FINAL ANALYTICAL REPORT FOR SAMPLES FROM WASTE MANAGEMENT AREA C FOR CORE HOLE C7668 IN SUPPORT OF RCRA SOIL CHARACTERIZATION

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Abstract: This final report contains the analytical results supporting the RCRA characterization of Vadose samples from core 7668 in C Farm. It also contains the results for associated field and trip blanks supporting the sampling effort.

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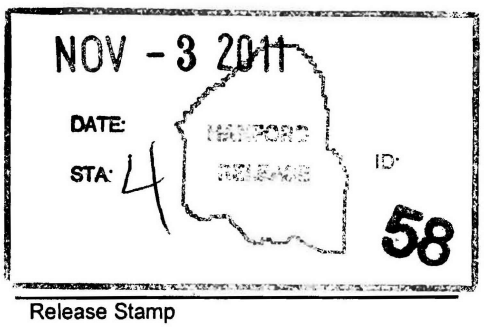

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FINAL ANALYTICAL REPORT FOR SAMPLES FROM WASTE MANAGEMENT AREA C FOR CORE HOLE C7668, IN SUPPORT OF RCRA SOIL CHARACTERIZATION

ATL Document No. 20100064 Rev.1

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Table of Contents

NARRATIVE..... 1
1.0 INTRODUCTION..... 1
2.0 SAMPLE RECEIPT AND BREAKDOWN..... 2
2.1 SAMPLE RECEIPT..... 2
2.2 SAMPLE BREAKDOWN..... 2
3.0 ANALYTICAL RESULTS SUMMARY..... 3
3.1 SAMPLE DIGESTIONS..... 4
3.2 INORGANIC ANALYSES..... 5
3.3 RADIOCHEMICAL ANALYSIS..... 10
3.4 ORGANIC ANALYSES..... 13
4.0 PROCEDURES..... 15
5.0 REFERENCES..... 17
Attachment 1: DATA SUMMARY REPORT..... 18
Field Blank..... 19
Trip Blank..... 29
Sample Depth: 39-41(Water)..... 37
Sample Depth: Surface..... 38
Sample Depth: Surface Dup..... 45
Sample Depth: 5-7..... 52
Sample Depth: 10-14..... 58
Sample Depth: 10-12..... 62
Sample Depth: 14-18..... 64
Sample Depth: 27-29..... 69
Sample Depth: 39-41..... 77

Sample Depth: 80-82..... 85
Sample Depth: 132-134..... 93
Attachment 2: SAMPLE BREAKDOWN DIAGRAM..... 101
Field Blanks..... 102
Trip Blanks..... 104
Sample Depth: Surface..... 106
Sample Depth: Surface-Dup..... 107
Sample Depth: 5-7 ft..... 108
Sample Depth: 10-14 ft..... 109
Sample Depth: 14-18 ft..... 110
Sample Depth: 27-29 ft..... 111
Sample Depth: 39-41ft..... 112
Sample Depth: 80-82 ft..... 114
Sample Depth: 132-134 ft..... 115
Attachment 3: HOLDING TIME REPORT..... 116
Attachment 4: ADDITIONAL QC RESULTS..... 117
Attachment 5: TICs FOR ORGANIC ANALYSES..... 118
Attachment 6: ANALYTICAL BATCH AND LAB SAMPLE ID INDEX.... 140
Attachment 7: GEOLOGICAL REPORT..... 146
Geologic Descriptions..... 147
Soil Photographs..... 151
Attachment 8: CCN AND CORRESPONDENCE..... 163
REVIEW COMMENT RECORD..... 164
CCN WMAC-009..... 167

CCN-WMAC-008..... 169

Correspondence..... 171

Attachment 9: RECEIPT PAPERWORK..... 180

COC C7668 Surf+SurfD,FB1,TB1..... 181

COC C7668 I001,1003,FB2,TB2..... 192

COC C7668 I004,1005,FB3+5,TB3..... 203

COC C7668 I006,1007,FB4,TB4..... 212

COC C7668 I010, FB8,TB7..... 220

COC C7668 I011 TB8, FB9..... 229

COC C7668 I012..... 237

Appendix A: Analytical Report for Analysis Performed at WSCF..... 240

222-S LABORATORY

FINAL ANALYTICAL REPORT FOR SAMPLES FROM WASTE MANAGEMENT AREA C FOR CORE HOLE C7668 IN SUPPORT OF RCRA SOIL CHARACTERIZATION

1.0 INTRODUCTION

This final report presents the results for the samples taken from Waste Management Area C between May 11, 2010 and June 8, 2010. The report is a reissue of ATL-20100064 Rev.0 with changes based on the Report Comment Record received from the Vadose client (see Attachment 8). In addition the laboratory has also made the following changes to this report:

- Attachment 6: Analytical Batch and Laboratory Sample Identification Number Index
- Various editorial corrections

The samples were analyzed in accordance with RPP-PLAN-40564, *Field Sampling and Analysis Plan for Sites P and L at Waste Management Area C* (FSAP); RPP-PLAN-38777, *Sampling and Analysis Plan for Phase 2 Characterization of Vadose Zone Soil in Waste Management Area C* (SAP); ATL-MP-1011, *ATL Quality Assurance Project Plan for 222-S Laboratory* (QAPP); SW-846, *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods*; and the additional guidance given by the client's point of contact.

Because the 222-S Laboratory facility was designed to analyze hazardous and complex tank waste samples, most SW-846 test methods performed at the 222-S Laboratory contain deviations that are listed in an appendix in the analytical procedures. All other known deviations or variances from SW-846 are documented in this narrative. The following attachments are included in this report.

Attachment 1	Data Summary Report
Attachment 2	Sample Breakdown Diagrams
Attachment 3	Holding Time Report
Attachment 4	Additional QC Results
Attachment 5	Tentatively Identified Compounds (TIC) for Organic Analyses
Attachment 6	Analytical Batch and Laboratory Sample Identification Number Index
Attachment 7	Geological Report
Attachment 8	Characterization Change Notices (CCN), and Correspondence
Attachment 9	Receipt Paperwork
Appendix A	Analytical Report for Analysis Performed at the Waste Sampling and Characterization Facility (WSCF)

2.0 SAMPLE RECEIPT AND BREAKDOWN

2.1 SAMPLE RECEIPT

A total of nine core intervals and two surface grab samples from core hole C7668 along with seven field blanks, and six trip blanks were received by the 222-S Laboratory between May 11, 2010 and June 8, 2010. Due to an instrumentation issue, the volatile organic analysis samples for client sample numbers B25WN0 (I012), B23VB5 (Field Blank 10), and B23VC4 (Trip Blank 9) were delivered directly to WSCF for analysis. The samples were delivered in a cooler with ice or, in the case of the volatile organic samples, in a freezer. The temperatures of the temperature blanks were measured and recorded on the sample receipt check list and/or the chain of custody form.

2.2 SAMPLE BREAKDOWN

The laboratory received each core interval as a set of volatile organic analysis (VOA) samples and three liner samples when complete core recovery was obtained. The VOA samples were made from the shoe section of each core interval following SW-846 5035. The liner samples from each core interval were extruded, described, and composited by the Washington River Protection Solutions, Inc. (WRPS) geologist. The WRPS geologist also measured the bulk density for core liners that had sufficient recovery (see Attachments 1 and 2). The geologist's report is included in Attachment 7. Provided sufficient samples existed, the composite for each core interval was analyzed as described in the SAP and FSAP. Six core intervals (I001, I003, I004, I005, I006, and I007) had less than full recovery (see Attachment 2 and Attachment 9). There was no I002 for core hole C7668. Intervals I001 and I007 were extruded and composited in the normal manner. Interval I003 was combined with I004 to form a single composite, and Interval I005 was combined with I006 to form a single composite (see Attachment 8, CCN-WMAC-008). The surface samples were received as a single grab in a 500-mL jar and a set of VOA samples.

In addition to the grab and core samples, a water sample from interval I010 was delivered to the lab. This sample was from a small amount of standing water encountered on top of the sampler. CCN-WMAC-009 request that this sample be analyzed for ^{99}Tc.

C7668 CCN-WMAC-008 provided a priority list for the laboratory to follow for the intervals without enough sample to perform all analysis requested in the SAP and FSAP. For interval I001, the laboratory followed this instruction. For the combined interval of I003 and I004, the laboratory analyzed for ^{99}Tc using the Vadose water digest, which consumed the sample that was to be used for the higher priority radiochemistry analyses. The analyses which were not performed were gamma energy analysis (GEA), % Water, ^{63}Ni, $^{89/90}$Sr, $^{238,239/240}$Pu, ^{241}Am, and $^{242,243/244}$Cm.This failure to follow the client's instruction has been addressed, and improvements in communications and better use of the Laboratory Information Management System will be made to avoid this in the future.

WRPS shipped subsamples of the composites to Test America Laboratories, Inc. (TAL) in St Louis, Missouri and Knoxville, Tennessee to be analyzed for dibutyl and monobutyl phosphate, total petroleum hydrocarbons (diesel and gasoline range), ethylene glycol, chlorinated pesticides, and polychlorinated biphenyls (Aroclors and congeners). TAL subsequently subcontracted the monobutyl

and dibutyl phosphate analyses to Southwest Research Institute. The results of these analyses will be released in the final WRPS report.

3.0 ANALYTICAL RESULTS SUMMARY

The Data Summary Report (Attachment 1) presents the final analytical results for those analytes requested in the SAP and FSAP. Secondary analytes are only reported if detected. The TIC from gas chromatography-mass spectrometry (GC/MS) analysis of semivolatile organic compounds (SVOC) is presented in Attachment 5. In addition to the required isotopes, all isotopes with positive GEA results were reported.

The "Det Limit" column in Attachment 1 contains the method detection limit (MDL) for non-radionuclide analyses, or the minimum detectable activity for radionuclides.

In Attachment 1, the column labeled "A#" indicates the aliquot class or the method used for sample preparation before analysis. For solid samples, the aliquot classes are defined as follows:

"A" indicates samples that were prepared by SW-846 3050B.

"E" indicates samples that were prepared by a strong acid digest.

"O" indicates samples that were extracted for organic analysis.

"S" indicates samples that were prepared by a distillation.

"W" indicates samples that were prepared by a standard water digest.

"WV" indicates samples that were prepared by a Vadose water digest.

Samples without a letter identifier in the "A#" column were analyzed directly with no separate preparation or with sample preparation performed as a part of the procedure steps.

The "Qual Flags" column in Attachment 1 contains data qualifier flags from FEAD CP-15383, *Common Requirements of the Format for Electronic Analytical Data,* that are defined as follows:

"B" for organic or radiochemistry results is used to indicate that the analyte was detected in the method or preparation blank and in the sample.

"B" for inorganic results is used to indicate that the reported result should be considered an estimate because it is below the quantitation limit. The "B" flag is applied to sample concentrations that are greater than the MDL but less than the quantitation limit.

"C" for inorganic results is used to indicate that the analyte was detected in the method or preparation blank and in the sample, and the result for the blank was greater than or equal to 20% of the reported sample result.

"J" for organic results is used to indicate that the reported result should be considered an estimate because it is below the quantitation limit. The "J" flag is applied to sample concentrations that are greater than the MDL but less than the quantitation limit.

"M" for inorganic results is used to indicate that the relative percent difference (RPD) between the sample and the duplicate is greater than 30%.

"N" for all but GC/MS is used to indicate that the MS recovery or MSD recovery was outside of the specified range in the QAPP or SAP.

"N" for GC/MS is used to indicate a TIC which has been named.

"T" for organics is used to indicate that the MS recovery or MSD recovery was outside of the specified range in the QAPP or SAP.

"U" for all results is used to indicate that the reported result is less than the calculated detection limit.

Manual calculations using rounded results from the Data Summary Report (Attachment 1) or result calculation forms may differ slightly from the actual results derived from the raw data.

3.1 SAMPLE DIGESTIONS

3.1.1 Radiochemistry Strong Acid Digestion

Strong acid digestions with a hot plate for the heat source were performed using a mixture of concentrated nitric and hydrochloric acids. For each digest, approximately 1 to 10 g of sample was digested depending on the analysis being performed. The digestate was then filtered and diluted to a final volume. This digestion was used for all radiochemical analyses except ^{3}H, ^{14}C, and ^{129}I. This digestion is a leach of the acid soluble species only.

3.1.2 SW-846 3050B - Acid Digestion-Heating Block

This acid digestion follows SW-846 3050B using a heating block and nitric and hydrochloric acids. An aliquot of approximately 5 g of sample was digested. All heating-block digestions were filtered and diluted to a final volume of 50 mL. In soil, this digestion is a leach of the acid soluble species only. This digestion was used for all inductively coupled plasma/mass spectrometry (ICP/MS) and inductively coupled plasma/atomic emission spectroscopy (ICP/AES) analyses except for ^{99}Tc and isotopic tin (^{117}Sn and ^{126}Sn) analysis. The digestion is modified for the ^{99}Tc analysis by using only nitric acid. This is done to eliminate the possibility of the formation a zinc-chlorine ion pair of mass 99. The laboratory believes this ion, when present, is responsible for low level false positives. A separate digestion for antimony was prepared using additional hydrochloric acid, as recommended in SW-846.

3.1.3 Water Digestion

A water digestion or leach was prepared for the anions by ion chromatography, ^{14}C, and ^{3}H analyses using approximately 0.25 to 4 g of sample diluted to 25 mL. Sonification was used, and the leachate was then filtered. In soil, this digestion is a leach of the water soluble species only.

3.1.4 Vadose Water Digestion

A 70-g sample of soil was leached using a ratio of one part water to one part soil. To maintain a one-to-one ratio, the amount of water added to the sample was adjusted based on the percent moisture of the soil. The slurries were placed on a shaker table for about 1 hour. They were then transferred to a centrifuge tube and centrifuged at 4,000 rpm for 30 minutes. The leachate was filtered using a disposable vacuum filtration system. The filtrates were transferred to a clean bottle and then analyzed for ^{99}Tc by ICP/MS analysis.

3.2 INORGANIC ANALYSES

3.2.1 Cyanide

The cyanide analysis by distillation and spectrophotometry was performed on direct subsamples of the grab samples and liner composite samples. All analyses met the SW-846 holding time of 14 days. There was no required reporting limit in the SAP for cyanide. The target detection limit was 0.5 µg/g, which is lower than what the current laboratory method (lachet micro-distillation) can reach. There were no notable quality control (QC) issues with these batches, and all QC requirements in the FSAP, SAP, and the QAPP were met.

3.2.2 Sulfide

Sulfide analysis by distillation and ion selective electrode was performed on direct subsamples of the grab samples and liner composite samples. All analyses met the SW-846 holding time of 7 days. There was no required reporting limit in the SAP for sulfide. The target detection limit was 5 µg/g. All sample results had adjusted MDLs of approximately 7 µg/g.

Batches 19830, 19631, 19885, 19967, and 20058: There were no notable issues with these batches, and all QC requirements in the FSAP, SAP, and the QAPP were met.

Batch 19596: The RPD exceeded the required 30%. Since the result for this analyte was below the quantitation limit, the criterion does not apply and reanalysis is not required.

3.2.3 pH Analysis

The pH analysis was performed on the grab samples and liner composite samples except for sample B23TK8 (I001). This was due to insufficient sample. These analyses met all QC requirements in the FSAP, SAP, and QAPP. The FSAP lists a pH holding time requirement of "as soon as possible." All pH measurements were taken after the water leach was performed. The sampling to analysis time varied from 7 to 35 days (see Attachment 3). There is no correlation between pH results and days to analysis, and the results fall within an expected range for alkaline soils. This indicates that the variation in time has no apparent effect on the results.

3.2.4 Mercury

Analysis for mercury by cold-vapor/atomic absorption was performed on the digested subsamples of the grab samples and liner composite samples. All results met the QC requirements in the FSAP, SAP, and QAPP. All analyses met the holding time of 28 days. This analysis met the required and target detection limits.

3.2.5 Ion Chromatography – Ammonium

Analysis for ammonium was performed using a distillation preparation of the grab samples and the liner composite samples. The SAP lists an administrative holding time of 7 days. The laboratory believes that after distillation and preservation, the holding time is 28 days based on U.S. Environmental Protection Agency drinking water and waste water holding times for preserved samples. There is no regulatory holding time limit promulgated for ammonium in soil. All samples met these holding times. These analyses met the target detection limit listed in the SAP. There was no required reporting limit in the SAP or FSAP for ammonium.

Batch 19420: There were no notable issues with these batches, and all QC requirements in the FSAP, SAP, and the QAPP were met.

Batch 19583: Laboratory personnel used an unknown and incorrect spike amount for the MS resulting in a high spike recovery of 247%. Since the project requirement is that one MS be performed per core hole, and five acceptable MSs exist, this MS was not reported (see Attachment 8). All other QC requirements were met in this batch, including the post digestion spike.

Batches 19668, 19896, and 19938: The RPD exceeded the required 30%. Since the result for this analyte was below the quantitation limit, the criterion does not apply and reanalysis is not required. Ammonium was detected in the preparation blanks at a level below the quantitation limit and above the MDL. Ammonium was also detected in the samples at a similar level; these results have been flagged with a "C". Since all results were below the quantitation limit, reanalysis was not required.

Batches 19655 and 20024: Ammonium was detected in the preparation blanks at a level below the quantitation limit and above the MDL. Ammonium was also detected in the samples at a similar level; these results have been flagged with a "C". Since all results were below the quantitation limit, reanalysis was not required.

3.2.6 Ion Chromatography – Anions and Small Organic Acids

Ion chromatography analysis was performed on a standard water digest of subsamples from all grab samples and liner composite samples.

The laboratory met all of the required and target detection limits. For the standard water digest, all analyses were within the applicable holding time. The sample spikes used for the standard water digestions are predigestion spikes.

Batch 19599: The RPD for fluoride exceeded the required 30% at 32%. The laboratory believes this was due to sample inhomogeneity, which is indicated by high RPDs for the other anions in this sample. Additionally, a second duplicate sample from a separate Vadose project was analyzed in this batch, with acceptable duplicate RPDs. The result for nitrite in the preparation blank was above the MDL but below the quantitation limit, and the blank is therefore acceptable. One sample result for nitrite has been flagged with a "C".

Batch 19650: The RPD for nitrite exceeded the required 30% in the SAP and FSAP. However, since the result was below the quantitation limit, this criterion does not apply. The MS recovery for phosphate was below the ±25% requirement at 70%. The sample results have been flagged with a "N". Since the post digestion spike was recovered at 99%, the laboratory believes that the low MS recovery was matrix related. The result for nitrite in the preparation blank was above the MDL but below the quantitation limit, and the blank is therefore acceptable. All samples results for nitrite were flagged with a "C".

Batch 20668: The results for nitrite, sulfate, and nitrate in the preparation blank were slightly above the MDL and below the quantitation limit. The blank is therefore acceptable. All but one nitrite and two nitrates were flagged with a "C". The un-flagged results were more than 20 times the adjusted blank results. The blank result for sulfate was less than 5% of the lowest sulfate results, and therefore no flags were applied.

3.2.7 Inductively Coupled Plasma/Atomic Emission Spectroscopy

The ICP/AES analysis was performed on an acid-digest (SW-846 3050B) of all grab samples and liner composite samples. The ICP/AES analysis was unable to obtain the required detection limit for antimony, arsenic, cadmium, lead, selenium, silver, and thallium. These elements have been reported from separate ICP/MS analyses. Total uranium has not been reported by the ICP/AES analysis since it cannot meet the required detection limits in the SAP. The isotopic uranium analysis by ICP/MS met the required detection limit for ^{238}U, which is essentially total uranium. The overall data usability was not affected. For all other metals reported by ICP/AES, all target and required detection limits were met. SW-846 lists the holding time for ICP/AES metals as 6 months. All analyses met the holding times.

Batch 20821: The interference check standard-AB (ICSAB) had a result above the quantitation limits for neodymium. This indicates that spectral interference was occurring. Neodymium results were not reported due to the high probability that they were the result of this interference. A result slightly above the MDL for cadmium in the ICSA indicate a possible high bias for this element. However, the recovery of cadmium in the ICSAB was within the ±20% requirement; this indicates no significant bias was present. Low levels of iron, sodium, chromium, and calcium were detected in the preparation blank, but reanalysis was not required since these levels were less than 5% of the lowest sample result. The MS recoveries for aluminum, calcium, iron, magnesium, phosphorous, and titanium exceeded the ±25% requirement in the FSAP and SAP. Since the sample results for these elements exceeded the matrix spike level by more than four times, this criterion does not apply. The MS recoveries for sodium, sulfur, silicon, and zirconium exceeded the ±25 requirement in the SAP and FSAP. The laboratory believes this was due to matrix interference. The RPD for silicon exceeded the ±30% requirement at 40%. All sample results in this batch for silicon have been flagged with "M". Reanalysis was not required since

this is secondary element. It should be noted that silicon is not listed with other elements in SW-846 3050B, section 1.1, under "Scope and Application" for the method and does not perform consistently when using this digest.

Batch 20563: The ICSAB had a result above the quantitation limits for neodymium. This indicates that spectral interference was occurring. Neodymium results were not reported due to the high probability that they were the result of this interference. Results slightly above the MDL for cadmium in the ICSA indicate a possible high bias for this element. However, the recovery of cadmium in the ICSAB was within the ±20% requirement; this indicates no significant bias was present. The LCS for calcium was recovered outside the ±20% requirement at 78.3%. Since two of the samples in this batch were exhausted and could not be reanalyzed, a decision was reached with the client to accept the data "as is" (see Attachment 8). The MS recoveries for aluminum, calcium, iron, magnesium, sodium, phosphorous, silicon, and titanium exceeded the ±25% requirement in the FSAP and SAP. Since the sample results for these elements exceeded the matrix spike level by more than four times, this criterion does not apply. The MS recoveries for bismuth and zirconium exceeded the ±25 requirement at 56% and 19%, respectively. This could indicate that the results for elements are biased low. All sample results in this batch for bismuth and zirconium have been flagged with "N". Reanalysis was not required since these are secondary elements. Silicon experienced an LCS failure, and reanalysis was not required for this secondary element.

3.2.8 Inductively Coupled Plasma/Mass Spectroscopy

The ICP/MS actinide and trace metal analyses were performed on the standard SW-846 3050 acid digestion of all grab samples and liner composite samples. The ICP/MS ^{126}Sn and ^{99}Tc analysis was performed on the sample digest without the addition of the hydrochloric acid. Hydrochloric acid is not used for ^{99}Tc analysis because of the potential formation of a ZnCl ion pair with mass 99. ICP/MS trace metal analysis for antimony was perform on the same digest with additional hydrochloric acid, which is required to keep antimony in solution. In addition to these acid digests, ICP/MS ^{99}Tc analysis was performed on a Vadose water digest of all solid samples except B23TK8 (I001) and directly on single water samples from interval I010. The I001 analysis was not performed due to lack of sample.

Direct is the most accurate type of calibration; however, standard material is not commercially available for all the isotopes of interest. Concentrations of those isotopes without available standards are estimated based on the instrument's mass-response curve, which is generated by using the intensity/concentration relationship for the available isotope standards. Results estimated in this manner are designated "semi-quantitative."

Table 1. Inductively Coupled Plasma-Mass Spectroscopy Standards and Spikes

Standard Type	Analytes Analyzed
Initial calibration verification (nondigested)	^{232}Th, ^{235}U, ^{238}U, ^{237}Np, ^{99}Tc, ^{117}Sn
Acid digest standard (laboratory control standard)	^{232}Th, ^{235}U, ^{238}U, ^{237}Np, ^{99}Tc, ^{117}Sn
Predigest spike (MS)	^{232}Th, ^{235}U, ^{238}U, ^{237}Np, ^{99}Tc, ^{117}Sn
Post-digest spike	^{232}Th, ^{235}U, ^{238}U, ^{237}Np, ^{99}Tc, ^{117}Sn

Table 1. Inductively Coupled Plasma-Mass Spectroscopy Standards and Spikes

Standard Type	Analytes Analyzed
No standard or spike of either type	^{126}Sn, ^{230}Th, ^{233}U, ^{234}U, ^{236}U

3.2.8.1 Technetium-99 and Tin-126

The required detection limit listed in the SAP for ^{99}Tc was met. The target detection limit for ^{99}Tc was not met. There were no required or target detection limits for ^{126}Sn listed in the SAP. The SAP lists the holding time for isotopic analytes as 6 months. All samples were analyzed within the holding time.

Because there is no available source for ^{126}Sn, ^{117}Sn is used to monitor the chemical recovery for this analysis. Though not specifically requested in the SAP, ^{117}Sn is reported for the laboratory control sample LCS and MS in order to demonstrate method accuracy and presence of possible matrix interference.

Batch 20681: There were no notable issues with this batch, and all QC requirements in the FSAP, SAP, and the QAPP were met.

Batch 21058: The middle and closing continuing calibration blanks (CCB) contained ^{99}Tc just above the MDL. ^{99}Tc was detected in one sample bracketed by these CCBs. The other samples in the batch were non-detect. Since all results were below the quantitation limit, reanalysis was not required. The one positive result has been flagged with “B”. The laboratory believes that these results most likely represent some type of interference. The RPD for ^{126}Sn exceeded the ±30 requirement in the SAP and FSAP at 39%. Since the results for ^{126}Sn were below the quantitation limit, this criterion does not apply. The matrix spike for ^{117}Sn was recovered below the ±25% requirement. Similar results have been observed in other batches, and this appears to be a matrix interference issue. This batch was not reanalyzed, but others have been with no improvement. Tin results should be considered biased low at these levels. All samples in the batch have been flagged with an “N”.

3.2.8.2 Technetium-99 (Vadose Water Digest)

The required and target detection limits listed in the SAP for ^{99}Tc were met. The SAP lists a holding time of 6 months for isotopic analytes. All analysis met this holding time.

Batch 21206 and 23804: There were no notable issues with this batch, and all QC requirements in the FSAP, SAP, and the QAPP were met.

Batch 23572: The middle CCB contained ^{99}Tc just above the MDL. ^{99}Tc was detected in two samples bracketed by the CCB. The other samples in the batch were non-detect. Since the blank result was below the quantitation limit, reanalysis was not required. One positive result, which was below the quantitation limit, has been flagged with “B”. The other positive sample result was more than 20 times the adjusted blank result and was therefore not flagged. The laboratory believes that the blank result is most likely some type of interference.

3.2.8.3 Actinides

The required and target detection limits were met for all isotopes and in all samples. The SAP lists the holding time for isotopic analytes as 6 months. All samples were analyzed within the holding time.

Batch 20597: The result for ^{234}U in the preparation blank was slightly above the MDL. Four of the six samples in the batch demonstrated a similar result and have been flagged with a "B". Since all results were below the quantitation limit, the blank was acceptable and reanalysis was not required.

Batch 21207: The RPD for U^{233} exceed the ±30% requirement in the SAP and FSAP; however, since the result was below the quantitation level, this criterion does not apply.

3.2.8.4 Trace Metals

Antimony, arsenic, cadmium, lead, selenium, silver, and thallium were analyzed by ICP/MS to obtain the required detection limits in the SAP. Except for the required detection limit for selenium, all required detection limits were met or the sample results were above the quantitation limit and the sample detection limit criteria do not apply. All target detection limits were met. The required detection limit for selenium was approximately an order of magnitude below the detection limit obtained by ICP/MS. The laboratory does not anticipate reaching this detection limit for future projects. The adjusted MDL for selenium was approximately 0.25 µg/g. SW-846 lists the holding time for metals as 6 months. All samples were analyzed within the holding time.

Batches 20672, 22361, and 22376: There were no notable issues with these batches, and all QC requirements in the FSAP, SAP, and the QAPP were met.

Batch 20590: The duplicate RPD for antimony was outside the ±30% requirement in the SAP and FSAP at 37%. The laboratory believes this was a result of sample inhomogeneity. Additionally, the sample result was well below the required detection limit. With customer agreement (see Attachment 8), all results were flagged with "M" and reported.

Batch 21747: There were no notable issues with this batch, and all QC requirements in the FSAP, SAP, and the QAPP were met.

Batch 22437: Thallium was detected in the preparation blank below the quantitation limit. The blank result was approximately 50% of the sample results, and a "C" flag was applied. Since the blank result was below the quantitation limit and the all sample results were below the required detection limit, reanalysis was not required.

3.3 RADIOCHEMICAL ANALYSIS

The holding time listed in the SAP for radioactive isotopes is 6 months. The FSAP list the holding time as "none". SW-846 does not address holding times for radiochemical analytes. All radiochemical analyses met the 6-month holding time listed in the SAP. Holding time tables for these analytes have not been included in Attachment 3. With the exception of the ^{14}C and ^{3}H analyses, tracers and spikes are added prior to the digestion.

3.3.1 Gamma Energy Analysis

Gamma energy analysis was performed directly on approximately 60 mL of soil from the grab samples and liner composite samples except for samples B23TK8 (I001) and B27130 (I003+4) as explained in Section 2.2 of this report. The SAP requires the reporting of all isotopes with positive results above the minimum detectable activity (MDA); therefore, isotopes additional to those required in the SAP were reported when detected. The GEA analysis met all the required detection limits in the SAP. The laboratory was unable to meet any of the target detection limits. There were no notable issues with these batches, and all QC requirements in the FSAP, SAP, and the QAPP were met.

3.3.2 Strontium-89/90

Strontium-89/90 analysis was performed on the grab samples and liner composite samples except for samples B23TK8 (I001) and B27130 (I003+4) as explained in Section 2.2 of this report. All of the sample analyses met the required and target detection limits. The FSAP and SAP requested ^{90}Sr, not $^{89/90}$Sr, be reported. The 222-S Laboratory only performs the latter analysis. Since the half-life for ^{89}Sr is approximately 51 days and ^{89}Sr has not been produced at Hanford for years, $^{89/90}$Sr is essentially ^{90}Sr. There were no notable issues with these batches, and all QC requirements in the FSAP, SAP, and the QAPP were met.

3.3.3 Tritium

The ^{3}H analysis by liquid scintillation counting (LSC) was performed on the equipment blank and a water leach of all grab samples and liner composite samples except for sample B23TK8 (I001) as explained in Section 2.2 of this report. This method only measured the ^{3}H in the samples that could be dissolved in water. This analysis achieved the required and target detection limit in the FSAP.

Batch 20359: The laboratory failed to include an MS with this batch and did analyze a MS for C7668 as required. This was discussed with the client.

Batch 20794: There were no notable issues with these batches, and all QC requirements in the FSAP, SAP, and the QAPP were met.

3.3.4 Selenium-79

The ^{79}Se analysis by LSC was performed on the grab samples and liner composite samples except for samples B23TK8 (I001) and B27130 (I003+4) as explained in Section 2.2 of this report. The analysis achieved the target detection limit in the FSAP. No required detection limit was listed. No standard is currently available for ^{79}Se, and a cold carrier is used to monitor recovery and is measured gravimetrically. The ^{14}C LSC curve is used to determine the ^{79}Se results since their energies are similar. Since both ^{63}Ni and ^{79}Se use a single digestion batch that is equally split prior to the separation step, the maximum tracer/carrier recovery is 50%.

Batch 20850: The preparation blank demonstrated a positive result below the quantitation limit, as did the one sample in this batch. All results had very large counting uncertainties and were below the target detection limit. Because of these factors, reanalysis was not required. The associated results have been flagged with a "B".

3.3.5 Carbon-14

The ^{14}C analysis by LSC was performed on a water leach of the grab samples and liner composite samples except for sample B23TK8 (I001) as explained in Section 2.2 of this report. The analysis achieved the required detection limit in the FSAP but exceeded the target detection limit. This analysis will only detect water soluble forms of ^{14}C.

Batches 21604 and 22478: There were no notable issues with these batches, and all QC requirements in the FSAP, SAP, and the QAPP were met.

3.3.6 Nickel-63

The ^{63}Ni analysis by LSC was performed on the grab samples and liner composite samples except for samples B23TK8 (I001) as explained in Section 2.2 of this report. The analysis achieved the required and target detection limits in the FSAP. Since both ^{63}Ni and ^{79}Se use a single digestion batch that is equally split prior to the separation step, the maximum trace/carrier recovery is 50%.

Batch 21309: There were no notable issues with the batch, and all QC requirements in the FSAP, SAP, and the QAPP were met.

Batch 20890: This duplicate for this batch was reanalyzed in batch 21309 along with the other sample that had a positive result for ^{63}Ni. All sample results were below the MDA in the reanalysis.

3.3.7 Iodine-129

Analysis for ^{129}I by low energy GEA was performed on an iodine-specific fusion digest of all grab samples and liner composite samples except for sample B23TK8 (I001) as explained in Section 2.2 of this report. The required and target detection limits in the SAP were met. There were no notable issues with these batches, and all QC requirements in the FSAP, SAP, and the QAPP were met.

3.3.8 Americium-241, Curium-243/244, and Curium-242

Analysis for ^{241}Am, $^{243/244}Cm$, and ^{242}Cm by alpha energy analysis (AEA) was performed on the grab samples and liner composite samples except for samples B23TK8 (I001) and B27130 (I003+4) as explained in Section 2.2 of this report. For this analysis, there were no notable issues with any batches and all QC requirements in the FSAP, SAP, and the QAPP were met. The required and target detection limits in the SAP were met. The SAP and FSAP requested ^{243}Cm

and ^{244}Cm be reported separately. Since it is not possible to resolve these individual isotopes when using AEA, these isotopes have been reported as $^{243/244}$Cm.

3.3.9 Plutonium-238 and Plutonium-239/240

Plutonium isotopic (^{238}Pu and $^{239/240}$Pu) analysis by AEA was performed on the grab samples and liner composite samples except for samples B23TK8 (I001) and B27130 (I003+4) as explained in Section 2.2 of this report. For this analysis, there were no notable issues with any batches and all QC requirements in the FSAP, SAP, and the QAPP were met. The required and target detection limits in the SAP were met.

3.4 ORGANIC ANALYSES

3.4.1 Volatile Organic Analysis

The VOA by GC/MS was performed on field samples by purge and trap. Due to the instrumentation problem discussed in Section 2.1, the following samples were shipped from the 222-S Laboratory to WSCF for analysis by WRPS:

- Volatile organic samples: B23TM2, B25WM4, B25WN0 and B25WM7
- Field blanks: B23V99, B23VB3, and B23VB4
- Trip blanks: B23VC2 and B23VC3

These samples were received at the 222-S Laboratory prior to shipment to WSCF and were given 222-S Laboratory sample IDs, which appear in Attachment 2. These numbers are for tracking purposes only and will not be used to report results. The WSCF results for these samples are reported in Appendix A and were provided by WRPS. Sample B23V99 was analyzed by both the 222-S Laboratory and WSCF. Both sets of results have been reported (see Attachment 1 and Appendix A), but only the 222S results will be placed into the Hanford Environmental Information System.

Field sampling methods, sample containers, and preservation methods followed SW-846 5035.The soil samples were delivered in a freezer in pre-weighed VOA vials with magnetic stir bars and approximately 5 g of sample. After receipt, the VOA samples were stored in a freezer. For each sample interval, an additional high level sample preserved in methanol was also received. These were not used because none of the results for the frozen samples were above the calibration range. The exact weight of the sample and the tare weight of the VOA vials were recorded by sampling personnel and delivered with the samples. One equipment blank, eight field blanks, and seven trip blanks were also received and analyzed. The samples were preserved with either HCl or H_2SO_4 to a pH < 2.The holding time for all samples is 14 days. All samples analyzed at 222-S Laboratory met the required holding time.

The VOA met the target and required detection limits in the SAP. The SAP and FSAP requested m-xylene and p-xylene be reported separately. Since it is not possible to resolve these individual compounds when performing VOA by SW-846 8260C, these compounds have been reported as m+p xylene. The SAP and FSAP request that methanol be reported with this analysis; however,

this compound is too polar to be purged and cannot be reported (see Attachment 8). Isobutanol, another poor purger, was reported as a semivolatile organic compound.

All but one of the field blanks and all trip blanks contained chloroform above the estimated quantification level. Since chloroform is a common chlorination byproduct, the laboratory believes the source of chloroform might be the water used by sampling personnel to make the various blanks.

All laboratory blanks for the liquid sample batches contained acetone at a level slightly below the quantitation level, based on the low calibration. Some blanks were 30 to 50 times the MDL. Fortunately, the samples contained only a trace of acetone; most results were below the MDL and all were below the quantitation level. "B" flags have been applied when appropriate. For this reason, reanalysis was not required. The laboratory believes that this relatively high level of acetone in the method blanks was due to contamination in the hydrochloric acid used in the blanks. For analyses performed after these, acetone was only occasionally found in the blank and generally at a level below the quantitation level.

The LCS, MS, and matrix spike duplicat (MSD) recoveries were compared against the laboratory's statistical process control (SPC) limits, as required by SW-846. The use of SPC limits is allowed in the FSAP, SAP, and QAPP.

Batch 19566: It is apparent from the following discussion that this batch should have been reanalyzed; however, due to a pending instrument outage and an expiring holding time, these are the only results available. With the exception of acetone, all QC failures indicate a high bias; the impact on the data is minimal. Toluene and 2-hexanone were detected in the sample and method blanks above the MDL and below the quantitation limit. The sample results have been flagged with a "B". Since the results were below the quantitation limit, reanalysis was not required. The MS failed high for acetone, 2-butanone, 2-hexanone, and hexone. The 2-hexanone result was slightly above the MDL. All results have been flagged with a "T". Since the 2-hexanone result was below the quantitation limit and flagged with "J", this result was not affected. All other results were below the MDL. The LCS for acetone failed high, again indicating a high bias. Two continuous calibration veritication standards (CCV) were analyzed with this batch; the closing CCV was normal with only two compounds slightly above the ±20% requirement. However, the first CCV had six primary analytes above this requirement. Since the acetone results were below the MDL, the LCS and CCVs are acceptable.

Batch 19680: The LCS recovery for acetone was above the upper limit of 136% at 172%. Due to the holding time limitation, reanalysis was not performed. Since the results for acetone were below the quantitation limit or below the MDL and flagged with a "J", the data usability was not affected and reanalysis was unnecessary. The method blank contained acetone as discussed above.

Batch 19878: The method blank result for 2-hexanone was above the MDL but below the quantitation limit. The sample result is similar and has been flagged with "B". Since all results were below the quantitation limit and 2-hexanone is not a primary analyte, reanalysis was not required. The method blank contained acetone as discussed above.

Batch 19881: The method blank result for 2-hexanone was above the MDL but below the quantitation limit. The sample result is similar and has been flagged with "B". Since all results were below the quantitation limit and 2-hexanone is not a primary analyte, reanalysis was not required.

3.4.2 Semivolatile Organic Analysis

The semivolatile organic analysis (SVOA) by GC/MS was performed on methylene chloride extractions of all grab samples and liner composite samples. All holding times were met.

The SVOA analysis met the required and target detection limits with two exceptions:

- The adjusted MDLs for cyclohexanone were above the 0.5 mg/kg target detection limit for most samples. This compound obtained detection limits between 0.5 mg/kg and 0.6 mg/kg.
- The adjusted MDLs for di-n-butyl-phthalate were above the target detection limit of 0.33 mg/kg. The analysis achieved a detection limit of between 0.5 mg/kg and 0.6 mg/kg for this compound.

LCS, MS, and MSD recoveries were compared against the laboratory's SPC limits, as required by SW-846. The use of SPC limits is permitted in the FSAP, SAP, and QAPP.

The SAP and FSAP requested m-cresol and p- cresol be reported separately. Since it is not possible to resolve these individual compounds when performing SVOA by SW-846 8270C, these compounds have been reported as m+p cresol.

Batch 20093: There were no notable issues with this batch, and all QC requirements in the FSAP, SAP, and the QAPP were met.

Batches 19989, 19999, and 20019: Butylbenzylphthalate was detected in the method blank and samples at slightly above the MDL and below the quantitation limit. Therefore, the blank is acceptable and reanalysis was unnecessary. Sample results have been flagged with a "B".

3.4.3 Tentatively Identified Compounds

Unassigned peaks or TICs were treated as follows. Standards were obtained and analyzed for each secondary analyte identified in the SAP. This data was accumulated in the Hanford library. Following analysis, the largest TICs with instrument responses greater than 10% of the response of the nearest internal standard were evaluated and compared to the Hanford library. The estimated concentration of these TICs was calculated using measured response factors from the Hanford library compound list.

After comparison to the Hanford library, remaining unknowns were compared to National Institute of Standards and Technology (NIST) 02, *HP Mass Spectral (compound) Libraries*. The estimated concentration of compounds identified in the NIST library was calculated based on an arbitrary response factor of 1.0. If the compounds were not identified as a result of this

comparison, they were reported as "unknown." Summaries of the SVOA and VOA TICs from the field samples and method blanks are provided in Attachment 5. TICs that were found in the field samples and were present in the associated batch method blank have been flagged with "B".

4.0 PROCEDURES

Table 2 lists the analytical procedures used for analysis of the Area C samples.

Table 2. Analytical Procedures

Analysis	Preparation Method	Analysis Procedure
Inorganic Analyses		
Cyanide	LA-695-103, Rev. J-0 (SW-846 9010C)	LA-695-103, Rev. J-0 (SW-846 9014)
Sulfide	LA-361-101, Rev. D-0 (SW-846 9030B)	LA-361-101, Rev. D-0 (SW-846 9215)
pH (solid)	LA-212-105, Rev. G-0 (SW-846 9045D)	LA-212-105, Rev. G-0 (SW-846 9045D)
Mercury – Cold Vapor Atomic Absorption	LA-325-110, Rev. A-0 (SW-846 7470A, 7471A)	LA-325-110, Rev. A-0 (SW-846 7470A, 7471A)
Ammonia – IC	LA-544-112, Rev. E-0	LA-533-101, Rev. Q-0
Anions & Organic Acids – IC	LA-504-101, Rev. L-0	LA-533-115, Rev. J-0
Metals – ICP /AES	LA-505-163, Rev. G-0 (SW-846 3050B)	LA-505-161, Rev. J-0-A (SW-846 6010C)
^{99}Tc, ^{126}Sn – ICP/MS	LA-505-163, Rev. G-0 (SW-846 3050B)	LA-506-102, Rev. F-1
^{99}Tc – ICP/MS	08-ATL-078 Vadose Water Digest	LA-506-102, Rev. F-1
Metals – ICP/MS	LA-505-163, Rev. G-0 (SW-846 3050B)	LA-506-102, Rev. F-1 LA-506-103, Rev. A-0 (SW-846 6020A)
Actinides – ICP/MS	LA-505-163, Rev. G-0 (SW-846 3050B)	LA-506-1-2, Rev. F-1
Radiochemical Analyses		
GEA	Direct	LA-548-121, Rev. I-0
^{90}Sr – Separation/Beta counting (Solid)	LA-544-101, Rev. F-0	LA-220-101, Rev. J-0
^{3}H – LSC	LA-504-101, Rev. L-0	LA-218-111, Rev. G-0
^{14}C – LSC	LA-504-101, Rev. L-0	LA-348-104, Rev. H-0, I-0
^{79}Se – Separation/LSC	LA-544-101, Rev. F-0	LA-365-132, Rev. I-0
^{63}Ni – Separation/LSC	LA-544-101, Rev. F-0	LA-285-102, Rev. E-0
^{129}I – Separation/GEA	LA-378-105, Rev. C-0	LA-378-105, Rev. C-0
^{241}Am, $^{243/244,\ 242}$Cm – Separation/AEA	LA-544-101, Rev. F-0	LA-953-104, Rev. H-1

Analysis	Preparation Method	Analysis Procedure
$^{239/240, 238}$Pu – Separation/AEA	LA-544-101, Rev. F-0	LA-953-104, Rev. H-1
Organic Analyses		
VOC – GC/MS	Direct	LA-523-118, Rev. G-O-A (SW-846 8260B)
SVOC – GC/MS	LA-523-138, Rev. F-0 (SW-846 3540C)	LA-523-135, Rev. D-0 (SW-846 8270C)

5.0 REFERENCES

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SW-846, 1986, *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods,* Third Edition, as amended, U.S. Environmental Protection Agency, Washington, D.C.

RPP-PLAN-40564, 2009, *Field Sampling and Analysis Plan for Sites P and L at Waste Management Area C,* Rev. 2, Washington River Protection Solutions, Inc.

RPP-PLAN-38777, 2009, *Sampling and Analysis Plan for Phase 2 Characterization of Vadose Zone Soil in Waste Management Area C*, Rev. 1, Washington River Protection Solutions, Inc.

EAD CP-15383, *Common Requirements of the Format for Electronic Analytical Data,* Version 8, CH2M Hill Plateau Remediation Co., Richland, WA

Attachment 1

DATA SUMMARY REPORT

17 - Mar - 2011 11:58:44
DSRHardcopyWOLimits 2.7.26a
DSR.Jar v. 2.7.27

Data Summary Report

Sample Group: 20100062
Core Number: C7668
Customer Sample ID: B23V96
Sample Depth: Field Blank-1

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000095		71-55-6	1,1,1-Trichloroethane	ug/L	n/a	<0.0433	<0.0481	n/a	n/a	n/a	n/a	0.0481	n/a	U
S10V000095		79-00-5	1,1,2-Trichloroethane	ug/L	n/a	<0.0230	<0.0256	n/a	n/a	n/a	n/a	0.0256	n/a	U
S10V000095		79-34-5	1,1,2,2-Tetrachloroethane	ug/L	n/a	<0.0203	<0.0226	n/a	n/a	n/a	n/a	0.0226	n/a	U
S10V000095		75-35-4	1,1-Dichloroethene	ug/L	101	<0.172	<0.191	n/a	n/a	n/a	n/a	0.191	n/a	U
S10V000095		107-06-2	1,2-Dichloroethane	ug/L	n/a	<0.0243	<0.0270	n/a	n/a	n/a	n/a	0.0270	n/a	U
S10V000095		71-36-3	1-Butanol	ug/L	81.7	<1.15	<1.28	n/a	n/a	n/a	n/a	1.28	n/a	U
S10V000095		108-10-1	Hexone	ug/L	123	<0.453	<0.503	n/a	n/a	n/a	n/a	0.503	n/a	U
S10V000095		67-64-1	Acetone	ug/L	172	30.5	2.25	n/a	n/a	n/a	n/a	0.637	n/a	BJ
S10V000095		71-43-2	Benzene	ug/L	95.1	<0.0163	<0.0181	n/a	n/a	n/a	n/a	0.0181	n/a	U
S10V000095		75-15-0	Carbon disulfide	ug/L	n/a	<0.0211	<0.0234	n/a	n/a	n/a	n/a	0.0234	n/a	U
S10V000095		56-23-5	Carbon tetrachloride	ug/L	n/a	<0.0479	<0.0532	n/a	n/a	n/a	n/a	0.0532	n/a	U
S10V000095		67-66-3	Chloroform	ug/L	n/a	<0.0414	1.01	n/a	n/a	n/a	n/a	0.0460	n/a	
S10V000095		108-90-7	Chlorobenzene	ug/L	102	<0.0320	<0.0356	n/a	n/a	n/a	n/a	0.0356	n/a	U
S10V000095		100-41-4	Ethylbenzene	ug/L	n/a	<0.0334	<0.0371	n/a	n/a	n/a	n/a	0.0371	n/a	U
S10V000095		1330-20-7	Xylenes (total)	ug/L	n/a	<0.0940	<0.104	n/a	n/a	n/a	n/a	0.104	n/a	U
S10V000095		78-93-3	2-Butanone	ug/L	97.1	1.66	<0.509	n/a	n/a	n/a	n/a	0.509	n/a	U
S10V000095		75-09-2	Methylenechloride	ug/L	n/a	<0.0396	<0.0440	n/a	n/a	n/a	n/a	0.0440	n/a	U
S10V000095		127-18-4	Tetrachloroethene	ug/L	n/a	<0.0583	<0.0648	n/a	n/a	n/a	n/a	0.0648	n/a	U
S10V000095		108-88-3	Toluene	ug/L	104	<0.0522	0.112	n/a	n/a	n/a	n/a	0.0580	n/a	J
S10V000095		10061-02-6	trans-1,3-Dichloropropene	ug/L	n/a	<0.0591	<0.0657	n/a	n/a	n/a	n/a	0.0657	n/a	U
S10V000095		79-01-6	Trichloroethene	ug/L	90.6	<0.0378	<0.0420	n/a	n/a	n/a	n/a	0.0420	n/a	U
S10V000095		75-01-4	Vinyl chloride	ug/L	n/a	<0.0486	<0.0540	n/a	n/a	n/a	n/a	0.0540	n/a	U
S10V000095		156-59-2	cis-Dichloroethylene	ug/L	n/a	<0.0582	<0.0647	n/a	n/a	n/a	n/a	0.0647	n/a	U
S10V000095		156-60-5	trans-Dichloroethylene	ug/L	n/a	<0.0752	<0.0836	n/a	n/a	n/a	n/a	0.0836	n/a	U
S10V000095		76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ug/L	n/a	<0.0396	<0.0440	n/a	n/a	n/a	n/a	0.0440	n/a	U
S10V000095		79-46-9	2-Nitropropane	ug/L	n/a	<0.265	<0.295	n/a	n/a	n/a	n/a	0.295	n/a	U
S10V000095		141-78-6	Ethyl acetate	ug/L	n/a	<0.183	<0.204	n/a	n/a	n/a	n/a	0.204	n/a	U
S10V000095		60-29-7	Diethyl ether	ug/L	n/a	<0.0423	<0.0470	n/a	n/a	n/a	n/a	0.0470	n/a	U
S10V000095		75-69-4	Trichlorofluoromethane	ug/L	n/a	<0.0458	<0.0509	n/a	n/a	n/a	n/a	0.0509	n/a	U

NA = Not Analyzed, ND = Not Detected

B - Blank Contamination
J - Estimated
T - MS/MSD Outside Range
M - RPD Outside Range
B - Estimated
N - MS/MSD Outside Range
U - Less Than Detection Limit
C - Blank Contamination

Data Summary Report

Sample Group: 20100062

Core Number: C7668

Customer Sample ID: B23V96

Sample Depth: Field Blank-1

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000095		95-47-6	o-Xylene	ug/L	n/a	<0.0325	<0.0361	n/a	n/a	n/a	n/a	0.0361	n/a	U
S10V000095		179601-23-1	m,p-Xylene	ug/L	n/a	<0.0703	<0.0781	n/a	n/a	n/a	n/a	0.0781	n/a	U

NA = Not Analyzed, ND = Not Detected

B - Blank Contamination
J - Estimated
T - MS/MSD Outside Range
M - RPD Outside Range
B - Estimated
N - MS/MSD Outside Range
U - Less Than Detection Limit
C - Blank Contamination

Data Summary Report

Sample Group: 20100062

Core Number: C7668

Customer Sample ID: B23V97

Sample Depth: Field Blank-2

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000096		71-55-6	1,1,1-Trichloroethane	ug/L	n/a	<0.0433	<0.0481	n/a	n/a	n/a	n/a	0.0481	n/a	U
S10V000096		79-00-5	1,1,2-Trichloroethane	ug/L	n/a	<0.0230	<0.0256	n/a	n/a	n/a	n/a	0.0256	n/a	U
S10V000096		79-34-5	1,1,2,2-Tetrachloroethane	ug/L	n/a	<0.0203	<0.0226	n/a	n/a	n/a	n/a	0.0226	n/a	U
S10V000096		75-35-4	1,1-Dichloroethene	ug/L	96.5	<0.172	<0.191	n/a	n/a	n/a	93.4	0.191	n/a	U
S10V000096		107-06-2	1,2-Dichloroethane	ug/L	n/a	<0.0243	<0.0270	n/a	n/a	n/a	n/a	0.0270	n/a	U
S10V000096		71-36-3	1-Butanol	ug/L	84.0	<1.15	<1.28	n/a	n/a	n/a	89.7	1.28	n/a	U
S10V000096		591-78-6	2-Hexanone	ug/L	103	1.34	<0.505	n/a	n/a	n/a	99.3	0.505	n/a	U
S10V000096		108-10-1	Hexone	ug/L	106	<0.453	<0.503	n/a	n/a	n/a	100	0.503	n/a	U
S10V000096		67-64-1	Acetone	ug/L	129	21.2	<0.637	n/a	n/a	n/a	92.6	0.637	n/a	U
S10V000096		71-43-2	Benzene	ug/L	94.8	<0.0163	<0.0181	n/a	n/a	n/a	91.2	0.0181	n/a	U
S10V000096		75-15-0	Carbon disulfide	ug/L	n/a	<0.0211	<0.0234	n/a	n/a	n/a	n/a	0.0234	n/a	U
S10V000096		56-23-5	Carbon tetrachloride	ug/L	n/a	<0.0479	<0.0532	n/a	n/a	n/a	n/a	0.0532	n/a	U
S10V000096		67-66-3	Chloroform	ug/L	n/a	<0.0414	0.735	n/a	n/a	n/a	n/a	0.0460	n/a	
S10V000096		108-90-7	Chlorobenzene	ug/L	95.8	<0.0320	<0.0356	n/a	n/a	n/a	89.3	0.0356	n/a	U
S10V000096		100-41-4	Ethylbenzene	ug/L	n/a	<0.0334	<0.0371	n/a	n/a	n/a	n/a	0.0371	n/a	U
S10V000096		1330-20-7	Xylenes (total)	ug/L	n/a	<0.0940	<0.104	n/a	n/a	n/a	n/a	0.104	n/a	U
S10V000096		78-93-3	2-Butanone	ug/L	95.1	<0.458	<0.509	n/a	n/a	n/a	91.3	0.509	n/a	U
S10V000096		75-09-2	Methylenechloride	ug/L	n/a	<0.0396	<0.0440	n/a	n/a	n/a	n/a	0.0440	n/a	U
S10V000096		127-18-4	Tetrachloroethene	ug/L	n/a	<0.0583	<0.0648	n/a	n/a	n/a	n/a	0.0648	n/a	U
S10V000096		108-88-3	Toluene	ug/L	96.1	<0.0522	0.180	n/a	n/a	n/a	91.9	0.0580	n/a	J
S10V000096		10061-02-6	trans-1,3-Dichloropropene	ug/L	n/a	<0.0591	<0.0657	n/a	n/a	n/a	n/a	0.0657	n/a	U
S10V000096		79-01-6	Trichloroethene	ug/L	92.1	<0.0378	<0.0420	n/a	n/a	n/a	86.0	0.0420	n/a	U
S10V000096		75-01-4	Vinyl chloride	ug/L	n/a	<0.0486	<0.0540	n/a	n/a	n/a	n/a	0.0540	n/a	U
S10V000096		156-59-2	cis-Dichloroethylene	ug/L	n/a	<0.0582	<0.0647	n/a	n/a	n/a	n/a	0.0647	n/a	U
S10V000096		156-60-5	trans-Dichloroethylene	ug/L	n/a	<0.0752	<0.0836	n/a	n/a	n/a	n/a	0.0836	n/a	U
S10V000096		76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ug/L	n/a	<0.0396	<0.0440	n/a	n/a	n/a	n/a	0.0440	n/a	U
S10V000096		79-46-9	2-Nitropropane	ug/L	n/a	<0.265	<0.295	n/a	n/a	n/a	n/a	0.295	n/a	U
S10V000096		141-78-6	Ethyl acetate	ug/L	n/a	<0.183	<0.204	n/a	n/a	n/a	n/a	0.204	n/a	U
S10V000096		60-29-7	Diethyl ether	ug/L	n/a	<0.0423	<0.0470	n/a	n/a	n/a	n/a	0.0470	n/a	U

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J - Estimated
T - MS/MSD Outside Range
M - RPD Outside Range
B - Estimated
N - MS/MSD Outside Range
U - Less Than Detection Limit
C - Blank Contamination

Data Summary Report

Sample Group: 20100062

Core Number: C7668

Customer Sample ID: B23V97

Sample Depth: Field Blank-2

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000096		75-69-4	Trichlorofluoromethane	ug/L	n/a	<0.0458	<0.0509	n/a	n/a	n/a	n/a	0.0509	n/a	U
S10V000096		95-47-6	o-Xylene	ug/L	n/a	<0.0325	<0.0361	n/a	n/a	n/a	n/a	0.0361	n/a	U
S10V000096		179601-23-1	m,p-Xylene	ug/L	n/a	<0.0703	<0.0781	n/a	n/a	n/a	n/a	0.0781	n/a	U

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J - Estimated
T - MS/MSD Outside Range
M - RPD Outside Range
B - Estimated
N - MS/MSD Outside Range
U - Less Than Detection Limit
C - Blank Contamination

Data Summary Report

Sample Group: 20100062

Core Number: C7668

Customer Sample ID: B23V98

Sample Depth: Field Blank-3

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000097		71-55-6	1,1,1-Trichloroethane	ug/L	n/a	<0.0433	<0.0481	n/a	n/a	n/a	n/a	0.0481	n/a	U
S10V000097		79-00-5	1,1,2-Trichloroethane	ug/L	n/a	<0.0230	<0.0256	n/a	n/a	n/a	n/a	0.0256	n/a	U
S10V000097		79-34-5	1,1,2,2-Tetrachloroethane	ug/L	n/a	<0.0203	<0.0226	n/a	n/a	n/a	n/a	0.0226	n/a	U
S10V000097		75-35-4	1,1-Dichloroethene	ug/L	96.5	<0.172	<0.191	n/a	n/a	n/a	n/a	0.191	n/a	U
S10V000097		107-06-2	1,2-Dichloroethane	ug/L	n/a	<0.0243	<0.0270	n/a	n/a	n/a	n/a	0.0270	n/a	U
S10V000097		71-36-3	1-Butanol	ug/L	84.0	<1.15	<1.28	n/a	n/a	n/a	n/a	1.28	n/a	U
S10V000097		591-78-6	2-Hexanone	ug/L	103	1.34	1.66	n/a	n/a	n/a	n/a	0.505	n/a	BJ
S10V000097		108-10-1	Hexone	ug/L	106	<0.453	<0.503	n/a	n/a	n/a	n/a	0.503	n/a	U
S10V000097		67-64-1	Acetone	ug/L	129	21.2	2.22	n/a	n/a	n/a	n/a	0.637	n/a	BJ
S10V000097		71-43-2	Benzene	ug/L	94.8	<0.0163	<0.0181	n/a	n/a	n/a	n/a	0.0181	n/a	U
S10V000097		75-15-0	Carbon disulfide	ug/L	n/a	<0.0211	<0.0234	n/a	n/a	n/a	n/a	0.0234	n/a	U
S10V000097		56-23-5	Carbon tetrachloride	ug/L	n/a	<0.0479	<0.0532	n/a	n/a	n/a	n/a	0.0532	n/a	U
S10V000097		67-66-3	Chloroform	ug/L	n/a	<0.0414	0.801	n/a	n/a	n/a	n/a	0.0460	n/a	
S10V000097		108-90-7	Chlorobenzene	ug/L	95.8	<0.0320	<0.0356	n/a	n/a	n/a	n/a	0.0356	n/a	U
S10V000097		100-41-4	Ethylbenzene	ug/L	n/a	<0.0334	<0.0371	n/a	n/a	n/a	n/a	0.0371	n/a	U
S10V000097		1330-20-7	Xylenes (total)	ug/L	n/a	<0.0940	<0.104	n/a	n/a	n/a	n/a	0.104	n/a	U
S10V000097		78-93-3	2-Butanone	ug/L	95.1	<0.458	<0.509	n/a	n/a	n/a	n/a	0.509	n/a	U
S10V000097		75-09-2	Methylenechloride	ug/L	n/a	<0.0396	<0.0440	n/a	n/a	n/a	n/a	0.0440	n/a	U
S10V000097		127-18-4	Tetrachloroethene	ug/L	n/a	<0.0583	<0.0648	n/a	n/a	n/a	n/a	0.0648	n/a	U
S10V000097		108-88-3	Toluene	ug/L	96.1	<0.0522	0.148	n/a	n/a	n/a	n/a	0.0580	n/a	J
S10V000097		10061-02-6	trans-1,3-Dichloropropene	ug/L	n/a	<0.0591	<0.0657	n/a	n/a	n/a	n/a	0.0657	n/a	U
S10V000097		79-01-6	Trichloroethene	ug/L	92.1	<0.0378	<0.0420	n/a	n/a	n/a	n/a	0.0420	n/a	U
S10V000097		75-01-4	Vinyl chloride	ug/L	n/a	<0.0486	<0.0540	n/a	n/a	n/a	n/a	0.0540	n/a	U
S10V000097		156-59-2	cis-Dichloroethylene	ug/L	n/a	<0.0582	<0.0647	n/a	n/a	n/a	n/a	0.0647	n/a	U
S10V000097		156-60-5	trans-Dichloroethylene	ug/L	n/a	<0.0752	<0.0836	n/a	n/a	n/a	n/a	0.0836	n/a	U
S10V000097		76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ug/L	n/a	<0.0396	<0.0440	n/a	n/a	n/a	n/a	0.0440	n/a	U
S10V000097		79-46-9	2-Nitropropane	ug/L	n/a	<0.265	<0.295	n/a	n/a	n/a	n/a	0.295	n/a	U
S10V000097		141-78-6	Ethyl acetate	ug/L	n/a	<0.183	<0.204	n/a	n/a	n/a	n/a	0.204	n/a	U
S10V000097		60-29-7	Diethyl ether	ug/L	n/a	<0.0423	<0.0470	n/a	n/a	n/a	n/a	0.0470	n/a	U

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J - Estimated
T - MS/MSD Outside Range
M - RPD Outside Range
B - Estimated
N - MS/MSD Outside Range
U - Less Than Detection Limit
C - Blank Contamination

Data Summary Report

Sample Group: 20100062

Core Number: C7668

Customer Sample ID: B23V98

Sample Depth: Field Blank-3

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000097		75-69-4	Trichlorofluoromethane	ug/L	n/a	<0.0458	<0.0509	n/a	n/a	n/a	n/a	0.0509	n/a	U
S10V000097		95-47-6	o-Xylene	ug/L	n/a	<0.0325	<0.0361	n/a	n/a	n/a	n/a	0.0361	n/a	U
S10V000097		179601-23-1	m,p-Xylene	ug/L	n/a	<0.0703	<0.0781	n/a	n/a	n/a	n/a	0.0781	n/a	U

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J - Estimated
T - MS/MSD Outside Range
M - RPD Outside Range
B - Estimated
N - MS/MSD Outside Range
U - Less Than Detection Limit
C - Blank Contamination

Data Summary Report

Sample Group: 20100062

Core Number: C7668

Customer Sample ID: B23V99

Sample Depth: Field Blank-4

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000098		71-55-6	1,1,1-Trichloroethane	ug/L	n/a	<0.0433	<0.0481	n/a	n/a	n/a	n/a	0.0481	n/a	U
S10V000098		79-00-5	1,1,2-Trichloroethane	ug/L	n/a	<0.0230	<0.0256	n/a	n/a	n/a	n/a	0.0256	n/a	U
S10V000098		79-34-5	1,1,2,2-Tetrachloroethane	ug/L	n/a	<0.0203	<0.0226	n/a	n/a	n/a	n/a	0.0226	n/a	U
S10V000098		75-35-4	1,1-Dichloroethene	ug/L	96.5	<0.172	<0.191	n/a	n/a	n/a	n/a	0.191	n/a	U
S10V000098		107-06-2	1,2-Dichloroethane	ug/L	n/a	<0.0243	<0.0270	n/a	n/a	n/a	n/a	0.0270	n/a	U
S10V000098		71-36-3	1-Butanol	ug/L	84.0	<1.15	<1.28	n/a	n/a	n/a	n/a	1.28	n/a	U
S10V000098		108-10-1	Hexone	ug/L	106	<0.453	<0.503	n/a	n/a	n/a	n/a	0.503	n/a	U
S10V000098		67-64-1	Acetone	ug/L	129	21.2	<0.637	n/a	n/a	n/a	n/a	0.637	n/a	U
S10V000098		71-43-2	Benzene	ug/L	94.8	<0.0163	<0.0181	n/a	n/a	n/a	n/a	0.0181	n/a	U
S10V000098		75-15-0	Carbon disulfide	ug/L	n/a	<0.0211	<0.0234	n/a	n/a	n/a	n/a	0.0234	n/a	U
S10V000098		56-23-5	Carbon tetrachloride	ug/L	n/a	<0.0479	<0.0532	n/a	n/a	n/a	n/a	0.0532	n/a	U
S10V000098		67-66-3	Chloroform	ug/L	n/a	<0.0414	<0.0460	n/a	n/a	n/a	n/a	0.0460	n/a	U
S10V000098		108-90-7	Chlorobenzene	ug/L	95.8	<0.0320	<0.0356	n/a	n/a	n/a	n/a	0.0356	n/a	U
S10V000098		100-41-4	Ethylbenzene	ug/L	n/a	<0.0334	<0.0371	n/a	n/a	n/a	n/a	0.0371	n/a	U
S10V000098		1330-20-7	Xylenes (total)	ug/L	n/a	<0.0940	<0.104	n/a	n/a	n/a	n/a	0.104	n/a	U
S10V000098		78-93-3	2-Butanone	ug/L	95.1	<0.458	<0.509	n/a	n/a	n/a	n/a	0.509	n/a	U
S10V000098		75-09-2	Methylenechloride	ug/L	n/a	<0.0396	<0.0440	n/a	n/a	n/a	n/a	0.0440	n/a	U
S10V000098		127-18-4	Tetrachloroethene	ug/L	n/a	<0.0583	<0.0648	n/a	n/a	n/a	n/a	0.0648	n/a	U
S10V000098		108-88-3	Toluene	ug/L	96.1	<0.0522	<0.0580	n/a	n/a	n/a	n/a	0.0580	n/a	U
S10V000098		10061-02-6	trans-1,3-Dichloropropene	ug/L	n/a	<0.0591	<0.0657	n/a	n/a	n/a	n/a	0.0657	n/a	U
S10V000098		79-01-6	Trichloroethene	ug/L	92.1	<0.0378	<0.0420	n/a	n/a	n/a	n/a	0.0420	n/a	U
S10V000098		75-01-4	Vinyl chloride	ug/L	n/a	<0.0486	<0.0540	n/a	n/a	n/a	n/a	0.0540	n/a	U
S10V000098		156-59-2	cis-Dichloroethylene	ug/L	n/a	<0.0582	<0.0647	n/a	n/a	n/a	n/a	0.0647	n/a	U
S10V000098		156-60-5	trans-Dichloroethylene	ug/L	n/a	<0.0752	<0.0836	n/a	n/a	n/a	n/a	0.0836	n/a	U
S10V000098		76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ug/L	n/a	<0.0396	<0.0440	n/a	n/a	n/a	n/a	0.0440	n/a	U
S10V000098		79-46-9	2-Nitropropane	ug/L	n/a	<0.265	<0.295	n/a	n/a	n/a	n/a	0.295	n/a	U
S10V000098		141-78-6	Ethyl acetate	ug/L	n/a	<0.183	<0.204	n/a	n/a	n/a	n/a	0.204	n/a	U
S10V000098		60-29-7	Diethyl ether	ug/L	n/a	<0.0423	<0.0470	n/a	n/a	n/a	n/a	0.0470	n/a	U
S10V000098		75-69-4	Trichlorofluoromethane	ug/L	n/a	<0.0458	<0.0509	n/a	n/a	n/a	n/a	0.0509	n/a	U

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M - RPD Outside Range
B - Estimated
N - MS/MSD Outside Range
U - Less Than Detection Limit
C - Blank Contamination

Data Summary Report

Sample Group: 20100062

Core Number: C7668

Customer Sample ID: B23V99

Sample Depth: Field Blank-4

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000098		95-47-6	o-Xylene	ug/L	n/a	<0.0325	<0.0361	n/a	n/a	n/a	n/a	0.0361	n/a	U
S10V000098		179601-23-1	m,p-Xylene	ug/L	n/a	<0.0703	<0.0781	n/a	n/a	n/a	n/a	0.0781	n/a	U

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J - Estimated
T - MS/MSD Outside Range
M - RPD Outside Range
B - Estimated
N - MS/MSD Outside Range
U - Less Than Detection Limit
C - Blank Contamination

Data Summary Report

Sample Group: 20100062

Core Number: C7668

Customer Sample ID: B23VB0

Sample Depth: Field Blank-5

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000099		71-55-6	1,1,1-Trichloroethane	ug/L	n/a	<0.0433	<0.0481	n/a	n/a	n/a	n/a	0.0481	n/a	U
S10V000099		79-00-5	1,1,2-Trichloroethane	ug/L	n/a	<0.0230	<0.0256	n/a	n/a	n/a	n/a	0.0256	n/a	U
S10V000099		79-34-5	1,1,2,2-Tetrachloroethane	ug/L	n/a	<0.0203	<0.0226	n/a	n/a	n/a	n/a	0.0226	n/a	U
S10V000099		75-35-4	1,1-Dichloroethene	ug/L	96.5	<0.172	<0.191	n/a	n/a	n/a	n/a	0.191	n/a	U
S10V000099		107-06-2	1,2-Dichloroethane	ug/L	n/a	<0.0243	<0.0270	n/a	n/a	n/a	n/a	0.0270	n/a	U
S10V000099		71-36-3	1-Butanol	ug/L	84.0	<1.15	<1.28	n/a	n/a	n/a	n/a	1.28	n/a	U
S10V000099		108-10-1	Hexone	ug/L	106	<0.453	<0.503	n/a	n/a	n/a	n/a	0.503	n/a	U
S10V000099		67-64-1	Acetone	ug/L	129	21.2	2.27	n/a	n/a	n/a	n/a	0.637	n/a	BJ
S10V000099		71-43-2	Benzene	ug/L	94.8	<0.0163	<0.0181	n/a	n/a	n/a	n/a	0.0181	n/a	U
S10V000099		75-15-0	Carbon disulfide	ug/L	n/a	<0.0211	<0.0234	n/a	n/a	n/a	n/a	0.0234	n/a	U
S10V000099		56-23-5	Carbon tetrachloride	ug/L	n/a	<0.0479	<0.0532	n/a	n/a	n/a	n/a	0.0532	n/a	U
S10V000099		67-66-3	Chloroform	ug/L	n/a	<0.0414	0.750	n/a	n/a	n/a	n/a	0.0460	n/a	
S10V000099		108-90-7	Chlorobenzene	ug/L	95.8	<0.0320	<0.0356	n/a	n/a	n/a	n/a	0.0356	n/a	U
S10V000099		100-41-4	Ethylbenzene	ug/L	n/a	<0.0334	<0.0371	n/a	n/a	n/a	n/a	0.0371	n/a	U
S10V000099		1330-20-7	Xylenes (total)	ug/L	n/a	<0.0940	<0.104	n/a	n/a	n/a	n/a	0.104	n/a	U
S10V000099		78-93-3	2-Butanone	ug/L	95.1	<0.458	<0.509	n/a	n/a	n/a	n/a	0.509	n/a	U
S10V000099		75-09-2	Methylenechloride	ug/L	n/a	<0.0396	<0.0440	n/a	n/a	n/a	n/a	0.0440	n/a	U
S10V000099		127-18-4	Tetrachloroethene	ug/L	n/a	<0.0583	<0.0648	n/a	n/a	n/a	n/a	0.0648	n/a	U
S10V000099		108-88-3	Toluene	ug/L	96.1	<0.0522	0.169	n/a	n/a	n/a	n/a	0.0580	n/a	J
S10V000099		10061-02-6	trans-1,3-Dichloropropene	ug/L	n/a	<0.0591	<0.0657	n/a	n/a	n/a	n/a	0.0657	n/a	U
S10V000099		79-01-6	Trichloroethene	ug/L	92.1	<0.0378	<0.0420	n/a	n/a	n/a	n/a	0.0420	n/a	U
S10V000099		75-01-4	Vinyl chloride	ug/L	n/a	<0.0486	<0.0540	n/a	n/a	n/a	n/a	0.0540	n/a	U
S10V000099		156-59-2	cis-Dichloroethylene	ug/L	n/a	<0.0582	<0.0647	n/a	n/a	n/a	n/a	0.0647	n/a	U
S10V000099		156-60-5	trans-Dichloroethylene	ug/L	n/a	<0.0752	<0.0836	n/a	n/a	n/a	n/a	0.0836	n/a	U
S10V000099		76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ug/L	n/a	<0.0396	<0.0440	n/a	n/a	n/a	n/a	0.0440	n/a	U
S10V000099		79-46-9	2-Nitropropane	ug/L	n/a	<0.265	<0.295	n/a	n/a	n/a	n/a	0.295	n/a	U
S10V000099		141-78-6	Ethyl acetate	ug/L	n/a	<0.183	<0.204	n/a	n/a	n/a	n/a	0.204	n/a	U
S10V000099		60-29-7	Diethyl ether	ug/L	n/a	<0.0423	<0.0470	n/a	n/a	n/a	n/a	0.0470	n/a	U
S10V000099		75-69-4	Trichlorofluoromethane	ug/L	n/a	<0.0458	<0.0509	n/a	n/a	n/a	n/a	0.0509	n/a	U

NA = Not Analyzed, ND = Not Detected

B - Blank Contamination
J - Estimated
T - MS/MSD Outside Range
M - RPD Outside Range
B - Estimated
N - MS/MSD Outside Range
U - Less Than Detection Limit
C - Blank Contamination

Data Summary Report

Sample Group: 20100062

Core Number: C7668

Customer Sample ID: B23VB0

Sample Depth: Field Blank-5

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000099		95-47-6	o-Xylene	ug/L	n/a	<0.0325	<0.0361	n/a	n/a	n/a	n/a	0.0361	n/a	U
S10V000099		179601-23-1	m,p-Xylene	ug/L	n/a	<0.0703	<0.0781	n/a	n/a	n/a	n/a	0.0781	n/a	U

NA = Not Analyzed, ND = Not Detected

B - Blank Contamination
J - Estimated
T - MS/MSD Outside Range
M - RPD Outside Range
B - Estimated
N - MS/MSD Outside Range
U - Less Than Detection Limit
C - Blank Contamination

Data Summary Report

Sample Group: 20100062

Core Number: C7668

Customer Sample ID: B23VB6

Sample Depth: Trip Blank-1

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000105		71-55-6	1,1,1-Trichloroethane	ug/L	n/a	<0.0433	<0.0481	n/a	n/a	n/a	n/a	0.0481	n/a	U
S10V000105		79-00-5	1,1,2-Trichloroethane	ug/L	n/a	<0.0230	<0.0256	n/a	n/a	n/a	n/a	0.0256	n/a	U
S10V000105		79-34-5	1,1,2,2-Tetrachloroethane	ug/L	n/a	<0.0203	<0.0226	n/a	n/a	n/a	n/a	0.0226	n/a	U
S10V000105		75-35-4	1,1-Dichloroethene	ug/L	101	<0.172	<0.191	n/a	n/a	n/a	96.4	0.191	n/a	U
S10V000105		107-06-2	1,2-Dichloroethane	ug/L	n/a	<0.0243	<0.0270	n/a	n/a	n/a	n/a	0.0270	n/a	U
S10V000105		71-36-3	1-Butanol	ug/L	81.7	<1.15	<1.28	n/a	n/a	n/a	84.1	1.28	n/a	U
S10V000105		108-10-1	Hexone	ug/L	123	<0.453	<0.503	n/a	n/a	n/a	118	0.503	n/a	U
S10V000105		67-64-1	Acetone	ug/L	172	30.5	3.30	n/a	n/a	n/a	107	0.637	n/a	BJ
S10V000105		71-43-2	Benzene	ug/L	95.1	<0.0163	<0.0181	n/a	n/a	n/a	96.3	0.0181	n/a	U
S10V000105		75-15-0	Carbon disulfide	ug/L	n/a	<0.0211	<0.0234	n/a	n/a	n/a	n/a	0.0234	n/a	U
S10V000105		56-23-5	Carbon tetrachloride	ug/L	n/a	<0.0479	<0.0532	n/a	n/a	n/a	n/a	0.0532	n/a	U
S10V000105		67-66-3	Chloroform	ug/L	n/a	<0.0414	0.973	n/a	n/a	n/a	n/a	0.0460	n/a	
S10V000105		108-90-7	Chlorobenzene	ug/L	102	<0.0320	<0.0356	n/a	n/a	n/a	97.3	0.0356	n/a	U
S10V000105		100-41-4	Ethylbenzene	ug/L	n/a	<0.0334	<0.0371	n/a	n/a	n/a	n/a	0.0371	n/a	U
S10V000105		1330-20-7	Xylenes (total)	ug/L	n/a	<0.0940	<0.104	n/a	n/a	n/a	n/a	0.104	n/a	U
S10V000105		78-93-3	2-Butanone	ug/L	97.1	1.66	<0.509	n/a	n/a	n/a	101	0.509	n/a	U
S10V000105		75-09-2	Methylenechloride	ug/L	n/a	<0.0396	<0.0440	n/a	n/a	n/a	n/a	0.0440	n/a	U
S10V000105		127-18-4	Tetrachloroethene	ug/L	n/a	<0.0583	<0.0648	n/a	n/a	n/a	n/a	0.0648	n/a	U
S10V000105		108-88-3	Toluene	ug/L	104	<0.0522	0.157	n/a	n/a	n/a	102	0.0580	n/a	J
S10V000105		10061-02-6	trans-1,3-Dichloropropene	ug/L	n/a	<0.0591	<0.0657	n/a	n/a	n/a	n/a	0.0657	n/a	U
S10V000105		79-01-6	Trichloroethene	ug/L	90.6	<0.0378	<0.0420	n/a	n/a	n/a	91.2	0.0420	n/a	U
S10V000105		75-01-4	Vinyl chloride	ug/L	n/a	<0.0486	<0.0540	n/a	n/a	n/a	n/a	0.0540	n/a	U
S10V000105		156-59-2	cis-Dichloroethylene	ug/L	n/a	<0.0582	<0.0647	n/a	n/a	n/a	n/a	0.0647	n/a	U
S10V000105		156-60-5	trans-Dichloroethylene	ug/L	n/a	<0.0752	<0.0836	n/a	n/a	n/a	n/a	0.0836	n/a	U
S10V000105		76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ug/L	n/a	<0.0396	<0.0440	n/a	n/a	n/a	n/a	0.0440	n/a	U
S10V000105		79-46-9	2-Nitropropane	ug/L	n/a	<0.265	<0.295	n/a	n/a	n/a	n/a	0.295	n/a	U
S10V000105		141-78-6	Ethyl acetate	ug/L	n/a	<0.183	<0.204	n/a	n/a	n/a	n/a	0.204	n/a	U
S10V000105		60-29-7	Diethyl ether	ug/L	n/a	<0.0423	<0.0470	n/a	n/a	n/a	n/a	0.0470	n/a	U
S10V000105		75-69-4	Trichlorofluoromethane	ug/L	n/a	<0.0458	<0.0509	n/a	n/a	n/a	n/a	0.0509	n/a	U

NA = Not Analyzed, ND = Not Detected

B - Blank Contamination
J - Estimated
T - MS/MSD Outside Range
M - RPD Outside Range
B - Estimated
N - MS/MSD Outside Range
U - Less Than Detection Limit
C - Blank Contamination

Data Summary Report

Sample Group: 20100062

Core Number: C7668

Customer Sample ID: B23VB6

Sample Depth: Trip Blank-1

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000105		95-47-6	o-Xylene	ug/L	n/a	<0.0325	<0.0361	n/a	n/a	n/a	n/a	0.0361	n/a	U
S10V000105		179601-23-1	m,p-Xylene	ug/L	n/a	<0.0703	<0.0781	n/a	n/a	n/a	n/a	0.0781	n/a	U

NA = Not Analyzed, ND = Not Detected

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M - RPD Outside Range
B - Estimated
N - MS/MSD Outside Range
U - Less Than Detection Limit
C - Blank Contamination

Data Summary Report

Sample Group: 20100062

Core Number: C7668

Customer Sample ID: B23VB7

Sample Depth: Trip Blank-2

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000106		71-55-6	1,1,1-Trichloroethane	ug/L	n/a	<0.0433	<0.0481	n/a	n/a	n/a	n/a	0.0481	n/a	U
S10V000106		79-00-5	1,1,2-Trichloroethane	ug/L	n/a	<0.0230	<0.0256	n/a	n/a	n/a	n/a	0.0256	n/a	U
S10V000106		79-34-5	1,1,2,2-Tetrachloroethane	ug/L	n/a	<0.0203	<0.0226	n/a	n/a	n/a	n/a	0.0226	n/a	U
S10V000106		75-35-4	1,1-Dichloroethene	ug/L	101	<0.172	<0.191	n/a	n/a	n/a	n/a	0.191	n/a	U
S10V000106		107-06-2	1,2-Dichloroethane	ug/L	n/a	<0.0243	<0.0270	n/a	n/a	n/a	n/a	0.0270	n/a	U
S10V000106		71-36-3	1-Butanol	ug/L	81.7	<1.15	<1.28	n/a	n/a	n/a	n/a	1.28	n/a	U
S10V000106		108-10-1	Hexone	ug/L	123	<0.453	<0.503	n/a	n/a	n/a	n/a	0.503	n/a	U
S10V000106		67-64-1	Acetone	ug/L	172	30.5	<0.637	n/a	n/a	n/a	n/a	0.637	n/a	U
S10V000106		71-43-2	Benzene	ug/L	95.1	<0.0163	<0.0181	n/a	n/a	n/a	n/a	0.0181	n/a	U
S10V000106		75-15-0	Carbon disulfide	ug/L	n/a	<0.0211	<0.0234	n/a	n/a	n/a	n/a	0.0234	n/a	U
S10V000106		56-23-5	Carbon tetrachloride	ug/L	n/a	<0.0479	<0.0532	n/a	n/a	n/a	n/a	0.0532	n/a	U
S10V000106		67-66-3	Chloroform	ug/L	n/a	<0.0414	0.859	n/a	n/a	n/a	n/a	0.0460	n/a	
S10V000106		108-90-7	Chlorobenzene	ug/L	102	<0.0320	<0.0356	n/a	n/a	n/a	n/a	0.0356	n/a	U
S10V000106		100-41-4	Ethylbenzene	ug/L	n/a	<0.0334	<0.0371	n/a	n/a	n/a	n/a	0.0371	n/a	U
S10V000106		1330-20-7	Xylenes (total)	ug/L	n/a	<0.0940	<0.104	n/a	n/a	n/a	n/a	0.104	n/a	U
S10V000106		78-93-3	2-Butanone	ug/L	97.1	1.66	<0.509	n/a	n/a	n/a	n/a	0.509	n/a	U
S10V000106		75-09-2	Methylenechloride	ug/L	n/a	<0.0396	<0.0440	n/a	n/a	n/a	n/a	0.0440	n/a	U
S10V000106		127-18-4	Tetrachloroethene	ug/L	n/a	<0.0583	<0.0648	n/a	n/a	n/a	n/a	0.0648	n/a	U
S10V000106		108-88-3	Toluene	ug/L	104	<0.0522	0.112	n/a	n/a	n/a	n/a	0.0580	n/a	J
S10V000106		10061-02-6	trans-1,3-Dichloropropene	ug/L	n/a	<0.0591	<0.0657	n/a	n/a	n/a	n/a	0.0657	n/a	U
S10V000106		79-01-6	Trichloroethene	ug/L	90.6	<0.0378	<0.0420	n/a	n/a	n/a	n/a	0.0420	n/a	U
S10V000106		75-01-4	Vinyl chloride	ug/L	n/a	<0.0486	<0.0540	n/a	n/a	n/a	n/a	0.0540	n/a	U
S10V000106		156-59-2	cis-Dichloroethylene	ug/L	n/a	<0.0582	<0.0647	n/a	n/a	n/a	n/a	0.0647	n/a	U
S10V000106		156-60-5	trans-Dichloroethylene	ug/L	n/a	<0.0752	<0.0836	n/a	n/a	n/a	n/a	0.0836	n/a	U
S10V000106		76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ug/L	n/a	<0.0396	<0.0440	n/a	n/a	n/a	n/a	0.0440	n/a	U
S10V000106		79-46-9	2-Nitropropane	ug/L	n/a	<0.265	<0.295	n/a	n/a	n/a	n/a	0.295	n/a	U
S10V000106		141-78-6	Ethyl acetate	ug/L	n/a	<0.183	<0.204	n/a	n/a	n/a	n/a	0.204	n/a	U
S10V000106		60-29-7	Diethyl ether	ug/L	n/a	<0.0423	<0.0470	n/a	n/a	n/a	n/a	0.0470	n/a	U
S10V000106		75-69-4	Trichlorofluoromethane	ug/L	n/a	<0.0458	<0.0509	n/a	n/a	n/a	n/a	0.0509	n/a	U

