.1. ETPP Zone 1 EUs

Table 2.1. Exposure Unit Group Definitions

Target EU	Adjacent IV EUs	EUG/Area
31	None	K-770 Scrap Yard
32	None	K-770 Scrap Yard
41	39, 40, 43	K-1070-F
47	None	K-901
55	None	K-901
57	60	K-1070-A
59	None	K-1070-A
68	67	Perimeter Road

EU = exposure unit

EUG = exposure unit group

IV = independent verification

Table 2.2. ETTP Zone 1 Contaminants of Concern and Associated Remediation Levels

Contaminant of Concern	Average RL	Maximum RL
Arsenic	300 mg/kg	900 mg/kg
Beryllium	2000 mg/kg	6000 mg/kg
Mercury	600 mg/kg	1800 mg/kg
PCBs	10 mg/kg	100 mg/kg
Cs-137	2 pCi/g	20 pCi/g
Np-237	5 pCi/g	50 pCi/g
Ra-226	5 pCi/g	15 pCi/g
Th-232	5 pCi/g	15 pCi/g
U-234	700 pCi/g	7000 pCi/g
U-235	8 pCi/g	80 pCi/g
U-238	50 pCi/g	500 pCi/g

PCB = polychlorinated biphenyl

RL = remediation level

Source: Zone 1 ROD (DOE 2002)

3. METHODS

The following describes ORAU IV methods, including in-process inspections, gamma walkover surveys, soil sampling and analytical measurements, and associated data review. Activities were performed using the PSP (ORAU 2008), the Survey Procedures Manual (ORAU 2012a), and the Quality Program Manual (ORAU 2011).

3.1 IN-PROCESS INSPECTIONS

In-process inspections included, but were not limited to, the following actions as they apply to the site history and remediation contractor documents and processes:

- Review available information and data used for initially classifying the SU
- Verify adequacy of reference areas selected by the contractor for assessing background contributions to soil contaminant concentrations and other volumetric media (if applicable)
- Review procedures for establishing soil unit boundaries and maps showing preliminary SU designations
- Review determination of the required number of samples
- Review required scan coverage based on SU classification
- Review methods for evaluating areas of elevated contamination/activity detected during scans
- Review proposed investigation levels and their adequacy relative to the required and actual scan limits
- Review selection process for measurement locations in the soil unit
- Review proposed procedures and any associated factors for sampling subsurface soils and other difficult to access or inaccessible areas
- Review sample collection, packaging, chain-of-custody, and shipping documentation and procedures

- Review laboratory instrumentation and analytical methods used for radiological and chemical sample analysis, and assess adequacy of the laboratory's quality assurance program, when deemed appropriate
- Review adherence to the specifications of the survey instructions generated by the contractor for DVS sampling procedures
- Evaluate procedures/protocols for identifying areas of elevated direct radioactivity for investigation

The IV process was designed to evaluate not only the in-field implementation of DVS procedures, but also a comprehensive review of historical and project-specific documentation used in the development of the DVS. Specifically, ORAU used in-process inspections to evaluate the fundamental basis of the remediation contractor's approach. In-process inspections were conducted during Phase 1 of this effort.

3.2 GAMMA WALKOVERS

Phase 1 gamma walkovers were conducted using Victoreen Model 489-55 1.25×1.5 inch detectors and Ludlum SPA-3 2×2 sodium iodide (NaI) detectors coupled with Ludlum Model 12 ratemeter-scalers. Electronic data collection was facilitated using GeoXH global positioning system (GPS) that logged real-time gamma count rates with their corresponding coordinates using NAD 1983 (CONUS) CORS 96 Tennessee State Plane FIPS 4100 U.S. Survey Feet. Medium- to high-density gamma radiation surface scans were performed using Sections 4.0 and 7.0 of the ORAU Survey Procedures Manual (ORAU 2012a): "Instrument Calibration and Operational Check-Out" and "Scanning and Measurement Techniques," respectively. Phase 1 gamma walkover activities targeted Class 1 and Class 2 SUs within six primary EUs (41, 47, 55, 57, 59, and 68) to maximize potential of locating contamination.

Phase 2 gamma walkovers targeted EUs 31 and 32 and were conducted using Ludlum Model 44-10 2×2 NaI detectors coupled with Ludlum model 2221 ratemeter-scalers. Electronic data collection was facilitated using the same GPS methods and reference system as Phase 1. Remediation efforts covered large blocks of EUs 31 and 32; therefore, IV coverage was based on EU and not SU boundaries.

3.3 SOIL SAMPLING AND ANALYSIS

Volumetric soil sampling and laboratory analysis efforts were conducted during both phases of the verification process. Samples were collected from a total of 137 locations. Locations were either randomly generated or judgmentally selected from areas exhibiting elevated NaI responses during gamma walkover surveys. Sampling collection methods were consistent with Section 8.0 of the Survey Procedures Manual (ORAU 2012a): “Sampling Techniques.” Table 3.1 presents a summary of the containers and preservation methods used during IV soil sampling efforts.

Table 3.1. Sample Containers and Preservation Methods		
Analysis Type	Container	Preservation
VOCs	Glass Jar	$\leq 6^{\circ}\text{C}$ / Minimize Headspace
SVOCs/PCBs/PEST	Glass Jar	$\leq 6^{\circ}\text{C}$
Metals	Glass Jar / HDPE	$\leq 6^{\circ}\text{C}$
Radionuclides	HDPE or Plastic Bag	None

HDPE = high-density polyethylene
PCB = polychlorinated biphenyl
PEST = pesticide
SVOC = semivolatile organic compound
VOC = volatile organic compound

Locations were randomly selected using Visual Sampling Plan software; 125 locations were chosen and analyzed for Zone 1 ROD radiological COCs. Approximately 50% of these were additionally analyzed for a full suite of non-radiological contaminants, including metals, PCBs, semi-volatile organic compounds (SVOCs), and volatile organic compounds (VOCs). Twelve judgmental soil samples were also collected based on gamma walkover survey results. Judgmental samples were analyzed for radiological COCs only.

All sample analyses were performed by Oak Ridge Sample Management Office (SMO)-approved laboratories using DOE Consolidated Audit Program (DOECAP)-approved instrumentation and procedures. The SMO also validated analytical data packages.

Radiological analyses were specifically performed by the ORAU/ORISE Radiochemistry Laboratory using procedures and methodologies defined in the ORAU/ORISE Laboratory Procedures Manual (ORAU 2012b), Sections SP3 and CP1, using germanium crystal gamma spectroscopy. Radiological decay products were used for identification and quantification of some target COCs. Table 3.2

presents a summary of the COC versus measured nuclide (i.e., surrogates) and the target energy peak used to quantify soil concentrations.

Table 3.2. Decay Products Used for Gamma Spectroscopic Analysis		
Target COC	Decay Product Used	Energy Peak (keV)
Np-237	Pa-233	311.98
Ra-226	Pb-214	351.92
Th-228	Pb-212	238.63
Th-232	Ac-228	9117
U-238	Th-234	63.29

COC = contaminant of concern

Phase 1 non-radiological analysis was performed by Eberline Analytical Corporation Laboratory in Lionville, Pennsylvania; Phase 2 non-radiological analysis was performed by TestAmerica Laboratory in St. Louis, Missouri. Both analytical laboratories utilized current versions of U.S. Environmental Protection Agency (EPA) methodologies and procedures for the analysis of solid waste as defined by SW-846. Table 3.3 lists analysis types and their associated reference methods.

Table 3.3. Analysis Types and Associated Methods		
Analysis Type	Medium	Analytical Method
VOCs	Soil	EPA Method 8260
SVOCs/PCBs/PEST	Soil	EPA Method 8260/8082/8081
Metals	Soil	EPA Method 6010/6020A
Radionuclides	Soil	Gamma Spectroscopy

EPA = U.S. Environmental Protection Agency

PCB = polychlorinated biphenyl

PEST = pesticides

SVOC = semivolatile organic compound

VOC = volatile organic compound

All laboratory data was validated at Level 3 or Level 4. During the validation process, data was assigned appropriate validation qualifier flags, as guided by SMO procedures. These flags are described as follows:

“U”: material was analyzed for, but not detected above, the level of the associated value

“J”: the associated value was an estimated quantity (indicating there was cause to question the accuracy or precision of the reported data)

“UJ”: the analyte was analyzed for but not detected above the associated value; however, the reported value was an estimate and demonstrated incomplete knowledge of its accuracy or precision

“R”: the analyte value reported was unusable; the integrity of the analyte’s identification, accuracy, precision, or sensitivity raised significant questions as to the validity of the information presented

“=”: the analyte value reported was detected and the integrity of the analyte’s identification, accuracy, and precision was validated

3.4 IV DATA EVALUATION

Result discussions in this report are grouped by EUG, though comparisons to Zone 1 ROD RLs are performed based upon individual EUs. An exception is made for EU-67, where a single sample was collected during the EU-68 investigation—that is, results from EU-67 sample S097 is included in the analysis of the EU-68 dataset. In all cases, ROD COC results are compared individually to average and maximum RLs. An exceedance of a COC-specific average RL leads to additional evaluations, including sum-of-fraction calculations and area weighting, as required. Only random (not judgmental) sample results are compared to average RL values. An exceedance of a COC-specific maximum RL leads to a recommendation for additional remediation (BJC 2005 and Salpas 2012). Remediation levels for Ra-226 and Th-232 are net values; thus the evaluation presented here includes background subtraction. Background values are 95% upper confidence level on the mean concentration as presented in DOE 2003, specifically 1.25 pCi/g for Ra-226 and 1.95 pCi/g for Th-232.

Appendix A presents, for information purposes only, a comparison of all analytical results to associated ETTP background screening levels (DOE 2003), as applicable. ETTP background screening levels are presented in Table 3.4. Gamma walkover survey data and maps are also presented for information purposes only, as there are no established quantitative criteria for comparing walkover survey results to RLs. Survey data were used to locate gross contamination from gamma-emitting COCs, if present, and to support judgmental sample decisions.

Appendix A also presents summary statistics for all measured analytes and is organized by EU and analyte type. The frequency of detection; location of maximum results; minimum, maximum, mean,

median, and standard deviation values; and comparisons to average RL, maximum RL, and background screening values are presented. Detections are defined in Appendix A as results, not qualified with validation flags “R,” “U,” or “UJ.” Analytical results for COCs that were not detected in an EU are not evaluated against RLs, though the summary statistics in Appendix A were generated using all data regardless of detection status.

Table 3.4. ETTP-Specific Background Values

Analyte	Background mg/kg or pCi/g ^a	Analyte	Background mg/kg or pCi/g ^a
Aluminum	40,300	Nickel	26.07
Antimony	1.52	Potassium	5074.69
Arsenic	14.95	Selenium	1.47
Barium	124.93	Silicon	1001.04
Beryllium	2.2	Silver	0.6U
Cadmium	0.22U	Sodium	497
Calcium	2,400	Strontium	87.05
Chromium	44.88	Sulfate	334
Cobalt	42	Thallium	0.4U
Copper	22.48	Vanadium	65.47
Cyanide	0.6U	Zinc	89.7
Iron	58,600	Potassium-40	32.12
Lead	37.91	Radium-226	1.25
Lithium	48.94	Thorium-228	1.86
Magnesium	3,300	Thorium-230	1.2
Manganese	2,200	Thorium-232	1.95
Mercury	0.17	Uranium-238	1.47

^aSome background values not detected in the reference sample set, thus the “U” (e.g., 0.6U for silver)

ETTP = East Tennessee Technology Park

4. RESULTS

The following presents results from field sampling investigations organized by EU and EUG, if applicable, starting with the lowest numbered EU (31) and ending with the largest numbered EU (68). EU-specific discussions focus on the quantification of ROD-specific COCs and on comparing associated analytical results to average and maximum RLs. Specifically, mean measured concentrations from random samples are compared to the average RLs, and maximum measured concentrations from random and judgmental samples are compared to the maximum RL.

ORAU comments on the DVS were submitted in May 2007 and are not repeated here (ORISE 2007a). An in-process inspection report was issued in October 2007 and associated details are not repeated here. However, the conclusion of that effort is that overarching survey goals were being satisfied commensurate with the DVS as represented (ORISE 2007a).

4.1 EU-31

The gamma walkover survey was performed using 2×2 NaI detectors across Class 1 EU-31. Survey results are presented in Figs. 4.1 and 4.2. These figures suggest the presence of two background populations, one for roadway with results ranging from approximately 4000 to 9000 counts per minute (cpm), and one for soil with results ranging from approximately 7000 to 12,000 cpm. Survey coverage was limited in the northeastern portion of the EU due to high weeds and rough terrain. Three small areas of elevated activity were identified in the south portion of the area. The largest of these produced a detector response of 54,091 cpm and was judgmentally sampled (S137). Location S137 was identified when surveyors crossed the EU-31 boundary into EU-29 while survey equipment was operational.

Table 4.1 presents summary statistics for 15 soil samples, including 14 random samples and 1 judgmental sample (S137). Figure 4.3 illustrates the location of each sample. Three of the 14 random locations were selected for full suite analysis, including metal and PCB COCs. Table 4.1 demonstrates that measured concentrations at all random locations are below average and maximum RLs.

The judgmental sample was collected from an area exhibiting elevated detector responses south of the EU boundary and physically located in EU-29. Radiological analysis indicates this sample

contains U-238 at 1311 pCi/g, which is above the maximum RL of 500 pCi/g. The U-235 result of 71.4 pCi/g is just below the 80 pCi/g maximum RL. Based on these results, EU-31 satisfies the average RL requirements, but the small area of elevated activity just south of the EU-31 boundary and physically located within EU-29 exceeds the maximum ROD requirement for U-238.

Table 4.1. EU-31 Summary Statistics and RL Evaluation

COC	Freq. of Det.	Units	Mean Value	Avg. RL	> Avg. RL? ^a	Max. Value	Max. RL	> Max. RL? ^a
Exposure Unit 31 Random Samples								
Arsenic	3/ 3	mg/kg	6.9	300	No	9	900	No
Beryllium	3/ 3	mg/kg	0.51	2,000	No	0.62	6,000	No
Mercury	3/ 3	mg/kg	0.09	600	No	0.13	1,800	No
PCB-1016	0/ 3	µg/kg	—	10,000	—	—	100,000	—
PCB-1221	0/ 3	µg/kg	—	10,000	—	—	100,000	—
PCB-1232	0/ 3	µg/kg	—	10,000	—	—	100,000	—
PCB-1242	0/ 3	µg/kg	—	10,000	—	—	100,000	—
PCB-1248	0/ 3	µg/kg	—	10,000	—	—	100,000	—
PCB-1254	0/ 3	µg/kg	—	10,000	—	—	100,000	—
PCB-1260	0/ 3	µg/kg	—	10,000	—	—	100,000	—
Cesium-137	4/ 14	pCi/g	0.06	2	No	0.438	20	No
Neptunium-237	0/ 14	pCi/g	—	5	—	—	50	—
Radium-226	14/ 14	pCi/g	0.81	5	No	1.021	15	No
Thorium-232	14/ 14	pCi/g	1.69	5	No	6.66	15	No
Uranium-234	— ^b	pCi/g	4.24	700	No	8.67	7,000	No
Uranium-235	6/ 14	pCi/g	0.27	8	No	0.596	80	No
Uranium-238	14/ 14	pCi/g	4.24	50	No	8.67	500	No
Exposure Unit 31 Judgmental Samples (physically located in EU-29)								
Cesium-137	0/ 1	pCi/g	—	2	—	—	20	—
Neptunium-237	0/ 1	pCi/g	—	5	—	—	50	—
Radium-226	1/ 1	pCi/g	0.76	5	—	0.76	15	No
Thorium-232	1/ 1	pCi/g	1.54	5	—	1.54	15	No
Uranium-234	— ^b	pCi/g	1,311	700	—	1,311	7,000	No
Uranium-235	1/ 1	pCi/g	71.4	8	—	71.4	80	No
Uranium-238	1/ 1	pCi/g	1,311	50	—	1,311	500	Yes

^aConsidered only when the contaminant was detected; average background subtracted from Ra-226 (1.25 pCi/g) and Th-232 (1.95 pCi/g) (DOE 2003)

^bU-234 assigned U-238 concentration

COC = contaminant of concern

RL = remediation level

Fig. 4.1. EU 31 Gamma Walkover Survey Map

Fig. 4.2. EU 31 Gamma Walkover Survey Histogram

Fig. 4.3. EU 31 Sample Locations

4.2 EU-32

The gamma walkover survey was performed using 2×2 NaI detectors across Class 1 EU-32. Survey results are presented in Figs. 4.4 and 4.5. These figures suggest there are two background populations, one for roadways with results ranging from approximately 4000 to 9000 cpm, and one for soils with results ranging from approximately 7000 to 12,000 cpm. Survey coverage was limited over most of the EU due to high weeds and rough terrain. The maximum elevated activity of approximately 22,000 cpm is located in the south-central portion of the parcel. However, surveyors reported sporadic “cable pulls” (caught in weeds) which can produce a pulse surge. It is likely the slightly elevated results illustrated in Fig. 4.4 are due to these phenomena given no elevated results due to potential soil concentration were reported.

Table 4.2 presents summary statistics for 14 random soil samples and Fig. 4.6 illustrates the location of each sample. Three of the 14 random locations were selected for full suite analysis, including metal and PCB COCs. Table 4.2 demonstrates that measured concentrations at all random locations are below average and maximum RLs. Based on these results, it is concluded EU-32 satisfies ROD requirements.

Table 4.2. EU-32 Summary Statistics and RL Evaluation								
COC	Freq. of Det.	Units	Mean Value	Avg. RL	> Avg. RL? ^a	Max. Value	Max. RL	> Max. RL? ^a
Exposure Unit 32 Random Samples								
Arsenic	3/ 3	mg/kg	5.03	300	No	6.2	900	No
Beryllium	3/ 3	mg/kg	0.42	2000	No	0.62	6000	No
Mercury	3/ 3	mg/kg	0.25	600	No	0.4	1800	No
PCB-1016	0/ 3	µg/kg	—	10,000	—	—	100,000	—
PCB-1221	0/ 3	µg/kg	—	10,000	—	—	100,000	—
PCB-1232	0/ 3	µg/kg	—	10,000	—	—	100,000	—
PCB-1242	0/ 3	µg/kg	—	10,000	—	—	100,000	—
PCB-1248	0/ 3	µg/kg	—	10,000	—	—	100,000	—
PCB-1254	3/ 3	µg/kg	0.2	10,000	No	0.27	100,000	No
PCB-1260	3/ 3	µg/kg	0.09	10,000	No	0.14	100,000	No
Cesium-137	10/ 14	pCi/g	0.1	2	No	0.457	20	No
Neptunium-237	0/ 14	pCi/g	—	5	—	—	50	—
Radium-226	14/ 14	pCi/g	0.62	5	No	0.835	15	No
Thorium-232	14/ 14	pCi/g	0.89	5	No	1.19	15	No
Uranium-234	— ^b	pCi/g	4.67	700	No	11	7000	No
Uranium-235	8/ 14	pCi/g	0.28	8	No	0.71	80	No
Uranium-238	14/ 14	pCi/g	4.67	50	No	11	500	No

^a Considered only when the contaminant was detected; average background subtracted from Ra-226 (1.25 pCi/g) and Th-232 (1.95 pCi/g) (DOE 2003)

^bU-234 assigned U-238 concentration

COC = contaminant of concern

RL = remediation level

Fig. 4.4. EU 32 Gamma Walkover Survey Map

Fig. 4.5. EU32 Gamma Walkover Survey Histogram

Fig. 4.6. EU 32 Sample Locations

4.3 EXPOSURE UNIT GROUP K-1070-F (EUs 39, 40, 41, AND 43)

The portion of K-1070-F EUG subject to verification activities includes Class 1 and Class 2 EUs 39, 40, 41 and 43. Figures 4.7 and 4.8 present gamma walkover survey results obtained by using 1.5×1.25 NaI detectors. Maximum levels were detected in the northeastern portion of the EU-43 study area with a maximum result of approximately 14,500 cpm. Two samples were collected in this area to quantify potential contaminants (S107 and S108). Slightly elevated results were also recorded in EU-40, but judgmental samples were not collected.

Figure 4.9 illustrates the locations of soil samples for all of K-1070-F EUG. EU-specific analytical results are discussed in the following subsections.

4.3.1 EU-39 Soil Sample Results

Table 4.3 presents summary statistics for 14 random soil samples, as shown in Fig. 4.9. Five of the 14 random locations were selected for full suite analysis, including metal and PCB COCs. Table 4.3 demonstrates that measured concentrations at all random locations are below average and maximum RLs. Based on these results, it is concluded EU-39 satisfies ROD requirements.

4.3.2 EU-40 Soil Sample Results

Table 4.4 presents summary statistics for 3 random soil samples, as shown in Fig. 4.9. No samples from this small subpopulation were submitted for full suite analysis. Table 4.4 demonstrates that measured concentrations at all random locations are below average and maximum RLs. Based on these results, it is concluded EU-40 satisfies ROD requirements.

4.3.3 EU-41 Soil Sample Results

Table 4.5 presents summary statistics for 10 random soil samples, as shown in Fig. 4.9. Five of the 10 random locations were selected for full suite analysis, including metal and PCB COCs. Table 4.5 demonstrates that measured concentrations at all random locations are below average and maximum RLs. Based on these results, it is concluded EU-41 satisfies ROD requirements.

Table 4.3. EU-39 Summary Statistics and RL Evaluation

COC	Freq. of Det.	Units	Mean Value	Avg. RL	> Avg. RL? ^a	Max. Value	Max. RL	> Max. RL? ^a
Exposure Unit 39 Random Samples								
Arsenic	5/ 5	mg/kg	6.42	300	No	8.3	900	No
Beryllium	5/ 5	mg/kg	0.69	2000	No	0.92	6000	No
Mercury	5/ 5	mg/kg	0.1	600	No	0.13	1800	No
PCB-1016	0/ 5	µg/kg	—	10,000	—	—	100,000	—
PCB-1221	0/ 5	µg /kg	—	10,000	—	—	100,000	—
PCB-1232	0/ 5	µg /kg	—	10,000	—	—	100,000	—
PCB-1242	0/ 5	µg /kg	—	10,000	—	—	100,000	—
PCB-1248	0/ 5	µg /kg	—	10,000	—	—	100,000	—
PCB-1254	0/ 5	µg /kg	—	10,000	—	—	100,000	—
PCB-1260	1/ 5	µg /kg	26.8	10,000	No	66	100,000	No
Cesium-137	8/ 14	pCi/g	0.11	2	No	0.48	20	No
Neptunium-237	0/ 14	pCi/g	—	5	—	—	50	—
Radium-226	14/ 14	pCi/g	0.87	5	No	1.18	15	No
Thorium-232	14/ 14	pCi/g	1.25	5	No	1.77	15	No
Uranium-234	— ^b	pCi/g	1.58	700	No	2.34	7000	No
Uranium-235	1/ 14	pCi/g	0.1	8	No	0.21	80	No
Uranium-238	14/ 14	pCi/g	1.58	50	No	2.34	500	No

^a Considered only when the contaminant was detected; average background subtracted from Ra-226 (1.25 pCi/g) and Th-232 (1.95 pCi/g) (DOE 2003)

^bU-234 assigned U-238 concentration

COC = contaminant of concern

RL = remediation level

Table 4.4. EU-40 Summary Statistics and RL Evaluation

COC	Freq. of Det.	Units	Mean Value	Avg. RL	> Avg. RL? ^a	Max. Value	Max. RL	> Max. RL? ^a
Exposure Unit 40 Random Samples								
Arsenic	—	mg/kg	—	300	—	—	900	—
Beryllium	—	mg/kg	—	2000	—	—	6000	—
Mercury	—	mg/kg	—	600	—	—	1800	—
PCB-1016	—	µg/kg	—	10,000	—	—	100,000	—
PCB-1221	—	µg /kg	—	10,000	—	—	100,000	—
PCB-1232	—	µg /kg	—	10,000	—	—	100,000	—
PCB-1242	—	µg /kg	—	10,000	—	—	100,000	—
PCB-1248	—	µg /kg	—	10,000	—	—	100,000	—
PCB-1254	—	µg /kg	—	10,000	—	—	100,000	—
PCB-1260	—	µg /kg	—	10,000	—	—	100,000	—
Cesium-137	3/ 3	pCi/g	0.57	2	No	1.1	20	No
Neptunium-237	0/ 3	pCi/g	—	5	—	—	50	—
Radium-226	3/ 3	pCi/g	1.2	5	No	1.23	15	No
Thorium-232	3/ 3	pCi/g	1.82	5	No	1.93	15	No
Uranium-234	— ^b	pCi/g	2.98	700	No	3.07	7000	No
Uranium-235	1/ 3	pCi/g	0.18	8	No	0.27	80	No
Uranium-238	3/ 3	pCi/g	2.98	50	No	3.07	500	No

^a Considered only when the contaminant was detected; average background subtracted from Ra-226 (1.25 pCi/g) and Th-232 (1.95 pCi/g) (DOE 2003)

^bU-234 assigned U-238 concentration

COC = contaminant of concern

RL = remediation level

Table 4.5. EU-41 Summary Statistics and RL Evaluation

COC	Freq. of Det.	Units	Mean Value	Avg. RL	> Avg. RL? ^a	Max. Value	Max. RL	> Max. RL? ^a
Exposure Unit 41 Random Samples								
Arsenic	5/ 5	mg/kg	6.78	300	No	10.4	900	No
Beryllium	5/ 5	mg/kg	0.65	2000	No	0.86	6000	No
Mercury	5/ 5	mg/kg	0.2	600	No	0.58	1800	No
PCB-1016	0/ 5	µg/kg	—	10,000	—	—	100,000	—
PCB-1221	0/ 5	µg/kg	—	10,000	—	—	100,000	—
PCB-1232	0/ 5	µg/kg	—	10,000	—	—	100,000	—
PCB-1242	0/ 5	µg/kg	—	10,000	—	—	100,000	—
PCB-1248	0/ 5	µg/kg	—	10,000	—	—	100,000	—
PCB-1254	4/ 5	µg/kg	219.4	10,000	No	690	100,000	No
PCB-1260	5/ 5	µg/kg	214.2	10,000	No	580	100,000	No
Cesium-137	10/ 10	pCi/g	0.13	2	No	0.42	20	No
Neptunium-237	0/ 10	pCi/g	—	5	—	—	50	—
Radium-226	10/ 10	pCi/g	0.78	5	No	1.03	15	No
Thorium-232	10/ 10	pCi/g	1.08	5	No	1.31	15	No
Uranium-234	— ^b	pCi/g	1.64	700	No	2.6	7000	No
Uranium-235	0/ 10	pCi/g	—	8	—	—	80	—
Uranium-238	10/ 10	pCi/g	1.64	50	No	2.6	500	No

^a Considered only when the contaminant was detected; average background subtracted from Ra-226 (1.25 pCi/g) and Th-232 (1.95 pCi/g) (DOE 2003)

^bU-234 assigned U-238 concentration

COC = contaminant of concern

RL = remediation level

4.3.4 EU-43 Soil Sample Results

Table 4.6 presents summary statistics for 2 random and 2 judgmental soil samples, as shown in Fig. 4.9. No samples from this small subpopulation were submitted for full suite analysis. Table 4.6 demonstrates that measured concentrations at all random locations are below average and maximum RLs. Maximum results of 312 pCi/g and 62.6 pCi/g for U-238 and U-235, respectively, do not exceed individual maximum RLs of 500 pCi/g and 80 pCi/g, respectively, but concentrations are noteworthy. These maximum results are associated with location S108. Cesium-137 was detected at 4.58 pCi/g from location S107, but the value is well below the 20 pCi/g maximum RL. Based on these results, it is concluded EU-43 satisfies ROD requirements.

Table 4.6. EU-43 Summary Statistics and RL Evaluation

COC	Freq. of Det.	Units	Mean Value	Avg. RL	> Avg. RL? ^a	Max. Value	Max. RL	> Max. RL? ^a
Exposure Unit 43 Random Samples								
Arsenic	—	mg/kg	—	300	—	—	900	—
Beryllium	—	mg/kg	—	2000	—	—	6000	—
Mercury	—	mg/kg	—	600	—	—	1800	—
PCB-1016	—	µg/kg	—	10,000	—	—	100,000	—
PCB-1221	—	µg /kg	—	10,000	—	—	100,000	—
PCB-1232	—	µg /kg	—	10,000	—	—	100,000	—
PCB-1242	—	µg /kg	—	10,000	—	—	100,000	—
PCB-1248	—	µg /kg	—	10,000	—	—	100,000	—
PCB-1254	—	µg /kg	—	10,000	—	—	100,000	—
PCB-1260	—	µg /kg	—	10,000	—	—	100,000	—
Cesium-137	2/ 2	pCi/g	0.52	2	No	0.73	20	No
Neptunium-237	0/ 2	pCi/g	—	5	—	—	50	—
Radium-226	2/ 2	pCi/g	1.34	5	No	1.59	15	No
Thorium-232	2/ 2	pCi/g	1.43	5	No	1.63	15	No
Uranium-234	—	pCi/g	2.66	700	No	2.82	7000	No
Uranium-235	0/ 2	pCi/g	—	8	—	—	80	—
Uranium-238	2/ 2	pCi/g	2.66	50	No	2.82	500	No
Exposure Unit 43 Judgmental Samples								
Cesium-137	2/ 2	pCi/g	3.96	2	—	4.58	20	No
Neptunium-237	2/ 2	pCi/g	0.37	5	—	0.42	50	No
Radium-226	2/ 2	pCi/g	0.93	5	—	1.12	15	No
Thorium-232	2/ 2	pCi/g	1.1	5	—	1.15	15	No
Uranium-234	— ^b	pCi/g	280	700	—	312	7000	No
Uranium-235	2/ 2	pCi/g	54.5	8	—	62.6	80	No
Uranium-238	2/ 2	pCi/g	280	50	—	312	500	No

^a Considered only when the contaminant was detected; average background subtracted from Ra-226 (1.25 pCi/g) and Th-232 (1.95 pCi/g) (DOE 2003)

^bU-234 assigned U-238 concentration

COC = contaminant of concern

RL = remediation level

Fig. 4.7. EUG K-1070-F Gamma Walkover Survey Map

Fig. 4.8. EUG K-1070-F Gamma Walkover Survey Histogram

4.4 EU-47

The gamma walkover survey was performed using 1.5×1.25 NaI detectors across the Class 2 EU. Survey results are presented in Figs. 4.10 and 4.11. These figures suggest two background populations, one for roadways with results ranging from approximately 2250 cpm to 3500 cpm, and one for soils with results ranging from approximately 3000 to 5250 cpm. No areas of elevated activity were encountered and no judgmental samples were collected based on survey data.