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J - Estimated
T - MS/MSD Outside Range
M - RPD Outside Range
B - Estimated
N - MS/MSD Outside Range
U - Less Than Detection Limit
C - Blank Contamination

Data Summary Report

Sample Group: 20100062

Core Number: C7668

Customer Sample ID: B23VB7

Sample Depth: Trip Blank-2

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000106		95-47-6	o-Xylene	ug/L	n/a	<0.0325	<0.0361	n/a	n/a	n/a	n/a	0.0361	n/a	U
S10V000106		179601-23-1	m,p-Xylene	ug/L	n/a	<0.0703	<0.0781	n/a	n/a	n/a	n/a	0.0781	n/a	U

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J - Estimated
T - MS/MSD Outside Range
M - RPD Outside Range
B - Estimated
N - MS/MSD Outside Range
U - Less Than Detection Limit
C - Blank Contamination

Data Summary Report

Sample Group: 20100062

Core Number: C7668

Customer Sample ID: B23VB8

Sample Depth: Trip Blank-3

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000107		71-55-6	1,1,1-Trichloroethane	ug/L	n/a	<0.0433	<0.0481	n/a	n/a	n/a	n/a	0.0481	n/a	U
S10V000107		79-00-5	1,1,2-Trichloroethane	ug/L	n/a	<0.0230	<0.0256	n/a	n/a	n/a	n/a	0.0256	n/a	U
S10V000107		79-34-5	1,1,2,2-Tetrachloroethane	ug/L	n/a	<0.0203	<0.0226	n/a	n/a	n/a	n/a	0.0226	n/a	U
S10V000107		75-35-4	1,1-Dichloroethene	ug/L	96.5	<0.172	<0.191	n/a	n/a	n/a	n/a	0.191	n/a	U
S10V000107		107-06-2	1,2-Dichloroethane	ug/L	n/a	<0.0243	<0.0270	n/a	n/a	n/a	n/a	0.0270	n/a	U
S10V000107		71-36-3	1-Butanol	ug/L	84.0	<1.15	<1.28	n/a	n/a	n/a	n/a	1.28	n/a	U
S10V000107		108-10-1	Hexone	ug/L	106	<0.453	<0.503	n/a	n/a	n/a	n/a	0.503	n/a	U
S10V000107		67-64-1	Acetone	ug/L	129	21.2	<0.637	n/a	n/a	n/a	n/a	0.637	n/a	U
S10V000107		71-43-2	Benzene	ug/L	94.8	<0.0163	<0.0181	n/a	n/a	n/a	n/a	0.0181	n/a	U
S10V000107		75-15-0	Carbon disulfide	ug/L	n/a	<0.0211	<0.0234	n/a	n/a	n/a	n/a	0.0234	n/a	U
S10V000107		56-23-5	Carbon tetrachloride	ug/L	n/a	<0.0479	<0.0532	n/a	n/a	n/a	n/a	0.0532	n/a	U
S10V000107		67-66-3	Chloroform	ug/L	n/a	<0.0414	0.843	n/a	n/a	n/a	n/a	0.0460	n/a	
S10V000107		108-90-7	Chlorobenzene	ug/L	95.8	<0.0320	<0.0356	n/a	n/a	n/a	n/a	0.0356	n/a	U
S10V000107		100-41-4	Ethylbenzene	ug/L	n/a	<0.0334	<0.0371	n/a	n/a	n/a	n/a	0.0371	n/a	U
S10V000107		1330-20-7	Xylenes (total)	ug/L	n/a	<0.0940	<0.104	n/a	n/a	n/a	n/a	0.104	n/a	U
S10V000107		78-93-3	2-Butanone	ug/L	95.1	<0.458	<0.509	n/a	n/a	n/a	n/a	0.509	n/a	U
S10V000107		75-09-2	Methylenechloride	ug/L	n/a	<0.0396	<0.0440	n/a	n/a	n/a	n/a	0.0440	n/a	U
S10V000107		127-18-4	Tetrachloroethene	ug/L	n/a	<0.0583	<0.0648	n/a	n/a	n/a	n/a	0.0648	n/a	U
S10V000107		108-88-3	Toluene	ug/L	96.1	<0.0522	<0.0580	n/a	n/a	n/a	n/a	0.0580	n/a	U
S10V000107		10061-02-6	trans-1,3-Dichloropropene	ug/L	n/a	<0.0591	<0.0657	n/a	n/a	n/a	n/a	0.0657	n/a	U
S10V000107		79-01-6	Trichloroethene	ug/L	92.1	<0.0378	<0.0420	n/a	n/a	n/a	n/a	0.0420	n/a	U
S10V000107		75-01-4	Vinyl chloride	ug/L	n/a	<0.0486	<0.0540	n/a	n/a	n/a	n/a	0.0540	n/a	U
S10V000107		156-59-2	cis-Dichloroethylene	ug/L	n/a	<0.0582	<0.0647	n/a	n/a	n/a	n/a	0.0647	n/a	U
S10V000107		156-60-5	trans-Dichloroethylene	ug/L	n/a	<0.0752	<0.0836	n/a	n/a	n/a	n/a	0.0836	n/a	U
S10V000107		76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ug/L	n/a	<0.0396	<0.0440	n/a	n/a	n/a	n/a	0.0440	n/a	U
S10V000107		79-46-9	2-Nitropropane	ug/L	n/a	<0.265	<0.295	n/a	n/a	n/a	n/a	0.295	n/a	U
S10V000107		141-78-6	Ethyl acetate	ug/L	n/a	<0.183	<0.204	n/a	n/a	n/a	n/a	0.204	n/a	U
S10V000107		60-29-7	Diethyl ether	ug/L	n/a	<0.0423	<0.0470	n/a	n/a	n/a	n/a	0.0470	n/a	U
S10V000107		75-69-4	Trichlorofluoromethane	ug/L	n/a	<0.0458	<0.0509	n/a	n/a	n/a	n/a	0.0509	n/a	U

NA = Not Analyzed, ND = Not Detected

B - Blank Contamination
J - Estimated
T - MS/MSD Outside Range
M - RPD Outside Range
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N - MS/MSD Outside Range
U - Less Than Detection Limit
C - Blank Contamination

Data Summary Report

Sample Group: 20100062

Core Number: C7668

Customer Sample ID: B23VB8

Sample Depth: Trip Blank-3

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000107		95-47-6	o-Xylene	ug/L	n/a	<0.0325	<0.0361	n/a	n/a	n/a	n/a	0.0361	n/a	U
S10V000107		179601-23-1	m,p-Xylene	ug/L	n/a	<0.0703	<0.0781	n/a	n/a	n/a	n/a	0.0781	n/a	U

NA = Not Analyzed, ND = Not Detected

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M - RPD Outside Range
B - Estimated
N - MS/MSD Outside Range
U - Less Than Detection Limit
C - Blank Contamination

Data Summary Report

Sample Group: 20100062

Core Number: C7668

Customer Sample ID: B23VB9

Sample Depth: Trip Blank-4

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000108		71-55-6	1,1,1-Trichloroethane	ug/L	n/a	<0.0433	<0.0481	n/a	n/a	n/a	n/a	0.0481	n/a	U
S10V000108		79-00-5	1,1,2-Trichloroethane	ug/L	n/a	<0.0230	<0.0256	n/a	n/a	n/a	n/a	0.0256	n/a	U
S10V000108		79-34-5	1,1,2,2-Tetrachloroethane	ug/L	n/a	<0.0203	<0.0226	n/a	n/a	n/a	n/a	0.0226	n/a	U
S10V000108		75-35-4	1,1-Dichloroethene	ug/L	96.5	<0.172	<0.191	n/a	n/a	n/a	n/a	0.191	n/a	U
S10V000108		107-06-2	1,2-Dichloroethane	ug/L	n/a	<0.0243	<0.0270	n/a	n/a	n/a	n/a	0.0270	n/a	U
S10V000108		71-36-3	1-Butanol	ug/L	84.0	<1.15	<1.28	n/a	n/a	n/a	n/a	1.28	n/a	U
S10V000108		108-10-1	Hexone	ug/L	106	<0.453	<0.503	n/a	n/a	n/a	n/a	0.503	n/a	U
S10V000108		67-64-1	Acetone	ug/L	129	21.2	<0.637	n/a	n/a	n/a	n/a	0.637	n/a	U
S10V000108		71-43-2	Benzene	ug/L	94.8	<0.0163	<0.0181	n/a	n/a	n/a	n/a	0.0181	n/a	U
S10V000108		75-15-0	Carbon disulfide	ug/L	n/a	<0.0211	<0.0234	n/a	n/a	n/a	n/a	0.0234	n/a	U
S10V000108		56-23-5	Carbon tetrachloride	ug/L	n/a	<0.0479	<0.0532	n/a	n/a	n/a	n/a	0.0532	n/a	U
S10V000108		67-66-3	Chloroform	ug/L	n/a	<0.0414	0.800	n/a	n/a	n/a	n/a	0.0460	n/a	
S10V000108		108-90-7	Chlorobenzene	ug/L	95.8	<0.0320	<0.0356	n/a	n/a	n/a	n/a	0.0356	n/a	U
S10V000108		100-41-4	Ethylbenzene	ug/L	n/a	<0.0334	<0.0371	n/a	n/a	n/a	n/a	0.0371	n/a	U
S10V000108		1330-20-7	Xylenes (total)	ug/L	n/a	<0.0940	<0.104	n/a	n/a	n/a	n/a	0.104	n/a	U
S10V000108		78-93-3	2-Butanone	ug/L	95.1	<0.458	<0.509	n/a	n/a	n/a	n/a	0.509	n/a	U
S10V000108		75-09-2	Methylenechloride	ug/L	n/a	<0.0396	<0.0440	n/a	n/a	n/a	n/a	0.0440	n/a	U
S10V000108		127-18-4	Tetrachloroethene	ug/L	n/a	<0.0583	<0.0648	n/a	n/a	n/a	n/a	0.0648	n/a	U
S10V000108		108-88-3	Toluene	ug/L	96.1	<0.0522	0.116	n/a	n/a	n/a	n/a	0.0580	n/a	J
S10V000108		10061-02-6	trans-1,3-Dichloropropene	ug/L	n/a	<0.0591	<0.0657	n/a	n/a	n/a	n/a	0.0657	n/a	U
S10V000108		79-01-6	Trichloroethene	ug/L	92.1	<0.0378	<0.0420	n/a	n/a	n/a	n/a	0.0420	n/a	U
S10V000108		75-01-4	Vinyl chloride	ug/L	n/a	<0.0486	<0.0540	n/a	n/a	n/a	n/a	0.0540	n/a	U
S10V000108		156-59-2	cis-Dichloroethylene	ug/L	n/a	<0.0582	<0.0647	n/a	n/a	n/a	n/a	0.0647	n/a	U
S10V000108		156-60-5	trans-Dichloroethylene	ug/L	n/a	<0.0752	<0.0836	n/a	n/a	n/a	n/a	0.0836	n/a	U
S10V000108		76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ug/L	n/a	<0.0396	<0.0440	n/a	n/a	n/a	n/a	0.0440	n/a	U
S10V000108		79-46-9	2-Nitropropane	ug/L	n/a	<0.265	<0.295	n/a	n/a	n/a	n/a	0.295	n/a	U
S10V000108		141-78-6	Ethyl acetate	ug/L	n/a	<0.183	<0.204	n/a	n/a	n/a	n/a	0.204	n/a	U
S10V000108		60-29-7	Diethyl ether	ug/L	n/a	<0.0423	<0.0470	n/a	n/a	n/a	n/a	0.0470	n/a	U
S10V000108		75-69-4	Trichlorofluoromethane	ug/L	n/a	<0.0458	<0.0509	n/a	n/a	n/a	n/a	0.0509	n/a	U

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U - Less Than Detection Limit
C - Blank Contamination

Data Summary Report

Sample Group: 20100062

Core Number: C7668

Customer Sample ID: B23VB9

Sample Depth: Trip Blank-4

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000108		95-47-6	o-Xylene	ug/L	n/a	<0.0325	<0.0361	n/a	n/a	n/a	n/a	0.0361	n/a	U
S10V000108		179601-23-1	m,p-Xylene	ug/L	n/a	<0.0703	<0.0781	n/a	n/a	n/a	n/a	0.0781	n/a	U

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Data Summary Report

Sample Group: 20100062

Core Number: C7668

Customer Sample ID: B25YY2

Sample Depth: 39-41

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V001142		14133-76-7	Technetium-99	ug/mL	90.4	<3.00E-07	<1.20E-05	<1.20E-05	n/a	n/a	92.7	1.20E-05	n/a	U

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B - Estimated
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U - Less Than Detection Limit
C - Blank Contamination

Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B23TK2

Sample Depth: Surface

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000131		%WATERA	%WATER-APD	%	n/a	n/a	4.000	n/a	n/a	n/a	n/a	0.01000	n/a	
S10V000131		57-12-5	Cyanide	ug/g	88.8	<0.0370	<2.67	n/a	n/a	n/a	n/a	2.67	n/a	U
S10V000131		7439-97-6	Mercury	ug/g	103	<1.00E-04	0.0110	n/a	n/a	n/a	n/a	8.42E-03	n/a	B
S10V000131		PH	pH	unitless	n/a	n/a	8.26	8.26	8.26	0.0	n/a	0.0100	n/a	
S10V000131		12597-04-5	Sulfide	ug/g	81.2	<0.180	16.2	n/a	n/a	n/a	n/a	7.18	n/a	B
S10V000133		13966-00-2	Potassium-40	uCi/g	n/a	n/a	1.13E-05	n/a	n/a	n/a	n/a	6.39E-06	37.14	
S10V000133		10198-40-0	Cobalt-60	uCi/g	102	<3.08E-07	<3.37E-07	n/a	n/a	n/a	n/a	3.37E-07	n/a	U
S10V000133		14234-35-6	Antimony-125	uCi/g	n/a	<6.68E-07	<8.23E-07	n/a	n/a	n/a	n/a	8.23E-07	n/a	U
S10V000133		10045-97-3	Cesium-137	uCi/g	107	<3.81E-07	<4.42E-07	n/a	n/a	n/a	n/a	4.42E-07	n/a	U
S10V000133		14683-23-9	Europium-152	uCi/g	n/a	<1.37E-06	<1.49E-06	n/a	n/a	n/a	n/a	1.49E-06	n/a	U
S10V000133		15585-10-1	Europium-154	uCi/g	n/a	<9.15E-07	<9.92E-07	n/a	n/a	n/a	n/a	9.92E-07	n/a	U
S10V000133		14391-16-3	Europium-155	uCi/g	n/a	<4.54E-07	<5.54E-07	n/a	n/a	n/a	n/a	5.54E-07	n/a	U
S10V000133		15092-94-1	Lead-212	uCi/g	n/a	n/a	4.82E-07	n/a	n/a	n/a	n/a	4.48E-07	43.56	
S10V000133		15067-28-4	Lead-214	uCi/g	n/a	n/a	8.01E-07	n/a	n/a	n/a	n/a	6.31E-07	36.12	
S10V000133		14274-82-9	Thorium-228	uCi/g	n/a	<8.10E-06	<1.12E-05	n/a	n/a	n/a	n/a	1.12E-05	n/a	U
S10V000133		15065-10-8	Thorium-234	uCi/g	n/a	<2.56E-06	<3.47E-06	n/a	n/a	n/a	n/a	3.47E-06	n/a	U
S10V000133		15046-84-1	Iodine-129	uCi/g	117	<2.00E-07	<1.67E-07	n/a	n/a	n/a	n/a	1.67E-07	n/a	U
S10V000134	O	120-82-1	1,2,4-Trichlorobenzene	ug/kg	59.0	<77.4	<73.2	n/a	n/a	n/a	62.1	73.2	n/a	U
S10V000134	O	95-50-1	1,2-Dichlorobenzene	ug/kg	n/a	<101	<95.2	n/a	n/a	n/a	n/a	95.2	n/a	U
S10V000134	O	121-14-2	2,4-Dinitrotoluene	ug/kg	75.0	<38.1	<36.0	n/a	n/a	n/a	76.7	36.0	n/a	U
S10V000134	O	95-95-4	2,4,5-Trichlorophenol	ug/kg	n/a	<44.0	<41.6	n/a	n/a	n/a	n/a	41.6	n/a	U
S10V000134	O	88-06-2	2,4,6-Trichlorophenol	ug/kg	n/a	<49.5	<46.8	n/a	n/a	n/a	n/a	46.8	n/a	U
S10V000134	O	95-48-7	2-Methylphenol	ug/kg	n/a	<57.5	<54.4	n/a	n/a	n/a	n/a	54.4	n/a	U
S10V000134	O	88-75-5	2-Nitrophenol	ug/kg	n/a	<53.7	<50.8	n/a	n/a	n/a	n/a	50.8	n/a	U
S10V000134	O	65794-96-9	3 &4 Methylphenol	ug/kg	n/a	<51.4	<48.6	n/a	n/a	n/a	n/a	48.6	n/a	U
S10V000134	O	83-32-9	Acenaphthene	ug/kg	60.6	<17.6	<16.6	n/a	n/a	n/a	67.2	16.6	n/a	U
S10V000134	O	56-55-3	Benzo(a)anthracene	ug/kg	n/a	<37.8	<35.7	n/a	n/a	n/a	n/a	35.7	n/a	U
S10V000134	O	205-99-2	Benzo(b)fluoranthene	ug/kg	n/a	<48.9	<46.2	n/a	n/a	n/a	n/a	46.2	n/a	U
S10V000134	O	50-32-8	Benzo(a)pyrene	ug/kg	n/a	<41.2	<39.0	n/a	n/a	n/a	n/a	39.0	n/a	U

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U - Less Than Detection Limit
C - Blank Contamination

Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B23TK2

Sample Depth: Surface

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000134	O	117-81-7	Bis(2-ethylhexyl) phthalate	ug/kg	n/a	<590	<558	n/a	n/a	n/a	n/a	558	n/a	U
S10V000134	O	207-08-9	Benzo(k)fluoranthene	ug/kg	n/a	<39.1	<37.0	n/a	n/a	n/a	n/a	37.0	n/a	U
S10V000134	O	85-68-7	Butylbenzylphthalate	ug/kg	n/a	74.1	68.6	n/a	n/a	n/a	n/a	47.3	n/a	BJ
S10V000134	O	59-50-7	4-Chloro-3-methylphenol	ug/kg	65.5	<43.2	<40.9	n/a	n/a	n/a	70.1	40.9	n/a	U
S10V000134	O	95-57-8	2-Chlorophenol	ug/kg	59.8	<66.5	<62.9	n/a	n/a	n/a	66.9	62.9	n/a	U
S10V000134	O	218-01-9	Chrysene	ug/kg	n/a	<81.4	<77.0	n/a	n/a	n/a	n/a	77.0	n/a	U
S10V000134	O	53-70-3	Dibenz[a,h]anthracene	ug/kg	n/a	<51.1	<48.3	n/a	n/a	n/a	n/a	48.3	n/a	U
S10V000134	O	84-74-2	Di-n-butylphthalate	ug/kg	n/a	<562	<532	n/a	n/a	n/a	n/a	532	n/a	U
S10V000134	O	117-84-0	Di-n-octylphthalate	ug/kg	n/a	<47.7	<45.1	n/a	n/a	n/a	n/a	45.1	n/a	U
S10V000134	O	621-64-7	N-Nitroso-di-n-dipropylamine	ug/kg	56.7	<58.1	<54.9	n/a	n/a	n/a	65.7	54.9	n/a	U
S10V000134	O	206-44-0	Fluoranthene	ug/kg	n/a	<35.4	<33.5	n/a	n/a	n/a	n/a	33.5	n/a	U
S10V000134	O	87-68-3	Hexachlorobutadiene	ug/kg	n/a	<69.7	<65.9	n/a	n/a	n/a	n/a	65.9	n/a	U
S10V000134	O	67-72-1	Hexachloroethane	ug/kg	n/a	<112	<106	n/a	n/a	n/a	n/a	106	n/a	U
S10V000134	O	193-39-5	Indeno(1,2,3-cd)pyrene	ug/kg	n/a	<51.0	<48.2	n/a	n/a	n/a	n/a	48.2	n/a	U
S10V000134	O	91-20-3	Naphthalene	ug/kg	n/a	<62.6	<59.2	n/a	n/a	n/a	n/a	59.2	n/a	U
S10V000134	O	98-95-3	Nitrobenzene	ug/kg	n/a	<64.6	<61.1	n/a	n/a	n/a	n/a	61.1	n/a	U
S10V000134	O	129-00-0	Pyrene	ug/kg	79.2	<62.9	<59.5	n/a	n/a	n/a	80.7	59.5	n/a	U
S10V000134	O	110-86-1	Pyridine	ug/kg	n/a	<65.0	<61.5	n/a	n/a	n/a	n/a	61.5	n/a	U
S10V000134	O	126-73-8	Tributyl phosphate	ug/kg	n/a	<108	<102	n/a	n/a	n/a	n/a	102	n/a	U
S10V000134	O	128-37-0	BHT	ug/kg	n/a	<236	<223	n/a	n/a	n/a	n/a	223	n/a	U
S10V000134	O	110-80-5	2-Ethoxyethanol	ug/kg	n/a	<182	<172	n/a	n/a	n/a	n/a	172	n/a	U
S10V000134	O	1319-77-3	Total Methylphenols	ug/kg	n/a	<107	<101	n/a	n/a	n/a	n/a	101	n/a	U
S10V000134	O	108-94-1	Cyclohexanone	ug/kg	n/a	<558	<528	n/a	n/a	n/a	n/a	528	n/a	U
S10V000134	O	59-89-2	N-Nitrosomorpholine	ug/kg	n/a	<191	<181	n/a	n/a	n/a	n/a	181	n/a	U
S10V000134	O	78-83-1	Isobutanol	ug/kg	n/a	<460	<435	n/a	n/a	n/a	n/a	435	n/a	U
S10V000135	W	16984-48-8	Fluoride	ug/g	101	<1.61E-03	0.792	1.09	0.941	31.8	104	0.0174	n/a	M
S10V000135	W	GLYCOLAT	Glycolate	ug/g	96.9	<9.37E-03	<0.101	<0.104	n/a	n/a	99.0	0.101	n/a	U
S10V000135	W	71-50-1	Acetate	ug/g	96.9	<6.04E-03	0.138	0.153	0.146	10.5	97.8	0.0654	n/a	B
S10V000135	W	FORMATE	Formate	ug/g	98.1	<4.67E-03	0.202	0.202	0.202	0.263	100	0.0506	n/a	B

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Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B23TK2

Sample Depth: Surface

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000135	W	16887-00-6	Chloride	ug/g	98.3	<9.98E-03	0.675	0.865	0.770	24.7	101	0.108	n/a	B
S10V000135	W	14797-65-0	Nitrite	ug/g	98.5	0.0968	<0.208	1.99	n/a	n/a	96.9	0.208	n/a	U
S10V000135	W	14808-79-8	Sulfate	ug/g	101	<0.0187	3.47	4.05	3.76	15.5	102	0.203	n/a	
S10V000135	W	338-70-5	Oxalate	ug/g	99.7	<0.0231	0.581	0.509	0.545	13.2	102	0.250	n/a	B
S10V000135	W	24959-67-9	Bromide	ug/g	98.4	<0.0580	<0.628	<0.643	n/a	n/a	102	0.628	n/a	U
S10V000135	W	14797-55-8	Nitrate	ug/g	99.9	<0.0208	3.97	4.54	4.26	13.4	102	0.225	n/a	
S10V000135	W	14265-44-2	Phosphate	ug/g	99.0	<0.0167	2.47	2.83	2.65	13.5	101	0.181	n/a	B
S10V000136	A	7429-90-5	Aluminum	ug/g	83.2	<0.0300	6.44E+03	7.11E+03	6.78E+03	9.86	2.21E+03	3.21	n/a	
S10V000136	A	7440-39-3	Barium	ug/g	84.5	<3.00E-03	68.2	82.5	75.4	18.9	81.3	0.321	n/a	
S10V000136	A	7440-41-7	Beryllium	ug/g	82.5	<1.00E-03	0.124	0.175	0.149	33.8	80.4	0.107	n/a	B
S10V000136	A	7440-69-9	Bismuth	ug/g	82.3	<0.100	39.0	41.9	40.4	7.31	55.7	10.7	n/a	BN
S10V000136	A	7440-70-2	Calcium	ug/g	78.3	<0.0500	9.49E+03	1.18E+04	1.06E+04	21.5	1.25E+03	5.34	n/a	
S10V000136	A	7440-43-9	Cadmium	ug/g	83.0	<5.00E-03	2.48	3.11	2.80	22.4	82.3	0.534	n/a	B
S10V000136	A	7440-45-1	Cerium	ug/g	89.7	<0.0300	20.3	26.6	23.5	26.9	105	3.21	n/a	B
S10V000136	A	7440-48-4	Cobalt	ug/g	82.2	<0.0100	8.00	10.6	9.32	28.2	83.9	1.07	n/a	B
S10V000136	A	7440-47-3	Chromium	ug/g	82.1	<5.00E-03	7.48	8.48	7.98	12.5	83.4	0.534	n/a	
S10V000136	A	7440-50-8	Copper	ug/g	86.4	<5.00E-03	11.4	13.4	12.4	16.0	82.0	0.534	n/a	
S10V000136	A	7439-89-6	Iron	ug/g	82.8	<5.00E-03	2.29E+04	2.73E+04	2.51E+04	17.6	67.0	0.534	n/a	
S10V000136	A	7440-09-7	Potassium	ug/g	82.0	<0.500	1.10E+03	1.28E+03	1.19E+03	15.3	112	53.4	n/a	
S10V000136	A	7439-91-0	Lanthanum	ug/g	85.3	<3.00E-03	10.3	12.5	11.4	19.5	82.2	0.321	n/a	
S10V000136	A	7439-93-2	Lithium	ug/g	86.1	<3.00E-03	7.02	8.10	7.56	14.2	78.3	0.321	n/a	
S10V000136	A	7439-95-4	Magnesium	ug/g	80.0	<0.0500	4.91E+03	5.78E+03	5.35E+03	16.2	227	5.34	n/a	
S10V000136	A	7439-96-5	Manganese	ug/g	81.4	<3.00E-03	330	405	368	20.2	99.2	0.321	n/a	
S10V000136	A	7439-98-7	Molybdenum	ug/g	94.9	<0.0200	<2.14	0.694	1.42	102	78.7	2.14	n/a	U
S10V000136	A	7440-23-5	Sodium	ug/g	87.0	<0.100	178	223	201	22.3	459	10.7	n/a	
S10V000136	A	7440-02-0	Nickel	ug/g	81.1	<0.0200	9.26	9.88	9.57	6.51	78.5	2.14	n/a	B
S10V000136	A	7723-14-0	Phosphorus	ug/g	91.7	<0.0500	8.87E+02	1.08E+03	9.86E+02	20.1	59.8	5.34	n/a	
S10V000136	A	7704-34-9	Sulfur	ug/g	93.0	<0.100	75.0	96.9	85.9	25.6	76.1	10.7	n/a	B
S10V000136	A	7440-21-3	Silicon	ug/g	77.7	<0.0300	101	84.8	92.9	17.4	39.1	3.21	n/a	

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M - RPD Outside Range
B - Estimated
N - MS/MSD Outside Range
U - Less Than Detection Limit
C - Blank Contamination

Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B23TK2

Sample Depth: Surface

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000136	A	7440-24-6	Strontium	ug/g	84.6	<3.00E-03	29.9	36.1	33.0	18.9	80.0	0.321	n/a	
S10V000136	A	7440-32-6	Titanium	ug/g	92.6	<5.00E-03	1.78E+03	2.02E+03	1.90E+03	12.6	203	0.534	n/a	
S10V000136	A	7440-62-2	Vanadium	ug/g	84.2	<5.00E-03	57.0	67.9	62.4	17.4	84.9	0.534	n/a	
S10V000136	A	7440-65-5	Yttrium	ug/g	85.5	<2.00E-03	10.1	12.3	11.2	19.9	84.8	0.214	n/a	
S10V000136	A	7440-66-6	Zinc	ug/g	83.9	<5.00E-03	42.5	51.2	46.9	18.6	80.0	0.534	n/a	
S10V000136	A	7440-67-7	Zirconium	ug/g	88.7	<5.00E-03	3.62	3.90	3.76	7.38	19.3	0.534	n/a	BN
S10V000136	A	14269-63-7	Thorium-230	ug/g	n/a	<2.80E-06	<2.99E-05	3.45E-05	n/a	n/a	n/a	2.99E-05	n/a	U
S10V000136	A	TH-232	Thorium-232	ug/g	106	<6.80E-05	3.12	3.28	3.20	5.30	91.3	7.27E-04	n/a	
S10V000136	A	13968-55-3	Uranium-233	ug/g	n/a	<4.00E-06	1.90E-04	1.89E-04	1.90E-04	0.423	n/a	4.28E-05	n/a	
S10V000136	A	13966-29-5	Uranium-234	ug/g	n/a	2.15E-06	3.58E-05	3.21E-05	3.40E-05	10.9	n/a	2.14E-05	n/a	B
S10V000136	A	15117-96-1	Uranium-235	ug/g	104	<4.40E-06	3.91E-03	3.49E-03	3.70E-03	11.4	91.6	4.70E-05	n/a	
S10V000136	A	13982-70-2	Uranium-236	ug/g	n/a	<1.60E-06	<1.71E-05	<1.81E-05	n/a	n/a	n/a	1.71E-05	n/a	U
S10V000136	A	13994-20-2	Neptunium-237	ug/g	106	<2.12E-05	<2.27E-04	<2.40E-04	n/a	n/a	96.8	2.27E-04	n/a	U
S10V000136	A	U-238	Uranium-238	ug/g	110	<2.20E-04	0.570	0.502	0.536	12.7	97.7	2.35E-03	n/a	
S10V000136	A	7440-22-4	Silver	ug/g	82.2	<3.20E-03	0.0530	0.0616	0.0573	15.0	82.0	0.0342	n/a	B
S10V000136	A	7440-38-2	Arsenic	ug/g	108	<0.0168	4.65	5.29	4.97	13.0	74.2	0.180	n/a	N
S10V000136	A	7439-92-1	Lead	ug/g	84.0	<0.0124	5.37	5.99	5.68	10.9	78.4	0.133	n/a	
S10V000136	A	7782-49-2	Selenium	ug/g	86.4	<0.0244	0.701	0.815	0.758	15.0	81.0	0.261	n/a	B
S10V000136	A	7440-28-0	Thallium	ug/g	103	<1.20E-03	1.22	1.00	1.11	19.5	99.2	0.0128	n/a	C
S10V000137	S	14798-03-9	Ammonium	ug/g	97.1	<0.0120	3.81	n/a	n/a	n/a	n/a	0.471	n/a	B
S10V000138	A	14133-76-7	Technetium-99	ug/g	93.6	<1.50E-04	<1.73E-03	<1.71E-03	n/a	n/a	106	1.73E-03	n/a	U
S10V000138	A	SN-117	Tin-117	ug/g	104	<5.50E-03	<0.0635	<0.0628	n/a	n/a	69.7	0.0635	n/a	U
S10V000138	A	15832-50-5	Tin-126	ug/g	n/a	<1.00E-04	<1.15E-03	<1.14E-03	n/a	n/a	n/a	1.15E-03	n/a	U
S10V000139	E	CM-243/244	Curium-243/244	uCi/g	n/a	<2.56E-07	<2.03E-07	n/a	n/a	n/a	n/a	2.03E-07	n/a	U
S10V000139	E	14596-10-2	Americium-241	uCi/g	104	<6.41E-07	<5.07E-07	n/a	n/a	n/a	n/a	5.07E-07	n/a	U
S10V000139	E	15510-73-3	Curium-242	uCi/g	n/a	<2.56E-07	<2.03E-07	n/a	n/a	n/a	n/a	2.03E-07	n/a	U
S10V000139	E	PU-239/240	Plutonium-239/240	uCi/g	99.8	<3.55E-07	<3.72E-07	n/a	n/a	n/a	n/a	3.72E-07	n/a	U
S10V000139	E	13981-16-3	Plutonium-238	uCi/g	n/a	<3.55E-07	<3.72E-07	n/a	n/a	n/a	n/a	3.72E-07	n/a	U
S10V000140	E	SR-89/90	Strontium-89/90	uCi/g	99.4	<6.99E-07	<1.19E-06	n/a	n/a	n/a	n/a	1.19E-06	n/a	U

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M - RPD Outside Range
B - Estimated
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C - Blank Contamination

Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B23TK2

Sample Depth: Surface

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000141	E	13981-37-8	Nickel-63	uCi/g	103	<5.87E-06	<5.42E-06	n/a	n/a	n/a	n/a	5.42E-06	n/a	U
S10V000141	E	15758-45-9	Selenium-79	uCi/g	n/a	4.38E-06	<1.61E-06	n/a	n/a	n/a	n/a	1.61E-06	n/a	U
S10V001165	W	10028-17-8	Tritium	uCi/g	87.9	<3.83E-06	<3.88E-06	<4.81E-06	n/a	n/a	n/a	3.88E-06	n/a	U
S10V001204	A	7440-36-0	Antimony	ug/g	99.4	<0.0100	0.186	0.270	0.228	37.2	96.4	9.51E-03	n/a	M
S10V002141	WV	14133-76-7	Technetium-99	ug/g	109	<3.00E-06	<2.94E-06	n/a	n/a	n/a	n/a	2.94E-06	n/a	U
S10V002232	W	14762-75-5	Carbon-14	uCi/g	94.0	<3.49E-07	<2.48E-06	<2.42E-06	n/a	n/a	95.3	2.48E-06	n/a	U

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Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B23TK4

Sample Depth: Surface

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000128		71-55-6	1,1,1-Trichloroethane	ug/kg	n/a	<0.0920	<0.0888	n/a	n/a	n/a	n/a	0.0888	n/a	U
S10V000128		79-00-5	1,1,2-Trichloroethane	ug/kg	n/a	<0.166	<0.160	n/a	n/a	n/a	n/a	0.160	n/a	U
S10V000128		79-34-5	1,1,2,2-Tetrachloroethane	ug/kg	n/a	<0.212	<0.204	n/a	n/a	n/a	n/a	0.204	n/a	U
S10V000128		75-35-4	1,1-Dichloroethene	ug/kg	94.6	<0.423	<0.408	n/a	n/a	n/a	n/a	0.408	n/a	U
S10V000128		107-06-2	1,2-Dichloroethane	ug/kg	n/a	<0.0538	<0.0519	n/a	n/a	n/a	n/a	0.0519	n/a	U
S10V000128		71-36-3	1-Butanol	ug/kg	89.4	<10.3	<9.93	n/a	n/a	n/a	n/a	9.93	n/a	U
S10V000128		591-78-6	2-Hexanone	ug/kg	135	3.17	2.52	n/a	n/a	n/a	n/a	2.28	n/a	BJT
S10V000128		108-10-1	Hexone	ug/kg	128	<1.71	<1.65	n/a	n/a	n/a	n/a	1.65	n/a	UT
S10V000128		67-64-1	Acetone	ug/kg	140	<2.20	<2.12	n/a	n/a	n/a	n/a	2.12	n/a	UT
S10V000128		71-43-2	Benzene	ug/kg	95.7	<0.147	<0.142	n/a	n/a	n/a	n/a	0.142	n/a	U
S10V000128		75-15-0	Carbon disulfide	ug/kg	n/a	<0.161	<0.155	n/a	n/a	n/a	n/a	0.155	n/a	U
S10V000128		56-23-5	Carbon tetrachloride	ug/kg	n/a	<0.0934	<0.0902	n/a	n/a	n/a	n/a	0.0902	n/a	U
S10V000128		67-66-3	Chloroform	ug/kg	n/a	<0.131	<0.126	n/a	n/a	n/a	n/a	0.126	n/a	U
S10V000128		108-90-7	Chlorobenzene	ug/kg	96.3	<0.0864	<0.0834	n/a	n/a	n/a	n/a	0.0834	n/a	U
S10V000128		100-41-4	Ethylbenzene	ug/kg	n/a	<0.107	<0.103	n/a	n/a	n/a	n/a	0.103	n/a	U
S10V000128		1330-20-7	Xylenes (total)	ug/kg	n/a	<0.203	<0.196	n/a	n/a	n/a	n/a	0.196	n/a	U
S10V000128		78-93-3	2-Butanone	ug/kg	112	<1.96	<1.90	n/a	n/a	n/a	n/a	1.90	n/a	UT
S10V000128		75-09-2	Methylenechloride	ug/kg	n/a	<0.0640	<0.0618	n/a	n/a	n/a	n/a	0.0618	n/a	U
S10V000128		127-18-4	Tetrachloroethene	ug/kg	n/a	<0.110	<0.106	n/a	n/a	n/a	n/a	0.106	n/a	U
S10V000128		108-88-3	Toluene	ug/kg	96.7	0.170	0.592	n/a	n/a	n/a	n/a	0.0774	n/a	BJ
S10V000128		10061-02-6	trans-1,3-Dichloropropene	ug/kg	n/a	<0.271	<0.262	n/a	n/a	n/a	n/a	0.262	n/a	U
S10V000128		79-01-6	Trichloroethene	ug/kg	90.0	<0.121	<0.117	n/a	n/a	n/a	n/a	0.117	n/a	U
S10V000128		75-01-4	Vinyl chloride	ug/kg	n/a	<0.173	<0.167	n/a	n/a	n/a	n/a	0.167	n/a	U
S10V000128		156-59-2	cis-Dichloroethylene	ug/kg	n/a	<0.182	<0.175	n/a	n/a	n/a	n/a	0.175	n/a	U
S10V000128		156-60-5	trans-Dichloroethylene	ug/kg	n/a	<0.303	<0.292	n/a	n/a	n/a	n/a	0.292	n/a	U
S10V000128		76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ug/kg	n/a	<0.116	<0.112	n/a	n/a	n/a	n/a	0.112	n/a	U
S10V000128		79-46-9	2-Nitropropane	ug/kg	n/a	<0.588	<0.568	n/a	n/a	n/a	n/a	0.568	n/a	U
S10V000128		141-78-6	Ethyl acetate	ug/kg	n/a	<0.587	<0.567	n/a	n/a	n/a	n/a	0.567	n/a	U
S10V000128		60-29-7	Diethyl ether	ug/kg	n/a	<0.256	<0.247	n/a	n/a	n/a	n/a	0.247	n/a	U

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C - Blank Contamination

Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B23TK4

Sample Depth: Surface

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000128		75-69-4	Trichlorofluoromethane	ug/kg	n/a	<0.0940	<0.0907	n/a	n/a	n/a	n/a	0.0907	n/a	U
S10V000128		95-47-6	o-Xylene	ug/kg	n/a	<0.0920	<0.0888	n/a	n/a	n/a	n/a	0.0888	n/a	U
S10V000128		179601-23-1	m,p-Xylene	ug/kg	n/a	<0.167	<0.162	n/a	n/a	n/a	n/a	0.162	n/a	U

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B - Blank Contamination
J - Estimated
T - MS/MSD Outside Range
M - RPD Outside Range
B - Estimated
N - MS/MSD Outside Range
U - Less Than Detection Limit
C - Blank Contamination

Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B23TK5

Sample Depth: Surface Dup

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000145		%WATERA	%WATER-APD	%	n/a	n/a	4.100	n/a	n/a	n/a	n/a	0.01000	n/a	
S10V000145		57-12-5	Cyanide	ug/g	88.8	<0.0370	<2.84	n/a	n/a	n/a	n/a	2.84	n/a	U
S10V000145		7439-97-6	Mercury	ug/g	103	<1.00E-04	0.0135	n/a	n/a	n/a	n/a	8.41E-03	n/a	B
S10V000145		PH	pH	unitless	n/a	n/a	8.53	n/a	n/a	n/a	n/a	0.0100	n/a	
S10V000145		12597-04-5	Sulfide	ug/g	81.2	<0.180	21.6	n/a	n/a	n/a	n/a	7.11	n/a	B
S10V000147		13966-00-2	Potassium-40	uCi/g	n/a	n/a	1.14E-05	n/a	n/a	n/a	n/a	6.00E-06	34.87	
S10V000147		10198-40-0	Cobalt-60	uCi/g	102	<3.08E-07	<3.29E-07	n/a	n/a	n/a	n/a	3.29E-07	n/a	U
S10V000147		14234-35-6	Antimony-125	uCi/g	n/a	<6.68E-07	<7.57E-07	n/a	n/a	n/a	n/a	7.57E-07	n/a	U
S10V000147		10045-97-3	Cesium-137	uCi/g	107	<3.81E-07	<3.30E-07	n/a	n/a	n/a	n/a	3.30E-07	n/a	U
S10V000147		14683-23-9	Europium-152	uCi/g	n/a	<1.37E-06	<1.41E-06	n/a	n/a	n/a	n/a	1.41E-06	n/a	U
S10V000147		15585-10-1	Europium-154	uCi/g	n/a	<9.15E-07	<8.93E-07	n/a	n/a	n/a	n/a	8.93E-07	n/a	U
S10V000147		14391-16-3	Europium-155	uCi/g	n/a	<4.54E-07	<4.94E-07	n/a	n/a	n/a	n/a	4.94E-07	n/a	U
S10V000147		15092-94-1	Lead-212	uCi/g	n/a	n/a	7.20E-07	n/a	n/a	n/a	n/a	5.47E-07	30.75	
S10V000147		14274-82-9	Thorium-228	uCi/g	n/a	<8.10E-06	<9.24E-06	n/a	n/a	n/a	n/a	9.24E-06	n/a	U
S10V000147		15065-10-8	Thorium-234	uCi/g	n/a	<2.56E-06	<3.25E-06	n/a	n/a	n/a	n/a	3.25E-06	n/a	U
S10V000147		15046-84-1	Iodine-129	uCi/g	117	<2.00E-07	<1.60E-07	n/a	n/a	n/a	n/a	1.60E-07	n/a	U
S10V000148	O	120-82-1	1,2,4-Trichlorobenzene	ug/kg	59.0	<77.4	<74.4	n/a	n/a	n/a	n/a	74.4	n/a	U
S10V000148	O	95-50-1	1,2-Dichlorobenzene	ug/kg	n/a	<101	<96.8	n/a	n/a	n/a	n/a	96.8	n/a	U
S10V000148	O	121-14-2	2,4-Dinitrotoluene	ug/kg	75.0	<38.1	<36.6	n/a	n/a	n/a	n/a	36.6	n/a	U
S10V000148	O	95-95-4	2,4,5-Trichlorophenol	ug/kg	n/a	<44.0	<42.3	n/a	n/a	n/a	n/a	42.3	n/a	U
S10V000148	O	88-06-2	2,4,6-Trichlorophenol	ug/kg	n/a	<49.5	<47.6	n/a	n/a	n/a	n/a	47.6	n/a	U
S10V000148	O	95-48-7	2-Methylphenol	ug/kg	n/a	<57.5	<55.3	n/a	n/a	n/a	n/a	55.3	n/a	U
S10V000148	O	88-75-5	2-Nitrophenol	ug/kg	n/a	<53.7	<51.6	n/a	n/a	n/a	n/a	51.6	n/a	U
S10V000148	O	65794-96-9	3 &4 Methylphenol	ug/kg	n/a	<51.4	<49.4	n/a	n/a	n/a	n/a	49.4	n/a	U
S10V000148	O	83-32-9	Acenaphthene	ug/kg	60.6	<17.6	<16.9	n/a	n/a	n/a	n/a	16.9	n/a	U
S10V000148	O	56-55-3	Benzo(a)anthracene	ug/kg	n/a	<37.8	<36.4	n/a	n/a	n/a	n/a	36.4	n/a	U
S10V000148	O	205-99-2	Benzo(b)fluoranthene	ug/kg	n/a	<48.9	<47.0	n/a	n/a	n/a	n/a	47.0	n/a	U
S10V000148	O	50-32-8	Benzo(a)pyrene	ug/kg	n/a	<41.2	<39.6	n/a	n/a	n/a	n/a	39.6	n/a	U
S10V000148	O	117-81-7	Bis(2-ethylhexyl) phthalate	ug/kg	n/a	<590	<568	n/a	n/a	n/a	n/a	568	n/a	U

NA = Not Analyzed, ND = Not Detected

B - Blank Contamination
J - Estimated
T - MS/MSD Outside Range
M - RPD Outside Range
B - Estimated
N - MS/MSD Outside Range
U - Less Than Detection Limit
C - Blank Contamination

Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B23TK5

Sample Depth: Surface Dup

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000148	O	207-08-9	Benzo(k)fluoranthene	ug/kg	n/a	<39.1	<37.6	n/a	n/a	n/a	n/a	37.6	n/a	U
S10V000148	O	85-68-7	Butylbenzylphthalate	ug/kg	n/a	74.1	76.1	n/a	n/a	n/a	n/a	48.1	n/a	BJ
S10V000148	O	59-50-7	4-Chloro-3-methylphenol	ug/kg	65.5	<43.2	<41.5	n/a	n/a	n/a	n/a	41.5	n/a	U
S10V000148	O	95-57-8	2-Chlorophenol	ug/kg	59.8	<66.5	<64.0	n/a	n/a	n/a	n/a	64.0	n/a	U
S10V000148	O	218-01-9	Chrysene	ug/kg	n/a	<81.4	<78.3	n/a	n/a	n/a	n/a	78.3	n/a	U
S10V000148	O	53-70-3	Dibenz[a,h]anthracene	ug/kg	n/a	<51.1	<49.1	n/a	n/a	n/a	n/a	49.1	n/a	U
S10V000148	O	84-74-2	Di-n-butylphthalate	ug/kg	n/a	<562	<541	n/a	n/a	n/a	n/a	541	n/a	U
S10V000148	O	117-84-0	Di-n-octylphthalate	ug/kg	n/a	<47.7	<45.9	n/a	n/a	n/a	n/a	45.9	n/a	U
S10V000148	O	621-64-7	N-Nitroso-di-n-dipropylamine	ug/kg	56.7	<58.1	<55.9	n/a	n/a	n/a	n/a	55.9	n/a	U
S10V000148	O	206-44-0	Fluoranthene	ug/kg	n/a	<35.4	<34.0	n/a	n/a	n/a	n/a	34.0	n/a	U
S10V000148	O	87-68-3	Hexachlorobutadiene	ug/kg	n/a	<69.7	<67.0	n/a	n/a	n/a	n/a	67.0	n/a	U
S10V000148	O	67-72-1	Hexachloroethane	ug/kg	n/a	<112	<108	n/a	n/a	n/a	n/a	108	n/a	U
S10V000148	O	193-39-5	Indeno(1,2,3-cd)pyrene	ug/kg	n/a	<51.0	<49.0	n/a	n/a	n/a	n/a	49.0	n/a	U
S10V000148	O	91-20-3	Naphthalene	ug/kg	n/a	<62.6	<60.2	n/a	n/a	n/a	n/a	60.2	n/a	U
S10V000148	O	98-95-3	Nitrobenzene	ug/kg	n/a	<64.6	<62.1	n/a	n/a	n/a	n/a	62.1	n/a	U
S10V000148	O	129-00-0	Pyrene	ug/kg	79.2	<62.9	<60.5	n/a	n/a	n/a	n/a	60.5	n/a	U
S10V000148	O	110-86-1	Pyridine	ug/kg	n/a	<65.0	<62.5	n/a	n/a	n/a	n/a	62.5	n/a	U
S10V000148	O	126-73-8	Tributyl phosphate	ug/kg	n/a	<108	<104	n/a	n/a	n/a	n/a	104	n/a	U
S10V000148	O	128-37-0	BHT	ug/kg	n/a	<236	<227	n/a	n/a	n/a	n/a	227	n/a	U
S10V000148	O	110-80-5	2-Ethoxyethanol	ug/kg	n/a	<182	<175	n/a	n/a	n/a	n/a	175	n/a	U
S10V000148	O	1319-77-3	Total Methylphenols	ug/kg	n/a	<107	<103	n/a	n/a	n/a	n/a	103	n/a	U
S10V000148	O	108-94-1	Cyclohexanone	ug/kg	n/a	<558	<537	n/a	n/a	n/a	n/a	537	n/a	U
S10V000148	O	59-89-2	N-Nitrosomorpholine	ug/kg	n/a	<191	<184	n/a	n/a	n/a	n/a	184	n/a	U
S10V000148	O	78-83-1	Isobutanol	ug/kg	n/a	<460	<443	n/a	n/a	n/a	n/a	443	n/a	U
S10V000149	W	16984-48-8	Fluoride	ug/g	101	<1.61E-03	0.964	n/a	n/a	n/a	n/a	0.0180	n/a	M
S10V000149	W	GLYCOLAT	Glycolate	ug/g	96.9	<9.37E-03	<0.105	n/a	n/a	n/a	n/a	0.105	n/a	U
S10V000149	W	71-50-1	Acetate	ug/g	96.9	<6.04E-03	0.128	n/a	n/a	n/a	n/a	0.0674	n/a	B
S10V000149	W	FORMATE	Formate	ug/g	98.1	<4.67E-03	0.185	n/a	n/a	n/a	n/a	0.0521	n/a	B
S10V000149	W	16887-00-6	Chloride	ug/g	98.3	<9.98E-03	1.09	n/a	n/a	n/a	n/a	0.111	n/a	

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M - RPD Outside Range
B - Estimated
N - MS/MSD Outside Range
U - Less Than Detection Limit
C - Blank Contamination

Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B23TK5

Sample Depth: Surface Dup

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000149	W	14797-65-0	Nitrite	ug/g	98.5	0.0968	5.31	n/a	n/a	n/a	n/a	0.214	n/a	C
S10V000149	W	14808-79-8	Sulfate	ug/g	101	<0.0187	4.14	n/a	n/a	n/a	n/a	0.209	n/a	
S10V000149	W	338-70-5	Oxalate	ug/g	99.7	<0.0231	0.584	n/a	n/a	n/a	n/a	0.258	n/a	B
S10V000149	W	24959-67-9	Bromide	ug/g	98.4	<0.0580	<0.647	n/a	n/a	n/a	n/a	0.647	n/a	U
S10V000149	W	14797-55-8	Nitrate	ug/g	99.9	<0.0208	6.71	n/a	n/a	n/a	n/a	0.232	n/a	
S10V000149	W	14265-44-2	Phosphate	ug/g	99.0	<0.0167	2.96	n/a	n/a	n/a	n/a	0.186	n/a	B
S10V000150	A	7429-90-5	Aluminum	ug/g	83.2	<0.0300	7.70E+03	n/a	n/a	n/a	n/a	3.17	n/a	
S10V000150	A	7440-39-3	Barium	ug/g	84.5	<3.00E-03	73.2	n/a	n/a	n/a	n/a	0.317	n/a	
S10V000150	A	7440-41-7	Beryllium	ug/g	82.5	<1.00E-03	0.156	n/a	n/a	n/a	n/a	0.106	n/a	B
S10V000150	A	7440-69-9	Bismuth	ug/g	82.3	<0.100	40.5	n/a	n/a	n/a	n/a	10.6	n/a	BN
S10V000150	A	7440-70-2	Calcium	ug/g	78.3	<0.0500	1.07E+04	n/a	n/a	n/a	n/a	5.28	n/a	
S10V000150	A	7440-43-9	Cadmium	ug/g	83.0	<5.00E-03	3.02	n/a	n/a	n/a	n/a	0.528	n/a	B
S10V000150	A	7440-45-1	Cerium	ug/g	89.7	<0.0300	24.4	n/a	n/a	n/a	n/a	3.17	n/a	B
S10V000150	A	7440-48-4	Cobalt	ug/g	82.2	<0.0100	10.5	n/a	n/a	n/a	n/a	1.06	n/a	B
S10V000150	A	7440-47-3	Chromium	ug/g	82.1	<5.00E-03	9.25	n/a	n/a	n/a	n/a	0.528	n/a	
S10V000150	A	7440-50-8	Copper	ug/g	86.4	<5.00E-03	13.5	n/a	n/a	n/a	n/a	0.528	n/a	
S10V000150	A	7439-89-6	Iron	ug/g	82.8	<5.00E-03	2.58E+04	n/a	n/a	n/a	n/a	0.528	n/a	
S10V000150	A	7440-09-7	Potassium	ug/g	82.0	<0.500	1.27E+03	n/a	n/a	n/a	n/a	52.8	n/a	
S10V000150	A	7439-91-0	Lanthanum	ug/g	85.3	<3.00E-03	11.0	n/a	n/a	n/a	n/a	0.317	n/a	
S10V000150	A	7439-93-2	Lithium	ug/g	86.1	<3.00E-03	8.00	n/a	n/a	n/a	n/a	0.317	n/a	
S10V000150	A	7439-95-4	Magnesium	ug/g	80.0	<0.0500	5.73E+03	n/a	n/a	n/a	n/a	5.28	n/a	
S10V000150	A	7439-96-5	Manganese	ug/g	81.4	<3.00E-03	386	n/a	n/a	n/a	n/a	0.317	n/a	
S10V000150	A	7439-98-7	Molybdenum	ug/g	94.9	<0.0200	<2.11	n/a	n/a	n/a	n/a	2.11	n/a	U
S10V000150	A	7440-23-5	Sodium	ug/g	87.0	<0.100	236	n/a	n/a	n/a	n/a	10.6	n/a	
S10V000150	A	7440-02-0	Nickel	ug/g	81.1	<0.0200	11.0	n/a	n/a	n/a	n/a	2.11	n/a	B
S10V000150	A	7723-14-0	Phosphorus	ug/g	91.7	<0.0500	953	n/a	n/a	n/a	n/a	5.28	n/a	
S10V000150	A	7704-34-9	Sulfur	ug/g	93.0	<0.100	83.4	n/a	n/a	n/a	n/a	10.6	n/a	B
S10V000150	A	7440-21-3	Silicon	ug/g	77.7	<0.0300	49.7	n/a	n/a	n/a	n/a	3.17	n/a	
S10V000150	A	7440-24-6	Strontium	ug/g	84.6	<3.00E-03	31.0	n/a	n/a	n/a	n/a	0.317	n/a	

NA = Not Analyzed, ND = Not Detected

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J - Estimated
T - MS/MSD Outside Range
M - RPD Outside Range
B - Estimated
N - MS/MSD Outside Range
U - Less Than Detection Limit
C - Blank Contamination

Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B23TK5

Sample Depth: Surface Dup

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000150	A	7440-32-6	Titanium	ug/g	92.6	<5.00E-03	1.96E+03	n/a	n/a	n/a	n/a	0.528	n/a	
S10V000150	A	7440-62-2	Vanadium	ug/g	84.2	<5.00E-03	64.2	n/a	n/a	n/a	n/a	0.528	n/a	
S10V000150	A	7440-65-5	Yttrium	ug/g	85.5	<2.00E-03	10.9	n/a	n/a	n/a	n/a	0.211	n/a	
S10V000150	A	7440-66-6	Zinc	ug/g	83.9	<5.00E-03	47.8	n/a	n/a	n/a	n/a	0.528	n/a	
S10V000150	A	7440-67-7	Zirconium	ug/g	88.7	<5.00E-03	1.75	n/a	n/a	n/a	n/a	0.528	n/a	BN
S10V000150	A	14269-63-7	Thorium-230	ug/g	n/a	<2.80E-06	<2.96E-05	n/a	n/a	n/a	n/a	2.96E-05	n/a	U
S10V000150	A	TH-232	Thorium-232	ug/g	106	<6.80E-05	3.39	n/a	n/a	n/a	n/a	7.18E-04	n/a	
S10V000150	A	13968-55-3	Uranium-233	ug/g	n/a	<4.00E-06	2.22E-04	n/a	n/a	n/a	n/a	4.23E-05	n/a	
S10V000150	A	13966-29-5	Uranium-234	ug/g	n/a	2.15E-06	<2.11E-05	n/a	n/a	n/a	n/a	2.11E-05	n/a	U
S10V000150	A	15117-96-1	Uranium-235	ug/g	104	<4.40E-06	3.45E-03	n/a	n/a	n/a	n/a	4.65E-05	n/a	
S10V000150	A	13982-70-2	Uranium-236	ug/g	n/a	<1.60E-06	<1.69E-05	n/a	n/a	n/a	n/a	1.69E-05	n/a	U
S10V000150	A	13994-20-2	Neptunium-237	ug/g	106	<2.12E-05	<2.24E-04	n/a	n/a	n/a	n/a	2.24E-04	n/a	U
S10V000150	A	U-238	Uranium-238	ug/g	110	<2.20E-04	0.541	n/a	n/a	n/a	n/a	2.32E-03	n/a	
S10V000150	A	7440-22-4	Silver	ug/g	82.2	<3.20E-03	0.0453	n/a	n/a	n/a	n/a	0.0338	n/a	B
S10V000150	A	7440-38-2	Arsenic	ug/g	108	<0.0168	5.25	n/a	n/a	n/a	n/a	0.178	n/a	
S10V000150	A	7439-92-1	Lead	ug/g	84.0	<0.0124	8.45	n/a	n/a	n/a	n/a	0.131	n/a	
S10V000150	A	7782-49-2	Selenium	ug/g	86.4	<0.0244	0.321	n/a	n/a	n/a	n/a	0.258	n/a	B
S10V000150	A	7440-28-0	Thallium	ug/g	103	<1.20E-03	0.769	n/a	n/a	n/a	n/a	0.0127	n/a	C
S10V000151	S	14798-03-9	Ammonium	ug/g	97.1	<0.0120	3.41	n/a	n/a	n/a	n/a	0.473	n/a	B
S10V000152	A	14133-76-7	Technetium-99	ug/g	93.6	<1.50E-04	<1.65E-03	n/a	n/a	n/a	n/a	1.65E-03	n/a	U
S10V000152	A	SN-117	Tin-117	ug/g	104	<5.50E-03	<0.0605	n/a	n/a	n/a	n/a	0.0605	n/a	U
S10V000152	A	15832-50-5	Tin-126	ug/g	n/a	<1.00E-04	<1.10E-03	n/a	n/a	n/a	n/a	1.10E-03	n/a	U
S10V000154	E	SR-89/90	Strontium-89/90	uCi/g	99.4	<6.99E-07	3.71E-07	n/a	n/a	n/a	n/a	2.71E-07	114.357	
S10V000155	E	13981-37-8	Nickel-63	uCi/g	114	<8.68E-06	<5.23E-06	n/a	n/a	n/a	n/a	5.23E-06	n/a	U
S10V000155	E	15758-45-9	Selenium-79	uCi/g	n/a	4.38E-06	<1.36E-06	n/a	n/a	n/a	n/a	1.36E-06	n/a	U
S10V001166	W	10028-17-8	Tritium	uCi/g	87.9	<3.83E-06	<4.82E-06	n/a	n/a	n/a	n/a	4.82E-06	n/a	U
S10V001205	A	7440-36-0	Antimony	ug/g	99.4	<0.0100	0.245	n/a	n/a	n/a	n/a	9.48E-03	n/a	M
S10V002142	WV	14133-76-7	Technetium-99	ug/g	109	<3.00E-06	<2.95E-06	<2.95E-06	n/a	n/a	101	2.95E-06	n/a	U
S10V002233	W	14762-75-5	Carbon-14	uCi/g	94.0	<3.49E-07	<2.97E-06	n/a	n/a	n/a	n/a	2.97E-06	n/a	U

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C - Blank Contamination

Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B23TK5

Sample Depth: Surface dup

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000153	E	CM-243/244	Curium-243/244	uCi/g	n/a	<2.56E-07	<2.03E-07	n/a	n/a	n/a	n/a	2.03E-07	n/a	U
S10V000153	E	14596-10-2	Americium-241	uCi/g	104	<6.41E-07	<5.07E-07	n/a	n/a	n/a	n/a	5.07E-07	n/a	U
S10V000153	E	15510-73-3	Curium-242	uCi/g	n/a	<2.56E-07	<2.03E-07	n/a	n/a	n/a	n/a	2.03E-07	n/a	U
S10V000153	E	PU-239/240	Plutonium-239/240	uCi/g	99.8	<3.55E-07	<2.86E-07	n/a	n/a	n/a	n/a	2.86E-07	n/a	U
S10V000153	E	13981-16-3	Plutonium-238	uCi/g	n/a	<3.55E-07	<2.86E-07	n/a	n/a	n/a	n/a	2.86E-07	n/a	U

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Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B23TK7

Sample Depth: Surface Dup

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000142		71-55-6	1,1,1-Trichloroethane	ug/kg	n/a	<0.0920	<0.0909	n/a	n/a	n/a	n/a	0.0909	n/a	U
S10V000142		79-00-5	1,1,2-Trichloroethane	ug/kg	n/a	<0.166	<0.164	n/a	n/a	n/a	n/a	0.164	n/a	U
S10V000142		79-34-5	1,1,2,2-Tetrachloroethane	ug/kg	n/a	<0.212	<0.209	n/a	n/a	n/a	n/a	0.209	n/a	U
S10V000142		75-35-4	1,1-Dichloroethene	ug/kg	94.6	<0.423	<0.418	n/a	n/a	n/a	n/a	0.418	n/a	U
S10V000142		107-06-2	1,2-Dichloroethane	ug/kg	n/a	<0.0538	<0.0532	n/a	n/a	n/a	n/a	0.0532	n/a	U
S10V000142		71-36-3	1-Butanol	ug/kg	89.4	<10.3	<10.2	n/a	n/a	n/a	n/a	10.2	n/a	U
S10V000142		108-10-1	Hexone	ug/kg	128	<1.71	<1.69	n/a	n/a	n/a	n/a	1.69	n/a	UT
S10V000142		67-64-1	Acetone	ug/kg	140	<2.20	<2.17	n/a	n/a	n/a	n/a	2.17	n/a	UT
S10V000142		71-43-2	Benzene	ug/kg	95.7	<0.147	<0.146	n/a	n/a	n/a	n/a	0.146	n/a	U
S10V000142		75-15-0	Carbon disulfide	ug/kg	n/a	<0.161	<0.159	n/a	n/a	n/a	n/a	0.159	n/a	U
S10V000142		56-23-5	Carbon tetrachloride	ug/kg	n/a	<0.0934	<0.0923	n/a	n/a	n/a	n/a	0.0923	n/a	U
S10V000142		67-66-3	Chloroform	ug/kg	n/a	<0.131	<0.129	n/a	n/a	n/a	n/a	0.129	n/a	U
S10V000142		108-90-7	Chlorobenzene	ug/kg	96.3	<0.0864	<0.0854	n/a	n/a	n/a	n/a	0.0854	n/a	U
S10V000142		100-41-4	Ethylbenzene	ug/kg	n/a	<0.107	<0.106	n/a	n/a	n/a	n/a	0.106	n/a	U
S10V000142		1330-20-7	Xylenes (total)	ug/kg	n/a	<0.203	<0.201	n/a	n/a	n/a	n/a	0.201	n/a	U
S10V000142		78-93-3	2-Butanone	ug/kg	112	<1.96	<1.94	n/a	n/a	n/a	n/a	1.94	n/a	UT
S10V000142		75-09-2	Methylenechloride	ug/kg	n/a	<0.0640	<0.0632	n/a	n/a	n/a	n/a	0.0632	n/a	U
S10V000142		127-18-4	Tetrachloroethene	ug/kg	n/a	<0.110	<0.108	n/a	n/a	n/a	n/a	0.108	n/a	U
S10V000142		108-88-3	Toluene	ug/kg	96.7	0.170	0.493	n/a	n/a	n/a	n/a	0.0792	n/a	BJ
S10V000142		10061-02-6	trans-1,3-Dichloropropene	ug/kg	n/a	<0.271	<0.268	n/a	n/a	n/a	n/a	0.268	n/a	U
S10V000142		79-01-6	Trichloroethene	ug/kg	90.0	<0.121	<0.120	n/a	n/a	n/a	n/a	0.120	n/a	U
S10V000142		75-01-4	Vinyl chloride	ug/kg	n/a	<0.173	<0.171	n/a	n/a	n/a	n/a	0.171	n/a	U
S10V000142		156-59-2	cis-Dichloroethylene	ug/kg	n/a	<0.182	<0.179	n/a	n/a	n/a	n/a	0.179	n/a	U
S10V000142		156-60-5	trans-Dichloroethylene	ug/kg	n/a	<0.303	<0.299	n/a	n/a	n/a	n/a	0.299	n/a	U
S10V000142		76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ug/kg	n/a	<0.116	<0.115	n/a	n/a	n/a	n/a	0.115	n/a	U
S10V000142		79-46-9	2-Nitropropane	ug/kg	n/a	<0.588	<0.581	n/a	n/a	n/a	n/a	0.581	n/a	U
S10V000142		141-78-6	Ethyl acetate	ug/kg	n/a	<0.587	<0.580	n/a	n/a	n/a	n/a	0.580	n/a	U
S10V000142		60-29-7	Diethyl ether	ug/kg	n/a	<0.256	<0.253	n/a	n/a	n/a	n/a	0.253	n/a	U
S10V000142		75-69-4	Trichlorofluoromethane	ug/kg	n/a	<0.0940	<0.0929	n/a	n/a	n/a	n/a	0.0929	n/a	U

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C - Blank Contamination

Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B23TK7

Sample Depth: Surface Dup

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000142		95-47-6	o-Xylene	ug/kg	n/a	<0.0920	<0.0909	n/a	n/a	n/a	n/a	0.0909	n/a	U
S10V000142		179601-23-1	m,p-Xylene	ug/kg	n/a	<0.167	<0.165	n/a	n/a	n/a	n/a	0.165	n/a	U

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B - Estimated
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C - Blank Contamination

Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B23TK8

Sample Depth: 5-7

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000162		57-12-5	Cyanide	ug/g	100	<0.0370	<2.64	<2.52	n/a	n/a	92.5	2.64	n/a	U
S10V000162		7439-97-6	Mercury	ug/g	101	<1.00E-04	<7.78E-03	n/a	n/a	n/a	n/a	7.78E-03	n/a	U
S10V000162		12597-04-5	Sulfide	ug/g	96.7	<0.180	30.8	22.6	26.7	30.6	86.6	7.19	n/a	B
S10V000165	O	120-82-1	1,2,4-Trichlorobenzene	ug/kg	73.2	<77.4	<76.6	n/a	n/a	n/a	n/a	76.6	n/a	U
S10V000165	O	95-50-1	1,2-Dichlorobenzene	ug/kg	n/a	<101	<99.6	n/a	n/a	n/a	n/a	99.6	n/a	U
S10V000165	O	121-14-2	2,4-Dinitrotoluene	ug/kg	84.1	<38.1	<37.7	n/a	n/a	n/a	n/a	37.7	n/a	U
S10V000165	O	95-95-4	2,4,5-Trichlorophenol	ug/kg	n/a	<44.0	<43.5	n/a	n/a	n/a	n/a	43.5	n/a	U
S10V000165	O	88-06-2	2,4,6-Trichlorophenol	ug/kg	n/a	<49.5	<49.0	n/a	n/a	n/a	n/a	49.0	n/a	U
S10V000165	O	95-48-7	2-Methylphenol	ug/kg	n/a	<57.5	<56.9	n/a	n/a	n/a	n/a	56.9	n/a	U
S10V000165	O	88-75-5	2-Nitrophenol	ug/kg	n/a	<53.7	<53.1	n/a	n/a	n/a	n/a	53.1	n/a	U
S10V000165	O	65794-96-9	3 &4 Methylphenol	ug/kg	n/a	<51.4	<50.9	n/a	n/a	n/a	n/a	50.9	n/a	U
S10V000165	O	83-32-9	Acenaphthene	ug/kg	76.9	<17.6	<17.4	n/a	n/a	n/a	n/a	17.4	n/a	U
S10V000165	O	56-55-3	Benzo(a)anthracene	ug/kg	n/a	<37.8	<37.4	n/a	n/a	n/a	n/a	37.4	n/a	U
S10V000165	O	205-99-2	Benzo(b)fluoranthene	ug/kg	n/a	<48.9	<48.4	n/a	n/a	n/a	n/a	48.4	n/a	U
S10V000165	O	50-32-8	Benzo(a)pyrene	ug/kg	n/a	<41.2	<40.8	n/a	n/a	n/a	n/a	40.8	n/a	U
S10V000165	O	117-81-7	Bis(2-ethylhexyl) phthalate	ug/kg	n/a	<590	<584	n/a	n/a	n/a	n/a	584	n/a	U
S10V000165	O	207-08-9	Benzo(k)fluoranthene	ug/kg	n/a	<39.1	<38.7	n/a	n/a	n/a	n/a	38.7	n/a	U
S10V000165	O	85-68-7	Butylbenzylphthalate	ug/kg	n/a	107	107	n/a	n/a	n/a	n/a	49.5	n/a	BJ
S10V000165	O	59-50-7	4-Chloro-3-methylphenol	ug/kg	83.1	<43.2	<42.7	n/a	n/a	n/a	n/a	42.7	n/a	U
S10V000165	O	95-57-8	2-Chlorophenol	ug/kg	77.0	<66.5	<65.8	n/a	n/a	n/a	n/a	65.8	n/a	U
S10V000165	O	218-01-9	Chrysene	ug/kg	n/a	<81.4	<80.6	n/a	n/a	n/a	n/a	80.6	n/a	U
S10V000165	O	53-70-3	Dibenz[a,h]anthracene	ug/kg	n/a	<51.1	<50.6	n/a	n/a	n/a	n/a	50.6	n/a	U
S10V000165	O	84-74-2	Di-n-butylphthalate	ug/kg	n/a	<562	<556	n/a	n/a	n/a	n/a	556	n/a	U
S10V000165	O	117-84-0	Di-n-octylphthalate	ug/kg	n/a	<47.7	422	n/a	n/a	n/a	n/a	47.2	n/a	J
S10V000165	O	621-64-7	N-Nitroso-di-n-dipropylamine	ug/kg	69.8	<58.1	<57.5	n/a	n/a	n/a	n/a	57.5	n/a	U
S10V000165	O	206-44-0	Fluoranthene	ug/kg	n/a	<35.4	<35.0	n/a	n/a	n/a	n/a	35.0	n/a	U
S10V000165	O	87-68-3	Hexachlorobutadiene	ug/kg	n/a	<69.7	<69.0	n/a	n/a	n/a	n/a	69.0	n/a	U
S10V000165	O	67-72-1	Hexachloroethane	ug/kg	n/a	<112	<111	n/a	n/a	n/a	n/a	111	n/a	U
S10V000165	O	193-39-5	Indeno(1,2,3-cd)pyrene	ug/kg	n/a	<51.0	<50.5	n/a	n/a	n/a	n/a	50.5	n/a	U

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C - Blank Contamination

Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B23TK8

Sample Depth: 5-7

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000165	O	91-20-3	Naphthalene	ug/kg	n/a	<62.6	<61.9	n/a	n/a	n/a	n/a	61.9	n/a	U
S10V000165	O	98-95-3	Nitrobenzene	ug/kg	n/a	<64.6	<63.9	n/a	n/a	n/a	n/a	63.9	n/a	U
S10V000165	O	129-00-0	Pyrene	ug/kg	91.3	<62.9	<62.2	n/a	n/a	n/a	n/a	62.2	n/a	U
S10V000165	O	110-86-1	Pyridine	ug/kg	n/a	<65.0	<64.3	n/a	n/a	n/a	n/a	64.3	n/a	U
S10V000165	O	126-73-8	Tributyl phosphate	ug/kg	n/a	<108	<107	n/a	n/a	n/a	n/a	107	n/a	U
S10V000165	O	128-37-0	BHT	ug/kg	n/a	<236	<233	n/a	n/a	n/a	n/a	233	n/a	U
S10V000165	O	110-80-5	2-Ethoxyethanol	ug/kg	n/a	<182	<180	n/a	n/a	n/a	n/a	180	n/a	U
S10V000165	O	1319-77-3	Total Methylphenols	ug/kg	n/a	<107	<105	n/a	n/a	n/a	n/a	105	n/a	U
S10V000165	O	108-94-1	Cyclohexanone	ug/kg	n/a	<558	<552	n/a	n/a	n/a	n/a	552	n/a	U
S10V000165	O	59-89-2	N-Nitrosomorpholine	ug/kg	n/a	<191	<189	n/a	n/a	n/a	n/a	189	n/a	U
S10V000165	O	78-83-1	Isobutanol	ug/kg	n/a	<460	<455	n/a	n/a	n/a	n/a	455	n/a	U
S10V000166	W	16984-48-8	Fluoride	ug/g	104	<1.61E-03	2.69	3.04	2.86	12.3	106	0.0168	n/a	
S10V000166	W	GLYCOLAT	Glycolate	ug/g	101	<9.37E-03	<0.0980	<0.0995	n/a	n/a	106	0.0980	n/a	U
S10V000166	W	71-50-1	Acetate	ug/g	98.9	<6.04E-03	0.259	0.296	0.278	13.2	106	0.0631	n/a	B
S10V000166	W	FORMATE	Formate	ug/g	103	<4.67E-03	0.253	0.289	0.271	13.3	109	0.0488	n/a	B
S10V000166	W	16887-00-6	Chloride	ug/g	100	<9.98E-03	1.30	1.38	1.34	5.70	110	0.104	n/a	
S10V000166	W	14797-65-0	Nitrite	ug/g	102	0.0389	0.387	3.01	1.70	155	109	0.201	n/a	CB
S10V000166	W	14808-79-8	Sulfate	ug/g	101	<0.0187	5.66	6.33	6.00	11.2	109	0.195	n/a	
S10V000166	W	338-70-5	Oxalate	ug/g	103	<0.0231	0.951	1.06	1.00	10.5	107	0.241	n/a	B
S10V000166	W	24959-67-9	Bromide	ug/g	103	<0.0580	<0.606	<0.616	n/a	n/a	109	0.606	n/a	U
S10V000166	W	14797-55-8	Nitrate	ug/g	103	<0.0208	9.21	10.8	10.0	16.2	115	0.217	n/a	
S10V000166	W	14265-44-2	Phosphate	ug/g	101	<0.0167	0.661	0.654	0.658	0.986	69.5	0.175	n/a	BN
S10V000167	A	7429-90-5	Aluminum	ug/g	83.2	<0.0300	8.39E+03	n/a	n/a	n/a	n/a	3.13	n/a	
S10V000167	A	7440-39-3	Barium	ug/g	84.5	<3.00E-03	79.2	n/a	n/a	n/a	n/a	0.313	n/a	
S10V000167	A	7440-41-7	Beryllium	ug/g	82.5	<1.00E-03	0.175	n/a	n/a	n/a	n/a	0.104	n/a	B
S10V000167	A	7440-69-9	Bismuth	ug/g	82.3	<0.100	36.6	n/a	n/a	n/a	n/a	10.4	n/a	BN
S10V000167	A	7440-70-2	Calcium	ug/g	78.3	<0.0500	1.15E+04	n/a	n/a	n/a	n/a	5.22	n/a	
S10V000167	A	7440-43-9	Cadmium	ug/g	83.0	<5.00E-03	3.47	n/a	n/a	n/a	n/a	0.522	n/a	B
S10V000167	A	7440-45-1	Cerium	ug/g	89.7	<0.0300	27.3	n/a	n/a	n/a	n/a	3.13	n/a	B

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Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B23TK8

Sample Depth: 5-7

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000167	A	7440-48-4	Cobalt	ug/g	82.2	<0.0100	10.5	n/a	n/a	n/a	n/a	1.04	n/a	
S10V000167	A	7440-47-3	Chromium	ug/g	82.1	<5.00E-03	11.2	n/a	n/a	n/a	n/a	0.522	n/a	
S10V000167	A	7440-50-8	Copper	ug/g	86.4	<5.00E-03	14.8	n/a	n/a	n/a	n/a	0.522	n/a	
S10V000167	A	7439-89-6	Iron	ug/g	82.8	<5.00E-03	2.59E+04	n/a	n/a	n/a	n/a	0.522	n/a	
S10V000167	A	7440-09-7	Potassium	ug/g	82.0	<0.500	1.18E+03	n/a	n/a	n/a	n/a	52.2	n/a	
S10V000167	A	7439-91-0	Lanthanum	ug/g	85.3	<3.00E-03	12.0	n/a	n/a	n/a	n/a	0.313	n/a	
S10V000167	A	7439-93-2	Lithium	ug/g	86.1	<3.00E-03	9.05	n/a	n/a	n/a	n/a	0.313	n/a	
S10V000167	A	7439-95-4	Magnesium	ug/g	80.0	<0.0500	6.10E+03	n/a	n/a	n/a	n/a	5.22	n/a	
S10V000167	A	7439-96-5	Manganese	ug/g	81.4	<3.00E-03	409	n/a	n/a	n/a	n/a	0.313	n/a	
S10V000167	A	7439-98-7	Molybdenum	ug/g	94.9	<0.0200	<2.09	n/a	n/a	n/a	n/a	2.09	n/a	U
S10V000167	A	7440-23-5	Sodium	ug/g	87.0	<0.100	287	n/a	n/a	n/a	n/a	10.4	n/a	
S10V000167	A	7440-02-0	Nickel	ug/g	81.1	<0.0200	10.9	n/a	n/a	n/a	n/a	2.09	n/a	B
S10V000167	A	7723-14-0	Phosphorus	ug/g	91.7	<0.0500	990	n/a	n/a	n/a	n/a	5.22	n/a	
S10V000167	A	7704-34-9	Sulfur	ug/g	93.0	<0.100	88.0	n/a	n/a	n/a	n/a	10.4	n/a	B
S10V000167	A	7440-21-3	Silicon	ug/g	77.7	<0.0300	70.2	n/a	n/a	n/a	n/a	3.13	n/a	
S10V000167	A	7440-24-6	Strontium	ug/g	84.6	<3.00E-03	37.3	n/a	n/a	n/a	n/a	0.313	n/a	
S10V000167	A	7440-32-6	Titanium	ug/g	92.6	<5.00E-03	1.91E+03	n/a	n/a	n/a	n/a	0.522	n/a	
S10V000167	A	7440-62-2	Vanadium	ug/g	84.2	<5.00E-03	64.1	n/a	n/a	n/a	n/a	0.522	n/a	
S10V000167	A	7440-65-5	Yttrium	ug/g	85.5	<2.00E-03	10.9	n/a	n/a	n/a	n/a	0.209	n/a	
S10V000167	A	7440-66-6	Zinc	ug/g	83.9	<5.00E-03	48.6	n/a	n/a	n/a	n/a	0.522	n/a	
S10V000167	A	7440-67-7	Zirconium	ug/g	88.7	<5.00E-03	3.68	n/a	n/a	n/a	n/a	0.522	n/a	BN
S10V000167	A	14269-63-7	Thorium-230	ug/g	n/a	<2.80E-06	<2.93E-05	n/a	n/a	n/a	n/a	2.93E-05	n/a	U
S10V000167	A	TH-232	Thorium-232	ug/g	106	<6.80E-05	3.55	n/a	n/a	n/a	n/a	7.10E-04	n/a	
S10V000167	A	13968-55-3	Uranium-233	ug/g	n/a	<4.00E-06	2.45E-04	n/a	n/a	n/a	n/a	4.18E-05	n/a	
S10V000167	A	13966-29-5	Uranium-234	ug/g	n/a	2.15E-06	3.41E-05	n/a	n/a	n/a	n/a	2.09E-05	n/a	B
S10V000167	A	15117-96-1	Uranium-235	ug/g	104	<4.40E-06	4.72E-03	n/a	n/a	n/a	n/a	4.60E-05	n/a	
S10V000167	A	13982-70-2	Uranium-236	ug/g	n/a	<1.60E-06	<1.67E-05	n/a	n/a	n/a	n/a	1.67E-05	n/a	U
S10V000167	A	13994-20-2	Neptunium-237	ug/g	106	<2.12E-05	<2.21E-04	n/a	n/a	n/a	n/a	2.21E-04	n/a	U
S10V000167	A	U-238	Uranium-238	ug/g	110	<2.20E-04	0.654	n/a	n/a	n/a	n/a	2.30E-03	n/a	

NA = Not Analyzed, ND = Not Detected

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J - Estimated
T - MS/MSD Outside Range
M - RPD Outside Range
B - Estimated
N - MS/MSD Outside Range
U - Less Than Detection Limit
C - Blank Contamination

Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B23TK8

Sample Depth: 5-7

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000167	A	7440-22-4	Silver	ug/g	82.2	<3.20E-03	0.0519	n/a	n/a	n/a	n/a	0.0334	n/a	B
S10V000167	A	7440-38-2	Arsenic	ug/g	108	<0.0168	5.83	n/a	n/a	n/a	n/a	0.176	n/a	N
S10V000167	A	7439-92-1	Lead	ug/g	84.0	<0.0124	6.30	n/a	n/a	n/a	n/a	0.130	n/a	
S10V000167	A	7782-49-2	Selenium	ug/g	86.4	<0.0244	0.594	n/a	n/a	n/a	n/a	0.255	n/a	B
S10V000167	A	7440-28-0	Thallium	ug/g	103	<1.20E-03	0.714	n/a	n/a	n/a	n/a	0.0125	n/a	C
S10V000168	S	14798-03-9	Ammonium	ug/g	101	<0.0120	4.13	3.43	3.78	18.4	100	0.474	n/a	B
S10V000169	A	14133-76-7	Technetium-99	ug/g	93.6	<1.50E-04	<1.69E-03	n/a	n/a	n/a	n/a	1.69E-03	n/a	U
S10V000169	A	SN-117	Tin-117	ug/g	104	<5.50E-03	<0.0621	n/a	n/a	n/a	n/a	0.0621	n/a	U
S10V000169	A	15832-50-5	Tin-126	ug/g	n/a	<1.00E-04	<1.13E-03	n/a	n/a	n/a	n/a	1.13E-03	n/a	U

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U - Less Than Detection Limit
C - Blank Contamination

Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B23TL0

Sample Depth: 5-7

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000156		71-55-6	1,1,1-Trichloroethane	ug/kg	n/a	<0.0920	<0.108	n/a	n/a	n/a	n/a	0.108	n/a	U
S10V000156		79-00-5	1,1,2-Trichloroethane	ug/kg	n/a	<0.166	<0.194	n/a	n/a	n/a	n/a	0.194	n/a	U
S10V000156		79-34-5	1,1,2,2-Tetrachloroethane	ug/kg	n/a	<0.212	<0.248	n/a	n/a	n/a	n/a	0.248	n/a	U
S10V000156		75-35-4	1,1-Dichloroethene	ug/kg	96.6	<0.423	<0.496	n/a	n/a	n/a	97.9	0.496	n/a	U
S10V000156		107-06-2	1,2-Dichloroethane	ug/kg	n/a	<0.0538	<0.0630	n/a	n/a	n/a	n/a	0.0630	n/a	U
S10V000156		71-36-3	1-Butanol	ug/kg	102	<10.3	<12.1	n/a	n/a	n/a	106	12.1	n/a	U
S10V000156		591-78-6	2-Hexanone	ug/kg	n/a	3.78	2.77	n/a	n/a	n/a	n/a	2.77	n/a	BJ
S10V000156		108-10-1	Hexone	ug/kg	117	<1.71	<2.00	n/a	n/a	n/a	129	2.00	n/a	U
S10V000156		67-64-1	Acetone	ug/kg	103	<2.20	<2.58	n/a	n/a	n/a	120	2.58	n/a	U
S10V000156		71-43-2	Benzene	ug/kg	93.6	<0.147	<0.173	n/a	n/a	n/a	97.2	0.173	n/a	U
S10V000156		75-15-0	Carbon disulfide	ug/kg	n/a	<0.161	<0.188	n/a	n/a	n/a	n/a	0.188	n/a	U
S10V000156		56-23-5	Carbon tetrachloride	ug/kg	n/a	<0.0934	<0.109	n/a	n/a	n/a	n/a	0.109	n/a	U
S10V000156		67-66-3	Chloroform	ug/kg	n/a	<0.131	<0.153	n/a	n/a	n/a	n/a	0.153	n/a	U
S10V000156		108-90-7	Chlorobenzene	ug/kg	95.9	<0.0864	<0.101	n/a	n/a	n/a	98.8	0.101	n/a	U
S10V000156		100-41-4	Ethylbenzene	ug/kg	n/a	<0.107	<0.126	n/a	n/a	n/a	n/a	0.126	n/a	U
S10V000156		1330-20-7	Xylenes (total)	ug/kg	n/a	<0.203	<0.238	n/a	n/a	n/a	n/a	0.238	n/a	U
S10V000156		78-93-3	2-Butanone	ug/kg	106	<1.96	<2.30	n/a	n/a	n/a	117	2.30	n/a	U
S10V000156		75-09-2	Methylenechloride	ug/kg	n/a	<0.0640	<0.0749	n/a	n/a	n/a	n/a	0.0749	n/a	U
S10V000156		127-18-4	Tetrachloroethene	ug/kg	n/a	<0.110	<0.129	n/a	n/a	n/a	n/a	0.129	n/a	U
S10V000156		108-88-3	Toluene	ug/kg	97.2	<0.0802	0.344	n/a	n/a	n/a	99.2	0.0939	n/a	J
S10V000156		10061-02-6	trans-1,3-Dichloropropene	ug/kg	n/a	<0.271	<0.317	n/a	n/a	n/a	n/a	0.317	n/a	U
S10V000156		79-01-6	Trichloroethene	ug/kg	89.5	<0.121	<0.142	n/a	n/a	n/a	95.3	0.142	n/a	U
S10V000156		75-01-4	Vinyl chloride	ug/kg	n/a	<0.173	<0.203	n/a	n/a	n/a	n/a	0.203	n/a	U
S10V000156		156-59-2	cis-Dichloroethylene	ug/kg	n/a	<0.182	<0.213	n/a	n/a	n/a	n/a	0.213	n/a	U
S10V000156		156-60-5	trans-Dichloroethylene	ug/kg	n/a	<0.303	<0.355	n/a	n/a	n/a	n/a	0.355	n/a	U
S10V000156		76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ug/kg	n/a	<0.116	<0.136	n/a	n/a	n/a	n/a	0.136	n/a	U
S10V000156		79-46-9	2-Nitropropane	ug/kg	n/a	<0.588	<0.689	n/a	n/a	n/a	n/a	0.689	n/a	U
S10V000156		141-78-6	Ethyl acetate	ug/kg	n/a	<0.587	<0.688	n/a	n/a	n/a	n/a	0.688	n/a	U
S10V000156		60-29-7	Diethyl ether	ug/kg	n/a	<0.256	<0.300	n/a	n/a	n/a	n/a	0.300	n/a	U

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M - RPD Outside Range
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C - Blank Contamination

Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B23TL0

Sample Depth: 5-7

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000156		75-69-4	Trichlorofluoromethane	ug/kg	n/a	<0.0940	<0.110	n/a	n/a	n/a	n/a	0.110	n/a	U
S10V000156		95-47-6	o-Xylene	ug/kg	n/a	<0.0920	<0.108	n/a	n/a	n/a	n/a	0.108	n/a	U
S10V000156		179601-23-1	m,p-Xylene	ug/kg	n/a	<0.167	<0.196	n/a	n/a	n/a	n/a	0.196	n/a	U

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U - Less Than Detection Limit
C - Blank Contamination

Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B27130

Sample Depth: 10-14

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000196		57-12-5	Cyanide	ug/g	100	<0.0370	<2.68	n/a	n/a	n/a	n/a	2.68	n/a	U
S10V000196		7439-97-6	Mercury	ug/g	101	<1.00E-04	<7.85E-03	n/a	n/a	n/a	102	7.85E-03	n/a	U
S10V000196		PH	pH	unitless	n/a	n/a	7.21	7.24	7.22	0.415	n/a	0.0100	n/a	
S10V000196		12597-04-5	Sulfide	ug/g	96.7	<0.180	24.4	n/a	n/a	n/a	n/a	6.91	n/a	B
S10V000198		15046-84-1	Iodine-129	uCi/g	109	<9.68E-07	<1.59E-07	n/a	n/a	n/a	n/a	1.59E-07	n/a	U
S10V000199	O	120-82-1	1,2,4-Trichlorobenzene	ug/kg	73.2	<77.4	<76.8	n/a	n/a	n/a	n/a	76.8	n/a	U
S10V000199	O	95-50-1	1,2-Dichlorobenzene	ug/kg	n/a	<101	<99.9	n/a	n/a	n/a	n/a	99.9	n/a	U
S10V000199	O	121-14-2	2,4-Dinitrotoluene	ug/kg	84.1	<38.1	<37.8	n/a	n/a	n/a	n/a	37.8	n/a	U
S10V000199	O	95-95-4	2,4,5-Trichlorophenol	ug/kg	n/a	<44.0	<43.6	n/a	n/a	n/a	n/a	43.6	n/a	U
S10V000199	O	88-06-2	2,4,6-Trichlorophenol	ug/kg	n/a	<49.5	<49.1	n/a	n/a	n/a	n/a	49.1	n/a	U
S10V000199	O	95-48-7	2-Methylphenol	ug/kg	n/a	<57.5	<57.0	n/a	n/a	n/a	n/a	57.0	n/a	U
S10V000199	O	88-75-5	2-Nitrophenol	ug/kg	n/a	<53.7	<53.3	n/a	n/a	n/a	n/a	53.3	n/a	U
S10V000199	O	65794-96-9	3 &4 Methylphenol	ug/kg	n/a	<51.4	<51.0	n/a	n/a	n/a	n/a	51.0	n/a	U
S10V000199	O	83-32-9	Acenaphthene	ug/kg	76.9	<17.6	<17.5	n/a	n/a	n/a	n/a	17.5	n/a	U
S10V000199	O	56-55-3	Benzo(a)anthracene	ug/kg	n/a	<37.8	<37.5	n/a	n/a	n/a	n/a	37.5	n/a	U
S10V000199	O	205-99-2	Benzo(b)fluoranthene	ug/kg	n/a	<48.9	<48.5	n/a	n/a	n/a	n/a	48.5	n/a	U
S10V000199	O	50-32-8	Benzo(a)pyrene	ug/kg	n/a	<41.2	<40.9	n/a	n/a	n/a	n/a	40.9	n/a	U
S10V000199	O	117-81-7	Bis(2-ethylhexyl) phthalate	ug/kg	n/a	<590	<585	n/a	n/a	n/a	n/a	585	n/a	U
S10V000199	O	207-08-9	Benzo(k)fluoranthene	ug/kg	n/a	<39.1	<38.8	n/a	n/a	n/a	n/a	38.8	n/a	U
S10V000199	O	85-68-7	Butylbenzylphthalate	ug/kg	n/a	107	109	n/a	n/a	n/a	n/a	49.6	n/a	BJ
S10V000199	O	59-50-7	4-Chloro-3-methylphenol	ug/kg	83.1	<43.2	<42.8	n/a	n/a	n/a	n/a	42.8	n/a	U
S10V000199	O	95-57-8	2-Chlorophenol	ug/kg	77.0	<66.5	<66.0	n/a	n/a	n/a	n/a	66.0	n/a	U
S10V000199	O	218-01-9	Chrysene	ug/kg	n/a	<81.4	<80.7	n/a	n/a	n/a	n/a	80.7	n/a	U
S10V000199	O	53-70-3	Dibenz[a,h]anthracene	ug/kg	n/a	<51.1	<50.7	n/a	n/a	n/a	n/a	50.7	n/a	U
S10V000199	O	84-74-2	Di-n-butylphthalate	ug/kg	n/a	<562	<558	n/a	n/a	n/a	n/a	558	n/a	U
S10V000199	O	117-84-0	Di-n-octylphthalate	ug/kg	n/a	<47.7	572	n/a	n/a	n/a	n/a	47.3	n/a	
S10V000199	O	621-64-7	N-Nitroso-di-n-dipropylamine	ug/kg	69.8	<58.1	<57.6	n/a	n/a	n/a	n/a	57.6	n/a	U
S10V000199	O	206-44-0	Fluoranthene	ug/kg	n/a	<35.4	<35.1	n/a	n/a	n/a	n/a	35.1	n/a	U
S10V000199	O	87-68-3	Hexachlorobutadiene	ug/kg	n/a	<69.7	<69.1	n/a	n/a	n/a	n/a	69.1	n/a	U

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N - MS/MSD Outside Range
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C - Blank Contamination

Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B27130

Sample Depth: 10-14

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000199	O	67-72-1	Hexachloroethane	ug/kg	n/a	<112	<111	n/a	n/a	n/a	n/a	111	n/a	U
S10V000199	O	193-39-5	Indeno(1,2,3-cd)pyrene	ug/kg	n/a	<51.0	<50.6	n/a	n/a	n/a	n/a	50.6	n/a	U
S10V000199	O	91-20-3	Naphthalene	ug/kg	n/a	<62.6	<62.1	n/a	n/a	n/a	n/a	62.1	n/a	U
S10V000199	O	98-95-3	Nitrobenzene	ug/kg	n/a	<64.6	<64.1	n/a	n/a	n/a	n/a	64.1	n/a	U
S10V000199	O	129-00-0	Pyrene	ug/kg	91.3	<62.9	<62.4	n/a	n/a	n/a	n/a	62.4	n/a	U
S10V000199	O	110-86-1	Pyridine	ug/kg	n/a	<65.0	<64.5	n/a	n/a	n/a	n/a	64.5	n/a	U
S10V000199	O	126-73-8	Tributyl phosphate	ug/kg	n/a	<108	<107	n/a	n/a	n/a	n/a	107	n/a	U
S10V000199	O	128-37-0	BHT	ug/kg	n/a	<236	<234	n/a	n/a	n/a	n/a	234	n/a	U
S10V000199	O	110-80-5	2-Ethoxyethanol	ug/kg	n/a	<182	<181	n/a	n/a	n/a	n/a	181	n/a	U
S10V000199	O	1319-77-3	Total Methylphenols	ug/kg	n/a	<107	<106	n/a	n/a	n/a	n/a	106	n/a	U
S10V000199	O	108-94-1	Cyclohexanone	ug/kg	n/a	<558	<554	n/a	n/a	n/a	n/a	554	n/a	U
S10V000199	O	59-89-2	N-Nitrosomorpholine	ug/kg	n/a	<191	<190	n/a	n/a	n/a	n/a	190	n/a	U
S10V000199	O	78-83-1	Isobutanol	ug/kg	n/a	<460	<457	n/a	n/a	n/a	n/a	457	n/a	U
S10V000200	W	16984-48-8	Fluoride	ug/g	104	<1.61E-03	3.53	n/a	n/a	n/a	n/a	0.0175	n/a	
S10V000200	W	GLYCOLAT	Glycolate	ug/g	101	<9.37E-03	<0.102	n/a	n/a	n/a	n/a	0.102	n/a	U
S10V000200	W	71-50-1	Acetate	ug/g	98.9	<6.04E-03	0.854	n/a	n/a	n/a	n/a	0.0655	n/a	B
S10V000200	W	FORMATE	Formate	ug/g	103	<4.67E-03	0.556	n/a	n/a	n/a	n/a	0.0507	n/a	B
S10V000200	W	16887-00-6	Chloride	ug/g	100	<9.98E-03	0.763	n/a	n/a	n/a	n/a	0.108	n/a	
S10V000200	W	14797-65-0	Nitrite	ug/g	102	0.0389	1.90	n/a	n/a	n/a	n/a	0.208	n/a	CB
S10V000200	W	14808-79-8	Sulfate	ug/g	101	<0.0187	7.83	n/a	n/a	n/a	n/a	0.203	n/a	
S10V000200	W	338-70-5	Oxalate	ug/g	103	<0.0231	1.20	n/a	n/a	n/a	n/a	0.251	n/a	B
S10V000200	W	24959-67-9	Bromide	ug/g	103	<0.0580	<0.629	n/a	n/a	n/a	n/a	0.629	n/a	U
S10V000200	W	14797-55-8	Nitrate	ug/g	103	<0.0208	39.7	n/a	n/a	n/a	n/a	0.226	n/a	
S10V000200	W	14265-44-2	Phosphate	ug/g	101	<0.0167	2.79	n/a	n/a	n/a	n/a	0.181	n/a	BN
S10V000201	A	7429-90-5	Aluminum	ug/g	83.2	<0.0300	6.77E+03	n/a	n/a	n/a	n/a	3.28	n/a	
S10V000201	A	7440-39-3	Barium	ug/g	84.5	<3.00E-03	66.8	n/a	n/a	n/a	n/a	0.328	n/a	
S10V000201	A	7440-41-7	Beryllium	ug/g	82.5	<1.00E-03	0.166	n/a	n/a	n/a	n/a	0.109	n/a	B
S10V000201	A	7440-69-9	Bismuth	ug/g	82.3	<0.100	36.7	n/a	n/a	n/a	n/a	10.9	n/a	BN
S10V000201	A	7440-70-2	Calcium	ug/g	78.3	<0.0500	8.06E+03	n/a	n/a	n/a	n/a	5.46	n/a	

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Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B27130

Sample Depth: 10-14

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000201	A	7440-43-9	Cadmium	ug/g	83.0	<5.00E-03	2.99	n/a	n/a	n/a	n/a	0.546	n/a	B
S10V000201	A	7440-45-1	Cerium	ug/g	89.7	<0.0300	23.7	n/a	n/a	n/a	n/a	3.28	n/a	B
S10V000201	A	7440-48-4	Cobalt	ug/g	82.2	<0.0100	8.37	n/a	n/a	n/a	n/a	1.09	n/a	B
S10V000201	A	7440-47-3	Chromium	ug/g	82.1	<5.00E-03	10.0	n/a	n/a	n/a	n/a	0.546	n/a	
S10V000201	A	7440-50-8	Copper	ug/g	86.4	<5.00E-03	11.0	n/a	n/a	n/a	n/a	0.546	n/a	
S10V000201	A	7439-89-6	Iron	ug/g	82.8	<5.00E-03	2.21E+04	n/a	n/a	n/a	n/a	0.546	n/a	
S10V000201	A	7440-09-7	Potassium	ug/g	82.0	<0.500	1.06E+03	n/a	n/a	n/a	n/a	54.6	n/a	
S10V000201	A	7439-91-0	Lanthanum	ug/g	85.3	<3.00E-03	9.86	n/a	n/a	n/a	n/a	0.328	n/a	
S10V000201	A	7439-93-2	Lithium	ug/g	86.1	<3.00E-03	7.29	n/a	n/a	n/a	n/a	0.328	n/a	
S10V000201	A	7439-95-4	Magnesium	ug/g	80.0	<0.0500	4.55E+03	n/a	n/a	n/a	n/a	5.46	n/a	
S10V000201	A	7439-96-5	Manganese	ug/g	81.4	<3.00E-03	331	n/a	n/a	n/a	n/a	0.328	n/a	
S10V000201	A	7439-98-7	Molybdenum	ug/g	94.9	<0.0200	<2.18	n/a	n/a	n/a	n/a	2.18	n/a	U
S10V000201	A	7440-23-5	Sodium	ug/g	87.0	<0.100	300	n/a	n/a	n/a	n/a	10.9	n/a	
S10V000201	A	7440-02-0	Nickel	ug/g	81.1	<0.0200	8.69	n/a	n/a	n/a	n/a	2.18	n/a	B
S10V000201	A	7723-14-0	Phosphorus	ug/g	91.7	<0.0500	772	n/a	n/a	n/a	n/a	5.46	n/a	
S10V000201	A	7704-34-9	Sulfur	ug/g	93.0	<0.100	66.0	n/a	n/a	n/a	n/a	10.9	n/a	B
S10V000201	A	7440-21-3	Silicon	ug/g	77.7	<0.0300	32.9	n/a	n/a	n/a	n/a	3.28	n/a	
S10V000201	A	7440-24-6	Strontium	ug/g	84.6	<3.00E-03	29.9	n/a	n/a	n/a	n/a	0.328	n/a	
S10V000201	A	7440-32-6	Titanium	ug/g	92.6	<5.00E-03	1.58E+03	n/a	n/a	n/a	n/a	0.546	n/a	
S10V000201	A	7440-62-2	Vanadium	ug/g	84.2	<5.00E-03	55.6	n/a	n/a	n/a	n/a	0.546	n/a	
S10V000201	A	7440-65-5	Yttrium	ug/g	85.5	<2.00E-03	8.82	n/a	n/a	n/a	n/a	0.218	n/a	
S10V000201	A	7440-66-6	Zinc	ug/g	83.9	<5.00E-03	45.3	n/a	n/a	n/a	n/a	0.546	n/a	
S10V000201	A	7440-67-7	Zirconium	ug/g	88.7	<5.00E-03	13.9	n/a	n/a	n/a	n/a	0.546	n/a	N
S10V000201	A	14269-63-7	Thorium-230	ug/g	n/a	<2.80E-06	<3.06E-05	n/a	n/a	n/a	n/a	3.06E-05	n/a	U
S10V000201	A	TH-232	Thorium-232	ug/g	106	<6.80E-05	3.08	n/a	n/a	n/a	n/a	7.42E-04	n/a	
S10V000201	A	13968-55-3	Uranium-233	ug/g	n/a	<4.00E-06	1.91E-04	n/a	n/a	n/a	n/a	4.37E-05	n/a	
S10V000201	A	13966-29-5	Uranium-234	ug/g	n/a	2.15E-06	<2.18E-05	n/a	n/a	n/a	n/a	2.18E-05	n/a	U
S10V000201	A	15117-96-1	Uranium-235	ug/g	104	<4.40E-06	3.11E-03	n/a	n/a	n/a	n/a	4.80E-05	n/a	
S10V000201	A	13982-70-2	Uranium-236	ug/g	n/a	<1.60E-06	<1.75E-05	n/a	n/a	n/a	n/a	1.75E-05	n/a	U

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J - Estimated
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M - RPD Outside Range
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U - Less Than Detection Limit
C - Blank Contamination

Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B27130

Sample Depth: 10-14

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000201	A	13994-20-2	Neptunium-237	ug/g	106	<2.12E-05	<2.31E-04	n/a	n/a	n/a	n/a	2.31E-04	n/a	U
S10V000201	A	U-238	Uranium-238	ug/g	110	<2.20E-04	0.468	n/a	n/a	n/a	n/a	2.40E-03	n/a	
S10V000201	A	7440-22-4	Silver	ug/g	82.2	<3.20E-03	0.0694	n/a	n/a	n/a	n/a	0.0349	n/a	B
S10V000201	A	7440-38-2	Arsenic	ug/g	108	<0.0168	4.90	n/a	n/a	n/a	n/a	0.183	n/a	N
S10V000201	A	7439-92-1	Lead	ug/g	84.0	<0.0124	4.31	n/a	n/a	n/a	n/a	0.135	n/a	
S10V000201	A	7782-49-2	Selenium	ug/g	86.4	<0.0244	0.685	n/a	n/a	n/a	n/a	0.266	n/a	B
S10V000201	A	7440-28-0	Thallium	ug/g	103	<1.20E-03	0.703	n/a	n/a	n/a	n/a	0.0131	n/a	C
S10V000202	S	14798-03-9	Ammonium	ug/g	101	<0.0120	1.73	n/a	n/a	n/a	n/a	0.469	n/a	B
S10V000203	A	14133-76-7	Technetium-99	ug/g	93.6	<1.50E-04	<1.76E-03	n/a	n/a	n/a	n/a	1.76E-03	n/a	U
S10V000203	A	SN-117	Tin-117	ug/g	104	<5.50E-03	<0.0646	n/a	n/a	n/a	n/a	0.0646	n/a	U
S10V000203	A	15832-50-5	Tin-126	ug/g	n/a	<1.00E-04	<1.17E-03	n/a	n/a	n/a	n/a	1.17E-03	n/a	U
S10V001168	W	10028-17-8	Tritium	uCi/g	87.9	<3.83E-06	2.50E-06	n/a	n/a	n/a	n/a	2.45E-06	136.6	
S10V001207	A	7440-36-0	Antimony	ug/g	99.4	<0.0100	0.161	n/a	n/a	n/a	n/a	9.24E-03	n/a	M
S10V002144	WV	14133-76-7	Technetium-99	ug/g	109	<3.00E-06	<3.01E-06	n/a	n/a	n/a	n/a	3.01E-06	n/a	U
S10V002235	W	14762-75-5	Carbon-14	uCi/g	94.0	<3.49E-07	<2.81E-06	n/a	n/a	n/a	n/a	2.81E-06	n/a	U

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Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B23TL6

Sample Depth: 10-12

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000190		71-55-6	1,1,1-Trichloroethane	ug/kg	n/a	<0.0920	<0.0749	n/a	n/a	n/a	n/a	0.0749	n/a	U
S10V000190		79-00-5	1,1,2-Trichloroethane	ug/kg	n/a	<0.166	<0.135	n/a	n/a	n/a	n/a	0.135	n/a	U
S10V000190		79-34-5	1,1,2,2-Tetrachloroethane	ug/kg	n/a	<0.212	<0.172	n/a	n/a	n/a	n/a	0.172	n/a	U
S10V000190		75-35-4	1,1-Dichloroethene	ug/kg	96.6	<0.423	<0.345	n/a	n/a	n/a	n/a	0.345	n/a	U
S10V000190		107-06-2	1,2-Dichloroethane	ug/kg	n/a	<0.0538	<0.0438	n/a	n/a	n/a	n/a	0.0438	n/a	U
S10V000190		71-36-3	1-Butanol	ug/kg	102	<10.3	<8.38	n/a	n/a	n/a	n/a	8.38	n/a	U
S10V000190		591-78-6	2-Hexanone	ug/kg	n/a	3.78	2.08	n/a	n/a	n/a	n/a	1.93	n/a	BJ
S10V000190		108-10-1	Hexone	ug/kg	117	<1.71	<1.39	n/a	n/a	n/a	n/a	1.39	n/a	U
S10V000190		67-64-1	Acetone	ug/kg	103	<2.20	2.53	n/a	n/a	n/a	n/a	1.79	n/a	J
S10V000190		71-43-2	Benzene	ug/kg	93.6	<0.147	<0.120	n/a	n/a	n/a	n/a	0.120	n/a	U
S10V000190		75-15-0	Carbon disulfide	ug/kg	n/a	<0.161	<0.131	n/a	n/a	n/a	n/a	0.131	n/a	U
S10V000190		56-23-5	Carbon tetrachloride	ug/kg	n/a	<0.0934	<0.0761	n/a	n/a	n/a	n/a	0.0761	n/a	U
S10V000190		67-66-3	Chloroform	ug/kg	n/a	<0.131	<0.107	n/a	n/a	n/a	n/a	0.107	n/a	U
S10V000190		108-90-7	Chlorobenzene	ug/kg	95.9	<0.0864	<0.0704	n/a	n/a	n/a	n/a	0.0704	n/a	U
S10V000190		100-41-4	Ethylbenzene	ug/kg	n/a	<0.107	<0.0873	n/a	n/a	n/a	n/a	0.0873	n/a	U
S10V000190		1330-20-7	Xylenes (total)	ug/kg	n/a	<0.203	<0.165	n/a	n/a	n/a	n/a	0.165	n/a	U
S10V000190		78-93-3	2-Butanone	ug/kg	106	<1.96	<1.60	n/a	n/a	n/a	n/a	1.60	n/a	U
S10V000190		75-09-2	Methylenechloride	ug/kg	n/a	<0.0640	<0.0521	n/a	n/a	n/a	n/a	0.0521	n/a	U
S10V000190		127-18-4	Tetrachloroethene	ug/kg	n/a	<0.110	<0.0894	n/a	n/a	n/a	n/a	0.0894	n/a	U
S10V000190		108-88-3	Toluene	ug/kg	97.2	<0.0802	0.316	n/a	n/a	n/a	n/a	0.0653	n/a	J
S10V000190		10061-02-6	trans-1,3-Dichloropropene	ug/kg	n/a	<0.271	<0.221	n/a	n/a	n/a	n/a	0.221	n/a	U
S10V000190		79-01-6	Trichloroethene	ug/kg	89.5	<0.121	<0.0985	n/a	n/a	n/a	n/a	0.0985	n/a	U
S10V000190		75-01-4	Vinyl chloride	ug/kg	n/a	<0.173	<0.141	n/a	n/a	n/a	n/a	0.141	n/a	U
S10V000190		156-59-2	cis-Dichloroethylene	ug/kg	n/a	<0.182	<0.148	n/a	n/a	n/a	n/a	0.148	n/a	U
S10V000190		156-60-5	trans-Dichloroethylene	ug/kg	n/a	<0.303	<0.247	n/a	n/a	n/a	n/a	0.247	n/a	U
S10V000190		76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ug/kg	n/a	<0.116	<0.0946	n/a	n/a	n/a	n/a	0.0946	n/a	U
S10V000190		79-46-9	2-Nitropropane	ug/kg	n/a	<0.588	<0.479	n/a	n/a	n/a	n/a	0.479	n/a	U
S10V000190		141-78-6	Ethyl acetate	ug/kg	n/a	<0.587	<0.478	n/a	n/a	n/a	n/a	0.478	n/a	U
S10V000190		60-29-7	Diethyl ether	ug/kg	n/a	<0.256	<0.209	n/a	n/a	n/a	n/a	0.209	n/a	U

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C - Blank Contamination

Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B23TL6

Sample Depth: 10-12

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000190		75-69-4	Trichlorofluoromethane	ug/kg	n/a	<0.0940	<0.0765	n/a	n/a	n/a	n/a	0.0765	n/a	U
S10V000190		95-47-6	o-Xylene	ug/kg	n/a	<0.0920	<0.0749	n/a	n/a	n/a	n/a	0.0749	n/a	U
S10V000190		179601-23-1	m,p-Xylene	ug/kg	n/a	<0.167	<0.136	n/a	n/a	n/a	n/a	0.136	n/a	U

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Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B27131

Sample Depth: 14-18

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000231		%WATERA	%WATER-APD	%	n/a	n/a	5.780	n/a	n/a	n/a	n/a	0.01000	n/a	
S10V000231		57-12-5	Cyanide	ug/g	100	<0.0370	<2.61	n/a	n/a	n/a	n/a	2.61	n/a	U
S10V000231		7439-97-6	Mercury	ug/g	101	<1.00E-04	<8.01E-03	n/a	n/a	n/a	n/a	8.01E-03	n/a	U
S10V000231		PH	pH	unitless	n/a	n/a	7.86	n/a	n/a	n/a	n/a	0.0100	n/a	
S10V000231		12597-04-5	Sulfide	ug/g	105	<0.180	24.5	23.9	24.2	2.58	97.7	7.12	n/a	B
S10V000233		13966-00-2	Potassium-40	uCi/g	n/a	n/a	1.04E-05	n/a	n/a	n/a	n/a	5.77E-06	36.50	
S10V000233		10198-40-0	Cobalt-60	uCi/g	102	<3.08E-07	<2.71E-07	n/a	n/a	n/a	n/a	2.71E-07	n/a	U
S10V000233		14234-35-6	Antimony-125	uCi/g	n/a	<6.68E-07	<7.15E-07	n/a	n/a	n/a	n/a	7.15E-07	n/a	U
S10V000233		10045-97-3	Cesium-137	uCi/g	107	<3.81E-07	<3.55E-07	n/a	n/a	n/a	n/a	3.55E-07	n/a	U
S10V000233		14683-23-9	Europium-152	uCi/g	n/a	<1.37E-06	<1.28E-06	n/a	n/a	n/a	n/a	1.28E-06	n/a	U
S10V000233		15585-10-1	Europium-154	uCi/g	n/a	<9.15E-07	<8.47E-07	n/a	n/a	n/a	n/a	8.47E-07	n/a	U
S10V000233		14391-16-3	Europium-155	uCi/g	n/a	<4.54E-07	<4.44E-07	n/a	n/a	n/a	n/a	4.44E-07	n/a	U
S10V000233		15092-94-1	Lead-212	uCi/g	n/a	n/a	8.16E-07	n/a	n/a	n/a	n/a	5.57E-07	29.49	
S10V000233		14274-82-9	Thorium-228	uCi/g	n/a	<8.10E-06	<8.80E-06	n/a	n/a	n/a	n/a	8.80E-06	n/a	U
S10V000233		15065-10-8	Thorium-234	uCi/g	n/a	<2.56E-06	<3.00E-06	n/a	n/a	n/a	n/a	3.00E-06	n/a	U
S10V000233		15046-84-1	Iodine-129	uCi/g	117	<2.00E-07	<1.76E-07	n/a	n/a	n/a	n/a	1.76E-07	n/a	U
S10V000234	O	120-82-1	1,2,4-Trichlorobenzene	ug/kg	73.2	<77.4	<77.0	n/a	n/a	n/a	67.1	77.0	n/a	U
S10V000234	O	95-50-1	1,2-Dichlorobenzene	ug/kg	n/a	<101	<100	n/a	n/a	n/a	n/a	100	n/a	U
S10V000234	O	121-14-2	2,4-Dinitrotoluene	ug/kg	84.1	<38.1	<37.9	n/a	n/a	n/a	86.5	37.9	n/a	U
S10V000234	O	95-95-4	2,4,5-Trichlorophenol	ug/kg	n/a	<44.0	<43.8	n/a	n/a	n/a	n/a	43.8	n/a	U
S10V000234	O	88-06-2	2,4,6-Trichlorophenol	ug/kg	n/a	<49.5	<49.2	n/a	n/a	n/a	n/a	49.2	n/a	U
S10V000234	O	95-48-7	2-Methylphenol	ug/kg	n/a	<57.5	<57.2	n/a	n/a	n/a	n/a	57.2	n/a	U
S10V000234	O	88-75-5	2-Nitrophenol	ug/kg	n/a	<53.7	<53.4	n/a	n/a	n/a	n/a	53.4	n/a	U
S10V000234	O	65794-96-9	3 &4 Methylphenol	ug/kg	n/a	<51.4	<51.1	n/a	n/a	n/a	n/a	51.1	n/a	U
S10V000234	O	83-32-9	Acenaphthene	ug/kg	76.9	<17.6	<17.5	n/a	n/a	n/a	71.4	17.5	n/a	U
S10V000234	O	56-55-3	Benzo(a)anthracene	ug/kg	n/a	<37.8	<37.6	n/a	n/a	n/a	n/a	37.6	n/a	U
S10V000234	O	205-99-2	Benzo(b)fluoranthene	ug/kg	n/a	<48.9	<48.6	n/a	n/a	n/a	n/a	48.6	n/a	U
S10V000234	O	50-32-8	Benzo(a)pyrene	ug/kg	n/a	<41.2	<41.0	n/a	n/a	n/a	n/a	41.0	n/a	U
S10V000234	O	117-81-7	Bis(2-ethylhexyl) phthalate	ug/kg	n/a	<590	<587	n/a	n/a	n/a	n/a	587	n/a	U

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Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B27131

Sample Depth: 14-18

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000234	O	207-08-9	Benzo(k)fluoranthene	ug/kg	n/a	<39.1	<38.9	n/a	n/a	n/a	n/a	38.9	n/a	U
S10V000234	O	85-68-7	Butylbenzylphthalate	ug/kg	n/a	107	102	n/a	n/a	n/a	n/a	49.7	n/a	BJ
S10V000234	O	59-50-7	4-Chloro-3-methylphenol	ug/kg	83.1	<43.2	<43.0	n/a	n/a	n/a	83.3	43.0	n/a	U
S10V000234	O	95-57-8	2-Chlorophenol	ug/kg	77.0	<66.5	<66.1	n/a	n/a	n/a	71.9	66.1	n/a	U
S10V000234	O	218-01-9	Chrysene	ug/kg	n/a	<81.4	<80.9	n/a	n/a	n/a	n/a	80.9	n/a	U
S10V000234	O	53-70-3	Dibenz[a,h]anthracene	ug/kg	n/a	<51.1	<50.8	n/a	n/a	n/a	n/a	50.8	n/a	U
S10V000234	O	84-74-2	Di-n-butylphthalate	ug/kg	n/a	<562	<559	n/a	n/a	n/a	n/a	559	n/a	U
S10V000234	O	117-84-0	Di-n-octylphthalate	ug/kg	n/a	<47.7	320	n/a	n/a	n/a	n/a	47.4	n/a	J
S10V000234	O	621-64-7	N-Nitroso-di-n-dipropylamine	ug/kg	69.8	<58.1	<57.8	n/a	n/a	n/a	66.7	57.8	n/a	U
S10V000234	O	206-44-0	Fluoranthene	ug/kg	n/a	<35.4	<35.2	n/a	n/a	n/a	n/a	35.2	n/a	U
S10V000234	O	87-68-3	Hexachlorobutadiene	ug/kg	n/a	<69.7	<69.3	n/a	n/a	n/a	n/a	69.3	n/a	U
S10V000234	O	67-72-1	Hexachloroethane	ug/kg	n/a	<112	<111	n/a	n/a	n/a	n/a	111	n/a	U
S10V000234	O	193-39-5	Indeno(1,2,3-cd)pyrene	ug/kg	n/a	<51.0	<50.7	n/a	n/a	n/a	n/a	50.7	n/a	U
S10V000234	O	91-20-3	Naphthalene	ug/kg	n/a	<62.6	<62.2	n/a	n/a	n/a	n/a	62.2	n/a	U
S10V000234	O	98-95-3	Nitrobenzene	ug/kg	n/a	<64.6	<64.2	n/a	n/a	n/a	n/a	64.2	n/a	U
S10V000234	O	129-00-0	Pyrene	ug/kg	91.3	<62.9	<62.5	n/a	n/a	n/a	90.6	62.5	n/a	U
S10V000234	O	110-86-1	Pyridine	ug/kg	n/a	<65.0	<64.6	n/a	n/a	n/a	n/a	64.6	n/a	U
S10V000234	O	126-73-8	Tributyl phosphate	ug/kg	n/a	<108	<107	n/a	n/a	n/a	n/a	107	n/a	U
S10V000234	O	128-37-0	BHT	ug/kg	n/a	<236	<234	n/a	n/a	n/a	n/a	234	n/a	U
S10V000234	O	110-80-5	2-Ethoxyethanol	ug/kg	n/a	<182	<181	n/a	n/a	n/a	n/a	181	n/a	U
S10V000234	O	1319-77-3	Total Methylphenols	ug/kg	n/a	<107	<106	n/a	n/a	n/a	n/a	106	n/a	U
S10V000234	O	108-94-1	Cyclohexanone	ug/kg	n/a	<558	<555	n/a	n/a	n/a	n/a	555	n/a	U
S10V000234	O	59-89-2	N-Nitrosomorpholine	ug/kg	n/a	<191	<190	n/a	n/a	n/a	n/a	190	n/a	U
S10V000234	O	78-83-1	Isobutanol	ug/kg	n/a	<460	<458	n/a	n/a	n/a	n/a	458	n/a	U
S10V000235	W	16984-48-8	Fluoride	ug/g	104	<1.61E-03	1.92	n/a	n/a	n/a	n/a	0.0173	n/a	
S10V000235	W	GLYCOLAT	Glycolate	ug/g	101	<9.37E-03	<0.101	n/a	n/a	n/a	n/a	0.101	n/a	U
S10V000235	W	71-50-1	Acetate	ug/g	98.9	<6.04E-03	0.478	n/a	n/a	n/a	n/a	0.0649	n/a	B
S10V000235	W	FORMATE	Formate	ug/g	103	<4.67E-03	0.318	n/a	n/a	n/a	n/a	0.0501	n/a	B
S10V000235	W	16887-00-6	Chloride	ug/g	100	<9.98E-03	0.573	n/a	n/a	n/a	n/a	0.107	n/a	

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B - Blank Contamination
J - Estimated
T - MS/MSD Outside Range
M - RPD Outside Range
B - Estimated
N - MS/MSD Outside Range
U - Less Than Detection Limit
C - Blank Contamination

Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B27131

Sample Depth: 14-18

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000235	W	14797-65-0	Nitrite	ug/g	102	0.0389	4.75	n/a	n/a	n/a	n/a	0.206	n/a	
S10V000235	W	14808-79-8	Sulfate	ug/g	101	<0.0187	9.10	n/a	n/a	n/a	n/a	0.201	n/a	
S10V000235	W	338-70-5	Oxalate	ug/g	103	<0.0231	1.25	n/a	n/a	n/a	n/a	0.248	n/a	B
S10V000235	W	24959-67-9	Bromide	ug/g	103	<0.0580	<0.623	n/a	n/a	n/a	n/a	0.623	n/a	U
S10V000235	W	14797-55-8	Nitrate	ug/g	103	<0.0208	12.2	n/a	n/a	n/a	n/a	0.223	n/a	
S10V000235	W	14265-44-2	Phosphate	ug/g	101	<0.0167	2.32	n/a	n/a	n/a	n/a	0.179	n/a	BN
S10V000236	A	7429-90-5	Aluminum	ug/g	83.2	<0.0300	7.11E+03	n/a	n/a	n/a	n/a	3.05	n/a	
S10V000236	A	7440-39-3	Barium	ug/g	84.5	<3.00E-03	75.5	n/a	n/a	n/a	n/a	0.305	n/a	
S10V000236	A	7440-41-7	Beryllium	ug/g	82.5	<1.00E-03	0.135	n/a	n/a	n/a	n/a	0.102	n/a	B
S10V000236	A	7440-69-9	Bismuth	ug/g	82.3	<0.100	19.4	n/a	n/a	n/a	n/a	10.2	n/a	BN
S10V000236	A	7440-70-2	Calcium	ug/g	78.3	<0.0500	8.77E+03	n/a	n/a	n/a	n/a	5.09	n/a	
S10V000236	A	7440-43-9	Cadmium	ug/g	83.0	<5.00E-03	2.97	n/a	n/a	n/a	n/a	0.509	n/a	B
S10V000236	A	7440-45-1	Cerium	ug/g	89.7	<0.0300	23.7	n/a	n/a	n/a	n/a	3.05	n/a	B
S10V000236	A	7440-48-4	Cobalt	ug/g	82.2	<0.0100	9.35	n/a	n/a	n/a	n/a	1.02	n/a	B
S10V000236	A	7440-47-3	Chromium	ug/g	82.1	<5.00E-03	11.0	n/a	n/a	n/a	n/a	0.509	n/a	
S10V000236	A	7440-50-8	Copper	ug/g	86.4	<5.00E-03	12.2	n/a	n/a	n/a	n/a	0.509	n/a	
S10V000236	A	7439-89-6	Iron	ug/g	82.8	<5.00E-03	2.40E+04	n/a	n/a	n/a	n/a	0.509	n/a	
S10V000236	A	7440-09-7	Potassium	ug/g	82.0	<0.500	1.07E+03	n/a	n/a	n/a	n/a	50.9	n/a	
S10V000236	A	7439-91-0	Lanthanum	ug/g	85.3	<3.00E-03	9.99	n/a	n/a	n/a	n/a	0.305	n/a	
S10V000236	A	7439-93-2	Lithium	ug/g	86.1	<3.00E-03	7.62	n/a	n/a	n/a	n/a	0.305	n/a	
S10V000236	A	7439-95-4	Magnesium	ug/g	80.0	<0.0500	4.58E+03	n/a	n/a	n/a	n/a	5.09	n/a	
S10V000236	A	7439-96-5	Manganese	ug/g	81.4	<3.00E-03	359	n/a	n/a	n/a	n/a	0.305	n/a	
S10V000236	A	7439-98-7	Molybdenum	ug/g	94.9	<0.0200	<2.04	n/a	n/a	n/a	n/a	2.04	n/a	U
S10V000236	A	7440-23-5	Sodium	ug/g	87.0	<0.100	315	n/a	n/a	n/a	n/a	10.2	n/a	
S10V000236	A	7440-02-0	Nickel	ug/g	81.1	<0.0200	9.19	n/a	n/a	n/a	n/a	2.04	n/a	B
S10V000236	A	7723-14-0	Phosphorus	ug/g	91.7	<0.0500	839	n/a	n/a	n/a	n/a	5.09	n/a	
S10V000236	A	7704-34-9	Sulfur	ug/g	93.0	<0.100	70.3	n/a	n/a	n/a	n/a	10.2	n/a	B
S10V000236	A	7440-21-3	Silicon	ug/g	77.7	<0.0300	27.5	n/a	n/a	n/a	n/a	3.05	n/a	B
S10V000236	A	7440-24-6	Strontium	ug/g	84.6	<3.00E-03	31.5	n/a	n/a	n/a	n/a	0.305	n/a	

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C - Blank Contamination

Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B27131

Sample Depth: 14-18

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000236	A	7440-32-6	Titanium	ug/g	92.6	<5.00E-03	1.63E+03	n/a	n/a	n/a	n/a	0.509	n/a	
S10V000236	A	7440-62-2	Vanadium	ug/g	84.2	<5.00E-03	60.0	n/a	n/a	n/a	n/a	0.509	n/a	
S10V000236	A	7440-65-5	Yttrium	ug/g	85.5	<2.00E-03	9.15	n/a	n/a	n/a	n/a	0.204	n/a	
S10V000236	A	7440-66-6	Zinc	ug/g	83.9	<5.00E-03	42.3	n/a	n/a	n/a	n/a	0.509	n/a	
S10V000236	A	7440-67-7	Zirconium	ug/g	88.7	<5.00E-03	7.28	n/a	n/a	n/a	n/a	0.509	n/a	N
S10V000236	A	14269-63-7	Thorium-230	ug/g	n/a	<2.80E-06	<2.85E-05	n/a	n/a	n/a	n/a	2.85E-05	n/a	U
S10V000236	A	TH-232	Thorium-232	ug/g	106	<6.80E-05	2.73	n/a	n/a	n/a	n/a	6.92E-04	n/a	
S10V000236	A	13968-55-3	Uranium-233	ug/g	n/a	<4.00E-06	1.72E-04	n/a	n/a	n/a	n/a	4.07E-05	n/a	
S10V000236	A	13966-29-5	Uranium-234	ug/g	n/a	2.15E-06	4.26E-05	n/a	n/a	n/a	n/a	2.04E-05	n/a	B
S10V000236	A	15117-96-1	Uranium-235	ug/g	104	<4.40E-06	3.37E-03	n/a	n/a	n/a	n/a	4.48E-05	n/a	
S10V000236	A	13982-70-2	Uranium-236	ug/g	n/a	<1.60E-06	<1.63E-05	n/a	n/a	n/a	n/a	1.63E-05	n/a	U
S10V000236	A	13994-20-2	Neptunium-237	ug/g	106	<2.12E-05	<2.16E-04	n/a	n/a	n/a	n/a	2.16E-04	n/a	U
S10V000236	A	U-238	Uranium-238	ug/g	110	<2.20E-04	0.477	n/a	n/a	n/a	n/a	2.24E-03	n/a	
S10V000236	A	7440-22-4	Silver	ug/g	82.2	<3.20E-03	0.0419	n/a	n/a	n/a	n/a	0.0326	n/a	B
S10V000236	A	7440-38-2	Arsenic	ug/g	108	<0.0168	3.77	n/a	n/a	n/a	n/a	0.171	n/a	N
S10V000236	A	7439-92-1	Lead	ug/g	84.0	<0.0124	4.30	n/a	n/a	n/a	n/a	0.126	n/a	
S10V000236	A	7782-49-2	Selenium	ug/g	86.4	<0.0244	0.438	n/a	n/a	n/a	n/a	0.248	n/a	B
S10V000236	A	7440-28-0	Thallium	ug/g	103	<1.20E-03	0.661	n/a	n/a	n/a	n/a	0.0122	n/a	C
S10V000237	S	14798-03-9	Ammonium	ug/g	97.6	0.0298	3.63	1.80	2.71	67.4	96.6	0.464	n/a	CB
S10V000238	A	14133-76-7	Technetium-99	ug/g	93.6	<1.50E-04	<1.64E-03	n/a	n/a	n/a	n/a	1.64E-03	n/a	U
S10V000238	A	SN-117	Tin-117	ug/g	104	<5.50E-03	<0.0601	n/a	n/a	n/a	n/a	0.0601	n/a	U
S10V000238	A	15832-50-5	Tin-126	ug/g	n/a	<1.00E-04	<1.09E-03	n/a	n/a	n/a	n/a	1.09E-03	n/a	U
S10V000239	E	CM-243/244	Curium-243/244	uCi/g	n/a	<2.56E-07	<2.12E-07	n/a	n/a	n/a	n/a	2.12E-07	n/a	U
S10V000239	E	14596-10-2	Americium-241	uCi/g	104	<6.41E-07	<5.31E-07	n/a	n/a	n/a	n/a	5.31E-07	n/a	U
S10V000239	E	15510-73-3	Curium-242	uCi/g	n/a	<2.56E-07	<2.12E-07	n/a	n/a	n/a	n/a	2.12E-07	n/a	U
S10V000239	E	PU-239/240	Plutonium-239/240	uCi/g	99.8	<3.55E-07	<3.13E-07	n/a	n/a	n/a	n/a	3.13E-07	n/a	U
S10V000239	E	13981-16-3	Plutonium-238	uCi/g	n/a	<3.55E-07	<3.13E-07	n/a	n/a	n/a	n/a	3.13E-07	n/a	U
S10V000240	E	SR-89/90	Strontium-89/90	uCi/g	99.4	<6.99E-07	<2.62E-07	n/a	n/a	n/a	n/a	2.62E-07	n/a	U
S10V000241	E	13981-37-8	Nickel-63	uCi/g	103	<5.87E-06	<8.76E-06	n/a	n/a	n/a	n/a	8.76E-06	n/a	U

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C - Blank Contamination

Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B27131

Sample Depth: 14-18

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000241	E	15758-45-9	Selenium-79	uCi/g	n/a	4.38E-06	<3.81E-06	n/a	n/a	n/a	n/a	3.81E-06	n/a	U
S10V001169	W	10028-17-8	Tritium	uCi/g	94.2	<4.07E-06	4.21E-06	n/a	n/a	n/a	n/a	2.48E-06	74.703	
S10V001208	A	7440-36-0	Antimony	ug/g	99.9	<2.00E-04	0.114	n/a	n/a	n/a	n/a	9.41E-03	n/a	
S10V002145	WV	14133-76-7	Technetium-99	ug/g	109	<3.00E-06	<3.06E-06	n/a	n/a	n/a	n/a	3.06E-06	n/a	U
S10V002236	W	14762-75-5	Carbon-14	uCi/g	95.1	<1.33E-07	<2.56E-06	n/a	n/a	n/a	n/a	2.56E-06	n/a	U

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Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B23TM6

Sample Depth: 27-29

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000265		%WATERA	%WATER-APD	%	n/a	n/a	13.78	n/a	n/a	n/a	n/a	0.01000	n/a	
S10V000265		57-12-5	Cyanide	ug/g	105	<0.0370	<2.66	<2.63	n/a	n/a	89.4	2.66	n/a	U
S10V000265		7439-97-6	Mercury	ug/g	101	<1.00E-04	<8.04E-03	n/a	n/a	n/a	n/a	8.04E-03	n/a	U
S10V000265		PH	pH	unitless	n/a	n/a	8.71	n/a	n/a	n/a	n/a	0.0100	n/a	
S10V000265		12597-04-5	Sulfide	ug/g	105	<0.180	20.2	n/a	n/a	n/a	n/a	7.05	n/a	B
S10V000267		13966-00-2	Potassium-40	uCi/g	n/a	n/a	8.93E-06	n/a	n/a	n/a	n/a	5.40E-06	39.46	
S10V000267		10198-40-0	Cobalt-60	uCi/g	102	<3.08E-07	<2.93E-07	n/a	n/a	n/a	n/a	2.93E-07	n/a	U
S10V000267		14234-35-6	Antimony-125	uCi/g	n/a	<6.68E-07	<7.08E-07	n/a	n/a	n/a	n/a	7.08E-07	n/a	U
S10V000267		10045-97-3	Cesium-137	uCi/g	107	<3.81E-07	<3.52E-07	n/a	n/a	n/a	n/a	3.52E-07	n/a	U
S10V000267		14683-23-9	Europium-152	uCi/g	n/a	<1.37E-06	<1.25E-06	n/a	n/a	n/a	n/a	1.25E-06	n/a	U
S10V000267		15585-10-1	Europium-154	uCi/g	n/a	<9.15E-07	<8.65E-07	n/a	n/a	n/a	n/a	8.65E-07	n/a	U
S10V000267		14391-16-3	Europium-155	uCi/g	n/a	<4.54E-07	<4.30E-07	n/a	n/a	n/a	n/a	4.30E-07	n/a	U
S10V000267		15092-94-1	Lead-212	uCi/g	n/a	n/a	5.20E-07	n/a	n/a	n/a	n/a	4.60E-07	39.98	
S10V000267		14733-03-0	Bismuth-214	uCi/g	n/a	n/a	7.59E-07	n/a	n/a	n/a	n/a	5.69E-07	45.09	
S10V000267		15067-28-4	Lead-214	uCi/g	n/a	n/a	9.76E-07	n/a	n/a	n/a	n/a	6.09E-07	29.51	
S10V000267		14274-82-9	Thorium-228	uCi/g	n/a	<8.10E-06	<8.38E-06	n/a	n/a	n/a	n/a	8.38E-06	n/a	U
S10V000267		15065-10-8	Thorium-234	uCi/g	n/a	<2.56E-06	<2.89E-06	n/a	n/a	n/a	n/a	2.89E-06	n/a	U
S10V000267		15046-84-1	Iodine-129	uCi/g	117	<2.00E-07	<1.65E-07	n/a	n/a	n/a	n/a	1.65E-07	n/a	U
S10V000268	O	120-82-1	1,2,4-Trichlorobenzene	ug/kg	73.2	<77.4	<76.6	n/a	n/a	n/a	n/a	76.6	n/a	U
S10V000268	O	95-50-1	1,2-Dichlorobenzene	ug/kg	n/a	<101	<99.7	n/a	n/a	n/a	n/a	99.7	n/a	U
S10V000268	O	121-14-2	2,4-Dinitrotoluene	ug/kg	84.1	<38.1	<37.7	n/a	n/a	n/a	n/a	37.7	n/a	U
S10V000268	O	95-95-4	2,4,5-Trichlorophenol	ug/kg	n/a	<44.0	<43.6	n/a	n/a	n/a	n/a	43.6	n/a	U
S10V000268	O	88-06-2	2,4,6-Trichlorophenol	ug/kg	n/a	<49.5	<49.0	n/a	n/a	n/a	n/a	49.0	n/a	U
S10V000268	O	95-48-7	2-Methylphenol	ug/kg	n/a	<57.5	<56.9	n/a	n/a	n/a	n/a	56.9	n/a	U
S10V000268	O	88-75-5	2-Nitrophenol	ug/kg	n/a	<53.7	<53.2	n/a	n/a	n/a	n/a	53.2	n/a	U
S10V000268	O	65794-96-9	3 &4 Methylphenol	ug/kg	n/a	<51.4	<50.9	n/a	n/a	n/a	n/a	50.9	n/a	U
S10V000268	O	83-32-9	Acenaphthene	ug/kg	76.9	<17.6	<17.4	n/a	n/a	n/a	n/a	17.4	n/a	U
S10V000268	O	56-55-3	Benzo(a)anthracene	ug/kg	n/a	<37.8	<37.4	n/a	n/a	n/a	n/a	37.4	n/a	U
S10V000268	O	205-99-2	Benzo(b)fluoranthene	ug/kg	n/a	<48.9	<48.4	n/a	n/a	n/a	n/a	48.4	n/a	U

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N - MS/MSD Outside Range
U - Less Than Detection Limit
C - Blank Contamination

Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B23TM6

Sample Depth: 27-29

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000268	O	50-32-8	Benzo(a)pyrene	ug/kg	n/a	<41.2	<40.8	n/a	n/a	n/a	n/a	40.8	n/a	U
S10V000268	O	117-81-7	Bis(2-ethylhexyl) phthalate	ug/kg	n/a	<590	<584	n/a	n/a	n/a	n/a	584	n/a	U
S10V000268	O	207-08-9	Benzo(k)fluoranthene	ug/kg	n/a	<39.1	<38.7	n/a	n/a	n/a	n/a	38.7	n/a	U
S10V000268	O	85-68-7	Butylbenzylphthalate	ug/kg	n/a	107	107	n/a	n/a	n/a	n/a	49.5	n/a	BJ
S10V000268	O	59-50-7	4-Chloro-3-methylphenol	ug/kg	83.1	<43.2	<42.8	n/a	n/a	n/a	n/a	42.8	n/a	U
S10V000268	O	95-57-8	2-Chlorophenol	ug/kg	77.0	<66.5	<65.9	n/a	n/a	n/a	n/a	65.9	n/a	U
S10V000268	O	218-01-9	Chrysene	ug/kg	n/a	<81.4	<80.6	n/a	n/a	n/a	n/a	80.6	n/a	U
S10V000268	O	53-70-3	Dibenz[a,h]anthracene	ug/kg	n/a	<51.1	<50.6	n/a	n/a	n/a	n/a	50.6	n/a	U
S10V000268	O	84-74-2	Di-n-butylphthalate	ug/kg	n/a	<562	<557	n/a	n/a	n/a	n/a	557	n/a	U
S10V000268	O	117-84-0	Di-n-octylphthalate	ug/kg	n/a	<47.7	317	n/a	n/a	n/a	n/a	47.2	n/a	J
S10V000268	O	621-64-7	N-Nitroso-di-n-dipropylamine	ug/kg	69.8	<58.1	<57.5	n/a	n/a	n/a	n/a	57.5	n/a	U
S10V000268	O	206-44-0	Fluoranthene	ug/kg	n/a	<35.4	<35.1	n/a	n/a	n/a	n/a	35.1	n/a	U
S10V000268	O	87-68-3	Hexachlorobutadiene	ug/kg	n/a	<69.7	<69.0	n/a	n/a	n/a	n/a	69.0	n/a	U
S10V000268	O	67-72-1	Hexachloroethane	ug/kg	n/a	<112	<111	n/a	n/a	n/a	n/a	111	n/a	U
S10V000268	O	193-39-5	Indeno(1,2,3-cd)pyrene	ug/kg	n/a	<51.0	<50.5	n/a	n/a	n/a	n/a	50.5	n/a	U
S10V000268	O	91-20-3	Naphthalene	ug/kg	n/a	<62.6	<62.0	n/a	n/a	n/a	n/a	62.0	n/a	U
S10V000268	O	98-95-3	Nitrobenzene	ug/kg	n/a	<64.6	<64.0	n/a	n/a	n/a	n/a	64.0	n/a	U
S10V000268	O	129-00-0	Pyrene	ug/kg	91.3	<62.9	<62.3	n/a	n/a	n/a	n/a	62.3	n/a	U
S10V000268	O	110-86-1	Pyridine	ug/kg	n/a	<65.0	<64.4	n/a	n/a	n/a	n/a	64.4	n/a	U
S10V000268	O	126-73-8	Tributyl phosphate	ug/kg	n/a	<108	<107	n/a	n/a	n/a	n/a	107	n/a	U
S10V000268	O	128-37-0	BHT	ug/kg	n/a	<236	<233	n/a	n/a	n/a	n/a	233	n/a	U
S10V000268	O	110-80-5	2-Ethoxyethanol	ug/kg	n/a	<182	<181	n/a	n/a	n/a	n/a	181	n/a	U
S10V000268	O	1319-77-3	Total Methylphenols	ug/kg	n/a	<107	<106	n/a	n/a	n/a	n/a	106	n/a	U
S10V000268	O	108-94-1	Cyclohexanone	ug/kg	n/a	<558	<553	n/a	n/a	n/a	n/a	553	n/a	U
S10V000268	O	59-89-2	N-Nitrosomorpholine	ug/kg	n/a	<191	<189	n/a	n/a	n/a	n/a	189	n/a	U
S10V000268	O	78-83-1	Isobutanol	ug/kg	n/a	<460	<456	n/a	n/a	n/a	n/a	456	n/a	U
S10V000269	W	16984-48-8	Fluoride	ug/g	101	<1.61E-03	2.49	2.61	2.55	5.02	91.9	0.0160	n/a	
S10V000269	W	GLYCOLAT	Glycolate	ug/g	96.8	<9.37E-03	<0.0929	<0.0933	n/a	n/a	96.7	0.0929	n/a	U
S10V000269	W	71-50-1	Acetate	ug/g	95.5	<6.04E-03	0.148	0.155	0.151	4.12	92.8	0.0599	n/a	B

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M - RPD Outside Range
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N - MS/MSD Outside Range
U - Less Than Detection Limit
C - Blank Contamination

Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B23TM6

Sample Depth: 27-29

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000269	W	FORMATE	Formate	ug/g	98.3	<4.67E-03	0.332	0.325	0.329	2.10	90.8	0.0463	n/a	B
S10V000269	W	16887-00-6	Chloride	ug/g	98.6	<9.98E-03	1.29	1.22	1.26	5.69	98.8	0.0990	n/a	
S10V000269	W	14797-65-0	Nitrite	ug/g	101	0.0274	1.40	1.59	1.49	12.2	76.8	0.190	n/a	B
S10V000269	W	14808-79-8	Sulfate	ug/g	101	0.0210	17.9	18.0	18.0	0.809	93.4	0.185	n/a	
S10V000269	W	338-70-5	Oxalate	ug/g	103	<0.0231	0.324	0.418	0.371	25.4	96.3	0.229	n/a	B
S10V000269	W	24959-67-9	Bromide	ug/g	100	<0.0580	<0.575	<0.577	n/a	n/a	101	0.575	n/a	U
S10V000269	W	14797-55-8	Nitrate	ug/g	100	0.0418	39.1	38.3	38.7	2.09	95.0	0.206	n/a	
S10V000269	W	14265-44-2	Phosphate	ug/g	98.8	<0.0167	2.43	2.59	2.51	6.38	79.1	0.166	n/a	
S10V000270	A	7429-90-5	Aluminum	ug/g	83.2	<0.0300	7.19E+03	n/a	n/a	n/a	n/a	3.35	n/a	
S10V000270	A	7440-39-3	Barium	ug/g	84.5	<3.00E-03	73.2	n/a	n/a	n/a	n/a	0.335	n/a	
S10V000270	A	7440-41-7	Beryllium	ug/g	82.5	<1.00E-03	0.159	n/a	n/a	n/a	n/a	0.112	n/a	B
S10V000270	A	7440-69-9	Bismuth	ug/g	82.3	<0.100	34.1	n/a	n/a	n/a	n/a	11.2	n/a	BN
S10V000270	A	7440-70-2	Calcium	ug/g	78.3	<0.0500	6.73E+03	n/a	n/a	n/a	n/a	5.58	n/a	
S10V000270	A	7440-43-9	Cadmium	ug/g	83.0	<5.00E-03	3.08	n/a	n/a	n/a	n/a	0.558	n/a	B
S10V000270	A	7440-45-1	Cerium	ug/g	89.7	<0.0300	23.3	n/a	n/a	n/a	n/a	3.35	n/a	B
S10V000270	A	7440-48-4	Cobalt	ug/g	82.2	<0.0100	9.72	n/a	n/a	n/a	n/a	1.12	n/a	B
S10V000270	A	7440-47-3	Chromium	ug/g	82.1	<5.00E-03	10.9	n/a	n/a	n/a	n/a	0.558	n/a	
S10V000270	A	7440-50-8	Copper	ug/g	86.4	<5.00E-03	11.3	n/a	n/a	n/a	n/a	0.558	n/a	
S10V000270	A	7439-89-6	Iron	ug/g	82.8	<5.00E-03	2.19E+04	n/a	n/a	n/a	n/a	0.558	n/a	
S10V000270	A	7440-09-7	Potassium	ug/g	82.0	<0.500	1.14E+03	n/a	n/a	n/a	n/a	55.8	n/a	
S10V000270	A	7439-91-0	Lanthanum	ug/g	85.3	<3.00E-03	10.5	n/a	n/a	n/a	n/a	0.335	n/a	
S10V000270	A	7439-93-2	Lithium	ug/g	86.1	<3.00E-03	7.01	n/a	n/a	n/a	n/a	0.335	n/a	
S10V000270	A	7439-95-4	Magnesium	ug/g	80.0	<0.0500	4.58E+03	n/a	n/a	n/a	n/a	5.58	n/a	
S10V000270	A	7439-96-5	Manganese	ug/g	81.4	<3.00E-03	323	n/a	n/a	n/a	n/a	0.335	n/a	
S10V000270	A	7439-98-7	Molybdenum	ug/g	94.9	<0.0200	<2.23	n/a	n/a	n/a	n/a	2.23	n/a	U
S10V000270	A	7440-23-5	Sodium	ug/g	87.0	<0.100	312	n/a	n/a	n/a	n/a	11.2	n/a	
S10V000270	A	7440-02-0	Nickel	ug/g	81.1	<0.0200	14.6	n/a	n/a	n/a	n/a	2.23	n/a	B
S10V000270	A	7723-14-0	Phosphorus	ug/g	91.7	<0.0500	812	n/a	n/a	n/a	n/a	5.58	n/a	
S10V000270	A	7704-34-9	Sulfur	ug/g	93.0	<0.100	71.9	n/a	n/a	n/a	n/a	11.2	n/a	B

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B - Estimated
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U - Less Than Detection Limit
C - Blank Contamination

Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B23TM6

Sample Depth: 27-29

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000270	A	7440-21-3	Silicon	ug/g	77.7	<0.0300	80.0	n/a	n/a	n/a	n/a	3.35	n/a	
S10V000270	A	7440-24-6	Strontium	ug/g	84.6	<3.00E-03	28.4	n/a	n/a	n/a	n/a	0.335	n/a	
S10V000270	A	7440-32-6	Titanium	ug/g	92.6	<5.00E-03	1.55E+03	n/a	n/a	n/a	n/a	0.558	n/a	
S10V000270	A	7440-62-2	Vanadium	ug/g	84.2	<5.00E-03	53.2	n/a	n/a	n/a	n/a	0.558	n/a	
S10V000270	A	7440-65-5	Yttrium	ug/g	85.5	<2.00E-03	8.82	n/a	n/a	n/a	n/a	0.223	n/a	
S10V000270	A	7440-66-6	Zinc	ug/g	83.9	<5.00E-03	39.2	n/a	n/a	n/a	n/a	0.558	n/a	
S10V000270	A	7440-67-7	Zirconium	ug/g	88.7	<5.00E-03	5.17	n/a	n/a	n/a	n/a	0.558	n/a	BN
S10V000270	A	14269-63-7	Thorium-230	ug/g	n/a	<2.80E-06	<3.13E-05	n/a	n/a	n/a	n/a	3.13E-05	n/a	U
S10V000270	A	TH-232	Thorium-232	ug/g	106	<6.80E-05	3.01	n/a	n/a	n/a	n/a	7.59E-04	n/a	
S10V000270	A	13968-55-3	Uranium-233	ug/g	n/a	<4.00E-06	1.73E-04	n/a	n/a	n/a	n/a	4.47E-05	n/a	
S10V000270	A	13966-29-5	Uranium-234	ug/g	n/a	2.15E-06	4.70E-05	n/a	n/a	n/a	n/a	2.23E-05	n/a	B
S10V000270	A	15117-96-1	Uranium-235	ug/g	104	<4.40E-06	3.37E-03	n/a	n/a	n/a	n/a	4.91E-05	n/a	
S10V000270	A	13982-70-2	Uranium-236	ug/g	n/a	<1.60E-06	<1.79E-05	n/a	n/a	n/a	n/a	1.79E-05	n/a	U
S10V000270	A	13994-20-2	Neptunium-237	ug/g	106	<2.12E-05	<2.37E-04	n/a	n/a	n/a	n/a	2.37E-04	n/a	U
S10V000270	A	U-238	Uranium-238	ug/g	110	<2.20E-04	0.518	n/a	n/a	n/a	n/a	2.46E-03	n/a	
S10V000270	A	7440-22-4	Silver	ug/g	82.2	<3.20E-03	0.0584	n/a	n/a	n/a	n/a	0.0357	n/a	B
S10V000270	A	7440-38-2	Arsenic	ug/g	108	<0.0168	4.48	n/a	n/a	n/a	n/a	0.188	n/a	N
S10V000270	A	7439-92-1	Lead	ug/g	84.0	<0.0124	4.46	n/a	n/a	n/a	n/a	0.138	n/a	
S10V000270	A	7782-49-2	Selenium	ug/g	86.4	<0.0244	0.524	n/a	n/a	n/a	n/a	0.272	n/a	B
S10V000270	A	7440-28-0	Thallium	ug/g	103	<1.20E-03	0.667	n/a	n/a	n/a	n/a	0.0134	n/a	C
S10V000271	S	14798-03-9	Ammonium	ug/g	97.3	0.0207	3.72	4.03	3.88	8.04	95.4	0.463	n/a	CB
S10V000272	A	14133-76-7	Technetium-99	ug/g	93.6	<1.50E-04	<1.67E-03	n/a	n/a	n/a	n/a	1.67E-03	n/a	U
S10V000272	A	SN-117	Tin-117	ug/g	104	<5.50E-03	<0.0611	n/a	n/a	n/a	n/a	0.0611	n/a	U
S10V000272	A	15832-50-5	Tin-126	ug/g	n/a	<1.00E-04	<1.11E-03	n/a	n/a	n/a	n/a	1.11E-03	n/a	U
S10V000273	E	CM-243/244	Curium-243/244	uCi/g	n/a	<2.06E-07	<1.91E-07	<1.82E-07	n/a	n/a	n/a	1.91E-07	n/a	U
S10V000273	E	14596-10-2	Americium-241	uCi/g	99.0	<5.15E-07	<4.76E-07	<4.55E-07	n/a	n/a	n/a	4.76E-07	n/a	U
S10V000273	E	15510-73-3	Curium-242	uCi/g	n/a	<2.06E-07	<1.91E-07	<1.82E-07	n/a	n/a	n/a	1.91E-07	n/a	U
S10V000273	E	PU-239/240	Plutonium-239/240	uCi/g	99.8	<3.55E-07	<2.14E-07	n/a	n/a	n/a	n/a	2.14E-07	n/a	U
S10V000273	E	13981-16-3	Plutonium-238	uCi/g	n/a	<3.55E-07	<2.14E-07	n/a	n/a	n/a	n/a	2.14E-07	n/a	U

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U - Less Than Detection Limit
C - Blank Contamination

Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B23TM6

Sample Depth: 27-29

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000274	E	SR-89/90	Strontium-89/90	uCi/g	98.6	<2.36E-07	<6.39E-07	n/a	n/a	n/a	n/a	6.39E-07	n/a	U
S10V000275	E	13981-37-8	Nickel-63	uCi/g	103	<5.87E-06	<6.84E-06	n/a	n/a	n/a	n/a	6.84E-06	n/a	U
S10V000275	E	15758-45-9	Selenium-79	uCi/g	n/a	4.38E-06	<1.77E-06	n/a	n/a	n/a	n/a	1.77E-06	n/a	U
S10V001171	W	10028-17-8	Tritium	uCi/g	87.9	<3.83E-06	<2.90E-06	n/a	n/a	n/a	n/a	2.90E-06	n/a	U
S10V001209	A	7440-36-0	Antimony	ug/g	99.4	<0.0100	0.303	n/a	n/a	n/a	n/a	9.67E-03	n/a	M
S10V002146	WV	14133-76-7	Technetium-99	ug/g	109	<3.00E-06	<3.63E-06	n/a	n/a	n/a	n/a	3.63E-06	n/a	U
S10V002237	W	14762-75-5	Carbon-14	uCi/g	94.0	<3.49E-07	<2.48E-06	n/a	n/a	n/a	n/a	2.48E-06	n/a	U

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Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B23TM6A

Sample Depth: 27-29

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000262		BULKDENSI	Bulk Density	g/mL	n/a	n/a	2.06	n/a	n/a	n/a	n/a	n/a	n/a	

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Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B23TM8

Sample Depth: 27-29

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000259		71-55-6	1,1,1-Trichloroethane	ug/kg	n/a	<0.0920	<0.0713	n/a	n/a	n/a	n/a	0.0713	n/a	U
S10V000259		79-00-5	1,1,2-Trichloroethane	ug/kg	n/a	<0.166	<0.129	n/a	n/a	n/a	n/a	0.129	n/a	U
S10V000259		79-34-5	1,1,2,2-Tetrachloroethane	ug/kg	n/a	<0.212	<0.164	n/a	n/a	n/a	n/a	0.164	n/a	U
S10V000259		75-35-4	1,1-Dichloroethene	ug/kg	96.6	<0.423	<0.328	n/a	n/a	n/a	n/a	0.328	n/a	U
S10V000259		107-06-2	1,2-Dichloroethane	ug/kg	n/a	<0.0538	<0.0417	n/a	n/a	n/a	n/a	0.0417	n/a	U
S10V000259		71-36-3	1-Butanol	ug/kg	102	<10.3	<7.98	n/a	n/a	n/a	n/a	7.98	n/a	U
S10V000259		108-10-1	Hexone	ug/kg	117	<1.71	<1.32	n/a	n/a	n/a	n/a	1.32	n/a	U
S10V000259		67-64-1	Acetone	ug/kg	103	<2.20	3.86	n/a	n/a	n/a	n/a	1.71	n/a	J
S10V000259		71-43-2	Benzene	ug/kg	93.6	<0.147	<0.114	n/a	n/a	n/a	n/a	0.114	n/a	U
S10V000259		75-15-0	Carbon disulfide	ug/kg	n/a	<0.161	<0.125	n/a	n/a	n/a	n/a	0.125	n/a	U
S10V000259		56-23-5	Carbon tetrachloride	ug/kg	n/a	<0.0934	<0.0724	n/a	n/a	n/a	n/a	0.0724	n/a	U
S10V000259		67-66-3	Chloroform	ug/kg	n/a	<0.131	<0.101	n/a	n/a	n/a	n/a	0.101	n/a	U
S10V000259		108-90-7	Chlorobenzene	ug/kg	95.9	<0.0864	<0.0670	n/a	n/a	n/a	n/a	0.0670	n/a	U
S10V000259		100-41-4	Ethylbenzene	ug/kg	n/a	<0.107	<0.0831	n/a	n/a	n/a	n/a	0.0831	n/a	U
S10V000259		1330-20-7	Xylenes (total)	ug/kg	n/a	<0.203	<0.158	n/a	n/a	n/a	n/a	0.158	n/a	U
S10V000259		78-93-3	2-Butanone	ug/kg	106	<1.96	<1.52	n/a	n/a	n/a	n/a	1.52	n/a	U
S10V000259		75-09-2	Methylenechloride	ug/kg	n/a	<0.0640	<0.0496	n/a	n/a	n/a	n/a	0.0496	n/a	U
S10V000259		127-18-4	Tetrachloroethene	ug/kg	n/a	<0.110	<0.0851	n/a	n/a	n/a	n/a	0.0851	n/a	U
S10V000259		108-88-3	Toluene	ug/kg	97.2	<0.0802	0.256	n/a	n/a	n/a	n/a	0.0622	n/a	J
S10V000259		10061-02-6	trans-1,3-Dichloropropene	ug/kg	n/a	<0.271	<0.210	n/a	n/a	n/a	n/a	0.210	n/a	U
S10V000259		79-01-6	Trichloroethene	ug/kg	89.5	<0.121	<0.0938	n/a	n/a	n/a	n/a	0.0938	n/a	U
S10V000259		75-01-4	Vinyl chloride	ug/kg	n/a	<0.173	<0.134	n/a	n/a	n/a	n/a	0.134	n/a	U
S10V000259		156-59-2	cis-Dichloroethylene	ug/kg	n/a	<0.182	<0.141	n/a	n/a	n/a	n/a	0.141	n/a	U
S10V000259		156-60-5	trans-Dichloroethylene	ug/kg	n/a	<0.303	<0.235	n/a	n/a	n/a	n/a	0.235	n/a	U
S10V000259		76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ug/kg	n/a	<0.116	<0.0901	n/a	n/a	n/a	n/a	0.0901	n/a	U
S10V000259		79-46-9	2-Nitropropane	ug/kg	n/a	<0.588	<0.456	n/a	n/a	n/a	n/a	0.456	n/a	U
S10V000259		141-78-6	Ethyl acetate	ug/kg	n/a	<0.587	<0.455	n/a	n/a	n/a	n/a	0.455	n/a	U
S10V000259		60-29-7	Diethyl ether	ug/kg	n/a	<0.256	<0.199	n/a	n/a	n/a	n/a	0.199	n/a	U
S10V000259		75-69-4	Trichlorofluoromethane	ug/kg	n/a	<0.0940	<0.0729	n/a	n/a	n/a	n/a	0.0729	n/a	U

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Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B23TM8

Sample Depth: 27-29

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000259		95-47-6	o-Xylene	ug/kg	n/a	<0.0920	<0.0713	n/a	n/a	n/a	n/a	0.0713	n/a	U
S10V000259		179601-23-1	m,p-Xylene	ug/kg	n/a	<0.167	<0.130	n/a	n/a	n/a	n/a	0.130	n/a	U

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Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B25WM2

Sample Depth: 39-41

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V001005		%WATERA	%WATER-APD	%	n/a	n/a	8.280	7.590	7.935	8.696	n/a	0.01000	n/a	
S10V001005		57-12-5	Cyanide	ug/g	99.3	<0.0370	<2.54	<2.50	n/a	n/a	82.0	2.54	n/a	U
S10V001005		7439-97-6	Mercury	ug/g	99.9	<1.00E-04	<9.81E-03	n/a	n/a	n/a	n/a	9.81E-03	n/a	U
S10V001005		PH	pH	unitless	n/a	n/a	9.34	9.41	9.38	0.747	n/a	0.0100	n/a	
S10V001005		12597-04-5	Sulfide	ug/g	97.6	<0.180	10.8	11.7	11.3	7.93	96.2	7.09	n/a	B
S10V001007		13966-00-2	Potassium-40	uCi/g	n/a	n/a	1.07E-05	9.18E-06	9.93E-06	15.1	n/a	6.17E-06	37.94	
S10V001007		10198-40-0	Cobalt-60	uCi/g	102	<3.08E-07	<2.96E-07	<3.75E-07	n/a	n/a	n/a	2.96E-07	n/a	U
S10V001007		14234-35-6	Antimony-125	uCi/g	n/a	<6.68E-07	<7.77E-07	<8.19E-07	n/a	n/a	n/a	7.77E-07	n/a	U
S10V001007		10045-97-3	Cesium-137	uCi/g	107	<3.81E-07	<3.94E-07	<4.20E-07	n/a	n/a	n/a	3.94E-07	n/a	U
S10V001007		14683-23-9	Europium-152	uCi/g	n/a	<1.37E-06	<1.50E-06	<1.56E-06	n/a	n/a	n/a	1.50E-06	n/a	U
S10V001007		15585-10-1	Europium-154	uCi/g	n/a	<9.15E-07	<1.03E-06	<1.04E-06	n/a	n/a	n/a	1.03E-06	n/a	U
S10V001007		14391-16-3	Europium-155	uCi/g	n/a	<4.54E-07	<4.88E-07	<5.41E-07	n/a	n/a	n/a	4.88E-07	n/a	U
S10V001007		15092-94-1	Lead-212	uCi/g	n/a	n/a	4.56E-07	6.13E-07	5.34E-07	29.3	n/a	3.51E-07	40.06	
S10V001007		15067-28-4	Lead-214	uCi/g	n/a	n/a	5.79E-07	n/a	n/a	n/a	n/a	7.05E-07	49.73	
S10V001007		14274-82-9	Thorium-228	uCi/g	n/a	<8.10E-06	<9.44E-06	<1.00E-05	n/a	n/a	n/a	9.44E-06	n/a	U
S10V001007		15065-10-8	Thorium-234	uCi/g	n/a	<2.56E-06	<3.30E-06	<3.50E-06	n/a	n/a	n/a	3.30E-06	n/a	U
S10V001007		15046-84-1	Iodine-129	uCi/g	117	<2.00E-07	<1.79E-07	<1.94E-07	n/a	n/a	n/a	1.79E-07	n/a	U
S10V001008	O	120-82-1	1,2,4-Trichlorobenzene	ug/kg	62.4	<77.4	<76.2	n/a	n/a	n/a	n/a	76.2	n/a	U
S10V001008	O	95-50-1	1,2-Dichlorobenzene	ug/kg	n/a	<101	<99.1	n/a	n/a	n/a	n/a	99.1	n/a	U
S10V001008	O	121-14-2	2,4-Dinitrotoluene	ug/kg	82.3	<38.1	<37.5	n/a	n/a	n/a	n/a	37.5	n/a	U
S10V001008	O	95-95-4	2,4,5-Trichlorophenol	ug/kg	n/a	<44.0	<43.3	n/a	n/a	n/a	n/a	43.3	n/a	U
S10V001008	O	88-06-2	2,4,6-Trichlorophenol	ug/kg	n/a	<49.5	<48.7	n/a	n/a	n/a	n/a	48.7	n/a	U
S10V001008	O	95-48-7	2-Methylphenol	ug/kg	n/a	<57.5	<56.6	n/a	n/a	n/a	n/a	56.6	n/a	U
S10V001008	O	88-75-5	2-Nitrophenol	ug/kg	n/a	<53.7	<52.8	n/a	n/a	n/a	n/a	52.8	n/a	U
S10V001008	O	65794-96-9	3 &4 Methylphenol	ug/kg	n/a	<51.4	<50.6	n/a	n/a	n/a	n/a	50.6	n/a	U
S10V001008	O	83-32-9	Acenaphthene	ug/kg	68.2	<17.6	<17.3	n/a	n/a	n/a	n/a	17.3	n/a	U
S10V001008	O	56-55-3	Benzo(a)anthracene	ug/kg	n/a	<37.8	<37.2	n/a	n/a	n/a	n/a	37.2	n/a	U
S10V001008	O	205-99-2	Benzo(b)fluoranthene	ug/kg	n/a	<48.9	<48.1	n/a	n/a	n/a	n/a	48.1	n/a	U
S10V001008	O	50-32-8	Benzo(a)pyrene	ug/kg	n/a	<41.2	<40.5	n/a	n/a	n/a	n/a	40.5	n/a	U

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B - Blank Contamination
J - Estimated
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M - RPD Outside Range
B - Estimated
N - MS/MSD Outside Range
U - Less Than Detection Limit
C - Blank Contamination

Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B25WM2

Sample Depth: 39-41

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V001008	O	117-81-7	Bis(2-ethylhexyl) phthalate	ug/kg	n/a	<590	<581	n/a	n/a	n/a	n/a	581	n/a	U
S10V001008	O	207-08-9	Benzo(k)fluoranthene	ug/kg	n/a	<39.1	<38.5	n/a	n/a	n/a	n/a	38.5	n/a	U
S10V001008	O	85-68-7	Butylbenzylphthalate	ug/kg	n/a	102	114	n/a	n/a	n/a	n/a	49.2	n/a	BJ
S10V001008	O	59-50-7	4-Chloro-3-methylphenol	ug/kg	69.7	<43.2	<42.5	n/a	n/a	n/a	n/a	42.5	n/a	U
S10V001008	O	95-57-8	2-Chlorophenol	ug/kg	66.8	<66.5	<65.4	n/a	n/a	n/a	n/a	65.4	n/a	U
S10V001008	O	218-01-9	Chrysene	ug/kg	n/a	<81.4	<80.1	n/a	n/a	n/a	n/a	80.1	n/a	U
S10V001008	O	53-70-3	Dibenz[a,h]anthracene	ug/kg	n/a	<51.1	<50.3	n/a	n/a	n/a	n/a	50.3	n/a	U
S10V001008	O	84-74-2	Di-n-butylphthalate	ug/kg	n/a	<562	<553	n/a	n/a	n/a	n/a	553	n/a	U
S10V001008	O	117-84-0	Di-n-octylphthalate	ug/kg	n/a	<47.7	<46.9	n/a	n/a	n/a	n/a	46.9	n/a	U
S10V001008	O	621-64-7	N-Nitroso-di-n-dipropylamine	ug/kg	62.4	<58.1	<57.2	n/a	n/a	n/a	n/a	57.2	n/a	U
S10V001008	O	206-44-0	Fluoranthene	ug/kg	n/a	<35.4	<34.8	n/a	n/a	n/a	n/a	34.8	n/a	U
S10V001008	O	87-68-3	Hexachlorobutadiene	ug/kg	n/a	<69.7	<68.6	n/a	n/a	n/a	n/a	68.6	n/a	U
S10V001008	O	67-72-1	Hexachloroethane	ug/kg	n/a	<112	<110	n/a	n/a	n/a	n/a	110	n/a	U
S10V001008	O	193-39-5	Indeno(1,2,3-cd)pyrene	ug/kg	n/a	<51.0	<50.2	n/a	n/a	n/a	n/a	50.2	n/a	U
S10V001008	O	91-20-3	Naphthalene	ug/kg	n/a	<62.6	<61.6	n/a	n/a	n/a	n/a	61.6	n/a	U
S10V001008	O	98-95-3	Nitrobenzene	ug/kg	n/a	<64.6	<63.6	n/a	n/a	n/a	n/a	63.6	n/a	U
S10V001008	O	129-00-0	Pyrene	ug/kg	87.2	<62.9	<61.9	n/a	n/a	n/a	n/a	61.9	n/a	U
S10V001008	O	110-86-1	Pyridine	ug/kg	n/a	<65.0	<64.0	n/a	n/a	n/a	n/a	64.0	n/a	U
S10V001008	O	126-73-8	Tributyl phosphate	ug/kg	n/a	<108	<106	n/a	n/a	n/a	n/a	106	n/a	U
S10V001008	O	128-37-0	BHT	ug/kg	n/a	<236	<232	n/a	n/a	n/a	n/a	232	n/a	U
S10V001008	O	110-80-5	2-Ethoxyethanol	ug/kg	n/a	<182	<179	n/a	n/a	n/a	n/a	179	n/a	U
S10V001008	O	1319-77-3	Total Methylphenols	ug/kg	n/a	<107	<105	n/a	n/a	n/a	n/a	105	n/a	U
S10V001008	O	108-94-1	Cyclohexanone	ug/kg	n/a	<558	<549	n/a	n/a	n/a	n/a	549	n/a	U
S10V001008	O	59-89-2	N-Nitrosomorpholine	ug/kg	n/a	<191	<188	n/a	n/a	n/a	n/a	188	n/a	U
S10V001008	O	78-83-1	Isobutanol	ug/kg	n/a	<460	<453	n/a	n/a	n/a	n/a	453	n/a	U
S10V001009	W	16984-48-8	Fluoride	ug/g	101	<1.61E-03	1.85	n/a	n/a	n/a	n/a	0.0160	n/a	
S10V001009	W	GLYCOLAT	Glycolate	ug/g	96.8	<9.37E-03	<0.0930	n/a	n/a	n/a	n/a	0.0930	n/a	U
S10V001009	W	71-50-1	Acetate	ug/g	95.5	<6.04E-03	0.289	n/a	n/a	n/a	n/a	0.0600	n/a	B
S10V001009	W	FORMATE	Formate	ug/g	98.3	<4.67E-03	0.717	n/a	n/a	n/a	n/a	0.0464	n/a	B