Table 4.7 presents summary statistics for 14 random soil samples and Fig. 4.12 illustrates the location of each sample. Ten of the 14 random locations were selected for full suite analysis, including metal and PCB COCs. Table 4.7 demonstrates that measured concentrations at all random locations are below average and maximum RLs. Based on these results, it is concluded EU-47 satisfies ROD requirements.

Table 4.7. EU-47 Summary Statistics and RL Evaluation								
COC	Freq. of Det.	Units	Mean Value	Avg. RL	> Avg. RL? ^a	Max. Value	Max. RL	> Max. RL? ^a
Exposure Unit 47 Random Samples								
Arsenic	10/ 10	mg/kg	8.31	300	No	16.2	900	No
Beryllium	10/ 10	mg/kg	0.95	2000	No	1.8	6000	No
Mercury	9/ 10	mg/kg	0.27	600	No	1.7	1800	No
PCB-1016	0/ 10	µg/kg	—	10,000	—	—	100,000	—
PCB-1221	0/ 10	µg/kg	—	10,000	—	—	100,000	—
PCB-1232	0/ 10	µg/kg	—	10,000	—	—	100,000	—
PCB-1242	0/ 10	µg/kg	—	10,000	—	—	100,000	—
PCB-1248	0/ 10	µg/kg	—	10,000	—	—	100,000	—
PCB-1254	2/ 10	µg/kg	70.6	10,000	No	520	100,000	No
PCB-1260	6/ 10	µg/kg	36.5	10,000	No	120	100,000	No
Cesium-137	14/ 14	pCi/g	0.18	2	No	0.72	20	No
Neptunium-237	0/ 14	pCi/g	—	5	—	—	50	—
Radium-226	14/ 14	pCi/g	0.78	5	No	1.42	15	No
Thorium-232	14/ 14	pCi/g	0.98	5	No	1.29	15	No
Uranium-234	— ^b	pCi/g	1.3	700	No	2.28	7000	No
Uranium-235	0/ 14	pCi/g	—	8	—	—	80	—
Uranium-238	14/ 14	pCi/g	1.3	50	No	2.28	500	No

^a Considered only when the contaminant was detected; average background subtracted from Ra-226 (1.25 pCi/g) and Th-232 (1.95 pCi/g) (DOE 2003)

^bU-234 assigned U-238 concentration

COC = contaminant of concern

RL = remediation level

Fig. 4.10. EU 47 Gamma Walkover Survey Map

Fig. 4.11. EU47 Gamma Walkover Survey Histogram

Fig. 4.12. EU 47 Sample Locations

4.5 EU-55

The gamma walkover survey was performed using 1.5×1.25 NaI detectors across the Class 2 EU. Survey results are presented in Figs. 4.13 and 4.14. These figures suggest one background population for soil, plus some relatively elevated results in the northern half of the parcel. The background population produced results ranging from approximately 3000 cpm to 6000 cpm while elevated results reach a maximum of 7775 cpm. Nine judgmental samples were collected based on gamma walkover survey results.

Table 4.8 presents summary statistics for 13 random and 9 judgmental soil samples, and Fig. 4.15 illustrates the location of each sample. Ten of the 13 random locations were selected for full suite analysis, including metal and PCB COCs. Table 4.8 lists multiple PCB-1254 and PCB-1260 detections with the highest values reaching approximately a third of the maximum RL. Maximum PCB concentrations were detected from random samples S074 and S077, located in the northern part of the EU. Results from judgmental samples are below the maximum RLs. Based on these results, it is concluded EU-55 satisfies ROD requirements.

Table 4.8. EU-55 Summary Statistics and RL Evaluation

COC	Freq. of Det.	Units	Mean Value	Avg. RL	> Avg. RL? ^a	Max. Value	Max. RL	> Max. RL? ^a
Exposure Unit 55 Random Samples								
Arsenic	10/ 10	mg/kg	6.23	300	No	10.2	900	No
Beryllium	10/ 10	mg/kg	0.9	2,000	No	1.4	6,000	No
Mercury	10/ 10	mg/kg	0.7	600	No	3.5	1800	No
PCB-1016	0/ 10	µg/kg	—	10,000	—	—	100,000	—
PCB-1221	0/ 10	µg/kg	—	10,000	—	—	100,000	—
PCB-1232	0/ 10	µg/kg	—	10,000	—	—	100,000	—
PCB-1242	0/ 10	µg/kg	—	10,000	—	—	100,000	—
PCB-1248	1/ 10	µg/kg	3531	10,000	No	35,000	100,000	No
PCB-1254	7/ 10	µg/kg	2874	10,000	No	27,000	100,000	No
PCB-1260	8/ 10	µg/kg	702.1	10,000	No	5000	100,000	No
Cesium-137	11/ 13	pCi/g	0.19	2	No	0.54	20	No
Neptunium-237	0/ 13	pCi/g	—	5	—	—	50	—
Radium-226	13/ 13	pCi/g	0.91	5	No	1.51	15	No
Thorium-232	13/ 13	pCi/g	1.05	5	No	1.46	15	No
Uranium-234	—	pCi/g	3.12	700	No	13.6	7,000	No
Uranium-235	4/ 13	pCi/g	0.16	8	No	0.46	80	No
Uranium-238	13/ 13	pCi/g	3.12	50	No	13.6	500	No
Exposure Unit 55 Judgmental Samples								
Cesium-137	4/ 9	pCi/g	0.06	2	—	0.14	20	No
Neptunium-237	0/ 9	pCi/g	—	5	—	—	50	—
Radium-226	9/ 9	pCi/g	3.3	5	—	4.1	15	No
Thorium-232	9/ 9	pCi/g	2.31	5	—	2.7	15	No
Uranium-234	— ^b	pCi/g	3.54	700	—	4.3	7,000	No
Uranium-235	4/ 9	pCi/g	0.29	8	—	0.47	80	No
Uranium-238	9/ 9	pCi/g	3.54	50	—	4.3	500	No

^a Considered only when the contaminant was detected; average background subtracted from Ra-226 (1.25 pCi/g) and Th-232 (1.95 pCi/g) (DOE 2003)

^bU-234 assigned U-238 concentration

COC = contaminant of concern

RL = remediation level

Fig. 4.13. EU 55 Gamma Walkover Survey Data

Fig. 4.14. EU 55 Gamma Walkover Survey Histogram

Fig. 4.15. EU-55 Sample Locations

4.6 EUG K-1070-A (EUs 57 AND 60)

The portion of the K-1070-A EUG subject to verification activities includes Class 2 EUs 57 and 60. Figures 4.16 and 4.17 present gamma walkover survey results using 1.5×1.25 NaI detectors. These figures suggest one background population for soil with results ranging from approximately 2500 to 5500 cpm. No areas of elevated activity were discovered and no judgmental samples were collected based on survey results. It is noted that surveyors crossed EU boundaries into EUs 56 and 58, but soil samples were limited to EUs 57 and 60.

Figure 4.18 illustrates the locations of samples for all of K-1070-A EUG. EU-specific analytical results are discussed in the following subsections.

4.6.1 EU-57 Soil Results

Table 4.9 presents summary statistics for 11 random soil samples, as shown in Fig. 4.18. All 11 random locations were selected for full suite analysis including metal and PCB COCs. Table 4.9 demonstrates that measured concentrations at all random locations are below average and maximum RLs. Based on these results, it is concluded EU-57 satisfies ROD requirements.

4.6.2 EU-60 Soil Results

Table 4.10 presents summary statistics for 4 random soil samples, as shown in Fig. 4.18. All 4 random locations were selected for full suite analysis, including metal and PCB COCs. Table 4.10 demonstrates measured concentrations at all random locations are below average and maximum RLs. Based on these results, it is concluded EU-60 satisfies ROD requirements.

Table 4.9. EU-57 Summary Statistics and RL Evaluation

COC	Freq. of Det.	Units	Mean Value	Avg. RL	> Avg. RL? ^a	Max. Value	Max. RL	> Max. RL? ^a
Exposure Unit 57 Random Samples								
Arsenic	11/ 11	mg/kg	5.98	300	No	10.2	900	No
Beryllium	11/ 11	mg/kg	0.49	2000	No	0.86	6000	No
Mercury	11/ 11	mg/kg	0.07	600	No	0.1	1800	No
PCB-1016	0/ 11	µg/kg	—	10,000	—	—	100,000	—
PCB-1221	0/ 11	µg/kg	—	10,000	—	—	100,000	—
PCB-1232	0/ 11	µg/kg	—	10,000	—	—	100,000	—
PCB-1242	0/ 11	µg/kg	—	10,000	—	—	100,000	—
PCB-1248	0/ 11	µg/kg	—	10,000	—	—	100,000	—
PCB-1254	1/ 11	µg/kg	15	10,000	No	18	100,000	No
PCB-1260	6/ 11	µg/kg	12.86	10,000	No	26	100,000	No
Cesium-137	11/ 11	pCi/g	0.6	2	No	1.05	20	No
Neptunium-237	0/ 11	pCi/g	—	5	—	—	50	—
Radium-226	11/ 11	pCi/g	0.56	5	No	0.89	15	No
Thorium-232	11/ 11	pCi/g	0.72	5	No	1.24	15	No
Uranium-234	— ^b	pCi/g	0.88	700	No	1.46	7000	No
Uranium-235	1/ 11	pCi/g	0.07	8	No	0.21	80	No
Uranium-238	9/ 11	pCi/g	0.88	50	No	1.46	500	No

^a Considered only when the contaminant was detected; average background subtracted from Ra-226 (1.25 pCi/g) and Th-232 (1.95 pCi/g) (DOE 2003)

^bU-234 assigned U-238 concentration

COC = contaminant of concern

RL = remediation level

Table 4.10. EU-60 Summary Statistics and RL Evaluation

COC	Freq. of Det.	Units	Mean Value	Avg. RL	> Avg. RL? ^a	Max. Value	Max. RL	> Max. RL? ^a
Exposure Unit 60 Random Samples								
Arsenic	4/ 4	mg/kg	4.57	300	No	5.4	900	No
Beryllium	4/ 4	mg/kg	0.5	2000	No	0.58	6000	No
Mercury	4/ 4	mg/kg	0.06	600	No	0.07	1800	No
PCB-1016	0/ 4	µg/kg	—	10,000	—	—	100,000	—
PCB-1221	0/ 4	µg/kg	—	10,000	—	—	100,000	—
PCB-1232	0/ 4	µg/kg	—	10,000	—	—	100,000	—
PCB-1242	0/ 4	µg/kg	—	10,000	—	—	100,000	—
PCB-1248	0/ 4	µg/kg	—	10,000	—	—	100,000	—
PCB-1254	0/ 4	µg/kg	—	10,000	—	—	100,000	—
PCB-1260	3/ 4	µg/kg	10.75	10,000	No	16	100,000	No
Cesium-137	4/ 4	pCi/g	0.48	2	No	0.61	20	No
Neptunium-237	0/ 4	pCi/g	—	5	—	—	50	—
Radium-226	4/ 4	pCi/g	0.69	5	No	0.74	15	No
Thorium-232	4/ 4	pCi/g	1.15	5	No	1.37	15	No
Uranium-234	— ^b	pCi/g	1.23	700	No	1.34	7000	No
Uranium-235	0/ 4	pCi/g	—	8	—	—	80	—
Uranium-238	4/ 4	pCi/g	1.23	50	No	1.34	500	No

^a Considered only when the contaminant was detected; average background subtracted from Ra-226 (1.25 pCi/g) and Th-232 (1.95 pCi/g) (DOE 2003)

^bU-234 assigned U-238 concentration

COC = contaminant of concern

RL = remediation level

Fig. 4.16. K-1070-A EUG Gamma Walkover Survey Map

Fig. 4.17. K-1070-A EUG Gamma Walkover Survey Histogram

Fig. 4.18. K-1070-A EUG Sample Locations

4.7 EU-59

The gamma walkover survey was performed using 1.5×1.25 NaI detectors across the Class 2 EU. Survey results are presented in Figs. 4.19 and 4.20. These figures suggest two background populations, one for the roadways with results ranging from approximately 1750 to 3500 cpm, and one for soils with results ranging from approximately 3000 to 5500 cpm. The maximum result of 6100 cpm is located near the western extreme of the SU, though the result is not considered anomalous. No judgmental samples were collected based on gamma walkover survey results. It is noted the survey extended into adjacent EU-58, though soil sampling was limited to EU-59.

Table 4.11 presents summary statistics for 12 random samples and Fig. 4.21 illustrates the location of each sample. Eleven random locations were selected for full suite analysis, including metal and PCB COCs, and all 12 samples were submitted to PCB analysis. Sample S024 through S027 locations were selected to characterize historical backfill materials adjacent to the target SU. Table 4.11 demonstrates that measured concentrations at all random locations are below average and maximum RLs. Based on these results, it is concluded EU-59 satisfies ROD requirements.

Table 4.11. EU-59 Summary Statistics and RL Evaluation

COC	Freq. of Det.	Units	Mean Value	Avg. RL	> Avg. RL? ^a	Max. Value	Max. RL	> Max. RL? ^a
Exposure Unit 59 Random Samples								
Arsenic	11/ 11	mg/kg	12.39	300	No	23.4	900	No
Beryllium	11/ 11	mg/kg	0.68	2000	No	0.86	6000	No
Mercury	11/ 11	mg/kg	0.07	600	No	0.15	1800	No
PCB-1016	0/ 12	µg/kg	—	10,000	—	—	100,000	—
PCB-1221	0/ 12	µg/kg	—	10,000	—	—	100,000	—
PCB-1232	0/ 12	µg/kg	—	10,000	—	—	100,000	—
PCB-1242	0/ 12	µg/kg	—	10,000	—	—	100,000	—
PCB-1248	0/ 12	µg/kg	—	10,000	—	—	100,000	—
PCB-1254	1/ 12	µg/kg	15	10,000	No	22	100,000	No
PCB-1260	3/ 12	µg/kg	13.96	10,000	No	16	100,000	No
Cesium-137	10/ 12	pCi/g	0.2	2	No	0.99	20	No
Neptunium-237	0/ 12	pCi/g	—	5	—	—	50	—
Radium-226	12/ 12	pCi/g	0.94	5	No	1.38	15	No
Thorium-232	12/ 12	pCi/g	1.17	5	No	1.66	15	No
Uranium-234	— ^b	pCi/g	1.54	700	No	2.58	7000	No
Uranium-235	1/ 12	pCi/g	0.12	8	No	0.56	80	No
Uranium-238	12/ 12	pCi/g	1.54	50	No	2.58	500	No

^a Considered only when the contaminant was detected; average background subtracted from Ra-226 (1.25 pCi/g) and Th-232 (1.95 pCi/g) (DOE 2003)

^bU-234 assigned U-238 concentration

COC = contaminant of concern

RL = remediation level

Fig. 4.19. EU 59 Gamma Walkover Survey Map

Fig. 4.20. EU 59 Gamma Walkover Survey Histogram

Fig. 4.21. EU 59 Sample Locations

4.8 PERIMETER ROAD (EUs 67 AND 68)

The portion of the Perimeter Road EUG subject to verification activities includes Class 2 EUs 67 and 68. Figures 4.22 and 4.23 present gamma walkover survey results using 1.5×1.25 NaI detectors for the entire EUG. These figures suggest one background population for soil, with a detector response range from approximately 1750 to 4500 cpm. No areas of elevated activity were discovered and no judgmental samples were collected based on survey results.

Because only one sample was collected in EU-67, Table 4.12 presents summary statistics for the combined dataset, including 14 random samples. Figure 4.24 illustrates the location of each sample. Ten random locations were selected for full suite analysis, including metal and PCB COCs. Table 4.12 demonstrates measured concentrations at all random locations are below average and maximum RLs. Based on these results, it is concluded EUs 67 and 68 satisfy ROD requirements.

Table 4.12. EUs-67 and 68 Summary Statistics and RL Evaluation

COC	Freq. of Det.	Units	Mean Value	Avg. RL	> Avg. RL? ^a	Max. Value	Max. RL	> Max. RL? ^a
Exposure Unit 67 and 68 Random Samples								
Arsenic	10/10	mg/kg	7.41	300	No	13.3	900	No
Beryllium	10/10	mg/kg	0.703	2000	No	1.2	6000	No
Mercury	10/10	mg/kg	0.111	600	No	0.16	1800	No
PCB-1016	0/ 10	µg/kg	—	10,000	—	—	100,000	—
PCB-1221	0/ 10	µg/kg	—	10,000	—	—	100,000	—
PCB-1232	0/ 10	µg/kg	—	10,000	—	—	100,000	—
PCB-1242	0/ 10	µg/kg	—	10,000	—	—	100,000	—
PCB-1248	0/ 10	µg/kg	—	10,000	—	—	100,000	—
PCB-1254	0/ 10	µg/kg	—	10,000	—	—	100,000	—
PCB-1260	0/ 10	µg/kg	—	10,000	—	—	100,000	—
Cesium-137	12/ 14	pCi/g	0.47	2	No	1.52	20	No
Neptunium-237	0/ 14	pCi/g	—	5	—	—	50	—
Radium-226	14/ 14	pCi/g	0.73	5	No	0.94	15	No
Thorium-232	14/ 14	pCi/g	0.86	5	No	1.19	15	No
Uranium-234	— ^b	pCi/g	1.26	700	No	2.38	7000	No
Uranium-235	0/ 14	pCi/g	—	8	—	—	80	—
Uranium-238	13/ 14	pCi/g	1.26	50	No	2.38	500	No

^a Considered only when the contaminant was detected; average background subtracted from Ra-226 (1.25 pCi/g) and Th-232 (1.95 pCi/g) (DOE 2003)

^bU-234 assigned U-238 concentration

COC = contaminant of concern

RL = remediation level

Fig. 4.22. Perimeter Road EUG Gamma Walkover Survey Map

Fig. 4.23. Perimeter Road EUG Gamma Walkover Survey Histogram

Fig. 4.24. Perimeter Road EUG Sample Locations

5. CONCLUSIONS

ORAU conducted in-process inspections and IV surveys in support of DOE's remedial efforts in Zone 1 of ETTP in Oak Ridge, Tennessee. Inspections concluded that the remediation contractor's soil removal and survey objectives were satisfied and the DVS was implemented as designed. IV activities included gamma walkover surveys and soil sample collection/analysis over multiple EUs. EU-specific results are presented in Table 5.1. Results suggest U-238 concentrations exceed the maximum RL limit in a small area of elevated activity in EU-29 (just south of EU-31). Uranium results in judgmental samples approach but do not exceed maximum RLs in EU-43, and PCB concentrations in random samples approach but do not exceed maximum RLs in the northern portions of EU-55. Both average and maximum RLs, and thus ROD, criteria are satisfied in EU-31, EU-32, EU-39, EU-40, EU-41, EU-43, EU-47, EU-55, EU-57, EU-59, EU-60, EU-67, and EU-68. Gamma walkover surveys often crossed EU/SU boundaries and, with the exception of the above EU-29 example, traversed lands did not exhibit characteristics consistent with contaminated soil.

Table 5.1. Summary of IV Finding

EU	Exceeds Avg. RL	Exceeds Max. RL	Satisfied ROD Criteria	Comments for Exceedances
31	No	No	Yes	Small area of elevated activity exceeds the maximum RL for U-238 at a location physically in EU-29 just south of the EU-31 boundary
32	No	No	Yes	—
39	No	No	Yes	—
40	No	No	Yes	—
41	No	No	Yes	—
43	No	No	Yes	—
47	No	No	Yes	—
55	No	No	Yes	—
57	No	No	Yes	—
59	No	No	Yes	—
60	No	No	Yes	—
67	No	No	Yes	—
68	No	No	Yes	—

EU = exposure unit

RL = remediation level

ROD = Record of Decision

6. REFERENCES

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APPENDIX A
ANALYTICAL DATA SUMMARY STATISTICS AND TO ZONE 1 THRESHOLDS

EU	Analysis Type	Analyte	Freq of Dets	Units	Location of Max Value	Min	Max	Mean	Median	StdDev	RL Avg	> RL Avg	Max RL	> Max RL	Bkg	> Bkg
31	METAL	Aluminum	3/ 3	mg/kg	0450S0118	10600	19400	15400	16200	4454		No		No	40300	No
31	METAL	Antimony	3/ 3	mg/kg	0450S0111	0.24	0.7	0.54	0.68	0.26		No		No	1.52	No
31	METAL	Arsenic	3/ 3	mg/kg	0450S0118	4.2	9	6.9	7.5	2.46	300	No	900	No	14.95	No
31	METAL	Barium	3/ 3	mg/kg	0450S0113	61.9	225	120	72.9	91.16		No		No	125	Yes
31	METAL	Beryllium	3/ 3	mg/kg	0450S0111	0.34	0.62	0.51	0.58	0.15	2000	No	6000	No	2.2	No
31	METAL	Boron	0/ 3	mg/kg		18.6	21.5	20.17	20.4	1.46		No		No	2.2	Yes
31	METAL	Cadmium	3/ 3	mg/kg	0450S0111	0.07	0.23	0.14	0.11	0.08		No		No	0.22	Yes
31	METAL	Calcium	3/ 3	mg/kg	0450S0113	3130	36200	17043	11800	17147		No		No	2400	Yes
31	METAL	Chromium	3/ 3	mg/kg	0450S0118	12.7	20.4	17.73	20.1	4.36		No		No	44.88	No
31	METAL	Cobalt	3/ 3	mg/kg	0450S0113	6.2	12	8.6	7.6	3.03		No		No	42	No
31	METAL	Copper	3/ 3	mg/kg	0450S0111	9.8	19.2	14.57	14.7	4.70		No		No	22.48	No
31	METAL	Iron	3/ 3	mg/kg	0450S0118	18900	31000	26167	28600	6407		No		No	58600	No
31	METAL	Lead	3/ 3	mg/kg	0450S0113	17.8	20.3	18.73	18.1	1.37		No		No	37.91	No
31	METAL	Lithium	3/ 3	mg/kg	0450S0111	8	9.7	8.6	8.1	0.95		No		No	48.94	No
31	METAL	Magnesium	3/ 3	mg/kg	0450S0113	996	18600	7359	2480	9764		No		No	3300	Yes
31	METAL	Manganese	3/ 3	mg/kg	0450S0113	442	1070	808	913	327		No		No	2200	No
31	METAL	Mercury	3/ 3	mg/kg	0450S0118	0.04	0.13	0.09	0.11	0.05	600	No	1800	No	0.17	No
31	METAL	Nickel	3/ 3	mg/kg	0450S0118	10.6	14.1	12.27	12.1	1.76		No		No	26.07	No
31	METAL	Potassium	3/ 3	mg/kg	0450S0113	947	1400	1142	1080	233		No		No	5075	No
31	METAL	Selenium	3/ 3	mg/kg	0450S0113	0.72	1.4	0.96	0.75	0.38		No		No	1.47	No
31	METAL	Silicon	3/ 3	mg/kg	0450S0118	938	1260	1153	1260	186		No		No	10014	No
31	METAL	Silver	3/ 3	mg/kg	0450S0118	0.02	0.03	0.03	0.03	0.01		No		No	0.6	No
31	METAL	Sodium	3/ 3	mg/kg	0450S0113	21.8	48.1	32.83	28.6	13.65		No		No	497	No
31	METAL	Thallium	3/ 3	mg/kg	0450S0118	0.18	0.3	0.23	0.22	0.06		No		No	0.4	No
31	METAL	Vanadium	3/ 3	mg/kg	0450S0118	17.8	43.4	31.13	32.2	12.83		No		No	65.47	No
31	METAL	Zinc	3/ 3	mg/kg	0450S0111	27.2	53.7	39.03	36.2	13.48		No		No	89.7	No
31	PPCB	PCB-1016	0/ 3	ug/kg		0.04	0.04	0.04	0.04	0.00	10000	No	100000	No		
31	PPCB	PCB-1221	0/ 3	ug/kg		0.04	0.04	0.04	0.04	0.00	10000	No	100000	No		
31	PPCB	PCB-1232	0/ 3	ug/kg		0.04	0.04	0.04	0.04	0.00	10000	No	100000	No		
31	PPCB	PCB-1242	0/ 3	ug/kg		0.04	0.04	0.04	0.04	0.00	10000	No	100000	No		
31	PPCB	PCB-1248	0/ 3	ug/kg		0.04	0.04	0.04	0.04	0.00	10000	No	100000	No		
31	PPCB	PCB-1254	0/ 3	ug/kg		0.04	0.04	0.04	0.04	0.00	10000	No	100000	No		
31	PPCB	PCB-1260	0/ 3	ug/kg		0.04	0.04	0.04	0.04	0.00	10000	No	100000	No		
31	RADS	Cesium-137	4/ 14	pCi/g	0450S0112	-0.02	0.44	0.06	0.04	0.11	2	No	20	No		
31	RADS	Neptunium-237	0/ 14	pCi/g		-0.09	0.06	0.01	0.02	0.05	5	No	50	No		
31	RADS	Radium-226	14/ 14	pCi/g	0450S0121	0.57	1.021	0.81	0.81	0.11	5	No	15	No	1.25	

EU	Analysis Type	Analyte	Freq of Dets	Units	Location of Max Value	Min	Max	Mean	Median	StdDev	RL Avg	> RL Avg	Max RL	> Max RL	Bkg	> Bkg
31	RADS	Thorium-232	14/ 14	pCi/g	0450S0112	0.91	6.66	1.69	1.35	1.45	5	No	15	No	1.95	
31	RADS	Uranium-235	6/ 14	pCi/g	0450S0114	0	0.60	0.27	0.25	0.17	8	No	80	No		
31	RADS	Uranium-238	14/ 14	pCi/g	0450S0117	1.57	8.67	4.24	3.32	2.66	50	No	500	No	1.47	
31	SVOA	1,2,4-Trichlorobenzene	0/ 2	ug/kg		0.37	0.41	0.39	0.39	0.03		No		No		
31	SVOA	1,2-Dichlorobenzene	0/ 3	ug/kg		0.37	0.43	0.4	0.41	0.03		No		No		
31	SVOA	1,3-Dichlorobenzene	0/ 3	ug/kg		0.37	0.43	0.4	0.41	0.03		No		No		
31	SVOA	1,4-Dichlorobenzene	0/ 3	ug/kg		0.37	0.43	0.4	0.41	0.03		No		No		
31	SVOA	2,4,5-Trichlorophenol	0/ 3	ug/kg		0.37	0.43	0.4	0.41	0.03		No		No		
31	SVOA	2,4,6-Trichlorophenol	0/ 3	ug/kg		0.37	0.43	0.4	0.41	0.03		No		No		
31	SVOA	2,4-Dichlorophenol	0/ 3	ug/kg		0.37	0.43	0.4	0.41	0.03		No		No		
31	SVOA	2,4-Dimethylphenol	0/ 3	ug/kg		0.37	0.43	0.4	0.41	0.03		No		No		
31	SVOA	2,4-Dinitrophenol	0/ 3	ug/kg		1.8	2.1	1.97	2	0.15		No		No		
31	SVOA	2,4-Dinitrotoluene	0/ 3	ug/kg		0.37	0.43	0.4	0.41	0.03		No		No		
31	SVOA	2,6-Dinitrotoluene	0/ 3	ug/kg		0.37	0.43	0.4	0.41	0.03		No		No		
31	SVOA	2-Chloronaphthalene	0/ 3	ug/kg		0.37	0.43	0.4	0.41	0.03		No		No		
31	SVOA	2-Chlorophenol	0/ 3	ug/kg		0.37	0.43	0.4	0.41	0.03		No		No		
31	SVOA	2-Methyl-4,6-dinitrophenol	0/ 3	ug/kg		1.8	2.1	1.97	2	0.15		No		No		
31	SVOA	2-Methylnaphthalene	0/ 3	ug/kg		0.37	0.43	0.4	0.41	0.03		No		No		
31	SVOA	2-Methylphenol	0/ 3	ug/kg		0.37	0.43	0.4	0.41	0.03		No		No		
31	SVOA	2-Nitrobenzenamine	0/ 3	ug/kg		0.37	0.43	0.4	0.41	0.03		No		No		
31	SVOA	2-Nitrophenol	0/ 3	ug/kg		0.37	0.43	0.4	0.41	0.03		No		No		
31	SVOA	3,3'-Dichlorobenzidine	0/ 3	ug/kg		1.8	2.1	1.97	2	0.15		No		No		
31	SVOA	3-Nitrobenzenamine	0/ 3	ug/kg		0.37	0.43	0.4	0.41	0.03		No		No		
31	SVOA	4-Bromophenyl phenyl ether	0/ 3	ug/kg		0.37	0.43	0.4	0.41	0.03		No		No		
31	SVOA	4-Chloro-3-methylphenol	0/ 3	ug/kg		0.37	0.43	0.4	0.41	0.03		No		No		
31	SVOA	4-Chlorobenzenamine	0/ 3	ug/kg		0.37	0.43	0.4	0.41	0.03		No		No		
31	SVOA	4-Chlorophenyl phenyl ether	0/ 3	ug/kg		0.37	0.43	0.4	0.41	0.03		No		No		
31	SVOA	4-Nitrobenzenamine	0/ 3	ug/kg		1.8	2.1	1.97	2	0.15		No		No		
31	SVOA	4-Nitrophenol	0/ 3	ug/kg		1.8	2.1	1.97	2	0.15		No		No		
31	SVOA	Acenaphthene	0/ 3	ug/kg		0.37	0.43	0.4	0.41	0.03		No		No		
31	SVOA	Acenaphthylene	0/ 3	ug/kg		0.37	0.43	0.4	0.41	0.03		No		No		
31	SVOA	Anthracene	0/ 3	ug/kg		0.37	0.43	0.4	0.41	0.03		No		No		
31	SVOA	Benz(a)anthracene	0/ 3	ug/kg		0.37	0.43	0.4	0.41	0.03		No		No		
31	SVOA	Benzo(a)pyrene	0/ 3	ug/kg		0.37	0.43	0.4	0.41	0.03		No		No		
31	SVOA	Benzo(b)fluoranthene	0/ 3	ug/kg		0.37	0.43	0.4	0.41	0.03		No		No		
31	SVOA	Benzo(ghi)perylene	1/ 3	ug/kg	0450S0118	0.16	0.43	0.32	0.37	0.14		No		No		

EU	Analysis Type	Analyte	Freq of Dets	Units	Location of Max Value	Min	Max	Mean	Median	StdDev	RL Avg	> RL Avg	Max RL	> Max RL	Bkg	> Bkg
31	SVOA	Benzo(k)fluoranthene	0/ 3	ug/kg	0450S0111	0.37	0.43	0.4	0.41	0.03		No		No		
31	SVOA	Bis(2-chloroethoxy)methane	0/ 3	ug/kg		0.37	0.43	0.4	0.41	0.03		No		No		
31	SVOA	Bis(2-chloroethyl) ether	0/ 3	ug/kg		0.37	0.43	0.4	0.41	0.03		No		No		
31	SVOA	Bis(2-ethylhexyl)phthalate	3/ 3	ug/kg		0.06	0.16	0.1	0.08	0.05		No		No		
31	SVOA	Butyl benzyl phthalate	0/ 3	ug/kg		0.37	0.43	0.4	0.41	0.03		No		No		
31	SVOA	Carbazole	0/ 3	ug/kg		0.37	0.43	0.4	0.41	0.03		No		No		
31	SVOA	Chrysene	0/ 3	ug/kg		0.37	0.43	0.4	0.41	0.03		No		No		
31	SVOA	Dibenz(a,h)anthracene	0/ 3	ug/kg		0.37	0.43	0.4	0.41	0.03		No		No		
31	SVOA	Dibenzofuran	0/ 3	ug/kg	0450S0111	0.37	0.43	0.4	0.41	0.03		No		No		
31	SVOA	Diethyl phthalate	0/ 3	ug/kg		0.37	0.43	0.4	0.41	0.03		No		No		
31	SVOA	Dimethyl phthalate	3/ 3	ug/kg		0.07	0.24	0.14	0.12	0.09		No		No		
31	SVOA	Di-n-butyl phthalate	0/ 3	ug/kg		0.37	0.43	0.4	0.41	0.03		No		No		
31	SVOA	Di-n-octylphthalate	0/ 3	ug/kg		0.37	0.43	0.4	0.41	0.03		No		No		
31	SVOA	Fluoranthene	0/ 3	ug/kg		0.37	0.43	0.4	0.41	0.03		No		No		
31	SVOA	Fluorene	0/ 3	ug/kg		0.37	0.43	0.4	0.41	0.03		No		No		
31	SVOA	Hexachlorobenzene	0/ 3	ug/kg		0.37	0.43	0.4	0.41	0.03		No		No		
31	SVOA	Hexachlorobutadiene	0/ 3	ug/kg		0.37	0.43	0.4	0.41	0.03		No		No		
31	SVOA	Hexachlorocyclopentadiene	0/ 3	ug/kg		1.8	2.1	1.97	2	0.15		No		No		
31	SVOA	Hexachloroethane	0/ 3	ug/kg		0.37	0.43	0.4	0.41	0.03		No		No		
31	SVOA	Indeno(1,2,3-cd)pyrene	0/ 3	ug/kg		0.37	0.43	0.4	0.41	0.03		No		No		
31	SVOA	Isophorone	0/ 3	ug/kg		0.37	0.43	0.4	0.41	0.03		No		No		
31	SVOA	m+p Methylphenol	0/ 3	ug/kg		0.74	0.86	0.8	0.81	0.06		No		No		
31	SVOA	Naphthalene	0/ 3	ug/kg		0.37	0.43	0.4	0.41	0.03		No		No		
31	SVOA	Nitrobenzene	0/ 3	ug/kg		0.37	0.43	0.4	0.41	0.03		No		No		
31	SVOA	N-Nitroso-di-n-propylamine	0/ 3	ug/kg		0.37	0.43	0.4	0.41	0.03		No		No		
31	SVOA	N-Nitrosodiphenylamine	0/ 3	ug/kg		0.37	0.43	0.4	0.41	0.03		No		No		
31	SVOA	Pentachlorophenol	0/ 3	ug/kg		0.74	0.86	0.8	0.81	0.06		No		No		
31	SVOA	Phenanthrene	0/ 3	ug/kg		0.37	0.43	0.4	0.41	0.03		No		No		
31	SVOA	Phenol	0/ 3	ug/kg		0.37	0.43	0.4	0.41	0.03		No		No		
31	SVOA	Pyrene	0/ 3	ug/kg		0.37	0.43	0.4	0.41	0.03		No		No		
31	VOA	1,1,1-Trichloroethane	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
31	VOA	1,1,2,2-Tetrachloroethane	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
31	VOA	1,1,2-Trichloroethane	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
31	VOA	1,1-Dichloroethane	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
31	VOA	1,1-Dichloroethene	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
31	VOA	1,2-Dichloroethane	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		

EU	Analysis Type	Analyte	Freq of Dets	Units	Location of Max Value	Min	Max	Mean	Median	StdDev	RL Avg	> RL Avg	Max RL	> Max RL	Bkg	> Bkg
31	VOA	1,2-Dichloroethene	0/ 3	ug/kg	0450S0118	0.01	0.01	0.01	0.01	0.00		No		No		
31	VOA	1,2-Dichloropropane	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
31	VOA	1,2-Dimethylbenzene	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
31	VOA	2-Butanone	0/ 3	ug/kg		0.02	0.03	0.02	0.03	0.00		No		No		
31	VOA	2-Hexanone	0/ 3	ug/kg		0.02	0.03	0.02	0.03	0.00		No		No		
31	VOA	4-Methyl-2-pentanone	0/ 3	ug/kg		0.02	0.03	0.02	0.03	0.00		No		No		
31	VOA	Acetone	3/ 3	ug/kg		0.01	0.02	0.02	0.02	0.00		No		No		
31	VOA	Benzene	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
31	VOA	Bromodichloromethane	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
31	VOA	Bromoform	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
31	VOA	Bromomethane	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
31	VOA	Carbon disulfide	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
31	VOA	Carbon tetrachloride	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
31	VOA	Chlorobenzene	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
31	VOA	Chloroethane	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
31	VOA	Chloroform	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
31	VOA	Chloromethane	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
31	VOA	cis-1,2-Dichloroethene	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
31	VOA	cis-1,3-Dichloropropene	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
31	VOA	Dibromochloromethane	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
31	VOA	Ethylbenzene	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
31	VOA	M + P Xylene	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
31	VOA	Methylene chloride	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
31	VOA	Styrene	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
31	VOA	Tetrachloroethene	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
31	VOA	Toluene	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
31	VOA	Total Xylene	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
31	VOA	trans-1,2-Dichloroethene	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
31	VOA	trans-1,3-Dichloropropene	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
31	VOA	Trichloroethene	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
31	VOA	Vinyl chloride	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
32	METAL	Aluminum	3/ 3	mg/kg	0450S0135	5260	13900	9787	10200	4335		No		No	40300	No
32	METAL	Antimony	3/ 3	mg/kg	0450S0135	0.5	0.65	0.6	0.65	0.09		No		No	1.52	No
32	METAL	Arsenic	3/ 3	mg/kg	0450S0135	3.6	6.2	5.03	5.3	1.32	300	No	900	No	14.95	No
32	METAL	Barium	3/ 3	mg/kg	0450S0125	46.5	658	259	71.3	346		No		No	125	Yes
32	METAL	Beryllium	3/ 3	mg/kg	0450S0135	0.24	0.62	0.42	0.41	0.19	2000	No	6000	No	2.2	No

EU	Analysis Type	Analyte	Freq of Dets	Units	Location of Max Value	Min	Max	Mean	Median	StdDev	RL Avg	> RL Avg	Max RL	> Max RL	Bkg	> Bkg
32	METAL	Boron	0/ 3	mg/kg		18.5	20.8	19.47	19.1	1.19		No		No	2.2	Yes
32	METAL	Cadmium	3/ 3	mg/kg	0450S0133	0.36	0.58	0.45	0.41	0.12		No		No	0.22	Yes
32	METAL	Calcium	3/ 3	mg/kg	0450S0133	5030	201000	90077	64200	100515		No		No	2400	Yes
32	METAL	Chromium	3/ 3	mg/kg	0450S0135	12.2	18.5	15	14.3	3.21		No		No	44.88	No
32	METAL	Cobalt	3/ 3	mg/kg	0450S0135	5.3	8.6	6.47	5.5	1.85		No		No	42	No
32	METAL	Copper	3/ 3	mg/kg	0450S0133	26.2	72.2	44.2	34.2	24.58		No		No	22.48	Yes
32	METAL	Iron	3/ 3	mg/kg	0450S0135	12600	19900	16100	15800	3659		No		No	58600	No
32	METAL	Lead	3/ 3	mg/kg	0450S0135	22	46.6	33.73	32.6	12.34		No		No	37.91	Yes
32	METAL	Lithium	3/ 3	mg/kg	0450S0125	6.5	16	10.43	8.8	4.96		No		No	48.94	No
32	METAL	Magnesium	3/ 3	mg/kg	0450S0125	2530	17700	12010	15800	8265		No		No	3300	Yes
32	METAL	Manganese	3/ 3	mg/kg	0450S0135	246	876	478	313	346		No		No	2200	No
32	METAL	Mercury	3/ 3	mg/kg	0450S0133	0.15	0.4	0.25	0.19	0.13	600	No	1800	No	0.17	Yes
32	METAL	Nickel	3/ 3	mg/kg	0450S0133	20.1	59.9	33.47	20.4	22.89		No		No	26.07	Yes
32	METAL	Potassium	3/ 3	mg/kg	0450S0125	812	994	875	819	103		No		No	5075	No
32	METAL	Selenium	3/ 3	mg/kg	0450S0135	0.32	1.1	0.84	1.1	0.45		No		No	1.47	No
32	METAL	Silicon	3/ 3	mg/kg	0450S0125	957	1430	1202	1220	237		No		No	10014	No
32	METAL	Silver	3/ 3	mg/kg	0450S0133	0.06	0.12	0.09	0.09	0.03		No		No	0.6	No
32	METAL	Sodium	3/ 3	mg/kg	0450S0133	23	112	60.3	45.9	46.21		No		No	497	No
32	METAL	Thallium	2/ 3	mg/kg	0450S0135	0.12	0.25	0.18	0.18	0.07		No		No	0.4	No
32	METAL	Vanadium	3/ 3	mg/kg	0450S0135	10.8	26.5	18.63	18.6	7.85		No		No	65.47	No
32	METAL	Zinc	3/ 3	mg/kg	0450S0133	48.3	76	60.93	58.5	14.01		No		No	89.7	No
32	PPCB	PCB-1016	0/ 3	ug/kg		0.04	0.04	0.04	0.04	0.00	10000	No	100000	No		
32	PPCB	PCB-1221	0/ 3	ug/kg		0.04	0.04	0.04	0.04	0.00	10000	No	100000	No		
32	PPCB	PCB-1232	0/ 3	ug/kg		0.04	0.04	0.04	0.04	0.00	10000	No	100000	No		
32	PPCB	PCB-1242	0/ 3	ug/kg		0.04	0.04	0.04	0.04	0.00	10000	No	100000	No		
32	PPCB	PCB-1248	0/ 3	ug/kg		0.04	0.04	0.04	0.04	0.00	10000	No	100000	No		
32	PPCB	PCB-1254	3/ 3	ug/kg	0450S0125	0.08	0.27	0.2	0.26	0.11	10000	No	100000	No		
32	PPCB	PCB-1260	3/ 3	ug/kg	0450S0125	0.03	0.14	0.09	0.1	0.06	10000	No	100000	No		
32	RADS	Cesium-137	10/ 14	pCi/g	0450S0136	-0.04	0.46	0.1	0.07	0.12	2	No	20	No		
32	RADS	Neptunium-237	0/ 14	pCi/g		-0.05	0.03	0	0.00	0.03	5	No	50	No		
32	RADS	Radium-226	14/ 14	pCi/g	0450S0135	0.43	0.84	0.62	0.62	0.11	5	No	15	No	1.25	
32	RADS	Thorium-232	14/ 14	pCi/g	0450S0135	0.57	1.19	0.89	0.91	0.20	5	No	15	No	1.95	
32	RADS	Uranium-235	8/ 14	pCi/g	0450S0132	-0.07	0.71	0.28	0.24	0.20	8	No	80	No		
32	RADS	Uranium-238	14/ 14	pCi/g	0450S0135	1.55	11	4.67	4.02	2.94	50	No	500	No	1.47	
32	SVOA	1,2,4-Trichlorobenzene	0/ 3	ug/kg		0.37	0.42	0.39	0.38	0.03		No		No		
32	SVOA	1,2-Dichlorobenzene	0/ 3	ug/kg		0.37	0.42	0.39	0.38	0.03		No		No		

EU	Analysis Type	Analyte	Freq of Dets	Units	Location of Max Value	Min	Max	Mean	Median	StdDev	RL Avg	> RL Avg	Max RL	> Max RL	Bkg	> Bkg
32	SVOA	1,3-Dichlorobenzene	0/ 3	ug/kg		0.37	0.42	0.39	0.38	0.03		No		No		
32	SVOA	1,4-Dichlorobenzene	0/ 3	ug/kg		0.37	0.42	0.39	0.38	0.03		No		No		
32	SVOA	2,4,5-Trichlorophenol	0/ 3	ug/kg		0.37	0.42	0.39	0.38	0.03		No		No		
32	SVOA	2,4,6-Trichlorophenol	0/ 3	ug/kg		0.37	0.42	0.39	0.38	0.03		No		No		
32	SVOA	2,4-Dichlorophenol	0/ 3	ug/kg		0.37	0.42	0.39	0.38	0.03		No		No		
32	SVOA	2,4-Dimethylphenol	0/ 3	ug/kg		0.37	0.42	0.39	0.38	0.03		No		No		
32	SVOA	2,4-Dinitrophenol	0/ 3	ug/kg		1.8	2	1.9	1.9	0.10		No		No		
32	SVOA	2,4-Dinitrotoluene	0/ 3	ug/kg		0.37	0.42	0.39	0.38	0.03		No		No		
32	SVOA	2,6-Dinitrotoluene	0/ 3	ug/kg		0.37	0.42	0.39	0.38	0.03		No		No		
32	SVOA	2-Chloronaphthalene	0/ 3	ug/kg		0.37	0.42	0.39	0.38	0.03		No		No		
32	SVOA	2-Chlorophenol	0/ 3	ug/kg		0.37	0.42	0.39	0.38	0.03		No		No		
32	SVOA	2-Methyl-4,6-dinitrophenol	0/ 3	ug/kg		1.8	2	1.9	1.9	0.10		No		No		
32	SVOA	2-Methylnaphthalene	0/ 3	ug/kg		0.37	0.42	0.39	0.38	0.03		No		No		
32	SVOA	2-Methylphenol	0/ 3	ug/kg		0.37	0.42	0.39	0.38	0.03		No		No		
32	SVOA	2-Nitrobenzenamine	0/ 3	ug/kg		0.37	0.42	0.39	0.38	0.03		No		No		
32	SVOA	2-Nitrophenol	0/ 3	ug/kg		0.37	0.42	0.39	0.38	0.03		No		No		
32	SVOA	3,3'-Dichlorobenzidine	0/ 3	ug/kg		1.8	2	1.9	1.9	0.10		No		No		
32	SVOA	3-Nitrobenzenamine	0/ 3	ug/kg		0.37	0.42	0.39	0.38	0.03		No		No		
32	SVOA	4-Bromophenyl phenyl ether	0/ 3	ug/kg		0.37	0.42	0.39	0.38	0.03		No		No		
32	SVOA	4-Chloro-3-methylphenol	0/ 3	ug/kg		0.37	0.42	0.39	0.38	0.03		No		No		
32	SVOA	4-Chlorobenzenamine	0/ 3	ug/kg		0.37	0.42	0.39	0.38	0.03		No		No		
32	SVOA	4-Chlorophenyl phenyl ether	0/ 3	ug/kg		0.37	0.42	0.39	0.38	0.03		No		No		
32	SVOA	4-Nitrobenzenamine	0/ 3	ug/kg		1.8	2	1.9	1.9	0.10		No		No		
32	SVOA	4-Nitrophenol	0/ 3	ug/kg		1.8	2	1.9	1.9	0.10		No		No		
32	SVOA	Acenaphthene	0/ 3	ug/kg		0.37	0.42	0.39	0.38	0.03		No		No		
32	SVOA	Acenaphthylene	0/ 3	ug/kg		0.37	0.42	0.39	0.38	0.03		No		No		
32	SVOA	Anthracene	0/ 3	ug/kg		0.37	0.42	0.39	0.38	0.03		No		No		
32	SVOA	Benz(a)anthracene	2/ 3	ug/kg	0450S0133	0.05	0.37	0.18	0.11	0.17		No		No		
32	SVOA	Benzo(a)pyrene	1/ 3	ug/kg	0450S0133	0.12	0.42	0.3	0.37	0.16		No		No		
32	SVOA	Benzo(b)fluoranthene	3/ 3	ug/kg	0450S0133	0.04	0.18	0.09	0.06	0.07		No		No		
32	SVOA	Benzo(ghi)perylene	1/ 3	ug/kg	0450S0133	0.10	0.42	0.3	0.37	0.17		No		No		
32	SVOA	Benzo(k)fluoranthene	1/ 3	ug/kg	0450S0133	0.06	0.42	0.28	0.37	0.19		No		No		
32	SVOA	Bis(2-chloroethoxy)methane	0/ 3	ug/kg		0.37	0.42	0.39	0.38	0.03		No		No		
32	SVOA	Bis(2-chloroethyl) ether	0/ 3	ug/kg		0.37	0.42	0.39	0.38	0.03		No		No		
32	SVOA	Bis(2-ethylhexyl)phthalate	2/ 3	ug/kg	0450S0135	0.09	0.37	0.24	0.26	0.14		No		No		
32	SVOA	Butyl benzyl phthalate	0/ 3	ug/kg		0.37	0.42	0.39	0.38	0.03		No		No		

EU	Analysis Type	Analyte	Freq of Dets	Units	Location of Max Value	Min	Max	Mean	Median	StdDev	RL Avg	> RL Avg	Max RL	> Max RL	Bkg	> Bkg
32	SVOA	Carbazole	0/ 3	ug/kg	0450S0133	0.37	0.42	0.39	0.38	0.03		No		No		
32	SVOA	Chrysene	2/ 3	ug/kg		0.05	0.37	0.18	0.13	0.17		No		No		
32	SVOA	Dibenz(a,h)anthracene	0/ 3	ug/kg		0.37	0.42	0.39	0.38	0.03		No		No		
32	SVOA	Dibenzofuran	0/ 3	ug/kg		0.37	0.42	0.39	0.38	0.03		No		No		
32	SVOA	Diethyl phthalate	0/ 3	ug/kg		0.37	0.42	0.39	0.38	0.03		No		No		
32	SVOA	Dimethyl phthalate	1/ 3	ug/kg	0450S0135	0.19	0.38	0.31	0.37	0.11		No		No		
32	SVOA	Di-n-butyl phthalate	0/ 3	ug/kg		0.37	0.42	0.39	0.38	0.03		No		No		
32	SVOA	Di-n-octylphthalate	0/ 3	ug/kg		0.37	0.42	0.39	0.38	0.03		No		No		
32	SVOA	Fluoranthene	3/ 3	ug/kg	0450S0133	0.05	0.19	0.1	0.07	0.08		No		No		
32	SVOA	Fluorene	0/ 3	ug/kg		0.37	0.42	0.39	0.38	0.03		No		No		
32	SVOA	Hexachlorobenzene	0/ 3	ug/kg		0.37	0.42	0.39	0.38	0.03		No		No		
32	SVOA	Hexachlorobutadiene	0/ 3	ug/kg	0450S0133	0.37	0.42	0.39	0.38	0.03		No		No		
32	SVOA	Hexachlorocyclopentadiene	0/ 3	ug/kg		1.8	2	1.9	1.9	0.10		No		No		
32	SVOA	Hexachloroethane	0/ 3	ug/kg		0.37	0.42	0.39	0.38	0.03		No		No		
32	SVOA	Indeno(1,2,3-cd)pyrene	1/ 3	ug/kg		0.11	0.42	0.3	0.37	0.17		No		No		
32	SVOA	Isophorone	0/ 3	ug/kg		0.37	0.42	0.39	0.38	0.03		No		No		
32	SVOA	m+p Methylphenol	0/ 3	ug/kg	0450S0133	0.74	0.83	0.78	0.76	0.05		No		No		
32	SVOA	Naphthalene	0/ 3	ug/kg		0.37	0.42	0.39	0.38	0.03		No		No		
32	SVOA	Nitrobenzene	0/ 3	ug/kg		0.37	0.42	0.39	0.38	0.03		No		No		
32	SVOA	N-Nitroso-di-n-propylamine	0/ 3	ug/kg		0.37	0.42	0.39	0.38	0.03		No		No		
32	SVOA	N-Nitrosodiphenylamine	0/ 3	ug/kg		0.37	0.42	0.39	0.38	0.03		No		No		
32	SVOA	Pentachlorophenol	0/ 3	ug/kg	0450S0133	0.74	0.83	0.78	0.76	0.05		No		No		
32	SVOA	Phenanthrene	1/ 3	ug/kg		0.06	0.42	0.28	0.37	0.19		No		No		
32	SVOA	Phenol	0/ 3	ug/kg		0.37	0.42	0.39	0.38	0.03		No		No		
32	SVOA	Pyrene	3/ 3	ug/kg		0.04	0.18	0.09	0.06	0.08		No		No		
32	VOA	1,1,1-Trichloroethane	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
32	VOA	1,1,2,2-Tetrachloroethane	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
32	VOA	1,1,2-Trichloroethane	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
32	VOA	1,1-Dichloroethane	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
32	VOA	1,1-Dichloroethene	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
32	VOA	1,2-Dichloroethane	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
32	VOA	1,2-Dichloroethene	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
32	VOA	1,2-Dichloropropane	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
32	VOA	1,2-Dimethylbenzene	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
32	VOA	2-Butanone	0/ 3	ug/kg		0.02	0.03	0.02	0.02	0.00		No		No		
32	VOA	2-Hexanone	0/ 3	ug/kg		0.02	0.03	0.02	0.02	0.00		No		No		

EU	Analysis Type	Analyte	Freq of Dets	Units	Location of Max Value	Min	Max	Mean	Median	StdDev	RL Avg	> RL Avg	Max RL	> Max RL	Bkg	> Bkg
32	VOA	4-Methyl-2-pentanone	0/ 3	ug/kg	0450S0125	0.02	0.03	0.02	0.02	0.00		No		No		
32	VOA	Acetone	3/ 3	ug/kg		0.01	0.04	0.02	0.01	0.02		No		No		
32	VOA	Benzene	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
32	VOA	Bromodichloromethane	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
32	VOA	Bromoform	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
32	VOA	Bromomethane	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
32	VOA	Carbon disulfide	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
32	VOA	Carbon tetrachloride	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
32	VOA	Chlorobenzene	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
32	VOA	Chloroethane	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
32	VOA	Chloroform	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
32	VOA	Chloromethane	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
32	VOA	cis-1,2-Dichloroethene	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
32	VOA	cis-1,3-Dichloropropene	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
32	VOA	Dibromochloromethane	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
32	VOA	Ethylbenzene	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
32	VOA	M + P Xylene	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
32	VOA	Methylene chloride	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
32	VOA	Styrene	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
32	VOA	Tetrachloroethene	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
32	VOA	Toluene	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
32	VOA	Total Xylene	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
32	VOA	trans-1,2-Dichloroethene	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
32	VOA	trans-1,3-Dichloropropene	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
32	VOA	Trichloroethene	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
32	VOA	Vinyl chloride	0/ 3	ug/kg		0.01	0.01	0.01	0.01	0.00		No		No		
39	METAL	Aluminum	5/ 5	mg/kg	0450S0046	14000	22000	18060	17600	3446		No		No	40300	No
39	METAL	Antimony	0/ 5	mg/kg		0.31	0.38	0.34	0.33	0.03		No		No	1.52	No
39	METAL	Arsenic	5/ 5	mg/kg	0450S0051	5.5	8.3	6.42	6.1	1.12	300	No	900	No	14.95	No
39	METAL	Barium	5/ 5	mg/kg	0450S0044	29.1	95.8	53.18	53.7	26.54		No		No	125	No
39	METAL	Beryllium	5/ 5	mg/kg	0450S0044	0.48	0.92	0.69	0.7	0.18	2000	No	6000	No	2.2	No
39	METAL	Cadmium	1/ 5	mg/kg	0450S0044	0.05	0.06	0.06	0.06	0.01		No		No	0.22	No
39	METAL	Calcium	5/ 5	mg/kg	0450S0044	6590	31300	16478	15300	9172		No		No	2400	Yes
39	METAL	Chromium	5/ 5	mg/kg	0450S0051	17.9	30.4	21.84	21.2	5.06		No		No	44.88	No
39	METAL	Cobalt	5/ 5	mg/kg	0450S0046	4	15.8	9.8	9.8	4.78		No		No	42	No
39	METAL	Copper	5/ 5	mg/kg	0450S0044	11.7	23.2	14.5	12.4	4.90		No		No	22.48	Yes

EU	Analysis Type	Analyte	Freq of Dets	Units	Location of Max Value	Min	Max	Mean	Median	StdDev	RL Avg	> RL Avg	Max RL	> Max RL	Bkg	> Bkg
39	METAL	Iron	5/ 5	mg/kg	0450S0051	24600	29900	27480	27200	2351		No		No	58600	No
39	METAL	Lead	5/ 5	mg/kg	0450S0044	12.8	23.4	17	15.3	4.12		No		No	37.91	No
39	METAL	Magnesium	5/ 5	mg/kg	0450S0044	1960	13700	5146	3100	4832		No		No	3300	Yes
39	METAL	Manganese	5/ 5	mg/kg	0450S0044	202	666	452.6	521	203		No		No	2200	No
39	METAL	Mercury	5/ 5	mg/kg	0450S0051	0.06	0.13	0.1	0.11	0.03	600	No	1800	No	0.17	No
39	METAL	Nickel	5/ 5	mg/kg	0450S0044	9.8	26.2	16.04	15.2	6.48		No		No	26.07	Yes
39	METAL	Potassium	5/ 5	mg/kg	0450S0046	2060	3590	2734	2510	681		No		No	5075	No
39	METAL	Selenium	0/ 5	mg/kg		0.63	0.76	0.68	0.66	0.06		No		No	1.47	No
39	METAL	Silver	0/ 5	mg/kg		0.1	0.13	0.11	0.11	0.01		No		No	0.6	No
39	METAL	Sodium	5/ 5	mg/kg	0450S0044	42.4	76	58.42	57.1	13.41		No		No	497	No
39	METAL	Thallium	0/ 5	mg/kg		0.63	0.76	0.68	0.66	0.06		No		No	0.4	Yes
39	METAL	Vanadium	5/ 5	mg/kg	0450S0051	26.6	44.8	34.32	32.5	6.80		No		No	65.47	No
39	METAL	Zinc	5/ 5	mg/kg	0450S0044	44.1	71.6	51.54	46.3	11.48		No		No	89.7	No
39	PPCB	PCB-1016	0/ 5	ug/kg		16	18	17	17	0.71	10000	No	100000	No		
39	PPCB	PCB-1221	0/ 5	ug/kg		16	18	17	17	0.71	10000	No	100000	No		
39	PPCB	PCB-1232	0/ 5	ug/kg		16	18	17	17	0.71	10000	No	100000	No		
39	PPCB	PCB-1242	0/ 5	ug/kg		16	18	17	17	0.71	10000	No	100000	No		
39	PPCB	PCB-1248	0/ 5	ug/kg		16	18	17	17	0.71	10000	No	100000	No		
39	PPCB	PCB-1254	0/ 5	ug/kg		16	18	17	17	0.71	10000	No	100000	No		
39	PPCB	PCB-1260	1/ 5	ug/kg	0450S0044	16	66	26.8	17	21.92	10000	No	100000	No		
39	RADS	Cesium-137	8/ 14	pCi/g	0450S0031	0.01	0.48	0.11	0.05	0.16	2	No	20	No		
39	RADS	K-40	14/ 14	pCi/g	0450S0032	11.21	24.2	15.53	13.2	4.76		No		No	32.12	
39	RADS	Neptunium-237	0/ 14	pCi/g		0.05	0.08	0.06	0.06	0.01	5	No	50	No		
39	RADS	Radium-226	14/ 14	pCi/g	0450S0031	0.68	1.18	0.87	0.82	0.17	5	No	15	No	1.25	
39	RADS	Thorium-228	14/ 14	pCi/g	0450S0031	1.03	1.57	1.24	1.2	0.16		No		No	1.86	
39	RADS	Thorium-232	14/ 14	pCi/g	0450S0030	0.89	1.77	1.25	1.20	0.23	5	No	15	No	1.95	
39	RADS	Uranium-235	1/ 14	pCi/g	0450S0034	-0.04	0.21	0.1	0.12	0.06	8	No	80	No		
39	RADS	Uranium-238	14/ 14	pCi/g	0450S0031	0.99	2.34	1.58	1.52	0.42	50	No	500	No	1.47	
39	SVOA	1,2,4-Trichlorobenzene	0/ 5	ug/kg		410	450	426	420	15.17		No		No		
39	SVOA	1,2-Dichlorobenzene	0/ 5	ug/kg		410	450	426	420	15.17		No		No		
39	SVOA	1,3-Dichlorobenzene	0/ 5	ug/kg		410	450	426	420	15.17		No		No		
39	SVOA	1,4-Dichlorobenzene	0/ 5	ug/kg		410	450	426	420	15.17		No		No		
39	SVOA	1-Chloropropane	0/ 5	ug/kg		410	450	426	420	15.17		No		No		
39	SVOA	2,4,5-Trichlorophenol	0/ 5	ug/kg		1000	1100	1080	1100	44.72		No		No		
39	SVOA	2,4,6-Trichlorophenol	0/ 5	ug/kg		410	450	426	420	15.17		No		No		
39	SVOA	2,4-Dichlorophenol	0/ 5	ug/kg		410	450	426	420	15.17		No		No		