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Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B25WM2

Sample Depth: 39-41

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V001009	W	16887-00-6	Chloride	ug/g	98.6	<9.98E-03	2.66	n/a	n/a	n/a	n/a	0.0991	n/a	
S10V001009	W	14797-65-0	Nitrite	ug/g	101	0.0274	2.36	n/a	n/a	n/a	n/a	0.191	n/a	B
S10V001009	W	14808-79-8	Sulfate	ug/g	101	0.0210	19.9	n/a	n/a	n/a	n/a	0.186	n/a	
S10V001009	W	338-70-5	Oxalate	ug/g	103	<0.0231	0.629	n/a	n/a	n/a	n/a	0.229	n/a	B
S10V001009	W	24959-67-9	Bromide	ug/g	100	<0.0580	<0.576	n/a	n/a	n/a	n/a	0.576	n/a	U
S10V001009	W	14797-55-8	Nitrate	ug/g	100	0.0418	8.60	n/a	n/a	n/a	n/a	0.206	n/a	
S10V001009	W	14265-44-2	Phosphate	ug/g	98.8	<0.0167	1.65	n/a	n/a	n/a	n/a	0.166	n/a	B
S10V001010	A	7429-90-5	Aluminum	ug/g	84.3	<0.0300	6.66E+03	n/a	n/a	n/a	n/a	2.97	n/a	
S10V001010	A	7440-39-3	Barium	ug/g	86.9	<3.00E-03	71.9	n/a	n/a	n/a	n/a	0.297	n/a	
S10V001010	A	7440-41-7	Beryllium	ug/g	85.8	<1.00E-03	0.172	n/a	n/a	n/a	n/a	0.0990	n/a	B
S10V001010	A	7440-70-2	Calcium	ug/g	81.4	0.320	7.53E+03	n/a	n/a	n/a	n/a	4.95	n/a	
S10V001010	A	7440-43-9	Cadmium	ug/g	85.4	<5.00E-03	1.51	n/a	n/a	n/a	n/a	0.495	n/a	B
S10V001010	A	7440-45-1	Cerium	ug/g	88.9	<0.0300	14.4	n/a	n/a	n/a	n/a	2.97	n/a	B
S10V001010	A	7440-48-4	Cobalt	ug/g	84.1	<0.0100	6.06	n/a	n/a	n/a	n/a	0.990	n/a	B
S10V001010	A	7440-47-3	Chromium	ug/g	84.8	5.00E-03	13.9	n/a	n/a	n/a	n/a	0.495	n/a	
S10V001010	A	7440-50-8	Copper	ug/g	90.6	<5.00E-03	8.59	n/a	n/a	n/a	n/a	0.495	n/a	
S10V001010	A	7439-89-6	Iron	ug/g	85.9	0.0224	1.25E+04	n/a	n/a	n/a	n/a	0.495	n/a	
S10V001010	A	7440-09-7	Potassium	ug/g	95.8	<0.500	1.22E+03	n/a	n/a	n/a	n/a	49.5	n/a	
S10V001010	A	7439-91-0	Lanthanum	ug/g	88.3	<3.00E-03	6.05	n/a	n/a	n/a	n/a	0.297	n/a	
S10V001010	A	7439-93-2	Lithium	ug/g	85.9	<3.00E-03	8.75	n/a	n/a	n/a	n/a	0.297	n/a	
S10V001010	A	7439-95-4	Magnesium	ug/g	99.5	<0.0500	4.35E+03	n/a	n/a	n/a	n/a	4.95	n/a	
S10V001010	A	7439-96-5	Manganese	ug/g	83.9	<3.00E-03	261	n/a	n/a	n/a	n/a	0.297	n/a	
S10V001010	A	7439-98-7	Molybdenum	ug/g	88.2	<0.0200	<1.98	n/a	n/a	n/a	n/a	1.98	n/a	U
S10V001010	A	7440-23-5	Sodium	ug/g	85.2	0.112	157	n/a	n/a	n/a	n/a	9.90	n/a	N
S10V001010	A	7440-02-0	Nickel	ug/g	83.7	<0.0200	13.0	n/a	n/a	n/a	n/a	1.98	n/a	B
S10V001010	A	7723-14-0	Phosphorus	ug/g	85.9	<0.0500	422	n/a	n/a	n/a	n/a	4.95	n/a	
S10V001010	A	7704-34-9	Sulfur	ug/g	85.6	<0.100	33.5	n/a	n/a	n/a	n/a	9.90	n/a	BN
S10V001010	A	7440-21-3	Silicon	ug/g	98.8	<0.0300	55.6	n/a	n/a	n/a	n/a	2.97	n/a	NM
S10V001010	A	7440-24-6	Strontium	ug/g	86.9	<3.00E-03	33.8	n/a	n/a	n/a	n/a	0.297	n/a	

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Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B25WM2

Sample Depth: 39-41

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V001010	A	7440-32-6	Titanium	ug/g	86.5	<5.00E-03	556	n/a	n/a	n/a	n/a	0.495	n/a	
S10V001010	A	7440-62-2	Vanadium	ug/g	86.6	<5.00E-03	23.1	n/a	n/a	n/a	n/a	0.495	n/a	
S10V001010	A	7440-65-5	Yttrium	ug/g	85.7	<2.00E-03	4.44	n/a	n/a	n/a	n/a	0.198	n/a	
S10V001010	A	7440-66-6	Zinc	ug/g	87.5	<5.00E-03	30.0	n/a	n/a	n/a	n/a	0.495	n/a	
S10V001010	A	7440-67-7	Zirconium	ug/g	81.4	<5.00E-03	4.02	n/a	n/a	n/a	n/a	0.495	n/a	BN
S10V001010	A	14269-63-7	Thorium-230	ug/g	n/a	<2.80E-06	<2.77E-05	n/a	n/a	n/a	n/a	2.77E-05	n/a	U
S10V001010	A	TH-232	Thorium-232	ug/g	99.6	<6.80E-05	2.66	n/a	n/a	n/a	n/a	6.73E-04	n/a	
S10V001010	A	13968-55-3	Uranium-233	ug/g	n/a	<4.00E-06	1.60E-04	n/a	n/a	n/a	n/a	3.96E-05	n/a	
S10V001010	A	13966-29-5	Uranium-234	ug/g	n/a	<2.00E-06	<1.98E-05	n/a	n/a	n/a	n/a	1.98E-05	n/a	U
S10V001010	A	15117-96-1	Uranium-235	ug/g	91.3	<4.40E-06	2.72E-03	n/a	n/a	n/a	n/a	4.35E-05	n/a	
S10V001010	A	13982-70-2	Uranium-236	ug/g	n/a	<1.60E-06	<1.58E-05	n/a	n/a	n/a	n/a	1.58E-05	n/a	U
S10V001010	A	13994-20-2	Neptunium-237	ug/g	100	<2.12E-05	<2.10E-04	n/a	n/a	n/a	n/a	2.10E-04	n/a	U
S10V001010	A	U-238	Uranium-238	ug/g	97.3	<2.20E-04	0.375	n/a	n/a	n/a	n/a	2.18E-03	n/a	
S10V001010	A	7440-22-4	Silver	ug/g	84.4	<3.20E-03	0.0394	n/a	n/a	n/a	n/a	0.0317	n/a	B
S10V001010	A	7440-38-2	Arsenic	ug/g	90.4	<0.0168	2.95	n/a	n/a	n/a	n/a	0.166	n/a	
S10V001010	A	7439-92-1	Lead	ug/g	98.2	<6.00E-03	3.43	n/a	n/a	n/a	n/a	0.0594	n/a	
S10V001010	A	7782-49-2	Selenium	ug/g	95.1	<0.0244	0.317	n/a	n/a	n/a	n/a	0.241	n/a	B
S10V001010	A	7440-28-0	Thallium	ug/g	104	3.19E-03	0.0831	n/a	n/a	n/a	n/a	0.0158	n/a	CB
S10V001011	S	14798-03-9	Ammonium	ug/g	97.0	0.0495	3.15	2.28	2.71	31.8	98.4	0.479	n/a	CB
S10V001012	A	14133-76-7	Technetium-99	ug/g	108	<3.00E-05	3.77E-04	n/a	n/a	n/a	n/a	2.96E-04	n/a	B
S10V001012	A	SN-117	Tin-117	ug/g	102	<1.10E-03	<0.0108	n/a	n/a	n/a	n/a	0.0108	n/a	UN
S10V001012	A	15832-50-5	Tin-126	ug/g	n/a	<2.00E-05	3.85E-04	n/a	n/a	n/a	n/a	1.97E-04	n/a	N
S10V001013	E	CM-243/244	Curium-243/244	uCi/g	n/a	<2.56E-07	<1.84E-07	<1.73E-07	n/a	n/a	n/a	1.84E-07	n/a	U
S10V001013	E	14596-10-2	Americium-241	uCi/g	104	<6.41E-07	<4.61E-07	<4.33E-07	n/a	n/a	n/a	4.61E-07	n/a	U
S10V001013	E	15510-73-3	Curium-242	uCi/g	n/a	<2.56E-07	<1.84E-07	<1.73E-07	n/a	n/a	n/a	1.84E-07	n/a	U
S10V001013	E	PU-239/240	Plutonium-239/240	uCi/g	99.8	<3.55E-07	<3.21E-07	<2.55E-07	n/a	n/a	n/a	3.21E-07	n/a	U
S10V001013	E	13981-16-3	Plutonium-238	uCi/g	n/a	<3.55E-07	<3.21E-07	<2.55E-07	n/a	n/a	n/a	3.21E-07	n/a	U
S10V001014	E	SR-89/90	Strontium-89/90	uCi/g	99.4	<6.99E-07	<1.12E-06	<7.35E-07	n/a	n/a	n/a	1.12E-06	n/a	U
S10V001015	E	13981-37-8	Nickel-63	uCi/g	103	<5.87E-06	<4.84E-06	<7.15E-06	n/a	n/a	n/a	4.84E-06	n/a	U

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B - Blank Contamination
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T - MS/MSD Outside Range
M - RPD Outside Range
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C - Blank Contamination

Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B25WM2

Sample Depth: 39-41

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V001015	E	15758-45-9	Selenium-79	uCi/g	n/a	4.38E-06	<1.44E-06	<3.32E-06	n/a	n/a	n/a	1.44E-06	n/a	U
S10V001174	W	10028-17-8	Tritium	uCi/g	87.9	<3.83E-06	2.87E-06	n/a	n/a	n/a	n/a	2.35E-06	104.856	
S10V001210	A	7440-36-0	Antimony	ug/g	105	<2.00E-03	0.114	n/a	n/a	n/a	n/a	0.0197	n/a	
S10V002149	WV	14133-76-7	Technetium-99	ug/g	109	<3.00E-06	4.61E-06	n/a	n/a	n/a	n/a	3.22E-06	n/a	B
S10V002238	W	14762-75-5	Carbon-14	uCi/g	94.0	<3.49E-07	<2.43E-06	n/a	n/a	n/a	n/a	2.43E-06	n/a	U

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Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B25WM2A

Sample Depth: 39-41

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V001002		BULKDENSI	Bulk Density	g/mL	n/a	n/a	2.26	n/a	n/a	n/a	n/a	n/a	n/a	

NA = Not Analyzed, ND = Not Detected

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J - Estimated
T - MS/MSD Outside Range
M - RPD Outside Range
B - Estimated
N - MS/MSD Outside Range
U - Less Than Detection Limit
C - Blank Contamination

Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B25WM2B

Sample Depth: 39-41

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V001003		BULKDENSI	Bulk Density	g/mL	n/a	n/a	2.06	n/a	n/a	n/a	n/a	n/a	n/a	

NA = Not Analyzed, ND = Not Detected

B - Blank Contamination
J - Estimated
T - MS/MSD Outside Range
M - RPD Outside Range
B - Estimated
N - MS/MSD Outside Range
U - Less Than Detection Limit
C - Blank Contamination

Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B25WM2C

Sample Depth: 39-41

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V001004			BULKDENSI	Bulk Density	g/mL	n/a	n/a	2.19	n/a	n/a	n/a	n/a	n/a	n/a	

NA = Not Analyzed, ND = Not Detected

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J - Estimated
T - MS/MSD Outside Range
M - RPD Outside Range
B - Estimated
N - MS/MSD Outside Range
U - Less Than Detection Limit
C - Blank Contamination

Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B25WM5

Sample Depth: 80-82

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000282		%WATERA	%WATER-APD	%	n/a	n/a	2.240	n/a	n/a	n/a	n/a	0.01000	n/a	
S10V000282		57-12-5	Cyanide	ug/g	99.3	<0.0370	<2.54	n/a	n/a	n/a	n/a	2.54	n/a	U
S10V000282		7439-97-6	Mercury	ug/g	99.9	<1.00E-04	<9.79E-03	n/a	n/a	n/a	105	9.79E-03	n/a	U
S10V000282		PH	pH	unitless	n/a	n/a	9.17	n/a	n/a	n/a	n/a	0.0100	n/a	
S10V000282		12597-04-5	Sulfide	ug/g	86.6	<0.180	<7.22	<7.13	n/a	n/a	101	7.22	n/a	U
S10V000284		13966-00-2	Potassium-40	uCi/g	n/a	n/a	1.81E-05	n/a	n/a	n/a	n/a	5.69E-06	22.41	
S10V000284		10198-40-0	Cobalt-60	uCi/g	102	<3.08E-07	<2.70E-07	n/a	n/a	n/a	n/a	2.70E-07	n/a	U
S10V000284		14234-35-6	Antimony-125	uCi/g	n/a	<6.68E-07	<7.18E-07	n/a	n/a	n/a	n/a	7.18E-07	n/a	U
S10V000284		10045-97-3	Cesium-137	uCi/g	107	<3.81E-07	<3.49E-07	n/a	n/a	n/a	n/a	3.49E-07	n/a	U
S10V000284		14683-23-9	Europium-152	uCi/g	n/a	<1.37E-06	<1.34E-06	n/a	n/a	n/a	n/a	1.34E-06	n/a	U
S10V000284		15585-10-1	Europium-154	uCi/g	n/a	<9.15E-07	<9.29E-07	n/a	n/a	n/a	n/a	9.29E-07	n/a	U
S10V000284		14391-16-3	Europium-155	uCi/g	n/a	<4.54E-07	<4.74E-07	n/a	n/a	n/a	n/a	4.74E-07	n/a	U
S10V000284		15092-94-1	Lead-212	uCi/g	n/a	n/a	5.01E-07	n/a	n/a	n/a	n/a	4.17E-07	38.35	
S10V000284		15067-28-4	Lead-214	uCi/g	n/a	n/a	5.82E-07	n/a	n/a	n/a	n/a	5.57E-07	44.12	
S10V000284		14274-82-9	Thorium-228	uCi/g	n/a	<8.10E-06	<8.87E-06	n/a	n/a	n/a	n/a	8.87E-06	n/a	U
S10V000284		15065-10-8	Thorium-234	uCi/g	n/a	<2.56E-06	<3.02E-06	n/a	n/a	n/a	n/a	3.02E-06	n/a	U
S10V000284		15046-84-1	Iodine-129	uCi/g	117	<2.00E-07	<1.63E-07	n/a	n/a	n/a	n/a	1.63E-07	n/a	U
S10V000285	O	120-82-1	1,2,4-Trichlorobenzene	ug/kg	62.4	<77.4	<76.7	n/a	n/a	n/a	65.1	76.7	n/a	U
S10V000285	O	95-50-1	1,2-Dichlorobenzene	ug/kg	n/a	<101	<99.8	n/a	n/a	n/a	n/a	99.8	n/a	U
S10V000285	O	121-14-2	2,4-Dinitrotoluene	ug/kg	82.3	<38.1	<37.7	n/a	n/a	n/a	82.2	37.7	n/a	U
S10V000285	O	95-95-4	2,4,5-Trichlorophenol	ug/kg	n/a	<44.0	<43.6	n/a	n/a	n/a	n/a	43.6	n/a	U
S10V000285	O	88-06-2	2,4,6-Trichlorophenol	ug/kg	n/a	<49.5	<49.0	n/a	n/a	n/a	n/a	49.0	n/a	U
S10V000285	O	95-48-7	2-Methylphenol	ug/kg	n/a	<57.5	<57.0	n/a	n/a	n/a	n/a	57.0	n/a	U
S10V000285	O	88-75-5	2-Nitrophenol	ug/kg	n/a	<53.7	<53.2	n/a	n/a	n/a	n/a	53.2	n/a	U
S10V000285	O	65794-96-9	3 &4 Methylphenol	ug/kg	n/a	<51.4	<50.9	n/a	n/a	n/a	n/a	50.9	n/a	U
S10V000285	O	83-32-9	Acenaphthene	ug/kg	68.2	<17.6	<17.4	n/a	n/a	n/a	69.2	17.4	n/a	U
S10V000285	O	56-55-3	Benzo(a)anthracene	ug/kg	n/a	<37.8	<37.5	n/a	n/a	n/a	n/a	37.5	n/a	U
S10V000285	O	205-99-2	Benzo(b)fluoranthene	ug/kg	n/a	<48.9	<48.4	n/a	n/a	n/a	n/a	48.4	n/a	U
S10V000285	O	50-32-8	Benzo(a)pyrene	ug/kg	n/a	<41.2	<40.8	n/a	n/a	n/a	n/a	40.8	n/a	U

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M - RPD Outside Range
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N - MS/MSD Outside Range
U - Less Than Detection Limit
C - Blank Contamination

Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B25WM5

Sample Depth: 80-82

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000285	O	117-81-7	Bis(2-ethylhexyl) phthalate	ug/kg	n/a	<590	<585	n/a	n/a	n/a	n/a	585	n/a	U
S10V000285	O	207-08-9	Benzo(k)fluoranthene	ug/kg	n/a	<39.1	<38.7	n/a	n/a	n/a	n/a	38.7	n/a	U
S10V000285	O	85-68-7	Butylbenzylphthalate	ug/kg	n/a	102	108	n/a	n/a	n/a	n/a	49.5	n/a	BJ
S10V000285	O	59-50-7	4-Chloro-3-methylphenol	ug/kg	69.7	<43.2	<42.8	n/a	n/a	n/a	78.0	42.8	n/a	U
S10V000285	O	95-57-8	2-Chlorophenol	ug/kg	66.8	<66.5	<65.9	n/a	n/a	n/a	71.5	65.9	n/a	U
S10V000285	O	218-01-9	Chrysene	ug/kg	n/a	<81.4	<80.6	n/a	n/a	n/a	n/a	80.6	n/a	U
S10V000285	O	53-70-3	Dibenz[a,h]anthracene	ug/kg	n/a	<51.1	<50.6	n/a	n/a	n/a	n/a	50.6	n/a	U
S10V000285	O	84-74-2	Di-n-butylphthalate	ug/kg	n/a	<562	<557	n/a	n/a	n/a	n/a	557	n/a	U
S10V000285	O	117-84-0	Di-n-octylphthalate	ug/kg	n/a	<47.7	<47.3	n/a	n/a	n/a	n/a	47.3	n/a	U
S10V000285	O	621-64-7	N-Nitroso-di-n-dipropylamine	ug/kg	62.4	<58.1	<57.6	n/a	n/a	n/a	63.3	57.6	n/a	U
S10V000285	O	206-44-0	Fluoranthene	ug/kg	n/a	<35.4	<35.1	n/a	n/a	n/a	n/a	35.1	n/a	U
S10V000285	O	87-68-3	Hexachlorobutadiene	ug/kg	n/a	<69.7	<69.1	n/a	n/a	n/a	n/a	69.1	n/a	U
S10V000285	O	67-72-1	Hexachloroethane	ug/kg	n/a	<112	<111	n/a	n/a	n/a	n/a	111	n/a	U
S10V000285	O	193-39-5	Indeno(1,2,3-cd)pyrene	ug/kg	n/a	<51.0	<50.5	n/a	n/a	n/a	n/a	50.5	n/a	U
S10V000285	O	91-20-3	Naphthalene	ug/kg	n/a	<62.6	<62.0	n/a	n/a	n/a	n/a	62.0	n/a	U
S10V000285	O	98-95-3	Nitrobenzene	ug/kg	n/a	<64.6	<64.0	n/a	n/a	n/a	n/a	64.0	n/a	U
S10V000285	O	129-00-0	Pyrene	ug/kg	87.2	<62.9	<62.3	n/a	n/a	n/a	87.8	62.3	n/a	U
S10V000285	O	110-86-1	Pyridine	ug/kg	n/a	<65.0	<64.4	n/a	n/a	n/a	n/a	64.4	n/a	U
S10V000285	O	126-73-8	Tributyl phosphate	ug/kg	n/a	<108	<107	n/a	n/a	n/a	n/a	107	n/a	U
S10V000285	O	128-37-0	BHT	ug/kg	n/a	<236	<233	n/a	n/a	n/a	n/a	233	n/a	U
S10V000285	O	110-80-5	2-Ethoxyethanol	ug/kg	n/a	<182	<181	n/a	n/a	n/a	n/a	181	n/a	U
S10V000285	O	1319-77-3	Total Methylphenols	ug/kg	n/a	<107	<106	n/a	n/a	n/a	n/a	106	n/a	U
S10V000285	O	108-94-1	Cyclohexanone	ug/kg	n/a	<558	<553	n/a	n/a	n/a	n/a	553	n/a	U
S10V000285	O	59-89-2	N-Nitrosomorpholine	ug/kg	n/a	<191	<190	n/a	n/a	n/a	n/a	190	n/a	U
S10V000285	O	78-83-1	Isobutanol	ug/kg	n/a	<460	<456	n/a	n/a	n/a	n/a	456	n/a	U
S10V000286	W	16984-48-8	Fluoride	ug/g	101	<1.61E-03	0.597	n/a	n/a	n/a	n/a	0.0160	n/a	
S10V000286	W	GLYCOLAT	Glycolate	ug/g	96.8	<9.37E-03	<0.0930	n/a	n/a	n/a	n/a	0.0930	n/a	U
S10V000286	W	71-50-1	Acetate	ug/g	95.5	<6.04E-03	<0.0600	n/a	n/a	n/a	n/a	0.0600	n/a	U
S10V000286	W	FORMATE	Formate	ug/g	98.3	<4.67E-03	0.127	n/a	n/a	n/a	n/a	0.0464	n/a	B

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Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B25WM5

Sample Depth: 80-82

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000286	W	16887-00-6	Chloride	ug/g	98.6	<9.98E-03	2.48	n/a	n/a	n/a	n/a	0.0991	n/a	
S10V000286	W	14797-65-0	Nitrite	ug/g	101	0.0274	0.846	n/a	n/a	n/a	n/a	0.191	n/a	CB
S10V000286	W	14808-79-8	Sulfate	ug/g	101	0.0210	13.9	n/a	n/a	n/a	n/a	0.186	n/a	
S10V000286	W	338-70-5	Oxalate	ug/g	103	<0.0231	<0.229	n/a	n/a	n/a	n/a	0.229	n/a	U
S10V000286	W	24959-67-9	Bromide	ug/g	100	<0.0580	<0.576	n/a	n/a	n/a	n/a	0.576	n/a	U
S10V000286	W	14797-55-8	Nitrate	ug/g	100	0.0418	4.05	n/a	n/a	n/a	n/a	0.207	n/a	
S10V000286	W	14265-44-2	Phosphate	ug/g	98.8	<0.0167	0.290	n/a	n/a	n/a	n/a	0.166	n/a	B
S10V000287	A	7429-90-5	Aluminum	ug/g	84.3	<0.0300	6.12E+03	5.92E+03	6.02E+03	3.28	-304	2.98	n/a	
S10V000287	A	7440-39-3	Barium	ug/g	86.9	<3.00E-03	51.2	52.8	52.0	3.18	98.3	0.298	n/a	
S10V000287	A	7440-41-7	Beryllium	ug/g	85.8	<1.00E-03	0.166	0.151	0.159	9.40	99.3	0.0994	n/a	B
S10V000287	A	7440-70-2	Calcium	ug/g	81.4	0.320	9.33E+03	9.26E+03	9.29E+03	0.764	3.20E+03	4.97	n/a	
S10V000287	A	7440-43-9	Cadmium	ug/g	85.4	<5.00E-03	1.16	1.24	1.20	6.89	101	0.497	n/a	B
S10V000287	A	7440-45-1	Cerium	ug/g	88.9	<0.0300	16.4	16.7	16.5	1.74	110	2.98	n/a	B
S10V000287	A	7440-48-4	Cobalt	ug/g	84.1	<0.0100	5.88	6.00	5.94	2.04	102	0.994	n/a	B
S10V000287	A	7440-47-3	Chromium	ug/g	84.8	5.00E-03	13.2	12.7	13.0	4.01	99.8	0.497	n/a	
S10V000287	A	7440-50-8	Copper	ug/g	90.6	<5.00E-03	8.43	8.71	8.57	3.19	96.7	0.497	n/a	
S10V000287	A	7439-89-6	Iron	ug/g	85.9	0.0224	1.27E+04	1.34E+04	1.30E+04	4.86	-1.01E+03	0.497	n/a	
S10V000287	A	7440-09-7	Potassium	ug/g	95.8	<0.500	923	886	905	4.12	23.9	49.7	n/a	
S10V000287	A	7439-91-0	Lanthanum	ug/g	88.3	<3.00E-03	6.63	8.18	7.41	20.9	98.5	0.298	n/a	
S10V000287	A	7439-93-2	Lithium	ug/g	85.9	<3.00E-03	8.14	8.08	8.11	0.780	95.0	0.298	n/a	
S10V000287	A	7439-95-4	Magnesium	ug/g	99.5	<0.0500	4.58E+03	4.37E+03	4.48E+03	4.56	-498	4.97	n/a	
S10V000287	A	7439-96-5	Manganese	ug/g	83.9	<3.00E-03	247	249	248	0.935	84.1	0.298	n/a	
S10V000287	A	7439-98-7	Molybdenum	ug/g	88.2	<0.0200	<1.99	<1.99	n/a	n/a	100	1.99	n/a	U
S10V000287	A	7440-23-5	Sodium	ug/g	85.2	0.112	161	172	166	6.31	156	9.94	n/a	N
S10V000287	A	7440-02-0	Nickel	ug/g	83.7	<0.0200	12.1	10.9	11.5	10.4	98.0	1.99	n/a	B
S10V000287	A	7723-14-0	Phosphorus	ug/g	85.9	<0.0500	514	501	507	2.45	63.0	4.97	n/a	
S10V000287	A	7704-34-9	Sulfur	ug/g	85.6	<0.100	61.8	56.8	59.3	8.56	70.6	9.94	n/a	BN
S10V000287	A	7440-21-3	Silicon	ug/g	98.8	<0.0300	50.6	33.7	42.2	40.0	161	2.98	n/a	NM
S10V000287	A	7440-24-6	Strontium	ug/g	86.9	<3.00E-03	30.1	26.8	28.4	11.7	93.5	0.298	n/a	

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U - Less Than Detection Limit
C - Blank Contamination

Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B25WM5

Sample Depth: 80-82

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000287	A	7440-32-6	Titanium	ug/g	86.5	<5.00E-03	505	548	527	8.14	168	0.497	n/a	
S10V000287	A	7440-62-2	Vanadium	ug/g	86.6	<5.00E-03	20.2	21.6	20.9	6.54	103	0.497	n/a	
S10V000287	A	7440-65-5	Yttrium	ug/g	85.7	<2.00E-03	5.61	5.81	5.71	3.47	100	0.199	n/a	
S10V000287	A	7440-66-6	Zinc	ug/g	87.5	<5.00E-03	27.1	27.2	27.2	0.126	98.0	0.497	n/a	
S10V000287	A	7440-67-7	Zirconium	ug/g	81.4	<5.00E-03	4.65	4.98	4.82	6.79	47.8	0.497	n/a	BN
S10V000287	A	14269-63-7	Thorium-230	ug/g	n/a	<2.80E-06	<2.78E-05	<2.78E-05	n/a	n/a	n/a	2.78E-05	n/a	U
S10V000287	A	TH-232	Thorium-232	ug/g	99.6	<6.80E-05	3.20	3.74	3.47	15.6	91.3	6.76E-04	n/a	
S10V000287	A	13968-55-3	Uranium-233	ug/g	n/a	<4.00E-06	1.43E-04	2.70E-04	2.07E-04	61.4	n/a	3.98E-05	n/a	
S10V000287	A	13966-29-5	Uranium-234	ug/g	n/a	<2.00E-06	3.94E-05	<1.99E-05	n/a	n/a	n/a	1.99E-05	n/a	
S10V000287	A	15117-96-1	Uranium-235	ug/g	91.3	<4.40E-06	3.70E-03	3.01E-03	3.35E-03	20.7	88.1	4.37E-05	n/a	
S10V000287	A	13982-70-2	Uranium-236	ug/g	n/a	<1.60E-06	<1.59E-05	2.88E-05	n/a	n/a	n/a	1.59E-05	n/a	U
S10V000287	A	13994-20-2	Neptunium-237	ug/g	100	<2.12E-05	<2.11E-04	<2.11E-04	n/a	n/a	99.9	2.11E-04	n/a	U
S10V000287	A	U-238	Uranium-238	ug/g	97.3	<2.20E-04	0.503	0.438	0.471	13.8	98.7	2.19E-03	n/a	
S10V000287	A	7440-22-4	Silver	ug/g	84.4	<3.20E-03	0.0362	0.0421	0.0392	15.1	89.0	0.0318	n/a	B
S10V000287	A	7440-38-2	Arsenic	ug/g	90.4	<0.0168	2.99	3.18	3.09	6.21	81.6	0.167	n/a	
S10V000287	A	7439-92-1	Lead	ug/g	98.2	<6.00E-03	3.41	3.76	3.58	9.76	99.5	0.0596	n/a	
S10V000287	A	7782-49-2	Selenium	ug/g	95.1	<0.0244	0.434	0.353	0.393	20.8	92.0	0.243	n/a	B
S10V000287	A	7440-28-0	Thallium	ug/g	104	3.19E-03	0.0806	0.0764	0.0785	5.26	107	0.0159	n/a	CB
S10V000288	S	14798-03-9	Ammonium	ug/g	92.9	0.0397	1.93	1.02	1.48	61.6	94.8	0.476	n/a	CB
S10V000289	A	14133-76-7	Technetium-99	ug/g	108	<3.00E-05	<2.98E-04	3.39E-04	3.19E-04	12.6	100	2.98E-04	n/a	U
S10V000289	A	SN-117	Tin-117	ug/g	102	<1.10E-03	<0.0109	<0.0109	n/a	n/a	64.7	0.0109	n/a	UN
S10V000289	A	15832-50-5	Tin-126	ug/g	n/a	<2.00E-05	4.99E-04	3.35E-04	4.17E-04	39.3	n/a	1.99E-04	n/a	N
S10V000290	E	CM-243/244	Curium-243/244	uCi/g	n/a	<2.56E-07	<2.17E-07	n/a	n/a	n/a	n/a	2.17E-07	n/a	U
S10V000290	E	14596-10-2	Americium-241	uCi/g	104	<6.41E-07	<5.41E-07	n/a	n/a	n/a	n/a	5.41E-07	n/a	U
S10V000290	E	15510-73-3	Curium-242	uCi/g	n/a	<2.56E-07	<2.17E-07	n/a	n/a	n/a	n/a	2.17E-07	n/a	U
S10V000290	E	PU-239/240	Plutonium-239/240	uCi/g	99.8	<3.55E-07	<3.13E-07	n/a	n/a	n/a	n/a	3.13E-07	n/a	U
S10V000290	E	13981-16-3	Plutonium-238	uCi/g	n/a	<3.55E-07	<3.13E-07	n/a	n/a	n/a	n/a	3.13E-07	n/a	U
S10V000291	E	SR-89/90	Strontium-89/90	uCi/g	98.6	<2.36E-07	<8.82E-07	n/a	n/a	n/a	n/a	8.82E-07	n/a	U
S10V000292	E	13981-37-8	Nickel-63	uCi/g	114	<8.68E-06	<5.47E-06	n/a	n/a	n/a	n/a	5.47E-06	n/a	U

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Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B25WM5

Sample Depth: 80-82

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000292	E	15758-45-9	Selenium-79	uCi/g	n/a	4.38E-06	3.97E-06	n/a	n/a	n/a	n/a	2.22E-06	82.431	B
S10V001172	W	10028-17-8	Tritium	uCi/g	87.9	<3.83E-06	<3.30E-06	n/a	n/a	n/a	n/a	3.30E-06	n/a	U
S10V001211	A	7440-36-0	Antimony	ug/g	105	<2.00E-03	0.144	0.138	0.141	4.14	93.8	0.0198	n/a	
S10V002147	WV	14133-76-7	Technetium-99	ug/g	105	<4.00E-06	1.92E-05	n/a	n/a	n/a	n/a	3.73E-06	n/a	
S10V002239	W	14762-75-5	Carbon-14	uCi/g	94.0	<3.49E-07	<4.17E-06	n/a	n/a	n/a	n/a	4.17E-06	n/a	U

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Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B25WM5A

Sample Depth: 80-82

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000279		BULKDENSI	Bulk Density	g/mL	n/a	n/a	1.95	n/a	n/a	n/a	n/a	n/a	n/a	

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C - Blank Contamination

Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B25WM5B

Sample Depth: 80-82

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000280		BULKDENSI	Bulk Density	g/mL	n/a	n/a	2.08	n/a	n/a	n/a	n/a	n/a	n/a	

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B - Estimated
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C - Blank Contamination

Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B25WM5C

Sample Depth: 80-82

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000281		BULKDENSI	Bulk Density	g/mL	n/a	n/a	2.00	n/a	n/a	n/a	n/a	n/a	n/a	

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Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B25WM8

Sample Depth: 132-134

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000299		%WATERA	%WATER-APD	%	n/a	n/a	5.420	n/a	n/a	n/a	n/a	0.01000	n/a	
S10V000299		57-12-5	Cyanide	ug/g	96.3	<0.0370	<2.60	<2.59	n/a	n/a	108	2.60	n/a	U
S10V000299		7439-97-6	Mercury	ug/g	99.9	<1.00E-04	<9.81E-03	n/a	n/a	n/a	n/a	9.81E-03	n/a	U
S10V000299		PH	pH	unitless	n/a	n/a	9.32	n/a	n/a	n/a	n/a	0.0100	n/a	
S10V000299		12597-04-5	Sulfide	ug/g	89.3	<0.180	<7.13	<7.00	n/a	n/a	95.3	7.13	n/a	U
S10V000301		13966-00-2	Potassium-40	uCi/g	n/a	n/a	1.40E-05	n/a	n/a	n/a	n/a	6.51E-06	31.40	
S10V000301		10198-40-0	Cobalt-60	uCi/g	102	<3.08E-07	<2.97E-07	n/a	n/a	n/a	n/a	2.97E-07	n/a	U
S10V000301		14234-35-6	Antimony-125	uCi/g	n/a	<6.68E-07	<8.50E-07	n/a	n/a	n/a	n/a	8.50E-07	n/a	U
S10V000301		10045-97-3	Cesium-137	uCi/g	107	<3.81E-07	<4.07E-07	n/a	n/a	n/a	n/a	4.07E-07	n/a	U
S10V000301		14683-23-9	Europium-152	uCi/g	n/a	<1.37E-06	<1.56E-06	n/a	n/a	n/a	n/a	1.56E-06	n/a	U
S10V000301		15585-10-1	Europium-154	uCi/g	n/a	<9.15E-07	<9.39E-07	n/a	n/a	n/a	n/a	9.39E-07	n/a	U
S10V000301		14391-16-3	Europium-155	uCi/g	n/a	<4.54E-07	<5.49E-07	n/a	n/a	n/a	n/a	5.49E-07	n/a	U
S10V000301		15092-94-1	Lead-212	uCi/g	n/a	n/a	7.64E-07	n/a	n/a	n/a	n/a	5.92E-07	49.49	
S10V000301		14274-82-9	Thorium-228	uCi/g	n/a	<8.10E-06	<1.01E-05	n/a	n/a	n/a	n/a	1.01E-05	n/a	U
S10V000301		15065-10-8	Thorium-234	uCi/g	n/a	<2.56E-06	<3.46E-06	n/a	n/a	n/a	n/a	3.46E-06	n/a	U
S10V000301		15046-84-1	Iodine-129	uCi/g	117	<2.00E-07	<1.80E-07	n/a	n/a	n/a	n/a	1.80E-07	n/a	U
S10V000302	O	120-82-1	1,2,4-Trichlorobenzene	ug/kg	58.7	<77.4	<77.2	n/a	n/a	n/a	63.1	77.2	n/a	U
S10V000302	O	95-50-1	1,2-Dichlorobenzene	ug/kg	n/a	<101	<100	n/a	n/a	n/a	n/a	100	n/a	U
S10V000302	O	121-14-2	2,4-Dinitrotoluene	ug/kg	78.7	<38.1	<38.0	n/a	n/a	n/a	81.5	38.0	n/a	U
S10V000302	O	95-95-4	2,4,5-Trichlorophenol	ug/kg	n/a	<44.0	<43.9	n/a	n/a	n/a	n/a	43.9	n/a	U
S10V000302	O	88-06-2	2,4,6-Trichlorophenol	ug/kg	n/a	<49.5	<49.4	n/a	n/a	n/a	n/a	49.4	n/a	U
S10V000302	O	95-48-7	2-Methylphenol	ug/kg	n/a	<57.5	<57.4	n/a	n/a	n/a	n/a	57.4	n/a	U
S10V000302	O	88-75-5	2-Nitrophenol	ug/kg	n/a	<53.7	<53.6	n/a	n/a	n/a	n/a	53.6	n/a	U
S10V000302	O	65794-96-9	3 &4 Methylphenol	ug/kg	n/a	<51.4	<51.3	n/a	n/a	n/a	n/a	51.3	n/a	U
S10V000302	O	83-32-9	Acenaphthene	ug/kg	65.2	<17.6	<17.6	n/a	n/a	n/a	67.6	17.6	n/a	U
S10V000302	O	56-55-3	Benzo(a)anthracene	ug/kg	n/a	<37.8	<37.7	n/a	n/a	n/a	n/a	37.7	n/a	U
S10V000302	O	205-99-2	Benzo(b)fluoranthene	ug/kg	n/a	<48.9	<48.8	n/a	n/a	n/a	n/a	48.8	n/a	U
S10V000302	O	50-32-8	Benzo(a)pyrene	ug/kg	n/a	<41.2	<41.1	n/a	n/a	n/a	n/a	41.1	n/a	U
S10V000302	O	117-81-7	Bis(2-ethylhexyl) phthalate	ug/kg	n/a	<590	<589	n/a	n/a	n/a	n/a	589	n/a	U

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U - Less Than Detection Limit
C - Blank Contamination

Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B25WM8

Sample Depth: 132-134

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000302	O	207-08-9	Benzo(k)fluoranthene	ug/kg	n/a	<39.1	<39.0	n/a	n/a	n/a	n/a	39.0	n/a	U
S10V000302	O	85-68-7	Butylbenzylphthalate	ug/kg	n/a	<50.0	105	n/a	n/a	n/a	n/a	49.9	n/a	J
S10V000302	O	59-50-7	4-Chloro-3-methylphenol	ug/kg	67.4	<43.2	<43.1	n/a	n/a	n/a	75.1	43.1	n/a	U
S10V000302	O	95-57-8	2-Chlorophenol	ug/kg	62.8	<66.5	<66.4	n/a	n/a	n/a	64.0	66.4	n/a	U
S10V000302	O	218-01-9	Chrysene	ug/kg	n/a	<81.4	<81.2	n/a	n/a	n/a	n/a	81.2	n/a	U
S10V000302	O	53-70-3	Dibenz[a,h]anthracene	ug/kg	n/a	<51.1	<51.0	n/a	n/a	n/a	n/a	51.0	n/a	U
S10V000302	O	84-74-2	Di-n-butylphthalate	ug/kg	n/a	<562	<561	n/a	n/a	n/a	n/a	561	n/a	U
S10V000302	O	117-84-0	Di-n-octylphthalate	ug/kg	n/a	<47.7	<47.6	n/a	n/a	n/a	n/a	47.6	n/a	U
S10V000302	O	621-64-7	N-Nitroso-di-n-dipropylamine	ug/kg	59.3	<58.1	<58.0	n/a	n/a	n/a	60.2	58.0	n/a	U
S10V000302	O	206-44-0	Fluoranthene	ug/kg	n/a	<35.4	<35.3	n/a	n/a	n/a	n/a	35.3	n/a	U
S10V000302	O	87-68-3	Hexachlorobutadiene	ug/kg	n/a	<69.7	<69.6	n/a	n/a	n/a	n/a	69.6	n/a	U
S10V000302	O	67-72-1	Hexachloroethane	ug/kg	n/a	<112	<112	n/a	n/a	n/a	n/a	112	n/a	U
S10V000302	O	193-39-5	Indeno(1,2,3-cd)pyrene	ug/kg	n/a	<51.0	<50.9	n/a	n/a	n/a	n/a	50.9	n/a	U
S10V000302	O	91-20-3	Naphthalene	ug/kg	n/a	<62.6	<62.5	n/a	n/a	n/a	n/a	62.5	n/a	U
S10V000302	O	98-95-3	Nitrobenzene	ug/kg	n/a	<64.6	<64.5	n/a	n/a	n/a	n/a	64.5	n/a	U
S10V000302	O	129-00-0	Pyrene	ug/kg	83.8	<62.9	<62.8	n/a	n/a	n/a	83.2	62.8	n/a	U
S10V000302	O	110-86-1	Pyridine	ug/kg	n/a	<65.0	<64.9	n/a	n/a	n/a	n/a	64.9	n/a	U
S10V000302	O	126-73-8	Tributyl phosphate	ug/kg	n/a	<108	<108	n/a	n/a	n/a	n/a	108	n/a	U
S10V000302	O	128-37-0	BHT	ug/kg	n/a	<236	<235	n/a	n/a	n/a	n/a	235	n/a	U
S10V000302	O	110-80-5	2-Ethoxyethanol	ug/kg	n/a	<182	<182	n/a	n/a	n/a	n/a	182	n/a	U
S10V000302	O	1319-77-3	Total Methylphenols	ug/kg	n/a	<107	<106	n/a	n/a	n/a	n/a	106	n/a	U
S10V000302	O	108-94-1	Cyclohexanone	ug/kg	n/a	<558	<557	n/a	n/a	n/a	n/a	557	n/a	U
S10V000302	O	59-89-2	N-Nitrosomorpholine	ug/kg	n/a	<191	<191	n/a	n/a	n/a	n/a	191	n/a	U
S10V000302	O	78-83-1	Isobutanol	ug/kg	n/a	<460	<459	n/a	n/a	n/a	n/a	459	n/a	U
S10V000303	W	16984-48-8	Fluoride	ug/g	101	<1.61E-03	0.957	n/a	n/a	n/a	n/a	0.0161	n/a	
S10V000303	W	GLYCOLAT	Glycolate	ug/g	96.8	<9.37E-03	<0.0936	n/a	n/a	n/a	n/a	0.0936	n/a	U
S10V000303	W	71-50-1	Acetate	ug/g	95.5	<6.04E-03	0.297	n/a	n/a	n/a	n/a	0.0603	n/a	B
S10V000303	W	FORMATE	Formate	ug/g	98.3	<4.67E-03	0.238	n/a	n/a	n/a	n/a	0.0466	n/a	B
S10V000303	W	16887-00-6	Chloride	ug/g	98.6	<9.98E-03	1.11	n/a	n/a	n/a	n/a	0.0997	n/a	

NA = Not Analyzed, ND = Not Detected

B - Blank Contamination
J - Estimated
T - MS/MSD Outside Range
M - RPD Outside Range
B - Estimated
N - MS/MSD Outside Range
U - Less Than Detection Limit
C - Blank Contamination

Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B25WM8

Sample Depth: 132-134

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000303	W	14797-65-0	Nitrite	ug/g	101	0.0274	1.15	n/a	n/a	n/a	n/a	0.192	n/a	CB
S10V000303	W	14808-79-8	Sulfate	ug/g	101	0.0210	17.1	n/a	n/a	n/a	n/a	0.187	n/a	
S10V000303	W	338-70-5	Oxalate	ug/g	103	<0.0231	<0.231	n/a	n/a	n/a	n/a	0.231	n/a	U
S10V000303	W	24959-67-9	Bromide	ug/g	100	<0.0580	<0.579	n/a	n/a	n/a	n/a	0.579	n/a	U
S10V000303	W	14797-55-8	Nitrate	ug/g	100	0.0418	1.47	n/a	n/a	n/a	n/a	0.208	n/a	CB
S10V000303	W	14265-44-2	Phosphate	ug/g	98.8	<0.0167	0.383	n/a	n/a	n/a	n/a	0.167	n/a	B
S10V000304	A	7429-90-5	Aluminum	ug/g	84.3	<0.0300	7.38E+03	n/a	n/a	n/a	n/a	2.97	n/a	
S10V000304	A	7440-39-3	Barium	ug/g	86.9	<3.00E-03	62.8	n/a	n/a	n/a	n/a	0.297	n/a	
S10V000304	A	7440-41-7	Beryllium	ug/g	85.8	<1.00E-03	0.164	n/a	n/a	n/a	n/a	0.0991	n/a	B
S10V000304	A	7440-70-2	Calcium	ug/g	81.4	0.320	6.94E+03	n/a	n/a	n/a	n/a	4.96	n/a	
S10V000304	A	7440-43-9	Cadmium	ug/g	85.4	<5.00E-03	2.12	n/a	n/a	n/a	n/a	0.496	n/a	B
S10V000304	A	7440-45-1	Cerium	ug/g	88.9	<0.0300	16.0	n/a	n/a	n/a	n/a	2.97	n/a	B
S10V000304	A	7440-48-4	Cobalt	ug/g	84.1	<0.0100	6.87	n/a	n/a	n/a	n/a	0.991	n/a	B
S10V000304	A	7440-47-3	Chromium	ug/g	84.8	5.00E-03	14.7	n/a	n/a	n/a	n/a	0.496	n/a	
S10V000304	A	7440-50-8	Copper	ug/g	90.6	<5.00E-03	9.91	n/a	n/a	n/a	n/a	0.496	n/a	
S10V000304	A	7440-53-1	Europium	ug/g	86.7	<5.00E-03	0.575	n/a	n/a	n/a	n/a	0.496	n/a	B
S10V000304	A	7439-89-6	Iron	ug/g	85.9	0.0224	1.58E+04	n/a	n/a	n/a	n/a	0.496	n/a	
S10V000304	A	7440-09-7	Potassium	ug/g	95.8	<0.500	1.13E+03	n/a	n/a	n/a	n/a	49.6	n/a	
S10V000304	A	7439-91-0	Lanthanum	ug/g	88.3	<3.00E-03	6.75	n/a	n/a	n/a	n/a	0.297	n/a	
S10V000304	A	7439-93-2	Lithium	ug/g	85.9	<3.00E-03	8.00	n/a	n/a	n/a	n/a	0.297	n/a	
S10V000304	A	7439-95-4	Magnesium	ug/g	99.5	<0.0500	4.22E+03	n/a	n/a	n/a	n/a	4.96	n/a	
S10V000304	A	7439-96-5	Manganese	ug/g	83.9	<3.00E-03	300	n/a	n/a	n/a	n/a	0.297	n/a	
S10V000304	A	7439-98-7	Molybdenum	ug/g	88.2	<0.0200	<1.98	n/a	n/a	n/a	n/a	1.98	n/a	U
S10V000304	A	7440-23-5	Sodium	ug/g	85.2	0.112	303	n/a	n/a	n/a	n/a	9.91	n/a	N
S10V000304	A	7440-02-0	Nickel	ug/g	83.7	<0.0200	14.4	n/a	n/a	n/a	n/a	1.98	n/a	B
S10V000304	A	7723-14-0	Phosphorus	ug/g	85.9	<0.0500	570	n/a	n/a	n/a	n/a	4.96	n/a	
S10V000304	A	7704-34-9	Sulfur	ug/g	85.6	<0.100	39.8	n/a	n/a	n/a	n/a	9.91	n/a	BN
S10V000304	A	7440-21-3	Silicon	ug/g	98.8	<0.0300	80.8	n/a	n/a	n/a	n/a	2.97	n/a	NM
S10V000304	A	7440-24-6	Strontium	ug/g	86.9	<3.00E-03	33.7	n/a	n/a	n/a	n/a	0.297	n/a	

NA = Not Analyzed, ND = Not Detected

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M - RPD Outside Range
B - Estimated
N - MS/MSD Outside Range
U - Less Than Detection Limit
C - Blank Contamination

Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B25WM8

Sample Depth: 132-134

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000304	A	7440-32-6	Titanium	ug/g	86.5	<5.00E-03	864	n/a	n/a	n/a	n/a	0.496	n/a	
S10V000304	A	7440-62-2	Vanadium	ug/g	86.6	<5.00E-03	32.9	n/a	n/a	n/a	n/a	0.496	n/a	
S10V000304	A	7440-65-5	Yttrium	ug/g	85.7	<2.00E-03	6.53	n/a	n/a	n/a	n/a	0.198	n/a	
S10V000304	A	7440-66-6	Zinc	ug/g	87.5	<5.00E-03	30.5	n/a	n/a	n/a	n/a	0.496	n/a	
S10V000304	A	7440-67-7	Zirconium	ug/g	81.4	<5.00E-03	8.49	n/a	n/a	n/a	n/a	0.496	n/a	N
S10V000304	A	14269-63-7	Thorium-230	ug/g	n/a	<2.80E-06	<2.78E-05	n/a	n/a	n/a	n/a	2.78E-05	n/a	U
S10V000304	A	TH-232	Thorium-232	ug/g	99.6	<6.80E-05	2.08	n/a	n/a	n/a	n/a	6.74E-04	n/a	
S10V000304	A	13968-55-3	Uranium-233	ug/g	n/a	<4.00E-06	1.04E-04	n/a	n/a	n/a	n/a	3.97E-05	n/a	
S10V000304	A	13966-29-5	Uranium-234	ug/g	n/a	<2.00E-06	<1.98E-05	n/a	n/a	n/a	n/a	1.98E-05	n/a	U
S10V000304	A	15117-96-1	Uranium-235	ug/g	91.3	<4.40E-06	2.64E-03	n/a	n/a	n/a	n/a	4.36E-05	n/a	
S10V000304	A	13982-70-2	Uranium-236	ug/g	n/a	<1.60E-06	<1.59E-05	n/a	n/a	n/a	n/a	1.59E-05	n/a	U
S10V000304	A	13994-20-2	Neptunium-237	ug/g	100	<2.12E-05	<2.10E-04	n/a	n/a	n/a	n/a	2.10E-04	n/a	U
S10V000304	A	U-238	Uranium-238	ug/g	97.3	<2.20E-04	0.382	n/a	n/a	n/a	n/a	2.18E-03	n/a	
S10V000304	A	7440-22-4	Silver	ug/g	84.4	<3.20E-03	0.0464	n/a	n/a	n/a	n/a	0.0317	n/a	B
S10V000304	A	7440-38-2	Arsenic	ug/g	90.4	<0.0168	2.53	n/a	n/a	n/a	n/a	0.167	n/a	
S10V000304	A	7439-92-1	Lead	ug/g	98.2	<6.00E-03	3.19	n/a	n/a	n/a	n/a	0.0595	n/a	
S10V000304	A	7782-49-2	Selenium	ug/g	95.1	<0.0244	0.452	n/a	n/a	n/a	n/a	0.242	n/a	B
S10V000304	A	7440-28-0	Thallium	ug/g	104	3.19E-03	0.0880	n/a	n/a	n/a	n/a	0.0159	n/a	CB
S10V000305	S	14798-03-9	Ammonium	ug/g	96.3	0.0448	1.05	1.04	1.04	0.345	95.5	0.468	n/a	CB
S10V000306	A	14133-76-7	Technetium-99	ug/g	108	<3.00E-05	<2.99E-04	n/a	n/a	n/a	n/a	2.99E-04	n/a	U
S10V000306	A	SN-117	Tin-117	ug/g	102	<1.10E-03	<0.0109	n/a	n/a	n/a	n/a	0.0109	n/a	UN
S10V000306	A	15832-50-5	Tin-126	ug/g	n/a	<2.00E-05	2.95E-04	n/a	n/a	n/a	n/a	1.99E-04	n/a	N
S10V000307	E	CM-243/244	Curium-243/244	uCi/g	n/a	<2.56E-07	<1.87E-07	n/a	n/a	n/a	n/a	1.87E-07	n/a	U
S10V000307	E	14596-10-2	Americium-241	uCi/g	104	<6.41E-07	<4.69E-07	n/a	n/a	n/a	n/a	4.69E-07	n/a	U
S10V000307	E	15510-73-3	Curium-242	uCi/g	n/a	<2.56E-07	<1.87E-07	n/a	n/a	n/a	n/a	1.87E-07	n/a	U
S10V000307	E	PU-239/240	Plutonium-239/240	uCi/g	99.8	<3.55E-07	<2.70E-07	n/a	n/a	n/a	n/a	2.70E-07	n/a	U
S10V000307	E	13981-16-3	Plutonium-238	uCi/g	n/a	<3.55E-07	<2.70E-07	n/a	n/a	n/a	n/a	2.70E-07	n/a	U
S10V000308	E	SR-89/90	Strontium-89/90	uCi/g	99.4	<6.99E-07	<2.60E-07	n/a	n/a	n/a	n/a	2.60E-07	n/a	U
S10V000309	E	13981-37-8	Nickel-63	uCi/g	114	<8.68E-06	<7.97E-06	n/a	n/a	n/a	n/a	7.97E-06	n/a	U

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M - RPD Outside Range
B - Estimated
N - MS/MSD Outside Range
U - Less Than Detection Limit
C - Blank Contamination

Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B25WM8

Sample Depth: 132-134

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000309	E	15758-45-9	Selenium-79	uCi/g	n/a	4.38E-06	<1.67E-06	n/a	n/a	n/a	n/a	1.67E-06	n/a	U
S10V001173	W	10028-17-8	Tritium	uCi/g	87.9	<3.83E-06	3.46E-06	n/a	n/a	n/a	n/a	2.48E-06	124.044	
S10V001212	A	7440-36-0	Antimony	ug/g	105	<2.00E-03	0.149	n/a	n/a	n/a	n/a	0.0198	n/a	
S10V002148	WV	14133-76-7	Technetium-99	ug/g	109	<3.00E-06	<3.03E-06	n/a	n/a	n/a	n/a	3.03E-06	n/a	U
S10V002240	W	14762-75-5	Carbon-14	uCi/g	94.0	<3.49E-07	<4.76E-06	n/a	n/a	n/a	n/a	4.76E-06	n/a	U

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T - MS/MSD Outside Range
M - RPD Outside Range
B - Estimated
N - MS/MSD Outside Range
U - Less Than Detection Limit
C - Blank Contamination

Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B25WM8A

Sample Depth: 132-134

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000296		BULKDENSI	Bulk Density	g/mL	n/a	n/a	2.00	n/a	n/a	n/a	n/a	n/a	n/a	

NA = Not Analyzed, ND = Not Detected

B - Blank Contamination
J - Estimated
T - MS/MSD Outside Range
M - RPD Outside Range
B - Estimated
N - MS/MSD Outside Range
U - Less Than Detection Limit
C - Blank Contamination

Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B25WM8B

Sample Depth: 132-134

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000297		BULKDENSI	Bulk Density	g/mL	n/a	n/a	2.08	n/a	n/a	n/a	n/a	n/a	n/a	

NA = Not Analyzed, ND = Not Detected

B - Blank Contamination
J - Estimated
T - MS/MSD Outside Range
M - RPD Outside Range
B - Estimated
N - MS/MSD Outside Range
U - Less Than Detection Limit
C - Blank Contamination

Data Summary Report

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B25WM8C

Sample Depth: 132-134

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000298		BULKDENSI	Bulk Density	g/mL	n/a	n/a	1.99	n/a	n/a	n/a	n/a	n/a	n/a	

NA = Not Analyzed, ND = Not Detected

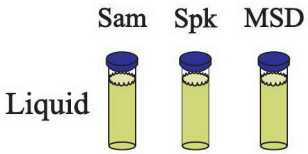
B - Blank Contamination
J - Estimated
T - MS/MSD Outside Range
M - RPD Outside Range
B - Estimated
N - MS/MSD Outside Range
U - Less Than Detection Limit
C - Blank Contamination

Attachment 2

SAMPLE BREAKDOWN DIAGRAM

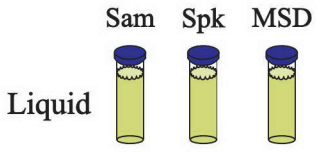
Vadose Zone: C Farm
Core No.: C7668
Group 20100062

Sample Depth: Field Blank-1
Customer ID. B23V96



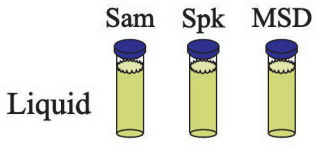
S10V000095
GC/MS VOA

Sample Depth: Field Blank-2
Customer ID. B23V97



S10V000096
GC/MS VOA

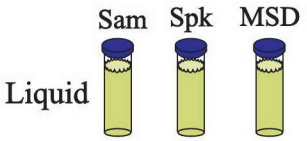
Sample Depth: Field Blank-3
Customer ID. B23V98



S10V00097
GC/MS VOA

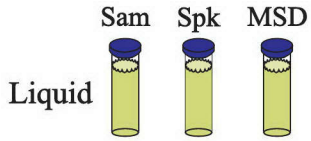
Sample diverted to WSCF
from 222S

Sample Depth: Field Blank-4
Customer ID. B23V99



S10V000098
GC/MS VOA

Sample Depth: Field Blank-5
Customer ID. B23VB0

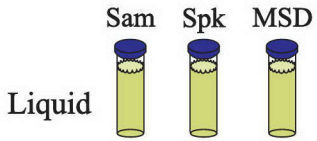


S10V000099
GC/MS VOA

Vadose Zone: C Farm
Core No.: C7668
Group 20100062

Sample diverted to WSCF from 222S

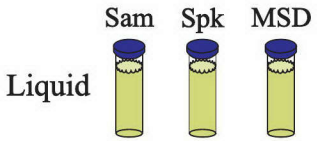
Sample Depth: Field Blank-8
Customer ID. B23VB3



S10V000102

Sample diverted to WSCF from 222S

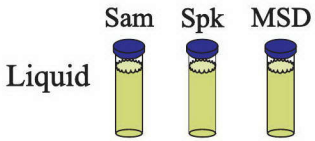
Sample Depth: Field Blank-9
Customer ID. B23VB4



S10V000103

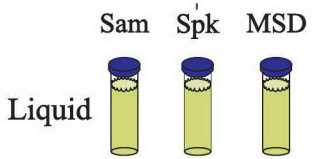
Sample delivered to WSCF

Sample Depth: Field Blank-10
Customer ID. B23VB5



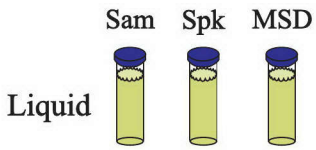
Vadose Zone: C Farm
Core No.: C7668
Group 20100062

Sample Depth Trip Blank-1
Customer ID. B23VB6



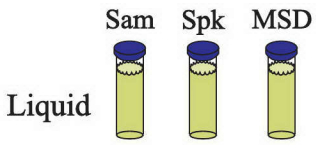
S10V000105
GC/MS VOA

Sample Depth Trip Blank-2
2Customer ID. B23VB7



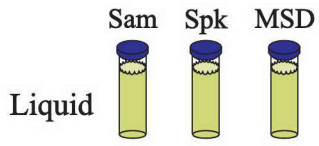
S10V000106
GC/MS VOA

Sample Depth Trip Blank-3
Customer ID. B23VB8



S10V000107
GC/MS VOA

Sample Depth Trip Blank-4
Customer ID. B23VB9

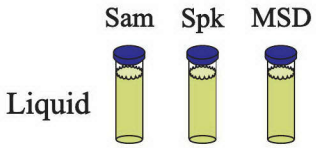


S10V000108
GC/MS VOA

Vadose Zone: C Farm
Core No.: C7668
Group 20100062

Sample diverted to WSCF from 222S

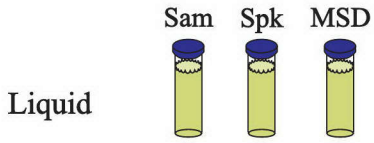
Sample Depth Trip Blank-7
Customer ID. B23VC2



S10V000111

Sample diverted to WSCF from 222S

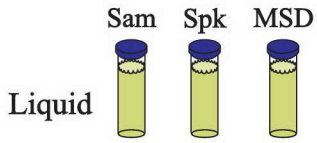
Sample Depth Trip Blank-8
Customer ID. B23VC3



S10V000112

Sample delivered to WSCF

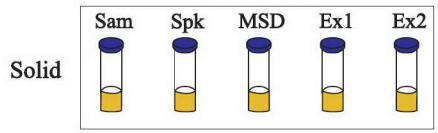
Sample Depth Trip Blank-9
Customer ID. B23VC4



Vadose Zone: C Farm 2010
Core No.: C7668
Group 20100064 (ATL)
Group 20100063 (Offsite)

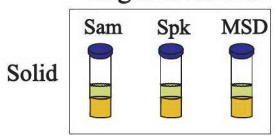
Sample Depth: Surface
Segment No: Surface

Customer ID: B23TK4
Sample Portion
Low Level



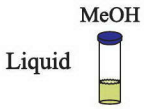
S10V000128
GC/MS VOA

Customer ID: B23TK4
Sample Portion
High Level 5035



S10V000129

Customer ID: B23TK3
Sample Portion
Methanol Blank

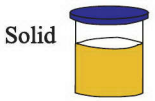


S10V000130

Customer ID: B23TK2

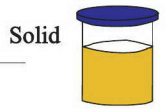
Group 20100063 (Offsite)

Sample Portion
Total



S10V000132
SHIP-OUTSIDE LAB

Sample Portion
Total



S10V000131
Grav % Solids - APD
% Water - APD
CN-EDTA
Sulfide
pH-Solid
Hg

Fill 60mL gamma jar

Sample Portion
Total

S10V000133
GEA
Iodine-129 in Soils
GEA Sreen
Total Activity

Sample Portion
Composite

Water Dig
Vadose

S10V002141
ICP/MS Tc-99

Acid Dig
Sb only

S10V001204
ICP/MS Metals

SVOA
Extraction

S10V000134
GC/MS SVOA

Water Digest

S10V000135
IC-Anion/Org Acid

S10V001165
H-3

S10V002232
C-14

Acid Digest

S10V000136
ICP/MS Actinides
ICP/AES Metals
ICP/MS Metals

NH_4
Distillation

S10V000137
IC-NH_4

Acid Digest
No HCL

S10V000138
ICP/MS Tc-99, Sn-126

Env Digest

S10V000139
Plutonium,
Americium

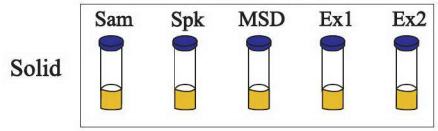
S10V000140
Sr-90 Env

S10V000141
Selenium-79
Nickel-63

Vadose Zone: C Farm 2010
Core No.: C7668
Group 20100064 (ATL)
Group 20100063 (Offsite)

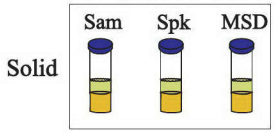
Sample Depth: Surface-Dup
Segment No: Surface Dup

Customer ID: B23TK7
Sample Portion
Low Level



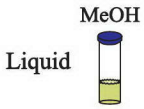
S10V000142
GC/MS VOA

Customer ID: B23TK7
Sample Portion
High Level 5035



S10V000143

Customer ID: B23TK6
Sample Portion
Methanol Blank

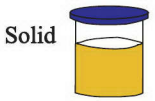


S10V000144

Customer ID: B23TK5

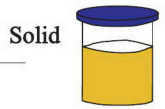
Group 20100063 (Offsite)

Sample Portion
Total



S10V000146
SHIP-OUTSIDE LAB

Sample Portion
Total



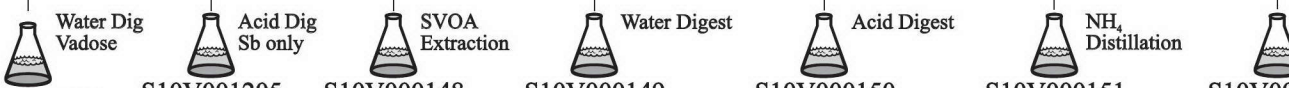
S10V000145
Grav % Solids - APD
% Water - APD
CN-EDTA
Sulfide
pH-Solid
Hg

Fill 60mL gamma jar

Sample Portion
Total

S10V000147
GEA
Iodine-129 in Soils
GEA Sreen
Total Activity

Sample Portion
Composite



S10V002142
ICP/MS Tc-99

S10V001205
ICP/MS Metals

S10V000148
GC/MS SVOA

S10V000149
IC-Anion/Org Acid
S10V001166
H-3
S10V002233
C-14

S10V000150
ICP/MS Actinides
ICP/AES Metals
ICP/MS Metals

S10V000151
IC-NH_4

S10V000152
ICP/MS Tc-99, Sn-126

S10V000153
Plutonium,
Americium

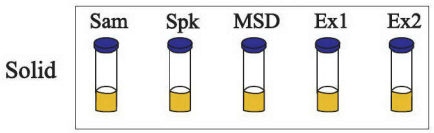
S10V000154
Sr-90 Env

S10V000155
Selenium-79
Nickel-63

Vadose Zone: C Farm 2010
Core No.: C7668
Group 20100064 (ATL)
Group 20100063 (Offsite)

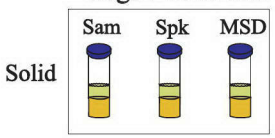
Sample Depth: 5-7 ft
Segment No: I001

Customer ID: B23TL0
Sample Portion
Low Level



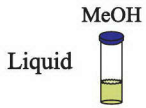
S10V000156
GC/MS VOA

Customer ID: B23TL0
Sample Portion
High Level 5035



S10V000157

Customer ID: B23TK9
Sample Portion
Methanol Blank



S10V000158

Customer ID: B23TK8A

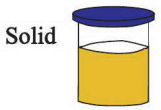
S10V000159
BREAKDOWN SAMPLE - APD

Customer ID: B23TK8C

S10V000161
BREAKDOWN SAMPLE - APD

Group 20100063 (Offsite)

Customer ID: B23TK8
Sample Portion
Composite



S10V000162
Composite
CN-EDTA
Sulfide
Hg

Sample Portion
Composite

S10V001206
ICP/MS Metals

S10V000165
GC/MS SVOA

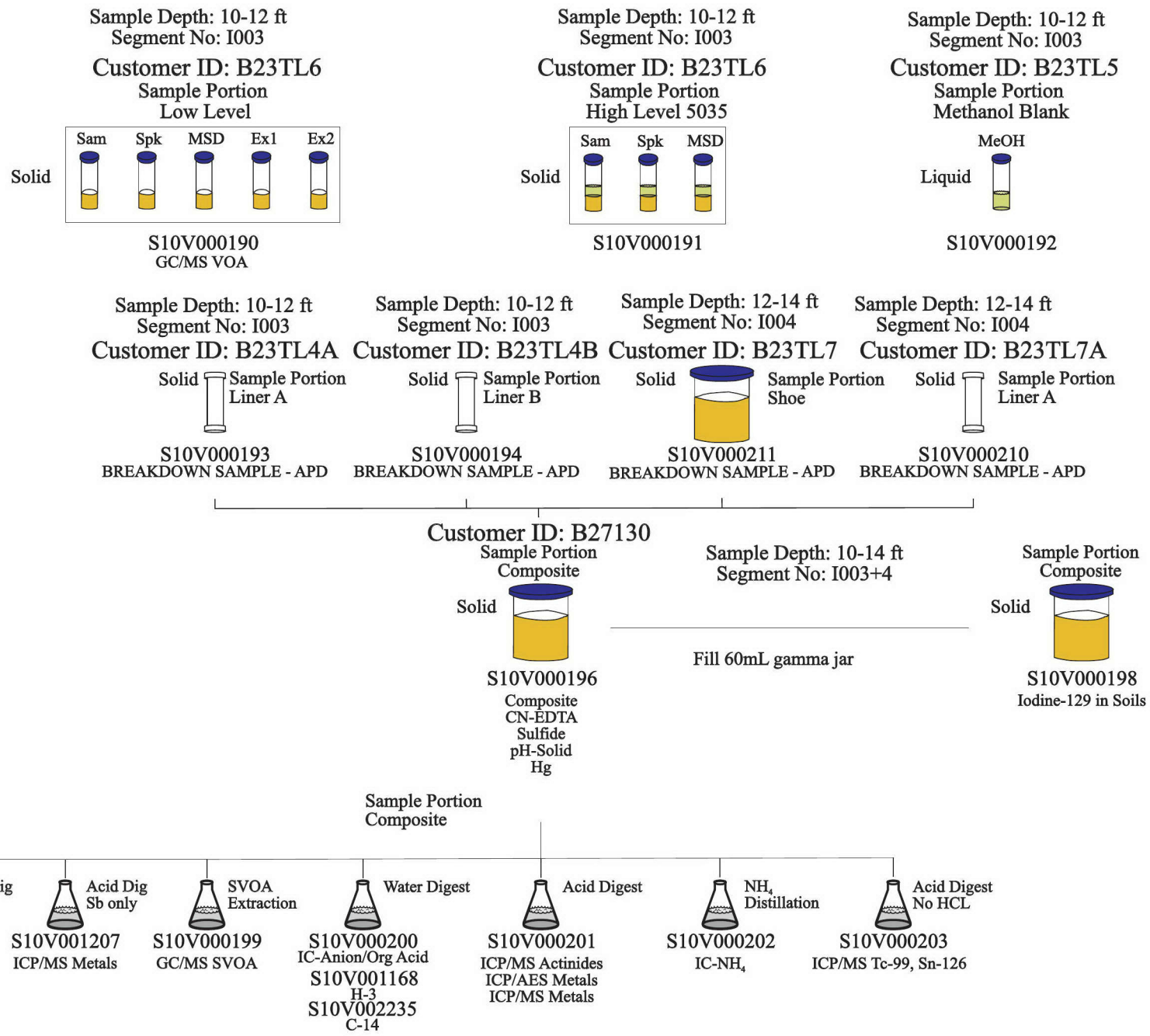
S10V000166
IC-Anion/Org Acid

S10V000167
ICP/MS Actinides
ICP/AES Metals
ICP/MS Metals

S10V000168
IC-NH_4

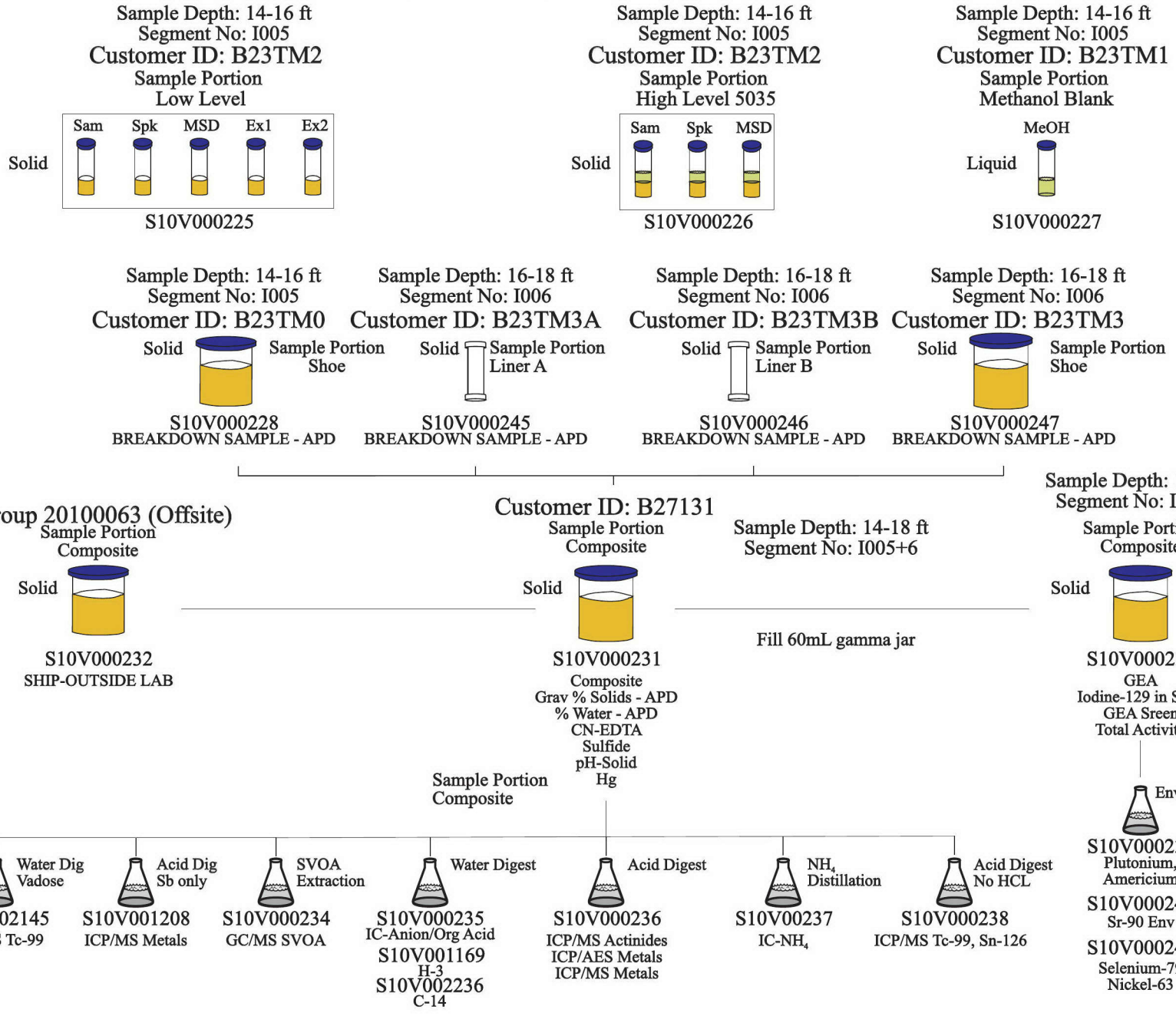
S10V000169
ICP/MS Tc-99, Sn-126

Vadose Zone: C Farm 2010
Core No.: C7668
Group 20100064 (ATL)
Group 20100063 (Offsite)



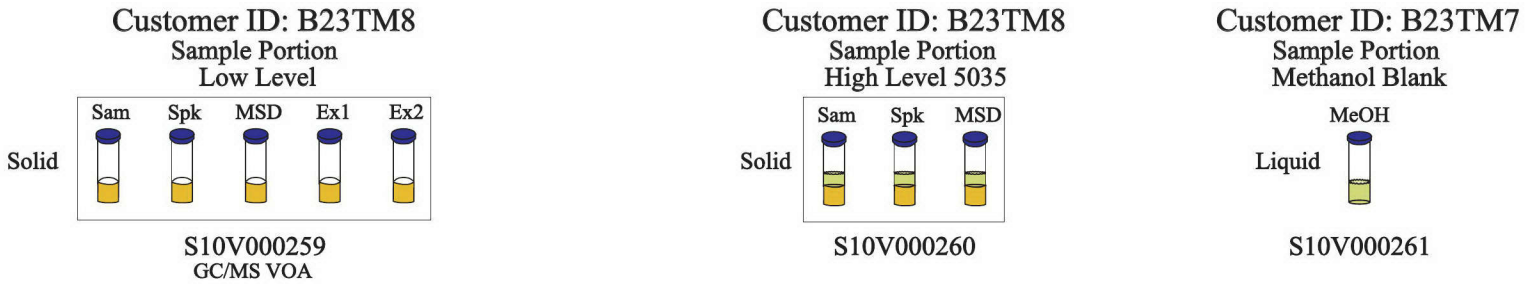
Vadose Zone: C Farm 2010
Core No.: C7668
Group 20100064 (ATL)
Group 20100063 (Offsite)

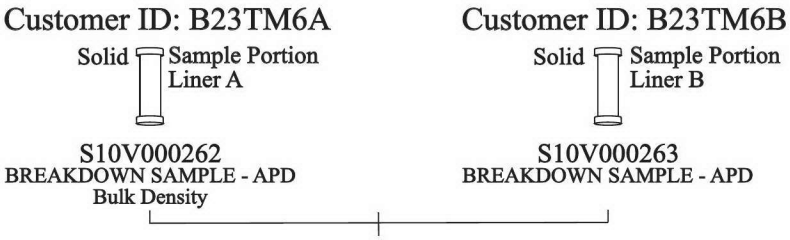
VOA Sample diverted to WSCF from 222S

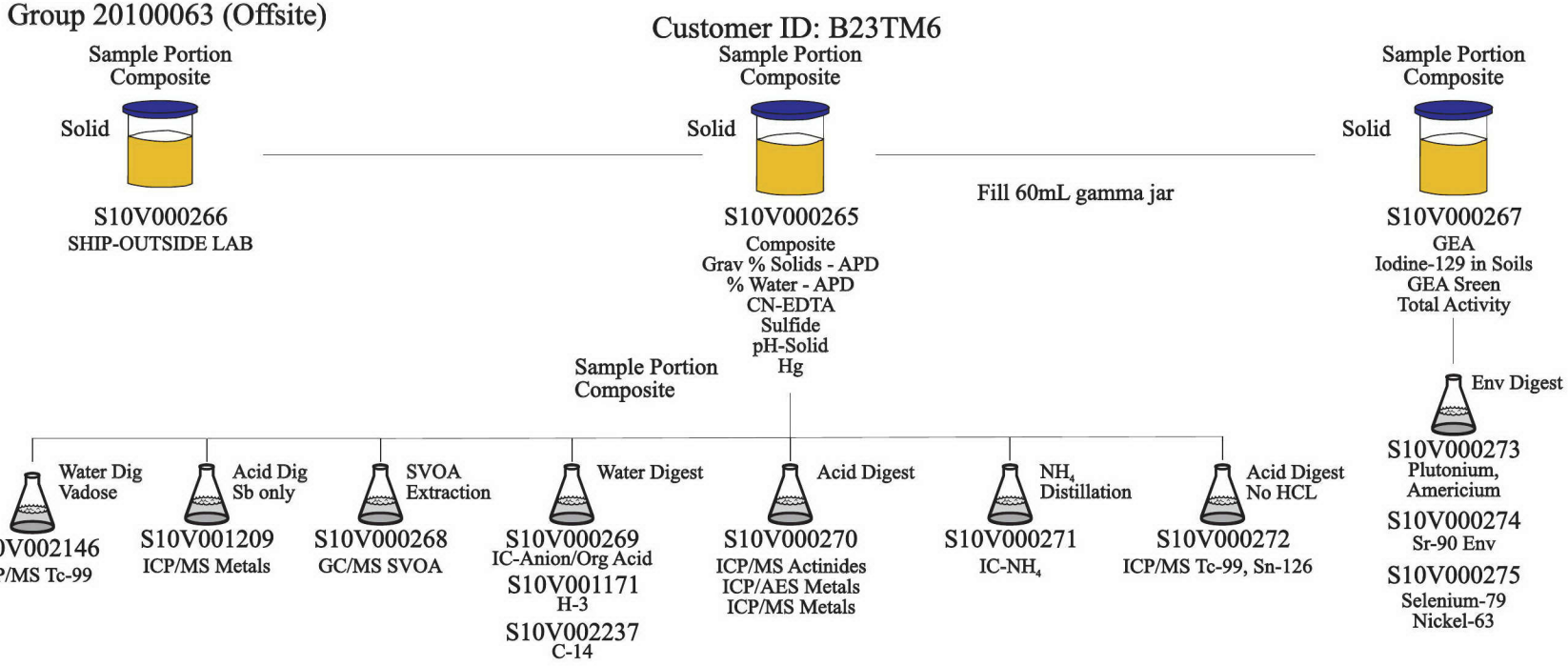


Vadose Zone: C Farm 2010
Core No.: C7668
Group 20100064 (ATL)
Group 20100063 (Offsite)