EU	Analysis Type	Analyte	Freq of Dets	Units	Location of Max Value	Min	Max	Mean	Median	StdDev	RL Avg	> RL Avg	Max RL	> Max RL	Bkg	> Bkg
39	SVOA	2,4-Dimethylphenol	0/ 5	ug/kg		410	450	426	420	15.17		No		No		
39	SVOA	2,4-Dinitrophenol	0/ 5	ug/kg		1000	1100	1080	1100	44.72		No		No		
39	SVOA	2,4-Dinitrotoluene	0/ 5	ug/kg		410	450	426	420	15.17		No		No		
39	SVOA	2,6-Dinitrotoluene	0/ 5	ug/kg		410	450	426	420	15.17		No		No		
39	SVOA	2-Chloronaphthalene	0/ 5	ug/kg		410	450	426	420	15.17		No		No		
39	SVOA	2-Chlorophenol	0/ 5	ug/kg		410	450	426	420	15.17		No		No		
39	SVOA	2-Methylnaphthalene	0/ 5	ug/kg		410	450	426	420	15.17		No		No		
39	SVOA	2-Methylphenol	0/ 5	ug/kg		410	450	426	420	15.17		No		No		
39	SVOA	2-Nitroaniline	0/ 5	ug/kg		1000	1100	1080	1100	44.72		No		No		
39	SVOA	2-Nitrophenol	0/ 5	ug/kg		410	450	426	420	15.17		No		No		
39	SVOA	3,3'-Dichlorobenzidine	0/ 5	ug/kg		410	450	426	420	15.17		No		No		
39	SVOA	3-4 Methylphenol	0/ 5	ug/kg		410	450	426	420	15.17		No		No		
39	SVOA	3-Nitroaniline	0/ 5	ug/kg		1000	1100	1080	1100	44.72		No		No		
39	SVOA	1,6-dinitrophenol-2-Methylpheno	0/ 5	ug/kg		1000	1100	1080	1100	44.72		No		No		
39	SVOA	4-Bromophenyl phenyl ether	0/ 5	ug/kg		410	450	426	420	15.17		No		No		
39	SVOA	4-Chloro-3-methylphenol	0/ 5	ug/kg		410	450	426	420	15.17		No		No		
39	SVOA	4-Chloroaniline	0/ 5	ug/kg		410	450	426	420	15.17		No		No		
39	SVOA	4-Chlorophenyl phenyl ether	0/ 5	ug/kg		410	450	426	420	15.17		No		No		
39	SVOA	4-Nitroaniline	0/ 5	ug/kg		1000	1100	1080	1100	44.72		No		No		
39	SVOA	4-Nitrophenol	0/ 5	ug/kg		1000	1100	1080	1100	44.72		No		No		
39	SVOA	Acenaphthene	1/ 5	ug/kg	0450S0043	150	430	366	420	121		No		No		
39	SVOA	Acenaphthylene	0/ 5	ug/kg		410	450	426	420	15.17		No		No		
39	SVOA	Anthracene	1/ 5	ug/kg	0450S0043	410	430	418	420	8.37		No		No		
39	SVOA	Benz(a)anthracene	5/ 5	ug/kg	0450S0043	26	1400	328	63	600		No		No		
39	SVOA	Benzo(a)pyrene	5/ 5	ug/kg	0450S0043	29	1200	298	91	505		No		No		
39	SVOA	Benzo(b)fluoranthene	5/ 5	ug/kg	0450S0043	34	1200	299	93	504		No		No		
39	SVOA	Benzo(ghi)perylene	4/ 5	ug/kg	0450S0043	51	850	294	79	350		No		No		
39	SVOA	Benzo(k)fluoranthene	5/ 5	ug/kg	0450S0043	36	1000	254	84	418		No		No		
39	SVOA	Bis(2-chloroethoxy)methane	0/ 5	ug/kg		410	450	426	420	15.17		No		No		
39	SVOA	Bis(2-chloroethyl) ether	0/ 5	ug/kg		410	450	426	420	15.17		No		No		
39	SVOA	Bis(2-ethylhexyl)phthalate	0/ 5	ug/kg		35	99	60.8	45	29.52		No		No		
39	SVOA	Butyl benzyl phthalate	0/ 5	ug/kg		410	450	426	420	15.17		No		No		
39	SVOA	Carbazole	1/ 5	ug/kg	0450S0043	260	430	388	420	71.90		No		No		
39	SVOA	Chrysene	5/ 5	ug/kg	0450S0043	28	1400	339	79	594		No		No		
39	SVOA	Dibenz(a,h)anthracene	2/ 5	ug/kg	0450S0043	30	430	332	410	170		No		No		
39	SVOA	Dibenzofuran	1/ 5	ug/kg	0450S0043	57	430	347	420	162		No		No		

EU	Analysis Type	Analyte	Freq of Dets	Units	Location of Max Value	Min	Max	Mean	Median	StdDev	RL Avg	> RL Avg	Max RL	> Max RL	Bkg	> Bkg
39	SVOA	Diethyl phthalate	0/ 5	ug/kg		410	450	426	420	15.17		No		No		
39	SVOA	Dimethyl phthalate	0/ 5	ug/kg		410	450	426	420	15.17		No		No		
39	SVOA	Di-n-butyl phthalate	0/ 5	ug/kg		410	450	426	420	15.17		No		No		
39	SVOA	Di-n-octylphthalate	0/ 5	ug/kg		410	450	426	420	15.17		No		No		
39	SVOA	Fluoranthene	5/ 5	ug/kg	0450S0043	28	3600	806	150	1563		No		No		
39	SVOA	Fluorene	1/ 5	ug/kg	0450S0043	130	430	362	420	130		No		No		
39	SVOA	Hexachlorobenzene	0/ 5	ug/kg		410	450	426	420	15.17		No		No		
39	SVOA	Hexachlorobutadiene	0/ 5	ug/kg		410	450	426	420	15.17		No		No		
39	SVOA	Hexachlorocyclopentadiene	0/ 5	ug/kg		410	450	426	420	15.17		No		No		
39	SVOA	Hexachloroethane	0/ 5	ug/kg		410	450	426	420	15.17		No		No		
39	SVOA	Indeno(1,2,3-cd)pyrene	4/ 5	ug/kg	0450S0043	46	800	279	71	334		No		No		
39	SVOA	Isophorone	0/ 5	ug/kg		410	450	426	420	15.17		No		No		
39	SVOA	Naphthalene	1/ 5	ug/kg	0450S0043	31	430	342	420	174		No		No		
39	SVOA	Nitrobenzene	0/ 5	ug/kg		410	450	426	420	15.17		No		No		
39	SVOA	N-Nitroso-di-n-propylamine	0/ 5	ug/kg		410	450	426	420	15.17		No		No		
39	SVOA	N-Nitrosodiphenylamine	0/ 5	ug/kg		410	450	426	420	15.17		No		No		
39	SVOA	Pentachlorophenol	0/ 5	ug/kg		1000	1100	1080	1100	44.72		No		No		
39	SVOA	Phenanthrene	4/ 5	ug/kg	0450S0043	55	2300	584	78	972		No		No		
39	SVOA	Phenol	0/ 5	ug/kg		410	450	426	420	15.17		No		No		
39	SVOA	Pyrene	5/ 5	ug/kg	0450S0043	53	2600	609	110	1114		No		No		
39	VOA	1,1,1,2-Tetrachloroethane	0/ 9	ug/kg		4	5	4.33	4	0.50		No		No		
39	VOA	1,1,1-Trichloroethane	0/ 12	ug/kg		4	6	5	5	0.95		No		No		
39	VOA	1,1,2,2-Tetrachloroethane	0/ 5	ug/kg		6	6	6	6	0.00		No		No		
39	VOA	1,1,2-Trichloroethane	0/ 12	ug/kg		4	6	5	5	0.95		No		No		
39	VOA	1,1-Dichloroethane	0/ 5	ug/kg		6	6	6	6	0.00		No		No		
39	VOA	1,1-Dichloroethene	2/ 12	ug/kg	0450S0033	4	17	6	5.5	3.59		No		No		
39	VOA	1,2,3-Trichlorobenzene	0/ 9	ug/kg		4	5	4.33	4	0.50		No		No		
39	VOA	1,2,3-Trichloropropane	0/ 9	ug/kg		4	5	4.33	4	0.50		No		No		
39	VOA	1,2,4-Trichlorobenzene	0/ 9	ug/kg		4	5	4.33	4	0.50		No		No		
39	VOA	1,2,4-Trimethylbenzene	1/ 9	ug/kg	0450S0044	1	5	3.89	4	1.17		No		No		
39	VOA	1,2-Dichlorobenzene	0/ 9	ug/kg		4	5	4.33	4	0.50		No		No		
39	VOA	1,2-Dichloroethane	0/ 5	ug/kg		6	6	6	6	0.00		No		No		
39	VOA	1,2-Dichloroethane (total)	0/ 5	ug/kg		6	6	6	6	0.00		No		No		
39	VOA	1,2-Dichloropropane	0/ 5	ug/kg		6	6	6	6	0.00		No		No		
39	VOA	1,2-Dimethylbenzene	0/ 9	ug/kg		4	5	4.33	4	0.50		No		No		
39	VOA	1,3,5-trimethylbenzene	0/ 9	ug/kg		4	5	4.33	4	0.50		No		No		

EU	Analysis Type	Analyte	Freq of Dets	Units	Location of Max Value	Min	Max	Mean	Median	StdDev	RL Avg	> RL Avg	Max RL	> Max RL	Bkg	> Bkg
39	VOA	1,3-Dichlorobenzene	0/ 9	ug/kg	0450S0043	4	5	4.33	4	0.50		No		No		
39	VOA	1,4-Dichlorobenzene	0/ 9	ug/kg		4	5	4.33	4	0.50		No		No		
39	VOA	2-Butanone	3/ 12	ug/kg		5	18	10.33	9.5	3.65		No		No		
39	VOA	2-Hexanone	0/ 12	ug/kg		3	13	9.25	9.5	2.60		No		No		
39	VOA	4-Isopropyltoluene	0/ 9	ug/kg		4	5	4.33	4	0.50		No		No		
39	VOA	4-Methyl-2-pentanone	0/ 12	ug/kg	0450S0044	8	13	10.08	10	1.93		No		No		
39	VOA	Acetone	5/ 12	ug/kg		3	250	72.5	9.5	94.59		No		No		
39	VOA	Benzene	4/ 12	ug/kg		0.8	6	3.98	4.5	2.20		No		No		
39	VOA	Bromobenzene	0/ 9	ug/kg		4	5	4.33	4	0.50		No		No		
39	VOA	Bromochloromethane	0/ 9	ug/kg		4	5	4.33	4	0.50		No		No		
39	VOA	Bromodichloromethane	0/ 12	ug/kg	0450S0030	4	6	5	5	0.95		No		No		
39	VOA	Bromoform	0/ 12	ug/kg		4	6	5	5	0.95		No		No		
39	VOA	Bromomethane	0/ 5	ug/kg		11	13	12	12	1.00		No		No		
39	VOA	Carbon Disulfide	0/ 5	ug/kg		6	6	6	6	0.00		No		No		
39	VOA	Carbon tetrachloride	0/ 12	ug/kg		4	6	5	5	0.95		No		No		
39	VOA	Chlorobenzene	0/ 12	ug/kg	0450S0035	4	6	5	5	0.95		No		No		
39	VOA	Chloroethane	0/ 5	ug/kg		11	13	12	12	1.00		No		No		
39	VOA	Chloroform	0/ 12	ug/kg		4	6	5	5	0.95		No		No		
39	VOA	Chloromethane	0/ 12	ug/kg		8	13	10.17	10	1.99		No		No		
39	VOA	cis-1,2-Dichloroethene	1/ 12	ug/kg		4	31	7.67	6	7.54		No		No		
39	VOA	cis-1,3-Dichloropropene	0/ 5	ug/kg	0450S0044	6	6	6	6	0.00		No		No		
39	VOA	Dibromochloromethane	0/ 12	ug/kg		4	6	5	5	0.95		No		No		
39	VOA	Dibromomethane	0/ 9	ug/kg		4	5	4.33	4	0.50		No		No		
39	VOA	Dichlorodifluoromethane	0/ 9	ug/kg		8	10	8.78	8	0.97		No		No		
39	VOA	Ethylbenzene	0/ 12	ug/kg		4	6	5	5	0.95		No		No		
39	VOA	Hexachlorobutadiene	0/ 9	ug/kg	0450S0044	4	5	4.33	4	0.50		No		No		
39	VOA	Isopropylbenzene	0/ 9	ug/kg		4	5	4.33	4	0.50		No		No		
39	VOA	M + P Xylene	2/ 9	ug/kg		1	5	3.56	4	1.24		No		No		
39	VOA	Methylene chloride	0/ 12	ug/kg		2	15	7.67	4.5	5.71		No		No		
39	VOA	Methyltertiarybutylether	0/ 9	ug/kg		4	10	5	4	1.94		No		No		
39	VOA	Napthalene	0/ 9	ug/kg	0450S0044	4	5	4.33	4	0.50		No		No		
39	VOA	N-Butylbenzene	0/ 9	ug/kg		4	5	4.33	4	0.50		No		No		
39	VOA	N-propylbenzene	0/ 9	ug/kg		4	5	4.33	4	0.50		No		No		
39	VOA	Sec-butylbenzene	0/ 9	ug/kg		4	5	4.33	4	0.50		No		No		
39	VOA	Styrene	0/ 12	ug/kg		4	6	5	5	0.95		No		No		
39	VOA	Tert-butylbenzene	0/ 9	ug/kg		4	5	4.33	4	0.50		No		No		

EU	Analysis Type	Analyte	Freq of Dets	Units	Location of Max Value	Min	Max	Mean	Median	StdDev	RL Avg	> RL Avg	Max RL	> Max RL	Bkg	> Bkg
39	VOA	Tetrachloroethene	2/ 12	ug/kg	0450S0035	2	7	5	5.5	1.41		No		No		
39	VOA	Toluene	10/ 12	ug/kg	0450S0030	0.9	6	2.49	2	1.74		No		No		
39	VOA	trans-1,2-Dichloroethene	2/ 12	ug/kg	0450S0033	1	37	7.42	5.5	9.43		No		No		
39	VOA	Trans-1,3-Dichloropropene	0/ 5	ug/kg		6	6	6	6	0.00		No		No		
39	VOA	Trichloroethene	7/ 12	ug/kg	0450S0035	3	23	7.83	6	5.34		No		No		
39	VOA	Trichlorofluoromethane	0/ 9	ug/kg		4	5	4.33	4	0.50		No		No		
39	VOA	Vinyl chloride	0/ 12	ug/kg		5	13	9.67	9.5	2.42		No		No		
39	VOA	Xylenes (total)	0/ 5	ug/kg		6	6	6	6	0.00		No		No		
40	RADS	Cesium-137	3/ 3	pCi/g	0450S0029	0.27	1.1	0.57	0.35	0.46	2	No	20	No		
40	RADS	K-40	3/ 3	pCi/g	0450S0037	13.6	20	15.97	14.3	3.51		No		No	32.12	
40	RADS	Neptunium-237	0/ 3	pCi/g		0.08	0.09	0.08	0.08	0.01	5	No	50	No		
40	RADS	Radium-226	3/ 3	pCi/g	0450S0037	1.16	1.23	1.2	1.2	0.04	5	No	15	No	1.25	
40	RADS	Thorium-228	3/ 3	pCi/g	0450S0029	1.62	1.83	1.72	1.7	0.11		No		No	1.86	
40	RADS	Thorium-232	3/ 3	pCi/g	0450S0029	1.73	1.93	1.82	1.79	0.10	5	No	15	No	1.95	
40	RADS	Uranium-235	1/ 3	pCi/g	0450S0028	0.13	0.27	0.18	0.13	0.08	8	No	80	No		
40	RADS	Uranium-238	3/ 3	pCi/g	0450S0028	2.9	3.07	2.98	2.97	0.09	50	No	500	No	1.47	
40	VOA	1,1,1,2-Tetrachloroethane	0/ 3	ug/kg		5	6	5.33	5	0.58		No		No		
40	VOA	1,1,1-Trichloroethane	0/ 3	ug/kg		5	6	5.33	5	0.58		No		No		
40	VOA	1,1,2-Trichloroethane	0/ 3	ug/kg		5	6	5.33	5	0.58		No		No		
40	VOA	1,1-Dichloroethene	0/ 3	ug/kg		5	6	5.33	5	0.58		No		No		
40	VOA	1,2,3-Trichlorobenzene	0/ 3	ug/kg		5	6	5.33	5	0.58		No		No		
40	VOA	1,2,3-Trichloropropane	0/ 3	ug/kg		5	6	5.33	5	0.58		No		No		
40	VOA	1,2,4-Trichlorobenzene	0/ 3	ug/kg		5	6	5.33	5	0.58		No		No		
40	VOA	1,2,4-Trimethylbenzene	2/ 3	ug/kg	0450S0037	1	5	2.67	2	2.08		No		No		
40	VOA	1,2-Dichlorobenzene	0/ 3	ug/kg		5	6	5.33	5	0.58		No		No		
40	VOA	1,2-Dimethylbenzene	1/ 3	ug/kg	0450S0037	1	6	4	5	2.65		No		No		
40	VOA	1,3,5-trimethylbenzene	0/ 3	ug/kg		5	6	5.33	5	0.58		No		No		
40	VOA	1,3-Dichlorobenzene	0/ 3	ug/kg		5	6	5.33	5	0.58		No		No		
40	VOA	1,4-Dichlorobenzene	0/ 3	ug/kg		5	6	5.33	5	0.58		No		No		
40	VOA	2-Butanone	1/ 3	ug/kg	0450S0028	6	11	9	10	2.65		No		No		
40	VOA	2-Hexanone	0/ 3	ug/kg		10	11	10.33	10	0.58		No		No		
40	VOA	4-Isopropyltoluene	0/ 3	ug/kg		5	6	5.33	5	0.58		No		No		
40	VOA	4-Methyl-2-pentanone	0/ 3	ug/kg		10	11	10.33	10	0.58		No		No		
40	VOA	Acetone	2/ 3	ug/kg	0450S0028	11	42	24	19	16.09		No		No		
40	VOA	Benzene	2/ 3	ug/kg	0450S0037	2	5	3.67	4	1.53		No		No		
40	VOA	Bromobenzene	0/ 3	ug/kg		5	6	5.33	5	0.58		No		No		

EU	Analysis Type	Analyte	Freq of Dets	Units	Location of Max Value	Min	Max	Mean	Median	StdDev	RL Avg	> RL Avg	Max RL	> Max RL	Bkg	> Bkg
40	VOA	Bromochloromethane	0/ 3	ug/kg		5	6	5.33	5	0.58		No		No		
40	VOA	Bromodichloromethane	0/ 3	ug/kg		5	6	5.33	5	0.58		No		No		
40	VOA	Bromoform	0/ 3	ug/kg		5	6	5.33	5	0.58		No		No		
40	VOA	Carbon tetrachloride	0/ 3	ug/kg		5	6	5.33	5	0.58		No		No		
40	VOA	Chlorobenzene	0/ 3	ug/kg		5	6	5.33	5	0.58		No		No		
40	VOA	Chloroform	0/ 3	ug/kg		5	6	5.33	5	0.58		No		No		
40	VOA	Chloromethane	0/ 3	ug/kg		10	11	10.33	10	0.58		No		No		
40	VOA	cis-1,2-Dichloroethene	1/ 3	ug/kg	0450S0028	5	6	5.33	5	0.58		No		No		
40	VOA	Dibromochloromethane	0/ 3	ug/kg		5	6	5.33	5	0.58		No		No		
40	VOA	Dibromomethane	0/ 3	ug/kg		5	6	5.33	5	0.58		No		No		
40	VOA	Dichlorodifluoromethane	0/ 3	ug/kg		10	11	10.33	10	0.58		No		No		
40	VOA	Ethylbenzene	2/ 3	ug/kg	0450S0037	2	5	3	2	1.73		No		No		
40	VOA	Hexachlorobutadiene	0/ 3	ug/kg		5	6	5.33	5	0.58		No		No		
40	VOA	Isopropylbenzene	0/ 3	ug/kg		5	6	5.33	5	0.58		No		No		
40	VOA	M + P Xylene	2/ 3	ug/kg	0450S0037	2	5	3.33	3	1.53		No		No		
40	VOA	Methylene chloride	0/ 3	ug/kg		3	4	3.67	4	0.58		No		No		
40	VOA	Methyltertiarybutlyether	0/ 3	ug/kg		5	6	5.33	5	0.58		No		No		
40	VOA	Napthalene	0/ 3	ug/kg		5	6	5.33	5	0.58		No		No		
40	VOA	N-Butylbenzene	0/ 3	ug/kg		5	6	5.33	5	0.58		No		No		
40	VOA	N-propylbenzene	0/ 3	ug/kg		5	6	5.33	5	0.58		No		No		
40	VOA	Sec-butylbenzene	0/ 3	ug/kg		5	6	5.33	5	0.58		No		No		
40	VOA	Styrene	0/ 3	ug/kg		5	6	5.33	5	0.58		No		No		
40	VOA	Tert-butylbenzene	0/ 3	ug/kg		5	6	5.33	5	0.58		No		No		
40	VOA	Tetrachloroethene	1/ 3	ug/kg	0450S0028	1	6	4	5	2.65		No		No		
40	VOA	Toluene	2/ 3	ug/kg	0450S0037	5	8	6	5	1.73		No		No		
40	VOA	trans-1,2-Dichloroethene	0/ 3	ug/kg		5	6	5.33	5	0.58		No		No		
40	VOA	Trichloroethene	3/ 3	ug/kg	0450S0037	2	4	3.33	4	1.15		No		No		
40	VOA	Trichlorofluoromethane	0/ 3	ug/kg		5	6	5.33	5	0.58		No		No		
40	VOA	Vinyl chloride	0/ 3	ug/kg		10	11	10.33	10	0.58		No		No		
41	METAL	Aluminum	5/ 5	mg/kg	0450S0049	10600	22100	16760	18000	4269		No		No	40300	No
41	METAL	Antimony	1/ 5	mg/kg	0450S0049	0.33	8.8	2.03	0.34	3.78		No		No	1.52	Yes
41	METAL	Arsenic	5/ 5	mg/kg	0450S0049	4.3	10.4	6.78	6.3	2.39	300	No	900	No	14.95	No
41	METAL	Barium	5/ 5	mg/kg	0450S0049	49	84.2	60.42	57.1	13.70		No		No	125	No
41	METAL	Beryllium	5/ 5	mg/kg	0450S0049	0.51	0.86	0.65	0.59	0.14	2000	No	6000	No	2.2	No
41	METAL	Cadmium	4/ 5	mg/kg	0450S0049	0.05	0.42	0.19	0.16	0.14		No		No	0.22	Yes
41	METAL	Calcium	5/ 5	mg/kg	0450S0055	5220	76500	35384	27500	29841		No		No	2400	Yes

EU	Analysis Type	Analyte	Freq of Dets	Units	Location of Max Value	Min	Max	Mean	Median	StdDev	RL Avg	> RL Avg	Max RL	> Max RL	Bkg	> Bkg
41	METAL	Chromium	5/ 5	mg/kg	0450S0049	13.5	85.6	39.7	22.1	31.04		No		No	44.88	Yes
41	METAL	Cobalt	5/ 5	mg/kg	0450S0049	6.6	12.3	8.44	7.9	2.27		No		No	42	No
41	METAL	Copper	5/ 5	mg/kg	0450S0049	10.3	44.2	18.82	13.7	14.28		No		No	22.48	Yes
41	METAL	Iron	5/ 5	mg/kg	0450S0049	16300	30700	23200	23500	5239		No		No	58600	No
41	METAL	Lead	5/ 5	mg/kg	0450S0049	13.3	60.9	24.92	17.7	20.24		No		No	37.91	Yes
41	METAL	Magnesium	5/ 5	mg/kg	0450S0055	1860	11800	6330	7100	3965		No		No	3300	Yes
41	METAL	Manganese	5/ 5	mg/kg	0450S0049	358	662	527.8	576	127.39		No		No	2200	No
41	METAL	Mercury	5/ 5	mg/kg	0450S0049	0.06	0.58	0.2	0.14	0.22	600	No	1800	No	0.17	Yes
41	METAL	Nickel	5/ 5	mg/kg	0450S0049	12.7	60.4	22.46	13.1	21.21		No		No	26.07	Yes
41	METAL	Potassium	5/ 5	mg/kg	0450S0054	2160	4210	2880	2520	878		No		No	5075	No
41	METAL	Selenium	1/ 5	mg/kg	0450S0049	0.65	25.2	5.58	0.67	10.97		No		No	1.47	Yes
41	METAL	Silver	1/ 5	mg/kg	0450S0049	0.11	0.25	0.14	0.11	0.06		No		No	0.6	No
41	METAL	Sodium	5/ 5	mg/kg	0450S0049	47.1	126	82.04	91.6	33.09		No		No	497	No
41	METAL	Thallium	0/ 5	mg/kg		0.65	0.7	0.67	0.67	0.02		No		No	0.4	Yes
41	METAL	Vanadium	5/ 5	mg/kg	0450S0049	19.9	37.7	30.14	32.2	7.27		No		No	65.47	No
41	METAL	Zinc	5/ 5	mg/kg	0450S0049	48.7	154	73.86	56.8	44.96		No		No	89.7	Yes
41	PPCB	PCB-1016	0/ 5	ug/kg		16	69	27.2	17	23.38	10000	No	100000	No		
41	PPCB	PCB-1221	0/ 5	ug/kg		16	69	27.2	17	23.38	10000	No	100000	No		
41	PPCB	PCB-1232	0/ 5	ug/kg		16	69	27.2	17	23.38	10000	No	100000	No		
41	PPCB	PCB-1242	0/ 5	ug/kg		16	69	27.2	17	23.38	10000	No	100000	No		
41	PPCB	PCB-1248	0/ 5	ug/kg		16	69	27.2	17	23.38	10000	No	100000	No		
41	PPCB	PCB-1254	4/ 5	ug/kg	0450S0049	17	690	219.4	150	269	10000	No	100000	No		
41	PPCB	PCB-1260	5/ 5	ug/kg	0450S0049	42	580	214.2	160	212	10000	No	100000	No		
41	RADS	Cesium-137	10/ 10	pCi/g	0450S0042	0.04	0.42	0.13	0.07	0.12	2	No	20	No		
41	RADS	K-40	10/ 10	pCi/g	0450S0056	10.32	20.4	14.28	14	3.04		No		No	32.12	
41	RADS	Neptunium-237	0/ 10	pCi/g		0.04	0.07	0.06	0.07	0.01	5	No	50	No		
41	RADS	Radium-226	10/ 10	pCi/g	0450S0053	0.64	1.03	0.78	0.77	0.12	5	No	15	No	1.25	
41	RADS	Thorium-228	10/ 10	pCi/g	0450S0042	0.88	1.19	1.05	1.09	0.11		No		No	1.86	
41	RADS	Thorium-232	10/ 10	pCi/g	0450S0042	0.80	1.31	1.08	1.07	0.17	5	No	15	No	1.95	
41	RADS	Uranium-235	0/ 10	pCi/g		-0.01	0.19	0.1	0.12	0.06	8	No	80	No		
41	RADS	Uranium-238	10/ 10	pCi/g	0450S0049	1.12	2.6	1.64	1.44	0.49	50	No	500	No	1.47	
41	SVOA	1,2,4-Trichlorobenzene	0/ 5	ug/kg		390	440	418	430	21.68		No		No		
41	SVOA	1,2-Dichlorobenzene	0/ 5	ug/kg		390	440	418	430	21.68		No		No		
41	SVOA	1,3-Dichlorobenzene	0/ 5	ug/kg		390	440	418	430	21.68		No		No		
41	SVOA	1,4-Dichlorobenzene	0/ 5	ug/kg		390	440	418	430	21.68		No		No		
41	SVOA	1-Chloropropane	0/ 5	ug/kg		390	440	418	430	21.68		No		No		

EU	Analysis Type	Analyte	Freq of Dets	Units	Location of Max Value	Min	Max	Mean	Median	StdDev	RL Avg	> RL Avg	Max RL	> Max RL	Bkg	> Bkg
41	SVOA	2,4,5-Trichlorophenol	0/ 5	ug/kg		990	1100	1056	1100	60.25		No		No		
41	SVOA	2,4,6-Trichlorophenol	0/ 5	ug/kg		390	440	418	430	21.68		No		No		
41	SVOA	2,4-Dichlorophenol	0/ 5	ug/kg		390	440	418	430	21.68		No		No		
41	SVOA	2,4-Dimethylphenol	0/ 5	ug/kg		390	440	418	430	21.68		No		No		
41	SVOA	2,4-Dinitrophenol	0/ 5	ug/kg		990	1100	1056	1100	60.25		No		No		
41	SVOA	2,4-Dinitrotoluene	0/ 5	ug/kg		390	440	418	430	21.68		No		No		
41	SVOA	2,6-Dinitrotoluene	0/ 5	ug/kg		390	440	418	430	21.68		No		No		
41	SVOA	2-Chloronaphthalene	0/ 5	ug/kg		390	440	418	430	21.68		No		No		
41	SVOA	2-Chlorophenol	0/ 5	ug/kg		390	440	418	430	21.68		No		No		
41	SVOA	2-Methylnaphthalene	3/ 5	ug/kg	0450S0049	32	430	202	110	193		No		No		
41	SVOA	2-Methylphenol	0/ 5	ug/kg		390	440	418	430	21.68		No		No		
41	SVOA	2-Nitroaniline	0/ 5	ug/kg		990	1100	1056	1100	60.25		No		No		
41	SVOA	2-Nitrophenol	0/ 5	ug/kg		390	440	418	430	21.68		No		No		
41	SVOA	3,3'-Dichlorobenzidine	0/ 5	ug/kg		390	440	418	430	21.68		No		No		
41	SVOA	3-4 Methylphenol	0/ 5	ug/kg		390	440	418	430	21.68		No		No		
41	SVOA	3-Nitroaniline	0/ 5	ug/kg		990	1100	1056	1100	60.25		No		No		
41	SVOA	1,6-dinitrophenol-2-Methylpheno	0/ 5	ug/kg		990	1100	1056	1100	60.25		No		No		
41	SVOA	4-Bromophenyl phenyl ether	0/ 5	ug/kg		390	440	418	430	21.68		No		No		
41	SVOA	4-Chloro-3-methylphenol	0/ 5	ug/kg		390	440	418	430	21.68		No		No		
41	SVOA	4-Chloroaniline	0/ 5	ug/kg		390	440	418	430	21.68		No		No		
41	SVOA	4-Chlorophenyl phenyl ether	0/ 5	ug/kg		390	440	418	430	21.68		No		No		
41	SVOA	4-Nitroaniline	0/ 5	ug/kg		990	1100	1056	1100	60.25		No		No		
41	SVOA	4-Nitrophenol	0/ 5	ug/kg		990	1100	1056	1100	60.25		No		No		
41	SVOA	Acenaphthene	5/ 5	ug/kg	0450S0049	23	360	149	64	152		No		No		
41	SVOA	Acenaphthylene	2/ 5	ug/kg	0450S0054	42	440	284	390	189		No		No		
41	SVOA	Anthracene	5/ 5	ug/kg	0450S0049	65	1200	509	180	546		No		No		
41	SVOA	Benz(a)anthracene	5/ 5	ug/kg	0450S0054	320	4200	1684	940	1683		No		No		
41	SVOA	Benzo(a)pyrene	5/ 5	ug/kg	0450S0054	320	6300	2180	960	2552		No		No		
41	SVOA	Benzo(b)fluoranthene	4/ 5	ug/kg	0450S0054	280	4000	1192	430	1591		No		No		
41	SVOA	Benzo(ghi)perylene	5/ 5	ug/kg	0450S0054	190	4900	1448	610	1980		No		No		
41	SVOA	Benzo(k)fluoranthene	5/ 5	ug/kg	0450S0054	300	6100	2070	790	2473		No		No		
41	SVOA	Bis(2-chloroethoxy)methane	0/ 5	ug/kg		390	440	418	430	21.68		No		No		
41	SVOA	Bis(2-chloroethyl) ether	0/ 5	ug/kg		390	440	418	430	21.68		No		No		
41	SVOA	Bis(2-ethylhexyl)phthalate	1/ 5	ug/kg	0450S0053	76	460	163	90	167		No		No		
41	SVOA	Butyl benzyl phthalate	1/ 5	ug/kg	0450S0049	130	440	358	400	129		No		No		
41	SVOA	Carbazole	5/ 5	ug/kg	0450S0054	37	510	237	94	241		No		No		

EU	Analysis Type	Analyte	Freq of Dets	Units	Location of Max Value	Min	Max	Mean	Median	StdDev	RL Avg	> RL Avg	Max RL	> Max RL	Bkg	> Bkg
41	SVOA	Chrysene	5/ 5	ug/kg	0450S0054	330	4600	1792	960	1841		No		No		
41	SVOA	Dibenz(a,h)anthracene	5/ 5	ug/kg	0450S0054	54	1900	586	200	776		No		No		
41	SVOA	Dibenzofuran	3/ 5	ug/kg	0450S0049	26	430	231	180	173		No		No		
41	SVOA	Diethyl phthalate	0/ 5	ug/kg		390	440	418	430	21.68		No		No		
41	SVOA	Dimethyl phthalate	0/ 5	ug/kg		390	440	418	430	21.68		No		No		
41	SVOA	Di-n-butyl phthalate	2/ 5	ug/kg	0450S0053	37	430	266	390	207		No		No		
41	SVOA	Di-n-octylphthalate	0/ 5	ug/kg		390	440	418	430	21.68		No		No		
41	SVOA	Fluoranthene	5/ 5	ug/kg	0450S0054	600	8900	3608	1700	3712		No		No		
41	SVOA	Fluorene	5/ 5	ug/kg	0450S0049	22	330	135	52	141		No		No		
41	SVOA	Hexachlorobenzene	0/ 5	ug/kg		390	440	418	430	21.68		No		No		
41	SVOA	Hexachlorobutadiene	0/ 5	ug/kg		390	440	418	430	21.68		No		No		
41	SVOA	Hexachlorocyclopentadiene	0/ 5	ug/kg		390	440	418	430	21.68		No		No		
41	SVOA	Hexachloroethane	0/ 5	ug/kg		390	440	418	430	21.68		No		No		
41	SVOA	Indeno(1,2,3-cd)pyrene	5/ 5	ug/kg	0450S0054	180	4400	1350	570	1775		No		No		
41	SVOA	Isophorone	0/ 5	ug/kg		390	440	418	430	21.68		No		No		
41	SVOA	Naphthalene	3/ 5	ug/kg	0450S0049	25	430	215	150	184		No		No		
41	SVOA	Nitrobenzene	0/ 5	ug/kg		390	440	418	430	21.68		No		No		
41	SVOA	N-Nitroso-di-n-propylamine	0/ 5	ug/kg		390	440	418	430	21.68		No		No		
41	SVOA	N-Nitrosodiphenylamine	0/ 5	ug/kg		390	440	418	430	21.68		No		No		
41	SVOA	Pentachlorophenol	0/ 5	ug/kg		990	1100	1056	1100	60.25		No		No		
41	SVOA	Phenanthrene	5/ 5	ug/kg	0450S0054	290	3300	1614	820	1553		No		No		
41	SVOA	Phenol	0/ 5	ug/kg		390	440	418	430	21.68		No		No		
41	SVOA	Pyrene	5/ 5	ug/kg	0450S0054	510	5600	2412	1800	2147		No		No		
41	VOA	1,1,1,2-Tetrachloroethane	0/ 3	ug/kg		4	5	4.33	4	0.58		No		No		
41	VOA	1,1,1-Trichloroethane	0/ 8	ug/kg		4	6	4.88	5	0.64		No		No		
41	VOA	1,1,2,2-Tetrachloroethane	0/ 5	ug/kg		5	6	5.2	5	0.45		No		No		
41	VOA	1,1,2-Trichloroethane	0/ 8	ug/kg		4	6	4.88	5	0.64		No		No		
41	VOA	1,1-Dichloroethane	0/ 5	ug/kg		5	6	5.2	5	0.45		No		No		
41	VOA	1,1-Dichloroethene	0/ 8	ug/kg		4	6	4.88	5	0.64		No		No		
41	VOA	1,2,3-Trichlorobenzene	0/ 3	ug/kg		4	5	4.33	4	0.58		No		No		
41	VOA	1,2,3-Trichloropropane	0/ 3	ug/kg		4	5	4.33	4	0.58		No		No		
41	VOA	1,2,4-Trichlorobenzene	0/ 3	ug/kg		4	5	4.33	4	0.58		No		No		
41	VOA	1,2,4-Trimethylbenzene	1/ 3	ug/kg	0450S0039	3	4	3.67	4	0.58		No		No		
41	VOA	1,2-Dichlorobenzene	0/ 3	ug/kg		4	5	4.33	4	0.58		No		No		
41	VOA	1,2-Dichloroethane	0/ 5	ug/kg		5	6	5.2	5	0.45		No		No		
41	VOA	1,2-Dichloroethane (total)	0/ 5	ug/kg		5	6	5.2	5	0.45		No		No		

EU	Analysis Type	Analyte	Freq of Dets	Units	Location of Max Value	Min	Max	Mean	Median	StdDev	RL Avg	> RL Avg	Max RL	> Max RL	Bkg	> Bkg
41	VOA	1,2-Dichloropropane	0/ 5	ug/kg		5	6	5.2	5	0.45		No		No		
41	VOA	1,2-Dimethylbenzene	1/ 3	ug/kg	0450S0039	2	4	3.33	4	1.15		No		No		
41	VOA	1,3,5-trimethylbenzene	1/ 3	ug/kg	0450S0039	1	4	3	4	1.73		No		No		
41	VOA	1,3-Dichlorobenzene	0/ 3	ug/kg		4	5	4.33	4	0.58		No		No		
41	VOA	1,4-Dichlorobenzene	0/ 3	ug/kg		4	5	4.33	4	0.58		No		No		
41	VOA	2-Butanone	2/ 8	ug/kg	0450S0049	8	24	11.88	10	5.36		No		No		
41	VOA	2-Hexanone	0/ 8	ug/kg		8	12	9.75	10	1.28		No		No		
41	VOA	4-Isopropyltoluene	0/ 3	ug/kg		4	5	4.33	4	0.58		No		No		
41	VOA	4-Methyl-2-pentanone	0/ 8	ug/kg		8	12	9.75	10	1.28		No		No		
41	VOA	Acetone	6/ 8	ug/kg	0450S0053	8	170	71.75	75.5	59.03		No		No		
41	VOA	Benzene	3/ 8	ug/kg	0450S0039	1	6	4	4.5	1.69		No		No		
41	VOA	Bromobenzene	0/ 3	ug/kg		4	5	4.33	4	0.58		No		No		
41	VOA	Bromochloromethane	0/ 3	ug/kg		4	5	4.33	4	0.58		No		No		
41	VOA	Bromodichloromethane	0/ 8	ug/kg		4	6	4.88	5	0.64		No		No		
41	VOA	Bromoform	0/ 8	ug/kg		4	6	4.88	5	0.64		No		No		
41	VOA	Bromomethane	0/ 5	ug/kg		10	12	10.4	10	0.89		No		No		
41	VOA	Carbon Disulfide	0/ 5	ug/kg		5	6	5.2	5	0.45		No		No		
41	VOA	Carbon tetrachloride	1/ 8	ug/kg	0450S0039	4	6	4.88	5	0.64		No		No		
41	VOA	Chlorobenzene	0/ 8	ug/kg		4	6	4.88	5	0.64		No		No		
41	VOA	Chloroethane	0/ 5	ug/kg		10	12	10.4	10	0.89		No		No		
41	VOA	Chloroform	0/ 8	ug/kg		4	6	4.88	5	0.64		No		No		
41	VOA	Chloromethane	0/ 8	ug/kg		8	12	9.75	10	1.28		No		No		
41	VOA	cis-1,2-Dichloroethene	2/ 8	ug/kg	0450S0042	4	120	20.12	5	40.41		No		No		
41	VOA	cis-1,3-Dichloropropene	0/ 5	ug/kg		5	6	5.2	5	0.45		No		No		
41	VOA	Dibromochloromethane	0/ 8	ug/kg		4	6	4.88	5	0.64		No		No		
41	VOA	Dibromomethane	0/ 3	ug/kg		4	5	4.33	4	0.58		No		No		
41	VOA	Dichlorodifluoromethane	0/ 3	ug/kg		8	10	8.67	8	1.15		No		No		
41	VOA	Ethylbenzene	1/ 8	ug/kg	0450S0039	4	6	4.75	5	0.71		No		No		
41	VOA	Hexachlorobutadiene	0/ 3	ug/kg		4	5	4.33	4	0.58		No		No		
41	VOA	Isopropylbenzene	0/ 3	ug/kg		4	5	4.33	4	0.58		No		No		
41	VOA	M + P Xylene	1/ 3	ug/kg	0450S0039	4	5	4.33	4	0.58		No		No		
41	VOA	Methylene chloride	0/ 8	ug/kg		2	18	9.62	13	6.28		No		No		
41	VOA	Methyltertiarybutylether	0/ 3	ug/kg		4	5	4.33	4	0.58		No		No		
41	VOA	Napthalene	0/ 3	ug/kg		4	5	4.33	4	0.58		No		No		
41	VOA	N-Butylbenzene	0/ 3	ug/kg		4	5	4.33	4	0.58		No		No		
41	VOA	N-propylbenzene	0/ 3	ug/kg		4	5	4.33	4	0.58		No		No		

EU	Analysis Type	Analyte	Freq of Dets	Units	Location of Max Value	Min	Max	Mean	Median	StdDev	RL Avg	> RL Avg	Max RL	> Max RL	Bkg	> Bkg
41	VOA	Sec-butylbenzene	0/ 3	ug/kg		4	5	4.33	4	0.58		No		No		
41	VOA	Styrene	0/ 8	ug/kg		4	6	4.88	5	0.64		No		No		
41	VOA	Tert-butylbenzene	0/ 3	ug/kg		4	5	4.33	4	0.58		No		No		
41	VOA	Tetrachloroethene	1/ 8	ug/kg	0450S0039	4	15	6.12	5	3.64		No		No		
41	VOA	Toluene	8/ 8	ug/kg	0450S0039	0.8	13	3.22	1.5	4.18		No		No		
41	VOA	trans-1,2-Dichloroethene	0/ 8	ug/kg		4	6	4.88	5	0.64		No		No		
41	VOA	Trans-1,3-Dichloropropene	0/ 5	ug/kg		5	6	5.2	5	0.45		No		No		
41	VOA	Trichloroethene	1/ 8	ug/kg	0450S0042	2	11	5.38	5	2.56		No		No		
41	VOA	Trichlorofluoromethane	0/ 3	ug/kg		4	5	4.33	4	0.58		No		No		
41	VOA	Vinyl chloride	0/ 8	ug/kg		8	12	9.75	10	1.28		No		No		
41	VOA	Xylenes (total)	2/ 5	ug/kg	0450S0055	1	6	4	5	2.00		No		No		
43	RADS	Cesium-137	2/ 2	pCi/g	0450S0040	0.3	0.73	0.52	0.52	0.30	2	No	20	No		
43	RADS	K-40	2/ 2	pCi/g	0450S0040	12.4	16.8	14.6	14.6	3.11		No		No	32.12	
43	RADS	Neptunium-237	0/ 2	pCi/g		0.07	0.09	0.08	0.08	0.01	5	No	50	No		
43	RADS	Radium-226	2/ 2	pCi/g	0450S0040	1.09	1.59	1.34	1.34	0.35	5	No	15	No	1.25	
43	RADS	Thorium-228	2/ 2	pCi/g	0450S0040	1.30	1.62	1.46	1.46	0.23		No		No	1.86	
43	RADS	Thorium-232	2/ 2	pCi/g	0450S0040	1.23	1.63	1.43	1.43	0.28	5	No	15	No	1.95	
43	RADS	Uranium-235	0/ 2	pCi/g		0.17	0.19	0.18	0.18	0.01	8	No	80	No		
43	RADS	Uranium-238	2/ 2	pCi/g	0450S0040	2.5	2.82	2.66	2.66	0.23	50	No	500	No	1.47	
43	VOA	1,1,1,2-Tetrachloroethane	0/ 2	ug/kg		4	5	4.5	4.5	0.71		No		No		
43	VOA	1,1,1-Trichloroethane	0/ 2	ug/kg		4	5	4.5	4.5	0.71		No		No		
43	VOA	1,1,2-Trichloroethane	0/ 2	ug/kg		4	5	4.5	4.5	0.71		No		No		
43	VOA	1,1-Dichloroethene	0/ 2	ug/kg		4	5	4.5	4.5	0.71		No		No		
43	VOA	1,2,3-Trichlorobenzene	0/ 2	ug/kg		4	5	4.5	4.5	0.71		No		No		
43	VOA	1,2,3-Trichloropropane	0/ 2	ug/kg		4	5	4.5	4.5	0.71		No		No		
43	VOA	1,2,4-Trichlorobenzene	0/ 2	ug/kg		4	5	4.5	4.5	0.71		No		No		
43	VOA	1,2,4-Trimethylbenzene	0/ 2	ug/kg		4	5	4.5	4.5	0.71		No		No		
43	VOA	1,2-Dichlorobenzene	0/ 2	ug/kg		4	5	4.5	4.5	0.71		No		No		
43	VOA	1,2-Dimethylbenzene	0/ 2	ug/kg		4	5	4.5	4.5	0.71		No		No		
43	VOA	1,3,5-trimethylbenzene	0/ 2	ug/kg		4	5	4.5	4.5	0.71		No		No		
43	VOA	1,3-Dichlorobenzene	0/ 2	ug/kg		4	5	4.5	4.5	0.71		No		No		
43	VOA	1,4-Dichlorobenzene	0/ 2	ug/kg		4	5	4.5	4.5	0.71		No		No		
43	VOA	2-Butanone	1/ 2	ug/kg	0450S0041	8	11	9.5	9.5	2.12		No		No		
43	VOA	2-Hexanone	0/ 2	ug/kg		8	10	9	9	1.41		No		No		
43	VOA	4-Isopropyltoluene	0/ 2	ug/kg		4	5	4.5	4.5	0.71		No		No		
43	VOA	4-Methyl-2-pentanone	0/ 2	ug/kg		8	10	9	9	1.41		No		No		

EU	Analysis Type	Analyte	Freq of Dets	Units	Location of Max Value	Min	Max	Mean	Median	StdDev	RL Avg	> RL Avg	Max RL	> Max RL	Bkg	> Bkg
43	VOA	Acetone	2/ 2	ug/kg	0450S0040	72	440	256	256	260		No		No		
43	VOA	Benzene	0/ 2	ug/kg		4	5	4.5	4.5	0.71		No		No		
43	VOA	Bromobenzene	0/ 2	ug/kg		4	5	4.5	4.5	0.71		No		No		
43	VOA	Bromochloromethane	0/ 2	ug/kg		4	5	4.5	4.5	0.71		No		No		
43	VOA	Bromodichloromethane	0/ 2	ug/kg		4	5	4.5	4.5	0.71		No		No		
43	VOA	Bromoform	0/ 2	ug/kg		4	5	4.5	4.5	0.71		No		No		
43	VOA	Carbon tetrachloride	0/ 2	ug/kg		4	5	4.5	4.5	0.71		No		No		
43	VOA	Chlorobenzene	0/ 2	ug/kg		4	5	4.5	4.5	0.71		No		No		
43	VOA	Chloroform	0/ 2	ug/kg		4	5	4.5	4.5	0.71		No		No		
43	VOA	Chloromethane	0/ 2	ug/kg		8	10	9	9	1.41		No		No		
43	VOA	cis-1,2-Dichloroethene	2/ 2	ug/kg	0450S0040	1	2	1.5	1.5	0.71		No		No		
43	VOA	Dibromochloromethane	0/ 2	ug/kg		4	5	4.5	4.5	0.71		No		No		
43	VOA	Dibromomethane	0/ 2	ug/kg		4	5	4.5	4.5	0.71		No		No		
43	VOA	Dichlorodifluoromethane	0/ 2	ug/kg		8	10	9	9	1.41		No		No		
43	VOA	Ethylbenzene	0/ 2	ug/kg		4	5	4.5	4.5	0.71		No		No		
43	VOA	Hexachlorobutadiene	0/ 2	ug/kg		4	5	4.5	4.5	0.71		No		No		
43	VOA	Isopropylbenzene	0/ 2	ug/kg		4	5	4.5	4.5	0.71		No		No		
43	VOA	M + P Xylene	0/ 2	ug/kg		4	5	4.5	4.5	0.71		No		No		
43	VOA	Methylene chloride	0/ 2	ug/kg		2	3	2.5	2.5	0.71		No		No		
43	VOA	Methyltertiarybutylether	0/ 2	ug/kg		4	5	4.5	4.5	0.71		No		No		
43	VOA	Napthalene	0/ 2	ug/kg		4	5	4.5	4.5	0.71		No		No		
43	VOA	N-Butylbenzene	0/ 2	ug/kg		4	5	4.5	4.5	0.71		No		No		
43	VOA	N-propylbenzene	0/ 2	ug/kg		4	5	4.5	4.5	0.71		No		No		
43	VOA	Sec-butylbenzene	0/ 2	ug/kg		4	5	4.5	4.5	0.71		No		No		
43	VOA	Styrene	0/ 2	ug/kg		4	5	4.5	4.5	0.71		No		No		
43	VOA	Tert-butylbenzene	0/ 2	ug/kg		4	5	4.5	4.5	0.71		No		No		
43	VOA	Tetrachloroethene	0/ 2	ug/kg		4	5	4.5	4.5	0.71		No		No		
43	VOA	Toluene	1/ 2	ug/kg	0450S0040	4	5	4.5	4.5	0.71		No		No		
43	VOA	trans-1,2-Dichloroethene	0/ 2	ug/kg		4	5	4.5	4.5	0.71		No		No		
43	VOA	Trichloroethene	1/ 2	ug/kg	0450S0040	3	5	4	4	1.41		No		No		
43	VOA	Trichlorofluoromethane	0/ 2	ug/kg		4	5	4.5	4.5	0.71		No		No		
43	VOA	Vinyl chloride	0/ 2	ug/kg		8	10	9	9	1.41		No		No		
47	METAL	Aluminum	10/ 10	mg/kg	0450S0059	9830	30700	17403	15800	5676		No		No	40300	No
47	METAL	Antimony	1/ 10	mg/kg	0450S0057	0.3	0.4	0.35	0.35	0.03		No		No	1.52	No
47	METAL	Arsenic	10/ 10	mg/kg	0450S0058	3.4	16.2	8.31	6.9	4.52	300	No	900	No	14.95	Yes
47	METAL	Barium	10/ 10	mg/kg	0450S0059	34.5	147	75.95	68.15	29.57		No		No	125	Yes

EU	Analysis Type	Analyte	Freq of Dets	Units	Location of Max Value	Min	Max	Mean	Median	StdDev	RL Avg	> RL Avg	Max RL	> Max RL	Bkg	> Bkg
47	METAL	Beryllium	10/ 10	mg/kg	0450S0059	0.59	1.8	0.95	0.95	0.33	2000	No	6000	No	2.2	No
47	METAL	Cadmium	7/ 10	mg/kg	0450S0057	0.05	0.31	0.14	0.12	0.08		No		No	0.22	Yes
47	METAL	Calcium	10/ 10	mg/kg	0450S0066	2010	110000	32733	19450	34957		No		No	2400	Yes
47	METAL	Chromium	10/ 10	mg/kg	0450S0059	10.3	34	21.4	18.95	7.51		No		No	44.88	No
47	METAL	Cobalt	10/ 10	mg/kg	0450S0057	9.4	20.2	14.38	13.6	3.78		No		No	42	No
47	METAL	Copper	10/ 10	mg/kg	0450S0058	13.3	40.7	21.96	19.9	8.57		No		No	22.48	Yes
47	METAL	Iron	10/ 10	mg/kg	0450S0058	15400	39700	27840	28400	7792		No		No	58600	No
47	METAL	Lead	10/ 10	mg/kg	0450S0057	17.8	63.3	32.15	23.45	18.41		No		No	37.91	Yes
47	METAL	Magnesium	10/ 10	mg/kg	0450S0062	1300	36800	11586	7275	11974		No		No	3300	Yes
47	METAL	Manganese	10/ 10	mg/kg	0450S0057	531	1460	860	822.5	247		No		No	2200	No
47	METAL	Mercury	9/ 10	mg/kg	0450S0058	0.01	1.7	0.27	0.14	0.51	600	No	1800	No	0.17	Yes
47	METAL	Nickel	10/ 10	mg/kg	0450S0057	11	32.5	20.06	19	7.16		No		No	26.07	Yes
47	METAL	Potassium	10/ 10	mg/kg	0450S0059	1800	4000	2667	2600	637		No		No	5075	No
47	METAL	Selenium	0/ 10	mg/kg		0.6	0.79	0.7	0.70	0.06		No		No	1.47	No
47	METAL	Silver	0/ 10	mg/kg		0.1	0.13	0.12	0.12	0.01		No		No	0.6	No
47	METAL	Sodium	10/ 10	mg/kg	0450S0062	42.2	117	77.53	78.7	24.31		No		No	497	No
47	METAL	Thallium	0/ 10	mg/kg		0.6	0.79	0.7	0.70	0.06		No		No	0.4	Yes
47	METAL	Vanadium	10/ 10	mg/kg	0450S0059	18	43.5	32.3	33.8	8.14		No		No	65.47	No
47	METAL	Zinc	10/ 10	mg/kg	0450S0058	33	231	93.79	56.95	73.39		No		No	89.7	Yes
47	PPCB	PCB-1016	0/ 10	ug/kg		16	36	19.4	17.5	5.97	10000	No	100000	No		
47	PPCB	PCB-1221	0/ 10	ug/kg		16	36	19.4	17.5	5.97	10000	No	100000	No		
47	PPCB	PCB-1232	0/ 10	ug/kg		16	36	19.4	17.5	5.97	10000	No	100000	No		
47	PPCB	PCB-1242	0/ 10	ug/kg		16	36	19.4	17.5	5.97	10000	No	100000	No		
47	PPCB	PCB-1248	0/ 10	ug/kg		16	36	19.4	17.5	5.97	10000	No	100000	No		
47	PPCB	PCB-1254	2/ 10	ug/kg	0450S0062	16	520	70.6	17.5	158	10000	No	100000	No		
47	PPCB	PCB-1260	6/ 10	ug/kg	0450S0062	16	120	36.5	18.5	32.70	10000	No	100000	No		
47	RADS	Cesium-137	14/ 14	pCi/g	0450S0059	0.06	0.72	0.18	0.11	0.19	2	No	20	No		
47	RADS	Neptunium-237	0/ 14	pCi/g		-0.02	0.02	0	0	0.01	5	No	50	No		
47	RADS	Radium-226	14/ 14	pCi/g	0450S0058	0.33	1.42	0.78	0.81	0.29	5	No	15	No	1.25	
47	RADS	Thorium-228	14/ 14	pCi/g	0450S0062	0.36	1.28	0.93	1.03	0.30		No		No	1.86	
47	RADS	Thorium-230	0/ 14	pCi/g		2.1	6	3.91	3.55	1.22		No		No	1.2	
47	RADS	Thorium-232	14/ 14	pCi/g	0450S0064	0.33	1.29	0.98	1.1	0.32	5	No	15	No	1.95	
47	RADS	Uranium-235	0/ 14	pCi/g		0.01	0.18	0.08	0.09	0.05	8	No	80	No		
47	RADS	Uranium-238	14/ 14	pCi/g	0450S0058	0.69	2.28	1.3	1.24	0.51	50	No	500	No	1.47	
47	SVOA	1,2,4-Trichlorobenzene	0/ 10	ug/kg		400	510	437	430	34.66		No		No		
47	SVOA	1,2-Dichlorobenzene	0/ 10	ug/kg		400	510	437	430	34.66		No		No		

EU	Analysis Type	Analyte	Freq of Dets	Units	Location of Max Value	Min	Max	Mean	Median	StdDev	RL Avg	> RL Avg	Max RL	> Max RL	Bkg	> Bkg
47	SVOA	1,3-Dichlorobenzene	0/ 10	ug/kg	0450S0062	400	510	437	430	34.66		No		No		
47	SVOA	1,4-Dichlorobenzene	0/ 10	ug/kg		400	510	437	430	34.66		No		No		
47	SVOA	1-Chloropropane	0/ 10	ug/kg		400	510	437	430	34.66		No		No		
47	SVOA	2,4,5-Trichlorophenol	0/ 10	ug/kg		1000	1300	1080	1050	103		No		No		
47	SVOA	2,4,6-Trichlorophenol	0/ 10	ug/kg		400	510	437	430	34.66		No		No		
47	SVOA	2,4-Dichlorophenol	0/ 10	ug/kg		400	510	437	430	34.66		No		No		
47	SVOA	2,4-Dimethylphenol	0/ 10	ug/kg		400	510	437	430	34.66		No		No		
47	SVOA	2,4-Dinitrophenol	0/ 10	ug/kg		1000	1300	1080	1050	103		No		No		
47	SVOA	2,4-Dinitrotoluene	0/ 10	ug/kg		400	510	437	430	34.66		No		No		
47	SVOA	2,6-Dinitrotoluene	0/ 10	ug/kg		400	510	437	430	34.66		No		No		
47	SVOA	2-Chloronaphthalene	0/ 10	ug/kg		400	510	437	430	34.66		No		No		
47	SVOA	2-Chlorophenol	0/ 10	ug/kg		400	510	437	430	34.66		No		No		
47	SVOA	2-Methylnaphthalene	5/ 10	ug/kg		23	470	241	247	203		No		No		
47	SVOA	2-Methylphenol	0/ 10	ug/kg		400	510	437	430	34.66		No		No		
47	SVOA	2-Nitroaniline	0/ 10	ug/kg		1000	1300	1080	1050	103		No		No		
47	SVOA	2-Nitrophenol	0/ 10	ug/kg		400	510	437	430	34.66		No		No		
47	SVOA	3,3'-Dichlorobenzidine	0/ 10	ug/kg		400	510	437	430	34.66		No		No		
47	SVOA	3-4 Methylphenol	0/ 10	ug/kg		400	510	437	430	34.66		No		No		
47	SVOA	3-Nitroaniline	0/ 10	ug/kg		1000	1300	1080	1050	103		No		No		
47	SVOA	1,6-dinitrophenol-2-Methylpheno	0/ 10	ug/kg		1000	1300	1080	1050	103		No		No		
47	SVOA	4-Bromophenyl phenyl ether	0/ 10	ug/kg		400	510	437	430	34.66		No		No		
47	SVOA	4-Chloro-3-methylphenol	0/ 10	ug/kg		400	510	437	430	34.66		No		No		
47	SVOA	4-Chloroaniline	0/ 10	ug/kg		400	510	437	430	34.66		No		No		
47	SVOA	4-Chlorophenyl phenyl ether	0/ 10	ug/kg		400	510	437	430	34.66		No		No		
47	SVOA	4-Nitroaniline	0/ 10	ug/kg		1000	1300	1080	1050	103		No		No		
47	SVOA	4-Nitrophenol	0/ 10	ug/kg		1000	1300	1080	1050	103		No		No		
47	SVOA	Acenaphthene	6/ 10	ug/kg	0450S0062	37	720	289	340	241		No		No		
47	SVOA	Acenaphthylene	1/ 10	ug/kg	0450S0062	26	510	395	420	134		No		No		
47	SVOA	Anthracene	6/ 10	ug/kg	0450S0062	72	2200	478	415	631		No		No		
47	SVOA	Benz(a)anthracene	7/ 10	ug/kg	0450S0062	77	5000	854	430	1469		No		No		
47	SVOA	Benzo(a)pyrene	8/ 10	ug/kg	0450S0062	28	5200	830	390	1549		No		No		
47	SVOA	Benzo(b)fluoranthene	8/ 10	ug/kg	0450S0062	34	4300	718	380	1271		No		No		
47	SVOA	Benzo(ghi)perylene	7/ 10	ug/kg	0450S0062	81	3000	595	395	858		No		No		
47	SVOA	Benzo(k)fluoranthene	8/ 10	ug/kg	0450S0062	26	4500	749	390	1333		No		No		
47	SVOA	Bis(2-chloroethoxy)methane	0/ 10	ug/kg		400	510	437	430	34.66		No		No		
47	SVOA	Bis(2-chloroethyl) ether	0/ 10	ug/kg		400	510	437	430	34.66		No		No		