Sample Depth: 27-29 ft
Segment No: I007



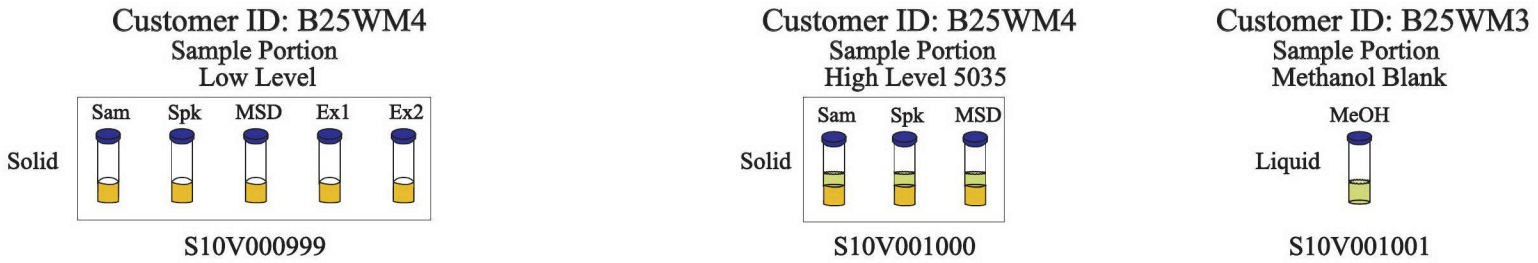


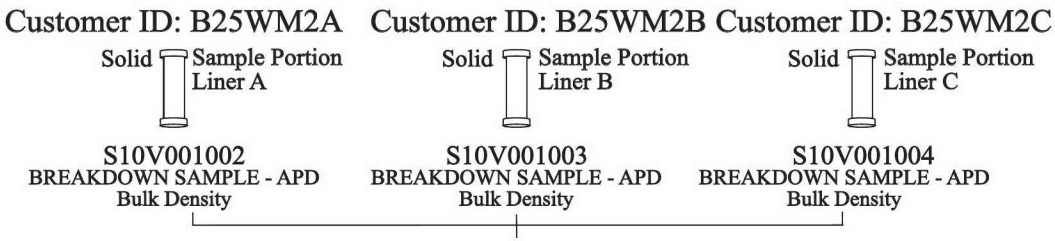


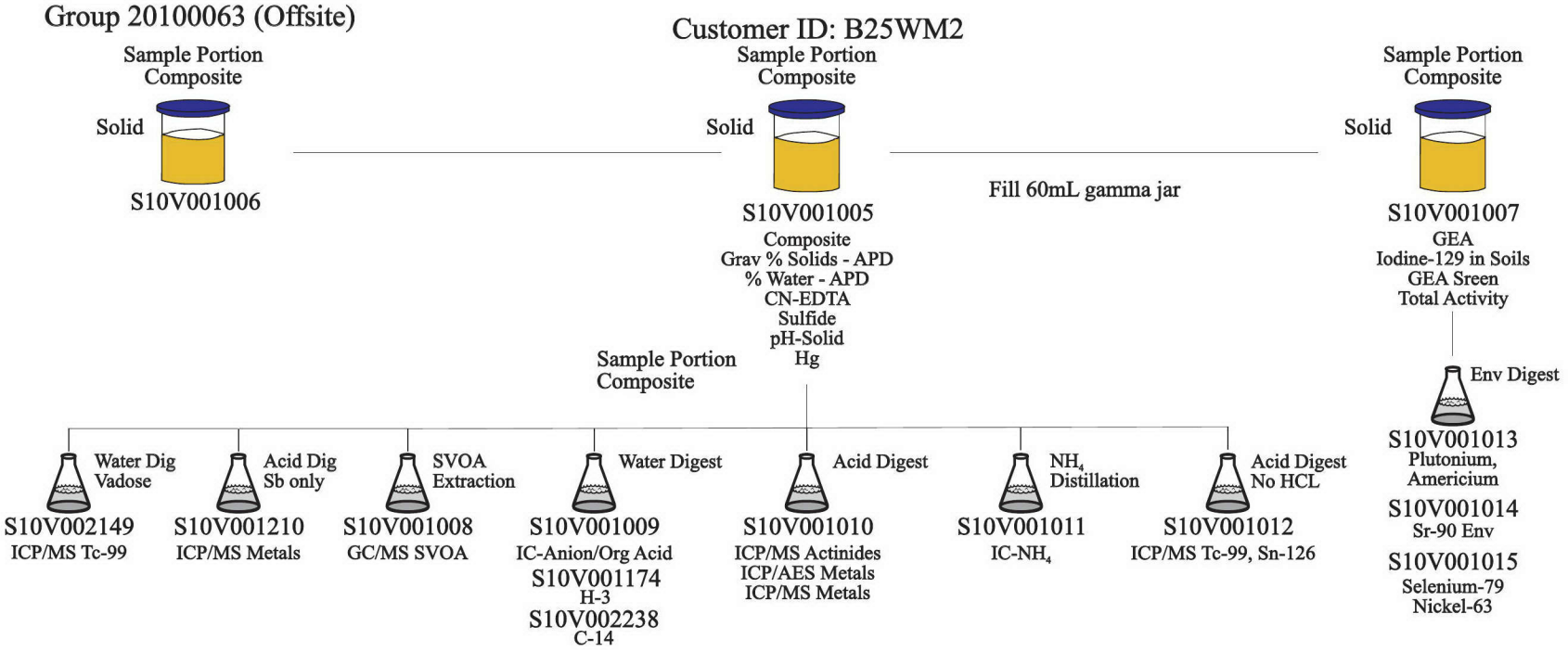
Vadose Zone: C Farm 2010
Core No.: C7668
Group 20100064 (ATL)
Group 20100063 (Offsite)

Sample Depth: 39-41ft
Segment No: I010

VOA Sample diverted to WSCF from 222S







Vadose Zone: C Farm 2010
Core No.: C7668
Group 20100062 (ATL)

Sample Depth: 39-41ft
Segment No: I010

Customer ID: B25YY2

Liquid

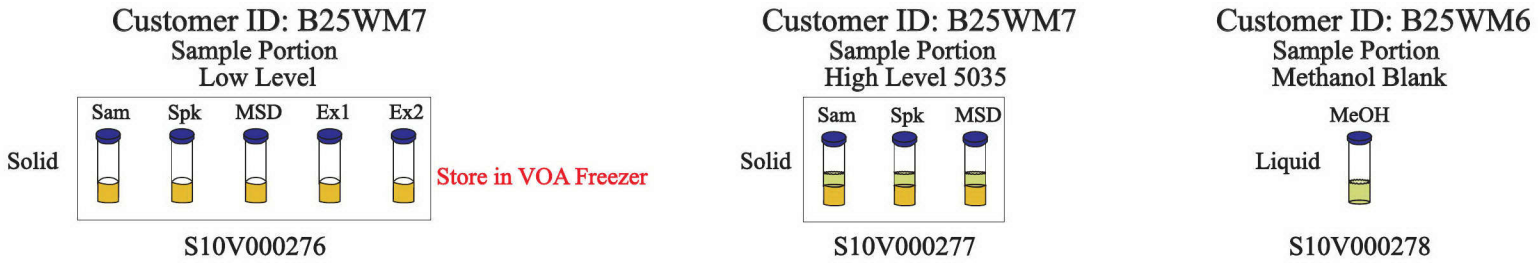
S10V001141
Filter

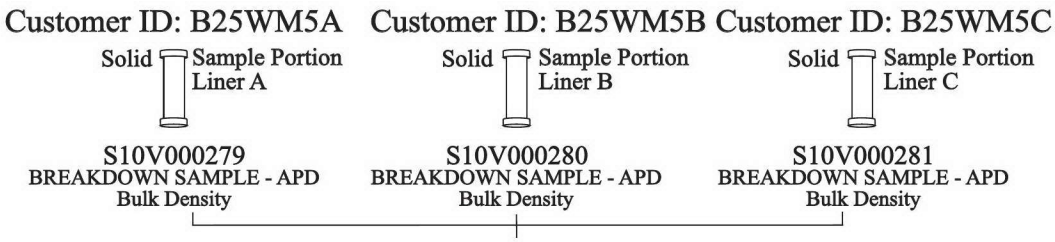
S10V001142
ICP/MS Tc-99, Sn-126

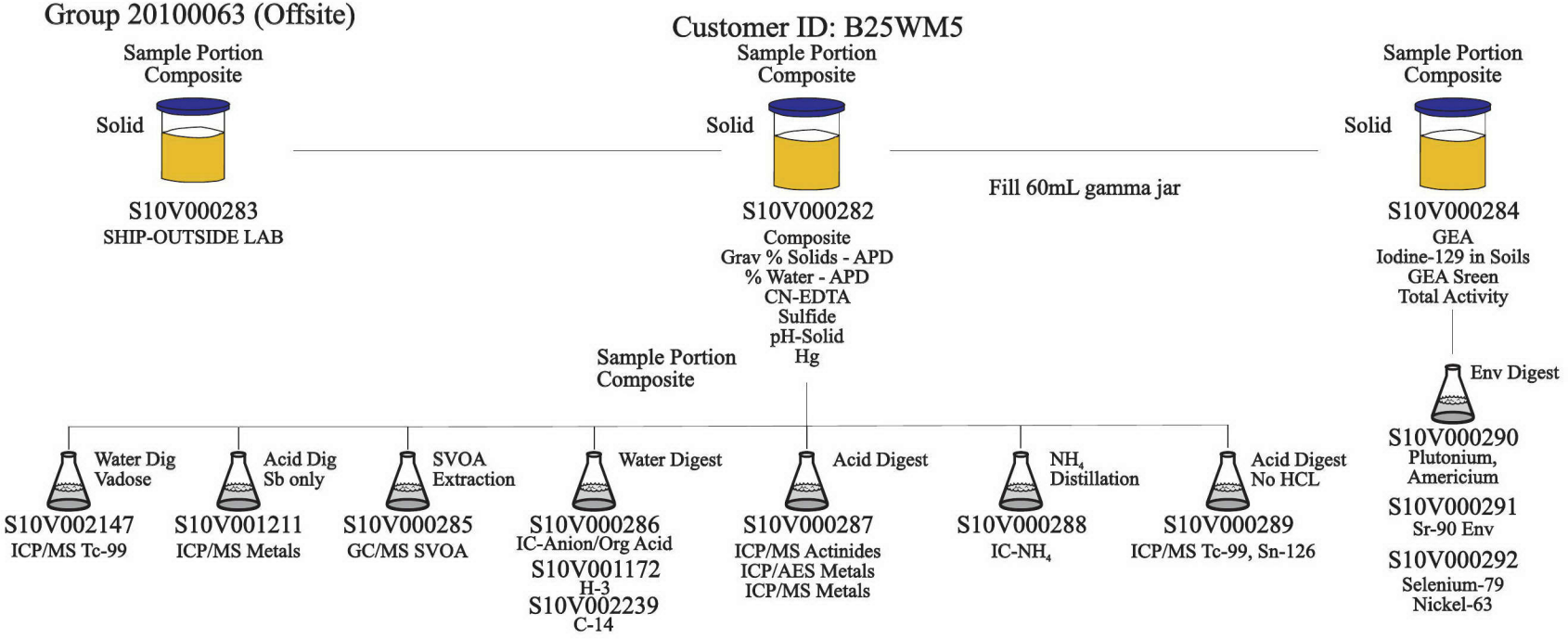
Vadose Zone: C Farm 2010
Core No.: C7668
Group 20100064 (ATL)
Group 20100063 (Offsite)

Sample Depth: 80-82 ft
Segment No: I011

VOA Sample diverted to WSCF from 222S



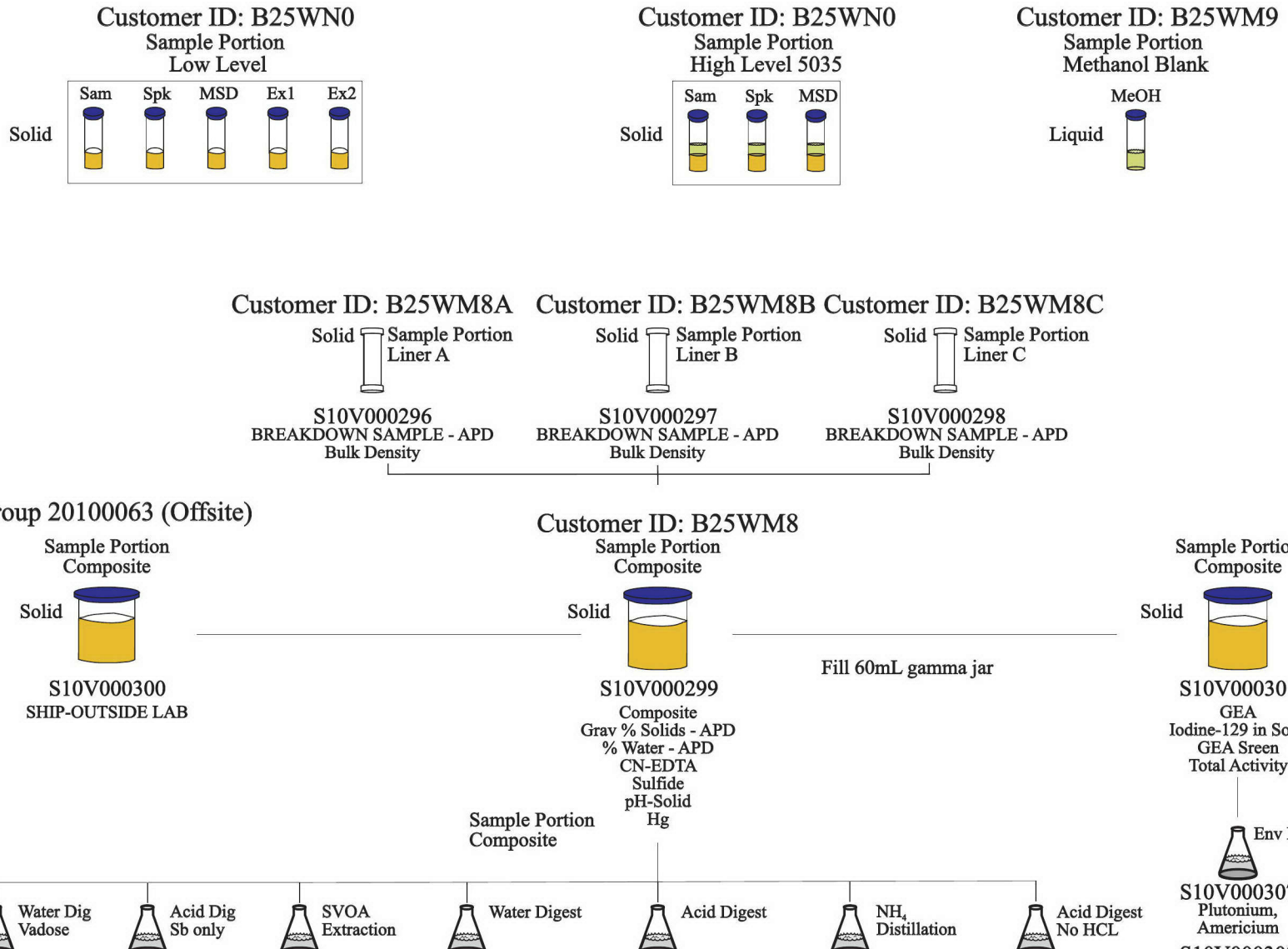




Vadose Zone: C Farm 2010
Core No.: C7668
Group 20100064 (ATL)
Group 20100063 (Offsite)

Sample Depth: 132-134 ft
Segment No: I012

VOA Sample delivered directly to WSCF



Attachment 3

HOLDING TIME REPORT

Attachment 4

ADDITIONAL QC RESULTS

Attachment 5

TICs FOR ORGANIC ANALYSES

C Farm WMC 2010-1
Data Summary and Opportunistic Analyte Results

Sample Group: 20100062

Core Number: C7668

Customer Sample ID: B23V96

Sample Depth: Field Blank-1

Sample# R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V000095		BLNK	Unknown-1		8.20	ug/L	0.65	
S10V000095		BLNK	Unknown-2		8.56	ug/L	0.32	
S10V000095		BLNK	Unknown-3		10.08	ug/L	0.49	
S10V000095		BLNK	Unknown-4		15.32	ug/L	2.3	

NA = Not Analyzed, ND = Not Detectec

J - Estimated
B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
N - Named TIC

C Farm WMC 2010-1
Data Summary and Opportunistic Analyte Results

Sample Group: 20100062

Core Number: C7668

Customer Sample ID: B23V97

Sample Depth: Field Blank-2

Sample# R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V000096			Unknown-1		6.24	ug/L	5.0	BJ
S10V000096			Unknown-2		8.18	ug/L	1.7	BJ
S10V000096			Unknown-3		15.32	ug/L	7.0	BJ
S10V000096			Unknown-4		16.83	ug/L	3.0	J
S10V000096			Unknown-5		17.04	ug/L	4.9	J
S10V000096		BLNK	Unknown-1		6.22	ug/L	2.3	
S10V000096		BLNK	Unknown-2		15.32	ug/L	4.5	
S10V000096		BLNK	Unknown-3		17.04	ug/L	1.3	

NA = Not Analyzed, ND = Not Detectec

J - Estimated
B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
N - Named TIC

C Farm WMC 2010-1
Data Summary and Opportunistic Analyte Results

Sample Group: 20100062

Core Number: C7668

Customer Sample ID: B23V98

Sample Depth: Field Blank-3

Sample# R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V000097			Unknown-1		6.24	ug/L	2.0	BJ
S10V000097			Unknown-2		15.32	ug/L	7.0	BJ
S10V000097			Unknown-3		17.04	ug/L	4.1	BJ
S10V000097		BLNK	Unknown-1		6.22	ug/L	2.3	
S10V000097		BLNK	Unknown-2		15.32	ug/L	4.5	
S10V000097		BLNK	Unknown-3		17.04	ug/L	1.3	

NA = Not Analyzed, ND = Not Detectec

J - Estimated
B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
N - Named TIC

C Farm WMC 2010-1
Data Summary and Opportunistic Analyte Results

Sample Group: 20100062

Core Number: C7668

Customer Sample ID: B23V99

Sample Depth: Field Blank-4

Sample# R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V000098			Unknown-1		6.14	ug/L	7.2	BJ
S10V000098			Unknown-2		15.32	ug/L	51	BJ
S10V000098			Unknown-3		17.04	ug/L	19	BJ
S10V000098		BLNK	Unknown-1		6.22	ug/L	2.3	
S10V000098		BLNK	Unknown-2		15.32	ug/L	4.5	
S10V000098		BLNK	Unknown-3		17.04	ug/L	1.3	

NA = Not Analyzed, ND = Not Detectec

J - Estimated
B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
N - Named TIC

C Farm WMC 2010-1
Data Summary and Opportunistic Analyte Results

Sample Group: 20100062

Core Number: C7668

Customer Sample ID: B23VB0

Sample Depth: Field Blank-5

Sample# R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V000099			Unknown-1		6.23	ug/L	6.3	BJ
S10V000099			Unknown-2		15.32	ug/L	11	BJ
S10V000099			Unknown-3		17.04	ug/L	12	BJ
S10V000099		BLNK	Unknown-1		6.22	ug/L	2.3	
S10V000099		BLNK	Unknown-2		15.32	ug/L	4.5	
S10V000099		BLNK	Unknown-3		17.04	ug/L	1.3	

NA = Not Analyzed, ND = Not Detectec

J - Estimated
B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
N - Named TIC

C Farm WMC 2010-1
Data Summary and Opportunistic Analyte Results

Sample Group: 20100062

Core Number: C7668

Customer Sample ID: B23VB6

Sample Depth: Trip Blank-1

Sample# R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V000105		BLNK	Unknown-1		8.20	ug/L	0.65	
S10V000105		BLNK	Unknown-2		8.56	ug/L	0.32	
S10V000105		BLNK	Unknown-3		10.08	ug/L	0.49	
S10V000105		BLNK	Unknown-4		15.32	ug/L	2.3	

NA = Not Analyzed, ND = Not Detectec

J - Estimated
B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
N - Named TIC

C Farm WMC 2010-1
Data Summary and Opportunistic Analyte Results

Sample Group: 20100062

Core Number: C7668

Customer Sample ID: B23VB7

Sample Depth: Trip Blank-2

Sample# R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V000106		BLNK	Unknown-1		8.20	ug/L	0.65	
S10V000106		BLNK	Unknown-2		8.56	ug/L	0.32	
S10V000106		BLNK	Unknown-3		10.08	ug/L	0.49	
S10V000106		BLNK	Unknown-4		15.32	ug/L	2.3	

NA = Not Analyzed, ND = Not Detectec

J - Estimated
B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
N - Named TIC

C Farm WMC 2010-1
Data Summary and Opportunistic Analyte Results

Sample Group: 20100062

Core Number: C7668

Customer Sample ID: B23VB8

Sample Depth: Trip Blank-3

Sample# R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V000107			Unknown-1		6.23	ug/L	3.7	BJ
S10V000107			Unknown-2		15.32	ug/L	8.2	BJ
S10V000107			Unknown-3		17.04	ug/L	6.3	BJ
S10V000107		BLNK	Unknown-1		6.22	ug/L	2.3	
S10V000107		BLNK	Unknown-2		15.32	ug/L	4.5	
S10V000107		BLNK	Unknown-3		17.04	ug/L	1.3	

NA = Not Analyzed, ND = Not Detectec

J - Estimated
B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
N - Named TIC

C Farm WMC 2010-1
Data Summary and Opportunistic Analyte Results

Sample Group: 20100062

Core Number: C7668

Customer Sample ID: B23VB9

Sample Depth: Trip Blank-4

Sample# R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V000108			Unknown-1		6.21	ug/L	4.1	BJ
S10V000108			Unknown-2		15.32	ug/L	11	BJ
S10V000108			Unknown-3		17.04	ug/L	7.1	BJ
S10V000108		BLNK	Unknown-1		6.22	ug/L	2.3	
S10V000108		BLNK	Unknown-2		15.32	ug/L	4.5	
S10V000108		BLNK	Unknown-3		17.04	ug/L	1.3	

NA = Not Analyzed, ND = Not Detectec

J - Estimated
B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
N - Named TIC

C Farm WMC 2010-1
Data Summary and Opportunistic Analyte Results

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B23TK2

Sample Depth: Surface

Sample# R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V000134	O		Bromacil	314-40-9	15.70	ug/kg	260	JN
S10V000134	O	BLNK	Unknown-1		12.34	ug/kg	680	
S10V000134	O	BLNK	Unknown-2		12.38	ug/kg	410	
S10V000134	O	BLNK	1,2-Benzenedicarboxyli	84-69-5	15.02	ug/kg	370	

NA = Not Analyzed, ND = Not Detectec

J - Estimated
B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
N - Named TIC

C Farm WMC 2010-1
Data Summary and Opportunistic Analyte Results

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B23TK5

Sample Depth: Surface Dup

Sample# R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V000148	O		Unknown-1		12.33	ug/kg	630	BJ
S10V000148	O		Unknown-2		12.38	ug/kg	390	BJ
S10V000148	O		1,2-Benzenedicarboxyli	84-69-5	15.02	ug/kg	530	BJN
S10V000148	O		Bromacil	314-40-9	15.69	ug/kg	340	JN
S10V000148	O		Pentafluoropropionic a	1000283-04-2	18.90	ug/kg	200	JN
S10V000148	O	BLNK	Unknown-1		12.34	ug/kg	680	
S10V000148	O	BLNK	Unknown-2		12.38	ug/kg	410	
S10V000148	O	BLNK	1,2-Benzenedicarboxyli	84-69-5	15.02	ug/kg	370	

NA = Not Analyzed, ND = Not Detectec

J - Estimated
B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
N - Named TIC

C Farm WMC 2010-1
Data Summary and Opportunistic Analyte Results

Sample Group: 20100064
Core Number: C7668
Customer Sample ID: B23TK8
Sample Depth: 5-7

Sample# R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V000165	O		Unknown-1		12.33	ug/kg	270	BJ
S10V000165	O		Bromacil	314-40-9	15.69	ug/kg	200	JN
S10V000165	O		Unknown-2		20.18	ug/kg	350	J
S10V000165	O		Unknown-3		20.38	ug/kg	500	J
S10V000165	O		Unknown-4		20.57	ug/kg	610	J
S10V000165	O		1,2-Benzenedicarboxyli	84-76-4	20.64	ug/kg	850	JN
S10V000165	O		Unknown-5		20.72	ug/kg	340	J
S10V000165	O		Unknown-6		20.75	ug/kg	1.1E+03	J
S10V000165	O		Unknown-7		20.84	ug/kg	650	J
S10V000165	O		Unknown-8		20.95	ug/kg	410	J
S10V000165	O		Unknown-9		21.02	ug/kg	730	J
S10V000165	O		Unknown-10		21.11	ug/kg	540	J
S10V000165	O		Unknown-11		21.13	ug/kg	580	J
S10V000165	O		Unknown-12		21.23	ug/kg	480	J
S10V000165	O		Unknown-13		21.34	ug/kg	240	J
S10V000165	O	BLNK	Unknown-1		3.98	ug/kg	300	
S10V000165	O	BLNK	Ethanol, 2-(2-butoxyet	112-34-5	9.21	ug/kg	270	
S10V000165	O	BLNK	Unknown-2		12.33	ug/kg	460	
S10V000165	O	BLNK	Unknown-3		12.37	ug/kg	320	
S10V000165	O	BLNK	1,2-Benzenedicarboxyli	84-69-5	15.02	ug/kg	1.3E+03	

NA = Not Analyzed, ND = Not Detectec

J - Estimated
B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
N - Named TIC

C Farm WMC 2010-1
Data Summary and Opportunistic Analyte Results

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B23TL0

Sample Depth: 5-7

Sample# R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V000156			Unknown-1		16.83	ug/kg	2.7	J
S10V000156			Unknown-2		17.04	ug/kg	3.0	J
S10V000156		BLNK	Unknown-1		6.24	ug/kg	8.5	

NA = Not Analyzed, ND = Not Detectec

J - Estimated
B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
N - Named TIC

C Farm WMC 2010-1
Data Summary and Opportunistic Analyte Results

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B23TL6

Sample Depth: 10-12

Sample# R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V000190			1-Hexanol, 2-ethyl-	104-76-7	16.83	ug/kg	3.6	JN
S10V000190		BLNK	Unknown-1		6.24	ug/kg	8.5	

NA = Not Analyzed, ND = Not Detectec

J - Estimated
B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
N - Named TIC

C Farm WMC 2010-1
Data Summary and Opportunistic Analyte Results

Sample Group: 20100064
Core Number: C7668
Customer Sample ID: B23TM6
Sample Depth: 27-29

Sample# R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V000268	O		Unknown-1		12.33	ug/kg	960	BJ
S10V000268	O		Unknown-2		12.37	ug/kg	890	BJ
S10V000268	O		1,2-Benzenedicarboxyli	84-69-5	15.02	ug/kg	230	BJN
S10V000268	O		Unknown-3		20.18	ug/kg	230	J
S10V000268	O		Unknown-4		20.57	ug/kg	370	J
S10V000268	O		Unknown-5		20.64	ug/kg	570	J
S10V000268	O		Unknown-6		20.72	ug/kg	270	J
S10V000268	O		Unknown-7		20.75	ug/kg	800	J
S10V000268	O		Unknown-8		20.84	ug/kg	210	J
S10V000268	O		Unknown-9		20.95	ug/kg	320	J
S10V000268	O		Unknown-10		21.02	ug/kg	510	J
S10V000268	O		Unknown-11		21.11	ug/kg	350	J
S10V000268	O		Unknown-12		21.13	ug/kg	340	J
S10V000268	O		Unknown-13		21.23	ug/kg	350	J
S10V000268	O	BLNK	Unknown-1		3.98	ug/kg	300	
S10V000268	O	BLNK	Ethanol, 2-(2-butoxyet	112-34-5	9.21	ug/kg	270	
S10V000268	O	BLNK	Unknown-2		12.33	ug/kg	460	
S10V000268	O	BLNK	Unknown-3		12.37	ug/kg	320	
S10V000268	O	BLNK	1,2-Benzenedicarboxyli	84-69-5	15.02	ug/kg	1.3E+03	

NA = Not Analyzed, ND = Not Detectec

J - Estimated
B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
N - Named TIC

C Farm WMC 2010-1
Data Summary and Opportunistic Analyte Results

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B23TM8

Sample Depth: 27-29

Sample#	R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V000259				3-Heptanone	106-35-4	15.40	ug/kg	3.3	JN
S10V000259				Unknown-1		16.83	ug/kg	3.9	J
S10V000259			BLNK	Unknown-1		6.24	ug/kg	8.5	

NA = Not Analyzed, ND = Not Detectec

J - Estimated
B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
N - Named TIC

C Farm WMC 2010-1
Data Summary and Opportunistic Analyte Results

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B25WM2

Sample Depth: 39-41

Sample# R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V001008	O		Unknown-1		12.33	ug/kg	710	BJ
S10V001008	O		Unknown-2		12.37	ug/kg	530	BJ
S10V001008	O		1,2-Benzenedicarboxyli	84-69-5	15.02	ug/kg	660	BJN
S10V001008	O		Unknown-3		18.89	ug/kg	240	J
S10V001008	O	BLNK	Unknown-1		12.33	ug/kg	540	
S10V001008	O	BLNK	Unknown-2		12.37	ug/kg	400	
S10V001008	O	BLNK	1,2-Benzenedicarboxyli	84-69-5	15.02	ug/kg	200	
S10V001008	O	BLNK	Trichloroacetic acid,	74339-52-9	18.89	ug/kg	250	

NA = Not Analyzed, ND = Not Detectec

J - Estimated
B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
N - Named TIC

C Farm WMC 2010-1
Data Summary and Opportunistic Analyte Results

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B25WM5

Sample Depth: 80-82

Sample# R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V000285	O		Unknown-1		12.34	ug/kg	1.7E+03	BJ
S10V000285	O		Unknown-2		12.38	ug/kg	1.1E+03	BJ
S10V000285	O		1,2-Benzenedicarboxyli	84-69-5	15.02	ug/kg	810	BJN
S10V000285	O		1-Eicosene	3452-07-1	18.89	ug/kg	360	JN
S10V000285	O	BLNK	Unknown-1		12.33	ug/kg	540	
S10V000285	O	BLNK	Unknown-2		12.37	ug/kg	400	
S10V000285	O	BLNK	1,2-Benzenedicarboxyli	84-69-5	15.02	ug/kg	200	
S10V000285	O	BLNK	Trichloroacetic acid,	74339-52-9	18.89	ug/kg	250	

NA = Not Analyzed, ND = Not Detectec

J - Estimated
B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
N - Named TIC

C Farm WMC 2010-1
Data Summary and Opportunistic Analyte Results

Sample Group: 20100064

Core Number: C7668

Customer Sample ID: B25WM8

Sample Depth: 132-134

Sample# R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V000302	O		Unknown-1		12.33	ug/kg	700	BJ
S10V000302	O		Unknown-2		12.37	ug/kg	520	BJ
S10V000302	O		1,2-Benzenedicarboxyli	84-69-5	15.02	ug/kg	470	BJN
S10V000302	O		Unknown-3		18.89	ug/kg	250	BJ
S10V000302	O	BLNK	Unknown-1		12.33	ug/kg	650	
S10V000302	O	BLNK	Unknown-2		12.37	ug/kg	450	
S10V000302	O	BLNK	1,2-Benzenedicarboxyli	84-69-5	15.02	ug/kg	610	
S10V000302	O	BLNK	Unknown-3		18.89	ug/kg	210	

NA = Not Analyzed, ND = Not Detectec

J - Estimated
B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
N - Named TIC

C Farm WMC 2010-1
Data Summary and Opportunistic Analyte Results

Sample Group: 20100064
Core Number: C7668
Customer Sample ID: B27130
Sample Depth: 10-14

Sample# R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V000199	O		Unknown-1		12.33	ug/kg	860	BJ
S10V000199	O		Unknown-2		12.37	ug/kg	620	BJ
S10V000199	O		Unknown-3		19.98	ug/kg	290	J
S10V000199	O		Unknown-4		20.18	ug/kg	560	J
S10V000199	O		Unknown-5		20.25	ug/kg	210	J
S10V000199	O		Unknown-6		20.38	ug/kg	990	J
S10V000199	O		Unknown-7		20.42	ug/kg	630	J
S10V000199	O		Unknown-8		20.46	ug/kg	300	J
S10V000199	O		Unknown-9		20.57	ug/kg	1.2E+03	J
S10V000199	O		Unknown-10		20.64	ug/kg	1.5E+03	J
S10V000199	O		Unknown-11		20.72	ug/kg	540	J
S10V000199	O		Unknown-12		20.76	ug/kg	1.3E+03	J
S10V000199	O		Unknown-13		20.84	ug/kg	440	J
S10V000199	O		Unknown-14		20.95	ug/kg	740	J
S10V000199	O		Unknown-15		21.02	ug/kg	1.2E+03	J
S10V000199	O		Unknown-16		21.11	ug/kg	820	J
S10V000199	O		Unknown-17		21.13	ug/kg	880	J
S10V000199	O		Unknown-18		21.23	ug/kg	850	J
S10V000199	O		Unknown-19		21.34	ug/kg	380	J
S10V000199	O		Unknown-20		21.43	ug/kg	230	J
S10V000199	O	BLNK	Unknown-1		3.98	ug/kg	300	
S10V000199	O	BLNK	Ethanol, 2-(2-butoxyet	112-34-5	9.21	ug/kg	270	
S10V000199	O	BLNK	Unknown-2		12.33	ug/kg	460	
S10V000199	O	BLNK	Unknown-3		12.37	ug/kg	320	
S10V000199	O	BLNK	1,2-Benzenedicarboxyli	84-69-5	15.02	ug/kg	1.3E+03	

NA = Not Analyzed, ND = Not Detectec

J - Estimated
B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
N - Named TIC

C Farm WMC 2010-1
Data Summary and Opportunistic Analyte Results

Sample Group: 20100064
Core Number: C7668
Customer Sample ID: B27131
Sample Depth: 14-18

Sample# R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V000234	O		Unknown-1		12.33	ug/kg	270	BJ
S10V000234	O		1,2-Benzenedicarboxyli	84-69-5	15.02	ug/kg	230	BJN
S10V000234	O		Unknown-2		20.18	ug/kg	260	J
S10V000234	O		Unknown-3		20.57	ug/kg	410	J
S10V000234	O		Unknown-4		20.64	ug/kg	650	J
S10V000234	O		Unknown-5		20.73	ug/kg	280	J
S10V000234	O		Unknown-6		20.75	ug/kg	860	J
S10V000234	O		Unknown-7		20.84	ug/kg	240	J
S10V000234	O		Unknown-8		20.95	ug/kg	320	J
S10V000234	O		Unknown-9		21.02	ug/kg	610	J
S10V000234	O		Unknown-10		21.11	ug/kg	370	J
S10V000234	O		Unknown-11		21.13	ug/kg	350	J
S10V000234	O		Unknown-12		21.23	ug/kg	360	J
S10V000234	O	BLNK	Unknown-1		3.98	ug/kg	300	
S10V000234	O	BLNK	Ethanol, 2-(2-butoxyet	112-34-5	9.21	ug/kg	270	
S10V000234	O	BLNK	Unknown-2		12.33	ug/kg	460	
S10V000234	O	BLNK	Unknown-3		12.37	ug/kg	320	
S10V000234	O	BLNK	1,2-Benzenedicarboxyli	84-69-5	15.02	ug/kg	1.3E+03	

NA = Not Analyzed, ND = Not Detectec

J - Estimated
B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
N - Named TIC

Attachment 6

ANALYTICAL BATCH AND LABORATORY SAMPLE ID INDEX

Batch/Sample Index

Project: C Farm WMC 2010-1
Groups: 20100064, 20100062

METHOD	BATCH	SAMPLE	MATRIX
%WATER-APD	00024229	S10V000131	SOLID
%WATER-APD	00024229	S10V000145	SOLID
%WATER-APD	00024229	S10V000231	SOLID
%WATER-APD	00024229	S10V000265	SOLID
%WATER-APD	00024229	S10V000282	SOLID
%WATER-APD	00024229	S10V000299	SOLID
%WATER-APD	00024229	S10V001005	SOLID
AMERICIUM	00021338	S10V000139	SOLID
AMERICIUM	00021338	S10V000153	SOLID
AMERICIUM	00021338	S10V000239	SOLID
AMERICIUM	00021338	S10V000290	SOLID
AMERICIUM	00021338	S10V000307	SOLID
AMERICIUM	00021338	S10V001013	SOLID
AMERICIUM	00022058	S10V000273	SOLID
BULK DENSITY	00024451	S10V000262	SOLID
BULK DENSITY	00024451	S10V000279	SOLID
BULK DENSITY	00024451	S10V000280	SOLID
BULK DENSITY	00024451	S10V000281	SOLID
BULK DENSITY	00024451	S10V000296	SOLID
BULK DENSITY	00024451	S10V000297	SOLID
BULK DENSITY	00024451	S10V000298	SOLID
BULK DENSITY	00024451	S10V001002	SOLID
BULK DENSITY	00024451	S10V001003	SOLID
BULK DENSITY	00024451	S10V001004	SOLID
CARBON-14	00021604	S10V002232	SOLID
CARBON-14	00021604	S10V002233	SOLID
CARBON-14	00021604	S10V002235	SOLID
CARBON-14	00021604	S10V002237	SOLID
CARBON-14	00021604	S10V002238	SOLID
CARBON-14	00021604	S10V002239	SOLID
CARBON-14	00021604	S10V002240	SOLID
CARBON-14	00022478	S10V002236	SOLID
CN - EDTA	00019456	S10V000131	SOLID
CN - EDTA	00019456	S10V000145	SOLID
CN - EDTA	00019637	S10V000162	SOLID
CN - EDTA	00019637	S10V000196	SOLID
CN - EDTA	00019637	S10V000231	SOLID
CN - EDTA	00019925	S10V000265	SOLID
CN - EDTA	00020158	S10V000299	SOLID
CN - EDTA	00020163	S10V000282	SOLID
CN - EDTA	00020163	S10V001005	SOLID
GEA	00020081	S10V000133	SOLID
GEA	00020081	S10V000147	SOLID
GEA	00020081	S10V000233	SOLID
GEA	00020081	S10V000267	SOLID
GEA	00020081	S10V000284	SOLID
GEA	00020081	S10V000301	SOLID
GEA	00020081	S10V001007	SOLID

METHOD	BATCH	SAMPLE	MATRIX
HG	00019426	S10V000131	SOLID
HG	00019426	S10V000145	SOLID
HG	00019801	S10V000162	SOLID
HG	00019801	S10V000196	SOLID
HG	00019801	S10V000231	SOLID
HG	00019801	S10V000265	SOLID
HG	00020120	S10V000282	SOLID
HG	00020120	S10V000299	SOLID
HG	00020120	S10V001005	SOLID
IC - ANIONS	00019599	S10V000135	SOLID
IC - ANIONS	00019599	S10V000149	SOLID
IC - ANIONS	00019650	S10V000166	SOLID
IC - ANIONS	00019650	S10V000200	SOLID
IC - ANIONS	00019650	S10V000235	SOLID
IC - ANIONS	00020668	S10V000269	SOLID
IC - ANIONS	00020668	S10V000286	SOLID
IC - ANIONS	00020668	S10V000303	SOLID
IC - ANIONS	00020668	S10V001009	SOLID
IC - NH4	00019420	S10V000137	SOLID
IC - NH4	00019420	S10V000151	SOLID
IC - NH4	00019583	S10V000168	SOLID
IC - NH4	00019583	S10V000202	SOLID
IC - NH4	00019655	S10V000271	SOLID
IC - NH4	00019668	S10V000237	SOLID
IC - NH4	00019896	S10V001011	SOLID
IC - NH4	00019938	S10V000288	SOLID
IC - NH4	00020024	S10V000305	SOLID
ICP/AES METALS	00020563	S10V000136	SOLID
ICP/AES METALS	00020563	S10V000150	SOLID
ICP/AES METALS	00020563	S10V000167	SOLID
ICP/AES METALS	00020563	S10V000201	SOLID
ICP/AES METALS	00020563	S10V000236	SOLID
ICP/AES METALS	00020563	S10V000270	SOLID
ICP/AES METALS	00020821	S10V000287	SOLID
ICP/AES METALS	00020821	S10V000304	SOLID
ICP/AES METALS	00020821	S10V001010	SOLID
IODINE-129 in SOIL	00020598	S10V000133	SOLID
IODINE-129 in SOIL	00020598	S10V000147	SOLID
IODINE-129 in SOIL	00020598	S10V000233	SOLID
IODINE-129 in SOIL	00020598	S10V000267	SOLID
IODINE-129 in SOIL	00020598	S10V000284	SOLID
IODINE-129 in SOIL	00020598	S10V000301	SOLID
IODINE-129 in SOIL	00020598	S10V001007	SOLID
IODINE-129 in SOIL	00022059	S10V000198	SOLID
ICP/MS ACTINIDES	00020597	S10V000136	SOLID
ICP/MS ACTINIDES	00020597	S10V000150	SOLID
ICP/MS ACTINIDES	00020597	S10V000167	SOLID
ICP/MS ACTINIDES	00020597	S10V000201	SOLID
ICP/MS ACTINIDES	00020597	S10V000236	SOLID
ICP/MS ACTINIDES	00020597	S10V000270	SOLID
ICP/MS ACTINIDES	00021207	S10V000287	SOLID
ICP/MS ACTINIDES	00021207	S10V000304	SOLID
ICP/MS ACTINIDES	00021207	S10V001010	SOLID

METHOD	BATCH	SAMPLE	MATRIX
ICP/MS TC-99, SB-126	00020681	S10V000138	SOLID
ICP/MS TC-99, SB-126	00020681	S10V000152	SOLID
ICP/MS TC-99, SB-126	00020681	S10V000169	SOLID
ICP/MS TC-99, SB-126	00020681	S10V000203	SOLID
ICP/MS TC-99, SB-126	00020681	S10V000238	SOLID
ICP/MS TC-99, SB-126	00020681	S10V000272	SOLID
ICP/MS TC-99, SB-126	00021058	S10V000289	SOLID
ICP/MS TC-99, SB-126	00021058	S10V000306	SOLID
ICP/MS TC-99, SB-126	00021058	S10V001012	SOLID
ICP/MS TC-99, SB-126	00021206	S10V001142	LIQUID
ICP/MS METALS	00020590	S10V001204	SOLID
ICP/MS METALS	00020590	S10V001205	SOLID
ICP/MS METALS	00020590	S10V001207	SOLID
ICP/MS METALS	00020590	S10V001209	SOLID
ICP/MS METALS	00020672	S10V001210	SOLID
ICP/MS METALS	00020672	S10V001211	SOLID
ICP/MS METALS	00020672	S10V001212	SOLID
ICP/MS METALS	00021747	S10V000136	SOLID
ICP/MS METALS	00021747	S10V000150	SOLID
ICP/MS METALS	00021747	S10V000167	SOLID
ICP/MS METALS	00021747	S10V000201	SOLID
ICP/MS METALS	00021747	S10V000236	SOLID
ICP/MS METALS	00021747	S10V000270	SOLID
ICP/MS METALS	00022361	S10V000287	SOLID
ICP/MS METALS	00022361	S10V000304	SOLID
ICP/MS METALS	00022361	S10V001010	SOLID
ICP/MS METALS	00022376	S10V001208	SOLID
ICP/MS METALS	00022437	S10V000287	SOLID
ICP/MS METALS	00022437	S10V000304	SOLID
ICP/MS METALS	00022437	S10V001010	SOLID
ICP/MS METALS	00023195	S10V000136	SOLID
ICP/MS METALS	00023195	S10V000150	SOLID
ICP/MS METALS	00023195	S10V000167	SOLID
ICP/MS METALS	00023195	S10V000201	SOLID
ICP/MS METALS	00023195	S10V000236	SOLID
ICP/MS METALS	00023195	S10V000270	SOLID
MS TC-99	00023572	S10V002141	SOLID
MS TC-99	00023572	S10V002142	SOLID
MS TC-99	00023572	S10V002144	SOLID
MS TC-99	00023572	S10V002145	SOLID
MS TC-99	00023572	S10V002146	SOLID
MS TC-99	00023572	S10V002148	SOLID
MS TC-99	00023572	S10V002149	SOLID
MS TC-99	00023804	S10V002147	SOLID
NICKEL-63	00020890	S10V000155	SOLID
NICKEL-63	00020890	S10V000292	SOLID
NICKEL-63	00020890	S10V000309	SOLID
NICKEL-63	00021309	S10V000141	SOLID
NICKEL-63	00021309	S10V000241	SOLID
NICKEL-63	00021309	S10V000275	SOLID
NICKEL-63	00021309	S10V001015	SOLID

METHOD	BATCH	SAMPLE	MATRIX
PH SOLID	00019430	S10V000131	SOLID
PH SOLID	00019430	S10V000145	SOLID
PH SOLID	00019761	S10V000196	SOLID
PH SOLID	00019761	S10V000231	SOLID
PH SOLID	00019761	S10V000265	SOLID
PH SOLID	00020465	S10V000282	SOLID
PH SOLID	00020465	S10V000299	SOLID
PH SOLID	00020465	S10V001005	SOLID
PLUTONIUM	00021333	S10V000139	SOLID
PLUTONIUM	00021333	S10V000153	SOLID
PLUTONIUM	00021333	S10V000239	SOLID
PLUTONIUM	00021333	S10V000273	SOLID
PLUTONIUM	00021333	S10V000290	SOLID
PLUTONIUM	00021333	S10V000307	SOLID
PLUTONIUM	00021333	S10V001013	SOLID
SELENIUM-79	00020850	S10V000155	SOLID
SELENIUM-79	00020850	S10V000241	SOLID
SELENIUM-79	00020850	S10V000275	SOLID
SELENIUM-79	00020850	S10V000292	SOLID
SELENIUM-79	00020850	S10V000309	SOLID
SELENIUM-79	00020850	S10V001015	SOLID
SELENIUM-79	00024260	S10V000141	SOLID
STRONTIUM-90	00021908	S10V000140	SOLID
STRONTIUM-90	00021908	S10V000154	SOLID
STRONTIUM-90	00021908	S10V000240	SOLID
STRONTIUM-90	00021908	S10V000308	SOLID
STRONTIUM-90	00021908	S10V001014	SOLID
STRONTIUM-90	00022332	S10V000274	SOLID
STRONTIUM-90	00022332	S10V000291	SOLID
SULFIDE	00019380	S10V000131	SOLID
SULFIDE	00019380	S10V000145	SOLID
SULFIDE	00019596	S10V000162	SOLID
SULFIDE	00019596	S10V000196	SOLID
SULFIDE	00019631	S10V000231	SOLID
SULFIDE	00019631	S10V000265	SOLID
SULFIDE	00019885	S10V001005	SOLID
SULFIDE	00019967	S10V000282	SOLID
SULFIDE	00020058	S10V000299	SOLID
SVOA 222S #2	00019989	S10V000165	SOLID
SVOA 222S #2	00019989	S10V000199	SOLID
SVOA 222S #2	00019989	S10V000234	SOLID
SVOA 222S #2	00019989	S10V000268	SOLID
SVOA 222S #2	00019999	S10V000134	SOLID
SVOA 222S #2	00019999	S10V000148	SOLID
SVOA 222S #2	00020019	S10V000285	SOLID
SVOA 222S #2	00020019	S10V001008	SOLID
SVOA 222S #2	00020093	S10V000302	SOLID
TRITIUM	00020359	S10V001169	SOLID
TRITIUM	00020794	S10V001165	SOLID
TRITIUM	00020794	S10V001166	SOLID
TRITIUM	00020794	S10V001168	SOLID
TRITIUM	00020794	S10V001171	SOLID
TRITIUM	00020794	S10V001172	SOLID
TRITIUM	00020794	S10V001173	SOLID
TRITIUM	00020794	S10V001174	SOLID

METHOD	BATCH	SAMPLE	MATRIX
VOA 222S #2	00019566	S10V000128	SOLID
VOA 222S #2	00019566	S10V000142	SOLID
VOA 222S #2	00019680	S10V000095	LIQUID
VOA 222S #2	00019680	S10V000105	LIQUID
VOA 222S #2	00019680	S10V000106	LIQUID
VOA 222S #2	00019878	S10V000096	LIQUID
VOA 222S #2	00019878	S10V000097	LIQUID
VOA 222S #2	00019878	S10V000098	LIQUID
VOA 222S #2	00019878	S10V000099	LIQUID
VOA 222S #2	00019878	S10V000107	LIQUID
VOA 222S #2	00019878	S10V000108	LIQUID
VOA 222S #2	00019881	S10V000156	SOLID
VOA 222S #2	00019881	S10V000190	SOLID
VOA 222S #2	00019881	S10V000259	SOLID

Attachment 7

GEOLOGICAL REPORT

Table A-1. Geologic descriptions of C Farm Core 7668 samples. Described during sample breakdown by Gary A. Cooke, WA State Professional Geologist, #2785.

Sample ID	Date examined	Description
B23TK2 Surface S10V000131	05-11-10	mS, muddy sand. Very slightly moist. Poorly sorted, some large gravel present, largest ~20mm excluded. Gravel round to sub-round, sand is predominantly fine to very fine grained, mud is mostly silt, little or no clay, uniform color and texture, trace mica. Color: 2.5Y6/3. Acid reactivity: moderate. Bulk Density: Could not estimate Bulk Density.
B23TK5 Surface dup S10V000145	05-11-10	mS, muddy sand. Very slightly moist. Largely silty sand, minor gravel, largest fragments 18mm and 16mm excluded, poorly sorted, coarse to fine grained, little or no clay mostly silt, trace mica. Color: 2.5Y5/3. Acid reactivity: moderate to vigorous. Bulk Density: Could not estimate Bulk Density.
B23TK8-A 5–7' S10V000159	05-19-10	~20% of tube is full. (m)S, slightly muddy sand. Very slightly moist. Fine grained sand with silt, trace gravel. Largest fragment 10mm, medium gravel, sub-angular to sub-round, trace mica, small clasts slightly cohesive easily broken. Color: 2.5Y4/2. Acid reactivity: slight to moderate. Bulk Density: Could not estimate Bulk Density.
B23TK8-C * 5–7' S10V000161	05-19-10	Tube is nearly empty. (m)S, slightly muddy sand. Slightly moist. Trace gravel, largest grains 7mm, fine grained sand with silt, trace mica, small clasts slightly cohesive easily broken. Generally sub-rounded to rounded. Color: 2.5Y5/2. Acid reactivity: moderate. Sample Labeled B23KT8-B on liner. COC identifies sample as B23KT8-C. Bulk Density: Could not estimate Bulk Density.
B23TL4-A 10–12' S10V000193	05-20-10	Tube is ¾ full. mS muddy sand. Slightly moist. Silt and sand, trace gravel, largest fragment 6mm, trace mica, gravel sub-rounded to rounded, sand moderate well sorted, predominantly fine grained. Color: 2.5Y4/3. Acid reactivity: moderate. Bulk Density: Could not estimate Bulk Density.
B23TL4-B 10–12' S10V000194	05-20-10	Tube is nearly empty. Limited sample amount. Small organic fragment "O" ring? mS, muddy sand. Slightly moist. Appears the same as above. Color: 2.5Y4/3. Acid reactivity: No testing for acid due to sample size. Bulk Density: Could not estimate Bulk Density.

Table A-1. Geologic descriptions of C Farm Core 7668 samples. Described during sample breakdown by Gary A. Cooke, WA State Professional Geologist, #2785.

Sample ID	Date examined	Description
B23TL7-A 12–14' S10V000210	05-20-10	Tube is nearly empty. mS, muddy sand. Slightly moist. No gravel, small clasts slightly cohesive easily broken, trace mica, sand moderately well sorted, mud is predominantly silt. Color: 2.5Y4/3 Acid reactivity: Slight (small sample size). Bulk Density: Could not estimate Bulk Density.
B23TL7 shoe 12–14' S10V000211	05-20-10	(gm)S, slightly gravelly slightly muddy sand. Very slightly moist. Largest fragment 25mm, excluded. Sub-rounded to sub-angular, somewhat poorly sorted, very fine to coarse grained sand, some clasts, break easily, non cohesive. Color: 2.5Y5/3. Acid reactivity: slight. Bulk Density: Could not estimate Bulk Density.
B23TM0 shoe 14-6' S10V000228	05-24-10	(g)S, slightly gravelly sand. Vvery slightly moist. Poorly sorted sand with fine gravel and trace mud (silt) Largest fragment 8mm. Gravel is rounded to sub-angular, trace mica. Color: 2.5Y5/3. Acid reactivity: slight. Bulk Density: Could not estimate Bulk Density.
B23TM3-A 16–18' S10V000245	05-24-10	Soil is loosely packed, ~5mm gap at top. (g)S, slightly gravelly sand. Slightly moist. Poorly sorted gravelly sand with trace mud (silt). Largest fragment 33mm excluded. Sub-angular to sub-rounded, trace mica, a few clasts, easily broken. Color: 2.5Y4/3. Acid reactivity: slight to moderate. Bulk Density: Could not estimate Bulk Density.
B23TM3-B 16-18' S10V000246	05-24-10	Tube is ~40% full of loose material. S, sand. Slightly moist. Poorly sorted, trace gravel, and trace mud. Largest fragment 14mm, scarce clay clasts, slightly cohesive, easily broken. Gravel is sub-rounded to sub-angular, trace mica. Color: 2.5Y4/3 Acid reactivity: Slight to moderate. Bulk Density: Could not estimate Bulk Density.
B23TM3 shoe 16-18' S10V000247	05-24-10	S, sand. Slightly moist. Trace gravel, trace mud (silt) poorly sorted sand. Largest fragment 14mm excluded, rounded to sub-angular, trace mica. Color: 2.5Y4/3. Acid reactivity: moderate. Bulk Density: Could not estimate Bulk Density.

Table A-1. Geologic descriptions of C Farm Core 7668 samples. Described during sample breakdown by Gary A. Cooke, WA State Professional Geologist, #2785.

Sample ID	Date examined	Description
B23TM6-A 27-29' S10V000262	05-25-10	Bottom has 5mm depression and top bulges 5mm, tube appears full. Free moisture in bottom cap. mS, muddy sand. Moist. Trace gravel, poorly sorted sand with mud (clay and silt). Coarsest fragment about 4mm, sub-angular to sub-rounded, few clasts, slightly cohesive, easily broken. Color: 2.5Y4/2. Acid reactivity: moderate to vigorous. Bulk Density: 2.062.
B23TM6-B 27-29' S10V000263	05-25-10	Tube is about half full. (m)S, slightly muddy sand. Moist. Poorly sorted, trace gravel, minor silt and clay. Largest fragment 11mm, sub-angular to sub-rounded, clasts break easily, non cohesive, trace mica. Color: 2.5Y4/3. Acid reactivity: moderate. Bulk Density: Could not estimate
B25WM2-A 39-41' S10V001002	06-03-10	Tube is full. mS, muddy sand, Slightly moist. Medium grained with clay clasts. Clay increasing toward bottom, slightly cohesive, breaks easily, salt and pepper texture, largest grains ~2mm, no gravel, trace mica. Color: 2.5Y5/3. Acid reactivity: slight. Bulk Density: 2.256.
B25WM2-B 39-41' S10V001003	06-03-10	Tube is full. (m)S slightly muddy sand. Slightly moist. Medium grained, no gravel, coarsest fragments ~2mm, slight salt and pepper texture, angular to sub-angular, trace mica, clay clasts absent. Color: 2.5Y4/3. Acid reactivity: moderate. Bulk Density: 2.061.
B25WM2-C 39-41' S10V001004	06-03-10	Tube is full. (m)S, slightly muddy sand. Moist. No gravel, coarse to medium grained sand, angular to sub-angular, minor silt and clay, no clasts, trace mica, salt and pepper texture. Color: 2.5Y4/2. Acid reactivity: slight to moderate. Bulk Density: 2.193.
B25WM5-A 80-82' S10V000279	06-07-10	Tube is full. S, sand. Very slightly moist. No mud, trace gravel, largest grain 4mm, poorly sorted, very fine to fine gravel, sub-angular to sub-rounded, slightly more gravel at bottom, slight salt and pepper texture, trace mica. Color: 2.5Y6/1. Acid reactivity: slight to moderate. Bulk Density: 1.953.
B25WM5-B 80-82' S10V000280	06-07-10	Tube is full. S, sand. Slightly moist. No mud, trace gravel, some pink grains (orthoclase), largest grains 9mm, very fine sand to fine gravel, sub-angular to sub-rounded, slight salt and pepper texture. Color: 2.5Y6/2. Acid reactivity: slight to moderate. Bulk Density: 2.085

Table A-1. Geologic descriptions of C Farm Core 7668 samples. Described during sample breakdown by Gary A. Cooke, WA State Professional Geologist, #2785.

Sample ID	Date examined	Description
B25WM5-C 80-82' S10V000281	06-07-10	Top is full, irregular depression at bottom 8mm deep at center. S, sand. Very slightly moist. Trace gravel and silt, poorly sorted, very fine sand to fine gravel, largest grain 8mm, appears to be slightly finer grained throughout, slightly salt and pepper texture, trace mica, sub-angular to sub-rounded, trace pink grains (orthoclase), no clay. Color: 2.5Y7/1. Acid reactivity: slight to moderate. Bulk Density: 2.004.
B25WM8-A 132-134' S10V000296	06-09-10	Tube is full. S, sand. Slightly moist. Medium to fine grained, no gravel, minor silt, no clay, moderate to well sorted, uniform color and texture, trace mica, largest grains~1mm. Color: 2.5Y6/2. Acid reactivity: slight to moderate. Bulk Density: 2.000.
B25WM8-B 132-134' S10V000297	06-09-10	Tube is full. S, sand. Very slightly moist. Fine to coarse grained, poorly sorted, siltier toward the bottom, largest grains 4mm, trace very fine gravel in top section, sub-angular to sub-rounded, uniform color, trace mica. Color: 2.5Y6/3. Acid reactivity: moderate. Bulk Density: 2.079.
B25WM8-C 132-134' S10V000298	06-07-10	Tube is full. S, sand. Very slightly moist. Coarser grained in bottom quarter of tube, fine to medium grained, minor silt, trace gravel, sub-rounded to sub-angular, largest grain 12mm (excluded), uniform texture above coarser layer, uniform color, trace mica, upper section moderately well sorted. Color: 2.5Y6/3. Acid reactivity: moderate. Bulk Density: 1.994.

Munsell colors were determined using the 2.5Y color card

C Farm 2010-1, Photographic Log and Scanned Geologic Descriptions 10/19/2010

Figure A-1 Sample B23TK2 Surface.

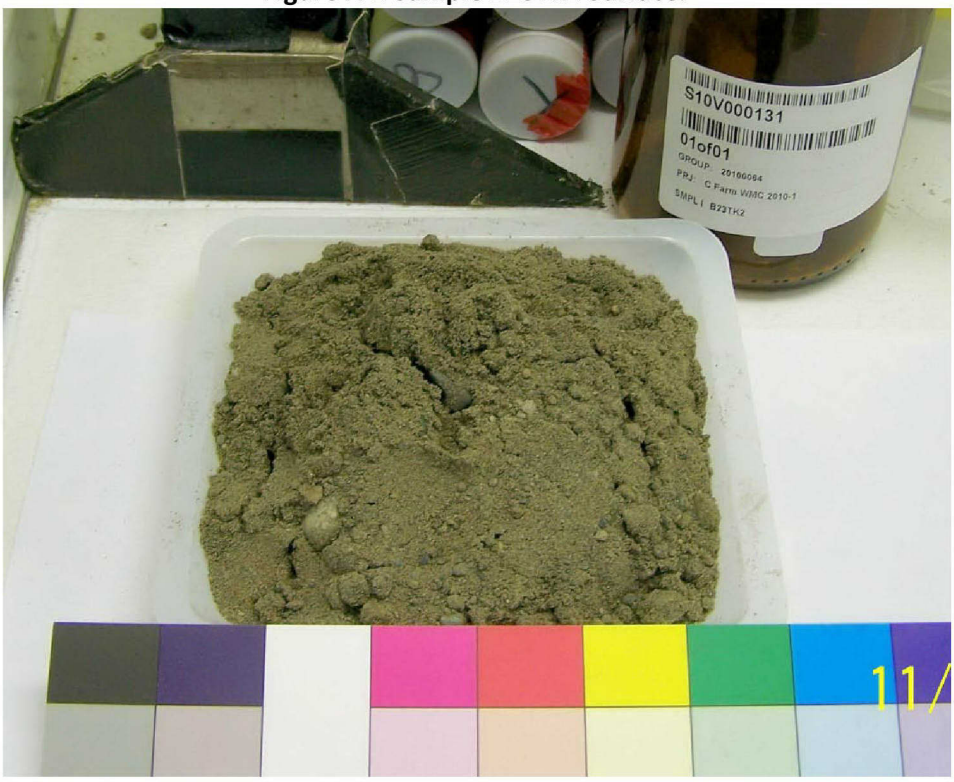


Figure A-2 Sample B23TK5 Surface Duplicate.

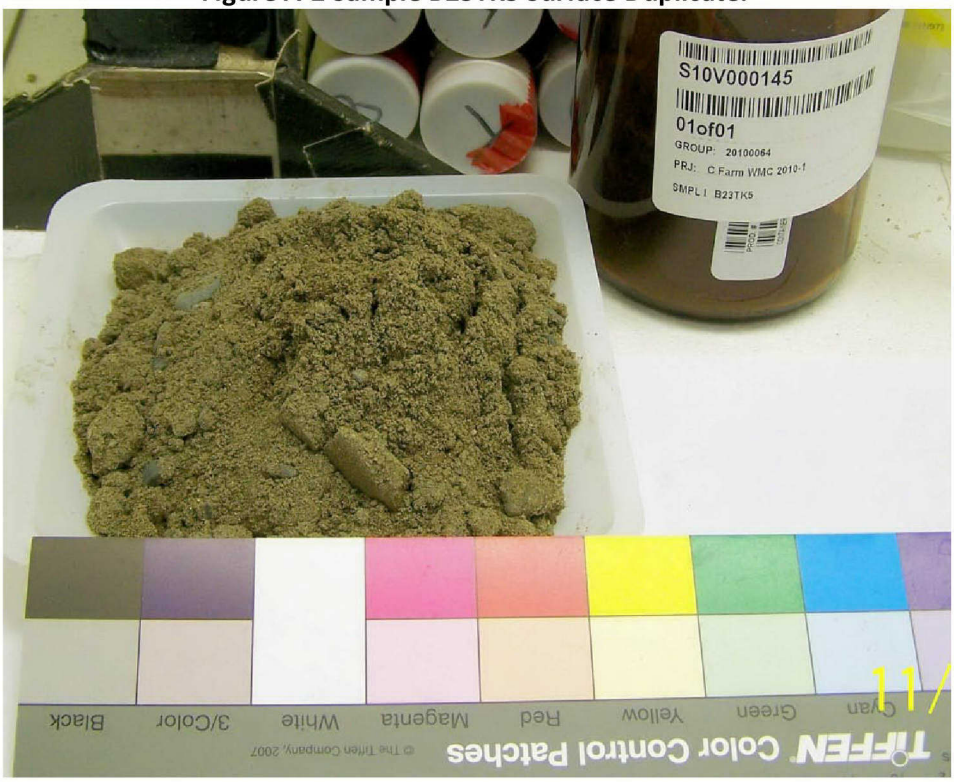


Figure A-3 Sample B23TK8 Core A

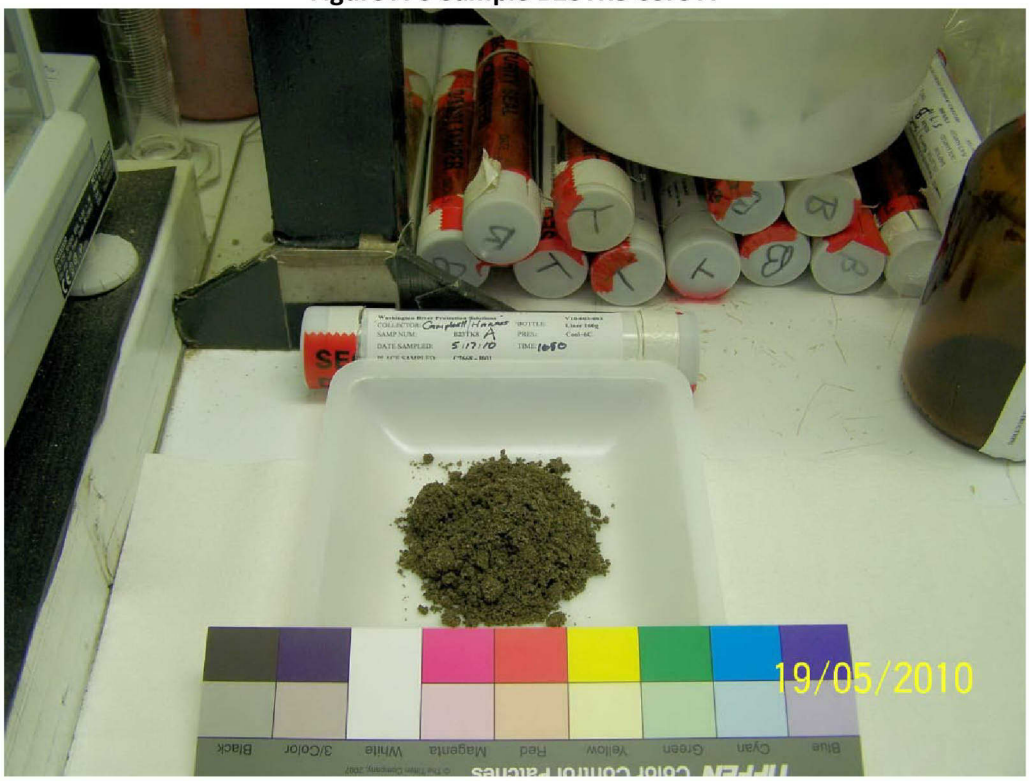


Figure A-4 Sample B23TK8 Core C*

* Sample Labeled B23TK8-B on liner. COC identifies sample as B23TK8C

Figure A-5 Sample B23TL4 Core A

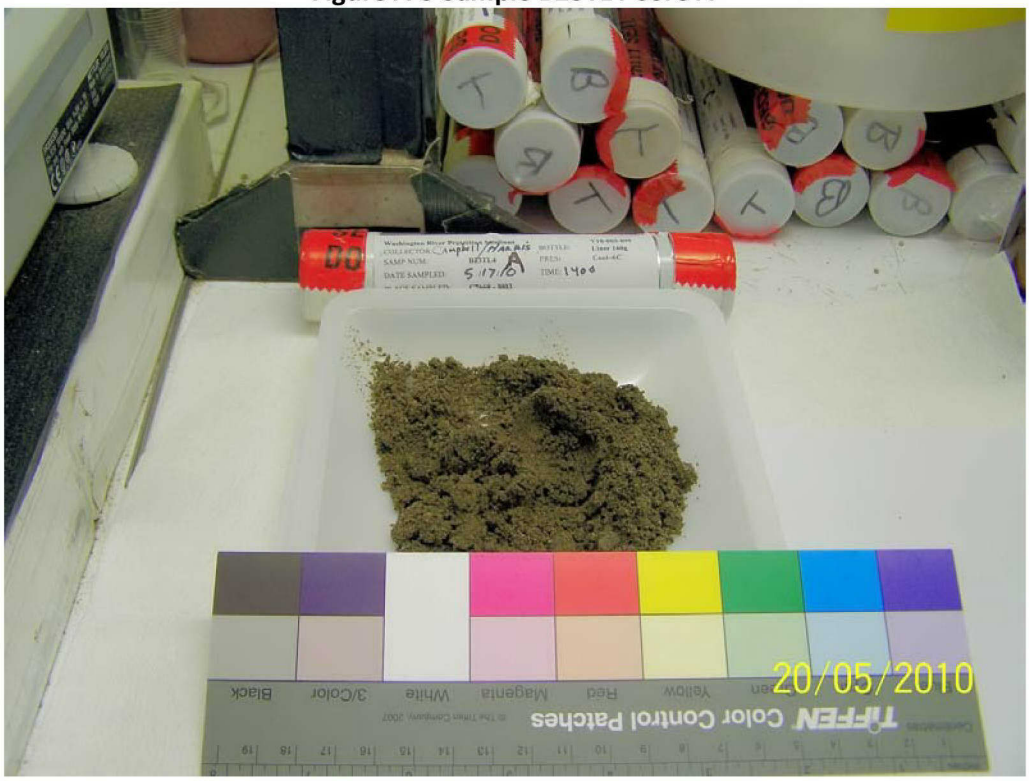


Figure A-6 Sample B23TL4 Core B

Figure A-7 Sample B23TL7 Core A

Figure A-8 Sample B23TL7 SHOE

Figure A-9 Sample B23TMO SHOE

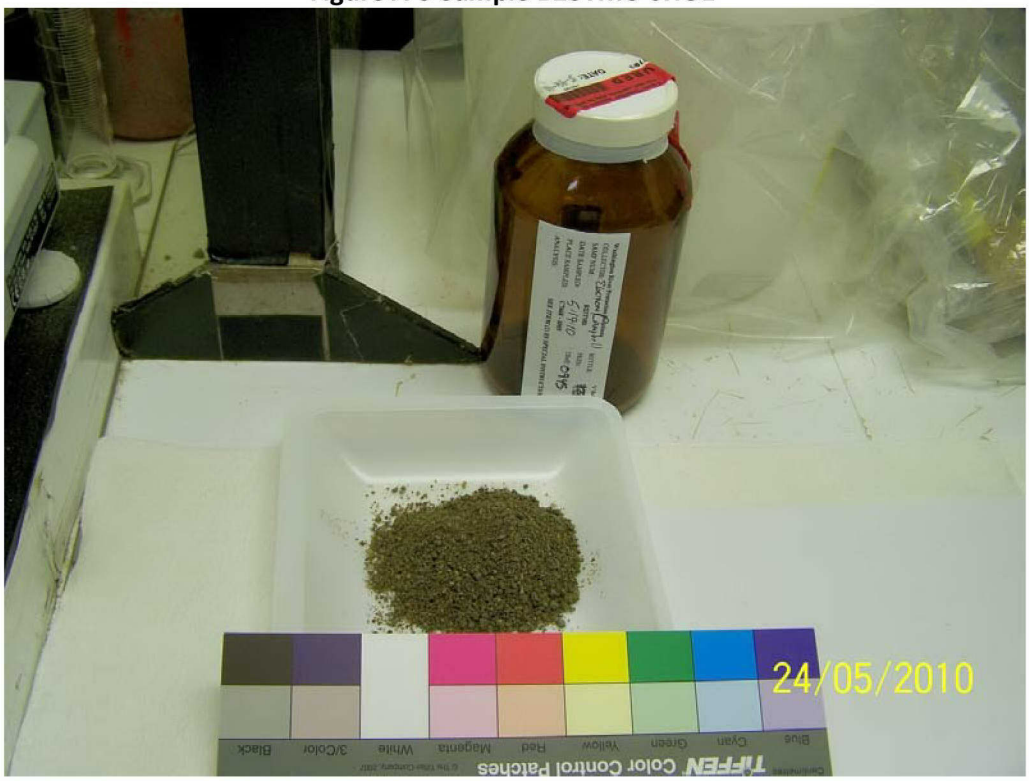


Figure A-10 Sample B23TM3 CORE A

Figure A-11 Sample B23TM3 CORE B

Figure A-12 Sample B23TM3 SHOE

Figure A-13 Sample B23TM6 CORE A

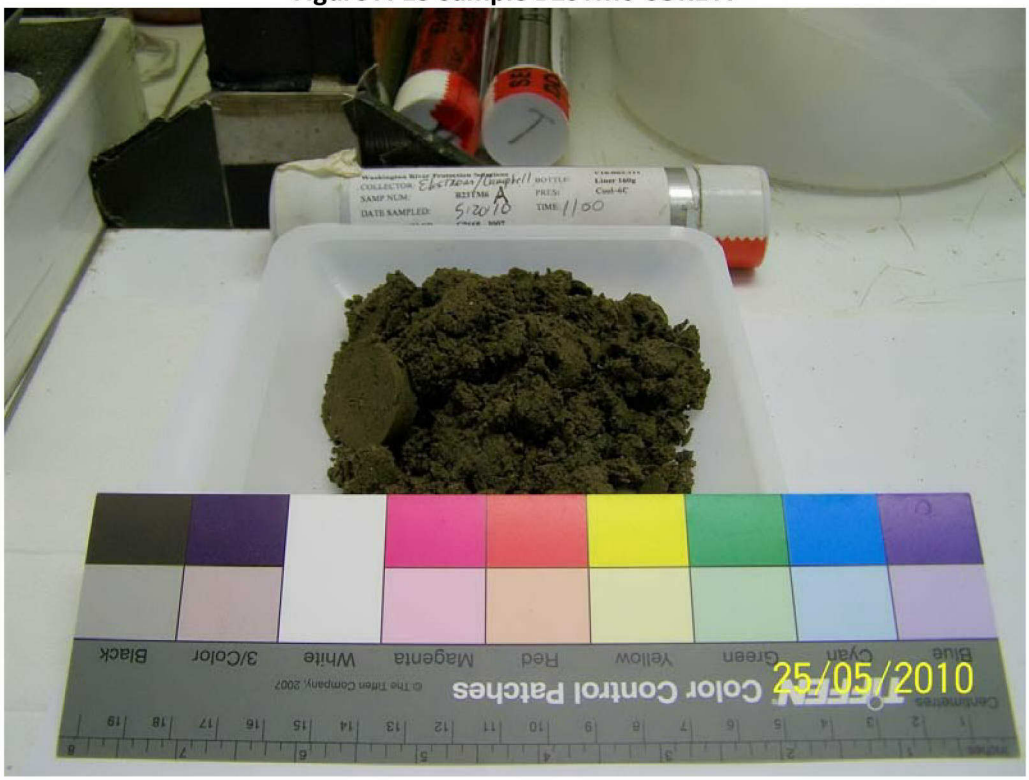


Figure A-14 Sample B23TM6 CORE B

Figure A-15 Sample B25WM2 CORE A

Figure A-16 Sample B25WM2 CORE B

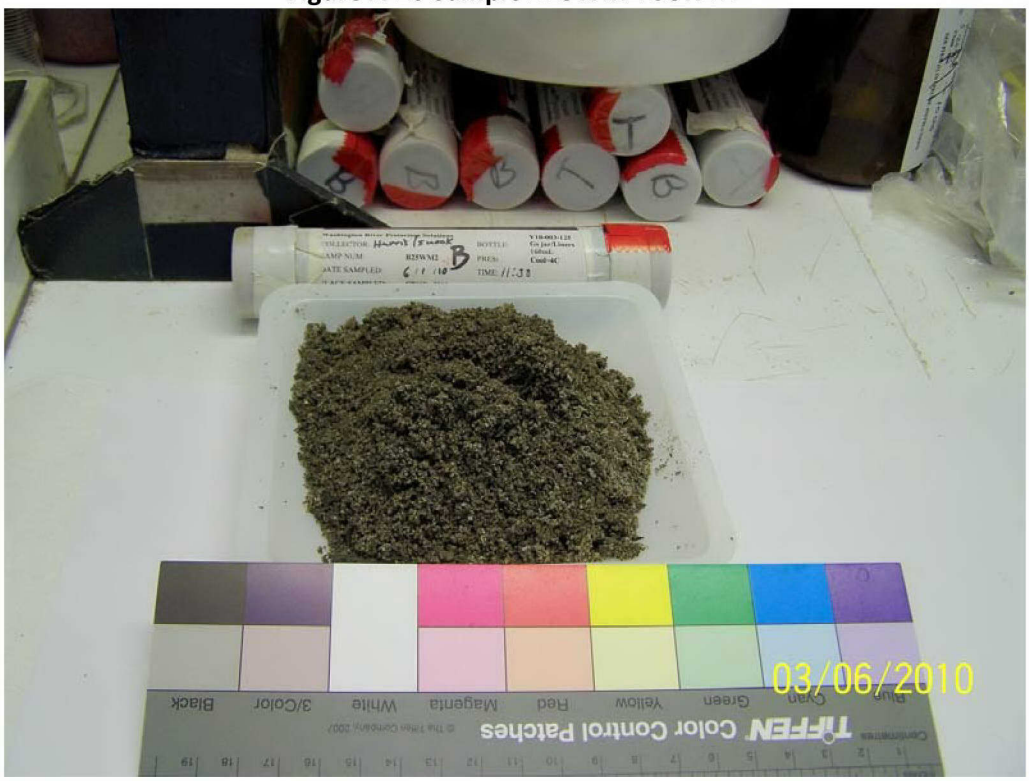


Figure A-17 Sample B25WM2 CORE C

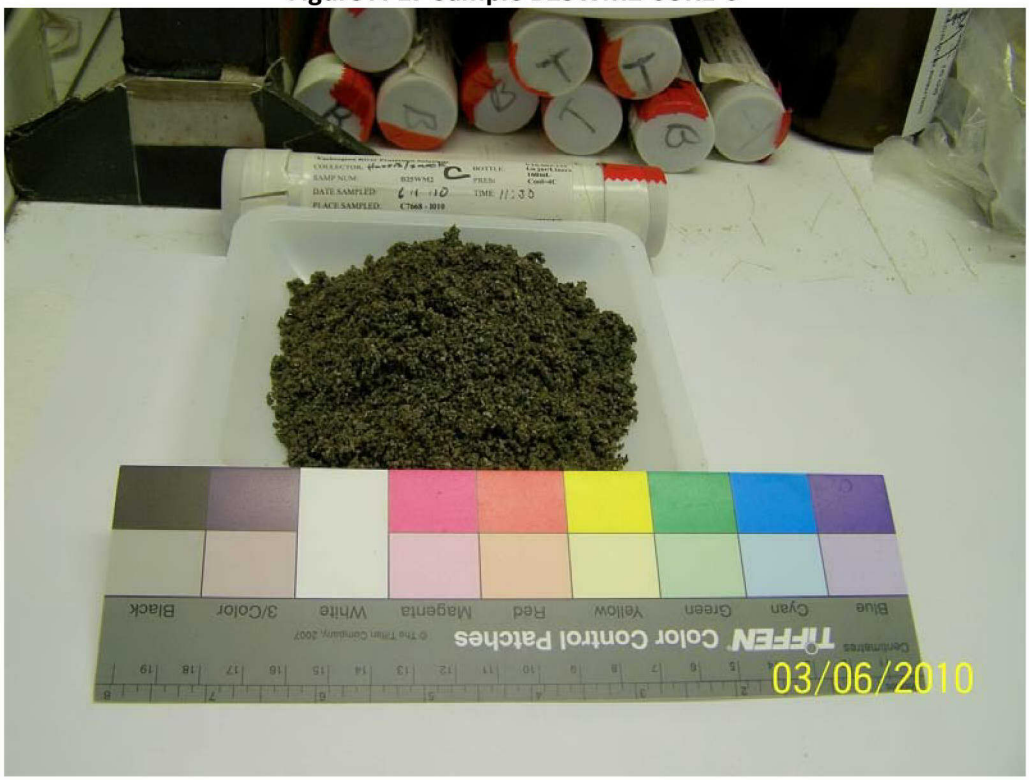


Figure A-18 Sample B25WM5 CORE A

Figure A-19 Sample B25WM5 CORE B

Figure A-20 Sample B25WM5 CORE C

Figure A-21 Sample B25WM8 CORE A

Figure A-22 Sample B25WM8 CORE B

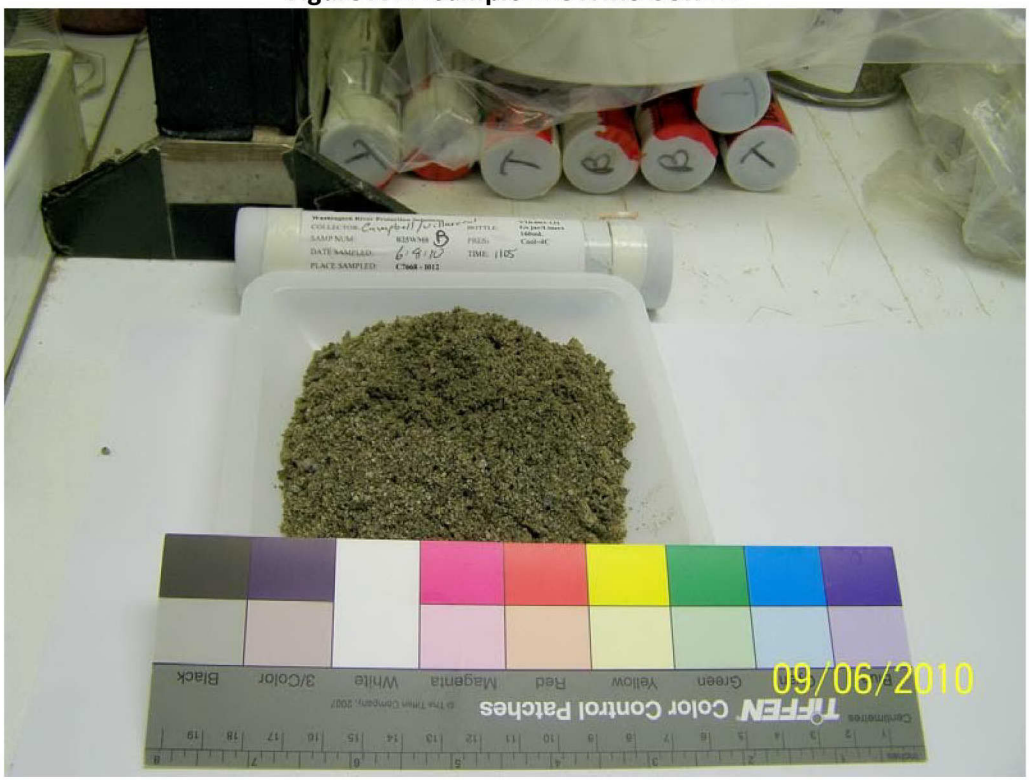


Figure A-23 Sample B25WM8 CORE C

Attachment 8

CHARACTERIZATION CHANGE NOTICES
AND CORRESPONDENCE

REVIEW COMMENT RECORD (RCR)	1. Date 2/11/2011	2. Review No.
	3. Project No.	Page 1 of 3

5. Document Number(s)/Title(s)	6. Program/Project/Building Number	7. Reviewer	8. Organization/Group	9. Location/Phone
ATL#20100064 Rev.0 **Final Analytical Report for Samples from Waste Management Area C for Core Hole C7668, in Support of RCRA Soil Characterization**	WRPS	HL Anastos	Closure and Corrective Measures	1200 Jadwin/ Rm. 301 373-2616

17. Comment Submittal Approval	10. Agreement With Indicated Comment Disposition(s)	11. CLOSED
Date / Organization Manager (optional) (print and sign)	3-16-11 Date; HL Anastos Reviewer/Point of Contact (print and sign); GP Ritenour Author/Originator (print and sign)	3-16-11 Date; HL Anastos Reviewer/Point of Contact (print and sign); GP Ritenour Author/Originator (print and sign)

12. Item	13a. Comments	13b. Basis	13c. Recommendation	14. Reviewer Concurrence Required (Y or N)	15. Disposition (provide justification if **NOT** accepted)	16. Status
1	p. 3: Qualifiers in hard copy report (Tank Farms) do not match qualifiers in electronic data (HEIS).	ATL#20100064 Rev. 0; FEAD CP-15383 Version 8	Revise report using HEIS qualifiers.	Y	Changed to HEIS Flags	closed
2	p. 5: States mercury analysis was performed using "graphic furnace/atomic absorption".	Professional Judgment	It appears this should be "graphite furnace/atomic absorption;" however, stating simply "cold-vapor atomic absorption" would be more accurate. (Graphite furnace is not used).	Y	Fixed Section 3.2.4	
3	p. 13: Two sets of VOA data are reported for B23V99 without clarification of which are reported electronically.	ATL#20100064 Rev. 0	The laboratory should only report one set of data for any requested analyte – the best quality data set which is identical to the data loaded to HEIS. In some cases, the other data set may be present in the report, but it needs to be clearly stated which is reported to HEIS and which is opportunistically reported.	Y	Statement added to Narrative, Section 3.4.1	
4	p. 11: Narrative states C-14 was not analyzed due to insufficient sample; however, results are available in the DSR.	ATL#20100064 Rev. 0	Correct narrative or results, as appropriate.	Y	Fix statement in Section 3.3.5	
5	DSR: Pentachlorophenol is not reported.	ATL#20100064 Rev. 0; RPP-PLAN-40564, Rev. 2	The laboratory requested and received permission to report this analyte by the alternative method	Y	This was a secondary analyte and was only to be reported if detected as a TIC. Since ATL did not calibrate	

A-6400-090.1 (REV 1)

REVIEW COMMENT RECORD (RCR)	1. Date 2/11/2011	2. Review No.
	3. Project No.	Page 2 of 3

12. Item	13a. Comments	13b. Basis	13c. Recommendation	14. Reviewer Concurrence Required (Y or N)	15. Disposition (provide justification if **NOT** accepted)	16. Status
			(8270); however, data is not present in the report. Pentachlorophenol is a secondary constituent via 8270, as was likely not detected and therefore not reported. Preferrably, report pentachlorophenol in the DSR. At a minimum, describe this in the narrative.		for PCP and did not monitor the ions, there is no additional information that can be reported at this time.	Closed
6	SBD: Shows I-129 performed for B23TK8; however, narrative (p. 12) states it was not performed due to lack of sample and it isn't listed in the DSR.	ATL#20100064 Rev. 0	Remove from SBD.	Y	Removed	
7	No sample data was reported for the following samples: B23TM2, B25WM4, B25WM7, B25WN0, and B236P1	ATL#20100064 Rev. 0; COC Review	Report data or annotate why analyses were not performed.	Y	Our standard statement concerning the high level samples is contained in Section 3.4.1; "*For each sample interval, an additional high level sample preserved in methanol was also received. These were not used because none of the results for the frozen samples were above the calibration range.*" This is the same in all reports. Additional annotation unnecessary.	
8	B236P1 is not reflected on Sample Breakdown Diagram	ATL#20100064 Rev. 0; COC Review	Add to SBD or annotate why it is not included.	Y	This COC is a WSCF screening sample COC and was received by WSCF not 222S. This and the COCs for Trip Blank 9, Field Blank 10, and all VOA samples for interval 1012 will be remove from Attachment 8 of the 222S report, since the COC for the VOA and blank samples are in Appendix A in the WSCF report.	
9	Conductivity, percent water and percent solids are not reported for B27130 and B27131.	ATL#20100064 Rev. 0	Report data or annotate why analyses were not performed.	Y	➢ Since conductivity was not requested on the COC for C7668, and is not required in the SAPs, annotation is	✓

REVIEW COMMENT RECORD (RCR)	1. Date 2/11/2011	2. Review No.
	3. Project No.	Page 3 of 3

12. Item	13a. Comments	13b. Basis	13c. Recommendation	14. Reviewer Concurrence Required (Y or N)	15. Disposition (provide justification if **NOT** accepted)	16. Status
					unnecessary. ➢ Percent water was add ➢ % Solids is not requested in the FSAP but will be added to the HEIS upload	Closed
10	COC V10-003-127 COC was not signed or dated when relinquished.	COC Review	Document discrepancy on RCR.	N	N/A	CLOSED

A-6400-090.1 (REV 1)

VADOSE ZONE
CHARACTERIZATION CHANGE NOTICE

Document: RPP-PLAN-40564 Rev 2 **Change Number:** WMAC-009 **ECN to TSAP Required?** Y / N

Requestor: Andrew M. Templeton **Date:** 07-16-10

Original Requirement: There is no original requirement in the project documents on what to analyze for if we encounter free liquids.