EU	Analysis Type	Analyte	Freq of Dets	Units	Location of Max Value	Min	Max	Mean	Median	StdDev	RL Avg	> RL Avg	Max RL	> Max RL	Bkg	> Bkg
47	SVOA	Bis(2-ethylhexyl)phthalate	0/ 10	ug/kg		55	110	74.1	70.5	17.28		No		No		
47	SVOA	Butyl benzyl phthalate	0/ 10	ug/kg		400	510	437	430	34.66		No		No		
47	SVOA	Carbazole	6/ 10	ug/kg	0450S0062	36	1400	359	315	407		No		No		
47	SVOA	Chrysene	9/ 10	ug/kg	0450S0062	21	5300	796	310	1599		No		No		
47	SVOA	Dibenz(a,h)anthracene	7/ 10	ug/kg	0450S0062	33	970	299	190	286		No		No		
47	SVOA	Dibenzofuran	3/ 10	ug/kg	0450S0062	21	510	358	420	160		No		No		
47	SVOA	Diethyl phthalate	0/ 10	ug/kg		400	510	437	430	34.66		No		No		
47	SVOA	Dimethyl phthalate	0/ 10	ug/kg		400	510	437	430	34.66		No		No		
47	SVOA	Di-n-butyl phthalate	5/ 10	ug/kg	0450S0064	31	510	246	227	215		No		No		
47	SVOA	Di-n-octylphthalate	0/ 10	ug/kg		400	510	437	430	34.66		No		No		
47	SVOA	Fluoranthene	9/ 10	ug/kg	0450S0062	26	15000	2015	430	4597		No		No		
47	SVOA	Fluorene	6/ 10	ug/kg	0450S0062	32	710	283	325	241		No		No		
47	SVOA	Hexachlorobenzene	0/ 10	ug/kg		400	510	437	430	34.66		No		No		
47	SVOA	Hexachlorobutadiene	0/ 10	ug/kg		400	510	437	430	34.66		No		No		
47	SVOA	Hexachlorocyclopentadiene	0/ 10	ug/kg		400	510	437	430	34.66		No		No		
47	SVOA	Hexachloroethane	0/ 10	ug/kg		400	510	437	430	34.66		No		No		
47	SVOA	Indeno(1,2,3-cd)pyrene	7/ 10	ug/kg	0450S0062	70	2900	563	375	834		No		No		
47	SVOA	Isophorone	0/ 10	ug/kg		400	510	437	430	34.66		No		No		
47	SVOA	Naphthalene	4/ 10	ug/kg	0450S0062	28	470	289	405	182		No		No		
47	SVOA	Nitrobenzene	0/ 10	ug/kg		400	510	437	430	34.66		No		No		
47	SVOA	N-Nitroso-di-n-propylamine	0/ 10	ug/kg		400	510	437	430	34.66		No		No		
47	SVOA	N-Nitrosodiphenylamine	0/ 10	ug/kg		400	510	437	430	34.66		No		No		
47	SVOA	Pentachlorophenol	0/ 10	ug/kg		1000	1300	1080	1050	103		No		No		
47	SVOA	Phenanthrene	7/ 10	ug/kg	0450S0062	38	7800	1285	450	2356		No		No		
47	SVOA	Phenol	0/ 10	ug/kg		400	510	437	430	34.66		No		No		
47	SVOA	Pyrene	9/ 10	ug/kg	0450S0062	30	8800	1392	505	2670		No		No		
47	VOA	1,1,1-Trichloroethane	0/ 10	ug/kg		5	8	5.9	6	0.99		No		No		
47	VOA	1,1,2,2-Tetrachloroethane	0/ 10	ug/kg		5	8	5.9	6	0.99		No		No		
47	VOA	1,1,2-Trichloroethane	0/ 10	ug/kg		5	8	5.9	6	0.99		No		No		
47	VOA	1,1-Dichloroethane	0/ 10	ug/kg		5	8	5.9	6	0.99		No		No		
47	VOA	1,1-Dichloroethene	0/ 10	ug/kg		5	8	5.9	6	0.99		No		No		
47	VOA	1,2-Dichloroethane	0/ 10	ug/kg		5	8	5.9	6	0.99		No		No		
47	VOA	1,2-Dichloroethane (total)	0/ 10	ug/kg		5	8	5.9	6	0.99		No		No		
47	VOA	1,2-Dichloropropane	0/ 10	ug/kg		5	8	5.9	6	0.99		No		No		
47	VOA	2-Butanone	6/ 10	ug/kg	0450S0058	10	27	16.9	15.5	5.26		No		No		
47	VOA	2-Hexanone	0/ 10	ug/kg		10	15	11.8	12	1.81		No		No		

EU	Analysis Type	Analyte	Freq of Dets	Units	Location of Max Value	Min	Max	Mean	Median	StdDev	RL Avg	> RL Avg	Max RL	> Max RL	Bkg	> Bkg
47	VOA	4-Methyl-2-pentanone	0/ 10	ug/kg		10	15	11.8	12	1.81		No		No		
47	VOA	Acetone	10/ 10	ug/kg	0450S0058	53	310	168	180	72.72		No		No		
47	VOA	Benzene	4/ 10	ug/kg	0450S0070	1	8	4.2	5.5	2.86		No		No		
47	VOA	Bromodichloromethane	0/ 10	ug/kg		5	8	5.9	6	0.99		No		No		
47	VOA	Bromoform	0/ 10	ug/kg		5	8	5.9	6	0.99		No		No		
47	VOA	Bromomethane	0/ 10	ug/kg		10	15	11.8	12	1.81		No		No		
47	VOA	Carbon Disulfide	1/ 10	ug/kg	0450S0070	2	8	5.6	6	1.58		No		No		
47	VOA	Carbon tetrachloride	0/ 10	ug/kg		5	8	5.9	6	0.99		No		No		
47	VOA	Chlorobenzene	0/ 10	ug/kg		5	8	5.9	6	0.99		No		No		
47	VOA	Chloroethane	0/ 10	ug/kg		10	15	11.8	12	1.81		No		No		
47	VOA	Chloroform	0/ 10	ug/kg		5	8	5.9	6	0.99		No		No		
47	VOA	Chloromethane	0/ 10	ug/kg		10	15	11.8	12	1.81		No		No		
47	VOA	cis-1,2-Dichloroethene	0/ 10	ug/kg		5	8	5.9	6	0.99		No		No		
47	VOA	cis-1,3-Dichloropropene	0/ 10	ug/kg		5	8	5.9	6	0.99		No		No		
47	VOA	Dibromochloromethane	0/ 10	ug/kg		5	8	5.9	6	0.99		No		No		
47	VOA	Ethylbenzene	0/ 10	ug/kg		5	8	5.9	6	0.99		No		No		
47	VOA	Methylene chloride	0/ 10	ug/kg		11	22	15.1	14	3.54		No		No		
47	VOA	Styrene	0/ 10	ug/kg		5	8	5.9	6	0.99		No		No		
47	VOA	Tetrachloroethene	0/ 10	ug/kg		5	8	5.9	6	0.99		No		No		
47	VOA	Toluene	6/ 10	ug/kg	0450S0066	2	7	4.1	3.5	1.79		No		No		
47	VOA	trans-1,2-Dichloroethene	0/ 10	ug/kg		5	8	5.9	6	0.99		No		No		
47	VOA	Trans-1,3-Dichloropropene	0/ 10	ug/kg		5	8	5.9	6	0.99		No		No		
47	VOA	Trichloroethene	0/ 10	ug/kg		5	8	5.9	6	0.99		No		No		
47	VOA	Vinyl chloride	0/ 10	ug/kg		10	15	11.8	12	1.81		No		No		
47	VOA	Xylenes (total)	4/ 10	ug/kg	0450S0066	1	8	4.3	5.5	2.75		No		No		
55	METAL	Aluminum	10/ 10	mg/kg	0450S0079	13700	21100	16260	15600	2389		No		No	40300	No
55	METAL	Antimony	2/ 10	mg/kg	0450S0075	0.27	0.65	0.38	0.35	0.11		No		No	1.52	No
55	METAL	Arsenic	10/ 10	mg/kg	0450S0073	4.2	10.2	6.23	5.8	1.93	300	No	900	No	14.95	No
55	METAL	Barium	10/ 10	mg/kg	0450S0077	29.7	403	97.08	64.95	110		No		No	125	Yes
55	METAL	Beryllium	10/ 10	mg/kg	0450S0077	0.51	1.4	0.9	0.95	0.30	2000	No	6000	No	2.2	No
55	METAL	Cadmium	10/ 10	mg/kg	0450S0079	0.18	0.64	0.36	0.33	0.16		No		No	0.22	Yes
55	METAL	Calcium	10/ 10	mg/kg	0450S0081	848	114000	25925	12350	33593		No		No	2400	Yes
55	METAL	Chromium	10/ 10	mg/kg	0450S0079	14.9	32.3	22.79	22.9	4.85		No		No	44.88	No
55	METAL	Cobalt	10/ 10	mg/kg	0450S0077	3.8	23.2	10.78	10.65	5.25		No		No	42	No
55	METAL	Copper	10/ 10	mg/kg	0450S0079	11	43.9	21.73	19.8	10.08		No		No	22.48	Yes
55	METAL	Iron	10/ 10	mg/kg	0450S0075	17400	30100	24090	23250	3777		No		No	58600	No

EU	Analysis Type	Analyte	Freq of Dets	Units	Location of Max Value	Min	Max	Mean	Median	StdDev	RL Avg	> RL Avg	Max RL	> Max RL	Bkg	> Bkg
55	METAL	Lead	10/ 10	mg/kg	0450S0075	10	31.9	22.29	20.25	6.93		No		No	37.91	No
55	METAL	Magnesium	10/ 10	mg/kg	0450S0081	1080	21100	6750	3540	6684		No		No	3300	Yes
55	METAL	Manganese	10/ 10	mg/kg	0450S0077	110	2070	741.9	685.5	523		No		No	2200	No
55	METAL	Mercury	10/ 10	mg/kg	0450S0075	0.04	3.5	0.7	0.09	1.15	600	No	1800	No	0.17	Yes
55	METAL	Nickel	10/ 10	mg/kg	0450S0079	10.8	113	29.91	19.25	29.96		No		No	26.07	Yes
55	METAL	Potassium	10/ 10	mg/kg	0450S0079	1960	4050	2814	2905	624		No		No	5075	No
55	METAL	Selenium	1/ 10	mg/kg	0450S0073	0.55	0.77	0.68	0.68	0.06		No		No	1.47	No
55	METAL	Silver	0/ 10	mg/kg		0.09	0.13	0.11	0.115	0.01		No		No	0.6	No
55	METAL	Sodium	10/ 10	mg/kg	0450S0081	35.7	121	72.55	68.75	25.39		No		No	497	No
55	METAL	Thallium	0/ 10	mg/kg		0.55	0.77	0.68	0.68	0.06		No		No	0.4	Yes
55	METAL	Vanadium	10/ 10	mg/kg	0450S0073	21.4	37.4	30.13	30.9	5.19		No		No	65.47	No
55	METAL	Zinc	9/ 10	mg/kg	0450S0073	52.8	366	101	73.7	94.18		No		No	89.7	Yes
55	PPCB	PCB-1016	0/ 10	ug/kg		16	5000	531	18	1570	10000	No	100000	No		
55	PPCB	PCB-1221	0/ 10	ug/kg		16	5000	531	18	1570	10000	No	100000	No		
55	PPCB	PCB-1232	0/ 10	ug/kg		16	5000	531	18	1570	10000	No	100000	No		
55	PPCB	PCB-1242	0/ 10	ug/kg		16	5000	531	18	1570	10000	No	100000	No		
55	PPCB	PCB-1248	1/ 10	ug/kg	0450S0074	16	35000	3531	18	11057	10000	No	100000	No		
55	PPCB	PCB-1254	7/ 10	ug/kg	0450S0074	16	27000	2874	130	8481	10000	No	100000	No		
55	PPCB	PCB-1260	8/ 10	ug/kg	0450S0077	17	5000	702	155	1526	10000	No	100000	No		
55	RADS	Cesium-137	11/ 13	pCi/g	0450S0083	-0.01	0.54	0.19	0.18	0.15	2	No	20	No		
55	RADS	Neptunium-237	0/ 13	pCi/g		-0.04	0.02	0	0	0.02	5	No	50	No		
55	RADS	Radium-226	13/ 13	pCi/g	0450S0074	0.39	1.51	0.91	0.89	0.26	5	No	15	No	1.25	
55	RADS	Thorium-228	13/ 13	pCi/g	0450S0074	0.41	1.47	1.05	1.08	0.27		No		No	1.86	
55	RADS	Thorium-230	0/ 13	pCi/g		3.00	5.9	4.3	4.1	0.87		No		No	1.2	
55	RADS	Thorium-232	13/ 13	pCi/g	0450S0074	0.41	1.46	1.05	1.18	0.32	5	No	15	No	1.95	
55	RADS	Uranium-235	4/ 13	pCi/g	0450S0076	0.04	0.46	0.16	0.12	0.12	8	No	80	No		
55	RADS	Uranium-238	13/ 13	pCi/g	0450S0076	0.61	13.6	3.12	1.9	3.43	50	No	500	No	1.47	
55	SVOA	1,2,4-Trichlorobenzene	0/ 10	ug/kg		410	4100	1833	2100	1389		No		No		
55	SVOA	1,2-Dichlorobenzene	0/ 10	ug/kg		410	4100	1833	2100	1389		No		No		
55	SVOA	1,3-Dichlorobenzene	0/ 10	ug/kg		410	4100	1833	2100	1389		No		No		
55	SVOA	1,4-Dichlorobenzene	0/ 10	ug/kg		410	4100	1833	2100	1389		No		No		
55	SVOA	1-Chloropropane	0/ 10	ug/kg		410	4100	1833	2100	1389		No		No		
55	SVOA	2,4,5-Trichlorophenol	0/ 10	ug/kg		1000	10000	4570	5250	3435		No		No		
55	SVOA	2,4,6-Trichlorophenol	0/ 10	ug/kg		410	4100	1833	2100	1389		No		No		
55	SVOA	2,4-Dichlorophenol	0/ 10	ug/kg		410	4100	1833	2100	1389		No		No		
55	SVOA	2,4-Dimethylphenol	0/ 10	ug/kg		410	4100	1833	2100	1389		No		No		

EU	Analysis Type	Analyte	Freq of Dets	Units	Location of Max Value	Min	Max	Mean	Median	StdDev	RL Avg	> RL Avg	Max RL	> Max RL	Bkg	> Bkg
55	SVOA	2,4-Dinitrophenol	0/ 10	ug/kg	0450S0083	1000	10000	4570	5250	3435		No		No		
55	SVOA	2,4-Dinitrotoluene	0/ 10	ug/kg		410	4100	1833	2100	1389		No		No		
55	SVOA	2,6-Dinitrotoluene	0/ 10	ug/kg		410	4100	1833	2100	1389		No		No		
55	SVOA	2-Chloronaphthalene	0/ 10	ug/kg		410	4100	1833	2100	1389		No		No		
55	SVOA	2-Chlorophenol	0/ 10	ug/kg		410	4100	1833	2100	1389		No		No		
55	SVOA	2-Methylnaphthalene	4/ 10	ug/kg		30	4100	1378	1260	1377		No		No		
55	SVOA	2-Methylphenol	0/ 10	ug/kg		410	4100	1833	2100	1389		No		No		
55	SVOA	2-Nitroaniline	0/ 10	ug/kg		1000	10000	4570	5250	3435		No		No		
55	SVOA	2-Nitrophenol	0/ 10	ug/kg		410	4100	1833	2100	1389		No		No		
55	SVOA	3,3'-Dichlorobenzidine	0/ 10	ug/kg		410	4100	1833	2100	1389		No		No		
55	SVOA	3-4 Methylphenol	0/ 10	ug/kg		410	4100	1833	2100	1389		No		No		
55	SVOA	3-Nitroaniline	0/ 10	ug/kg		1000	10000	4570	5250	3435		No		No		
55	SVOA	1,6-dinitrophenol-2-Methylpheno	0/ 10	ug/kg		1000	10000	4570	5250	3435		No		No		
55	SVOA	4-Bromophenyl phenyl ether	0/ 10	ug/kg		410	4100	1833	2100	1389		No		No		
55	SVOA	4-Chloro-3-methylphenol	0/ 10	ug/kg		410	4100	1833	2100	1389		No		No		
55	SVOA	4-Chloroaniline	0/ 10	ug/kg		410	4100	1833	2100	1389		No		No		
55	SVOA	4-Chlorophenyl phenyl ether	0/ 10	ug/kg		410	4100	1833	2100	1389		No		No		
55	SVOA	4-Nitroaniline	0/ 10	ug/kg	0450S0083	1000	10000	4570	5250	3435		No		No		
55	SVOA	4-Nitrophenol	0/ 10	ug/kg		1000	10000	4570	5250	3435		No		No		
55	SVOA	Acenaphthene	5/ 10	ug/kg		46	2300	885	420	902		No		No		
55	SVOA	Acenaphthylene	1/ 10	ug/kg		41	4100	1789	2100	1442		No		No		
55	SVOA	Anthracene	7/ 10	ug/kg		24	3600	1145	570	1219		No		No		
55	SVOA	Benz(a)anthracene	8/ 10	ug/kg		150	9500	2362	1415	2904		No		No		
55	SVOA	Benzo(a)pyrene	7/ 10	ug/kg		150	8100	2257	2000	2389		No		No		
55	SVOA	Benzo(b)fluoranthene	8/ 10	ug/kg		190	6900	2012	1235	2141		No		No		
55	SVOA	Benzo(ghi)perylene	8/ 10	ug/kg		160	5000	1458	940	1509		No		No		
55	SVOA	Benzo(k)fluoranthene	8/ 10	ug/kg		180	7100	1907	1170	2152		No		No		
55	SVOA	Bis(2-chloroethoxy)methane	0/ 10	ug/kg		410	4100	1833	2100	1389		No		No		
55	SVOA	Bis(2-chloroethyl) ether	0/ 10	ug/kg		410	4100	1833	2100	1389		No		No		
55	SVOA	Bis(2-ethylhexyl)phthalate	0/ 10	ug/kg		27	4100	1752	2100	1486		No		No		
55	SVOA	Butyl benzyl phthalate	0/ 10	ug/kg		410	4100	1833	2100	1389		No		No		
55	SVOA	Carbazole	6/ 10	ug/kg		24	2800	995	420	1044		No		No		
55	SVOA	Chrysene	8/ 10	ug/kg		190	10000	2404	1445	3030		No		No		
55	SVOA	Dibenz(a,h)anthracene	5/ 10	ug/kg		170	2600	1057	530	934		No		No		
55	SVOA	Dibenzofuran	4/ 10	ug/kg		24	2300	1083	660	971		No		No		
55	SVOA	Diethyl phthalate	0/ 10	ug/kg		410	4100	1833	2100	1389		No		No		

EU	Analysis Type	Analyte	Freq of Dets	Units	Location of Max Value	Min	Max	Mean	Median	StdDev	RL Avg	> RL Avg	Max RL	> Max RL	Bkg	> Bkg
55	SVOA	Dimethyl phthalate	0/ 10	ug/kg		410	4100	1833	2100	1389		No		No		
55	SVOA	Di-n-butyl phthalate	0/ 10	ug/kg		410	4100	1833	2100	1389		No		No		
55	SVOA	Di-n-octylphthalate	0/ 10	ug/kg		410	4100	1833	2100	1389		No		No		
55	SVOA	Fluoranthene	8/ 10	ug/kg	0450S0083	170	20000	4842	1750	6439		No		No		
55	SVOA	Fluorene	5/ 10	ug/kg	0450S0083	49	2300	866	420	895		No		No		
55	SVOA	Hexachlorobenzene	0/ 10	ug/kg		410	21000	3723	2150	6227		No		No		
55	SVOA	Hexachlorobutadiene	0/ 10	ug/kg		410	4100	1833	2100	1389		No		No		
55	SVOA	Hexachlorocyclopentadiene	0/ 10	ug/kg		410	4100	1833	2100	1389		No		No		
55	SVOA	Hexachloroethane	0/ 10	ug/kg		410	4100	1833	2100	1389		No		No		
55	SVOA	Indeno(1,2,3-cd)pyrene	8/ 10	ug/kg	0450S0083	120	4700	1349	775	1445		No		No		
55	SVOA	Isophorone	0/ 10	ug/kg		410	4100	1833	2100	1389		No		No		
55	SVOA	Naphthalene	4/ 10	ug/kg	0450S0083	26	4100	1384	1265	1373		No		No		
55	SVOA	Nitrobenzene	0/ 10	ug/kg		410	4100	1833	2100	1389		No		No		
55	SVOA	N-Nitroso-di-n-propylamine	0/ 10	ug/kg		410	4100	1833	2100	1389		No		No		
55	SVOA	N-Nitrosodiphenylamine	0/ 10	ug/kg		410	4100	1833	2100	1389		No		No		
55	SVOA	Pentachlorophenol	0/ 10	ug/kg		1000	10000	4570	5250	3435		No		No		
55	SVOA	Phenanthrene	8/ 10	ug/kg	0450S0083	100	15000	3185	1470	4659		No		No		
55	SVOA	Phenol	0/ 10	ug/kg		410	4100	1833	2100	1389		No		No		
55	SVOA	Pyrene	8/ 10	ug/kg	0450S0083	300	18000	4754	1800	5967		No		No		
55	VOA	1,1,1-Trichloroethane	0/ 10	ug/kg		5	6	5.7	6	0.48		No		No		
55	VOA	1,1,2,2-Tetrachloroethane	0/ 10	ug/kg		5	6	5.7	6	0.48		No		No		
55	VOA	1,1,2-Trichloroethane	0/ 10	ug/kg		5	6	5.7	6	0.48		No		No		
55	VOA	1,1-Dichloroethane	0/ 10	ug/kg		5	6	5.7	6	0.48		No		No		
55	VOA	1,1-Dichloroethene	0/ 10	ug/kg		5	6	5.7	6	0.48		No		No		
55	VOA	1,2-Dichloroethane	0/ 10	ug/kg		5	6	5.7	6	0.48		No		No		
55	VOA	1,2-Dichloroethane (total)	0/ 10	ug/kg		5	6	5.7	6	0.48		No		No		
55	VOA	1,2-Dichloropropane	0/ 10	ug/kg		5	6	5.7	6	0.48		No		No		
55	VOA	2-Butanone	8/ 10	ug/kg	0450S0075	9	32	18.2	18	7.64		No		No		
55	VOA	2-Hexanone	0/ 10	ug/kg		4	13	10.5	11	2.51		No		No		
55	VOA	4-Methyl-2-pentanone	0/ 10	ug/kg		10	13	11.3	11.5	1.06		No		No		
55	VOA	Acetone	10/ 10	ug/kg	0450S0075	79	260	153	150	61.45		No		No		
55	VOA	Benzene	1/ 10	ug/kg	0450S0075	1	6	5.2	6	1.55		No		No		
55	VOA	Bromodichloromethane	0/ 10	ug/kg		5	6	5.7	6	0.48		No		No		
55	VOA	Bromoform	0/ 10	ug/kg		5	6	5.7	6	0.48		No		No		
55	VOA	Bromomethane	0/ 10	ug/kg		10	13	11.3	11.5	1.06		No		No		
55	VOA	Carbon Disulfide	2/ 10	ug/kg	0450S0071	2	6	5.1	6	1.45		No		No		

EU	Analysis Type	Analyte	Freq of Dets	Units	Location of Max Value	Min	Max	Mean	Median	StdDev	RL Avg	> RL Avg	Max RL	> Max RL	Bkg	> Bkg
55	VOA	Carbon tetrachloride	0/ 10	ug/kg		5	6	5.7	6	0.48		No		No		
55	VOA	Chlorobenzene	0/ 10	ug/kg		5	6	5.7	6	0.48		No		No		
55	VOA	Chloroethane	0/ 10	ug/kg		10	13	11.3	11.5	1.06		No		No		
55	VOA	Chloroform	0/ 10	ug/kg		5	6	5.7	6	0.48		No		No		
55	VOA	Chloromethane	0/ 10	ug/kg		10	13	11.3	11.5	1.06		No		No		
55	VOA	cis-1,2-Dichloroethene	0/ 10	ug/kg		5	6	5.7	6	0.48		No		No		
55	VOA	cis-1,3-Dichloropropene	0/ 10	ug/kg		5	6	5.7	6	0.48		No		No		
55	VOA	Dibromochloromethane	0/ 10	ug/kg		5	6	5.7	6	0.48		No		No		
55	VOA	Ethylbenzene	0/ 10	ug/kg		5	6	5.7	6	0.48		No		No		
55	VOA	Methylene chloride	0/ 10	ug/kg		6	9	7.5	7.5	1.08		No		No		
55	VOA	Styrene	0/ 10	ug/kg		5	6	5.7	6	0.48		No		No		
55	VOA	Tetrachloroethene	0/ 10	ug/kg		5	6	5.7	6	0.48		No		No		
55	VOA	Toluene	4/ 10	ug/kg	0450S0083	2	6	4.2	5	1.93		No		No		
55	VOA	trans-1,2-Dichloroethene	0/ 10	ug/kg		5	6	5.7	6	0.48		No		No		
55	VOA	Trans-1,3-Dichloropropene	0/ 10	ug/kg		5	6	5.7	6	0.48		No		No		
55	VOA	Trichloroethene	1/ 10	ug/kg	0450S0075	2	6	5.3	6	1.25		No		No		
55	VOA	Vinyl chloride	0/ 10	ug/kg		10	13	11.3	11.5	1.06		No		No		
55	VOA	Xylenes (total)	0/ 10	ug/kg		5	6	5.7	6	0.48		No		No		
57	METAL	Aluminum	11/ 11	mg/kg	0450S0006	5060	14800	1162	11800	2925		No		No	40300	No
57	METAL	Antimony	8/ 11	mg/kg	0450S0009	0.21	1.1	0.36	0.26	0.25		No		No	1.52	No
57	METAL	Arsenic	11/ 11	mg/kg	0450S0002	3	10.2	5.98	6.1	2.55	300	No	900	No	14.95	No
57	METAL	Barium	11/ 11	mg/kg	0450S0003	33.70	124	67.98	59.4	25.86		No		No	125	No
57	METAL	Beryllium	11/ 11	mg/kg	0450S0003	0.27	0.86	0.49	0.45	0.16	2000	No	6000	No	2.2	No
57	METAL	Cadmium	11/ 11	mg/kg	0450S0009	0.12	0.41	0.28	0.28	0.08		No		No	0.22	Yes
57	METAL	Calcium	11/ 11	mg/kg	0450S0001	13700	235000	92573	79500	71662		No		No	2400	Yes
57	METAL	Chromium	11/ 11	mg/kg	0450S0012	7.50	23	14.52	14.5	3.95		No		No	44.88	No
57	METAL	Cobalt	11/ 11	mg/kg	0450S0003	2.90	25	7.5	5.8	6.04		No		No	42	No
57	METAL	Copper	11/ 11	mg/kg	0450S0009	6.10	11.5	9.35	9.6	1.85		No		No	22.48	No
57	METAL	Iron	11/ 11	mg/kg	0450S0012	6740	24600	14211	13300	5373		No		No	58600	No
57	METAL	Lead	11/ 11	mg/kg	0450S0003	6.80	34.5	17.54	16	7.52		No		No	37.91	No
57	METAL	Magnesium	11/ 11	mg/kg	0450S0010	460	22100	9769	9630	6849		No		No	3300	Yes
57	METAL	Manganese	11/ 11	mg/kg	0450S0003	205	3400	931.91	663	918		No		No	2200	Yes
57	METAL	Mercury	11/ 11	mg/kg	0450S0012	0.04	0.1	0.07	0.07	0.02	600	No	1800	No	0.17	No
57	METAL	Nickel	11/ 11	mg/kg	0450S0009	6.9	12.9	10.85	11.3	1.79		No		No	26.07	No
57	METAL	Potassium	11/ 11	mg/kg	0450S0008	582	2880	1912	2070	698		No		No	5075	No
57	METAL	Selenium	2/ 11	mg/kg	0450S0006	0.42	0.59	0.47	0.45	0.06		No		No	1.47	No

EU	Analysis Type	Analyte	Freq of Dets	Units	Location of Max Value	Min	Max	Mean	Median	StdDev	RL Avg	> RL Avg	Max RL	> Max RL	Bkg	> Bkg
57	METAL	Silver	0/ 11	mg/kg	0450S0001	0.09	0.1	0.09	0.09	0.01		No		No	0.6	No
57	METAL	Sodium	6/ 11	mg/kg		41.7	162	92.67	88.6	43.77		No		No	497	No
57	METAL	Thallium	0/ 11	mg/kg		0.78	0.87	0.83	0.84	0.03		No		No	0.4	Yes
57	METAL	Vanadium	11/ 11	mg/kg	0450S0012	8	35.8	21.22	21.4	8.52		No		No	65.47	No
57	METAL	Zinc	5/ 11	mg/kg	0450S0002	27.2	48.2	38.22	38.6	6.76		No		No	89.7	No
57	PPCB	PCB-1016	0/ 11	ug/kg	0450S0005	14	15	14.36	14	0.50	10000	No	100000	No		
57	PPCB	PCB-1221	0/ 11	ug/kg		14	15	14.36	14	0.50	10000	No	100000	No		
57	PPCB	PCB-1232	0/ 11	ug/kg		14	15	14.36	14	0.50	10000	No	100000	No		
57	PPCB	PCB-1242	0/ 11	ug/kg		14	15	14.36	14	0.50	10000	No	100000	No		
57	PPCB	PCB-1248	0/ 11	ug/kg		14	15	14.36	14	0.50	10000	No	100000	No		
57	PPCB	PCB-1254	1/ 11	ug/kg		14	18	14.73	14	1.19	10000	No	100000	No		
57	PPCB	PCB-1260	6/ 11	ug/kg		3.6	26	12.86	14	6.69	10000	No	100000	No		
57	RADS	Cesium-137	11/ 11	pCi/g	0450S0010	0.11	1.05	0.6	0.59	0.31	2	No	20	No		
57	RADS	Neptunium-237	0/ 11	pCi/g		-0.01	0.02	0.01	0	0.01	5	No	50	No		
57	RADS	Radium-226	11/ 11	pCi/g	0450S0011	0.29	0.89	0.56	0.55	0.19	5	No	15	No	1.25	
57	RADS	Thorium-228	11/ 11	pCi/g	0450S0012	0.36	1.1	0.66	0.64	0.21		No		No	1.86	
57	RADS	Thorium-230	0/ 11	pCi/g		-2.7	2.5	-0.13	-0.2	1.58		No		No	1.2	
57	RADS	Thorium-232	11/ 11	pCi/g	0450S0012	0.37	1.24	0.72	0.64	0.24	5	No	15	No	1.95	
57	RADS	Uranium-235	1/ 11	pCi/g	0450S0004	-0.02	0.21	0.07	0.07	0.06	8	No	80	No		
57	RADS	Uranium-238	9/ 11	pCi/g	0450S0012	0.32	1.46	0.88	0.9	0.35	50	No	500	No	1.47	
57	SVOA	1,2,4-Trichlorobenzene	0/ 11	ug/kg		340	370	356	360	9.24		No		No		
57	SVOA	1,2-Dichlorobenzene	0/ 11	ug/kg		340	370	356	360	9.24		No		No		
57	SVOA	1,3-Dichlorobenzene	0/ 11	ug/kg		340	370	356	360	9.24		No		No		
57	SVOA	1,4-Dichlorobenzene	0/ 11	ug/kg		340	370	356	360	9.24		No		No		
57	SVOA	1-Chloropropane	0/ 11	ug/kg		340	370	356	360	9.24		No		No		
57	SVOA	2,4,5-Trichlorophenol	0/ 11	ug/kg		850	930	894	900	23.36		No		No		
57	SVOA	2,4,6-Trichlorophenol	0/ 11	ug/kg		340	370	356	360	9.24		No		No		
57	SVOA	2,4-Dichlorophenol	0/ 11	ug/kg		340	370	356	360	9.24		No		No		
57	SVOA	2,4-Dimethylphenol	0/ 11	ug/kg		340	370	356	360	9.24		No		No		
57	SVOA	2,4-Dinitrophenol	0/ 11	ug/kg		850	930	894	900	23.36		No		No		
57	SVOA	2,4-Dinitrotoluene	0/ 11	ug/kg		340	370	356	360	9.24		No		No		
57	SVOA	2,6-Dinitrotoluene	0/ 11	ug/kg		340	370	356	360	9.24		No		No		
57	SVOA	2-Chloronaphthalene	0/ 11	ug/kg		340	370	356	360	9.24		No		No		
57	SVOA	2-Chlorophenol	0/ 11	ug/kg		340	370	356	360	9.24		No		No		
57	SVOA	2-Methylnaphthalene	0/ 11	ug/kg		340	370	356	360	9.24		No		No		
57	SVOA	2-Methylphenol	0/ 11	ug/kg		340	370	356	360	9.24		No		No		