Samples Impacted: Samples collected in C Farm at Site R (C7668), depth 39-41 ft. bgs. This location is adjacent to the 241-C-301 Catch Tank.

Proposed Change: During sampling at the 39-41 ft. bgs depth, standing water/liquid was encountered on top of the sampler. Since this was unexpected and the work package does not cover sampling for water/liquid, work was suspended until modifications were made to the work package to sample the water/liquid. After changes were made to the work package a sample of the water/liquid in the sampler was collected in a 500 ml glass container. After filtration approximately 4 ml of liquid/water was recovered. The laboratory is directed to analyze water/liquid for Tc-99.

Reason for Change: Encountered water in sampler.

Date Change Effective: 6-1-10

Schedule Impact: None

Authorization:

Vadose Zone POC (Print/Sign):
A.M. Templeton — **Date:** 10-11-10

Vadose Zone Quality Assurance (Print/Sign):
K.J. Dunbar — **Date:** 10-11-10

222-S Project Coordinator (Print/Sign):
S.G. Mckinney — **Date:** 10-14-10

ATL Project Coordinator (Print/Sign):
G.P. Ritenour — **Date:** 10-14-10

Lab Interface Lead (, Print/Sign):
H.L. Anastos — **Date:** 10-11-2010

cc: S. J. Eberlein, K. M. Hall, Dana Stewart, Dave Myers, Penny Berlin, Eric Wyse, Mike Connelly, Harold Sydnor, Cindy Tabor

VADOSE ZONE
CHARACTERIZATION CHANGE NOTICE

Document: RPP-PLAN-40564 Rev 2 **Change Number:** WMAC-0011 **ECN to TSAP Required?** Y / N

Requestor: Andrew M. Templeton **Date:** 7-27-10

Original Requirement: At each sample depth, three (3) liner samples and one (1) shoe sample are targeted to be taken. Good recovery is required to perform all of the requested analyses.

Samples Impacted: Samples collected in C Farm at site U, location 7676, 5-7 ft. bgs and 14-16 ft. bgs. All percent recoveries are approximate.

Proposed Change:

Due to poor sample recovery from 5-7 ft.bgs (95% in shoe, 100% in liner A, 30% in liner B and 0% in liner C), an additional sample was collected from 7-9 ft. bgs. (100% in shoe, 100% in liner A, 10% in liner B, and 0% in liner C).

To ensure that we have enough material to do all the analyses, a composite will be prepared from Liner A and Liner B at the 5-7 ft. interval and the shoe, Liner A and Liner B from the 7-9 ft. bgs interval.

The samples for volatile organic compound (VOC) analysis were collected from the shoe at the 5-7 ft.. bgs interval.

Due to poor sample recovery from 14-16 ft. bgs (100% in shoe, 100% in Liner A, 40% in Liner B and 0% in Liner C), an additional sample was collected from 16-18 ft. bgs. (100% in shoe, 100% in Liner A, 100% in Liner B and 20% in Liner C)

To ensure that we have enough material to do all the analyses, a composite will be prepared from Liner A and Liner B from the 14-16 ft. bgs interval, and the shoe, Liner A, Liner B and Liner C from the 16-18 ft. bgs interval.

The samples for volatile organic compound (VOC) analysis were collected from the shoe at the 14-16 ft.. bgs interval.

Reason for Change: Poor sample recovery.

Date Change Effective: 7-22-10

Schedule Impact: None

Authorization:

Characterization Task Lead (Print/Sign): A.M. Templeton **Date:** 10-11-10

Vadose Zone Quality Assurance (Print/Sign): K.J. Dunbar **Date:** 10-11-10

222-S Project Coordinator (Print/Sign): S.G. Mckinney **Date:** 10-14-10

7-16

VADOSE ZONE
CHARACTERIZATION CHANGE NOTICE

Document: RPP-PLAN-40564 Rev 2 **Change Number:** WMAC-008 **ECN to TSAP Required?** Y / N

Requestor: Andrew M. Templeton **Date:** 05-27-10

Original Requirement: At each sample depth, three (3) liner samples and one (1) shoe sample are targeted to be taken. Good recovery is required to perform all of the requested analyses.

Samples Impacted: Samples collected in C Farm at Site R (C7668), this location is adjacent to the 241-C-301 Catch Tank.

Proposed Change: Due to poor sample recovery from 5-7 feet (ft.) bgs (50% in shoe, 25% in Liner A, 0% in Liner B and 15% in Liner C) , an additional sample was ~~collected~~ attempted AMT 7-19-10 from 7-9 ft. bgs (0% in shoe, 0% in Liner A, 0% in Liner B and 0% in Liner C).

Due to poor sample recovery from 10-12 ft. bgs (100% in shoe, 75% in Liner A, 5% in Liner B and 0% in Liner C) , an additional sample was collected from 12-14 ft. bgs (20% in shoe, 10% in Liner A, 0% in Liner B and 0% in Liner C).

To ensure there is enough material to do all the analyses, a composite will be prepared from Liner A and Liner B from the 10-12 ft. bgs sample and the shoe and Liner A at the 12-14 ft. bgs sample.

Due to poor sample recovery from 14-16 ft. bgs (40% in shoe, 0% in Liner A, 0% in Liner B and 0% in Liner C), an additional sample was collected from 16-18 ft. bgs (100% in shoe, 100% in Liner A, 50% in Liner B and 0% in Liner C).

To ensure there is enough material to do all the analyses, a composite will be prepared from the shoe (after VOA sample removed), Liner A and Liner B and the shoe from the 16-18 ft. bgs sample.

The samples for volatile organic compound (VOC) analysis were collected from the shoe at each initial sample (i.e. 5-7, 10-12 and 14-16 ft bgs).

As identified above, due to poor sample recovery, additional samples were collected at 7-9 ft. bgs. and from12-14 ft. bgs. There was zero (0) recovery from 7-9 ft. bgs interval. For the 5-7 ft. bgs sample a total of 46 grams (g) of soil was recovered. Between the 10-12 and 12-14 ft. bgs samples a total of 117g of soil was recovered. Based on the poor recovery, the laboratory was given a prioritized analysis list as shown below:

Analyses	Quantity of Soil needed for analysis in Grams
1. SVOA	20g
2. Tc-99/Sn	4g
3. I-129	10g
4. Acid digest (ICP, MS act)	5g
5. Sulfide	0.3g
6. CN	0.6g
7. Ammonia	0.3g
8. Hg	0.3g
5-7' Sample	**46 g.**
9. Gamma scan	Not Applicable
10. %moisture	20g

11. pH	3g
12. Pu-iso, Am, Cm-iso	1g
13. Sr-90	5g
14. Ni-63,Se-79	2g
15. Water dig. ((IC, C-14, H-3)	5g
10-14' Sample	**117.5 g**
16. Off-site	130g (low priority due to large sample amount required)

For the 5-7 ft. bgs sample a total of 46g of soil was recovered enabling analyses 1-8. For the 10-14 ft. bgs sample a total of 117.5g of soil was recovered enabling analyses 1-15. No material will be sent for off-site analysis from the 5-7 or the 10-14 ft. bgs samples due to the lack of material. For the 14-18 ft. bgs sample enough material was collected to perform all the analysis.

Reason for Change: Poor sample recovery.

Date Change Effective: 5-20-10

Schedule Impact: None

Authorization:

Vadose Zone POC (Print/Sign): A.M. Templeton — **Date:** 6-30-10

Vadose Zone Quality Assurance (Print/Sign): K.J. Dunbar — **Date:** 7-2-10

222-S Project Coordinator (Print/Sign): S.G. Mckinney — **Date:** 7-19-10

ATL Project Coordinator (Print/Sign): G.P. Ritenour — **Date:** 7-14-10

Other (Optional, Print/Sign): — **Date:**

cc: S. J. Eberlein, K. M. Hall, Dana Stewart, Dave Myers, Penny Berlin, Eric Wyse, Mike Connelly, Harold Sydnor

Ritenour, Gerald P

From: Duchsherer, Mark J
Sent: Monday, May 24, 2010 6:59 PM
To: McKinney, Steve G; Ritenour, Gerald P
Cc: Hansen, Daniel R
Subject: Grit found on Threads of C-Farm Soil Vials

Steve/JR,

We continue to encounter low/no purge flow with soil samples. The following samples were affected:

Samples:
S10V000378
S10V000128
S10V000142

We did not obtain reliable sample results for these samples. All vials were found to be leaking at the cap – regardless of how much the caps were tightened. Several vials were selected for closer examination . When we removed the cap (after the vial had purged), we noticed a significant amount of grit in the threads of the vial – indicating that the threads were not wiped clean during sampling. The was enough grit that hear the grit grinding against the threads when the cap was remopved. Subsequent aqueous blank samples analyzed with this batch purged normally.

From EPA Publication: EPA/600/R-00/066 September, 2000 "INTEGRITY OF VOA-VIAL SEALS"

"Poor vial sealing can occur due to: (a) the presence of sand grains (or other particles) on the lip or threads of the VOA vials; (b) septa expansion and contraction during temperature fluctuations associated with sample cooling/freezing or sample warming and cooling cycles during shipment from the field to the laboratory; or (c) puncturing the septa. The single-most important factor in sealing soil samples for VOC analysis is to insure that the lip and threads of the vial are clean before sealing. Traces of soil or grit on the glass lip will compromise the seals. Hewitt et al. (1995) intentionally left soil on the lip of three 135-mL (4 oz) bottles and thoroughly cleaned three others. Water (125 mL), spiked with a methanol solution containing four VOCs, was added to each of the six bottles and analyzed after 5 days storage at 4° C. Samples stored with dirty closures had an average of 41% to 46% lower VOC concentrations than the samples stored in the bottles where the threads and lips were cleaned prior to sealing."

- B.A. Schumacher, M.M. Minnich, J. H. Zimmerman and J. Blasdell, "Integrity of VOA Vial Seals", EPA/600/R-00/066, September, 2000, U.S. Environmental Protection Agency, National Exposure Research Laboratory, Characterization and Monitoring Branch.

Mark Duchsherer
373-7716

Ritenour, Gerald P

From: McKinney, Steve G
Sent: Wednesday, July 07, 2010 12:10 PM
To: Tabor, Cynthia L
Cc: Templeton, Andrew M; Ritenour, Gerald P; Berlin, Penelope C
Subject: FW: Confirming our Telephone Conversation

From: McKinney, Steve G
Sent: Wednesday, February 18, 2009 9:11 AM
To: Hansen, Daniel R; Baker, Harold L
Cc: Ritenour, Gerald P
Subject: FW: Confirming our Telephone Conversation

We will still have the secondary's in omni, just not reported in the HEISS upload if they are a less than....

From: Connelly, Michael
Sent: Wednesday, February 18, 2009 9:08 AM
To: McKinney, Steve G
Subject: FW: Confirming our Telephone Conversation

From: Barnes, Michael (ECY) [mailto:miba461@ecy.wa.gov]
Sent: Tuesday, February 17, 2009 2:31 PM
To: Connelly, Michael
Subject: RE: Confirming our Telephone Conversation

Both are correct…….

Mike

From: Connelly, Michael [mailto:Michael_Connelly@RL.gov]
Sent: Tuesday, February 17, 2009 2:21 PM
To: Barnes, Michael (ECY)
Subject: Confirming our Telephone Conversation

Mike

I just want to confirm our discussion earlier today

1) With regard to secondary constituents/compounds, they will only be reported if the results are above detection limits.
2) With regard to methanol, because this is analyte is often found due to laboratory contamination, it will be dropped from the analysis

Let me know if this is the correct or if you need me to say something else.

Ritenour, Gerald P

From: Clauss, Scott A
Sent: Monday, October 04, 2010 8:23 AM
To: Ritenour, Gerald P
Subject: FW: Samples that went to WSCF?

It is on McKinney's list as having gone to WSCF.

We did run it on 5/27/10, but the data is worthless. It was one of those "failed to purge" samples.

Then, as far as I know, it got shipped to WSCF, because the lab was shutting down before we would have had time to rerun.

From: McKinney, Steve G
Sent: Tuesday, September 07, 2010 3:09 PM
To: Clauss, Scott A
Subject: FW: Samples that went to WSCF?

I think this is the complete list…?

14' sample S10V000225, S10V000226, S10V000227
39' sample S10V000999, S10V001000, S10V001001
FB S10V000098
80' sample S10V000276, S10V000277, S10V000278
FB S10V000103
TB S10V000112
FB S10V000102
TB S10V000111
FB S10V001589
TB S10V001598

From: Clauss, Scott A
Sent: Wednesday, June 23, 2010 10:50 AM
To: McKinney, Steve G
Subject: Samples that went to WSCF?

Steve,

Do you have a list of samples that went to WSCF.

There are samples that show up in Tom Bushaw's status that should have gone to WSCF.

Two might still be batched in our system. Will that cause a problem for them over there?

Thanks,
SC

From: McKinney, Steve G
To: Ritenour, Gerald P
Subject: FW: C Farm Analytical Analysis Priority (C7668)
Date: Wednesday, October 13, 2010 10:16:22 AM

In your narrative, (C7668) that %moistures were not run for either sample – first due to sample amounts, second due to communication…. (S10V000162 and S10V000196).

Thanks.

From: McKinney, Steve G
Sent: Thursday, May 20, 2010 12:42 PM
To: Templeton, Andrew M; Connelly, Michael
Cc: Ritenour, Gerald P
Subject: C Farm Analytical Analysis Priority

Ok, based on the input we have thus far. We will proceed with this approach, unless you yell in the next little bit. Obviously, our 7-day hold times are beginning to be an issue… To summarize, I've indicated below where we will run out of sample for each interval thus far. There is insufficient sample for off-site shipments for these two intervals.

Gamma scan	NA	
SVOA:	20g	
Tc-99/Sn	4g	
I-129	10g	
Acid digest (ICP, MS act)	5g	
Sulfide	0.3g	
Ammonia	0.3g	
Hg	0.3g	5-9' sample – 46 g.
%moisture	20g	
pH	3g	
Pu-iso, Am, Cm-iso	1g	
Sr-90	5g	
Ni-63,Se-79	2g	
Water dig (IC, C-14, H-3)	5g	10-14' sample – 117.5 g
Off-site	130g	

Thanks.

Ritenour, Gerald P

From: Anastos, Heather L
Sent: Wednesday, November 10, 2010 9:04 AM
To: Ritenour, Gerald P; McKinney, Steve G
Cc: Wyse, Eric J; Hansen, Daniel R; Schroeder, Robert W
Subject: RE: Group 20100064

We'll accept the data.

Heather Anastos
Chemist, Closure & Corrective Measures
(509) 373-2616
1200 Jadwin/301

washington river protection solutions
contractor to the United States Department of Energy

From: Ritenour, Gerald P
Sent: Wednesday, November 10, 2010 9:03 AM
To: Anastos, Heather L; McKinney, Steve G
Cc: Wyse, Eric J; Hansen, Daniel R; Schroeder, Robert W
Subject: RE: Group 20100064

80%

ATL Analytical Operations
Advanced Technologies and Laboratories International, Inc.
Contractor to the Office of River Protection
U.S. Department of Energy
Currently at 509-375-4200, Ext 247

From: Anastos, Heather L
Sent: Wednesday, November 10, 2010 9:03 AM
To: Ritenour, Gerald P; McKinney, Steve G
Cc: Wyse, Eric J; Hansen, Daniel R; Schroeder, Robert W
Subject: RE: Group 20100064

JR – What is your lower control limit for Ca? If I understand correctly, D27130 and D27131 were used in process, so this data is all we have. The question is do we require reanalysis for the other depths, correct?

Thanks,

Heather Anastos
Chemist, Closure & Corrective Measures
(509) 373-2616
1200 Jadwin/301

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From: Ritenour, Gerald P
Sent: Tuesday, November 09, 2010 2:46 PM
To: Anastos, Heather L; McKinney, Steve G
Cc: Wyse, Eric J; Hansen, Daniel R; Schroeder, Robert W
Subject: Group 20100064

Heather, Steve
The LCS for calcium failed low (see below) and calcium is a primary analyte. Per SAP, QAPP, etc. this requires a reanalysis. I just discover it and the 10-14 and 14-18 sample are consumed. Ca is not a required analyte in the SAP and was add to the FSAP list to "help in the evaluation of whether or not tank fluids have passed through the sediments." Ca in not a particularly good indicator of a tank spill, since the background of Ca would mask any contribution from "Tank Ca", which is generally at a relatively low concentration in the tank liquid. Please let me know if Vadose can accept this "as is". The report for this core is due 12/1/2010.

Batch 20563

Core	HEIS #	Sample Depth	SAMPLE_R	ANALYTE	UNIT	LCS	BLANK	RESULT	DUP	RPD	SPK_REC	MDL	Q
C7668	B23TK2	Surface	S10V000136	Calcium	ug/g	78.3	<0.0500	9.49E+03	1.18E+04	21.5	1.25E+03	5.34	a
C7668	B23TK5	Surface Dup	S10V000150	Calcium	ug/g	78.3	<0.0500	1.07E+04	n/a	n/a	n/a	5.28	a
C7668	B23TK8	5-7	S10V000167	Calcium	ug/g	78.3	<0.0500	1.15E+04	n/a	n/a	n/a	5.22	a
C7668	B23TM6	27-29	S10V000270	Calcium	ug/g	78.3	<0.0500	6.73E+03	n/a	n/a	n/a	5.58	a
C7668	D27130	10-14	S10V000201	Calcium	ug/g	78.3	<0.0500	8.06E+03	n/a	n/a	n/a	5.46	a
C7668	D27131	14-18	S10V000236	Calcium	ug/g	78.3	<0.0500	8.77E+03	n/a	n/a	n/a	5.09	a

Thanks, JR

ATL Analytical Operations
Advanced Technologies and Laboratories International, Inc.

Ritenour, Gerald P

From: Anastos, Heather L
Sent: Wednesday, November 17, 2010 11:29 AM
To: Ritenour, Gerald P; McKinney, Steve G
Subject: RE: C Farm C7668 Ammonia MS

As the laboratory has identified this is an analytical preparation error, and the data is not required for our project, I am okay with the lab not reporting the spike. Please note it in the report.

Heather Anastos
Chemist, Closure & Corrective Measures
(509) 373-2616
1200 Jadwin/301

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From: Ritenour, Gerald P
Sent: Wednesday, November 17, 2010 10:13 AM
To: Anastos, Heather L; McKinney, Steve G
Subject: C Farm C7668 Ammonia MS

Steve, Heather
There is a matrix spike in ammonium batch 19583 that was known to be improperly spiked and recovered at 247%. Since the exact spike amount is unknown the recovery cannot be corrected. The post digestion spike passed as did all other QC in this batch. Since the project requirement is only on MS per core hole, I am proposing to delete this MS from the report. I will mention it in the narrative. The batch contained two samples from C7668. We have 5 additional MS for C7668 that pass. Please let me know if this is acceptable.

Core Number	Customer Sample ID	Sample Depth	SAMPLE_R	ANALYTE	RESULT_UNIT	STANDARD	BLANK	RESULT	DUPLICATE	RPD	SPK_REC	Det Limit	QUALIFIE
C7668	B23TK8	5-7	S10V000168	Ammonium	ug/g	101	<0.0120	4.13	3.43	18.4	247	0.474	Jb
C7668	D27130	10-14	S10V000202	Ammonium	ug/g	101	<0.0120	1.73	n/a	n/a	n/a	0.469	Jb

ATL Analytical Operations
Advanced Technologies and Laboratories International, Inc.

From: Anastos, Heather L
To: McKinney, Steve G; Ritenour, Gerald P
Subject: RE: C Farm SDG 20100213
Date: Wednesday, October 20, 2010 7:56:44 AM

I agree – use this result.

Heather Anastos
Chemist, Closure & Corrective Measures
(509) 373-2616
1200 Jadwin/301

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contractor to the United States Department of Energy

From: McKinney, Steve G
Sent: Wednesday, October 20, 2010 7:56 AM
To: Ritenour, Gerald P; Anastos, Heather L
Subject: RE: C Farm SDG 20100213

..makes sense to me. Below the RDL and it's dirt!

From: Ritenour, Gerald P
Sent: Wednesday, October 20, 2010 7:30 AM
To: McKinney, Steve G; Anastos, Heather L
Subject: C Farm SDG 20100213

Heather, Steve
One of the ICPMS-Sb batches failed the dup (see below). Since the result is below the RDL of 0.5ug/g for Sb, I would like to report this result. The failure appears to be a result of a inhomogenus sample not a lab error. Sb requires is special digest using 1g instead of the normal 5g. This done to conserve sample and because this aliquot size seems to work the best. Tor the most part it produces homogenous splits. Just not this time.
Thanks, JR

Batch 20

Core Number	Customer Sample ID	Sample Depth	SAMPLE_R	ANALYTE	RESULT_UNIT	LCS	BLANK	RESULT	DUP	RPD	MS	MDL	Flag
C7668	B23TK2	Surface	S10V001204	Antimony	ug/g	99.4	<0.0100	0.186	0.270	37.2	96.4	9.51E-03	c
C7668	B23TK5	Surface Dup	S10V001205	Antimony	ug/g	99.4	<0.0100	0.245	n/a	n/a	n/a	9.48E-03	
C7668	B23TM6	27-29	S10V001209	Antimony	ug/g	99.4	<0.0100	0.303	n/a	n/a	n/a	9.67E-03	
C7668	D27130	10-14	S10V001207	Antimony	ug/g	99.4	<0.0100	0.161	n/a	n/a	n/a	9.24E-03	

Currently at 509-375-4200, Ext 247

Ritenour, Gerald P

From: Anastos, Heather L
Sent: Friday, November 19, 2010 1:10 PM
To: McKinney, Steve G; Ritenour, Gerald P
Subject: RE: C Farm C7668 H-3 MS

JR –

We would rather have the results within holding time – we will accept the data without the MS. Please look into why the MS requirements were not met and take appropriate corrective actions so that this does not recur. I'd like to be informed what you find out.

Heather Anastos
Chemist, Closure & Corrective Measures
(509) 373-2616
1200 Jadwin/301

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contractor to the United States Department of Energy

From: Ritenour, Gerald P
Sent: Wednesday, November 17, 2010 2:07 PM
To: Anastos, Heather L; McKinney, Steve G
Subject: C Farm C7668 H-3 MS

Steve, Heather,
The laboratory failed to included a MS for this core for Tritium. It is possible to reanalyze 6 of the 8 original intervals. The 5-7 and 10-14 interval are out of sample. The reanalysis of 3 of the six samples would most likely exceed the hold time. I suspect this would also delay the report by about a week. I am ok with reporting as is or reanalyzing. A third option could be to report as is then reanalyze one of the samples that would meet the holding time and add to the report after the project review is complete. Let me know you thoughts on this.

ATL Analytical Operations
Advanced Technologies and Laboratories International, Inc.
Contractor to the Office of River Protection
U.S. Department of Energy
Currently at 509-375-4200, Ext 247

Attachment 9

RECEIPT PAPERWORK

ATL	SAMPLE RECEIPT AND CHAIN OF CUSTODY VERIFICATION CHECKLIST	LO-090-101 Rev EG.0

Date Samples Received: 5-11-10 Group #: 20100064, 62

Number of Samples: 2 (sets) VADOSE at Last

Sample Custodian:

Sample Custodian to Complete:

Action	OK? (Y/N)	N/A	Comments
RSA/COC provided?	✓		
RSR provided?		✓	
Verify GKI is complete			on File
Check that outer custody seal is intact, if present		✓	
Record cooler temperature in centigrade, as appropriate	-1°C / 8°C		☐ Check if no cooler and/or no ice
Samples are intact and in good condition	✓		If No, provide comments on back
Verify that COC or RSA is accurate and complete, containing the following information:			
• Client name and client sample number	✓		
• Date and time of sampling	✓		
• Sampling location or origin	✓		
• Container type, size, and number	✓		
• Analysis request is clear	✓		
• Signature of persons relinquishing and receiving samples	✓		
• Date and/or time of sample custody exchange	✓		
Verify that sample numbers on containers match the COC and/or RSA	✓		
Samples stored properly (e.g., refrigeration)	✓		
Notify the PM immediately if any problems are noted. (A "No" answer requires Project Manager resolution.)			

PM to Complete:

Samples acceptable for release? Yes PM Initials MPR Date 5-12-10

If No, comment on communication and resolution:

Other Comments:

A-6005-342 (REV 0)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	V10-002-044	PAGE 1 OF 1

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 7P	DATA TURNAROUND
Campbell / Harris	SYDNOR, HA	373-3967	BERLIN, PC	AIR QUALITY ☐	75 Days / 75 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
C7668 Field Blank 1	WMA C Sampling for CMS - QC Sampling		V10-002		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
TFV2-09-003	TFV2-09-000001	Surface	n/a	GOVERNMENT VEHICLE	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
222-S Lab Operations	n/a		n/a		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	HCl or H2SO4 to pH <2/Cool~4C
TYPE OF CONTAINER	aGs*
NO. OF CONTAINER(S)	3
VOLUME	40mL
SAMPLE ANALYSIS	VOA - 8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B23V96	WATER	5-11-10	0915

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Campbell	5-11-10 1100	RPLeal rpsteele	5-11-10 1100

SPECIAL INSTRUCTIONS

1 ea FB
n/a

Sep# 20100062
Sam# S10V000095

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	V10-002-054	PAGE 1 OF 1

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 7P / DATA TURNAROUND
Campbell / Harris	SYDNOR, HA	373-3967	BERLIN, PC	AIR QUALITY ☐ / 75 Days / 75 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**	
C7668 Trip Blank 1	WMA C Sampling for CMS - QC Sampling		V10-002	
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**
TFV2-09-003	TFV2-09-000001	Surface	N/A	GOVERNMENT VEHICLE
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**	
222-S Lab Operations	N/A		N/A	

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	HCl or H2SO4 to pH <2/Cool~4C
TYPE OF CONTAINER	aGs*
NO. OF CONTAINER(S)	3
VOLUME	40mL
SAMPLE ANALYSIS	VOA - 8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23VB6	WATER	5-11-10	1009	V

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Campbell Campbell	5-11-10 1100	RSteele RSteele	5-11-10 1100

SPECIAL INSTRUCTIONS
-1 °C TB
NT
GRPH 20100062
SAMH S10V000105

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			V10-003-089	PAGE 1 OF 1
COLLECTOR Campbell / Harris	**COMPANY CONTACT** SYDNOR, HA	**TELEPHONE NO.** 373-3967	**PROJECT COORDINATOR** BERLIN, PC	**PRICE CODE** 8P	**DATA TURNAROUND**
SAMPLING LOCATION C7668 - Surface	**PROJECT DESIGNATION** WMA C Sampling for CMS		**SAF NO.** V10-003	**AIR QUALITY** ☐	75 Days / 75 Days
ICE CHEST NO. TFV2-09-003	**FIELD LOGBOOK NO.** TFV2-09-000001	**ACTUAL SAMPLE DEPTH** Surface	**COA** n/A	**METHOD OF SHIPMENT** Govt. Vehicle	
SHIPPED TO 222-S Lab Operations	**OFFSITE PROPERTY NO.** n/A		**BILL OF LADING/AIR BILL NO.** n/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

SAMPLE NO.	**MATRIX***	**SAMPLE DATE**	**SAMPLE TIME**											
PRESERVATION				Cool <-7C and >-20C	MEOH/Cool~4 C									
TYPE OF CONTAINER				Gs	Gs									
NO. OF CONTAINER(S)				5	3									
VOLUME				40mL	40mL									
SAMPLE ANALYSIS				VOA - 5035/8260 (LOW LEVEL) (TF);	VOA - 5035/8260 (HIGH LEVEL) (TF);									
B23TK4	SOIL	5-11-10	0915	✓	✓									

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Campbell Campbell	5-11-10 1100	[illegible]	5-11-10 1100

SPECIAL INSTRUCTIONS

** All VOA samples will be collected using EPA Method 5035A.
** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample.
** The laboratory is to use one of the low level VOA bottles for moisture content determination.
** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be included as part of the sample ID reported in the final data packages.

1°C TB ok
-6°C NO

GRP# 20100064
SAM# 510V000 128
129

LABORATORY SECTION	**RECEIVED BY**	**TITLE**	**DATE/TIME**
FINAL SAMPLE DISPOSITION	**DISPOSAL METHOD**	**DISPOSED BY**	**DATE/TIME**

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			V10-003-088	PAGE 1 OF 1
COLLECTOR Campbell / Harris	**COMPANY CONTACT** SYDNOR, HA	**TELEPHONE NO.** 373-3967	**PROJECT COORDINATOR** BERLIN, PC	**PRICE CODE** 8P	**DATA TURNAROUND**
SAMPLING LOCATION C7668 - Surface	**PROJECT DESIGNATION** WMA C Sampling for CMS		**SAF NO.** V10-003	**AIR QUALITY** ☐	75 Days / 75 Days
ICE CHEST NO. TFVZ-09-003	**FIELD LOGBOOK NO.** TFVZ-09-000001	**ACTUAL SAMPLE DEPTH** Surface	**COA** n/a	**METHOD OF SHIPMENT** Govt. Vehicle	
SHIPPED TO 222-S Lab Operations	**OFFSITE PROPERTY NO.** n/a		**BILL OF LADING/AIR BILL NO.** n/a		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
TYPE OF CONTAINER	Gs
NO. OF CONTAINER(S)	1
VOLUME	40mL
SAMPLE ANALYSIS	VOA - 5035/8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23TK3	SOIL	5-11-10	0915	✓

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Campbell Campbell	5-11-10 1100	RHStaab	5-11-10 1100

SPECIAL INSTRUCTIONS

** All VOA samples will be collected using EPA Method 5035A.
** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample.
** The laboratory is to use one of the low level VOA bottles for moisture content determination.
** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be included as part of the sample ID reported in the final data packages.

1 ice TB
na

GRP # 20100064
SAM # S10V000130

LABORATORY SECTION	**RECEIVED BY**		**TITLE**	**DATE/TIME**
FINAL SAMPLE DISPOSITION	**DISPOSAL METHOD**		**DISPOSED BY**	**DATE/TIME**

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		V10-003-087	PAGE 1 OF 1
COLLECTOR Campbell / Harris	**COMPANY CONTACT** SYDNOR, HA	**TELEPHONE NO.** 373-3967	**PROJECT COORDINATOR** BERLIN, PC	**PRICE CODE** 8P; **DATA TURNAROUND**
SAMPLING LOCATION C7668 - Surface	**PROJECT DESIGNATION** WMA C Sampling for CMS		**SAF NO.** V10-003	**AIR QUALITY** ☐; **75 Days / 75 Days**
ICE CHEST NO. TFV2-09-003	**FIELD LOGBOOK NO.** TFV2-09-000001	**ACTUAL SAMPLE DEPTH** Surface	**COA** N/A	**METHOD OF SHIPMENT** Govt. Vehicle
SHIPPED TO 222-S Lab Operations	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A	

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~6C
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	500mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23TK2	SOIL	5-11-10	0915	V

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Campbell C-pbell	5-11-10 1100	R/S Cooler	5-11-10 1100

SPECIAL INSTRUCTIONS

** After VOA bottles for the direct pushes are filled, the sampler will cap remaining liners for shipment to 222-S. Where capping is not possible, the sample shall be put into 500 mL or 250 mL glass bottles with Teflon-lined lids.
(1)Semi-VOA - 8270 Complete (TF); TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D; PCBs - 8082; Pesticides - 8081 (TF); ICP Metals - 6010 (SW-846) (TF); Mercury - 7471 - (CV) (TF); 300.7_AMMONIUM (TF); IC Anions - 9056; Sulfide - 9215; Total Cyanide - 9014 (TF); pH (Soil) - 9045; Americium-241 (TF); C-14; CURIUM; GAMMA ENERGY ANALYSIS (TF); H3 - TRITIUM; I129_SEP_GEA (TF); Isotopic Plutonium {Plutonium-239/240, Plutonium-238} Nickel-63 (TF); RADISO_ICPMS (TF); Selenium-79 (TF); Strontium-89,90 -- Sr-90;

IC TB

GRPH# 20100064
Stm.# S10V000131

LABORATORY SECTION	**RECEIVED BY**		**TITLE**	**DATE/TIME**
FINAL SAMPLE DISPOSITION	**DISPOSAL METHOD**		**DISPOSED BY**	**DATE/TIME**

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	V10-003-092	PAGE 1 OF 1

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8P	DATA TURNAROUND
Campbell / Harris	SYDNOR, HA	373-3967	BERLIN, PC	AIR QUALITY ☐	75 Days / 75 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
C7668 - Surface Dup	WMA C Sampling for CMS		V10-003		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
TFV2-09-003	TFV2-09-000001	Surface	N/A	Govt. Vehicle	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
222-S Lab Operations	N/A		N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool <-7C and >-20C	MEOH/Cool~4 C
TYPE OF CONTAINER	Gs	Gs
NO. OF CONTAINER(S)	5	3
VOLUME	40mL	40mL
SAMPLE ANALYSIS	VOA - 5035/8260 (LOW LEVEL) (TF);	VOA - 5035/8260 (HIGH LEVEL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B23TK7	SOIL	5-11-10	0915	✓	✓							

CHAIN OF POSSESSION

SIGN/ PRINT NAMES			
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
C Campbell	5-11-10 1100	A Steele	5-11-10 1100
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

** All VOA samples will be collected using EPA Method 5035A.
** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample.
** The laboratory is to use one of the low level VOA bottles for moisture content determination.
** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be included as part of the sample ID reported in the final data packages.

1°C TB
8°C TB
-8 NV

GRP# 20100064 142
SAM. # S10V000128
Related S-11-10 → 129143

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		V10-003-091	PAGE 1 OF 1
COLLECTOR Campbell / Harris	**COMPANY CONTACT** SYDNOR, HA	**TELEPHONE NO.** 373-3967	**PROJECT COORDINATOR** BERLIN, PC	**PRICE CODE** 8P / **DATA TURNAROUND**
SAMPLING LOCATION C7668 - Surface Dup	**PROJECT DESIGNATION** WMA C Sampling for CMS		**SAF NO.** V10-003	**AIR QUALITY** ☐ / 75 Days / 75 Days
ICE CHEST NO. TFV2-09-003	**FIELD LOGBOOK NO.** TFV2-09-000001	**ACTUAL SAMPLE DEPTH** Surface	**COA** n/a	**METHOD OF SHIPMENT** Govt. Vehicle
SHIPPED TO 222-S Lab Operations	**OFFSITE PROPERTY NO.** n/a		**BILL OF LADING/AIR BILL NO.** n/a	

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
TYPE OF CONTAINER	Gs
NO. OF CONTAINER(S)	1
VOLUME	40mL
SAMPLE ANALYSIS	VOA - 5035/8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23TK6	SOIL	5-11-10	0915	V

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Campbell Campbell	5-11-10 1100	R Elliott C Higgle	5-11-10 1100

SPECIAL INSTRUCTIONS

** All VOA samples will be collected using EPA Method 5035A.
** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample.
** The laboratory is to use one of the low level VOA bottles for moisture content determination.
** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be included as part of the sample ID reported in the final data packages.

1 oz TS RK

GRPH 20100064
SAMH S10V000144

LABORATORY SECTION	**RECEIVED BY**	**TITLE**	**DATE/TIME**
FINAL SAMPLE DISPOSITION	**DISPOSAL METHOD**	**DISPOSED BY**	**DATE/TIME**

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			V10-003-090	PAGE 1 OF 1
COLLECTOR Campbell / Harris	**COMPANY CONTACT** SYDNOR, HA	**TELEPHONE NO.** 373-3967	**PROJECT COORDINATOR** BERLIN, PC	**PRICE CODE** 8P	**DATA TURNAROUND**
SAMPLING LOCATION C7668 - Surface Dup	**PROJECT DESIGNATION** WMA C Sampling for CMS		**SAF NO.** V10-003	**AIR QUALITY** ☐	75 Days / 75 Days
ICE CHEST NO. TFV2-09-003	**FIELD LOGBOOK NO.** TFV2-09-000001	**ACTUAL SAMPLE DEPTH** Surface	**COA** N/A	**METHOD OF SHIPMENT** Govt. Vehicle	
SHIPPED TO 222-S Lab Operations	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~6C
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	500mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23TK5	SOIL	5-11-10	0915	✓

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Chad Campbell	5-11-10 1100	R Hatcoola	5.11.10 1100

SPECIAL INSTRUCTIONS

** After VOA bottles for the direct pushes are filled, the sampler will cap remaining liners for shipment to 222-S. Where capping is not possible, the sample shall be put into 500 mL or 250 mL glass bottles with Teflon-lined lids.
(1)Semi-VOA - 8270 Complete (TF); TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D; PCBs - 8082; Pesticides - 8081 (TF); ICP Metals - 6010 (SW-846) (TF); Mercury - 7471 - (CV) (TF); 300.7_AMMONIUM (TF); IC Anions - 9056; Sulfide - 9215; Total Cyanide - 9014 (TF); pH (Soil) - 9045; Americium-241 (TF); C-14; CURIUM; GAMMA ENERGY ANALYSIS (TF); H3 - TRITIUM; I129_SEP_GEA (TF); Isotopic Plutonium {Plutonium-239/240, Plutonium-238} Nickel-63 (TF); RADISO_ICPMS (TF); Selenium-79 (TF); Strontium-89,90 -- Sr-90;

1 0cc FB RM

GRPH 20100064
SAMP 5100000145

LABORATORY SECTION	**RECEIVED BY**		**TITLE**	**DATE/TIME**
FINAL SAMPLE DISPOSITION	**DISPOSAL METHOD**		**DISPOSED BY**	**DATE/TIME**

A-6003-618(01/06)

5/10/2010 1:54 PM	WORKING COPY

VOC Soil and Sediment Sampling

Data Sheet 1 – Sample Record Sheet

SAMPLE RECORD SHEET

Location:	C7668 / Surface						
Sampler Initials:	OAS / BC				**Date:**	5-11-10	
Scale Number:	820-66-06-002				**Cal. Due Date:**	11-9-10	
Sample Number	Sample Suffix[1]	Tare Weight provided (grams)	Tare Weight prior to sample[2] (grams)	Initial Weight[3] (grams)	Total Weight[4] (grams)	Soil Weights (grams)[5]	Methanol in sample bottle (ml)
B23TK4	K	N/A	N/A	26.00	31.04	5.04	No Methanol
B23TK4	L	N/A	N/A	26.13	31.23	5.10	No Methanol
B23TK4	M	N/A	N/A	26.11	30.84	4.73	No Methanol
B23TK4	N	N/A	N/A	26.13	31.23	5.10	No Methanol
B23TK4	P	N/A	N/A	26.07	31.25	5.18	No Methanol
B23TK4	W	37.324	37.27	37.66	43.05	5.39	10 ml.
B23TK4	X	37.207	37.14	37.54	42.14	4.60	10 ml.
B23TK4	Y	37.219	37.16	37.56	42.61	5.05	10 ml.
B23TK3	*	37.008	36.96	37.36	N/A	N/A	10 ml.

[1] Sample suffix of K, L, M, N, and P will not have Methanol in the bottle, freeze these samples to between -7 °C (19.4 °F) and -20 °C (-4 °F)

Sample suffix of W, X, and Y relate to methanol preservation for high-level samples.

Sample suffix of "*" relates to methanol blank. Cool W, X, Y, and * samples to between - 4 °C ± 2 °C (39.2 °F ± 3.6 °F).

[2] Tare weight prior to sample must be within +/- 0.2 grams of Vendors tare weight or bottle cannot be used. Weigh only the bottle, no labels, stickers or bags.

[3] Initial weight is to include all labels, stickers, bags, methanol (for vendor filled methanol samples with suffix W,X,Y and *) spin bars (for samples with suffix K,L,M,N and P) and anything else that will be associated with the bottle when it is weighed with the sample.

[4] Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.

[5] Soil weight is the vial with sample minus Initial Weight.

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VOC Soil and Sediment Sampling

Data Sheet 1 – Sample Record Sheet

SAMPLE RECORD SHEET

Location:	C-7668/ Limfore Dup.		
Sampler Initials:	OH / BC	**Date:**	5-11-10
Scale Number:	820-66-06-002	**Cal. Due Date:**	11-9-10

Sample Number	Sample Suffix[1]	Tare Weight provided (grams)	Tare Weight prior to sample[2] (grams)	Initial Weight[3] (grams)	Total Weight[4] (grams)	Soil Weights (grams)[5]	Methanol in sample bottle (ml)
B23TK7	K	N/A	N/A	26.14	31.49	5.35	No Methanol
B23TK7	L	N/A	N/A	25.79	30.86	5.07	No Methanol
B23TK7	M	N/A	N/A	26.26	31.30	5.04	No Methanol
B23TK7	N	N/A	N/A	25.88	30.68	4.80	No Methanol
B23TK7	P	N/A	N/A	26.32	31.38	5.06	No Methanol
B23TK7	W	36.992	36.95	37.36	42.48	5.12	10 ml.
B23TK7	X	36.870	36.81	37.23	42.38	5.15	10 ml.
B23TK7	Y	37.099	37.05	37.45	43.00	5.55	10 ml.
B23TK6	*	37.633	37.60	38.00	N/A	N/A	10 ml.

[1] Sample suffix of K, L, M, N, and P will not have Methanol in the bottle, freeze these samples to between -7 °C (19.4 °F) and -20 °C (-4 °F)

Sample suffix of W, X, and Y relate to methanol preservation for high-level samples.

Sample suffix of "*" relates to methanol blank. Cool W, X, Y, and * samples to between - 4 °C ± 2 °C (39.2 °F ± 3.6 °F).

[2] Tare weight prior to sample must be within +/- 0.2 grams of Vendors tare weight or bottle cannot be used. Weigh only the bottle, no labels, stickers or bags.

[3] Initial weight is to include all labels, stickers, bags, methanol (for vendor filled methanol samples with suffix W,X,Y and *) spin bars (for samples with suffix K,L,M,N and P) and anything else that will be associated with the bottle when it is weighed with the sample.

[4] Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.

[5] Soil weight is the vial with sample minus Initial Weight.

ATL	SAMPLE RECEIPT AND CHAIN OF CUSTODY VERIFICATION CHECKLIST	LO-090-101 Rev GG.0

Date Samples Received: _____ Group #: 2010064 " 63

Number of Samples: 2 sets C-Farm VADOSE

Sample Custodian: RP Stahl

Sample Custodian to Complete:

Action	OK? (Y/N)	N/A	Comments
RSA/COC provided?	✓		
RSR provided?	✓	~~✓~~	
Verify GKI is complete		✓	on file
Check that outer custody seal is intact, if present	—		
Record cooler temperature in centigrade, as appropriate	0°C / 6°C		☐ Check if no cooler and/or no ice
Samples are intact and in good condition	✓		If No, provide comments on back
Verify that COC or RSA is accurate and complete, containing the following information:			
• Client name and client sample number	✓		
• Date and time of sampling	✓		
• Sampling location or origin	✓		
• Container type, size, and number	✓		
• Analysis request is clear	✓		
• Signature of persons relinquishing and receiving samples	✓		
• Date and/or time of sample custody exchange	✓		
Verify that sample numbers on containers match the COC and/or RSA	✓		
Samples stored properly (e.g., refrigeration)	✓		

Notify the PM immediately if any problems are noted. (A "No" answer requires Project Manager resolution.)

PM to Complete:

Samples acceptable for release? yes PM Initials GPL Date 5-17-2010

If No, comment on communication and resolution:

Other Comments:

A-6005-342 (REV 0)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			V10-002-045	PAGE 1 OF 1
COLLECTOR Campbell / Harris	**COMPANY CONTACT** SYDNOR, HA	**TELEPHONE NO.** 373-3967	**PROJECT COORDINATOR** BERLIN, PC	**PRICE CODE** 7P	**DATA TURNAROUND** 75 Days / 75 Days
SAMPLING LOCATION C7668 Field Blank 2	**PROJECT DESIGNATION** WMA C Sampling for CMS - QC Sampling		**SAF NO.** V10-002	**AIR QUALITY** ☐	
ICE CHEST NO. TFV2-09-003	**FIELD LOGBOOK NO.** TFV2-09-000001	**ACTUAL SAMPLE DEPTH** 5-7 ft.	**COA** N/A	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO 222-S Lab Operations	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	HCl or H2SO4 to pH <2/Cool~4C
TYPE OF CONTAINER	aGs*
NO. OF CONTAINER(S)	3
VOLUME	40mL
SAMPLE ANALYSIS	VOA - 8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23V97	WATER	5/17/10	1015	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
Cphill Campbell	5.17.10 1450	R Hildebrand RBSteele	5.17.10 1450
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**

SPECIAL INSTRUCTIONS
0°C TB
GRPH 20100062
SAMP# S10V000096

LABORATORY SECTION	**RECEIVED BY**		**TITLE**	**DATE/TIME**
FINAL SAMPLE DISPOSITION	**DISPOSAL METHOD**		**DISPOSED BY**	**DATE/TIME**

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			V10-002-055	PAGE 1 OF 1
COLLECTOR Campbell / Harris	**COMPANY CONTACT** SYDNOR, HA	**TELEPHONE NO.** 373-3967	**PROJECT COORDINATOR** BERLIN, PC	**PRICE CODE** 7P **AIR QUALITY** ☐	**DATA TURNAROUND** 75 Days / 75 Days
SAMPLING LOCATION C7668 Trip Blank 2	**PROJECT DESIGNATION** WMA C Sampling for CMS - QC Sampling		**SAF NO.** V10-002		
ICE CHEST NO. TFVE-09-003	**FIELD LOGBOOK NO.** TFVEG-000001	**ACTUAL SAMPLE DEPTH** 5-7 ft.	**COA** N/A	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO 222-S Lab Operations	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.**		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	HCl or H2SO4 to pH <2/Cool~4C
TYPE OF CONTAINER	aGs*
NO. OF CONTAINER(S)	3
VOLUME	40mL
SAMPLE ANALYSIS	VOA - 8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23VB7	WATER	5/17/10	1105	✓

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
C Campbell	5.17.10 1450	RKSteele	5.17.10 1450

SPECIAL INSTRUCTIONS
0 °C TB
GRP # 20100062 ~~E0100063~~ RK
Sum # 510V000186

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			V10-003-095	PAGE 1 OF 1
COLLECTOR Campbell/Harris	**COMPANY CONTACT** SYDNOR, HA	**TELEPHONE NO.** 373-3967	**PROJECT COORDINATOR** BERLIN, PC	**PRICE CODE** 8P	**DATA TURNAROUND**
SAMPLING LOCATION C7668 - I001	**PROJECT DESIGNATION** WMA C Sampling for CMS		**SAF NO.** V10-003	**AIR QUALITY** ☐	75 Days / 75 Days
ICE CHEST NO. TFV2-09-003	**FIELD LOGBOOK NO.** TFV2-09-000001	**ACTUAL SAMPLE DEPTH** 5-7 ft	**COA** N/A	**METHOD OF SHIPMENT** Govt. Vehicle	
SHIPPED TO 222-S Lab Operations	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool <-7C and >-20C	MEOH/Cool~4 C
TYPE OF CONTAINER	Gs	Gs
NO. OF CONTAINER(S)	5	3
VOLUME	40mL	40mL
SAMPLE ANALYSIS	VOA - 5035/8260 (LOW LEVEL) (TF);	VOA - 5035/8260 (HIGH LEVEL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B23TL0	SOIL	5/17/10	1050	✓	✓							

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Campbell	5.17.10 1450	RTSteele	5/17/10 1450

SPECIAL INSTRUCTIONS

** All VOA samples will be collected using EPA Method 5035A.
** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample.
** The laboratory is to use one of the low level VOA bottles for moisture content determination.
** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be included as part of the sample ID reported in the final data packages.

0°C TB
0 VK
-6°C

GRP 20100064
SAM# S10V000156
" 157

LABORATORY SECTION	**RECEIVED BY**		**TITLE**	**DATE/TIME**
FINAL SAMPLE DISPOSITION	**DISPOSAL METHOD**		**DISPOSED BY**	**DATE/TIME**

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	V10-003-094	PAGE 1 OF 1

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8P	DATA TURNAROUND
Campbell/HARRIS	SYDNOR, HA	373-3967	BERLIN, PC	AIR QUALITY ☐	75 Days / 75 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
C7668 - I001	WMA C Sampling for CMS		V10-003		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
TFVZ-09-003	TFVZ-09-000001	5-7ft.	N/A	Govt. Vehicle	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
222-S Lab Operations	N/A		N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
TYPE OF CONTAINER	Gs
NO. OF CONTAINER(S)	1
VOLUME	40mL
SAMPLE ANALYSIS	VOA - 5035/8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B23TK9	SOIL	5/17/10	1050

CHAIN OF POSSESSION — **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
C Phull	5.17.10 1458	RJStecle RJSteele	5.17.10 1450

SPECIAL INSTRUCTIONS

** All VOA samples will be collected using EPA Method 5035A.
** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample.
** The laboratory is to use one of the low level VOA bottles for moisture content determination.
** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be included as part of the sample ID reported in the final data packages.

°C 18
,0
pH

GRP # 20100064
Sam # S10VC00158

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			V10-003-093	PAGE 1 OF 1
COLLECTOR Campbell/Harris	**COMPANY CONTACT** SYDNOR, HA	**TELEPHONE NO.** 373-3967	**PROJECT COORDINATOR** BERLIN, PC	**PRICE CODE** 8P	**DATA TURNAROUND**
SAMPLING LOCATION C7668 - I001	**PROJECT DESIGNATION** WMA C Sampling for CMS		**SAF NO.** V10-003	**AIR QUALITY** ☐	75 Days / 75 Days
ICE CHEST NO. TFVZ-09-003	**FIELD LOGBOOK NO.** TFVZ-09-000001	**ACTUAL SAMPLE DEPTH** 5-7ft.	**COA** N/A	**METHOD OF SHIPMENT** Govt. Vehicle	
SHIPPED TO 222-S Lab Operations	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~6C
TYPE OF CONTAINER	Liner
NO. OF CONTAINER(S)	~~2~~ 1 5/17/10 BK Liner B Should Be Liner C
VOLUME	160g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23TK8	SOIL	5/17/10	1650	V

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Colwell Campbell	5.17.10 1450	R Stroh R Stroh	5.17.10 1450

SPECIAL INSTRUCTIONS

** After VOA bottles for the direct pushes are filled, the sampler will cap remaining liners for shipment to 222-S. Where capping is not possible, the sample shall be put into 500 mL or 250 mL glass bottles with Teflon-lined lids.
(1)Semi-VOA - 8270 Complete (TF); TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D; PCBs - 8082; Pesticides - 8081 (TF); ICP Metals - 6010 (SW-846) (TF); Mercury - 7471 - (CV) (TF); 300.7_AMMONIUM (TF); IC Anions - 9056; Sulfide - 9215; Total Cyanide - 9014 (TF); pH (Soil) - 9045; Americium-241 (TF); C-14; CURIUM; GAMMA ENERGY ANALYSIS (TF); H3 - TRITIUM; I129_SEP_GEA (TF); Isotopic Plutonium {Plutonium-239/240, Plutonium-238} Nickel-63 (TF); RADISO_ICPMS (TF); Selenium-79 (TF); Strontium-89,90 -- Sr-90;

0 °C T9

GRP# 2010000064
SAM# S10V000159 u 161

LABORATORY SECTION	**RECEIVED BY**	**TITLE**	**DATE/TIME**
FINAL SAMPLE DISPOSITION	**DISPOSAL METHOD**	**DISPOSED BY**	**DATE/TIME**

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		V10-003-101	PAGE 1 OF 1
COLLECTOR Campbell / HARRIS	**COMPANY CONTACT** SYDNOR, HA	**TELEPHONE NO.** 373-3967	**PROJECT COORDINATOR** BERLIN, PC	**PRICE CODE** 8P **DATA TURNAROUND**
SAMPLING LOCATION C7668 - I003	**PROJECT DESIGNATION** WMA C Sampling for CMS		**SAF NO.** V10-003	**AIR QUALITY** ☐ **75 Days / 75 Days**
ICE CHEST NO. TFVZ-09-003	**FIELD LOGBOOK NO.** TFVZ-09-000001	**ACTUAL SAMPLE DEPTH** 10-12ft	**COA** N/A	**METHOD OF SHIPMENT** Govt. Vehicle
SHIPPED TO 222-S Lab Operations	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A	

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool <-7C and >-20C	MEOH/Cool~4 C	
TYPE OF CONTAINER	Gs	Gs	
NO. OF CONTAINER(S)	5	3	
VOLUME	40mL	40mL	
SAMPLE ANALYSIS	VOA - 5035/8260 (LOW LEVEL) (TF);	VOA - 5035/8260 (HIGH LEVEL) (TF);	

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME			
B23TL6	SOIL	5/17/10	1400	✓	✓	

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
C Campbell	5-17-10 1450	R Steele	5-17-10 1450

SPECIAL INSTRUCTIONS

** All VOA samples will be collected using EPA Method 5035A.
** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample.
** The laboratory is to use one of the low level VOA bottles for moisture content determination.
** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be included as part of the sample ID reported in the final data packages.

0.0 TB
0.0 TB CK
6

CRP # 20100064
SAM # S10V000190
" 191

LABORATORY SECTION	**RECEIVED BY**		**TITLE**	**DATE/TIME**
FINAL SAMPLE DISPOSITION	**DISPOSAL METHOD**		**DISPOSED BY**	**DATE/TIME**

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			V10-003-100	PAGE 1 OF 1
COLLECTOR Campbell / HARRIS	**COMPANY CONTACT** SYDNOR, HA	**TELEPHONE NO.** 373-3967	**PROJECT COORDINATOR** BERLIN, PC	**PRICE CODE** 8P	**DATA TURNAROUND**
SAMPLING LOCATION C7668 - I003	**PROJECT DESIGNATION** WMA C Sampling for CMS		**SAF NO.** V10-003	**AIR QUALITY** ☐	75 Days / 75 Days
ICE CHEST NO. TFVZ-09-003	**FIELD LOGBOOK NO.** TFVZ-09-000001	**ACTUAL SAMPLE DEPTH** 10-12ft	**COA** N/A	**METHOD OF SHIPMENT** Govt. Vehicle	
SHIPPED TO 222-S Lab Operations	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
TYPE OF CONTAINER	Gs
NO. OF CONTAINER(S)	1
VOLUME	40mL
SAMPLE ANALYSIS	VOA - 5035/8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23TL5	SOIL	5/17/10	1400	✓

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Campbell	5.17.10 1450	RTStoddard RFSteele	5.17.10 1450

SPECIAL INSTRUCTIONS

** All VOA samples will be collected using EPA Method 5035A.
** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample.
** The laboratory is to use one of the low level VOA bottles for moisture content determination.
** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be included as part of the sample ID reported in the final data packages.

0C TB
0 MS

GKPW 20100069
SAMW S10V000192

LABORATORY SECTION	**RECEIVED BY**	**TITLE**	**DATE/TIME**
FINAL SAMPLE DISPOSITION	**DISPOSAL METHOD**	**DISPOSED BY**	**DATE/TIME**

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			V10-003-099	PAGE 1 OF 1
COLLECTOR Campbell / HARRIS	**COMPANY CONTACT** SYDNOR, HA	**TELEPHONE NO.** 373-3967	**PROJECT COORDINATOR** BERLIN, PC	**PRICE CODE** 8P	**DATA TURNAROUND**
SAMPLING LOCATION C7668 - I003	**PROJECT DESIGNATION** WMA C Sampling for CMS		**SAF NO.** V10-003	**AIR QUALITY** ☐	75 Days / 75 Days
ICE CHEST NO. TFVZ-09-003	**FIELD LOGBOOK NO.** TFVZ-09-000001	**ACTUAL SAMPLE DEPTH** 10-12ft.	**COA** N/A	**METHOD OF SHIPMENT** Govt. Vehicle	
SHIPPED TO 222-S Lab Operations	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~6C
TYPE OF CONTAINER	Liner
NO. OF CONTAINER(S)	~~3~~ 2 per 5/17/10
VOLUME	160g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B23TL4	SOIL	5/17/10	1400	✓	1400 per 5/17/10

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Campbell Campbell	5.17.10 1450	RA Steele RA Steele	5.17.10 1450

SPECIAL INSTRUCTIONS

** After VOA bottles for the direct pushes are filled, the sampler will cap remaining liners for shipment to 222-S. Where capping is not possible, the sample shall be put into 500 mL or 250 mL glass bottles with Teflon-lined lids.
(1)Semi-VOA - 8270 Complete (TF); TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D; PCBs - 8082; Pesticides - 8081 (TF); ICP Metals - 6010 (SW-846) (TF); Mercury - 7471 - (CV) (TF); 300.7_AMMONIUM (TF); IC Anions - 9056; Sulfide - 9215; Total Cyanide - 9014 (TF); pH (Soil) - 9045; Americium-241 (TF); C-14; CURIUM; GAMMA ENERGY ANALYSIS (TF); H3 - TRITIUM; I129_SEP_GEA (TF); Isotopic Plutonium {Plutonium-239/240, Plutonium-238} Nickel-63 (TF); RADISO_ICPMS (TF); Selenium-79 (TF); Strontium-89,90 -- Sr-90;

0C TB
0 NA

CRPH 20100064
SAM # S10V000193
194

LABORATORY SECTION	**RECEIVED BY**	**TITLE**	**DATE/TIME**
FINAL SAMPLE DISPOSITION	**DISPOSAL METHOD**	**DISPOSED BY**	**DATE/TIME**

A-6003-618(01/06)

5/10/2010 1:54 PM	WORKING COPY

VOC Soil and Sediment Sampling

Data Sheet 1 – Sample Record Sheet

SAMPLE RECORD SHEET

Location:	C7668-I001		
Sampler Initials:	DA, BC	**Date:**	5-17-10
Scale Number:	820-66-06-002	**Cal. Due Date:**	11-09-10

Sample Number	Sample Suffix[1]	Tare Weight provided (grams)	Tare Weight prior to sample[2] (grams)	Initial Weight[3] (grams)	Total Weight[4] (grams)	Soil Weights (grams)[5]	Methanol in sample bottle (ml)
B23TL0	K	N/A	N/A	26.15	30.68	4.53	No Methanol
B23TL0	L	N/A	N/A	26.48	30.75	4.27	No Methanol
B23TL0	M	N/A	N/A	26.22	31.46	5.24	No Methanol
B23TL0	N	N/A	N/A	26.28	32.45	6.17	No Methanol
B23TL0	P	N/A	N/A	25.98	31.18	5.20	No Methanol
B23TL0	W	37.095	37.04	37.42	43.44	6.02	10 ml.
B23TL0	X	36.790	36.76	37.15	42.16	5.01	10 ml.
B23TL0	Y	37.362	37.33	37.72	41.07	3.35	10 ml.
		~~37.~~ 5-17-10	~~36.93~~ 5-17-10				
B23TK9	*	36.956	36.92	37.33	N/A	N/A	10 ml.

[1] Sample suffix of K, L, M, N, and P will not have Methanol in the bottle, freeze these samples to between -7 °C (19.4 °F) and -20 °C (-4 °F)

Sample suffix of W, X, and Y relate to methanol preservation for high-level samples.

Sample suffix of "*" relates to methanol blank. Cool W, X, Y, and * samples to between -4 °C ± 2 °C (39.2 °F ± 3.6 °F).

[2] Tare weight prior to sample must be within +/- 0.2 grams of Vendors tare weight or bottle cannot be used. Weigh only the bottle, no labels, stickers or bags.

[3] Initial weight is to include all labels, stickers, bags, methanol (for vendor filled methanol samples with suffix W,X,Y and *) spin bars (for samples with suffix K,L,M,N and P) and anything else that will be associated with the bottle when it is weighed with the sample.

[4] Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.

[5] Soil weight is the vial with sample minus Initial Weight.

5/10/2010 1:54 PM	WORKING COPY

VOC Soil and Sediment Sampling

Data Sheet 1 – Sample Record Sheet

SAMPLE RECORD SHEET

Location:	C7668 - I003		
Sampler Initials:	DA, BC	**Date:**	5-17-10
Scale Number:	820-66-06-002	**Cal. Due Date:**	11-09-10

Sample Number	Sample Suffix[1]	Tare Weight provided (grams)	Tare Weight prior to sample[2] (grams)	Initial Weight[3] (grams)	Total Weight[4] (grams)	Soil Weights (grams)[5]	Methanol in sample bottle (ml)
B23TL6	K	N/A	N/A	26.13	30.98	4.85	No Methanol
B23TL6	L	N/A	N/A	26.20	32.34	6.14	No Methanol
B23TL6	M	N/A	N/A	25.99	31.56	5.57	No Methanol
B23TL6	N	N/A	N/A	26.01	31.92	5.91	No Methanol
B23TL6	P	N/A	N/A	26.29	31.66	5.37	No Methanol
B23TL6	W	36.907	36.86	37.25	42.59	5.34	10 ml
B23TL6	X	37.590	37.53	37.94	42.99	5.05	10 ml
B23TL6	Y	37.184	37.15	37.53	43.16	5.63	10 ml
			~~37.15~~ 37.17				
B23TL5	*	37.253	37.18	37.57	N/A	N/A	10 ml

1 Sample suffix of K, L, M, N, and P will not have Methanol in the bottle, freeze these samples to between -7 °C (19.4 °F) and -20 °C (-4 °F)

Sample suffix of W, X, and Y relate to methanol preservation for high-level samples.

Sample suffix of "*" relates to methanol blank. Cool W, X, Y, and * samples to between - 4 °C ± 2 °C (39.2 °F ± 3.6 °F).

2 Tare weight prior to sample must be within +/- 0.2 grams of Vendors tare weight or bottle cannot be used. Weigh only the bottle, no labels, stickers or bags.

3 Initial weight is to include all labels, stickers, bags, methanol (for vendor filled methanol samples with suffix W,X,Y and *) spin bars (for samples with suffix K,L,M,N and P) and anything else that will be associated with the bottle when it is weighed with the sample.

4 Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.

5 Soil weight is the vial with sample minus Initial Weight.

ATL	SAMPLE RECEIPT AND CHAIN OF CUSTODY VERIFICATION CHECKLIST	LO-090-101 Rev GG.0

Date Samples Received: 5-19-10 Group #: 20100062 63 64

Number of Samples: 2 sets Vapor C-Farm

Sample Custodian: Related

Sample Custodian to Complete:

Action	OK? (Y/N)	N/A	Comments
RSA/COC provided?	✓		
RSR provided?	✓		
Verify GKI is complete	–		on file
Check that outer custody seal is intact, if present	✓		
Record cooler temperature in centigrade, as appropriate	0°C	TB	☐ Check if no cooler and/or no ice
Samples are intact and in good condition	✓		If No, provide comments on back
Verify that COC or RSA is accurate and complete, containing the following information:			
• Client name and client sample number	✓		
• Date and time of sampling			
• Sampling location or origin			
• Container type, size, and number			
• Analysis request is clear			
• Signature of persons relinquishing and receiving samples			
• Date and/or time of sample custody exchange			
Verify that sample numbers on containers match the COC and/or RSA			
Samples stored properly (e.g., refrigeration)	✓		

Notify the PM immediately if any problems are noted. (A "No" answer requires Project Manager resolution.)

PM to Complete:

Samples acceptable for release? Yes PM Initials RK Date 5-19-2010

If No, comment on communication and resolution: per JK release

Other Comments:

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	V10-002-056	PAGE 1 OF 1

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 7P	DATA TURNAROUND
Ekstrom / Campbell	SYDNOR, HA	373-3967	BERLIN, PC	AIR QUALITY ☐	75 Days / 75 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
C7668 Trip Blank 3	WMA C Sampling for CMS - QC Sampling		V10-002		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
TFVZ-09-003	TFVZ-09-000001	12-14ft	N/A	GOVERNMENT VEHICLE	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
222-S Lab Operations	N/A				

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	HCl or H2SO4 to pH <2/Cool~4C
TYPE OF CONTAINER	aGs*
NO. OF CONTAINER(S)	3
VOLUME	40mL
SAMPLE ANALYSIS	VOA - 8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23VB8	WATER	5/19/10	0835	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Cphell Campbell	5-19-10 1040	Richard Ristelo	5.19.10 1040
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
0°C TB
RA

GRP # 20100062
Stm # S10V000107

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		V10-002-046	PAGE 1 OF 1
COLLECTOR Ekstrom / Campbell	**COMPANY CONTACT** SYDNOR, HA	**TELEPHONE NO.** 373-3967	**PROJECT COORDINATOR** BERLIN, PC	**PRICE CODE** 7P **AIR QUALITY** ☐	**DATA TURNAROUND** 75 Days / 75 Days
SAMPLING LOCATION C7668 Field Blank 3	**PROJECT DESIGNATION** WMA C Sampling for CMS - QC Sampling		**SAF NO.** V10-002		
ICE CHEST NO. TFV2-09-003	**FIELD LOGBOOK NO.** TFV2-09-00001	**ACTUAL SAMPLE DEPTH** 12-14 ft	**COA** N/A	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO 222-S Lab Operations	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	HCl or H2SO4 to pH <2/Cool~4C
TYPE OF CONTAINER	aGs*
NO. OF CONTAINER(S)	3
VOLUME	40mL
SAMPLE ANALYSIS	VOA - 8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23V98	WATER	5/19/10	0835	✓

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
C Campbell	5-19-10 1040	R Listed 6	5-19-10 1040

SPECIAL INSTRUCTIONS
0°C TB RC
62 RK
Cpl# 20100064
Sam# S10V000097

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			V10-003-102	PAGE 1 OF 1
COLLECTOR Ekstrom / Campbell	**COMPANY CONTACT** SYDNOR, HA	**TELEPHONE NO.** 373-3967	**PROJECT COORDINATOR** BERLIN, PC	**PRICE CODE** 8P	**DATA TURNAROUND**
SAMPLING LOCATION C7668 - I004	**PROJECT DESIGNATION** WMA C Sampling for CMS		**SAF NO.** V10-003	**AIR QUALITY** ☐	75 Days / 75 Days
ICE CHEST NO. TFVZ-09-003	**FIELD LOGBOOK NO.** TFVZ-09-000001	**ACTUAL SAMPLE DEPTH** 12-14 ft	**COA** N/A	**METHOD OF SHIPMENT** Govt. Vehicle	
SHIPPED TO 222-S Lab Operations	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~6C	Cool-6C
TYPE OF CONTAINER	Liner	500mL JAR
NO. OF CONTAINER(S)	1 5/19/10 ISE	1
VOLUME	160g	160g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B23TL7	SOIL	5/19/10	0855	✓	✓

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
C-pbell	5-19-10 1040	RLKlark	5-19-10 1040

SPECIAL INSTRUCTIONS

** After VOA bottles for the direct pushes are filled, the sampler will cap remaining liners for shipment to 222-S. Where capping is not possible, the sample shall be put into 500 mL or 250 mL glass bottles with Teflon-lined lids.
(1)Semi-VOA - 8270 Complete (TF); TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D; PCBs - 8082; Pesticides - 8081 (TF); ICP Metals - 6010 (SW-846) (TF); Mercury - 7471 - (CV) (TF); 300.7_AMMONIUM (TF); IC Anions - 9056; Sulfide - 9215; Total Cyanide - 9014 (TF); pH (Soil) - 9045; Americium-241 (TF); C-14; CURIUM; GAMMA ENERGY ANALYSIS (TF); H3 - TRITIUM; I129_SEP_GEA (TF); Isotopic Plutonium {Plutonium-239/240, Plutonium-238} Nickel-63 (TF); RADISO_ICPMS (TF); Selenium-79 (TF); Strontium-89,90 -- Sr-90;

2 TB Rt

GRPH 201000 64
SVOA 510V000 210
" 211

LABORATORY SECTION	**RECEIVED BY**	**TITLE**	**DATE/TIME**
FINAL SAMPLE DISPOSITION	**DISPOSAL METHOD**	**DISPOSED BY**	**DATE/TIME**

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			V10-002-048	PAGE 1 OF 1
COLLECTOR Ekstrom / Campbell	**COMPANY CONTACT** SYDNOR, HA	**TELEPHONE NO.** 373-3967	**PROJECT COORDINATOR** BERLIN, PC	**PRICE CODE** 7P	**DATA TURNAROUND**
SAMPLING LOCATION C7668 Field Blank 5	**PROJECT DESIGNATION** WMA C Sampling for CMS - QC Sampling		**SAF NO.** V10-002	**AIR QUALITY** ☐	75 Days / 75 Days
ICE CHEST NO. TFVZ-09-003	**FIELD LOGBOOK NO.** TFVZ-09-000001	**ACTUAL SAMPLE DEPTH** 14-16ft	**COA** N/A	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO 222-S Lab Operations	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	HCl or H2SO4 to pH <2/Cool~4C
TYPE OF CONTAINER	aGs*
NO. OF CONTAINER(S)	3
VOLUME	40mL
SAMPLE ANALYSIS	VOA - 8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23VB0	WATER	5/19/10	0930	✓

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Campbell C-Pbell	5-19-10 1040	R Ekstrom R/Stroble	5.19.10 1040

SPECIAL INSTRUCTIONS
2 x TB
O RL

GRP 4 201000620899
SAM 4 S10V000~~0998~~
RL 5.12.10

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		V10-003-107	PAGE 1 OF 1
COLLECTOR Ekstrom / Campbell	**COMPANY CONTACT** SYDNOR, HA	**TELEPHONE NO.** 373-3967	**PROJECT COORDINATOR** BERLIN, PC	**PRICE CODE** 8P **DATA TURNAROUND**
SAMPLING LOCATION C7668 - I005	**PROJECT DESIGNATION** WMA C Sampling for CMS		**SAF NO.** V10-003	**AIR QUALITY** ☐ **75 Days / 75 Days**
ICE CHEST NO. TFVZ-09-003	**FIELD LOGBOOK NO.** TFVZ-09-00001	**ACTUAL SAMPLE DEPTH** 14 - 16ft.	**COA** N/A	**METHOD OF SHIPMENT** Govt. Vehicle
SHIPPED TO 222-S Lab Operations	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A	

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool <-7C and >-20C	MEOH/Cool~4 C											
TYPE OF CONTAINER	Gs	Gs											
NO. OF CONTAINER(S)	5	3											
VOLUME	40mL	40mL											
SAMPLE ANALYSIS	VOA - 5035/8260 (LOW LEVEL) (TF);	VOA - 5035/8260 (HIGH LEVEL) (TF);											
SAMPLE NO.	**MATRIX***	**SAMPLE DATE**	**SAMPLE TIME**										
B23TM2	SOIL	5/19/10	0945	✓	✓								

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
C Campbell	5-19-10 1040	[illegible] 2/STE6/C	5-19-10 1040

SPECIAL INSTRUCTIONS

** All VOA samples will be collected using EPA Method 5035A.
** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample.
** The laboratory is to use one of the low level VOA bottles for moisture content determination.
** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be included as part of the sample ID reported in the final data packages.

-2°C TB
-4°C TB
RS

GRP # 20100064
Stm # 510V000225
11 226

LABORATORY SECTION	**RECEIVED BY**		**TITLE**	**DATE/TIME**
FINAL SAMPLE DISPOSITION	**DISPOSAL METHOD**		**DISPOSED BY**	**DATE/TIME**

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			V10-003-106	PAGE 1 OF 1
COLLECTOR Ekstrom/Campbell	**COMPANY CONTACT** SYDNOR, HA	**TELEPHONE NO.** 373-3967	**PROJECT COORDINATOR** BERLIN, PC	**PRICE CODE** 8P	**DATA TURNAROUND**
SAMPLING LOCATION C7668 - I005	**PROJECT DESIGNATION** WMA C Sampling for CMS		**SAF NO.** V10-003	**AIR QUALITY** ☐	75 Days / 75 Days
ICE CHEST NO. TFVZ-09-003	**FIELD LOGBOOK NO.** TFVZ-09-00001	**ACTUAL SAMPLE DEPTH** 14-16 Ft.	**COA** N/A	**METHOD OF SHIPMENT** Govt. Vehicle	
SHIPPED TO 222-S Lab Operations	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
TYPE OF CONTAINER	Gs
NO. OF CONTAINER(S)	1
VOLUME	40mL
SAMPLE ANALYSIS	VOA - 5035/8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23TM1	SOIL	5/19/10	0945	V

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
C-Campbell	5-19-10 1040	R Ritter R Steele	5.19.10 1040

SPECIAL INSTRUCTIONS

** All VOA samples will be collected using EPA Method 5035A.
** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample.
** The laboratory is to use one of the low level VOA bottles for moisture content determination.
** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be included as part of the sample ID reported in the final data packages.

S-L-TB
NL

Q0100064
S10V000227

LABORATORY SECTION	**RECEIVED BY**	**TITLE**	**DATE/TIME**
FINAL SAMPLE DISPOSITION	**DISPOSAL METHOD**	**DISPOSED BY**	**DATE/TIME**

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	V10-003-105	PAGE 1 OF 1

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8P	DATA TURNAROUND
Ekstrom / Campbell	SYDNOR, HA	373-3967	BERLIN, PC	AIR QUALITY ☐	75 Days / 75 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
C7668 - I005	WMA C Sampling for CMS		V10-003		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
TFVZ-09-003	TFVZ-09-000001	14-16ft.	N/A	Govt. Vehicle	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
222-S Lab Operations	N/A		N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~6C
TYPE OF CONTAINER	~~Liner~~ 500mL Jar
NO. OF CONTAINER(S)	3 / 1
VOLUME	160g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23TM0	SOIL	5/19/10	0945	✓

CHAIN OF POSSESSION — **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
C Campbell	5-19-10 1040	R Steele	5-19-10 1040

SPECIAL INSTRUCTIONS

** After VOA bottles for the direct pushes are filled, the sampler will cap remaining liners for shipment to 222-S. Where capping is not possible, the sample shall be put into 500 mL or 250 mL glass bottles with Teflon-lined lids.
(1)Semi-VOA - 8270 Complete (TF); TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D; PCBs - 8082; Pesticides - 8081 (TF); ICP Metals - 6010 (SW-846) (TF); Mercury - 7471 - (CV) (TF); 300.7_AMMONIUM (TF); IC Anions - 9056; Sulfide - 9215; Total Cyanide - 9014 (TF); pH (Soil) - 9045; Americium-241 (TF); C-14; CURIUM; GAMMA ENERGY ANALYSIS (TF); H3 - TRITIUM; I129_SEP_GEA (TF); Isotopic Plutonium {Plutonium-239/240, Plutonium-238} Nickel-63 (TF); RADISO_ICPMS (TF); Selenium-79 (TF); Strontium-89,90 -- Sr-90;

-SCTB
EXP # 20100064
SAM # S10V000228

LABORATORY SECTION	**RECEIVED BY**	**TITLE**	**DATE/TIME**
FINAL SAMPLE DISPOSITION	**DISPOSAL METHOD**	**DISPOSED BY**	**DATE/TIME**

5/10/2010 1:54 PM	WORKING COPY

VOC Soil and Sediment Sampling

Data Sheet 1 – Sample Record Sheet

SAMPLE RECORD SHEET

Location:	C7668 - I005		
Sampler Initials:	IV PW	**Date:**	5-19-10
Scale Number:	820-66-06-002	**Cal. Due Date:**	11-09-10

Sample Number	Sample Suffix[1]	Tare Weight provided (grams)	Tare Weight prior to sample[2] (grams)	Initial Weight[3] (grams)	Total Weight[4] (grams)	Soil Weights (grams)[5]	Methanol in sample bottle (ml)
B23TM2	K	N/A	N/A	26.27	30.43	4.16	No Methanol
B23TM2	L	N/A	N/A	26.45	30.09	3.74	No Methanol
B23TM2	M	N/A	N/A	26.22	29.59	3.37	No Methanol
B23TM2	N	N/A	N/A	26.32	29.60	3.28	No Methanol
B23TM2	P	N/A	N/A	26.04	30.03	3.99	No Methanol
B23TM2	W	37.585	37.48	37.93	41.72	3.79	10 ml
B23TM2	X	36.068	36.81	37.24	40.43	3.19	10 ml
B23TM2	Y	37.344	~~37.27~~ 37.28	37.68	41.20	3.92	10 ml
B23TM1	*	36.674	36.63	37.01	N/A	N/A	10 ml

1 Sample suffix of K, L, M, N, and P will not have Methanol in the bottle, freeze these samples to between -7 °C (19.4 °F) and -20 °C (-4 °F)

Sample suffix of W, X, and Y relate to methanol preservation for high-level samples.

Sample suffix of "*" relates to methanol blank. Cool W, X, Y, and * samples to between - 4 °C ± 2 °C (39.2 °F ± 3.6 °F).

2 Tare weight prior to sample must be within +/- 0.2 grams of Vendors tare weight or bottle cannot be used. Weigh only the bottle, no labels, stickers or bags.

3 Initial weight is to include all labels, stickers, bags, methanol (for vendor filled methanol samples with suffix W,X,Y and *) spin bars (for samples with suffix K,L,M,N and P) and anything else that will be associated with the bottle when it is weighed with the sample.

4 Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.

5 Soil weight is the vial with sample minus Initial Weight.

ATL	SAMPLE RECEIPT AND CHAIN OF CUSTODY VERIFICATION CHECKLIST	LO-090-101 Rev 6G.0

Date Samples Received: 5.20.10 Group #:

Number of Samples: 2 sets vadose C-FARM & 2 Samplers

Sample Custodian: RLBK

Sample Custodian to Complete:

Action	OK? (Y/N)	N/A	Comments
RSA/COC provided?	✓		
RSR provided?	✓		
Verify GKI is complete		✓	on file
Check that outer custody seal is intact, if present	✓		
Record cooler temperature in centigrade, as appropriate	4°C		☐ Check if no cooler and/or no ice
Samples are intact and in good condition			If No, provide comments on back
Verify that COC or RSA is accurate and complete, containing the following information:			
• Client name and client sample number	✓		
• Date and time of sampling			
• Sampling location or origin	✓		
• Container type, size, and number	✓		
• Analysis request is clear	✓		
• Signature of persons relinquishing and receiving samples	✓		
• Date and/or time of sample custody exchange	✓		
Verify that sample numbers on containers match the COC and/or RSA	✓		
Samples stored properly (e.g., refrigeration)	✓		

Notify the PM immediately if any problems are noted. (A "No" answer requires Project Manager resolution.)