EU	Analysis Type	Analyte	Freq of Dets	Units	Location of Max Value	Min	Max	Mean	Median	StdDev	RL Avg	> RL Avg	Max RL	> Max RL	Bkg	> Bkg
57	SVOA	2-Nitroaniline	0/ 11	ug/kg		850	930	894	900	23.36		No		No		
57	SVOA	2-Nitrophenol	0/ 11	ug/kg		340	370	356	360	9.24		No		No		
57	SVOA	3,3'-Dichlorobenzidine	0/ 11	ug/kg		340	370	356	360	9.24		No		No		
57	SVOA	3-4 Methylphenol	0/ 11	ug/kg		340	370	356	360	9.24		No		No		
57	SVOA	3-Nitroaniline	0/ 11	ug/kg		850	930	894	900	23.36		No		No		
57	SVOA	1,6-dinitrophenol-2-Methylpheno	0/ 11	ug/kg		850	930	894	900	23.36		No		No		
57	SVOA	4-Bromophenyl phenyl ether	0/ 11	ug/kg		340	370	356	360	9.24		No		No		
57	SVOA	4-Chloro-3-methylphenol	0/ 11	ug/kg		340	370	356	360	9.24		No		No		
57	SVOA	4-Chloroaniline	0/ 11	ug/kg		340	370	356	360	9.24		No		No		
57	SVOA	4-Chlorophenyl phenyl ether	0/ 11	ug/kg		340	370	356	360	9.24		No		No		
57	SVOA	4-Nitroaniline	0/ 11	ug/kg		850	930	894	900	23.36		No		No		
57	SVOA	4-Nitrophenol	0/ 11	ug/kg		850	930	894	900	23.36		No		No		
57	SVOA	Acenaphthene	0/ 11	ug/kg		340	370	356	360	9.24		No		No		
57	SVOA	Acenaphthylene	0/ 11	ug/kg		340	370	356	360	9.24		No		No		
57	SVOA	Anthracene	0/ 11	ug/kg		340	370	356	360	9.24		No		No		
57	SVOA	Benz(a)anthracene	2/ 11	ug/kg	0450S0002	18	370	301	360	123		No		No		
57	SVOA	Benzo(a)pyrene	3/ 11	ug/kg	0450S0002	24	370	275	360	143		No		No		
57	SVOA	Benzo(b)fluoranthene	3/ 11	ug/kg	0450S0002	25	370	276	360	142		No		No		
57	SVOA	Benzo(ghi)perylene	3/ 11	ug/kg	0450S0002	20	370	267	360	146		No		No		
57	SVOA	Benzo(k)fluoranthene	2/ 11	ug/kg	0450S0002	19	370	302	360	125		No		No		
57	SVOA	Bis(2-chloroethoxy)methane	0/ 11	ug/kg		340	370	356	360	9.24		No		No		
57	SVOA	Bis(2-chloroethyl) ether	0/ 11	ug/kg		340	370	356	360	9.24		No		No		
57	SVOA	Bis(2-ethylhexyl)phthalate	0/ 11	ug/kg		66	390	159	140	87.32		No		No		
57	SVOA	Butyl benzyl phthalate	1/ 11	ug/kg	0450S0004	22	370	326	360	101		No		No		
57	SVOA	Carbazole	0/ 11	ug/kg		340	370	356	360	9.24		No		No		
57	SVOA	Chrysene	4/ 11	ug/kg	0450S0002	21	370	245	360	159		No		No		
57	SVOA	Dibenz(a,h)anthracene	1/ 11	ug/kg	0450S0002	44	370	328	360	94.52		No		No		
57	SVOA	Dibenzofuran	0/ 11	ug/kg		340	370	356	360	9.24		No		No		
57	SVOA	Diethyl phthalate	0/ 11	ug/kg		340	370	356	360	9.24		No		No		
57	SVOA	Dimethyl phthalate	0/ 11	ug/kg		340	370	356	360	9.24		No		No		
57	SVOA	Di-n-butyl phthalate	0/ 11	ug/kg		19	38	27	23	7.05		No		No		
57	SVOA	Di-n-octylphthalate	1/ 11	ug/kg	0450S0004	33	370	327	360	97.82		No		No		
57	SVOA	Fluoranthene	4/ 11	ug/kg	0450S0002	18	370	246	340	156		No		No		
57	SVOA	Fluorene	0/ 11	ug/kg		340	370	356	360	9.24		No		No		
57	SVOA	Hexachlorobenzene	0/ 11	ug/kg		340	370	356	360	9.24		No		No		
57	SVOA	Hexachlorobutadiene	0/ 11	ug/kg		340	370	356	360	9.24		No		No		

EU	Analysis Type	Analyte	Freq of Dets	Units	Location of Max Value	Min	Max	Mean	Median	StdDev	RL Avg	> RL Avg	Max RL	> Max RL	Bkg	> Bkg
57	SVOA	Hexachlorocyclopentadiene	0/ 11	ug/kg	0450S0002	340	370	356	360	9.24		No		No		
57	SVOA	Hexachloroethane	0/ 11	ug/kg		340	370	356	360	9.24		No		No		
57	SVOA	Indeno(1,2,3-cd)pyrene	2/ 11	ug/kg		21	370	300	360	125		No		No		
57	SVOA	Isophorone	0/ 11	ug/kg		340	370	356	360	9.24		No		No		
57	SVOA	Naphthalene	0/ 11	ug/kg		340	370	356	360	9.24		No		No		
57	SVOA	Nitrobenzene	0/ 11	ug/kg		340	370	356	360	9.24		No		No		
57	SVOA	N-Nitroso-di-n-propylamine	0/ 11	ug/kg		340	370	356	360	9.24		No		No		
57	SVOA	N-Nitrosodiphenylamine	0/ 11	ug/kg		340	370	356	360	9.24		No		No		
57	SVOA	Pentachlorophenol	0/ 11	ug/kg	0450S0002	850	930	894	900	23.36		No		No		
57	SVOA	Phenanthrene	3/ 11	ug/kg		18	370	272	360	148		No		No		
57	SVOA	Phenol	3/ 11	ug/kg	0450S0005	20	370	236	360	170		No		No		
57	SVOA	Pyrene	4/ 11	ug/kg	0450S0002	18	370	255	340	151		No		No		
59	METAL	Aluminum	11/ 11	mg/kg	0450S0026	6620	15200	11092	10600	2165		No		No	40300	No
59	METAL	Antimony	5/ 11	mg/kg	0450S0023	0.22	0.64	0.33	0.24	0.16		No		No	1.52	No
59	METAL	Arsenic	11/ 11	mg/kg	0450S0026	3	23.4	12.39	11.3	6.91	300	No	900	No	14.95	Yes
59	METAL	Barium	11/ 11	mg/kg	0450S0025	45.20	162	106	116	39.38		No		No	125	Yes
59	METAL	Beryllium	11/ 11	mg/kg	0450S0027	0.32	0.86	0.68	0.81	0.21	2000	No	6000	No	2.2	No
59	METAL	Cadmium	10/ 11	mg/kg	0450S0017	0.05	0.18	0.11	0.1	0.04		No		No	0.22	No
59	METAL	Calcium	11/ 11	mg/kg	0450S0017	576	172000	18697	1320	51207		No		No	2400	Yes
59	METAL	Chromium	11/ 11	mg/kg	0450S0020	7.1	29	16.35	16.1	5.32		No		No	44.88	No
59	METAL	Cobalt	11/ 11	mg/kg	0450S0023	4	19.6	12.15	11.1	4.27		No		No	42	No
59	METAL	Copper	11/ 11	mg/kg	0450S0026	5.6	32.3	15.15	14.3	9.07		No		No	22.48	Yes
59	METAL	Iron	11/ 11	mg/kg	0450S0027	6330	28300	21866	22800	6768		No		No	58600	No
59	METAL	Lead	11/ 11	mg/kg	0450S0026	12	49.5	24.8	25	11.67		No		No	37.91	Yes
59	METAL	Magnesium	11/ 11	mg/kg	0450S0017	428	26900	3572	1270	7769		No		No	3300	Yes
59	METAL	Manganese	11/ 11	mg/kg	0450S0020	540	2060	1021	795	515		No		No	2200	No
59	METAL	Mercury	11/ 11	mg/kg	0450S0026	0.03	0.15	0.07	0.05	0.04	600	No	1800	No	0.17	No
59	METAL	Nickel	11/ 11	mg/kg	0450S0027	6.40	20.9	14.3	16.3	5.45		No		No	26.07	No
59	METAL	Potassium	11/ 11	mg/kg	0450S0017	375	2210	1022	1060	491		No		No	5075	No
59	METAL	Selenium	9/ 11	mg/kg	0450S0024	0.43	1	0.68	0.68	0.18		No		No	1.47	No
59	METAL	Silver	0/ 11	mg/kg		0.09	0.1	0.09	0.09	0.01		No		No	0.6	No
59	METAL	Sodium	1/ 11	mg/kg	0450S0017	25.9	142	47.04	38.8	32.09		No		No	497	No
59	METAL	Thallium	1/ 11	mg/kg	0450S0027	0.8	1.4	0.88	0.83	0.17		No		No	0.4	Yes
59	METAL	Vanadium	11/ 11	mg/kg	0450S0020	7.9	54.6	31.22	24.4	15.59		No		No	65.47	No
59	METAL	Zinc	11/ 11	mg/kg	0450S0026	29.2	127	67.68	54.6	29.50		No		No	89.7	Yes
59	PPCB	PCB-1016	0/ 12	ug/kg		14	15	14.33	14	0.49	10000	No	100000	No		

EU	Analysis Type	Analyte	Freq of Dets	Units	Location of Max Value	Min	Max	Mean	Median	StdDev	RL Avg	> RL Avg	Max RL	> Max RL	Bkg	> Bkg
59	PPCB	PCB-1221	0/ 12	ug/kg		14	15	14.33	14	0.49	10000	No	100000	No		
59	PPCB	PCB-1232	0/ 12	ug/kg		14	15	14.33	14	0.49	10000	No	100000	No		
59	PPCB	PCB-1242	0/ 12	ug/kg		14	15	14.33	14	0.49	10000	No	100000	No		
59	PPCB	PCB-1248	0/ 12	ug/kg		14	15	14.33	14	0.49	10000	No	100000	No		
59	PPCB	PCB-1254	1/ 12	ug/kg	0450S0017	14	22	15	14	2.26	10000	No	100000	No		
59	PPCB	PCB-1260	3/ 12	ug/kg	0450S0021	5.5	16	13.96	14.5	2.77	10000	No	100000	No		
59	RADS	Cesium-137	10/ 12	pCi/g	0450S0017	0.02	0.99	0.2	0.09	0.28	2	No	20	No		
59	RADS	Neptunium-237	0/ 12	pCi/g		-0.02	0.03	0.01	0.01	0.02	5	No	50	No		
59	RADS	Radium-226	12/ 12	pCi/g	0450S0026	0.32	1.38	0.94	0.9	0.28	5	No	15	No	1.25	
59	RADS	Thorium-228	12/ 12	pCi/g	0450S0027	0.37	1.42	1.08	1.15	0.30		No		No	1.86	
59	RADS	Thorium-230	0/ 12	pCi/g		-3.30	3.7	1.11	1.9	2.17		No		No	1.2	
59	RADS	Thorium-232	12/ 12	pCi/g	0450S0027	0.35	1.66	1.17	1.22	0.33	5	No	15	No	1.95	
59	RADS	Uranium-235	1/ 12	pCi/g	0450S0023	-0.01	0.56	0.12	0.11	0.15	8	No	80	No		
59	RADS	Uranium-238	12/ 12	pCi/g	0450S0026	0.85	2.58	1.54	1.44	0.51	50	No	500	No	1.47	
59	SVOA	1,2,4-Trichlorobenzene	0/ 12	ug/kg		340	380	358	355	11.93		No		No		
59	SVOA	1,2-Dichlorobenzene	0/ 12	ug/kg		340	380	358	355	11.93		No		No		
59	SVOA	1,3-Dichlorobenzene	0/ 12	ug/kg		340	380	358	355	11.93		No		No		
59	SVOA	1,4-Dichlorobenzene	0/ 12	ug/kg		340	380	358	355	11.93		No		No		
59	SVOA	1-Chloropropane	0/ 12	ug/kg		340	380	358	355	11.93		No		No		
59	SVOA	2,4,5-Trichlorophenol	0/ 12	ug/kg		860	960	895	890	31.48		No		No		
59	SVOA	2,4,6-Trichlorophenol	0/ 12	ug/kg		340	380	358	355	11.93		No		No		
59	SVOA	2,4-Dichlorophenol	0/ 12	ug/kg		340	380	358	355	11.93		No		No		
59	SVOA	2,4-Dimethylphenol	0/ 12	ug/kg		340	380	358	355	11.93		No		No		
59	SVOA	2,4-Dinitrophenol	0/ 12	ug/kg		860	960	895	890	31.48		No		No		
59	SVOA	2,4-Dinitrotoluene	0/ 12	ug/kg		340	380	358	355	11.93		No		No		
59	SVOA	2,6-Dinitrotoluene	0/ 12	ug/kg		340	380	358	355	11.93		No		No		
59	SVOA	2-Chloronaphthalene	0/ 12	ug/kg		340	380	358	355	11.93		No		No		
59	SVOA	2-Chlorophenol	0/ 12	ug/kg		340	380	358	355	11.93		No		No		
59	SVOA	2-Methylnaphthalene	5/ 12	ug/kg	0450S0025	20	380	225	345	162		No		No		
59	SVOA	2-Methylphenol	0/ 12	ug/kg		340	380	358	355	11.93		No		No		
59	SVOA	2-Nitroaniline	0/ 12	ug/kg		350	960	851	890	161		No		No		
59	SVOA	2-Nitrophenol	0/ 12	ug/kg		340	380	358	355	11.93		No		No		
59	SVOA	3,3'-Dichlorobenzidine	0/ 12	ug/kg		340	380	358	355	11.93		No		No		
59	SVOA	3-4 Methylphenol	0/ 12	ug/kg		340	380	358	355	11.93		No		No		
59	SVOA	3-Nitroaniline	0/ 12	ug/kg		860	960	895	890	31.48		No		No		
59	SVOA	1,6-dinitrophenol-2-Methylpheno	0/ 12	ug/kg		860	960	895	890	31.48		No		No		

EU	Analysis Type	Analyte	Freq of Dets	Units	Location of Max Value	Min	Max	Mean	Median	StdDev	RL Avg	> RL Avg	Max RL	> Max RL	Bkg	> Bkg
59	SVOA	4-Bromophenyl phenyl ether	0/ 12	ug/kg	0450S0026	340	380	358	355	11.93		No		No		
59	SVOA	4-Chloro-3-methylphenol	0/ 12	ug/kg		340	380	358	355	11.93		No		No		
59	SVOA	4-Chloroaniline	0/ 12	ug/kg		340	380	358	355	11.93		No		No		
59	SVOA	4-Chlorophenyl phenyl ether	0/ 12	ug/kg		340	380	358	355	11.93		No		No		
59	SVOA	4-Nitroaniline	0/ 12	ug/kg		860	960	895	890	31.48		No		No		
59	SVOA	4-Nitrophenol	0/ 12	ug/kg		860	960	895	890	31.48		No		No		
59	SVOA	Acenaphthene	0/ 12	ug/kg		340	380	358	355	11.93		No		No		
59	SVOA	Acenaphthylene	0/ 12	ug/kg		340	380	358	355	11.93		No		No		
59	SVOA	Anthracene	0/ 12	ug/kg		340	380	358	355	11.93		No		No		
59	SVOA	Benz(a)anthracene	0/ 12	ug/kg		340	380	358	355	11.93		No		No		
59	SVOA	Benzo(a)pyrene	0/ 12	ug/kg		340	380	358	355	11.93		No		No		
59	SVOA	Benzo(b)fluoranthene	0/ 12	ug/kg		340	380	358	355	11.93		No		No		
59	SVOA	Benzo(ghi)perylene	0/ 12	ug/kg		340	380	358	355	11.93		No		No		
59	SVOA	Benzo(k)fluoranthene	0/ 12	ug/kg		340	380	358	355	11.93		No		No		
59	SVOA	Bis(2-chloroethoxy)methane	0/ 12	ug/kg		340	380	358	355	11.93		No		No		
59	SVOA	Bis(2-chloroethyl) ether	0/ 12	ug/kg		340	380	358	355	11.93		No		No		
59	SVOA	Bis(2-ethylhexyl)phthalate	0/ 12	ug/kg		26	110	44.17	34	24.95		No		No		
59	SVOA	Butyl benzyl phthalate	0/ 12	ug/kg		340	380	358	355	11.93		No		No		
59	SVOA	Carbazole	0/ 12	ug/kg		305	380	355	355	19.48		No		No		
59	SVOA	Chrysene	0/ 12	ug/kg		340	380	358	355	11.93		No		No		
59	SVOA	Dibenz(a,h)anthracene	0/ 12	ug/kg		340	380	358	355	11.93		No		No		
59	SVOA	Dibenzofuran	0/ 12	ug/kg		340	380	358	355	11.93		No		No		
59	SVOA	Diethyl phthalate	0/ 12	ug/kg		340	380	358	355	11.93		No		No		
59	SVOA	Dimethyl phthalate	0/ 12	ug/kg		340	380	358	355	11.93		No		No		
59	SVOA	Di-n-butyl phthalate	6/ 12	ug/kg		19	370	189	186	176		No		No		
59	SVOA	Di-n-octylphthalate	0/ 12	ug/kg		340	380	358	355	11.93		No		No		
59	SVOA	Fluoranthene	0/ 12	ug/kg		340	380	358	355	11.93		No		No		
59	SVOA	Fluorene	0/ 12	ug/kg		340	380	358	355	11.93		No		No		
59	SVOA	Hexachlorobenzene	0/ 12	ug/kg		35	380	332	355	94.28		No		No		
59	SVOA	Hexachlorobutadiene	0/ 12	ug/kg		340	380	358	355	11.93		No		No		
59	SVOA	Hexachlorocyclopentadiene	0/ 12	ug/kg		340	380	358	355	11.93		No		No		
59	SVOA	Hexachloroethane	0/ 12	ug/kg		340	380	358	355	11.93		No		No		
59	SVOA	Indeno(1,2,3-cd)pyrene	0/ 12	ug/kg	0450S0025	340	380	358	355	11.93		No		No		
59	SVOA	Isophorone	0/ 12	ug/kg		340	380	358	355	11.93		No		No		
59	SVOA	Naphthalene	4/ 12	ug/kg		20	380	249	350	161		No		No		
59	SVOA	Nitrobenzene	0/ 12	ug/kg		340	380	358	355	11.93		No		No		

EU	Analysis Type	Analyte	Freq of Dets	Units	Location of Max Value	Min	Max	Mean	Median	StdDev	RL Avg	> RL Avg	Max RL	> Max RL	Bkg	> Bkg
59	SVOA	N-Nitroso-di-n-propylamine	0/ 12	ug/kg	0450S0022	340	380	358	355	11.93		No		No		
59	SVOA	N-Nitrosodiphenylamine	0/ 12	ug/kg		340	380	358	355	11.93		No		No		
59	SVOA	Pentachlorophenol	0/ 12	ug/kg		860	960	895	890	31.48		No		No		
59	SVOA	Phenanthrene	4/ 12	ug/kg		20	380	248	350	162		No		No		
59	SVOA	Phenol	0/ 12	ug/kg		340	380	358	355	11.93		No		No		
59	SVOA	Pyrene	1/ 12	ug/kg	0450S0017	20	380	330	350	98.35		No		No		
59	VOA	1,1,1,2-Tetrachloroethane	0/ 2	ug/kg	0450S0027	5	6	5.5	5.5	0.71		No		No		
59	VOA	1,1,1-Trichloroethane	0/ 2	ug/kg		5	6	5.5	5.5	0.71		No		No		
59	VOA	1,1,2-Trichloroethane	0/ 2	ug/kg		5	6	5.5	5.5	0.71		No		No		
59	VOA	1,1-Dichloroethene	0/ 2	ug/kg		5	6	5.5	5.5	0.71		No		No		
59	VOA	1,2,3-Trichlorobenzene	0/ 2	ug/kg		5	6	5.5	5.5	0.71		No		No		
59	VOA	1,2,3-Trichloropropane	0/ 2	ug/kg		5	6	5.5	5.5	0.71		No		No		
59	VOA	1,2,4-Trichlorobenzene	0/ 2	ug/kg		5	6	5.5	5.5	0.71		No		No		
59	VOA	1,2,4-Trimethylbenzene	1/ 2	ug/kg		1	5	3	3	2.83		No		No		
59	VOA	1,2-Dichlorobenzene	0/ 2	ug/kg		5	6	5.5	5.5	0.71		No		No		
59	VOA	1,2-Dimethylbenzene	0/ 2	ug/kg		5	6	5.5	5.5	0.71		No		No		
59	VOA	1,3,5-trimethylbenzene	0/ 2	ug/kg		5	6	5.5	5.5	0.71		No		No		
59	VOA	1,3-Dichlorobenzene	0/ 2	ug/kg		5	6	5.5	5.5	0.71		No		No		
59	VOA	1,4-Dichlorobenzene	0/ 2	ug/kg		5	6	5.5	5.5	0.71		No		No		
59	VOA	2-Butanone	0/ 2	ug/kg		10	11	10.5	10.5	0.71		No		No		
59	VOA	2-Hexanone	0/ 2	ug/kg		10	11	10.5	10.5	0.71		No		No		
59	VOA	4-Isopropyltoluene	0/ 2	ug/kg		5	6	5.5	5.5	0.71		No		No		
59	VOA	4-Methyl-2-pentanone	0/ 2	ug/kg		10	11	10.5	10.5	0.71		No		No		
59	VOA	Acetone	0/ 2	ug/kg		10	11	10.5	10.5	0.71		No		No		
59	VOA	Benzene	1/ 2	ug/kg		3	5	4	4	1.41		No		No		
59	VOA	Bromobenzene	0/ 2	ug/kg		5	6	5.5	5.5	0.71		No		No		
59	VOA	Bromochloromethane	0/ 2	ug/kg		5	6	5.5	5.5	0.71		No		No		
59	VOA	Bromodichloromethane	0/ 2	ug/kg		5	6	5.5	5.5	0.71		No		No		
59	VOA	Bromoform	0/ 2	ug/kg		5	6	5.5	5.5	0.71		No		No		
59	VOA	Carbon tetrachloride	0/ 2	ug/kg		5	6	5.5	5.5	0.71		No		No		
59	VOA	Chlorobenzene	0/ 2	ug/kg		5	6	5.5	5.5	0.71		No		No		
59	VOA	Chloroform	0/ 2	ug/kg		5	6	5.5	5.5	0.71		No		No		
59	VOA	Chloromethane	0/ 2	ug/kg		10	11	10.5	10.5	0.71		No		No		
59	VOA	cis-1,2-Dichloroethene	0/ 2	ug/kg		5	6	5.5	5.5	0.71		No		No		
59	VOA	Dibromochloromethane	0/ 2	ug/kg		5	6	5.5	5.5	0.71		No		No		
59	VOA	Dibromomethane	0/ 2	ug/kg		5	6	5.5	5.5	0.71		No		No		

EU	Analysis Type	Analyte	Freq of Dets	Units	Location of Max Value	Min	Max	Mean	Median	StdDev	RL Avg	> RL Avg	Max RL	> Max RL	Bkg	> Bkg
59	VOA	Dichlorodifluoromethane	0/ 2	ug/kg	0450S0027	10	11	10.5	10.5	0.71		No		No		
59	VOA	Ethylbenzene	1/ 2	ug/kg		2	5	3.5	3.5	2.12		No		No		
59	VOA	Hexachlorobutadiene	0/ 2	ug/kg		5	6	5.5	5.5	0.71		No		No		
59	VOA	Isopropylbenzene	0/ 2	ug/kg		5	6	5.5	5.5	0.71		No		No		
59	VOA	M + P Xylene	1/ 2	ug/kg		3	5	4	4	1.41		No		No		
59	VOA	Methylene chloride	0/ 2	ug/kg		2	3	2.5	2.5	0.71		No		No		
59	VOA	Methyltertiarybutylether	0/ 2	ug/kg		5	6	5.5	5.5	0.71		No		No		
59	VOA	Napthalene	0/ 2	ug/kg		5	6	5.5	5.5	0.71		No		No		
59	VOA	N-Butylbenzene	0/ 2	ug/kg		5	6	5.5	5.5	0.71		No		No		
59	VOA	N-propylbenzene	0/ 2	ug/kg		5	6	5.5	5.5	0.71		No		No		
59	VOA	Sec-butylbenzene	0/ 2	ug/kg		5	6	5.5	5.5	0.71		No		No		
59	VOA	Styrene	0/ 2	ug/kg		5	6	5.5	5.5	0.71		No		No		
59	VOA	Tert-butylbenzene	0/ 2	ug/kg		5	6	5.5	5.5	0.71		No		No		
59	VOA	Tetrachloroethene	0/ 2	ug/kg		5	6	5.5	5.5	0.71		No		No		
59	VOA	Toluene	2/ 2	ug/kg	0450S0027	1	7	4	4	4.24		No		No		
59	VOA	trans-1,2-Dichloroethene	0/ 2	ug/kg		5	6	5.5	5.5	0.71		No		No		
59	VOA	Trichloroethene	0/ 2	ug/kg		5	6	5.5	5.5	0.71		No		No		
59	VOA	Trichlorofluoromethane	0/ 2	ug/kg		5	6	5.5	5.5	0.71		No		No		
59	VOA	Vinyl chloride	0/ 2	ug/kg		10	11	10.5	10.5	0.71		No		No		
60	METAL	Aluminum	4/ 4	mg/kg	0450S0007	9920	14200	12655	13250	1913		No		No	40300	No
60	METAL	Antimony	0/ 4	mg/kg		0.24	0.25	0.24	0.25	0.01		No		No	1.52	No
60	METAL	Arsenic	4/ 4	mg/kg	0450S0007	3.8	5.4	4.57	4.55	0.67	300	No	900	No	14.95	No
60	METAL	Barium	4/ 4	mg/kg	0450S0007	38.9	55.7	46.5	45.7	6.98		No		No	125	No
60	METAL	Beryllium	4/ 4	mg/kg	0450S0007	0.39	0.58	0.5	0.51	0.08	2000	No	6000	No	2.2	No
60	METAL	Cadmium	4/ 4	mg/kg	0450S0013	0.22	0.36	0.28	0.28	0.06		No		No	0.22	Yes
60	METAL	Calcium	4/ 4	mg/kg	0450S0013	24600	64400	41300	38100	16893		No		No	2400	Yes
60	METAL	Chromium	4/ 4	mg/kg	0450S0014	12.3	16	13.9	13.65	1.54		No		No	44.88	No
60	METAL	Cobalt	4/ 4	mg/kg	0450S0007	4.1	9	6.98	7.4	2.36		No		No	42	No
60	METAL	Copper	4/ 4	mg/kg	0450S0007	8.5	12.2	10.88	11.4	1.66		No		No	22.48	No
60	METAL	Iron	4/ 4	mg/kg	0450S0007	20100	21200	20650	20650	580		No		No	58600	No
60	METAL	Lead	4/ 4	mg/kg	0450S0007	12.4	16.6	14.52	14.55	1.85		No		No	37.91	No
60	METAL	Magnesium	4/ 4	mg/kg	0450S0013	2280	7610	4678	4410	2339		No		No	3300	Yes
60	METAL	Manganese	4/ 4	mg/kg	0450S0007	249	435	334	326.5	84.31		No		No	2200	No
60	METAL	Mercury	4/ 4	mg/kg	0450S0007	0.04	0.07	0.06	0.06	0.01	600	No	1800	No	0.17	No
60	METAL	Nickel	4/ 4	mg/kg	0450S0007	8.90	13.3	11.92	12.75	2.05		No		No	26.07	No
60	METAL	Potassium	4/ 4	mg/kg	0450S0015	1340	2150	1868	1990	360		No		No	5075	No