PM to Complete:

Samples acceptable for release? Yes PM Initials RWB Date 5/20/2010

If No, comment on communication and resolution:

Other Comments:

A-6005-342 (REV 0)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			V10-002-057	PAGE 1 OF 1
COLLECTOR Elestrom / Campbell	**COMPANY CONTACT** SYDNOR, HA	**TELEPHONE NO.** 373-3967	**PROJECT COORDINATOR** BERLIN, PC	**PRICE CODE** 7P	**DATA TURNAROUND**
SAMPLING LOCATION C7668 Trip Blank 4	**PROJECT DESIGNATION** WMA C Sampling for CMS - QC Sampling		**SAF NO.** V10-002	**AIR QUALITY** ☐	75 Days / 75 Days
ICE CHEST NO. TFV2-09-003	**FIELD LOGBOOK NO.** TFV2-09-000001	**ACTUAL SAMPLE DEPTH** 27-29ft	**COA** N/A	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO 222-S Lab Operations	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	HCl or H2SO4 to pH <2/Cool~4C
TYPE OF CONTAINER	aGs*
NO. OF CONTAINER(S)	3
VOLUME	40mL
SAMPLE ANALYSIS	VOA - 8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23VB9	WATER	5/20/10	1045	✓

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Cphill Campbell	5-20-10 1230	R Hood Risteele	5.20.10 1230

SPECIAL INSTRUCTIONS
QC TB
6RPH 20100062
Sam # ~~S10V000103~~ S10V000108
RHR 5.20.10

LABORATORY SECTION	**RECEIVED BY**	**TITLE**	**DATE/TIME**
FINAL SAMPLE DISPOSITION	**DISPOSAL METHOD**	**DISPOSED BY**	**DATE/TIME**

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		V10-002-047	PAGE 1 OF 1
COLLECTOR Ekstrom / Campbell	**COMPANY CONTACT** SYDNOR, HA	**TELEPHONE NO.** 373-3967	**PROJECT COORDINATOR** BERLIN, PC	**PRICE CODE** 7P; **DATA TURNAROUND** 75 Days / 75 Days
SAMPLING LOCATION C7668 Field Blank 4	**PROJECT DESIGNATION** WMA C Sampling for CMS - QC Sampling		**SAF NO.** V10-002	**AIR QUALITY** ☐
ICE CHEST NO. TFVZ-09-003	**FIELD LOGBOOK NO.** TFVZ-09-000001	**ACTUAL SAMPLE DEPTH** 27-29 ft	**COA** NA	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO 222-S Lab Operations	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A	

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	HCl or H2SO4 to pH <2/Cool~4C
TYPE OF CONTAINER	aGs*
NO. OF CONTAINER(S)	3
VOLUME	40mL
SAMPLE ANALYSIS	VOA - 8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23V99	WATER	5/20/10	1045	✓

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ekstrom / Campbell	5-20-10 1230	Elkbut Eldredge	5.20.10 1230

SPECIAL INSTRUCTIONS
0 °C TB pH
GRN# 20100062
SAF# S10V000098

LABORATORY SECTION	**RECEIVED BY**	**TITLE**	**DATE/TIME**
FINAL SAMPLE DISPOSITION	**DISPOSAL METHOD**	**DISPOSED BY**	**DATE/TIME**

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	V10-003-108	PAGE 1 OF 1

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8P	DATA TURNAROUND
Ekstrom / Campbell	SYDNOR, HA	373-3967	BERLIN, PC	AIR QUALITY ☐	75 Days / 75 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
C7668 - I006	WMA C Sampling for CMS		V10-003		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
TFVZ-09-003	TFVZ-09-000001	16-18Ft	N/A	Govt. Vehicle	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
222-S Lab Operations					

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~6C	Cool 6C
TYPE OF CONTAINER	Liner	500 mL Jar
NO. OF CONTAINER(S)	~~3~~ 2	1
VOLUME	160g	160g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	See Item (1) in special Instructions

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B23TM3	SOIL	5/20/10	1000	✓	✓							

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Gdell Campbell	5-20-10 1230	R Abel R3Tech16	5-20-10 1230

SPECIAL INSTRUCTIONS

** After VOA bottles for the direct pushes are filled, the sampler will cap remaining liners for shipment to 222-S. Where capping is not possible, the sample shall be put into 500 mL or 250 mL glass bottles with Teflon-lined lids.
(1)Semi-VOA - 8270 Complete (TF); TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D; PCBs - 8082; Pesticides - 8081 (TF); ICP Metals - 6010 (SW-846) (TF); Mercury - 7471 - (CV) (TF); 300.7_AMMONIUM (TF); IC Anions - 9056; Sulfide - 9215; Total Cyanide - 9014 (TF); pH (Soil) - 9045; Americium-241 (TF); C-14; CURIUM; GAMMA ENERGY ANALYSIS (TF); H3 - TRITIUM; I129_SEP_GEA (TF); Isotopic Plutonium {Plutonium-239/240, Plutonium-238} Nickel-63 (TF); RADISO_ICPMS (TF); Selenium-79 (TF); Strontium-89,90 -- Sr-90;

GRP# 20100064
SAM# S10V000245
246
247 → JAR

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	V10-003-113	PAGE 1 OF 1

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8P	DATA TURNAROUND
Ekstrom / Campbell	SYDNOR, HA	373-3967	BERLIN, PC	AIR QUALITY ☐	75 Days / 75 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
C7668 - I007	WMA C Sampling for CMS		V10-003		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
TFV2-09-003	TFV2-09-000001	27-29 ft	N/A	Govt. Vehicle	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
222-S Lab Operations	N/A		N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool <-7C and >-20C	MEOH/Cool~4 C												
TYPE OF CONTAINER	Gs	Gs												
NO. OF CONTAINER(S)	5	3												
VOLUME	40mL	40mL												
SAMPLE ANALYSIS	VOA - 5035/8260 (LOW LEVEL) (TF);	VOA - 5035/8260 (HIGH LEVEL) (TF);												
SAMPLE NO.	**MATRIX***	**SAMPLE DATE**	**SAMPLE TIME**											
B23TM8	SOIL	5/20/10	1100	✓	✓									

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Campbell C-pbell	5-20-10 1230	Ekstrom Ekstrom	5.20.10 1230
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

** All VOA samples will be collected using EPA Method 5035A.
** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample.
** The laboratory is to use one of the low level VOA bottles for moisture content determination.
** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be included as part of the sample ID reported in the final data packages.

OCTS
0°C TO
6°C
WL

GAP# 20100064
Stm# 510V000259
1 260

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			V10-003-112	PAGE 1 OF 1
COLLECTOR Ekstrom/Campbell	**COMPANY CONTACT** SYDNOR, HA	**TELEPHONE NO.** 373-3967	**PROJECT COORDINATOR** BERLIN, PC	**PRICE CODE** 8P	**DATA TURNAROUND**
SAMPLING LOCATION C7668 - I007	**PROJECT DESIGNATION** WMA C Sampling for CMS		**SAF NO.** V10-003	**AIR QUALITY** ☐	75 Days / 75 Days
ICE CHEST NO. TFVZ-09-003	**FIELD LOGBOOK NO.** TFVZ-09-000001	**ACTUAL SAMPLE DEPTH** 27-29 ft	**COA** N/A	**METHOD OF SHIPMENT** Govt. Vehicle	
SHIPPED TO 222-S Lab Operations	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
TYPE OF CONTAINER	Gs
NO. OF CONTAINER(S)	1
VOLUME	40mL
SAMPLE ANALYSIS	VOA - 5035/8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23TM7	SOIL	5/20/10	1100	V

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Cpbell Campbell	5-20-10 1230	B Stal RTS/ECIC	5.20.10 1230

SPECIAL INSTRUCTIONS

** All VOA samples will be collected using EPA Method 5035A.
** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample.
** The laboratory is to use one of the low level VOA bottles for moisture content determination.
** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be included as part of the sample ID reported in the final data packages.

0°C TB Retain

GRP # 20100064

Sam # 510V000261

LABORATORY SECTION	**RECEIVED BY**		**TITLE**	**DATE/TIME**
FINAL SAMPLE DISPOSITION	**DISPOSAL METHOD**		**DISPOSED BY**	**DATE/TIME**

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		V10-003-111	PAGE 1 OF 1
COLLECTOR Ekstrom / Campbell	**COMPANY CONTACT** SYDNOR, HA	**TELEPHONE NO.** 373-3967	**PROJECT COORDINATOR** BERLIN, PC	**PRICE CODE** 8P **DATA TURNAROUND**
SAMPLING LOCATION C7668 - I007	**PROJECT DESIGNATION** WMA C Sampling for CMS		**SAF NO.** V10-003	**AIR QUALITY** ☐ **75 Days / 75 Days**
ICE CHEST NO. TFV2-09-003	**FIELD LOGBOOK NO.** TFV2-09-000001	**ACTUAL SAMPLE DEPTH** 27-29ft	**COA** N/A	**METHOD OF SHIPMENT** Govt. Vehicle
SHIPPED TO 222-S Lab Operations	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A	

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~6C
TYPE OF CONTAINER	Liner
NO. OF CONTAINER(S)	3/2 ea 8oz glass jar 10 liner A&B
VOLUME	160g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23TM6	SOIL	5/20/10	1100	✓

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Chuck Campbell	5-20-10 1230	R Elliott RISeals	5.20.10 1230

SPECIAL INSTRUCTIONS

** After VOA bottles for the direct pushes are filled, the sampler will cap remaining liners for shipment to 222-S. Where capping is not possible, the sample shall be put into 500 mL or 250 mL glass bottles with Teflon-lined lids.
(1)Semi-VOA - 8270 Complete (TF); TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D; PCBs - 8082; Pesticides - 8081 (TF); ICP Metals - 6010 (SW-846) (TF); Mercury - 7471 - (CV) (TF); 300.7_AMMONIUM (TF); IC Anions - 9056; Sulfide - 9215; Total Cyanide - 9014 (TF); pH (Soil) - 9045; Americium-241 (TF); C-14; CURIUM; GAMMA ENERGY ANALYSIS (TF); H3 - TRITIUM; I129_SEP_GEA (TF); Isotopic Plutonium {Plutonium-239/240, Plutonium-238} Nickel-63 (TF); RADISO_ICPMS (TF); Selenium-79 (TF); Strontium-89,90 -- Sr-90;

0 TB
GRPH# 20100064
Stm# S10V000262
263

LABORATORY SECTION	**RECEIVED BY**	**TITLE**	**DATE/TIME**
FINAL SAMPLE DISPOSITION	**DISPOSAL METHOD**	**DISPOSED BY**	**DATE/TIME**

A-6003-618(01/06)

5/10/2010 1:54 PM	WORKING COPY

VOC Soil and Sediment Sampling

Data Sheet 1 – Sample Record Sheet

SAMPLE RECORD SHEET

Location:	C7668 I007						
Sampler Initials:	BC BK				**Date:**	5-20-10	
Scale Number:	8 20·66·06.002				**Cal. Due Date:**	11-09-10	
Sample Number	Sample Suffix[1]	Tare Weight provided (grams)	Tare Weight prior to sample[2] (grams)	Initial Weight[3] (grams)	Total Weight[4] (grams)	Soil Weights (grams)[5]	Methanol in sample bottle (ml)
~~K23TM3~~ B23TM8	K	N/A	N/A	26.13	32.58	6.45	No Methanol
~~K23TM3~~ B23TM8	L	N/A	N/A	26.16	31.99	5.83	No Methanol
~~K23TM3~~ B23TM8	M	N/A	N/A	26.26	33.00	6.74	No Methanol
~~K23TM3~~ B23TM8	N	N/A	N/A	26.25	32.98	6.73	No Methanol
~~K23TM3~~ B23TM8	P	N/A	N/A	26.28	34.81	8.53	No Methanol
B23TM8	W	36.74	36.66	37.08	44.15	7.07	10
B23TM8	X	37.21	37.09	37.51	43.99	6.48	10
B23TM8	Y	37.43	37.34	37.73	46.14	8.41	10
B23TM7	*	36.82	36.73	37.15	N/A	N/A	10

10 RR 6-4-10

1 Sample suffix of K, L, M, N, and P will not have Methanol in the bottle, freeze these samples to between -7 °C (19.4 °F) and -20 °C (-4 °F)

Sample suffix of W, X, and Y relate to methanol preservation for high-level samples.

Sample suffix of "*" relates to methanol blank. Cool W, X, Y, and * samples to between - 4 °C ± 2 °C (39.2 °F ± 3.6 °F).

2 Tare weight prior to sample must be within +/- 0.2 grams of Vendors tare weight or bottle cannot be used. Weigh only the bottle, no labels, stickers or bags.

3 Initial weight is to include all labels, stickers, bags, methanol (for vendor filled methanol samples with suffix W,X,Y and *) spin bars (for samples with suffix K,L,M,N and P) and anything else that will be associated with the bottle when it is weighed with the sample.

4 Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.

5 Soil weight is the vial with sample minus Initial Weight.

ATL	SAMPLE RECEIPT AND CHAIN OF CUSTODY VERIFICATION CHECKLIST	LO-090-101 Rev G.G.0

Date Samples Received: 6.1.10 Group #: 20100064

Number of Samples: 1 set C-FARM VA0052

Sample Custodian: RHLH

Sample Custodian to Complete:

Action	OK? (Y/N)	N/A	Comments
RSA/COC provided?	✓		
RSR provided?	✓		
Verify GKI is complete			on file
Check that outer custody seal is intact, if present	✓		
Record cooler temperature in centigrade, as appropriate	0°C / 5°C		☐ Check if no cooler and/or no ice
Samples are intact and in good condition	✓		If No, provide comments on back
Verify that COC or RSA is accurate and complete, containing the following information:			
• Client name and client sample number	✓		
• Date and time of sampling	✓		
• Sampling location or origin	✓		
• Container type, size, and number	✓		
• Analysis request is clear	✓		
• Signature of persons relinquishing and receiving samples	✓		
• Date and/or time of sample custody exchange	✓		
Verify that sample numbers on containers match the COC and/or RSA	✓		
Samples stored properly (e.g., refrigeration)	✓		

Notify the PM immediately if any problems are noted. (A "No" answer requires Project Manager resolution.)

PM to Complete:

Samples acceptable for release? yes PM Initials RHLH Date 6.1.10

If No, comment on communication and resolution: for J.R.

Other Comments:

A-6005-342 (REV 0)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		V10-002-051	PAGE 1 OF 1

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 7P / DATA TURNAROUND
Harris / Snook	SYDNOR, HA	373-3967	BERLIN, PC	AIR QUALITY ☐ / 75 Days / 75 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**	
C7668 Field Blank 8	WMA C Sampling for CMS - QC Sampling		V10-002	
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**
TFV2-09-003	TFV2-09-000001	39-41	n/a	GOVERNMENT VEHICLE
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**	
222-S Lab Operations	n/A		n/A	

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	HCl or H2SO4 to pH <2/Cool~4C
TYPE OF CONTAINER	aGs*
NO. OF CONTAINER(S)	3
VOLUME	40mL
SAMPLE ANALYSIS	VOA - 8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23VB3	WATER	6-1-10	1115	—

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Dan Harris Dan Harris	6-1-10 1300	R Ekstedt R Steele	6-1-10 1300

SPECIAL INSTRUCTIONS
0°C
TB OK

GRP # 20100062
Sam # 510V000102

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			V10-002-060	PAGE 1 OF 1
COLLECTOR Harris / Snook	**COMPANY CONTACT** SYDNOR, HA	**TELEPHONE NO.** 373-3967	**PROJECT COORDINATOR** BERLIN, PC	**PRICE CODE** 7P	**DATA TURNAROUND**
SAMPLING LOCATION C7668 Trip Blank 7	**PROJECT DESIGNATION** WMA C Sampling for CMS - QC Sampling		**SAF NO.** V10-002	**AIR QUALITY** ☐	75 Days / 75 Days
ICE CHEST NO. SNS 6-1-10 TV TFVS-09-003	**FIELD LOGBOOK NO.** TFVZ-09-000001	**ACTUAL SAMPLE DEPTH** 39' - 41'	**COA** N/A	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO 222-S Lab Operations	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	HCl or H2SO4 to pH <2/Cool~4C
TYPE OF CONTAINER	aGs*
NO. OF CONTAINER(S)	3
VOLUME	40mL
SAMPLE ANALYSIS	VOA - 8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23VC2	WATER	6-1-10	1050	✓

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Dan Harris Dan Harris	6-1-10 1300	RLSteele RLSteele	6.1.10 1300

SPECIAL INSTRUCTIONS
0 VTSA
0 PA
GRPH 20100062
SAMP 510V000111

LABORATORY SECTION	**RECEIVED BY**	**TITLE**	**DATE/TIME**
FINAL SAMPLE DISPOSITION	**DISPOSAL METHOD**	**DISPOSED BY**	**DATE/TIME**

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		V10-003-127	PAGE 1 OF 1
COLLECTOR Harris / Snook	**COMPANY CONTACT** SYDNOR, HA	**TELEPHONE NO.** 373-3967	**PROJECT COORDINATOR** BERLIN, PC	**PRICE CODE** 8P **DATA TURNAROUND**
SAMPLING LOCATION C7668 - I010	**PROJECT DESIGNATION** WMA C Sampling for CMS		**SAF NO.** V10-003	**AIR QUALITY** ☐ **75 Days / 75 Days**
ICE CHEST NO. TFV2-09-003	**FIELD LOGBOOK NO.** TFV2-09-00000 1	**ACTUAL SAMPLE DEPTH** 39-41	**COA** N/A	**METHOD OF SHIPMENT** Govt. Vehicle
SHIPPED TO 222-S Lab Operations	**OFFSITE PROPERTY NO.** B6440 N/A		**BILL OF LADING/AIR BILL NO.** N/A	

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	~~Cool~~ 4C C-7 and -72206	MEOH/Cool~ 4C
HOLDING TIME	14 Days	14 Days
TYPE OF CONTAINER	Gs	Gs
NO. OF CONTAINER(S)	5	3
VOLUME	40mL	40mL
SAMPLE ANALYSIS	VOA - 5035/8260 (LOW LEVEL) (TF);	VOA - 5035/8260 (HIGH LEVEL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B25WM4	SOIL	6-1-10	1130	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
Dan Harris Dan Harris	6-1-10 1300	RJ Steele RJ Steele	6.1.10 1306

SPECIAL INSTRUCTIONS

** All VOA samples will be collected using EPA Method 5035A.
** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample.
** The laboratory is to use one of the low level VOA bottles for moisture content determination.
** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be included as part of the sample ID reported in the final data packages.

5 LCTB
5 LCTB RK

GRP# 20100064
SAM# 510V000999
1000

LABORATORY SECTION	**RECEIVED BY**	**TITLE**	**DATE/TIME**
FINAL SAMPLE DISPOSITION	**DISPOSAL METHOD**	**DISPOSED BY**	**DATE/TIME**

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			V10-003-126	PAGE 1 OF 1
COLLECTOR Harris / Snook	**COMPANY CONTACT** SYDNOR, HA	**TELEPHONE NO.** 373-3967	**PROJECT COORDINATOR** BERLIN, PC	**PRICE CODE** 8P	**DATA TURNAROUND**
SAMPLING LOCATION C7668 - I010	**PROJECT DESIGNATION** WMA C Sampling for CMS		**SAF NO.** V10-003	**AIR QUALITY** ☐	**75 Days / 75 Days**
ICE CHEST NO. TFV2-09-003	**FIELD LOGBOOK NO.** TFV2-09-000001	**ACTUAL SAMPLE DEPTH** 39-41	**COA** N/A	**METHOD OF SHIPMENT** Govt. Vehicle	
SHIPPED TO 222-S Lab Operations	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
HOLDING TIME	14 Days
TYPE OF CONTAINER	Gs
NO. OF CONTAINER(S)	1
VOLUME	40mL
SAMPLE ANALYSIS	VOA - 5035/8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B25WM3	SOIL	6-1-10	1130	✓

CHAIN OF POSSESSION	SIGN/ PRINT NAMES		
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
Gustavus Dunharris	6-1-10 1300	R Hatch/R Steele	6-1-10 1300

SPECIAL INSTRUCTIONS

** All VOA samples will be collected using EPA Method 5035A.
** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample.
** The laboratory is to use one of the low level VOA bottles for moisture content determination.
** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be included as part of the sample ID reported in the final data packages.

OUTD
GRP # 20100064
SAM # S10V001001

LABORATORY SECTION	**RECEIVED BY**	**TITLE**	**DATE/TIME**
FINAL SAMPLE DISPOSITION	**DISPOSAL METHOD**	**DISPOSED BY**	**DATE/TIME**

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			V10-003-125	PAGE 1 OF 2
COLLECTOR Harris / Snook	**COMPANY CONTACT** SYDNOR, HA	**TELEPHONE NO.** 373-3967	**PROJECT COORDINATOR** BERLIN, PC	**PRICE CODE** 8P	**DATA TURNAROUND**
SAMPLING LOCATION C7668 - I010	**PROJECT DESIGNATION** WMA C Sampling for CMS		**SAF NO.** V10-003	**AIR QUALITY** ☐	75 Days / 75 Days
ICE CHEST NO. TFV2-09-003	**FIELD LOGBOOK NO.** TFV2-09-000001	**ACTUAL SAMPLE DEPTH** 39-41	**COA** N/A	**METHOD OF SHIPMENT** Govt. Vehicle	
SHIPPED TO 222-S Lab Operations	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
HOLDING TIME	14/40 Days
TYPE OF CONTAINER	Gs jar/Liners
NO. OF CONTAINER(S)	3
VOLUME	160mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B25WM2	SOIL	6-1-10	11:30	✓

CHAIN OF POSSESSION	SIGN/ PRINT NAMES		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Dan Harris Dan Harris	6-1-10 1800	RFSteele RFSteele	6-1-10 1360
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
OC TO
O Pb
GRP # 20100064
Stm # S10V001002
1003
1004

LABORATORY SECTION	**RECEIVED BY**	**TITLE**	**DATE/TIME**
FINAL SAMPLE DISPOSITION	**DISPOSAL METHOD**	**DISPOSED BY**	**DATE/TIME**

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			V10-003-125	PAGE 2 OF 2
COLLECTOR Harris / Snook	**COMPANY CONTACT** SYDNOR, HA	**TELEPHONE NO.** 373-3967	**PROJECT COORDINATOR** BERLIN, PC	**PRICE CODE** 8P	**DATA TURNAROUND**
SAMPLING LOCATION C7668 - I010	**PROJECT DESIGNATION** WMA C Sampling for CMS		**SAF NO.** V10-003	**AIR QUALITY** ☐	**75 Days / 75 Days**
ICE CHEST NO. TFV2-09-003	**FIELD LOGBOOK NO.** TFV2-09-00001	**ACTUAL SAMPLE DEPTH** 39-41	**COA** N/A	**METHOD OF SHIPMENT** Govt. Vehicle	
SHIPPED TO 222-S Lab Operations	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** After VOA bottles for the direct pushes are filled, the sampler will cap remaining liners for shipment to 222-S. Where capping is not possible, the sample shall be put into 500 mL or 250 mL glass bottles with Teflon-lined lids.
(1) Semi-VOA - 8270 Complete (TF); TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D; PCBs - 8082; Pesticides - 8081 (TF); ICP Metals - 6010 (SW-846) (TF); Mercury - 7471 - (CV) (TF); 300.7_AMMONIUM (TF); IC Anions - 9056; Sulfide - 9215; Total Cyanide - 9014 (TF); pH (Soil) - 9045; Americium-241 (TF); C-14; CURIUM; GAMMA ENERGY ANALYSIS (TF); H3 - TRITIUM; I129_SEP_GEA (TF); Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Nickel-63 (TF); RADISO_ICPMS (TF); Selenium-79 (TF); Strontium-89,90 -- Sr-90;

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		V10-002-064	PAGE 1 OF 1
COLLECTOR Harris / Snook	**COMPANY CONTACT** SYDNOR, HA	**TELEPHONE NO.** 373-3967	**PROJECT COORDINATOR** BERLIN, PC	**PRICE CODE** 7P **DATA TURNAROUND**
SAMPLING LOCATION C7668 - liquid sample in soil	**PROJECT DESIGNATION** WMA C Sampling for CMS - QC Sampling		**SAF NO.** V10-002	**AIR QUALITY** ☐ **75 Days / 75 Days**
ICE CHEST NO. TFVZ-09-003	**FIELD LOGBOOK NO.** TFVZ-09-000001	**ACTUAL SAMPLE DEPTH** 39-41	**COA** n/a	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO 222-S Lab Operations	**OFFSITE PROPERTY NO.** n/a		**BILL OF LADING/AIR BILL NO.** n/a	

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	6 months/28 days
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	500mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B25YY2	WATER	6-1-10	11:30	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
C Harris D Sandberg	6-1-10 1300	R Steele	6-1-10 1300
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**

SPECIAL INSTRUCTIONS

This liquid sample was obtained while sampling for vadose zone soil. The liquid shall be placed in a 500 ml glass jar. The specific analysis requested will be communicated to the laboratory.

A HEIS # was assigned using the QC SAF to ensure all units match and will be accepted by HEIS.
(1) ICP Metals - 6010 (SW-846) (TF); Mercury - 7470 - (CV) (TF); RADISO_ICPMS (TF);

0°C TB
RK

GRP# 20100062
SAMPLE# S10V001141

LABORATORY SECTION	**RECEIVED BY**	**TITLE**	**DATE/TIME**
FINAL SAMPLE DISPOSITION	**DISPOSAL METHOD**	**DISPOSED BY**	**DATE/TIME**

5/10/2010 1:54 PM	WORKING COPY

VOC Soil and Sediment Sampling

Data Sheet 1 – Sample Record Sheet

SAMPLE RECORD SHEET

Location:	C7668 / I010		
Sampler Initials:	DA / BC	**Date:**	6-1-10
Scale Number:	820-66-06-002	**Cal. Due Date:**	11-9-10

Sample Number	Sample Suffix[1]	Tare Weight provided (grams)	Tare Weight prior to sample[2] (grams)	Initial Weight[3] (grams)	Total Weight[4] (grams)	Soil Weights (grams)[5]	Methanol in sample bottle (ml)
B25WM4	K	N/A	N/A	26.89	31.73	4.84	No Methanol
B25WM4	L	N/A	N/A	26.85	31.80	4.95	No Methanol
B25WM4	M	N/A	N/A	26.83	30.98	4.15	No Methanol
B25WM4	N	N/A	N/A	26.94	31.64	4.70	No Methanol
B25WM4	P	N/A	N/A	26.73	31.64	4.91	No Methanol
B25WM4	W	36.891	36.76	37.14	42.82	5.68	10 ml.
B25WM4	X	37.189	37.05	37.44	42.32	4.88	10 ml.
B25WM4	Y	37.524	37.41	37.80	42.28	4.48	10 ml.
B25WM3	*	37.051	36.90	37.27	N/A	N/A	10 ml.

[1] Sample suffix of K, L, M, N, and P will not have Methanol in the bottle, freeze these samples to between -7 °C (19.4 °F) and -20 °C (-4 °F)

Sample suffix of W, X, and Y relate to methanol preservation for high-level samples.

Sample suffix of "*" relates to methanol blank. Cool W, X, Y, and * samples to between - 4 °C ± 2 °C (39.2 °F ± 3.6 °F).

[2] Tare weight prior to sample must be within +/- 0.2 grams of Vendors tare weight or bottle cannot be used. Weigh only the bottle, no labels, stickers or bags.

[3] Initial weight is to include all labels, stickers, bags, methanol (for vendor filled methanol samples with suffix W,X,Y and *) spin bars (for samples with suffix K,L,M,N and P) and anything else that will be associated with the bottle when it is weighed with the sample.

[4] Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.

[5] Soil weight is the vial with sample minus Initial Weight.

ATL	SAMPLE RECEIPT AND CHAIN OF CUSTODY VERIFICATION CHECKLIST	LO-090-101 Rev E.G.O

Date Samples Received: 6-3-10 Group #: 20100064 62

Number of Samples: 1 set C-FHCm VADOSE

Sample Custodian: RA Lark

Sample Custodian to Complete:

Action	OK? (Y/N)	N/A	Comments
RSA/COC provided?	✓		
RSR provided?	✓		
Verify GKI is complete		✓	on File
Check that outer custody seal is intact, if present	✓		
Record cooler temperature in centigrade, as appropriate	10.0°C 18.9°C		☐ Check if no cooler and/or no ice
Samples are intact and in good condition	✓		If No, provide comments on back
Verify that COC or RSA is accurate and complete, containing the following information:			
• Client name and client sample number	✓		
• Date and time of sampling			
• Sampling location or origin			
• Container type, size, and number			
• Analysis request is clear			
• Signature of persons relinquishing and receiving samples			
• Date and/or time of sample custody exchange			
Verify that sample numbers on containers match the COC and/or RSA			
Samples stored properly (e.g., refrigeration)	✓		

Notify the PM immediately if any problems are noted. (A "No" answer requires Project Manager resolution.)

PM to Complete:

6-3-10 ORP Yes

Samples acceptable for release? YES JPR PM Initials JPR Date 6-3-10

If No, comment on communication and resolution:

Other Comments:

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			V10-002-052	PAGE 1 OF 1
COLLECTOR Ekstrom / Campbell	**COMPANY CONTACT** SYDNOR, HA	**TELEPHONE NO.** 373-3967	**PROJECT COORDINATOR** BERLIN, PC	**PRICE CODE** 7P	**DATA TURNAROUND**
SAMPLING LOCATION C7668 Field Blank 9 A hole	**PROJECT DESIGNATION** WMA C Sampling for CMS - QC Sampling		**SAF NO.** V10-002	**AIR QUALITY** ☐	75 Days / 75 Days
ICE CHEST NO. TFVS-09-003	**FIELD LOGBOOK NO.** TFV[illegible]-09-00000 i	**ACTUAL SAMPLE DEPTH** 80-82	**COA** N/A	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO 222-S Lab Operations	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	HCl or H2SO4 to pH <2/Cool~4C
TYPE OF CONTAINER	aGs*
NO. OF CONTAINER(S)	3
VOLUME	40mL
SAMPLE ANALYSIS	VOA - 8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23VB4	WATER	6/3/10	1325	✓

CHAIN OF POSSESSION	SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM / DATE/TIME	RECEIVED BY/STORED IN / DATE/TIME	
Ekstrom / Campbell 6-3-10 1515	R Kistler R Kistler 6.3.10 1515	
RELINQUISHED BY/REMOVED FROM / DATE/TIME	RECEIVED BY/STORED IN / DATE/TIME	
RELINQUISHED BY/REMOVED FROM / DATE/TIME	RECEIVED BY/STORED IN / DATE/TIME	
RELINQUISHED BY/REMOVED FROM / DATE/TIME	RECEIVED BY/STORED IN / DATE/TIME	
RELINQUISHED BY/REMOVED FROM / DATE/TIME	RECEIVED BY/STORED IN / DATE/TIME	
RELINQUISHED BY/REMOVED FROM / DATE/TIME	RECEIVED BY/STORED IN / DATE/TIME	
RELINQUISHED BY/REMOVED FROM / DATE/TIME	RECEIVED BY/STORED IN / DATE/TIME	

SPECIAL INSTRUCTIONS
0°C TB
GRPH 20100062 RH/BR
SAM # 20100064 6-3-10
510V000103

LABORATORY SECTION	**RECEIVED BY**	**TITLE**	**DATE/TIME**
FINAL SAMPLE DISPOSITION	**DISPOSAL METHOD**	**DISPOSED BY**	**DATE/TIME**

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	V10-002-061	PAGE 1 OF 1

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 7P	DATA TURNAROUND
Ekstrom / Campbell	SYDNOR, HA	373-3967	BERLIN, PC	AIR QUALITY ☐	75 Days / 75 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
C7668 Trip Blank 8 A hole	WMA C Sampling for CMS - QC Sampling		V10-002		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
TFV2-09-003	TFV2-09-000001	60 - 82	N/A	GOVERNMENT VEHICLE	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
222-S Lab Operations	N/A		N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	HCl or H2SO4 to pH <2/Cool~4C
TYPE OF CONTAINER	aGs*
NO. OF CONTAINER(S)	3
VOLUME	40mL
SAMPLE ANALYSIS	VOA - 8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23VC3	WATER	6-3-10	1115	L

CHAIN OF POSSESSION	SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM / DATE/TIME	RECEIVED BY/STORED IN / DATE/TIME	
Ekstrom Campbell 6-3-10 1515	RtSteele 6.3.10 1515	
RELINQUISHED BY/REMOVED FROM / DATE/TIME	RECEIVED BY/STORED IN / DATE/TIME	
RELINQUISHED BY/REMOVED FROM / DATE/TIME	RECEIVED BY/STORED IN / DATE/TIME	
RELINQUISHED BY/REMOVED FROM / DATE/TIME	RECEIVED BY/STORED IN / DATE/TIME	
RELINQUISHED BY/REMOVED FROM / DATE/TIME	RECEIVED BY/STORED IN / DATE/TIME	
RELINQUISHED BY/REMOVED FROM / DATE/TIME	RECEIVED BY/STORED IN / DATE/TIME	
RELINQUISHED BY/REMOVED FROM / DATE/TIME	RECEIVED BY/STORED IN / DATE/TIME	

SPECIAL INSTRUCTIONS
0°C TB
GRPH 20100062 RtSteele
SAM # 20100064 6.3.10
S10V000112

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		V10-003-130	PAGE 1 OF 1
COLLECTOR Ekstrom / Campbell	**COMPANY CONTACT** SYDNOR, HA	**TELEPHONE NO.** 373-3967	**PROJECT COORDINATOR** BERLIN, PC	**PRICE CODE** 8P **DATA TURNAROUND**
SAMPLING LOCATION C7668 - I011 A Hole	**PROJECT DESIGNATION** WMA C Sampling for CMS		**SAF NO.** V10-003	**AIR QUALITY** ☐ **75 Days / 75 Days**
ICE CHEST NO. TFV2-09-003	**FIELD LOGBOOK NO.** TFV2-09-000001	**ACTUAL SAMPLE DEPTH** 80 – 82	**COA** N/A	**METHOD OF SHIPMENT** Govt. Vehicle
SHIPPED TO 222-S Lab Operations	**OFFSITE PROPERTY NO.** N/A BV 6-3-10		**BILL OF LADING/AIR BILL NO.** N/A	

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION				Cool~4C ~~4C~~ 5-7 Land 5-20C	MEOH/Cool~ 4C
HOLDING TIME				14 Days	14 Days
TYPE OF CONTAINER				Gs	Gs
NO. OF CONTAINER(S)				5	3
VOLUME				40mL	40mL
SAMPLE ANALYSIS				VOA - 5035/8260 (LOW LEVEL) (TF);	VOA - 5035/8260 (HIGH LEVEL) (TF);
SAMPLE NO.	**MATRIX***	**SAMPLE DATE**	**SAMPLE TIME**		
B25WM7	SOIL	6-3-10	1430	~~14~~ ✓	✓

RPS 6/3/10

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
C Campbell	6-3-10 1515	RHHeeg	6.3.10 1515
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**

SPECIAL INSTRUCTIONS

** All VOA samples will be collected using EPA Method 5035A.
** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample.
** The laboratory is to use one of the low level VOA bottles for moisture content determination.
** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be included as part of the sample ID reported in the final data packages.

6°C TB
6°C
0 RLS

GRP# 20100064
SAM# S10V000276
L 277

LABORATORY SECTION	**RECEIVED BY**		**TITLE**	**DATE/TIME**
FINAL SAMPLE DISPOSITION	**DISPOSAL METHOD**		**DISPOSED BY**	**DATE/TIME**

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			V10-003-129	PAGE 1 OF 1
COLLECTOR Ekstrom/Campbell	**COMPANY CONTACT** SYDNOR, HA	**TELEPHONE NO.** 373-3967	**PROJECT COORDINATOR** BERLIN, PC	**PRICE CODE** 8P	**DATA TURNAROUND**
SAMPLING LOCATION C7668 - I011 A Hole	**PROJECT DESIGNATION** WMA C Sampling for CMS		**SAF NO.** V10-003	**AIR QUALITY** ☐	**75 Days / 75 Days**
ICE CHEST NO. TFV2-09-003	**FIELD LOGBOOK NO.** TFV2-09-00001	**ACTUAL SAMPLE DEPTH** 80-82	**COA** N/A	**METHOD OF SHIPMENT** Govt. Vehicle	
SHIPPED TO 222-S Lab Operations	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		

MATRIX*	POSSIBLE SAMPLE HAZARDS/ REMARKS	PRESERVATION	Cool~4C
A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	HOLDING TIME	14 Days
		TYPE OF CONTAINER	Gs
		NO. OF CONTAINER(S)	1
		VOLUME	40mL
	SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	VOA - 5035/8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B25WM6	SOIL	6-3-10	1430	V

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
		R.L. Teed R.L. Teed	6.3.10 13:15
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

** All VOA samples will be collected using EPA Method 5035A.
** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample.
** The laboratory is to use one of the low level VOA bottles for moisture content determination.
** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be included as part of the sample ID reported in the final data packages.

0 °C GRP# 20100064
SAM# S10V000228

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			V10-003-128	PAGE 1 OF 2
COLLECTOR Ekstrom / Campbell	**COMPANY CONTACT** SYDNOR, HA	**TELEPHONE NO.** 373-3967	**PROJECT COORDINATOR** BERLIN, PC	**PRICE CODE** 8P	**DATA TURNAROUND**
SAMPLING LOCATION C7668 - I011 A hole	**PROJECT DESIGNATION** WMA C Sampling for CMS		**SAF NO.** V10-003	**AIR QUALITY** ☐	75 Days / 75 Days
ICE CHEST NO. TFVS-09-003	**FIELD LOGBOOK NO.** TFVZ-09-000001	**ACTUAL SAMPLE DEPTH** 80-82Ft	**COA** N/A	**METHOD OF SHIPMENT** Govt. Vehicle	
SHIPPED TO 222-S Lab Operations	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
HOLDING TIME	14/40 Days
TYPE OF CONTAINER	Gs jar/Liners
NO. OF CONTAINER(S)	3
VOLUME	160mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B25WM5	SOIL	6/3/10	1430	✓

CHAIN OF POSSESSION	SIGN/ PRINT NAMES		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Campbell	6-3-10 1515	RFSteele	6-3-10 1515
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

oc TB
o JK

Graph # 20100064
Sam # 510V000279
280
281

LABORATORY SECTION	**RECEIVED BY**	**TITLE**	**DATE/TIME**
FINAL SAMPLE DISPOSITION	**DISPOSAL METHOD**	**DISPOSED BY**	**DATE/TIME**

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			V10-003-128	PAGE 2 OF 2
COLLECTOR Ekstrom/Campbell	**COMPANY CONTACT** SYDNOR, HA	**TELEPHONE NO.** 373-3967	**PROJECT COORDINATOR** BERLIN, PC	**PRICE CODE** 8P	**DATA TURNAROUND**
SAMPLING LOCATION C7668 - I011	**PROJECT DESIGNATION** WMA C Sampling for CMS		**SAF NO.** V10-003	**AIR QUALITY** ☐	**75 Days / 75 Days**
ICE CHEST NO. TFV2-09-003	**FIELD LOGBOOK NO.** TFVZ-09-00001	**ACTUAL SAMPLE DEPTH** 80-82	**COA**	**METHOD OF SHIPMENT** Govt. Vehicle	
SHIPPED TO 222-S Lab Operations	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		

SPECIAL INSTRUCTIONS

** After VOA bottles for the direct pushes are filled, the sampler will cap remaining liners for shipment to 222-S. Where capping is not possible, the sample shall be put into 500 mL or 250 mL glass bottles with Teflon-lined lids.
(1) Semi-VOA - 8270 Complete (TF); TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D; PCBs - 8082; Pesticides - 8081 (TF); ICP Metals - 6010 (SW-846) (TF); Mercury - 7471 - (CV) (TF); 300.7_AMMONIUM (TF); IC Anions - 9056; Sulfide - 9215; Total Cyanide - 9014 (TF); pH (Soil) - 9045; Americium-241 (TF); C-14; CURIUM; GAMMA ENERGY ANALYSIS (TF); H3 - TRITIUM; I129_SEP_GEA (TF); Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Nickel-63 (TF); RADISO_ICPMS (TF); Selenium-79 (TF); Strontium-89,90 -- Sr-90;

5/10/2010 1:54 PM	WORKING COPY

VOC Soil and Sediment Sampling

Data Sheet 1 – Sample Record Sheet

SAMPLE RECORD SHEET

Location:	C7668A I-011						
Sampler Initials:	BSE				Date:	6/3/10	
Scale Number:	820-66-06-002				Cal. Due Date:	11/9/10	
Sample Number	Sample Suffix[1]	Tare Weight provided (grams)	Tare Weight prior to sample[2] (grams)	Initial Weight[3] (grams)	Total Weight[4] (grams)	Soil Weights (grams)[5]	Methanol in sample bottle (ml)
B25WM7	K	N/A	N/A	26.95	32.07	5.12	No Methanol
B25WM7	L	N/A	N/A	26.78	31.59	4.81	No Methanol
B25WM7	M	N/A	N/A	26.78	31.61	4.83	No Methanol
B25WM7	N	N/A	N/A	26.90	31.95	5.05	No Methanol
B25WM7	P	N/A	N/A	26.75	31.59	4.84	No Methanol
B25WM7	W	36.61	36.56	38.95	42.13	5.18	10 ml.
B25WM7	X	37.73	37.68	38.05	42.53	4.48	10 ml.
B25WM7	Y	36.63	36.57	36.97	42.13	5.16	10 ml
B25WM6	*	36.95	36.75	37.14	N/A	N/A	10 ml.

1 Sample suffix of K, L, M, N, and P will not have Methanol in the bottle, freeze these samples to between -7 °C (19.4 °F) and -20 °C (-4 °F)

Sample suffix of W, X, and Y relate to methanol preservation for high-level samples.

Sample suffix of "*" relates to methanol blank. Cool W, X, Y, and * samples to between - 4 °C ± 2 °C (39.2 °F ± 3.6 °F).

2 Tare weight prior to sample must be within +/- 0.2 grams of Vendors tare weight or bottle cannot be used. Weigh only the bottle, no labels, stickers or bags.

3 Initial weight is to include all labels, stickers, bags, methanol (for vendor filled methanol samples with suffix W,X,Y and *) spin bars (for samples with suffix K,L,M,N and P) and anything else that will be associated with the bottle when it is weighed with the sample.

4 Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.

5 Soil weight is the vial with sample minus Initial Weight.

ATL	SAMPLE RECEIPT AND CHAIN OF CUSTODY VERIFICATION CHECKLIST	LO-090-101 Rev EE.0

Date Samples Received: 6.8.10 Group #: 20100064

Number of Samples: 1 set C-FARM VADOSE

Sample Custodian: RT Lott

Sample Custodian to Complete:

Action	OK? (Y/N)	N/A	Comments
RSA/COC provided?	✓		
RSR provided?	✓		
Verify GKI is complete		✓	on File
Check that outer custody seal is intact, if present	✓		
Record cooler temperature in centigrade, as appropriate	0°C / 4°C		☐ Check if no cooler and/or no ice
Samples are intact and in good condition	✓		If No, provide comments on back
Verify that COC or RSA is accurate and complete, containing the following information:			
• Client name and client sample number	✓		
• Date and time of sampling			
• Sampling location or origin			
• Container type, size, and number			
• Analysis request is clear			
• Signature of persons relinquishing and receiving samples			
• Date and/or time of sample custody exchange			
Verify that sample numbers on containers match the COC and/or RSA			
Samples stored properly (e.g., refrigeration)	✓		

Notify the PM immediately if any problems are noted. (A "No" answer requires Project Manager resolution.)

PM to Complete:

Samples acceptable for release? Yes PM Initials RT Date 6.8.10

If No, comment on communication and resolution:

Other Comments:

Temp Blank for Freezer was measured @ sampler's request 0°C

VOA delivered to WSCF

A-6005-342 (REV 0)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			V10-003-131	PAGE 1 OF 2
COLLECTOR Campbell/Villarreal	**COMPANY CONTACT** SYDNOR, HA	**TELEPHONE NO.** 373-3967	**PROJECT COORDINATOR** BERLIN, PC	**PRICE CODE** 8P	**DATA TURNAROUND**
SAMPLING LOCATION C7668 - I012	**PROJECT DESIGNATION** WMA C Sampling for CMS		**SAF NO.** V10-003	**AIR QUALITY** ☐	75 Days / 75 Days
ICE CHEST NO. TFVZ-09-003	**FIELD LOGBOOK NO.** TFVZ-09-00001	**ACTUAL SAMPLE DEPTH** 132-134	**COA**	**METHOD OF SHIPMENT** Govt. Vehicle	
SHIPPED TO 222-S Lab Operations	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
HOLDING TIME	14/40 Days
TYPE OF CONTAINER	Gs jar/Liners
NO. OF CONTAINER(S)	3
VOLUME	160mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B25WM8	SOIL	6-8-10	1105	✓

CHAIN OF POSSESSION	SIGN/ PRINT NAMES		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
C Campbell	6.8.10 1230	R Steele	6.8.10 1230
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

0 °C TB
PA

2225201000064

S10V000296 A
297 B
298 C

LABORATORY SECTION	**RECEIVED BY**	**TITLE**	**DATE/TIME**
FINAL SAMPLE DISPOSITION	**DISPOSAL METHOD**	**DISPOSED BY**	**DATE/TIME**

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			V10-003-131	PAGE 2 OF 2
COLLECTOR Campbell/Villarreal	**COMPANY CONTACT** SYDNOR, HA	**TELEPHONE NO.** 373-3967	**PROJECT COORDINATOR** BERLIN, PC	**PRICE CODE** 8P **AIR QUALITY** ☐	**DATA TURNAROUND** 75 Days / 75 Days
SAMPLING LOCATION C7668 - I012	**PROJECT DESIGNATION** WMA C Sampling for CMS		**SAF NO.** V10-003		
ICE CHEST NO. TFVZ-09-003	**FIELD LOGBOOK NO.** TFVZ-09-00009	**ACTUAL SAMPLE DEPTH** 132 - 134	**COA** N/A	**METHOD OF SHIPMENT** Govt. Vehicle	
SHIPPED TO 222-S Lab Operations	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** After VOA bottles for the direct pushes are filled, the sampler will cap remaining liners for shipment to 222-S. Where capping is not possible, the sample shall be put into 500 mL or 250 mL glass bottles with Teflon-lined lids.
(1) Semi-VOA - 8270 Complete (TF); TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D; PCBs - 8082; Pesticides - 8081 (TF); ICP Metals - 6010 (SW-846) (TF); Mercury - 7471 - (CV) (TF); 300.7_AMMONIUM (TF); IC Anions - 9056; Sulfide - 9215; Total Cyanide - 9014 (TF); pH (Soil) - 9045; Americium-241 (TF); C-14; CURIUM; GAMMA ENERGY ANALYSIS (TF); H3 - TRITIUM; I129_SEP_GEA (TF); Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Nickel-63 (TF); RADISO_ICPMS (TF); Selenium-79 (TF); Strontium-89,90 -- Sr-90;

Appendix A

Analytical Report for Analysis Performed at the
Waste Sampling and Characterization Facility

Mission Support Alliance
P.O. Box 650
Richland, Washington 99352

42100-ADR-10-376

October 19, 2010

Mr. Steve McKinney
Analytical Project Management
Washington River Protection Solutions
PO Box 850 MSIN T6-02
Richland, WA 99352

Dear Steve,

FINAL RESULTS FOR SAMPLE DELIVERY GROUP WSCF20100954 – COC # V10-003

References: (1) Field Sampling and Analysis Plan for Waste Management Area C, RPP-PLAN-40564, Rev2.

(2) HNF-SD-CP-QAPP-017, current version, Waste Sampling & Characterization Facility Quality Assurance Program Plan

This letter contains the following attachments for sample delivery group WSCF20100954:

- Cover Sheet (Attachment 1)
- Narrative (Attachment 2)
- Analytical Results (Attachment 3)
- Sample Receipt Information (Attachment 4)

Very truly yours,

A. D. Rice, Acting Manager
WSCF Analytical Lab

AR/ma

Attachments 4

cc: w/Attachments
M. Avila S3-30
File/LB

42100-ADR-10-376

ATTACHMENT 1

COVER SHEET

Consisting of 2 pages
Including cover page

WSCF SAF NUMBER CROSS REFERENCE

Group#: WSCF20100954
Data Deliverable Date: 18-oct-2010
Data Deliverable: Cover Sheet

SAF#	Sample ID	WSCF#	Matrix
V10-003	B23TM2	W100000258	SOIL
	B25WM4	W100000254	SOIL
	B25WM7	W100000256	SOIL
	B25WN0	W100000252	SOIL

42100-ADR-10-376

ATTACHMENT 2

NARRATIVE

Consisting of 3 pages
Including cover page

Attachment 2
Narrative
WSCF20100954

Introduction

Eight (8) samples were received at the WSCF Laboratory between June 1, 2010 and June 8, 2010. Each of the sample sets contained subsets for the use of low-level and high level VOA analysis, along with a methanol process control sample. Due to the results gathered from the low-level analysis, the high level analysis was not necessary and the methanol blank analysis was canceled. Therefore, only the low-level results are provided in this report.

The samples were analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Field Sampling and Analysis Plan for Waste Management Area C, RPP-PLAN-40564, Rev 2.*

The narrative (Attachment 2) will address sample characteristics, analyses requested and general information in performance of the analytical methods. A Data Summary Report (Attachment 3) includes analytical results, a comment report detailing method abnormalities, tentatively identified peaks if applicable, method references, and Laboratory QC information as applicable. Copies of the chain of custody and sample receipt documentation are included as Attachment 4.

The following generic data qualifiers (i.e., B, D, U and J) may be applicable to this report, as appropriate

- **B** – Sample results with a concentration greater than the MDL but less than the PQL are B flagged (applies to inorganic and wet chemical analyses), as appropriate.
- **D** – Sample results are D flagged if dilution(s) were required, as appropriate.
- **J** – Sample results with a concentration greater than the MDL but less than the PQL are J flagged (applies to organic analyses), as appropriate.
- **U** – Analyzed for but not detected above limiting criteria. Relative Percent Difference (RPD) values associated with an analyte qualified with a "U" are not applicable.

Analytical Methodology for Requested Analyses

Refer to *WSCF Method References Report* for a complete listing of approved analytical methods.

Organic Comments

VOA – The hold time requirement for this analysis was met for all samples except for B23TM2 (W100000258). The sample was received by WSCF past the 14 day regulatory hold time. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. See page 25 for QC details. Analytical Note(s):

- Batch QC analyzed on sample# W100000256 (B25WM7 on work order 20100954).

- Samples B25WM9, B25WM3, B25WM6 and B23TM1 were canceled from this workgroup. These were methanol blanks that would have been analyzed if the high-level analysis was required.

All other QC controls are within the established limits.

We certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this data package has been authorized by the Analytical Laboratory Manager (or designee) and the Client Services representative as verified by electronic signatures shown on the WSCF ANALYTICAL RESULTS REPORT.

Andrew Rice, Acting Manager
WSCF Analytical Laboratory Manager

Marisol Avila
WSCF Client Services

42100-ADR-10-376

ATTACHMENT 3

ANALYTICAL RESULTS

Consisting of 24 pages
Including cover page

WSCF
ANALYTICAL RESULTS REPORT

for

Washington River Protection Solutions, LLC

Richland, WA 99352

Attention: S Mckinney/M Garrard

Analytical: Susan Kon SUSAN KON 10/19/10

Client Services: Marisol Arle Marisol Arle 10/19/10

All results are reported on an "as received" basis unless otherwise noted in the comment section.

This information is intended for the use of the addressee only. If the reader of this report is not the intended recipient or is not authorized by the recipient to receive the report, you are hereby notified that any dissemination, distribution or copying of this report is strictly prohibited. If you have received this report in error, please notify WSCF Laboratory immediately by telephone at (509) 373-7020 or (509) 531-8004. information designation of this report is the responsibility of the customer.

w13qlog v4.2 15-oct-2010 11:08:48

Department: Organic

W13q Worklist/Batch/QC Report for Group# WSCF20100954

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
			46361	BLANK		SW-846 8260B Vadose VOA
			46361	LCS		SW-846 8260B Vadose VOA
			46361	SAMPLE	W100000252	SW-846 8260B Vadose VOA
			46361	SURR	W100000252	SW-846 8260B Vadose VOA
			46361	SAMPLE	W100000254	SW-846 8260B Vadose VOA
			46361	SURR	W100000254	SW-846 8260B Vadose VOA
			46361	MS	W100000256	SW-846 8260B Vadose VOA
			46361	MSD	W100000256	SW-846 8260B Vadose VOA
			46361	SAMPLE	W100000256	SW-846 8260B Vadose VOA
			46361	SPK-RPD	W100000256	SW-846 8260B Vadose VOA
			46361	SURR	W100000256	SW-846 8260B Vadose VOA
			46361	SAMPLE	W100000258	SW-846 8260B Vadose VOA
			46361	SURR	W100000258	SW-846 8260B Vadose VOA

w13qlog v4.2 15-oct-2010 11:08:48

Department: Inorganic

W13q Worklist/Batch/QC Report for Group# WSCF20100954

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
				SAMPLE	W100000252	Percent Solids
				SAMPLE	W100000254	Percent Solids
				SAMPLE	W100000256	Percent Solids
				SAMPLE	W100000258	Percent Solids

WSCF
METHOD REFERENCES REPORT

Department: Organic

The results provided in this report were generated using the following WSCF Laboratory procedures. For your convenience, this table provides a listing of the regulatory or industry methods that are referenced by each of these WSCF procedures. Please note that the most recent version of the regulatory or industry method is listed here even though the WSCF procedure may reference an older version of the method. Also, a reference to a regulatory or industry method here does not necessarily indicate a verbatim implementation of that method.

LA-523-455 LA-523-455: VOLATILE SAMPLE ANALYSIS BY SW-846

None	No reference to any industry method.

Note: A complete list of WSCF analytical procedures and referenced regulatory or industry methods is available online at http://www2.rl.gov/phmc/as-dol.

WSCF
METHOD REFERENCES REPORT

Department: Inorganic

The results provided in this report were generated using the following WSCF Laboratory procedures. For your convenience, this table provides a listing of the regulatory or industry methods that are referenced by each of these WSCF procedures. Please note that the most recent version of the regulatory or industry method is listed here even though the WSCF procedure may reference an older version of the method. Also, a reference to a regulatory or industry method here does not necessarily indicate a verbatim implementation of that method.

LA-519-412 LA-519-412: TOTAL RESIDUE/% SOLIDS DRIED AT 103 - 105 C

None	No reference to any industry method.

Note: A complete list of WSCF analytical procedures and referenced regulatory or industry methods is available online at http://www2.rl.gov/phmc/as-dol.

WSCF
ANALYTICAL RESULTS REPORT

Attention: S Mckinney/M Garrard
SAF Number: V10-003
Sample # W100000252
Client ID: B25WN0 WRPS GARRARD WSCF
Matrix: SOIL

Group #: WSCF20100954
Department: Organic
Sampled: 06/08/10
Received: 06/08/10

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
SW-846 8260B Vadose VOA											
4-Methyl-2-Pentanone	108-10-1	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		06/14/10
Acetone	67-64-1	LA-523-455		9.90	ug/kg			1.00	1.0		06/14/10
Benzene	71-43-2	LA-523-455	U	< 0.500	ug/kg			1.00	0.50		06/14/10
1-Butanol	71-36-3	LA-523-455	U	< 500	ug/kg			1.00	5.0e+02		06/14/10
Carbon tetrachloride	56-23-5	LA-523-455	U	< 0.500	ug/kg			1.00	0.50		06/14/10
Chlorobenzene	108-90-7	LA-523-455	U	< 0.500	ug/kg			1.00	0.50		06/14/10
Chloroform	67-66-3	LA-523-455	U	< 0.500	ug/kg			1.00	0.50		06/14/10
1,2-Dichloroethane	107-06-2	LA-523-455	U	< 0.500	ug/kg			1.00	0.50		06/14/10
1,1-Dichloroethene	75-35-4	LA-523-455	U	< 0.500	ug/kg			1.00	0.50		06/14/10
Methylenechloride	75-09-2	LA-523-455		6.80	ug/kg			1.00	0.50		06/14/10
2-Butanone	78-93-3	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		06/14/10
Tetrachloroethene	127-18-4	LA-523-455	U	< 0.500	ug/kg			1.00	0.50		06/14/10
Toluene	108-88-3	LA-523-455	U	< 0.500	ug/kg			1.00	0.50		06/14/10
1,1,1-Trichloroethane	71-55-6	LA-523-455	U	< 0.500	ug/kg			1.00	0.50		06/14/10
1,1,2-Trichloroethane	79-00-5	LA-523-455	U	< 0.500	ug/kg			1.00	0.50		06/14/10
Trichloroethene	79-01-6	LA-523-455	U	< 0.300	ug/kg			1.00	0.30		06/14/10
Vinyl chloride	75-01-4	LA-523-455	U	< 0.500	ug/kg			1.00	0.50		06/14/10
Carbon disulfide	75-15-0	LA-523-455	U	< 0.500	ug/kg			1.00	0.50		06/14/10
Ethylbenzene	100-41-4	LA-523-455	U	< 0.500	ug/kg			1.00	0.50		06/14/10
Xylenes (total)	1330-20-7	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		06/14/10
1,1,2,2-Tetrachloroethane	79-34-5	LA-523-455	U	< 0.500	ug/kg			1.00	0.50		06/14/10
1,1,2-Trichloro-1,2,2-trifluor	76-13-1	LA-523-455	U	< 0.500	ug/kg			1.00	0.50		06/14/10
2-Nitropropane	79-46-9	LA-523-455	U	< 2.00	ug/kg			1.00	2.0		06/14/10
Ethyl acetate	141-78-6	LA-523-455	U	< 10.0	ug/kg			1.00	10		06/14/10

MDL = Minimum Detection Limit J - Analyte < lowest calibration but > = MDL.(org) U - Analyzed for but not detected above limiting criteria.(org)
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

WSCF
ANALYTICAL RESULTS REPORT

Attention: S Mckinney/M Garrard
SAF Number: V10-003
Sample # W100000252
Client ID: B25WN0 WRPS GARRARD WSCF
Matrix: SOIL

Group #: WSCF20100954
Department: Organic
Sampled: 06/08/10
Received: 06/08/10

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Diethyl ether	60-29-7	LA-523-455	U	< 0.500	ug/kg			1.00	0.50		06/14/10
Isobutanol	78-83-1	LA-523-455	U	< 500	ug/kg			1.00	5.0e+02		06/14/10
trans-1,3-Dichloropropene	10061-02-6	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		06/14/10
Trichloromonofluoromethane	75-69-4	LA-523-455		11.0	ug/kg			1.00	0.50		06/14/10
Ortho Xylene	95-47-6	LA-523-455	U	< 0.200	ug/kg			1.00	0.20		06/14/10
m/p-xylene	179601-23-1	LA-523-455	U	< 0.500	ug/kg			1.00	0.50		06/14/10
cis-1,2-Dichloroethylene	156-59-2	LA-523-455	U	< 0.500	ug/kg			1.00	0.50		06/14/10
trans-1,2-Dichloroethylene	156-60-5	LA-523-455	U	< 0.500	ug/kg			1.00	0.50		06/14/10

MDL=Minimum Detection Limit J - Analyte < lowest calibration but > = MDL.(org) U - Analyzed for but not detected above limiting criteria.(org)
RQ=Result Qualifier
TP Err=Total Propagated Error
DF=Dilution Factor
* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols
Report WGPP/ver. 5.2
Washington River Protection Solutions, LLC

WSCF
ANALYTICAL RESULTS REPORT

Attention: S Mckinney/M Garrard
SAF Number: V10-003
Sample # W100000254
Client ID: B25WM4 WRPS GARRARD WSCF
Matrix: SOIL

Group #: WSCF20100954
Department: Organic
Sampled: 06/01/10
Received: 06/01/10

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
SW-846 8260B Vadose VOA											
4-Methyl-2-Pentanone	108-10-1	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		06/11/10
Acetone	67-64-1	LA-523-455	J	4.80	ug/kg			1.00	1.2		06/11/10
Benzene	71-43-2	LA-523-455	U	< 0.600	ug/kg			1.00	0.60		06/11/10
1-Butanol	71-36-3	LA-523-455	U	< 600	ug/kg			1.00	6.0e+02		06/11/10
Carbon tetrachloride	56-23-5	LA-523-455	U	< 0.600	ug/kg			1.00	0.60		06/11/10
Chlorobenzene	108-90-7	LA-523-455	U	< 0.600	ug/kg			1.00	0.60		06/11/10
Chloroform	67-66-3	LA-523-455	U	< 0.600	ug/kg			1.00	0.60		06/11/10
1,2-Dichloroethane	107-06-2	LA-523-455	U	< 0.600	ug/kg			1.00	0.60		06/11/10
1,1-Dichloroethene	75-35-4	LA-523-455	U	< 0.600	ug/kg			1.00	0.60		06/11/10
Methylenechloride	75-09-2	LA-523-455	J	1.40	ug/kg			1.00	0.60		06/11/10
2-Butanone	78-93-3	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		06/11/10
Tetrachloroethene	127-18-4	LA-523-455	U	< 0.600	ug/kg			1.00	0.60		06/11/10
Toluene	108-88-3	LA-523-455	U	< 0.600	ug/kg			1.00	0.60		06/11/10
1,1,1-Trichloroethane	71-55-6	LA-523-455	U	< 0.600	ug/kg			1.00	0.60		06/11/10
1,1,2-Trichloroethane	79-00-5	LA-523-455	U	< 0.600	ug/kg			1.00	0.60		06/11/10
Trichloroethene	79-01-6	LA-523-455	U	< 0.360	ug/kg			1.00	0.36		06/11/10
Vinyl chloride	75-01-4	LA-523-455	U	< 0.600	ug/kg			1.00	0.60		06/11/10
Carbon disulfide	75-15-0	LA-523-455	U	< 0.600	ug/kg			1.00	0.60		06/11/10
Ethylbenzene	100-41-4	LA-523-455	U	< 0.600	ug/kg			1.00	0.60		06/11/10
Xylenes (total)	1330-20-7	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		06/11/10
1,1,2,2-Tetrachloroethane	79-34-5	LA-523-455	U	< 0.600	ug/kg			1.00	0.60		06/11/10
1,1,2-Trichloro-1,2,2-trifluor	76-13-1	LA-523-455	U	< 0.600	ug/kg			1.00	0.60		06/11/10
2-Nitropropane	79-46-9	LA-523-455	U	< 2.40	ug/kg			1.00	2.4		06/11/10
Ethyl acetate	141-78-6	LA-523-455	U	< 12.0	ug/kg			1.00	12		06/11/10

MDL = Minimum Detection Limit J - Analyte < lowest calibration but > = MDL.(org) U - Analyzed for but not detected above limiting criteria.(org)
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

WSCF
ANALYTICAL RESULTS REPORT

Attention: S Mckinney/M Garrard
SAF Number: V10-003
Sample # W100000254
Client ID: B25WM4 WRPS GARRARD WSCF
Matrix: SOIL

Group #: WSCF20100954
Department: Organic
Sampled: 06/01/10
Received: 06/01/10

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Diethyl ether	60-29-7	LA-523-455	U	< 0.600	ug/kg			1.00	0.60		06/11/10
Isobutanol	78-83-1	LA-523-455	U	< 600	ug/kg			1.00	6.0e+02		06/11/10
trans-1,3-Dichloropropene	10061-02-6	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		06/11/10
Trichloromonofluoromethane	75-69-4	LA-523-455		11.0	ug/kg			1.00	0.60		06/11/10
Ortho Xylene	95-47-6	LA-523-455	U	< 0.240	ug/kg			1.00	0.24		06/11/10
m/p-xylene	179601-23-1	LA-523-455	U	< 0.600	ug/kg			1.00	0.60		06/11/10
cis-1,2-Dichloroethylene	156-59-2	LA-523-455	U	< 0.600	ug/kg			1.00	0.60		06/11/10
trans-1,2-Dichloroethylene	156-60-5	LA-523-455	U	< 0.600	ug/kg			1.00	0.60		06/11/10

MDL=Minimum Detection Limit J - Analyte < lowest calibration but > = MDL.(org) U - Analyzed for but not detected above limiting criteria.(org)
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WSCF
ANALYTICAL RESULTS REPORT

Attention: S Mckinney/M Garrard
SAF Number: V10-003
Sample # W100000256
Client ID: B25WM7 WRPS GARRARD WSCF
Matrix: SOIL

Group #: WSCF20100954
Department: Organic
Sampled: 06/03/10
Received: 06/03/10

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
SW-846 8260B Vadose VOA											
4-Methyl-2-Pentanone	108-10-1	LA-523-455	U	< 0.980	ug/kg			1.00	0.98		06/11/10
Acetone	67-64-1	LA-523-455	J	1.20	ug/kg			1.00	0.98		06/11/10
Benzene	71-43-2	LA-523-455	U	< 0.490	ug/kg			1.00	0.49		06/11/10
1-Butanol	71-36-3	LA-523-455	U	< 490	ug/kg			1.00	4.9e+02		06/11/10
Carbon tetrachloride	56-23-5	LA-523-455	U	< 0.490	ug/kg			1.00	0.49		06/11/10
Chlorobenzene	108-90-7	LA-523-455	U	< 0.490	ug/kg			1.00	0.49		06/11/10
Chloroform	67-66-3	LA-523-455	U	< 0.490	ug/kg			1.00	0.49		06/11/10
1,2-Dichloroethane	107-06-2	LA-523-455	U	< 0.490	ug/kg			1.00	0.49		06/11/10
1,1-Dichloroethene	75-35-4	LA-523-455	U	< 0.490	ug/kg			1.00	0.49		06/11/10
Methylenechloride	75-09-2	LA-523-455	J	1.10	ug/kg			1.00	0.49		06/11/10
2-Butanone	78-93-3	LA-523-455	U	< 0.980	ug/kg			1.00	0.98		06/11/10
Tetrachloroethene	127-18-4	LA-523-455	U	< 0.490	ug/kg			1.00	0.49		06/11/10
Toluene	108-88-3	LA-523-455	U	< 0.490	ug/kg			1.00	0.49		06/11/10
1,1,1-Trichloroethane	71-55-6	LA-523-455	U	< 0.490	ug/kg			1.00	0.49		06/11/10
1,1,2-Trichloroethane	79-00-5	LA-523-455	U	< 0.490	ug/kg			1.00	0.49		06/11/10
Trichloroethene	79-01-6	LA-523-455	U	< 0.290	ug/kg			1.00	0.29		06/11/10
Vinyl chloride	75-01-4	LA-523-455	U	< 0.490	ug/kg			1.00	0.49		06/11/10
Carbon disulfide	75-15-0	LA-523-455	U	< 0.490	ug/kg			1.00	0.49		06/11/10
Ethylbenzene	100-41-4	LA-523-455	U	< 0.490	ug/kg			1.00	0.49		06/11/10
Xylenes (total)	1330-20-7	LA-523-455	U	< 0.980	ug/kg			1.00	0.98		06/11/10
1,1,2,2-Tetrachloroethane	79-34-5	LA-523-455	U	< 0.490	ug/kg			1.00	0.49		06/11/10
1,1,2-Trichloro-1,2,2-trifluor	76-13-1	LA-523-455	U	< 0.490	ug/kg			1.00	0.49		06/11/10
2-Nitropropane	79-46-9	LA-523-455	U	< 2.00	ug/kg			1.00	2.0		06/11/10
Ethyl acetate	141-78-6	LA-523-455	U	< 9.80	ug/kg			1.00	9.8		06/11/10

MDL=Minimum Detection Limit J - Analyte < lowest calibration but > = MDL.(org) U - Analyzed for but not detected above limiting criteria.(org)
RQ=Result Qualifier
TP Err=Total Propagated Error
DF=Dilution Factor
* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

WSCF
ANALYTICAL RESULTS REPORT

Attention: S Mckinney/M Garrard
SAF Number: V10-003
Sample # W100000256
Client ID: B25WM7 WRPS GARRARD WSCF
Matrix: SOIL

Group #: WSCF20100954
Department: Organic
Sampled: 06/03/10
Received: 06/03/10

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Diethyl ether	60-29-7	LA-523-455	U	< 0.490	ug/kg			1.00	0.49		06/11/10
Isobutanol	78-83-1	LA-523-455	U	< 490	ug/kg			1.00	4.9e+02		06/11/10
trans-1,3-Dichloropropene	10061-02-6	LA-523-455	U	< 0.980	ug/kg			1.00	0.98		06/11/10
Trichloromonofluoromethane	75-69-4	LA-523-455	J	2.30	ug/kg			1.00	0.49		06/11/10
Ortho Xylene	95-47-6	LA-523-455	U	< 0.200	ug/kg			1.00	0.20		06/11/10
m/p-xylene	179601-23-1	LA-523-455	U	< 0.490	ug/kg			1.00	0.49		06/11/10
cis-1,2-Dichloroethylene	156-59-2	LA-523-455	U	< 0.490	ug/kg			1.00	0.49		06/11/10
trans-1,2-Dichloroethylene	156-60-5	LA-523-455	U	< 0.490	ug/kg			1.00	0.49		06/11/10

MDL = Minimum Detection Limit J - Analyte < lowest calibration but > = MDL.(org) U - Analyzed for but not detected above limiting criteria.(org)
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

WSCF
ANALYTICAL RESULTS REPORT

Attention: S Mckinney/M Garrard
SAF Number: V10-003
Sample # W100000258
Client ID: B23TM2 WRPS GARRARD WSCF **Matrix:** SOIL

Group #: WSCF20100954
Department: Organic
Sampled: 05/19/10
Received: 05/19/10

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
SW-846 8260B Vadose VOA											
4-Methyl-2-Pentanone	108-10-1	LA-523-455	U	< 1.30	ug/kg			1.00	1.3		06/11/10
Acetone	67-64-1	LA-523-455	J	6.20	ug/kg			1.00	1.3		06/11/10
Benzene	71-43-2	LA-523-455	U	< 0.630	ug/kg			1.00	0.63		06/11/10
1-Butanol	71-36-3	LA-523-455	U	< 630	ug/kg			1.00	6.3e+02		06/11/10
Carbon tetrachloride	56-23-5	LA-523-455	U	< 0.630	ug/kg			1.00	0.63		06/11/10
Chlorobenzene	108-90-7	LA-523-455	U	< 0.630	ug/kg			1.00	0.63		06/11/10
Chloroform	67-66-3	LA-523-455	U	< 0.630	ug/kg			1.00	0.63		06/11/10
1,2-Dichloroethane	107-06-2	LA-523-455	U	< 0.630	ug/kg			1.00	0.63		06/11/10
1,1-Dichloroethene	75-35-4	LA-523-455	U	< 0.630	ug/kg			1.00	0.63		06/11/10
Methylenechloride	75-09-2	LA-523-455	J	1.40	ug/kg			1.00	0.63		06/11/10
2-Butanone	78-93-3	LA-523-455	U	< 1.30	ug/kg			1.00	1.3		06/11/10
Tetrachloroethene	127-18-4	LA-523-455	U	< 0.630	ug/kg			1.00	0.63		06/11/10
Toluene	108-88-3	LA-523-455	U	< 0.630	ug/kg			1.00	0.63		06/11/10
1,1,1-Trichloroethane	71-55-6	LA-523-455	U	< 0.630	ug/kg			1.00	0.63		06/11/10
1,1,2-Trichloroethane	79-00-5	LA-523-455	U	< 0.630	ug/kg			1.00	0.63		06/11/10
Trichloroethene	79-01-6	LA-523-455	U	< 0.380	ug/kg			1.00	0.38		06/11/10
Vinyl chloride	75-01-4	LA-523-455	U	< 0.630	ug/kg			1.00	0.63		06/11/10
Carbon disulfide	75-15-0	LA-523-455	U	< 0.630	ug/kg			1.00	0.63		06/11/10
Ethylbenzene	100-41-4	LA-523-455	U	< 0.630	ug/kg			1.00	0.63		06/11/10
Xylenes (total)	1330-20-7	LA-523-455	U	< 1.30	ug/kg			1.00	1.3		06/11/10
1,1,2,2-Tetrachloroethane	79-34-5	LA-523-455	U	< 0.630	ug/kg			1.00	0.63		06/11/10
1,1,2-Trichloro-1,2,2-trifluor	76-13-1	LA-523-455	U	< 0.630	ug/kg			1.00	0.63		06/11/10
2-Nitropropane	79-46-9	LA-523-455	U	< 2.50	ug/kg			1.00	2.5		06/11/10
Ethyl acetate	141-78-6	LA-523-455	U	< 13.0	ug/kg			1.00	13		06/11/10

MDL = Minimum Detection Limit J - Analyte < lowest calibration but > = MDL.(org) U - Analyzed for but not detected above limiting criteria.(org)
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

WSCF
ANALYTICAL RESULTS REPORT

Attention: S Mckinney/M Garrard
SAF Number: V10-003
Sample # W100000258
Client ID: B23TM2 WRPS GARRARD WSCF
Matrix: SOIL

Group #: WSCF20100954
Department: Organic
Sampled: 05/19/10
Received: 05/19/10

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Diethyl ether	60-29-7	LA-523-455	U	< 0.630	ug/kg			1.00	0.63		06/11/10
Isobutanol	78-83-1	LA-523-455	U	< 630	ug/kg			1.00	6.3e+02		06/11/10
trans-1,3-Dichloropropene	10061-02-6	LA-523-455	U	< 1.30	ug/kg			1.00	1.3		06/11/10
Trichloromonofluoromethane	75-69-4	LA-523-455	U	< 0.630	ug/kg			1.00	0.63		06/11/10
Ortho Xylene	95-47-6	LA-523-455	U	< 0.250	ug/kg			1.00	0.25		06/11/10
m/p-xylene	179601-23-1	LA-523-455	U	< 0.630	ug/kg			1.00	0.63		06/11/10
cis-1,2-Dichloroethylene	156-59-2	LA-523-455	U	< 0.630	ug/kg			1.00	0.63		06/11/10
trans-1,2-Dichloroethylene	156-60-5	LA-523-455	U	< 0.630	ug/kg			1.00	0.63		06/11/10

MDL=Minimum Detection Limit J - Analyte < lowest calibration but > = MDL.(org) U - Analyzed for but not detected above limiting criteria.(org)
RQ=Result Qualifier
TP Err=Total Propagated Error
DF=Dilution Factor
* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

WSCF
ANALYTICAL RESULTS REPORT

Attention: S Mckinney/M Garrard
SAF Number: V10-003
Sample # W100000252
Client ID: B25WN0 WRPS GARRARD WSCF
Matrix: SOIL

Group #: WSCF20100954
Department: Inorganic
Sampled: 06/08/10
Received: 06/08/10

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Total solids											
Total solids	TS	LA-519-412		98.7	Percent			1.00	0.0		06/17/10

MDL = Minimum Detection Limit J - Analyte < lowest calibration but > = MDL.(org) U - Analyzed for but not detected above limiting criteria.(org)
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

WSCF
ANALYTICAL RESULTS REPORT

Attention: S Mckinney/M Garrard
SAF Number: V10-003
Sample # W100000254
Client ID: B25WM4 WRPS GARRARD WSCF
Matrix: SOIL

Group #: WSCF20100954
Department: Inorganic
Sampled: 06/01/10
Received: 06/01/10

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Total solids											
Total solids	TS	LA-519-412		96.0	Percent			1.00	0.0		06/17/10

MDL = Minimum Detection Limit J - Analyte < lowest calibration but > = MDL.(org) U - Analyzed for but not detected above limiting criteria.(org)
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

WSCF
ANALYTICAL RESULTS REPORT

Attention: S Mckinney/M Garrard
SAF Number: V10-003
Sample # W100000256
Client ID: B25WM7 WRPS GARRARD WSCF
Matrix: SOIL

Group #: WSCF20100954
Department: Inorganic
Sampled: 06/03/10
Received: 06/03/10

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Total solids											
Total solids	TS	LA-519-412		99.1	Percent			1.00	0.0		06/17/10

MDL = Minimum Detection Limit J - Analyte < lowest calibration but > = MDL.(org) U - Analyzed for but not detected above limiting criteria.(org)
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

WSCF
ANALYTICAL RESULTS REPORT

Attention: S Mckinney/M Garrard
SAF Number: V10-003
Sample # W100000258
Client ID: B23TM2 WRPS GARRARD WSCF **Matrix:** SOIL

Group #: WSCF20100954
Department: Inorganic
Sampled: 05/19/10
Received: 05/19/10

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Total solids											
Total solids	TS	LA-519-412		96.4	Percent			1.00	0.0		06/17/10

MDL = Minimum Detection Limit J - Analyte < lowest calibration but > = MDL.(org) U - Analyzed for but not detected above limiting criteria.(org)
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20100954
Matrix: SOLID
Test: SW-846 8260B Vadose VOA

Sample Date: 06/08/10
Receive Date:06/08/10

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W100000252											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	4-Bromofluorobenzene(Surr)	460-00-4	52.780	106.000	% Recov	75.000	125.000				06/14/10
SURR	1,2-Dichloroethane-d4(Surr)	17060-07-0	50.220	101.000	% Recov	75.000	125.000				06/14/10
SURR	Toluene-d8(Surr)	2037-26-5	55.680	112.000	% Recov	80.000	126.000				06/14/10
Lab ID: W100000254											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	4-Bromofluorobenzene(Surr)	460-00-4	62.610	104.000	% Recov	75.000	125.000				06/11/10
SURR	1,2-Dichloroethane-d4(Surr)	17060-07-0	62.070	103.000	% Recov	75.000	125.000				06/11/10
SURR	Toluene-d8(Surr)	2037-26-5	67.480	112.000	% Recov	80.000	126.000				06/11/10
Lab ID: W100000256											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	1,1-Dichloroethene	75-35-4	26.600	102.000	% Recov	70.000	130.000				06/11/10
MS	Benzene	71-43-2	30.300	117.000	% Recov	75.000	129.000				06/11/10
MS	4-Bromofluorobenzene(Surr)	460-00-4	54.830	105.000	% Recov	75.000	125.000				06/11/10
MS	Chlorobenzene	108-90-7	28.220	109.000	% Recov	83.000	117.000				06/11/10
MS	1,2-Dichloroethane-d4(Surr)	17060-07-0	53.950	104.000	% Recov	75.000	125.000				06/11/10
MS	Toluene-d8(Surr)	2037-26-5	58.720	113.000	% Recov	80.000	126.000				06/11/10
MS	Toluene	108-88-3	30.530	117.000	% Recov	78.000	126.000				06/11/10
MS	Trichloroethene	79-01-6	26.310	101.000	% Recov	73.000	121.000				06/11/10
MSD	1,1-Dichloroethene	75-35-4	24.440	94.400	% Recov	70.000	130.000				06/11/10
MSD	Benzene	71-43-2	30.600	118.000	% Recov	75.000	129.000				06/11/10
MSD	4-Bromofluorobenzene(Surr)	460-00-4	50.380	97.300	% Recov	75.000	125.000				06/11/10
MSD	Chlorobenzene	108-90-7	28.760	111.000	% Recov	83.000	117.000				06/11/10
MSD	1,2-Dichloroethane-d4(Surr)	17060-07-0	54.670	106.000	% Recov	75.000	125.000				06/11/10
MSD	Toluene-d8(Surr)	2037-26-5	56.900	110.000	% Recov	80.000	126.000				06/11/10

Report w13gq/rev.4.2 p 1
15-oct-2010 11:08:52

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20100954
Matrix: SOLID
Test: SW-846 8260B Vadose VOA

Sample Date: 06/03/10
Receive Date:06/03/10

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
MSD	Toluene	108-88-3	30.860	119.000	% Recov	78.000	126.000				06/11/10
MSD	Trichloroethene	79-01-6	24.920	96.300	% Recov	73.000	121.000				06/11/10
SPK-RPD	1,1-Dichloroethene	75-35-4	94.400		RPD			7.739	20.000		06/11/10
SPK-RPD	Benzene	71-43-2	118.000		RPD			0.851	20.000		06/11/10
SPK-RPD	Chlorobenzene	108-90-7	111.000		RPD			1.818	20.000		06/11/10
SPK-RPD	Toluene	108-88-3	119.000		RPD			1.695	20.000		06/11/10
SPK-RPD	Trichloroethene	79-01-6	96.300		RPD			4.764	20.000		06/11/10
SURR	4-Bromofluorobenzene(Surr)	460-00-4	51.750	106.000	% Recov	75.000	125.000				06/11/10
SURR	1,2-Dichloroethane-d4(Surr)	17060-07-0	50.660	104.000	% Recov	75.000	125.000				06/11/10
SURR	Toluene-d8(Surr)	2037-26-5	54.580	112.000	% Recov	80.000	126.000				06/11/10
Lab ID: W100000258											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	4-Bromofluorobenzene(Surr)	460-00-4	64.420	103.000	% Recov	75.000	125.000				06/11/10
SURR	1,2-Dichloroethane-d4(Surr)	17060-07-0	63.740	102.000	% Recov	75.000	125.000				06/11/10
SURR	Toluene-d8(Surr)	2037-26-5	69.000	110.000	% Recov	80.000	126.000				06/11/10
BATCH QC											
BLANK	1,1,1-Trichloroethane	71-55-6	< 0.50	n/a	ug/Kg					U	06/11/10
BLANK	1,1,2-Trichloroethane	79-00-5	< 0.50	n/a	ug/Kg					U	06/11/10
BLANK	1,1,2,2-Tetrachloroethane	79-34-5	< 0.50	n/a	mg/L					U	06/11/10
BLANK	1,1,2-Trichloro-1,2,2-trifluor	76-13-1	< 0.50	n/a	ug/Kg					U	06/11/10
BLANK	1,1-Dichloroethene	75-35-4	< 0.50	n/a	ug/Kg					U	06/11/10
BLANK	1,2-Dichloroethane	107-06-2	< 0.50	n/a	ug/Kg					U	06/11/10
BLANK	1-Butanol	71-36-3	< 500	n/a	ug/Kg					U	06/11/10
BLANK	2-Nitropropane	79-46-9	< 2.0	n/a	ug/Kg					U	06/11/10
BLANK	4-Methyl-2-Pentanone	108-10-1	< 1.0	n/a	ug/Kg					U	06/11/10
BLANK	Acetone	67-64-1	< 1.0	n/a	ug/Kg					U	06/11/10
BLANK	Benzene	71-43-2	< 0.50	n/a	ug/Kg					U	06/11/10
BLANK	4-Bromofluorobenzene(Surr)	460-00-4	52.310	105.000	% Recov	75.000	125.000				06/11/10

Report w13gq/rev.4.2 p 2
15-oct-2010 11:08:52

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20100954
Matrix: SOLID
Test: SW-846 8260B Vadose VOA

Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
BLANK	Carbon disulfide	75-15-0	< 0.50	n/a	ug/Kg					U	06/11/10
BLANK	Carbon tetrachloride	56-23-5	< 0.50	n/a	ug/Kg					U	06/11/10
BLANK	Chloroform	67-66-3	< 0.50	n/a	ug/Kg					U	06/11/10
BLANK	Chlorobenzene	108-90-7	< 0.50	n/a	ug/Kg					U	06/11/10
BLANK	cis-1,2-Dichloroethylene	156-59-2	< 0.50	n/a	ug/Kg					U	06/11/10
BLANK	1,2-Dichloroethane-d4(Surr)	17060-07-0	49.600	99.200	% Recov	75.000	125.000				06/11/10
BLANK	trans-1,2-Dichloroethylene	156-60-5	< 0.50	n/a	ug/Kg					U	06/11/10
BLANK	Diethyl ether	60-29-7	< 0.50	n/a	ug/Kg	0.000	10.000			U	06/11/10
BLANK	Ethylbenzene	100-41-4	< 0.50	n/a	ug/Kg					U	06/11/10
BLANK	Ethyl acetate	141-78-6	< 10	n/a	ug/Kg	0.000	5.000			U	06/11/10
BLANK	Isobutanol	78-83-1	< 500	n/a	ug/Kg					U	06/11/10
BLANK	2-Butanone	78-93-3	< 1.0	n/a	ug/Kg					U	06/11/10
BLANK	Methylenechloride	75-09-2	< 0.50	n/a	ug/Kg					U	06/11/10
BLANK	m/p-xylene	179601-23-1	< 0.50	n/a	ug/Kg					U	06/11/10
BLANK	Ortho Xylene	95-47-6	< 0.20	n/a	ug/Kg					U	06/11/10
BLANK	Tetrachloroethene	127-18-4	< 0.50	n/a	ug/Kg					U	06/11/10
BLANK	Xylenes (total)	1330-20-7	< 1.0	n/a	ug/Kg					U	06/11/10
BLANK	Toluene-d8(Surr)	2037-26-5	54.980	110.000	% Recov	80.000	126.000				06/11/10
BLANK	Toluene	108-88-3	< 0.50	n/a	ug/Kg					U	06/11/10
BLANK	trans-1,3-Dichloropropene	10061-02-6	< 1.0	n/a	ug/Kg					U	06/11/10
BLANK	Trichloromonofluoromethane	75-69-4	< 0.50	n/a	ug/Kg	0.000	5.000			U	06/11/10
BLANK	Trichloroethene	79-01-6	< 0.30	n/a	ug/Kg					U	06/11/10
BLANK	Vinyl chloride	75-01-4	< 0.50	n/a	ug/Kg					U	06/11/10
LCS	1,1-Dichloroethene	75-35-4	29.600	118.000	% Recov	75.000	125.000				06/11/10
LCS	Benzene	71-43-2	27.810	111.000	% Recov	75.000	125.000				06/11/10
LCS	4-Bromofluorobenzene(Surr)	460-00-4	51.400	103.000	% Recov	75.000	125.000				06/11/10
LCS	Chlorobenzene	108-90-7	26.090	104.000	% Recov	75.000	125.000				06/11/10
LCS	1,2-Dichloroethane-d4(Surr)	17060-07-0	49.710	99.400	% Recov	75.000	125.000				06/11/10
LCS	Toluene-d8(Surr)	2037-26-5	55.260	111.000	% Recov	80.000	126.000				06/11/10
LCS	Toluene	108-88-3	28.110	112.000	% Recov	75.000	125.000				06/11/10

Report w13gq/rev.4.2 p 3
15-oct-2010 11:08:52

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20100954
Matrix: SOLID
Test: SW-846 8260B Vadose VOA

Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
LCS	Trichloroethene	79-01-6	24.820	99.300	% Recov	75.000	125.000				06/11/10

Report w13gq/rev.4.2 p 4
15-oct-2010 11:08:52

WSCF
ANALYTICAL COMMENT REPORT

Attention: S Mckinney/M Garrard

Group #: WSCF20100954
Department: Organic

Sample #	Client ID	Lab Area	Test	Comment
		VALGROUP		VOA: Sample concentrations reported on an as received basis not corrected for moisture per client request. gar

Lab Areas: VALGROUP - Group Validation
VALTEST - Test Validation
TESTDATA - Test Data Entry
LOGSAMP - Login for Sample
LOGTEST - Login for Tests

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WSCF
TENTATIVELY IDENTIFIED PEAK REPORT

Attention: S Mckinney/M Garrard

Group #: WSCF20100954
Department: Organic

Sample #	Client ID			Test Name	Peak Name	CAS#	RT	RQ	Result	Units
W100000254	825WM4	WRPS	GARRARD	SW-846 8260B Vadose VOA	SMP 29.998 Unknown	Unknown	29.99878	J	33	ug/kg
W100000256	825WM7	WRPS	GARRARD	SW-846 8260B Vadose VOA	SMP 30.002 Unknown	Unknown	30.00216	J	21	ug/kg
W100000258	B23TM2	WRPS	GARRARD	SW-846 8260B Vadose VOA	SMP 21.668 Unknown	Unknown	21.66811	J	18	ug/kg
W100000258	823TM2	WRPS	GARRARD	SW-846 8260B Vadose VOA	SMP 29.407 Unknown	Unknown	29.40735	J	20	ug/kg
W100000258	823TM2	WRPS	GARRARD	SW-846 8260B Vadose VOA	SMP 30.005 Unknown	Unknown	30.0054	J	12	ug/kg

RQ=Result Qualifier J - Analyte < lowest calibration but > = MDL.(org)

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Washington River Protection Solutions, LLC

42100-ADR-10-376

ATTACHMENT 4

SAMPLE RECEIPT INFORMATION

Consisting of 28 pages
Including cover page

Waste Sampling and Characterization Facility
P.O. BOX 1970 S3-30, Richland, WA 99352
PHONE: (509) 373-7004/FAX: (509) 373-7134

Fr
V1
6/25/10

ACKNOWLEDGMENT OF SAMPLES RECEIVED

Washington River Protection Solutions, LLC
Customer Code: WRPS
Richland, WA 99352 Group#: 20100954
Attn: S Mckinney/M Garrard

The following samples were received from you on 06/08/10. They have been scheduled for the tests listed beside each sample. If this information is incorrect, please contact your service representative. Thank you for using Waste Sampling and Characterization Facility.