EU	Analysis Type	Analyte	Freq of Dets	Units	Location of Max Value	Min	Max	Mean	Median	StdDev	RL Avg	> RL Avg	Max RL	> Max RL	Bkg	> Bkg
60	METAL	Selenium	0/ 4	mg/kg		0.48	0.49	0.48	0.48	0.01		No		No	1.47	No
60	METAL	Silver	0/ 4	mg/kg		0.1	0.1	0.1	0.1	0.00		No		No	0.6	No
60	METAL	Sodium	1/ 4	mg/kg	0450S0013	51.20	77.4	66.1	67.9	10.90		No		No	497	No
60	METAL	Thallium	0/ 4	mg/kg		0.89	0.91	0.9	0.895	0.01		No		No	0.4	Yes
60	METAL	Vanadium	4/ 4	mg/kg	0450S0007	20.4	23.6	21.78	21.55	1.34		No		No	65.47	No
60	METAL	Zinc	2/ 4	mg/kg	0450S0013	27.3	42.3	36.35	37.9	7.06		No		No	89.7	No
60	PPCB	PCB-1016	0/ 4	ug/kg		15	16	15.25	15	0.50	10000	No	100000	No		
60	PPCB	PCB-1221	0/ 4	ug/kg		15	16	15.25	15	0.50	10000	No	100000	No		
60	PPCB	PCB-1232	0/ 4	ug/kg		15	16	15.25	15	0.50	10000	No	100000	No		
60	PPCB	PCB-1242	0/ 4	ug/kg		15	16	15.25	15	0.50	10000	No	100000	No		
60	PPCB	PCB-1248	0/ 4	ug/kg		15	16	15.25	15	0.50	10000	No	100000	No		
60	PPCB	PCB-1254	0/ 4	ug/kg		15	16	15.25	15	0.50	10000	No	100000	No		
60	PPCB	PCB-1260	3/ 4	ug/kg	0450S0015	5	16	10.75	11	4.50	10000	No	100000	No		
60	RADS	Cesium-137	4/ 4	pCi/g	0450S0007	0.32	0.61	0.48	0.50	0.13	2	No	20	No		
60	RADS	Neptunium-237	0/ 4	pCi/g		-0.02	0	-0.01	-0.02	0.01	5	No	50	No		
60	RADS	Radium-226	4/ 4	pCi/g	0450S0014	0.62	0.74	0.69	0.70	0.05	5	No	15	No	1.25	
60	RADS	Thorium-228	4/ 4	pCi/g	0450S0014	0.88	1.2	1.06	1.08	0.16		No		No	1.86	
60	RADS	Thorium-230	0/ 4	pCi/g		-1.2	3.1	0.85	0.75	1.86		No		No	1.2	
60	RADS	Thorium-232	4/ 4	pCi/g	0450S0015	0.94	1.37	1.15	1.15	0.18	5	No	15	No	1.95	
60	RADS	Uranium-235	0/ 4	pCi/g		0.05	0.11	0.07	0.06	0.03	8	No	80	No		
60	RADS	Uranium-238	4/ 4	pCi/g	0450S0015	1.11	1.34	1.23	1.25	0.10	50	No	500	No	1.47	
60	SVOA	1,2,4-Trichlorobenzene	0/ 4	ug/kg		380	390	385	385	5.77		No		No		
60	SVOA	1,2-Dichlorobenzene	0/ 4	ug/kg		380	390	385	385	5.77		No		No		
60	SVOA	1,3-Dichlorobenzene	0/ 4	ug/kg		380	390	385	385	5.77		No		No		
60	SVOA	1,4-Dichlorobenzene	0/ 4	ug/kg		380	390	385	385	5.77		No		No		
60	SVOA	1-Chloropropane	0/ 4	ug/kg		380	390	385	385	5.77		No		No		
60	SVOA	2,4,5-Trichlorophenol	0/ 4	ug/kg		950	970	963	965	9.57		No		No		
60	SVOA	2,4,6-Trichlorophenol	0/ 4	ug/kg		380	390	385	385	5.77		No		No		
60	SVOA	2,4-Dichlorophenol	0/ 4	ug/kg		380	390	385	385	5.77		No		No		
60	SVOA	2,4-Dimethylphenol	0/ 4	ug/kg		380	390	385	385	5.77		No		No		
60	SVOA	2,4-Dinitrophenol	0/ 4	ug/kg		950	970	963	965	9.57		No		No		
60	SVOA	2,4-Dinitrotoluene	0/ 4	ug/kg		380	390	385	385	5.77		No		No		
60	SVOA	2,6-Dinitrotoluene	0/ 4	ug/kg		380	390	385	385	5.77		No		No		
60	SVOA	2-Chloronaphthalene	0/ 4	ug/kg		380	390	385	385	5.77		No		No		
60	SVOA	2-Chlorophenol	0/ 4	ug/kg		380	390	385	385	5.77		No		No		
60	SVOA	2-Methylnaphthalene	0/ 4	ug/kg		380	390	385	385	5.77		No		No		

EU	Analysis Type	Analyte	Freq of Dets	Units	Location of Max Value	Min	Max	Mean	Median	StdDev	RL Avg	> RL Avg	Max RL	> Max RL	Bkg	> Bkg
60	SVOA	2-Methylphenol	0/ 4	ug/kg		380	390	385	385	5.77		No		No		
60	SVOA	2-Nitroaniline	0/ 4	ug/kg		950	970	963	965	9.57		No		No		
60	SVOA	2-Nitrophenol	0/ 4	ug/kg		380	390	385	385	5.77		No		No		
60	SVOA	3,3'-Dichlorobenzidine	0/ 4	ug/kg		380	390	385	385	5.77		No		No		
60	SVOA	3-4 Methylphenol	0/ 4	ug/kg		380	390	385	385	5.77		No		No		
60	SVOA	3-Nitroaniline	0/ 4	ug/kg		950	970	963	965	9.57		No		No		
60	SVOA	1,6-dinitrophenol-2-Methylpheno	0/ 4	ug/kg		950	970	963	965	9.57		No		No		
60	SVOA	4-Bromophenyl phenyl ether	0/ 4	ug/kg		380	390	385	385	5.77		No		No		
60	SVOA	4-Chloro-3-methylphenol	0/ 4	ug/kg		380	390	385	385	5.77		No		No		
60	SVOA	4-Chloroaniline	0/ 4	ug/kg		380	390	385	385	5.77		No		No		
60	SVOA	4-Chlorophenyl phenyl ether	0/ 4	ug/kg		380	390	385	385	5.77		No		No		
60	SVOA	4-Nitroaniline	0/ 4	ug/kg		950	970	963	965	9.57		No		No		
60	SVOA	4-Nitrophenol	0/ 4	ug/kg		950	970	963	965	9.57		No		No		
60	SVOA	Acenaphthene	0/ 4	ug/kg		380	390	385	385	5.77		No		No		
60	SVOA	Acenaphthylene	0/ 4	ug/kg		380	390	385	385	5.77		No		No		
60	SVOA	Anthracene	1/ 4	ug/kg	0450S0014	30	390	295	380	177		No		No		
60	SVOA	Benz(a)anthracene	3/ 4	ug/kg	0450S0014	27	380	125	45.5	171		No		No		
60	SVOA	Benzo(a)pyrene	3/ 4	ug/kg	0450S0014	33	380	133	58.5	165		No		No		
60	SVOA	Benzo(b)fluoranthene	3/ 4	ug/kg	0450S0014	34	380	136	64	164		No		No		
60	SVOA	Benzo(ghi)perylene	3/ 4	ug/kg	0450S0014	26	380	131	59.5	167		No		No		
60	SVOA	Benzo(k)fluoranthene	3/ 4	ug/kg	0450S0014	33	380	129	51	168		No		No		
60	SVOA	Bis(2-chloroethoxy)methane	0/ 4	ug/kg		380	390	385	385	5.77		No		No		
60	SVOA	Bis(2-chloroethyl) ether	0/ 4	ug/kg		380	390	385	385	5.77		No		No		
60	SVOA	Bis(2-ethylhexyl)phthalate	0/ 4	ug/kg		120	640	393	405	224		No		No		
60	SVOA	Butyl benzyl phthalate	1/ 4	ug/kg	0450S0015	21	390	295	385	183		No		No		
60	SVOA	Carbazole	0/ 4	ug/kg		380	390	385	385	5.77		No		No		
60	SVOA	Chrysene	3/ 4	ug/kg	0450S0014	23	380	127	52	170		No		No		
60	SVOA	Dibenz(a,h)anthracene	1/ 4	ug/kg	0450S0014	29	390	295	380	177		No		No		
60	SVOA	Dibenzofuran	0/ 4	ug/kg		380	390	385	385	5.77		No		No		
60	SVOA	Diethyl phthalate	0/ 4	ug/kg		380	390	385	385	5.77		No		No		
60	SVOA	Dimethyl phthalate	0/ 4	ug/kg		380	390	385	385	5.77		No		No		
60	SVOA	Di-n-butyl phthalate	0/ 4	ug/kg		22	51	32.75	29	12.71		No		No		
60	SVOA	Di-n-octylphthalate	0/ 4	ug/kg		380	390	385	385	5.77		No		No		
60	SVOA	Fluoranthene	3/ 4	ug/kg	0450S0014	22	380	137	72.5	167		No		No		
60	SVOA	Fluorene	0/ 4	ug/kg		380	390	385	385	5.77		No		No		
60	SVOA	Hexachlorobenzene	0/ 4	ug/kg		380	390	385	385	5.77		No		No		

EU	Analysis Type	Analyte	Freq of Dets	Units	Location of Max Value	Min	Max	Mean	Median	StdDev	RL Avg	> RL Avg	Max RL	> Max RL	Bkg	> Bkg
60	SVOA	Hexachlorobutadiene	0/ 4	ug/kg		380	390	385	385	5.77		No		No		
60	SVOA	Hexachlorocyclopentadiene	0/ 4	ug/kg		380	390	385	385	5.77		No		No		
60	SVOA	Hexachloroethane	0/ 4	ug/kg		380	390	385	385	5.77		No		No		
60	SVOA	Indeno(1,2,3-cd)pyrene	3/ 4	ug/kg	0450S0014	26	380	127	51	169		No		No		
60	SVOA	Isophorone	0/ 4	ug/kg		380	390	385	385	5.77		No		No		
60	SVOA	Naphthalene	0/ 4	ug/kg		380	390	385	385	5.77		No		No		
60	SVOA	Nitrobenzene	0/ 4	ug/kg		380	390	385	385	5.77		No		No		
60	SVOA	N-Nitroso-di-n-propylamine	0/ 4	ug/kg		380	390	385	385	5.77		No		No		
60	SVOA	N-Nitrosodiphenylamine	0/ 4	ug/kg		380	390	385	385	5.77		No		No		
60	SVOA	Pentachlorophenol	0/ 4	ug/kg		950	970	963	965	9.57		No		No		
60	SVOA	Phenanthrene	2/ 4	ug/kg	0450S0014	24	390	217	226	196		No		No		
60	SVOA	Phenol	2/ 4	ug/kg	0450S0014	20	380	200	200.5	208		No		No		
60	SVOA	Pyrene	3/ 4	ug/kg	0450S0014	32	380	137	67	165		No		No		
68	METAL	Aluminum	10/10	mg/kg	0450S0092	7960	21400	13646	12550	3749		No		No	40300	No
68	METAL	Antimony	10/0	mg/kg		0.3	0.34	0.34	0.34	0.03		No		No	1.52	No
68	METAL	Arsenic	10/10	mg/kg	0450S0097	2.3	13.3	7.41	6.05	3.40	300	No	900	No	14.95	No
68	METAL	Barium	10/10	mg/kg	0450S0085	23.1	70.3	41.76	41.25	14.23		No		No	125	No
68	METAL	Beryllium	10/10	mg/kg	0450S0092	0.32	1.2	0.703	0.66	0.26	2000	No	6000	No	2.2	No
68	METAL	Cadmium	10/10	mg/kg	0450S0090	0.08	0.29	0.189	0.21	0.07		No		No	0.22	Yes
68	METAL	Calcium	10/10	mg/kg	0450S0095	1040	217000	51497	24850	69524		No		No	2400	Yes
68	METAL	Chromium	10/10	mg/kg	0450S0087	10.6	54.4	21.61	20.2	12.15		No		No	44.88	Yes
68	METAL	Cobalt	10/10	mg/kg	0450S0097	3.2	28.4	13.66	12.45	8.31		No		No	42	No
68	METAL	Copper	10/10	mg/kg	0450S0097	7.2	16.2	12.32	12.4	2.57		No		No	22.48	No
68	METAL	Iron	10/10	mg/kg	0450S0090	10000	24000	18420	19850	4611		No		No	58600	No
68	METAL	Lead	10/10	mg/kg	0450S0097	12.4	36.8	19.68	16	8.10		No		No	37.91	No
68	METAL	Magnesium	10/10	mg/kg	0450S0095	847	20900	6984	4425	6729		No		No	3300	Yes
68	METAL	Manganese	10/10	mg/kg	0450S0085	192	725	392	397.5	158.63		No		No	2200	No
68	METAL	Mercury	10/10	mg/kg	0450S0088	0.05	0.16	0.111	0.11	0.04	600	No	1800	No	0.17	No
68	METAL	Nickel	10/10	mg/kg	0450S0092	9.8	21.1	15.84	15.9	3.93		No		No	26.07	No
68	METAL	Potassium	10/10	mg/kg	0450S0092	1140	4050	2388	2555	847		No		No	5075	No
68	METAL	Selenium	10/1	mg/kg	0450S0090	0.6	0.74	0.68	0.68	0.05		No		No	1.47	No
68	METAL	Silver	10/0	mg/kg		0.1	0.13	0.114	0.11	0.01		No		No	0.6	No
68	METAL	Sodium	10/10	mg/kg	0450S0095	31.2	156	70.48	56.5	40.99		No		No	497	No
68	METAL	Thallium	10/0	mg/kg		0.6	0.77	0.676	0.675	0.05		No		No	0.4	Yes
68	METAL	Vanadium	10/10	mg/kg	0450S0097	13.6	39.7	27.4	28.65	7.25		No		No	65.47	No
68	METAL	Zinc	10/10	mg/kg	0450S0097	30.8	81.9	54.62	50.85	15.53		No		No	89.7	No

EU	Analysis Type	Analyte	Freq of Dets	Units	Location of Max Value	Min	Max	Mean	Median	StdDev	RL Avg	> RL Avg	Max RL	> Max RL	Bkg	> Bkg
68	PPCB	PCB-1016	0/ 10	ug/kg		16	18	16.7	17	0.67	10000	No	100000	No		
68	PPCB	PCB-1221	0/ 10	ug/kg		16	18	16.7	17	0.67	10000	No	100000	No		
68	PPCB	PCB-1232	0/ 10	ug/kg		16	18	16.7	17	0.67	10000	No	100000	No		
68	PPCB	PCB-1242	0/ 10	ug/kg		16	18	16.7	17	0.67	10000	No	100000	No		
68	PPCB	PCB-1248	0/ 10	ug/kg		16	18	16.7	17	0.67	10000	No	100000	No		
68	PPCB	PCB-1254	0/ 10	ug/kg		16	18	16.7	17	0.67	10000	No	100000	No		
68	PPCB	PCB-1260	0/ 10	ug/kg		16	18	16.7	17	0.67	10000	No	100000	No		
68	RADS	Cesium-137	12/ 14	pCi/g	0450S0095	-0.02	1.52	0.47	0.43	0.44	2	No	20	No		
68	RADS	Neptunium-237	0/ 14	pCi/g		-0.03	0.01	0	0	0.01	5	No	50	No		
68	RADS	Radium-226	14/ 14	pCi/g	0450S0088	0.26	0.94	0.73	0.74	0.19	5	No	15	No	1.25	
68	RADS	Thorium-228	14/ 14	pCi/g	0450S0085	0.22	1.11	0.8	0.85	0.25		No		No	1.86	
68	RADS	Thorium-230	0/ 14	pCi/g		2.6	5.5	3.86	3.7	0.99		No		No	1.2	
68	RADS	Thorium-232	14/ 14	pCi/g	0450S0090	0.21	1.19	0.86	0.93	0.29	5	No	15	No	1.95	
68	RADS	Uranium-235	0/ 14	pCi/g		-0.05	0.14	0.05	0.06	0.05	8	No	80	No		
68	RADS	Uranium-238	13/ 14	pCi/g	0450S0093	0.4	2.38	1.26	1.22	0.48	50	No	500	No	1.47	
68	SVOA	1,2,4-Trichlorobenzene	0/ 10	ug/kg		810	1300	1201	1200	146		No		No		
68	SVOA	1,2-Dichlorobenzene	0/ 10	ug/kg		810	1300	1201	1200	146		No		No		
68	SVOA	1,3-Dichlorobenzene	0/ 10	ug/kg		810	1300	1201	1200	146		No		No		
68	SVOA	1,4-Dichlorobenzene	0/ 10	ug/kg		810	1300	1201	1200	146		No		No		
68	SVOA	1-Chloropropane	0/ 10	ug/kg		810	1300	1201	1200	146		No		No		
68	SVOA	2,4,5-Trichlorophenol	0/ 10	ug/kg		2000	3300	2990	3100	360		No		No		
68	SVOA	2,4,6-Trichlorophenol	0/ 10	ug/kg		810	1300	1201	1200	146		No		No		
68	SVOA	2,4-Dichlorophenol	0/ 10	ug/kg		810	1300	1201	1200	146		No		No		
68	SVOA	2,4-Dimethylphenol	0/ 10	ug/kg		810	1300	1201	1200	146		No		No		
68	SVOA	2,4-Dinitrophenol	0/ 10	ug/kg		2000	3300	2990	3100	360		No		No		
68	SVOA	2,4-Dinitrotoluene	0/ 10	ug/kg		810	1300	1201	1200	146		No		No		
68	SVOA	2,6-Dinitrotoluene	0/ 10	ug/kg		810	1300	1201	1200	146		No		No		
68	SVOA	2-Chloronaphthalene	0/ 10	ug/kg		810	1300	1201	1200	146		No		No		
68	SVOA	2-Chlorophenol	0/ 10	ug/kg		810	1300	1201	1200	146		No		No		
68	SVOA	2-Methylnaphthalene	0/ 10	ug/kg		810	1300	1201	1200	146		No		No		
68	SVOA	2-Methylphenol	0/ 10	ug/kg		810	1300	1201	1200	146		No		No		
68	SVOA	2-Nitroaniline	0/ 10	ug/kg		1300	3300	2630	3000	786		No		No		
68	SVOA	2-Nitrophenol	0/ 10	ug/kg		810	1300	1201	1200	146		No		No		
68	SVOA	3,3'-Dichlorobenzidine	0/ 10	ug/kg		810	1300	1201	1200	146		No		No		
68	SVOA	3-4 Methylphenol	0/ 10	ug/kg		810	1300	1201	1200	146		No		No		
68	SVOA	3-Nitroaniline	0/ 10	ug/kg		2000	3300	2990	3100	360		No		No		

EU	Analysis Type	Analyte	Freq of Dets	Units	Location of Max Value	Min	Max	Mean	Median	StdDev	RL Avg	> RL Avg	Max RL	> Max RL	Bkg	> Bkg
68	SVOA	1,6-dinitrophenol-2-Methylpheno	0/ 10	ug/kg	0450S0087	2000	3300	2990	3100	360		No		No		
68	SVOA	4-Bromophenyl phenyl ether	0/ 10	ug/kg		810	1300	1201	1200	146		No		No		
68	SVOA	4-Chloro-3-methylphenol	0/ 10	ug/kg		810	1300	1201	1200	146		No		No		
68	SVOA	4-Chloroaniline	0/ 10	ug/kg		810	1300	1201	1200	146		No		No		
68	SVOA	4-Chlorophenyl phenyl ether	0/ 10	ug/kg		810	1300	1201	1200	146		No		No		
68	SVOA	4-Nitroaniline	0/ 10	ug/kg		2000	3300	2990	3100	360		No		No		
68	SVOA	4-Nitrophenol	0/ 10	ug/kg		2000	3300	2990	3100	360		No		No		
68	SVOA	Acenaphthene	0/ 10	ug/kg		810	1300	1201	1200	146		No		No		
68	SVOA	Acenaphthylene	0/ 10	ug/kg		810	1300	1201	1200	146		No		No		
68	SVOA	Anthracene	0/ 10	ug/kg		810	1300	1201	1200	146		No		No		
68	SVOA	Benz(a)anthracene	1/ 10	ug/kg		93	1300	1090	1200	380		No		No		
68	SVOA	Benzo(a)pyrene	0/ 10	ug/kg		810	1300	1201	1200	146		No		No		
68	SVOA	Benzo(b)fluoranthene	0/ 10	ug/kg		810	1300	1201	1200	146		No		No		
68	SVOA	Benzo(ghi)perylene	0/ 10	ug/kg		810	1300	1201	1200	146		No		No		
68	SVOA	Benzo(k)fluoranthene	0/ 10	ug/kg		810	1300	1201	1200	146		No		No		
68	SVOA	Bis(2-chloroethoxy)methane	0/ 10	ug/kg	0450S0087	810	1300	1201	1200	146		No		No		
68	SVOA	Bis(2-chloroethyl) ether	0/ 10	ug/kg		810	1300	1201	1200	146		No		No		
68	SVOA	Bis(2-ethylhexyl)phthalate	0/ 10	ug/kg		810	1300	1201	1200	146		No		No		
68	SVOA	Butyl benzyl phthalate	0/ 10	ug/kg		810	1300	1201	1200	146		No		No		
68	SVOA	Carbazole	0/ 10	ug/kg		810	1300	1201	1200	146		No		No		
68	SVOA	Chrysene	1/ 10	ug/kg		110	1300	1092	1200	375		No		No		
68	SVOA	Dibenz(a,h)anthracene	0/ 10	ug/kg		810	1300	1201	1200	146		No		No		
68	SVOA	Dibenzofuran	0/ 10	ug/kg		810	1300	1201	1200	146		No		No		
68	SVOA	Diethyl phthalate	0/ 10	ug/kg		810	1300	1201	1200	146		No		No		
68	SVOA	Dimethyl phthalate	0/ 10	ug/kg		810	1300	1201	1200	146		No		No		
68	SVOA	Di-n-butyl phthalate	0/ 10	ug/kg		810	1300	1201	1200	146		No		No		
68	SVOA	Di-n-octylphthalate	0/ 10	ug/kg		810	1300	1201	1200	146		No		No		
68	SVOA	Fluoranthene	1/ 10	ug/kg		140	1300	1095	1200	366		No		No		
68	SVOA	Fluorene	0/ 10	ug/kg		810	1300	1201	1200	146		No		No		
68	SVOA	Hexachlorobenzene	0/ 10	ug/kg		810	1300	1201	1200	146		No		No		
68	SVOA	Hexachlorobutadiene	0/ 10	ug/kg		810	1300	1201	1200	146		No		No		
68	SVOA	Hexachlorocyclopentadiene	0/ 10	ug/kg		810	1300	1201	1200	146		No		No		
68	SVOA	Hexachloroethane	0/ 10	ug/kg		810	1300	1201	1200	146		No		No		
68	SVOA	Indeno(1,2,3-cd)pyrene	0/ 10	ug/kg		810	1300	1201	1200	146		No		No		
68	SVOA	Isophorone	0/ 10	ug/kg		810	1300	1201	1200	146		No		No		
68	SVOA	Naphthalene	0/ 10	ug/kg		810	1300	1201	1200	146		No		No		

EU	Analysis Type	Analyte	Freq of Dets	Units	Location of Max Value	Min	Max	Mean	Median	StdDev	RL Avg	> RL Avg	Max RL	> Max RL	Bkg	> Bkg
68	SVOA	Nitrobenzene	0/ 10	ug/kg		810	1300	1201	1200	146		No		No		
68	SVOA	N-Nitroso-di-n-propylamine	0/ 10	ug/kg		810	1300	1201	1200	146		No		No		
68	SVOA	N-Nitrosodiphenylamine	0/ 10	ug/kg		810	1300	1201	1200	146		No		No		
68	SVOA	Pentachlorophenol	0/ 10	ug/kg		2000	3300	2990	3100	360		No		No		
68	SVOA	Phenanthrene	1/ 10	ug/kg	0450S0087	89	1300	1090	1200	381		No		No		
68	SVOA	Phenol	0/ 10	ug/kg		810	1300	1201	1200	146		No		No		
68	SVOA	Pyrene	2/ 10	ug/kg	0450S0087	62	1300	985	1200	479		No		No		
68	VOA	1,1,1-Trichloroethane	0/ 10	ug/kg		5	6	5.6	6	0.52		No		No		
68	VOA	1,1,2,2-Tetrachloroethane	0/ 10	ug/kg		5	6	5.6	6	0.52		No		No		
68	VOA	1,1,2-Trichloroethane	0/ 10	ug/kg		5	6	5.6	6	0.52		No		No		
68	VOA	1,1-Dichloroethane	0/ 10	ug/kg		5	6	5.6	6	0.52		No		No		
68	VOA	1,1-Dichloroethene	0/ 10	ug/kg		5	6	5.6	6	0.52		No		No		
68	VOA	1,2-Dichloroethane	0/ 10	ug/kg		5	6	5.6	6	0.52		No		No		
68	VOA	1,2-Dichloroethane (total)	0/ 10	ug/kg		5	6	5.6	6	0.52		No		No		
68	VOA	1,2-Dichloropropane	0/ 10	ug/kg		5	6	5.6	6	0.52		No		No		
68	VOA	2-Butanone	6/ 10	ug/kg	0450S0084	9	44	17.9	11.5	11.35		No		No		
68	VOA	2-Hexanone	0/ 10	ug/kg		7	12	10.4	10.5	1.43		No		No		
68	VOA	4-Methyl-2-pentanone	0/ 10	ug/kg		10	12	10.8	11	0.79		No		No		
68	VOA	Acetone	9/ 10	ug/kg	0450S0097	11	2000	329	103.5	601		No		No		
68	VOA	Benzene	3/ 10	ug/kg	0450S0092	1	6	4.3	5.5	2.31		No		No		
68	VOA	Bromodichloromethane	0/ 10	ug/kg		5	6	5.6	6	0.52		No		No		
68	VOA	Bromoform	0/ 10	ug/kg		5	6	5.6	6	0.52		No		No		
68	VOA	Bromomethane	0/ 10	ug/kg		10	12	10.8	11	0.79		No		No		
68	VOA	Carbon Disulfide	1/ 10	ug/kg	0450S0088	3	6	5.4	6	0.97		No		No		
68	VOA	Carbon tetrachloride	0/ 10	ug/kg		5	6	5.6	6	0.52		No		No		
68	VOA	Chlorobenzene	0/ 10	ug/kg		5	6	5.6	6	0.52		No		No		
68	VOA	Chloroethane	0/ 10	ug/kg		10	12	10.8	11	0.79		No		No		
68	VOA	Chloroform	0/ 10	ug/kg		5	6	5.6	6	0.52		No		No		
68	VOA	Chloromethane	0/ 10	ug/kg		10	12	10.8	11	0.79		No		No		
68	VOA	cis-1,2-Dichloroethene	0/ 10	ug/kg		5	6	5.6	6	0.52		No		No		
68	VOA	cis-1,3-Dichloropropene	0/ 10	ug/kg		5	6	5.6	6	0.52		No		No		
68	VOA	Dibromochloromethane	0/ 10	ug/kg		5	6	5.6	6	0.52		No		No		
68	VOA	Ethylbenzene	0/ 10	ug/kg		5	6	5.6	6	0.52		No		No		
68	VOA	Methylene chloride	2/ 10	ug/kg	0450S0090	7	39	13.6	7.5	12.41		No		No		
68	VOA	Styrene	0/ 10	ug/kg		5	6	5.6	6	0.52		No		No		
68	VOA	Tetrachloroethene	0/ 10	ug/kg		5	6	5.6	6	0.52		No		No		

EU	Analysis Type	Analyte	Freq of Dets	Units	Location of Max Value	Min	Max	Mean	Median	StdDev	RL Avg	> RL Avg	Max RL	> Max RL	Bkg	> Bkg
68	VOA	Toluene	6/ 10	ug/kg	0450S0092	1	6	3.7	3	2.11		No		No		
68	VOA	trans-1,2-Dichloroethene	0/ 10	ug/kg		5	6	5.6	6	0.52		No		No		
68	VOA	Trans-1,3-Dichloropropene	0/ 10	ug/kg		5	6	5.6	6	0.52		No		No		
68	VOA	Trichloroethene	0/ 10	ug/kg		5	6	5.6	6	0.52		No		No		
68	VOA	Vinyl chloride	0/ 10	ug/kg		10	12	10.8	11	0.79		No		No		
68	VOA	Xylenes (total)	3/ 10	ug/kg	0450S0092	2	6	4.6	5.5	1.84		No		No		
31 Bias	RADS	Cesium-137	0/ 1	pCi/g		-0.13	-0.13	-0.13			2	No	20	No		
31 Bias	RADS	Neptunium-237	0/ 1	pCi/g		0.1	0.1	0.1			5	No	50	No		
31 Bias	RADS	Radium-226	1/ 1	pCi/g	0450S0137R	0.76	0.76	0.76	0.76		5	No	15	No	1.25	
31 Bias	RADS	Thorium-232	1/ 1	pCi/g	0450S0137R	1.54	1.54	1.54	1.54		5	No	15	No	1.95	
31 Bias	RADS	Uranium-235	1/ 1	pCi/g	0450S0137R	71.4	71.4	71.4	71.4		8	Yes	80	No		
31 Bias	RADS	Uranium-238	1/ 1	pCi/g	0450S0137R	1311	1311	1311	1311		50	Yes	500	Yes	1.47	
43 Bias	RADS	Cesium-137	2/ 2	pCi/g	0450S0108	3.34	4.58	3.96	3.96	0.88	2	Yes	20	No		
43 Bias	RADS	Neptunium-237	2/ 2	pCi/g	0450S0108	0.32	0.42	0.37	0.37	0.07	5	No	50	No		
43 Bias	RADS	Radium-226	2/ 2	pCi/g	0450S0107	0.74	1.12	0.93	0.93	0.27	5	No	15	No	1.25	
43 Bias	RADS	Thorium-228	2/ 2	pCi/g	0450S0107	1.18	1.29	1.23	1.24	0.08		No		No	1.86	
43 Bias	RADS	Thorium-232	2/ 2	pCi/g	0450S0107	1.04	1.15	1.1	1.10	0.08	5	No	15	No	1.95	
43 Bias	RADS	Uranium-235	2/ 2	pCi/g	0450S0108	46.4	62.6	54.5	54.5	11.46	8	Yes	80	No		
43 Bias	RADS	Uranium-238	2/ 2	pCi/g	0450S0108	248	312	280	280	45.25	50	Yes	500	No	1.47	
55 bias	RADS	Cesium-137	4/ 9	pCi/g	0450S0099	-0.01	0.14	0.06	0.06	0.04	2	No	20	No		
55 bias	RADS	Neptunium-237	0/ 9	pCi/g		0.04	0.06	0.05	0.05	0.01	5	No	50	No		
55 bias	RADS	Radium-226	9/ 9	pCi/g	0450S0104	2.71	4.1	3.3	3.26	0.50	5	No	15	No	1.25	
55 bias	RADS	Thorium-228	9/ 9	pCi/g	0450S0104	1.83	2.75	2.23	2.13	0.27		No		No	1.86	
55 bias	RADS	Thorium-230	3/ 9	pCi/g	0450S0099	0.5	10.7	4.93	4.6	3.73		No		No	1.2	
55 bias	RADS	Thorium-232	9/ 9	pCi/g	0450S0104	1.93	2.7	2.31	2.35	0.25	5	No	15	No	1.95	
55 bias	RADS	Uranium-235	4/ 9	pCi/g	0450S0104	0.12	0.47	0.29	0.27	0.13	8	No	80	No		
55 bias	RADS	Uranium-238	9/ 9	pCi/g	0450S0104	2.49	4.3	3.54	3.6	0.60	50	No	500	No	1.47	