Sample#	Sample Id	Tests Scheduled	Matrix	Sample Date
W100000252	B25WN0	WRPS @VOA-GPP	GARRARD Solid, or handle as if solid	06/08/10
W100000253	B25WM9	WRPS @VOA-GPP	GARRARD Solid, or handle as if solid	06/08/10
W100000254	B25WM4	WRPS @VOA-GPP	GARRARD Solid, or handle as if solid	06/01/10
W100000255	B25WM3	WRPS @VOA-GPP	GARRARD Solid, or handle as if solid	06/01/10
W100000256	B25WM7	WRPS @VOA-GPP	GARRARD Solid, or handle as if solid	06/03/10
W100000257	B25WM6	WRPS @VOA-GPP	GARRARD Solid, or handle as if solid	06/03/10
W100000258	B23TM2	WRPS @VOA-GPP	GARRARD Solid, or handle as if solid	05/19/10
W100000259	B23TM1	WRPS @VOA-GPP	GARRARD Solid, or handle as if solid	05/19/10

Test Acronym Description

Test Acronym	Description
@VOA-GPP	VOA Ground Water Protection

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			V10-003-133	PAGE 1 OF 1
COLLECTOR: Campbell / Villarreal	COMPANY CONTACT: SYDNOR, HA	TELEPHONE NO.: 373-3967	PROJECT COORDINATOR: BERLIN, PC	PRICE CODE: 8P	DATA TURNAROUND
SAMPLING LOCATION: C7668 - J012	PROJECT DESIGNATION: WMA C Sampling for CMS		SAF NO.: V10-003	AIR QUALITY: ☐	75 Days / 75 Days
ICE CHEST NO.: TFV2-09-003	FIELD LOGBOOK NO.: TFV2-09-000001	ACTUAL SAMPLE DEPTH: 132-134	COA: n/a	METHOD OF SHIPMENT: Govt. Vehicle	
SHIPPED TO: 222-S Lab Operations	OFFSITE PROPERTY NO.: n/a		BILL OF LADING/AIR BILL NO.: n/a		

MATRIX*: A=Air, DL=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE: 20100954

PRESERVATION	Cool <-7C and >-20C	MEOH/Cool~ 4C
HOLDING TIME	14 Days	14 Days
TYPE OF CONTAINER	Gs	Gs
NO. OF CONTAINER(S)	5	3
VOLUME	40mL	40mL
SAMPLE ANALYSIS	VOA - 5035/8260 (LOW LEVEL) (TF);	VOA - 5035/8260 (HIGH LEVEL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B25WN0 W10000252	SOIL	6-8-10	1105	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: Campbell 6-8-10	DATE/TIME: 1200	RECEIVED BY/STORED IN: Victor Bin 6/8/10	DATE/TIME: 1200
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

** All VOA samples will be collected using EPA Method 5035A.
** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample.
** The laboratory is to use one of the low level VOA bottles for moisture content determination.
** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be included as part of the sample ID reported in the final data packages.

LABORATORY SECTION	RECEIVED BY		TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD		DISPOSED BY	DATE/TIME

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			V10-003-132	PAGE 1 OF 1
COLLECTOR Campbell / Villarreal	COMPANY CONTACT SYDNOR, HA	TELEPHONE NO. 373-3967	PROJECT COORDINATOR BERLIN, PC	PRICE CODE 8P	DATA TURNAROUND
SAMPLING LOCATION C7668 - 1012	PROJECT DESIGNATION WMA C Sampling for CMS		SAF NO. V10-003	AIR QUALITY ☐	75 Days / 75 Days
ICE CHEST NO. TFV2-09	FIELD LOGBOOK NO. TFV2-09-000001	ACTUAL SAMPLE DEPTH 132-134	COA N/A	METHOD OF SHIPMENT Govt. Vehicle	
SHIPPED TO 222-S Lab Operations	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

MATRIX*	POSSIBLE SAMPLE HAZARDS/ REMARKS	PRESERVATION	Cool~4C
A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	HOLDING TIME	14 Days
		TYPE OF CONTAINER	Gs
		NO. OF CONTAINER(S)	1
		VOLUME	40mL
	SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	VOA - 5035/8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B25WM9 ~~W0003253~~	~~SOIL~~ Liquid	6-8-10	1105	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Sybil Campbell	6-8-10 1200	Victor Villarreal	6/8/10 1200
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

** All VOA samples will be collected using EPA Method 5035A.
** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample.
** The laboratory is to use one of the low level VOA bottles for moisture content determination.
** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be included as part of the sample ID reported in the final data packages.

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

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VOC Soil and Sediment Sampling

Data Sheet 1 – Sample Record Sheet

SAMPLE RECORD SHEET

Location:	C7668 – I012						
Sampler Initials:	I.V. / B.C.				Date:	6-8-10	
Scale Number:	820-66-06-002				Cal. Due Date:	11-09-10	
Sample Number	Sample Suffix[1]	Tare Weight provided (grams)	Tare Weight prior to sample[2] (grams)	Initial Weight[3] (grams)	Total Weight[4] (grams)	Soil Weights (grams)[5]	Methanol in sample bottle (ml)
B25WN0	K	N/A	N/A	26.79	31.80	5.01	No Methanol
B25WN0	L	N/A	N/A	26.88	31.36	4.48	No Methanol
B25WN0	M	N/A	N/A	26.81	29.86	3.05	No Methanol
B25WN0	N	N/A	N/A	26.91	29.90	2.99	No Methanol
B25WN0	P	N/A	N/A	26.94	31.38	4.44	No Methanol
B25WN0	W	37.206	37.16	37.56	41.39	3.93	10 ml
B25WN0	X	36.859	36.73	37.15	41.18	4.03	10 ml
B25WN0	Y	37.652	37.49	37.92	41.81	3.89	10 ml
B25WN9	*	37.504	37.40	37.79	N/A	N/A	10 ml

1 Sample suffix of K, L, M, N, and P will not have Methanol in the bottle, freeze these samples to between -7 °C (19.4 °F) and -20 °C (-4 °F)

Sample suffix of W, X, and Y relate to methanol preservation for high-level samples.

Sample suffix of "*" relates to methanol blank. Cool W, X, Y, and * samples to between -4 °C ± 2 °C (39.2 °F ± 3.6 °F).

2 Tare weight prior to sample must be within +/- 0.2 grams of Vendors tare weight or bottle cannot be used. Weigh only the bottle, no labels, stickers or bags.

3 Initial weight is to include all labels, stickers, bags, methanol (for vendor filled methanol samples with suffix W,X,Y and *) spin bars (for samples with suffix K,L,M,N and P) and anything else that will be associated with the bottle when it is weighed with the sample.

4 Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.

5 Soil weight is the vial with sample minus Initial Weight.

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			V10-003-127	PAGE 1 OF 1
COLLECTOR: Harris / Snook	COMPANY CONTACT: SYDNOR, HA	TELEPHONE NO.: 373-3967	PROJECT COORDINATOR: BERLIN, PC	PRICE CODE: 8P	DATA TURNAROUND
SAMPLING LOCATION: C7668 - I010	PROJECT DESIGNATION: WMA C Sampling for CMS		SAF NO.: V10-003	AIR QUALITY: ☐	75 Days / 75 Days
ICE CHEST NO.: TFVZ-09-003	FIELD LOGBOOK NO.: TFVZ-09-00001	ACTUAL SAMPLE DEPTH: 39-41	COA: N/A	METHOD OF SHIPMENT: Govt. Vehicle	
SHIPPED TO: 222-S Lab Operations	OFFSITE PROPERTY NO.: R6640 N/A		BILL OF LADING/AIR BILL NO.: N/A		

MATRIX*: A=Air; DL=Drum Liquids; DS=Drum Solids; L=Liquid; O=Oil; S=Soil; SE=Sediment; T=Tissue; V=Vegetation; W=Water; WI=Wipe; X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	PRESERVATION	HOLDING TIME	TYPE OF CONTAINER	NO. OF CONTAINER(S)	VOLUME	SAMPLE ANALYSIS
				~~Cool~~ 4C C-7 and C-7206	14 Days	Gs	5	40mL	VOA - 5035/8260 (LOW LEVEL) (TF);
				MEOH/Cool-4C	14 Days	Gs	3	40mL	VOA - 5035/8260 (HIGH LEVEL) (TF);
B25WM4 W10000254	SOIL	6-1-10	1130	✓	✓				

CHAIN OF POSSESSION	SIGN/ PRINT NAMES		
RELINQUISHED BY/REMOVED FROM: Dustana DanAarts	DATE/TIME: 6-1-10 1300	RECEIVED BY/STORED IN: Richard R Steele	DATE/TIME: 6-1-10 1300
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

** All VOA samples will be collected using EPA Method 5035A.
** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample.
** The laboratory is to use one of the low level VOA bottles for moisture content determination.
** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be included as part of the sample ID reported in the final data packages.

GRP # 20100064
SAM # S10V000299
1000

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			V10-003-126	PAGE 1 OF 1
COLLECTOR Harris / Snook	COMPANY CONTACT SYDNOR, HA	TELEPHONE NO. 373-3967	PROJECT COORDINATOR BERLIN, PC	PRICE CODE 8P	DATA TURNAROUND
SAMPLING LOCATION C7668 - 1010	PROJECT DESIGNATION WMA C Sampling for CMS		SAF NO. V10-003	AIR QUALITY ☐	7S Days / 7S Days
ICE CHEST NO. TFV2-09-003	FIELD LOGBOOK NO. TFV2-09-00[illegible]01	ACTUAL SAMPLE DEPTH 39-41	COA N/A	METHOD OF SHIPMENT Govt. Vehicle	
SHIPPED TO 222-S Lab Operations	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

MATRIX*
A=Air
DI=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
HOLDING TIME	14 Days
TYPE OF CONTAINER	Gs
NO. OF CONTAINER(S)	1
VOLUME	40mL
SAMPLE ANALYSIS	VOA - 5035/8260 (TCL) (TP);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B25WM3 W[illegible]0255	SOIL	6-1-10	1130	V

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Cristina Dentlarte	6-1-10 1300	R Hilton 2TS160/6	6-1-10 1300
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

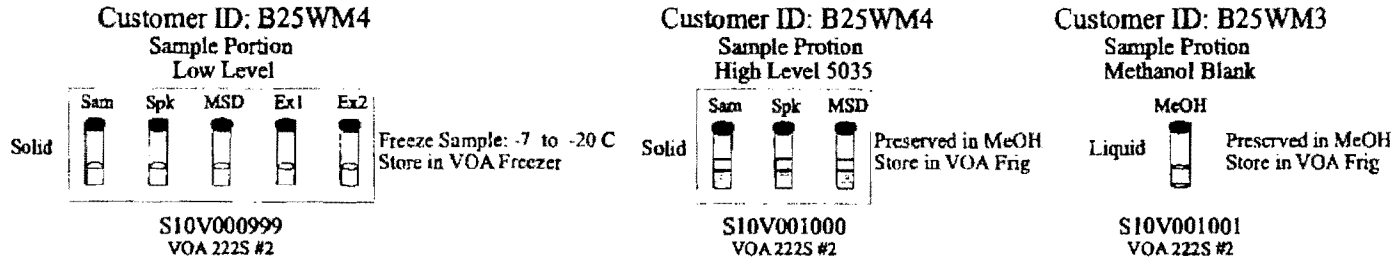
** All VOA samples will be collected using EPA Method 5035A.
** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample.
** The laboratory is to use one of the low level VOA bottles for moisture content determination.
** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be included as part of the sample ID reported in the final data packages.

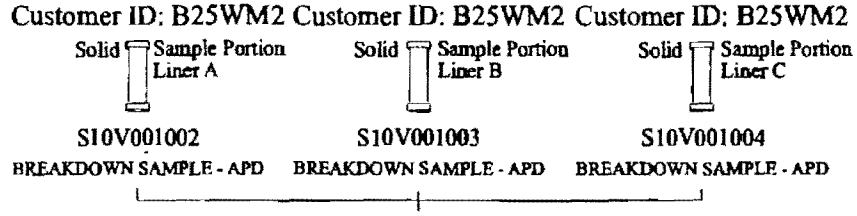
QCTD 0 GRP # 20100064
SAM # S10V001001

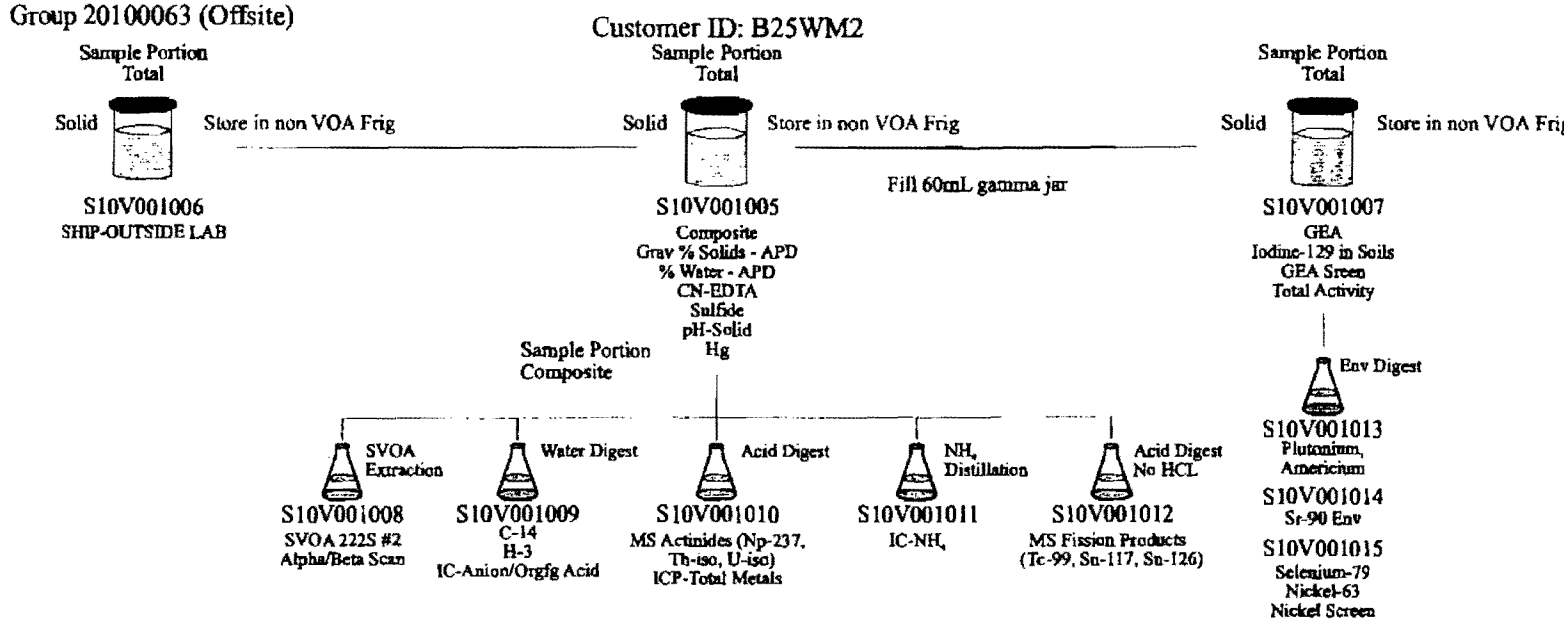
LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

Vadose Zone: C Farm 2010
Core No.: C7668
Group 20100064 (ATL)
Group 20100063 (Offsite)
Due: TBD

Sample Depth:39-41
Segment No: I010







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VOC Soil and Sediment Sampling

Data Sheet 1 – Sample Record Sheet

SAMPLE RECORD SHEET

Location:	C7668 / I010					
Sampler Initials:	~~CM~~ / BC			Date:	6-1-10	
Scale Number:	820-66-06-002			Cal. Due Date:	11-9-16	

Sample Number	Sample Suffix[1]	Tare Weight provided (grams)	Tare Weight prior to sample[2] (grams)	Initial Weight[3] (grams)	Total Weight[4] (grams)	Soil Weights (grams)[5]	Methanol in sample bottle (ml)
B25WM4	K	N/A	N/A	26.89	31.73	4.84	No Methanol
B25WM4	L	N/A	N/A	26.85	31.80	4.95	No Methanol
B25WM4	M	N/A	N/A	26.83	30.98	4.15	No Methanol
B25WM4	N	N/A	N/A	26.94	31.64	4.70	No Methanol
B25WM4	P	N/A	N/A	26.73	31.64	4.91	No Methanol
B25WM4	W	36.891	36.76	37.14	42.82	5.68	10 ml.
B25WM4	X	37.189	37.05	37.44	42.32	4.88	10 ml.
B25WM4	Y	37.524	37.41	37.80	42.28	4.48	10 ml.
B25WM3	*	37.051	36.90	37.27	N/A	N/A	10 ml.

[1] Sample suffix of K, L, M, N, and P will not have Methanol in the bottle, freeze these samples to between -7 °C (19.4 °F) and -20 °C (-4 °F)

Sample suffix of W, X, and Y relate to methanol preservation for high-level samples.

Sample suffix of "*" relates to methanol blank. Cool W, X, Y, and * samples to between - 4 °C ± 2 °C (39.2 °F ± 3.6 °F).

[2] Tare weight prior to sample must be within +/- 0.2 grams of Vendors tare weight or bottle cannot be used. Weigh only the bottle, no labels, stickers or bags.

[3] Initial weight is to include all labels, stickers, bags, methanol (for vendor filled methanol samples with suffix W,X,Y and *) spin bars (for samples with suffix K,L,M,N and P) and anything else that will be associated with the bottle when it is weighed with the sample.

[4] Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.

[5] Soil weight is the vial with sample minus Initial Weight.

RADIOACTIVE SHIPMENT RECORD

3. Page 1 of 1 | 4. Ship Prepaid | 5. Via Motor

1. SHIP FROM U.S. DEPT. OF ENERGY C/O
Company Washington River Protec Solution
Address 222-S Laboratory; 200-West Area
City, State, Zip Hanford Site
Contact Eugene Juteau
Phone (509) 376-6966

2. SHIP TO ☒ U.S. DEPT. OF ENERGY C/O
Company Mission Support Alliance
Address WSCF
City, State, Zip Hanford Site
Attention Heather Medley
Phone (509) 372-1488

6. SHIPMENT AUTHORIZATION NUMBER AL1102

7. EMERGENCY RESPONSE
Telephone 373-3800
Emergency Response Guide(s) N/A

HM 8. Proper Shipping Name: Material Not Regulated by DOT | PRI HAZ 11 | SUB HAZ N/A | UN ID N/A

9. No. Pkg	Model Package	COC/Spec	Serial No.	Seal No.	Isotopes	C.S.I.	T.I.	Bq/Package	Gr. Wt. Kg
1	Freezer	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10

10. Identify for Normal Form Only
Physical Form Solid
Chemical Form Mixture

11. ☐ Highway Route Controlled Quantity
☐ Exclusive Use Shipment with instructions
☐ Placards Applied
☐ Fissile Excepted, Grams
☐ UN ID Marking

12. LABELS APPLIED

13. ADDITIONAL LABELS / MARKINGS

The following container(s) Freezer contain RADIOACTIVE MATERIAL at concentrations that are not regulated for transportation per 49 CFR 173.303 but are not released per DOE Orders.

HM 8. Proper Shipping Name: | PRI HAZ | SUB HAZ | UN ID

9. No. Pkg	Model Package	COC/Spec	Serial No.	Seal No.	Isotopes	C.S.I.	T.I.	Bq/Package	Gr. Wt. Kg

10. Identify for Normal Form Only
Physical Form
Chemical Form

11. ☐ Highway Route Controlled Quantity
☐ Exclusive Use Shipment with instructions
☐ Placards Applied
☐ Fissile Excepted, Grams
☐ UN ID Marking

12. LABELS APPLIED

13. ADDITIONAL LABELS / MARKINGS

HM 8. Proper Shipping Name: | PRI HAZ | SUB HAZ | UN ID

9. No. Pkg	Model Package	COC/Spec	Serial No.	Seal No.	Isotopes	C.S.I.	T.I.	Bq/Package	Gr. Wt. Kg

10. Identify for Normal Form Only
Physical Form
Chemical Form

11. ☐ Highway Route Controlled Quantity
☐ Exclusive Use Shipment with instructions
☐ Placards Applied
☐ Fissile Excepted, Grams
☐ UN ID Marking

12. LABELS APPLIED

13. ADDITIONAL LABELS / MARKINGS

14. Shipment DE-CI: N/A

Shipment Totals	C.S.I.	T.I.	Bq/Package	Gr. Wt. Kg
	N/A	N/A	N/A	10

15. Surface Dose Rate of Package
☐ <0.005 or _____ mSv/hr
<0.5 or _____ mrem/hr (N+ß γ)

Dose Rate @ 1 Meter from Surface of Package
☐ <0.005 or _____ mSv/hr
<0.5 or _____ mrem/hr (N+ß γ)

Smears of Outer Container
☐ <4.0 Bq (220 dpm) ß γ /cm²
☐ <0.4 Bq (22 dpm) α /cm²
☐ <Tbl. 2-2 HNF-5173 Limits

TRUCK LOAD OR EXCLUSIVE USE
Surface ☐ <2 mSv/hr (200 mrem/hr)
@ 2 meters ☐ <0.1 mSv/hr (10 mrem/hr)
@ Cab or sleeper ☐ <0.02 mSv/hr (2 mrem/hr) (Using N+ß γ)

Additional Data and Instructions (inc. Readings on Internal Packaging)

Bldg. | Survey No. | Date

16. TRANSPORTER

Vehicle Number	DRIVER SIGNATURE	PRINT NAME
G62 3333H	L. A Wall	L. D. WALL

17. RECEIVER

RECEIVER SIGNATURE	PRINT NAME	Date

18. This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

Certifier's Signature	Print Name	On behalf of DOE-RL	Date	Organization
	Eugene Juteau		6/9/10	222-S

19. AUTHORIZATION FOR SHIPMENT

AIR TRANSPORT CERTIFICATION ☐ N/A

CARGO AIRCRAFT ☐ Cargo Aircraft Only Labels Applied

PASSENGER AIRCRAFT ☐ Ltd Qty ☐ Research/Medical Diagnosis ☐ <3 T.I. ☐ Human Medical Research

Pkg. Dimensions (cm)

20. OFFSITE AUTHORIZATION

Survey No.	Date Shipped	Routing	ETA

Approved for Shipment Offsite | Date

A-6003-214.1 (REV 2)

RADIOACTIVE SHIPMENT RECORD

3. Page 1 of 1 | 4. Ship Prepaid | 5. Via Motor

1. SHIP FROM U.S. DEPT. OF ENERGY C/O
Company Washington River Protec Solution
Address 222-S Laboratory; 200-West Area
City, State, Zip Hanford Site
Contact Eugene Juteau
Phone (509) 376-6966

2. SHIP TO ☒ U.S. DEPT. OF ENERGY C/O
Company Mission Support Alliance
Address WSCF
City, State, Zip Hanford Site
Attention Heather Medley
Phone (509) 372-1488

6. SHIPMENT AUTHORIZATION NUMBER AL1102

7. EMERGENCY RESPONSE
Telephone 373-3800
Emergency Response Guide(s) N/A

HM 8. Proper Shipping Name: Material Not Regulated by DOT — PRI HAZ: ID — SUB HAZ: N/A — UN ID: N/A

9. No. Pkg.	Model Package	COC/Spec	Serial No.	Seal No.	Isotopes	C.S.I.	T.I.	Bq/Package	Gr. Wt. Kg.
1	Freezer	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10

10. Identify for Normal Form Only
Physical Form Solid
Chemical Form Mixture

11.
- ☐ Highway Route Controlled Quantity
- ☐ Exclusive Use Shipment with instructions
- ☐ Placards Applied
- ☐ Fissile Excepted, Grams
- ☐ UN ID Marking

12. LABELS APPLIED

13. ADDITIONAL LABELS / MARKINGS
Freezer

The following container(s) contain RADIOACTIVE MATERIAL at concentrations that are not regulated for transportation per 49 CFR 173.403 but are not releasable per DOE Order 458.1.

HM 8. Proper Shipping Name:

9. No. Pkg.	Model Package	COC/Spec	Serial No.	Seal No.	Isotopes	C.S.I.	T.I.	Bq/Package	Gr. Wt. Kg.

10. Identify for Normal Form Only
Physical Form
Chemical Form

11.
- ☐ Highway Route Controlled Quantity
- ☐ Exclusive Use Shipment with instructions
- ☐ Placards Applied
- ☐ Fissile Excepted, Grams
- ☐ UN ID Marking

12. LABELS APPLIED

13. ADDITIONAL LABELS / MARKINGS

HM 8. Proper Shipping Name: — PRI HAZ — SUB HAZ — UN ID

9. No. Pkg.	Model Package	COC/Spec	Serial No.	Seal No.	Isotopes	C.S.I.	T.I.	Bq/Package	Gr. Wt. Kg.

10. Identify for Normal Form Only
Physical Form
Chemical Form

11.
- ☐ Highway Route Controlled Quantity
- ☐ Exclusive Use Shipment with instructions
- ☐ Placards Applied
- ☐ Fissile Excepted, Grams
- ☐ UN ID Marking

12. LABELS APPLIED

13. ADDITIONAL LABELS / MARKINGS

14. Shipment DE-CI: N/A

Shipment Totals	C.S.I.	T.I.	Bq/Package	Gr. Wt. Kg.
	N/A	N/A	N/A	10

15. Surface Dose Rate of Package
☐ <0.005 or _____ mSv/hr
<0.5 or _____ mrem/hr (N+ß γ)

Dose Rate @ 1 Meter from Surface of Package
☐ <0.005 or _____ mSv/hr
<0.5 or _____ mrem/hr (N+ß γ)

Additional Data and Instructions (inc. Readings on internal Packaging)

Smears of Outer Container
- ☐ <4.0 Bq (220 dpm) ß γ /cm²
- ☐ <0.4 Bq (22 dpm) α /cm²
- ☐ <Tbl. 2-2 HNF-5173 Limits

TRUCK LOAD OR EXCLUSIVE USE

Surface @ 2 meters	☐ <2 mSv/hr (200 mrem/hr)
	☐ <0.1 mSv/hr (10 mrem/hr)
@ Cab or sleeper	☐ <0.02 mSv/hr (2 mrem/hr) (Using N+ß γ)

Bldg. | Survey No. | Date

16. TRANSPORTER

Vehicle Number	DRIVER SIGNATURE	PRINT NAME

17. RECEIVER

RECEIVER SIGNATURE	PRINT NAME	Date

18. This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

Certifier's Signature	Print Name	On behalf of DOE-RL	Date	Organization

19. AUTHORIZATION FOR SHIPMENT

AIR TRANSPORT CERTIFICATION	CARGO AIRCRAFT	PASSENGER AIRCRAFT	Pkg. Dimensions (cm)
☐ N/A	☐ Cargo Aircraft Only Labels Applied	☐ Ltd Qty ☐ Research/Medical Diagnosis ☐ <3 T.I. ☐ Human Medical Research	

20. OFFSITE AUTHORIZATION

Survey No.	Date Shipped	Routing	ETA

Approved for Shipment Offsite | Date

A-6003-214.1 (REV 2)

Assembler	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. No. 20100064
		Page of

Collector: Harris/Snook	Contact/Requestor: S. G. McKinney	Telephone No. 372-1945	MSIN T6-02 FAX 372-1878
SAF No.: v10-003	Sample Origin: C Farm	Purchase Order/Charge Code	
Project Title: WMA C Sampling for CMS	Logbook/ Work Package No.	Ice Chest No.	Temp.: Freeze
Shipped To (Lab): WSCF	Method of Shipment: Ground	Bill of Lading/Air Bill No.	
Protocol	Data Turnaround: 30 Days	Parts and Return No.	

Sample No.	Lab ID	*	Date	Time	No./Type Container	Sample Analysis	Preservative
	S10V000999		6-1-10	11:30	5 - 40 mL vial	VOA - see Vadose program SAP (RPP-PLAN-40564, Rev 2)	Freeze
	S10V001000		6-1-10	11:30	3 - 40 mL Vial	5035 Hi level samples - analyze only if S10V000999 is out of range	cool
	S10V001001		6-1-10	11:30	1 - 40 mL Vial	Methanol blank for method 5035	cool

POSSIBLE SAMPLE HAZARDS/REMARKS (List all known wastes) MSDS ○ Yes ◉ No

SPECIAL INSTRUCTIONS — Hold Time: 14 days

Send deliverable to WRPS LLC, Attn: Melissa Garrard, P.O. Box 850, Richland WA, MSIN H6-16. In addition, an electronic final deliverable in Microsoft® Excel format (requirements in Section 14.0) will be transmitted to Melissa_Garrard@rl.gov and Steve_g_McKinney@rl.gov.

Relinquished By (Print / Sign)	Date/Time	Received By (Print / Sign)	Date/Time
R Stroo/6 R Stroo 6-9-10	0930	L.D.WALL L.D.Wall	6/9/10 0930
L.D.WALL L.D.Wall 6/9/10	1100	M W Kessler M W Kessler	6/9/10 1100
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

Matrix*

S = Soil	DL = Drum Liquids		
SE = Sediment	T = Tissue		
SO = Solid	WI = Wipe		
SL = Sludge	L = Liquid		
W = Water	V = Vegetation		
O = Oil	VA = Vapor		
A = Air	X = Other		
DS = Drum Solids			

FINAL SAMPLE DISPOSITION — Disposal Method (e.g., Return to customer, per lab procedure, used in process) — Disposed By — Date/Time

All samples containing hazardous materials shall be picked up by requestor and returned to parent container or site of origin.

A-6003-962 (03/05)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	V10-003-L30	PAGE 1 OF 1

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8P	DATA TURNAROUND
Ekstrom / Campbell	SYDNOR, HA	373-3967	BERLIN, PC	AIR QUALITY ☐	75 Days / 75 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
C7668 - I011 A Hole	WMA C Sampling for CMS		V10-003		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
TFV2-09-003	TFV2-09-000001	80 – 82	N/A	Govt. Vehicle	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
222-S Lab Operations	N/A BVG-3-10		N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C < 7C and > 2C	MEOH/Cool~4C
HOLDING TIME	14 Days	14 Days
TYPE OF CONTAINER	Gs	Gs
NO. OF CONTAINER(S)	5	3
VOLUME	40mL	40mL
SAMPLE ANALYSIS	VOA - 5035/8260 (LOW LEVEL) (TF);	VOA - 5035/8260 (HIGH LEVEL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B25WM7 W/0600 25L	SOIL	6-3-10	1430	HF 6/7/10	✓

CHAIN OF POSSESSION	SIGN/ PRINT NAMES	SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: C Campbell — DATE/TIME: 6-3-10 1515	RECEIVED BY/STORED IN: RHHeeg — DATE/TIME: 6.3.10 1515	** All VOA samples will be collected using EPA Method 5035A. ** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample. ** The laboratory is to use one of the low level VOA bottles for moisture content determination. ** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be included as part of the sample ID reported in the final data packages. 6°C TB 0 PAS GRP# 20100064 SAM# S10V000276 L 277
RELINQUISHED BY/REMOVED FROM — DATE/TIME	RECEIVED BY/STORED IN — DATE/TIME	
RELINQUISHED BY/REMOVED FROM — DATE/TIME	RECEIVED BY/STORED IN — DATE/TIME	
RELINQUISHED BY/REMOVED FROM — DATE/TIME	RECEIVED BY/STORED IN — DATE/TIME	
RELINQUISHED BY/REMOVED FROM — DATE/TIME	RECEIVED BY/STORED IN — DATE/TIME	
RELINQUISHED BY/REMOVED FROM — DATE/TIME	RECEIVED BY/STORED IN — DATE/TIME	
RELINQUISHED BY/REMOVED FROM — DATE/TIME	RECEIVED BY/STORED IN — DATE/TIME	

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		V10-003-129	PAGE 1 OF 1
COLLECTOR: Ekstrom/Campbell	COMPANY CONTACT: SYDNOR, HA	TELEPHONE NO.: 373-3967	PROJECT COORDINATOR: BERLIN, PC	PRICE CODE: 8P; DATA TURNAROUND: 75 Days / 75 Days; AIR QUALITY: ☐
SAMPLING LOCATION: C7668 - I011 A Hole	PROJECT DESIGNATION: WMA C Sampling for CMS		SAF NO.: V10-003	
ICE CHEST NO.: TFV2-09-0003	FIELD LOGBOOK NO.: TFV2-09-00001	ACTUAL SAMPLE DEPTH: 80-82	COA: 01A	METHOD OF SHIPMENT: Govt. Vehicle
SHIPPED TO: 222-S Lab Operations	OFFSITE PROPERTY NO.		BILL OF LADING/AIR BILL NO.	

MATRIX*: A=Air; DL=Drum Liquids; DS=Drum Solids; L=Liquid; O=Oil; S=Soil; SE=Sediment; T=Tissue; V=Vegetation; W=Water; WI=Wipe; X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
HOLDING TIME	14 Days
TYPE OF CONTAINER	Gs
NO. OF CONTAINER(S)	1
VOLUME	40mL
SAMPLE ANALYSIS	VOA - 5035/8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B25WM6 W0000257	SOIL	6-3-10	1430	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
		R Steele	6-3-10 13:15
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

** All VOA samples will be collected using EPA Method 5035A.
** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample.
** The laboratory is to use one of the low level VOA bottles for moisture content determination.
** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be included as part of the sample ID reported in the final data packages.

0 °C GRP# 20100064
SAm# S10V000278

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

5/10/2010 1:54 PM	WORKING COPY

VOC Soil and Sediment Sampling

Data Sheet 1 – Sample Record Sheet

SAMPLE RECORD SHEET

Location:	C7668A T-011						
Sampler Initials:	RDE				Date:	6/3/10	
Scale Number:	820-66-06-002				Cal. Due Date:	11/9/10	
Sample Number	Sample Suffix[1]	Tare Weight provided (grams)	Tare Weight prior to sample[2] (grams)	Initial Weight[3] (grams)	Total Weight[4] (grams)	Soil Weights (grams)[5]	Methanol in sample bottle (ml)
B25WM7	K	N/A	N/A	26.95	32.07	5.12	No Methanol
B25WM7	L	N/A	N/A	26.78	31.59	4.81	No Methanol
B25WM7	M	N/A	N/A	26.78	31.61	4.83	No Methanol
B25WM7	N	N/A	N/A	26.90	31.95	5.05	No Methanol
B25WM7	P	N/A	N/A	26.75	31.59	4.84	No Methanol
B25WM7	W	36.61	36.56	36.95	42.13	5.18	10 ml.
B25WM7	X	37.73	37.68	38.05	42.53	4.48	10 ml.
B25WM7	Y	36.63	36.57	36.97	42.13	5.16	10 ml
B25WM6	*	36.95	36.75	37.14	N/A	N/A	10 ml.

[1] Sample suffix of K, L, M, N, and P will not have Methanol in the bottle, freeze these samples to between -7 °C (19.4 °F) and -20 °C (-4 °F)

Sample suffix of W, X, and Y relate to methanol preservation for high-level samples.

Sample suffix of "*" relates to methanol blank. Cool W, X, Y, and * samples to between - 4 °C ± 2 °C (39.2 °F ± 3.6 °F).

[2] Tare weight prior to sample must be within +/- 0.2 grams of Vendors tare weight or bottle cannot be used. Weigh only the bottle, no labels, stickers or bags.

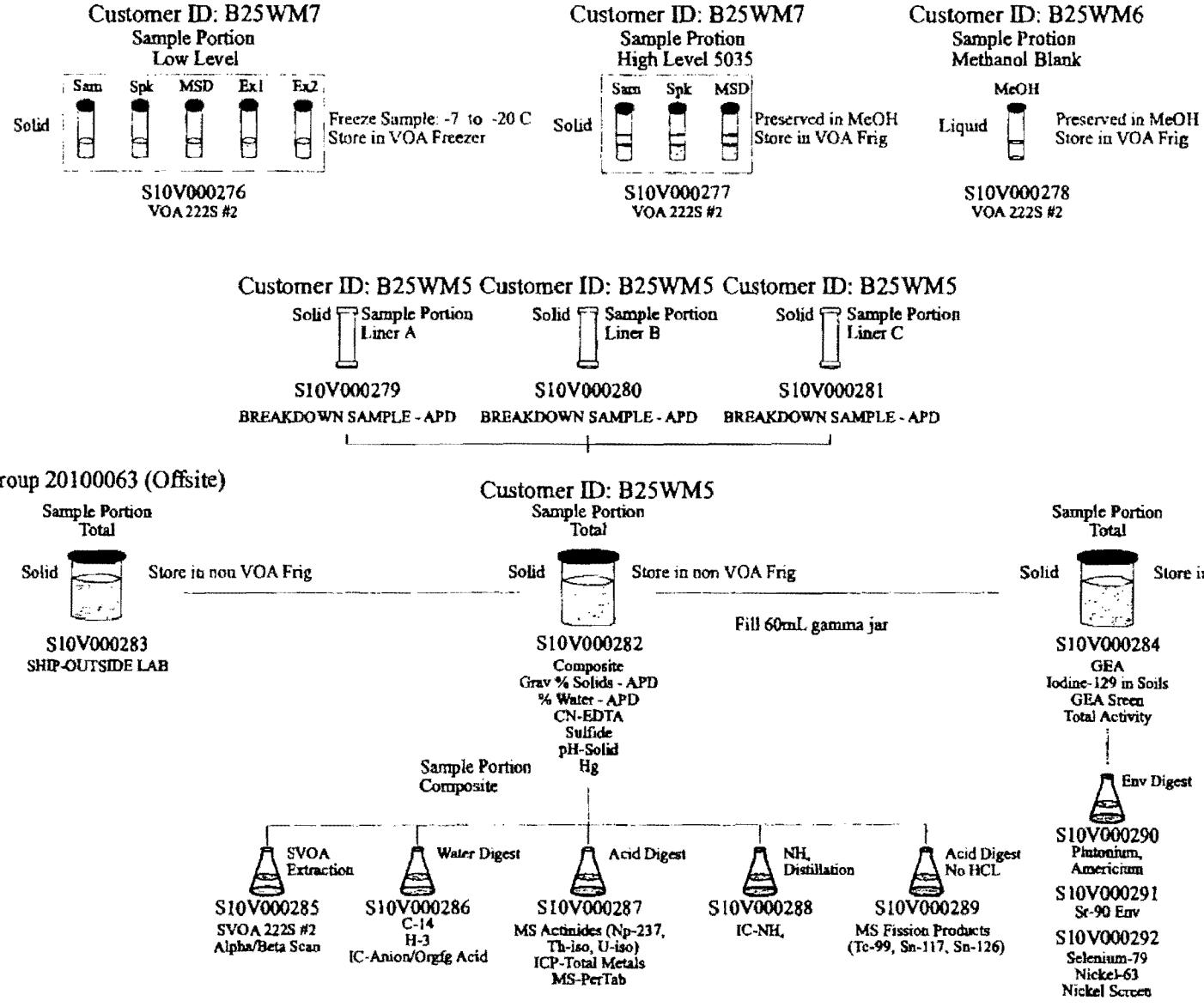
[3] Initial weight is to include all labels, stickers, bags, methanol (for vendor filled methanol samples with suffix W,X,Y and *) spin bars (for samples with suffix K,L,M,N and P) and anything else that will be associated with the bottle when it is weighed with the sample.

[4] Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.

[5] Soil weight is the vial with sample minus Initial Weight.

Vadose Zone: C Farm 2010
Core No.: C7668
Group 20100064 (ATL)
Group 20100063 (Offsite)
Due: TBD

Sample Depth:80-82
Segment No: I011



RADIOACTIVE SHIPMENT RECORD

3. Page 1 of 1 | 4. Ship Prepaid | 5. Via Motor

1. SHIP FROM U.S. DEPT. OF ENERGY C/O
Company Washington River Protec Solution
Address 222-S Laboratory; 200-West Area
City, State, Zip Hanford Site
Contact Gene Juteau
Phone (509) 376-6966

2. SHIP TO ☒ U.S. DEPT. OF ENERGY C/O
Company Mission Support Alliance
Address WSCF
City, State, Zip Hanford Site
Attention Heather Medley
Phone (509) 372-1488

6. SHIPMENT AUTHORIZATION NUMBER AL1109

7. EMERGENCY RESPONSE
Telephone 373-3800
Emergency Response Guide(s) N/A

HM 8. Proper Shipping Name: Material Not Regulated by DOT — PRI HAZ N/A — SUB HAZ — UN ID N/A

9. No. Pkg.	Model Package	COC/Spec	Serial No.	Seal No.	Isotopes	C.S.I.	T.I.	Bq/Package	Gr. Wt. Kg.
1	Cooler	Excepted	N/A	N/A	N/A	N/A	N/A	N/A	20

10. Identify for Normal Form Only
Physical Form Solid/Liquid
Chemical Form Mixture

11.
☐ Highway Route Controlled Quantity
☐ Exclusive Use Shipment with instructions
☐ Placards Applied
☐ Fissile Excepted, Grams
☐ UN ID Marking

12. LABELS APPLIED N/A

13. ADDITIONAL LABELS / MARKINGS

The following container(s) Coolers contain RADIOACTIVE MATERIAL in concentrations that are not regulated for transportation per 49 CFR 173.403 but are not releasable per DOE O 458.1 5.

HM 8. Proper Shipping Name: — PRI HAZ — SUB HAZ — UN ID

9. No. Pkg.	Model Package	COC/Spec	Serial No.	Seal No.	Isotopes	C.S.I.	T.I.	Bq/Package	Gr. Wt. Kg.

10. Identify for Normal Form Only
Physical Form
Chemical Form

11.
☐ Highway Route Controlled Quantity
☐ Exclusive Use Shipment with instructions
☐ Placards Applied
☐ Fissile Excepted, Grams
☐ UN ID Marking

13. ADDITIONAL LABELS / MARKINGS

HM 8. Proper Shipping Name: — PRI HAZ — SUB HAZ — UN ID

9. No. Pkg.	Model Package	COC/Spec	Serial No.	Seal No.	Isotopes	C.S.I.	T.I.	Bq/Package	Gr. Wt. Kg.

10. Identify for Normal Form Only
Physical Form
Chemical Form

11.
☐ Highway Route Controlled Quantity
☐ Exclusive Use Shipment with instructions
☐ Placards Applied
☐ Fissile Excepted, Grams
☐ UN ID Marking

12. LABELS APPLIED

13. ADDITIONAL LABELS / MARKINGS

14. Shipment DE-CI: N/A

Shipment Totals	C.S.I.	T.I.	Bq/Package	Gr. Wt. Kg.
	N/A	N/A	N/A	20

15. Surface Dose Rate of Package
☐ <0.005 or _____ mSv/hr
<0.5 or _____ mrem/hr (N+ß γ)

Dose Rate @ 1 Meter from Surface of Package
☐ <0.005 or _____ mSv/hr
<0.5 or _____ mrem/hr (N+ß γ)

Smears of Outer Container
☐ <4.0 Bq (220 dpm) ß γ /cm²
☐ <0.4 Bq (22 dpm) α /cm²
☐ <Tbl. 2-2 HNF-5173 Limits

TRUCK LOAD OR EXCLUSIVE USE
Surface @ 2 meters @ Cab or sleeper
☐ <2 mSv/hr (200 mrem/hr)
☐ <0.1 mSv/hr (10 mrem/hr)
☐ <0.02 mSv/hr (2 mrem/hr) (Using N+ß γ)

Additional Data and Instructions (inc. Readings on Internal Packaging)

Bldg. | Survey No. | Date

16. TRANSPORTER

Vehicle Number	DRIVER SIGNATURE	PRINT NAME
662 33334	L.D. Wall	L.D. WALL

17. RECEIVER

RECEIVER SIGNATURE	PRINT NAME	Date
[signature]	[illegible]	6/10/10

18. This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

Certifier's Signature	Print Name	On behalf of DOE-RL	Date	Organization
[signature]	G. K. Jutean		6/10/10	2225

19. AUTHORIZATION FOR SHIPMENT

AIR TRANSPORT CERTIFICATION ☐ N/A

CARGO AIRCRAFT ☐ Cargo Aircraft Only Labels Applied

PASSENGER AIRCRAFT ☐ Ltd Qty ☐ Research/Medical Diagnosis ☐ <3 T.I. ☐ Human Medical Research

Pkg. Dimensions (cm)

20. OFFSITE AUTHORIZATION

Survey No.	Date Shipped	Routing	ETA

Approved for Shipment Offsite | Date

A-6003-214.1 (REV 2)

Assembler	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. No. 20100064
		Page of

Collector: Harris/Snook	Contact/Requestor: S. G. McKinney	Telephone No. 372-1945 MSIN T6-02 FAX 372-1878
SAF No.: V10-003	Sample Origin: C Farm	Purchase Order/Charge Code
Project Title: WMA C Sampling for CMS	Logbook/ Work Package No.	Ice Chest No. Temp.
Shipped To (Lab): WSCF	Method of Shipment: Ground	Bill of Lading/Air Bill No.
Protocol	Data Turnaround: 30 Days	Parts and Return No.

Sample No.	Lab ID	*	Date	Time	No./Type Container	Sample Analysis	Preservative
	S10V000276		6-3-10	11:30	5 - 40 mL vial	VOA - see Vadose program SAP (RPP-PLAN-40564, Rev 2)	Freeze
	S10V000277		6-3-10	11:30	3 - 40 mL Vial	5035 Hi level samples - analyze only if S10V000999 is out of range	cool
	S10V000278		6-3-10	11:30	1 - 40 mL Vial	Methanol blank for method 5035	cool

POSSIBLE SAMPLE HAZARDS/REMARKS (List all known wastes) MSDS ○ Yes ◉ No

SPECIAL INSTRUCTIONS — Hold Time: 14 days

Send deliverable to WRPS LLC, Attn: Melissa Garrard, P.O. Box 850, Richland WA, MSIN H6-16. In addition, an electronic final deliverable in Microsoft® Excel format (requirements in Section 14.0) will be transmitted to Melissa_Garrard@rl.gov and Steve_g_McKinney@rl.gov.

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
R.Steele	R.Steele		6.10.10 0930	L.D.WALL	L.D.Wall	L.D.Wall	6/10/10 0930
L.D.WALL	L.D.Wall	L.D.Wall	6/10/10				

Matrix*: S = Soil; SE = Sediment; SO = Solid; SL = Sludge; W = Water; O = Oil; A = Air; DS = Drum Solids; DL = Drum Liquids; T = Tissue; WI = Wipe; L = Liquid; V = Vegetation; VA = Vapor; X = Other

FINAL SAMPLE DISPOSITION — Disposal Method (e.g., Return to customer, per lab procedure, used in process) — Disposed By — Date/Time

All samples containing hazardous materials shall be picked up by requestor and returned to parent container or site of origin.

A-6003-962 (03/05)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			V10-003-107	PAGE 1 OF 1
COLLECTOR: Ekstrom / Campbell	COMPANY CONTACT: SYDNOR, HA	TELEPHONE NO.: 373-3967	PROJECT COORDINATOR: BERLIN, PC	PRICE CODE: 8P	DATA TURNAROUND: 75 Days / 75 Days
SAMPLING LOCATION: C7668 - I005	PROJECT DESIGNATION: WMA C Sampling for CMS		SAF NO.: V10-003	AIR QUALITY: ☐	
ICE CHEST NO.: TFVZ-09-003	FIELD LOGBOOK NO.: TFVZ-09-000001	ACTUAL SAMPLE DEPTH: 14 - 16ft.	COA: N/A	METHOD OF SHIPMENT: Govt. Vehicle	
SHIPPED TO: 222-S Lab Operations	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A		

MATRIX*: A=Air, DL=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool <-7C and >-20C	MEOH/Cool~4 C
TYPE OF CONTAINER	Gs	Gs
NO. OF CONTAINER(S)	4	3
VOLUME	40mL	40mL
SAMPLE ANALYSIS	VOA - 5035/8260 (LOW LEVEL) (TF);	VOA - 5035/8260 (HIGH LEVEL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B23TM2 W100000258	SOIL	5/19/10	0945	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Cphell Campbell	5-19-10 1040	[illegible] 215/10	5-19-10 1040
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

** All VOA samples will be collected using EPA Method 5035A.
** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample.
** The laboratory is to use one of the low level VOA bottles for moisture content determination.
** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be included as part of the sample ID reported in the final data packages.

GRP # 20100064
Stm # 510V000225
11 226

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

Page 49 of 58

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			V10-003-106	PAGE 1 OF 1
COLLECTOR: Ekstrom/Campbell	COMPANY CONTACT: SYDNOR, HA	TELEPHONE NO.: 373-3967	PROJECT COORDINATOR: BERLIN, PC	PRICE CODE: 8P	DATA TURNAROUND
SAMPLING LOCATION: C7668 - 1005	PROJECT DESIGNATION: WMA C Sampling for CMS		SAF NO.: V10-003	AIR QUALITY: ☐	75 Days / 75 Days
ICE CHEST NO.: TFVZ-09-003	FIELD LOGBOOK NO.: TFVZ-09-000001	ACTUAL SAMPLE DEPTH: 14-16 Ft.	COA: N/A	METHOD OF SHIPMENT: Govt. Vehicle	
SHIPPED TO: 222-S Lab Operations	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A		

MATRIX*: A=Air; DL=Drum Liquids; DS=Drum Solids; L=Liquid; O=Oil; S=Soil; SE=Sediment; T=Tissue; V=Vegetation; W=Water; WI=Wipe; X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
TYPE OF CONTAINER	Gs
NO. OF CONTAINER(S)	1
VOLUME	40mL
SAMPLE ANALYSIS	VOA - 5035/8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23TM1 W10000259	SOIL	5/19/10	0945	V

CHAIN OF POSSESSION — **SIGN/ PRINT NAMES**

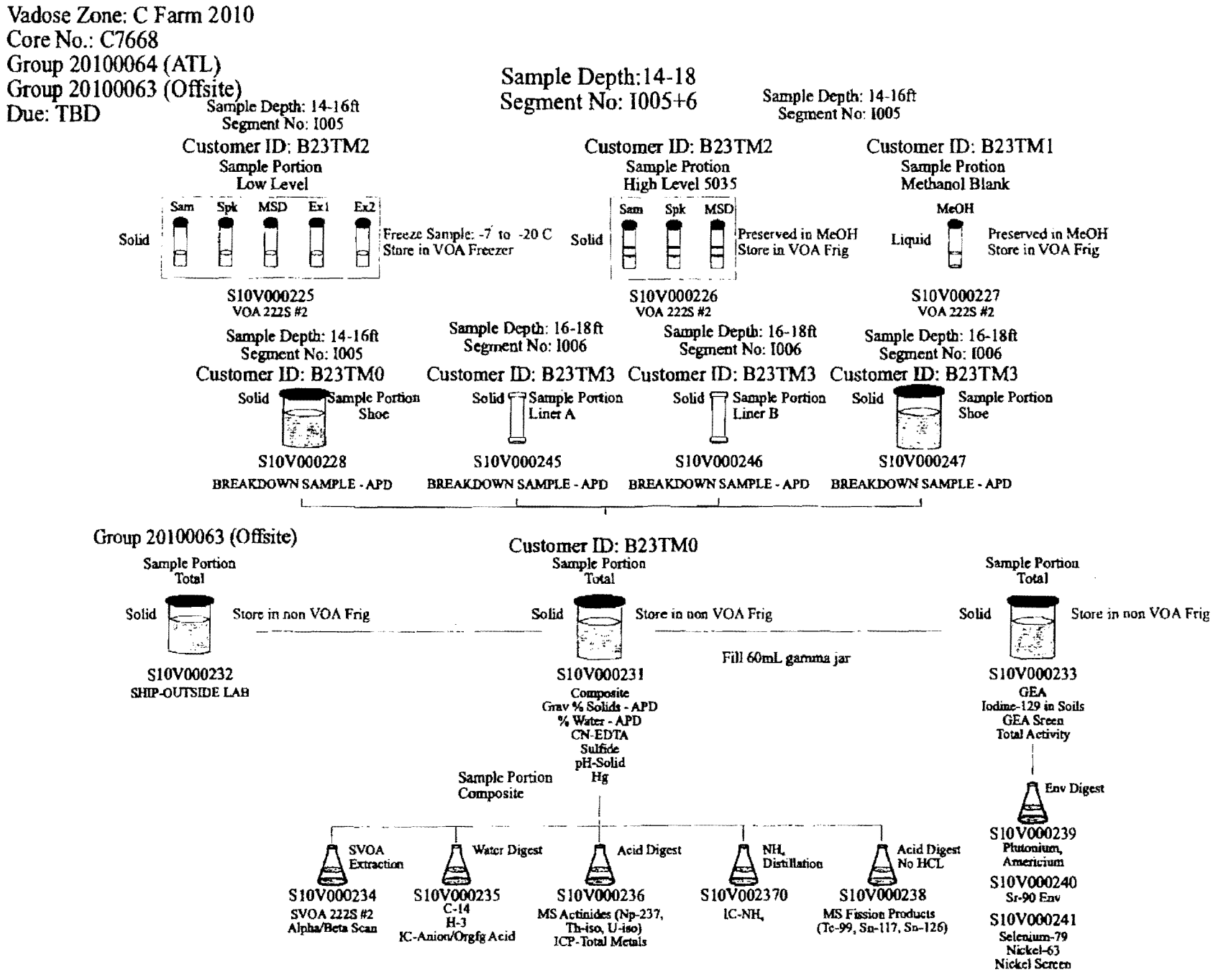
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
C-Ekstrom C-Campbell	5-19-10 1040	R Ellebud R Blecke	5.19.10 1340

SPECIAL INSTRUCTIONS

** All VOA samples will be collected using EPA Method 5035A.
** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample.
** The laboratory is to use one of the low level VOA bottles for moisture content determination.
** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be included as part of the sample ID reported in the final data packages.

S10TB HK 20100064 S10V000227

LABORATORY SECTION	RECEIVED BY		TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD		DISPOSED BY	DATE/TIME


Vadose Zone: C Farm 2010
Core No.: C7668
Group 20100064 (ATL)
Group 20100063 (Offsite)
Due: TBD
Sample Depth:14-18
Segment No: I005+6
Sample Depth: 14-16ft
Segment No: I005
Customer ID: B23TM2
Sample Portion
Low Level
Sam
Spk
MSD
Ex1
Ex2
Solid
Freeze Sample: -7 to -20 C
Store in VOA Freezer
S10V000225
VOA 222S #2
Sample Depth: 14-16ft
Segment No: I005
Customer ID: B23TM2
Sample Protion
High Level 5035
Sam
Spk
MSD
Solid
Preserved in MeOH
Store in VOA Frig
S10V000226
VOA 222S #2
Sample Depth: 14-16ft
Segment No: I005
Customer ID: B23TM1
Sample Protion
Methanol Blank
MeOH
Liquid
Preserved in MeOH
Store in VOA Frig
S10V000227
VOA 222S #2
Sample Depth: 14-16ft
Segment No: I005
Customer ID: B23TM0
Solid
Sample Portion
Shoe
S10V000228
BREAKDOWN SAMPLE - APD
Sample Depth: 16-18ft
Segment No: I006
Customer ID: B23TM3
Solid
Sample Portion
Liner A
S10V000245
BREAKDOWN SAMPLE - APD
Sample Depth: 16-18ft
Segment No: I006
Customer ID: B23TM3
Solid
Sample Portion
Liner B
S10V000246
BREAKDOWN SAMPLE - APD
Sample Depth: 16-18ft
Segment No: I006
Customer ID: B23TM3
Solid
Sample Portion
Shoe
S10V000247
BREAKDOWN SAMPLE - APD
Group 20100063 (Offsite)
Sample Portion
Total
Solid
Store in non VOA Frig
S10V000232
SHIP-OUTSIDE LAB
Customer ID: B23TM0
Sample Portion
Total
Solid
Store in non VOA Frig
Fill 60mL gamma jar
S10V000231
Composite
Grav % Solids - APD
% Water - APD
CN-EDTA
Sulfide
pH-Solid
Hg
Sample Portion
Composite
SVOA
Extraction
S10V000234
SVOA 222S #2
Alpha/Beta Scan
Water Digest
S10V000235
C-14
H-3
IC-Anion/Orgfg Acid
Acid Digest
S10V000236
MS Actinides (Np-237,
Th-iso, U-iso)
ICP-Total Metals
NH4
Distillation
S10V002370
IC-NH4
Acid Digest
No HCL
S10V000238
MS Fission Products
(Tc-99, Sn-117, Sn-126)
Sample Portion
Total
Solid
Store in non VOA Frig
S10V000233
GEA
Iodine-129 in Soils
GEA Screen
Total Activity
Env Digest
S10V000239
Plutonium,
Americium
S10V000240
Sr-90 Env
S10V000241
Selenium-79
Nickel-63
Nickel Screen

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VOC Soil and Sediment Sampling

Data Sheet 1 – Sample Record Sheet

SAMPLE RECORD SHEET

Location:	C7668 - I005						
Sampler Initials:	EV PW				**Date:**	5-19-10	
Scale Number:	820-66-06-002				**Cal. Due Date:**	11-09-10	
Sample Number	Sample Suffix[1]	Tare Weight provided (grams)	Tare Weight prior to sample[2] (grams)	Initial Weight[3] (grams)	Total Weight[4] (grams)	Soil Weights (grams)[5]	Methanol in sample bottle (ml)
B23TM2	K	N/A	N/A	26.27	30.43	4.16	No Methanol
B23TM2	L	N/A	N/A	26.95	30.09	3.74	No Methanol
B23TM2	M	N/A	N/A	26.22	29.59	3.37	No Methanol
B23TM2	N	N/A	N/A	26.32	29.60	3.28	No Methanol
B23TM2	P	N/A	N/A	26.04	30.03	3.99	No Methanol
B23TM2	W	37.585	37.48	37.93	41.72	3.79	10 ml
B23TM2	X	36.068	36.81	37.24	40.43	3.19	10 ml
B23TM2	Y	37.344	~~37.27~~ 37.25	37.68	41.20	3.92	10 ml
B23TM1	*	36.674	36.63	37.01	N/A	N/A	10 ml

[1] Sample suffix of K, L, M, N, and P will not have Methanol in the bottle, freeze these samples to between -7 °C (19.4 °F) and -20 °C (-4 °F)

Sample suffix of W, X, and Y relate to methanol preservation for high-level samples.

Sample suffix of "*" relates to methanol blank. Cool W, X, Y, and * samples to between - 4 °C ± 2 °C (39.2 °F ± 3.6 °F).

[2] Tare weight prior to sample must be within +/- 0.2 grams of Vendors tare weight or bottle cannot be used. Weigh only the bottle, no labels, stickers or bags.

[3] Initial weight is to include all labels, stickers, bags, methanol (for vendor filled methanol samples with suffix W,X,Y and *) spin bars (for samples with suffix K,L,M,N and P) and anything else that will be associated with the bottle when it is weighed with the sample.

[4] Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.

[5] Soil weight is the vial with sample minus Initial Weight.

RADIOACTIVE SHIPMENT RECORD

3. Page 1 of 1 | 4. Ship Prepaid | 5. Via Motor

1. SHIP FROM U.S. DEPT. OF ENERGY C/O
Company Washington River Protec Solution
Address 222-S Laboratory; 200-West Area
City, State, Zip Hanford Site
Contact Gene Juteau
Phone (509) 376-6966

2. SHIP TO ☒ U.S. DEPT. OF ENERGY C/O
Company Mission Support Alliance
Address WSCF
City, State, Zip Hanford Site
Attention Heather Medley
Phone (509) 372-1488

6. SHIPMENT AUTHORIZATION NUMBER AL1106
7. EMERGENCY RESPONSE
Telephone 373-3800
Emergency Response Guide(s) 131

HM 8. Proper Shipping Name: | PRI HAZ | SUB HAZ | UN ID

X	Methanol, solution Limited Quantity	II	3	N/A	UN1230

9. No. Pkg	Model Package	COC/Spec	Serial No.	Seal No.	Isotopes	C.S.I.	T.I.	Bq/Package	Gr. Wt. Kg
1	~~Steel Box~~ Cooler	UN1A2	N/A	N/A	N/A	N/A	N/A	N/A	20

10. Identify for Normal Form Only
Physical Form Liquid
Chemical Form Mixture

11.
☐ Highway Route Controlled Quantity
☐ Exclusive Use Shipment with instructions
☐ Placards Applied
☐ Fissile Excepted, Grams
☒ UN ID Marking UN1230

12. LABELS APPLIED N/A

13. ADDITIONAL LABELS / MARKINGS

The following container(s) Cooler contain RADIOACTIVE MATERIAL at concentrations that are not regulated for transportation per 49 CFR 173.403 but are not releasable per DOE Order 5400.5

HM 8. Proper Shipping Name: | PRI HAZ | SUB HAZ | UN ID

9. No. Pkg	Model Package	COC/Spec	Serial No.	Seal No.	Isotopes	C.S.I.	T.I.	Bq/Package	Gr. Wt. Kg

10. Identify for Normal Form Only
Physical Form
Chemical Form

11.
☐ Highway Route Controlled Quantity
☐ Exclusive Use Shipment with instructions
☐ Placards Applied
☐ Fissile Excepted, Grams
☐ UN ID Marking

13. ADDITIONAL LABELS / MARKINGS

HM 8. Proper Shipping Name: | PRI HAZ | SUB HAZ | UN ID

9. No. Pkg	Model Package	COC/Spec	Serial No.	Seal No.	Isotopes	C.S.I.	T.I.	Bq/Package	Gr. Wt. Kg

10. Identify for Normal Form Only
Physical Form
Chemical Form

11.
☐ Highway Route Controlled Quantity
☐ Exclusive Use Shipment with instructions
☐ Placards Applied
☐ Fissile Excepted, Grams
☐ UN ID Marking

12. LABELS APPLIED

13. ADDITIONAL LABELS / MARKINGS

14. Shipment DE-CI: N/A

Shipment Totals	C.S.I.	T.I.	Bq/Package	Gr. Wt. Kg
	N/A	N/A	N/A	20

15. Surface Dose Rate of Package
☐ <0.005 or _____ mSv/hr
<0.5 or _____ mrem/hr (N+ß γ)

Dose Rate @ 1 Meter from Surface of Package
☐ <0.005 or _____ mSv/hr
<0.5 or _____ mrem/hr (N+ß γ)

Smears of Outer Container
☐ <4.0 Bq (220 dpm) ß γ /cm²
☐ <0.4 Bq (22 dpm) α /cm²
☐ <Tbl. 2-2 HNF-5173 Limits

TRUCK LOAD OR EXCLUSIVE USE
Surface ☐ <2 mSv/hr (200 mrem/hr)
@ 2 meters ☐ <0.1 mSv/hr (10 mrem/hr)
@ Cab or sleeper ☐ <0.02 mSv/hr (2 mrem/hr) (Using N+ß γ)

Additional Data and Instructions (inc. Readings or Internal Packaging)

Bldg. | Survey No. | Date

16. TRANSPORTER

Vehicle Number	DRIVER SIGNATURE	PRINT NAME
662 33331	L.D. Wall	L.D. WALL

17. RECEIVER

RECEIVER SIGNATURE	PRINT NAME	Date

18. This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

Certifier's Signature: S. B. Jutean | Print Name | On behalf of DOE-RL | Date 6/9/10 | Organization 222-S

19. AUTHORIZATION FOR SHIPMENT

AIR TRANSPORT CERTIFICATION ☐ N/A

CARGO AIRCRAFT: ☐ Cargo Aircraft Only Labels Applied

PASSENGER AIRCRAFT: ☐ Ltd Qty ☐ Research/Medical Diagnosis ☐ <3 T.I. ☐ Human Medical Research

Pkg. Dimensions (cm)

20. OFFSITE AUTHORIZATION

Survey No.	Date Shipped	Routing	ETA

Approved for Shipment Offsite | Date

A-6003-214.1 (REV 2)

RADIOACTIVE SHIPMENT RECORD

3. Page 1 of 1 | 4. Ship Prepaid | 5. Via Motor

1. SHIP FROM U.S. DEPT. OF ENERGY C/O
Company Washington River Protec Solution
Address 222-S Laboratory; 200-West Area
City, State, Zip Hanford Site
Contact Gene Juteau
Phone (509) 376-6966

2. SHIP TO ☒ U.S. DEPT. OF ENERGY C/O
Company Mission Support Alliance
Address WSCF
City, State, Zip Hanford Site
Attention Heather Medley
Phone (509) 372-1488

6. SHIPMENT AUTHORIZATION NUMBER AL1106
7. EMERGENCY RESPONSE
Telephone 373-3800
Emergency Response Guide(s) 131

HM	8. Proper Shipping Name	PRI HAZ	SUB HAZ	UN ID
X	Methanol, solution Limited Quantity	3	N/A	UN1230

9. No. Pkg	Model Package	COC/Spec	Serial No.	Seal No.	Isotopes	C.S.I.	T.I.	Bq/Package	Gr. Wt. Kg
1	Steel drum Cooler	UN1A2	N/A	N/A	N/A	N/A	N/A	N/A	20

10. Identify for Normal Form Only
Physical Form Liquid
Chemical Form Mixture

11.
- ☐ Highway Route Controlled Quantity
- ☐ Exclusive Use Shipment with instructions
- ☐ Placards Applied
- ☐ Fissile Excepted, Grams
- ☒ UN ID Marking UN1230

12. LABELS APPLIED N/A

13. ADDITIONAL LABELS / MARKINGS

HM	8. Proper Shipping Name	PRI HAZ	SUB HAZ	UN ID

Cooler

9. No. Pkg	Model Package	COC/Spec	Serial No.	Seal No.	C.S.I.	T.I.	Bq/Package	Gr. Wt. Kg

The following container(s) contain RADIOACTIVE MATERIAL at concentrations that are not regulated for transportation per 49 CFR 173.403 but are not releasable per DOE Order 5400.5

10. Identify for Normal Form Only
Physical Form
Chemical Form

11.
- ☐ Highway Route Controlled Quantity
- ☐ Exclusive Use Shipment with instructions
- ☐ Placards Applied
- ☐ Fissile Excepted, Grams
- ☐ UN ID Marking

13. ADDITIONAL LABELS / MARKINGS

HM	8. Proper Shipping Name	PRI HAZ	SUB HAZ	UN ID

9. No. Pkg	Model Package	COC/Spec	Serial No.	Seal No.	Isotopes	C.S.I.	T.I.	Bq/Package	Gr. Wt. Kg

10. Identify for Normal Form Only
Physical Form
Chemical Form

11.
- ☐ Highway Route Controlled Quantity
- ☐ Exclusive Use Shipment with instructions
- ☐ Placards Applied
- ☐ Fissile Excepted, Grams
- ☐ UN ID Marking

12. LABELS APPLIED

13. ADDITIONAL LABELS / MARKINGS

14. Shipment DE-CI: N/A

Shipment Totals	C.S.I.	T.I.	Bq/Package	Gr. Wt. Kg
	N/A	N/A	N/A	20

15. Surface Dose Rate of Package
☐ <0.005 or _____ mSv/hr
<0.5 or _____ mrem/hr (N+β γ)

Dose Rate @ 1 Meter from Surface of Package
☐ <0.005 or _____ mSv/hr
<0.5 or _____ mrem/hr (N+β γ)

Smears of Outer Container
- ☐ <4.0 Bq (220 dpm) β γ /cm²
- ☐ <0.4 Bq (22 dpm) α /cm²
- ☐ <Tbl. 2-2 HNF-5173 Limits

TRUCK LOAD OR EXCLUSIVE USE
Surface @ 2 meters @ Cab or sleeper
- ☐ <2 mSv/hr (200 mrem/hr)
- ☐ <0.1 mSv/hr (10 mrem/hr)
- ☐ <0.02 mSv/hr (2 mrem/hr) (Using N+β γ)

Additional Data and Instructions (inc. Readings on Internal Packaging)

Bldg.	Survey No.	Date

16. TRANSPORTER

Vehicle Number	DRIVER SIGNATURE	PRINT NAME

17. RECEIVER

RECEIVER SIGNATURE	PRINT NAME	Date

18. This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

Certifier's Signature	Print Name	On behalf of DOE-RL	Date	Organization

19. AUTHORIZATION FOR SHIPMENT

AIR TRANSPORT CERTIFICATION	CARGO AIRCRAFT	PASSENGER AIRCRAFT	Pkg. Dimensions (cm)
☐ N/A	☐ Cargo Aircraft Only Labels Applied	☐ Ltd Qty ☐ Research/Medical Diagnosis ☐ <3 T.I. ☐ Human Medical Research	

20. OFFSITE AUTHORIZATION

Survey No.	Date Shipped	Routing	ETA

Approved for Shipment Offsite | Date

A-6003-214.1 (REV 2)

Assembler	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. No. 20100064
		Page of

Collector	Contact/Requestor	Telephone No.	MSIN	FAX
Harris/Snook	S. G. McKinney	372-1945	T6-02	372-1878
SAF No. V10-003	Sample Origin C Farm	Purchase Order/Charge Code		
Project Title WMA C Sampling for CMS	Logbook/ Work Package No.	Ice Chest No.	Temp. ~~Freeze~~ 6-9-10	
Shipped To (Lab) WSCF	Method of Shipment Ground	Bill of Lading/Air Bill No.		
Protocol	Data Turnaround 30 Days	Parts and Return No.		

Sample No.	Lab ID	*	Date	Time	No./Type Container	Sample Analysis	Preservative
	S10V000225		5-19-10	11:30	4 - 40 mL vial	VOA - see Vadose program SAP (RPP-PLAN-40564)	Freeze
	S10V000226		5-19-10	11:30	3 - 40 mL Vial	5035 Hi level samples - analyze only if S10V000999 is out of range	cool
	S10V000227		5-19-10	11:30	1 - 40 mL Vial	Methanol blank for method 5035	cool

POSSIBLE SAMPLE HAZARDS/REMARKS (List all known wastes) MSDS ○ Yes ◉ No

SPECIAL INSTRUCTIONS — Hold Time 14 days

Send deliverable to WRPS LLC, Attn: Melissa Garrard, P.O. Box 850, Richland WA, MSIN H6-16. In addition, an electronic final deliverable in Microsoft® Excel format (requirements in Section 14.0) will be transmitted to Melissa_Garrard@rl.gov and Steve_g_McKinney@rl.gov.

Relinquished By (Print / Sign)	Date/Time	Received By (Print / Sign)	Date/Time
R Stoolo R Stoolo	6.9.10 0980	L.D. WALL L.D. Wall	6/9/10 0930
L.D. WALL L.D. Wall	6/9/10 1100	[illegible]	6/9/10 1100

Matrix*

S = Soil	DL = Drum Liquids		
SE = Sediment	T = Tissue		
SO = Solid	WI = Wipe		
SL = Sludge	L = Liquid		
W = Water	V = Vegetation		
O = Oil	VA = Vapor		
A = Air	X = Other		
DS = Drum Solids			

FINAL SAMPLE DISPOSITION — Disposal Method (e.g., Return to customer, per lab procedure, used in process) — Disposed By — Date/Time

All samples containing hazardous materials shall be picked up by requestor and returned to parent container or site of origin.

A-6003-962 (03/05)

Washington River Protection Solutions

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

V10-002-047 PAGE 1 OF 1

COLLECTOR: Ekstrom / Campbell	COMPANY CONTACT: SYDNOR, HA	TELEPHONE NO.: 373-3967	PROJECT COORDINATOR: BERLIN, PC	PRICE CODE: 7P; DATA TURNAROUND
SAMPLING LOCATION: C7668 Field Blank 4	PROJECT DESIGNATION: WMA C Sampling for CMS - QC Sampling		SAF NO.: V10-002	AIR QUALITY: ☐; 75 Days / 75 Days
ICE CHEST NO.: TFV2-09-003	FIELD LOGBOOK NO.: TFV2-09-00001	ACTUAL SAMPLE DEPTH: 27-29ft	COA: NA	METHOD OF SHIPMENT: GOVERNMENT VEHICLE
SHIPPED TO: 222-S Lab Operations	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A	

MATRIX*: A=Air, DL=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	HCl or H2SO4 to pH <2/Cool~4C
TYPE OF CONTAINER	aGs*
NO. OF CONTAINER(S)	3
VOLUME	40mL
SAMPLE ANALYSIS	VOA - 8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23V99	WATER	5/20/10	1045	✓

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Cathy C-pbell	5-20-10 1230	Elliott Eldredge	5.20.10 1230

SPECIAL INSTRUCTIONS: TB PK

GRPA 20100062
SAmpl# S10V000098

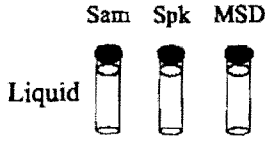
LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

Page 56 of 58

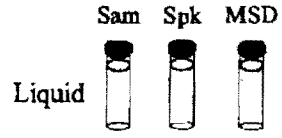
Vadose Zone: C Farm
Core No.: C7668
Group 20100062 (ATL)
Due: TBD

Sample Depth: Field Blank-1
Customer ID. B23V96
Store in VOA Frig



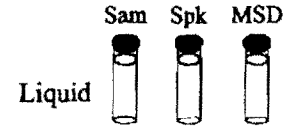
S10V000095
VOA 222S #2

Sample Depth: Field Blank-2
Customer ID. B23V97
Store in VOA Frig



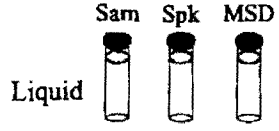
S10V000096
VOA 222S #2

Sample Depth: Field Blank-3
Customer ID. B23V98
Store in VOA Frig



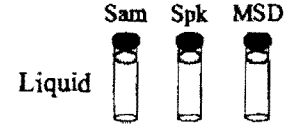
S10V00097
VOA 222S #2

Sample Depth: Field Blank-4
Customer ID. B23V99
Store in VOA Frig



S10V000098
VOA 222S #2
GEA Screen
Total Activiy

Sample Depth: Field Blank-5
Customer ID. B23VB0
Store in VOA Frig



S10V000099
VOA 222S #2

Assembler	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. No. 20100064
		Page of

Collector	Contact/Requestor	Telephone No.	MSIN	FAX
Harris/Snook	S. G. McKinney	372-1945	T6-02	372-1878
SAF No. 10-003	Sample Origin C Farm	Purchase Order/Charge Code		
Project Title WMA C Sampling for CMS	Logbook/ Work Package No.	Ice Chest No.	Temp. Freeze	jm 6/9/10
Shipped To (Lab) WSCF	Method of Shipment Ground	Bill of Lading/Air Bill No.		
Protocol	Data Turnaround 30 Days	Parts and Return No.		

Sample No.	Lab ID	*	Date	Time	No./Type Container	Sample Analysis	Preservative
	S10V000098		5-20-10	10:45	1 - 40 mL vial	VOA - see Vadose program SAP (RPP-PLAN-40564)	cool

POSSIBLE SAMPLE HAZARDS/REMARKS (List all known wastes) MSDS ○ Yes ◉ No

SPECIAL INSTRUCTIONS Hold Time

Send deliverable to WRPS LLC, Attn: Melissa Garrard, P.O. Box 850, Richland WA, MSIN H6-16. In addition, an electronic final deliverable in Microsoft® Excel format (requirements in Section 14.0) will be transmitted to Melissa_Garrard@rl.gov and Steve_g_McKinney@rl.gov. 14 days

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
	R Steele	R Steele	6.9.10	L. D. WALL	L. D. WALL	L. D. WALL	6/9/10 0930
Relinquished By			Date/Time	Received By			Date/Time
L. D. WALL	L. D. Wall	L. D. Wall	6/9/10 1050				6/9/10 1050
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix*

S = Soil		DL = Drum Liquids	
SE = Sediment		T = Tissue	
SO = Solid		WI = Wipe	
SL = Sludge		L = Liquid	
W = Water		V = Vegetation	
O = Oil		VA = Vapor	
A = Air		X = Other	
DS = Drum Solids			

FINAL SAMPLE DISPOSITION — Disposal Method (e.g., Return to customer, per lab procedure, used in process) — Disposed By — Date/Time

All samples containing hazardous materials shall be picked up by requestor and returned to parent container or site of origin.

A-6003-962 (03/05)

WSCF Laboratory

PO Box 650 S3-30
Richland, WA 99352

October 6, 2010

Melissa Garrard

Richland, WA 99352

Dear Melissa Garrard,

FINAL RESULT FOR SAMPLE DELIVERY GROUP WSCF101327

Reference: (1) NA - No Customer Specification
(2) HNF-SD-CD-QAPP-017, current version, Waste Sampling & Characterization Facility Quality Assurance Plan

This letter contains the following information for sample delivery group WSCF101327

* Cover Sheet (Attachment 1)
* Narrative (Attachment 2)
* Analytical Results (Attachment 3)
* Sample Receipt Information (Attachment 4)

Very truly yours,

Electronically signed by Scot Fitzgerald

For Lab Manager

WSCF Analytical Lab

(509) 373-7495

Attachments 4

CC: w/Attachments

File/LB

ATTACHMENT 1

COVER SHEET

Consisting of 2 pages
Including cover page

WSCF SAF Number Cross Reference

Group # WSCF101327
Data Deliverable Date 08/28/10

SAF #	Sample ID	Sample #	Matrix	Sampled	Received
V10-002	B23VB5	101327001	WATER	06/08/10	06/08/10
V10-002	B23VC4	101327002	WATER	06/07/10	06/08/10
V10-002	B23VB4	101327003	WATER	06/03/10	06/03/10
V10-002	B23VC3	101327004	WATER	06/03/10	06/03/10
V10-002	B23VB3	101327005	WATER	06/01/10	06/01/10
V10-002	B23VC2	101327006	WATER	06/01/10	06/01/10
V10-002	B23V99	101327007	WATER	05/20/10	06/11/10

ATTACHMENT 2

NARRATIVE

Consisting of 3 pages
Including cover page

Attachment 2
Narrative
WSCF101327

Introduction

Eleven (11) samples were received at the WSCF Laboratory between June 1, 2010 and June 8, 2010. The samples were analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Field Sampling and Analysis Plan for Waste Management Area C, RPP-PLAN-40564, Rev 2.*

The narrative (Attachment 2) will address sample characteristics, analyses requested and general information in performance of the analytical methods. A Data Summary Report (Attachment 3) includes analytical results, a comment report detailing method abnormalities, tentatively identified peaks if applicable, method references, and Laboratory QC information as applicable. Copies of the chain of custody and sample receipt documentation are included as Attachment 4.

Although eleven samples were received, only seven of them were used for analysis. WSCF received five (5) low-level samples, three (3) high level samples, one (1) methanol blank, one (1) field blank and one (1) trip blank sample. After analysis of the low-level samples, it became apparent that the high-level samples and the methanol blank did not need to be analyzed. The low level samples were placed in a freezer, while all the other samples were all placed in the refrigerator.

The following generic data qualifiers (i.e., B, D, U and J) may be applicable to this report, as appropriate

- **B** – Sample results with a concentration greater than the MDL but less than the PQL are B flagged (applies to inorganic and wet chemical analyses), as appropriate.
- **D** – Sample results are D flagged if dilution(s) were required, as appropriate.
- **J** – Sample results with a concentration greater than the MDL but less than the PQL are J flagged (applies to organic analyses), as appropriate.
- **U** – Analyzed for but not detected above limiting criteria. Relative Percent Difference (RPD) values associated with an analyte qualified with a "U" are not applicable.

Analytical Methodology for Requested Analyses

Refer to *WSCF Method References Report* for a complete listing of approved analytical methods.

Organic Comments

VOA – The hold time requirement for this analysis was met for all samples except for B23V99 (101327007). The sample was received by WSCF past the 14 day regulatory hold time. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Batch QC 139890 analyzed on sample# B23V99 (101327007)

All other QC controls are within the established limits.

We certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this data package has been authorized by the Analytical Laboratory Manager (or designee) and the Client Services representative as verified by electronic signatures shown on the WSCF ANALYTICAL RESULTS REPORT.

ATTACHMENT 3

ANALYTICAL RESULTS

Consisting of 24 pages
Including cover page

WSCF ANALYTICAL RESULTS REPORT

For

Washington River Protection Solutions

Richland, WA 99352

Attention: Melissa Garrard

Contract # NA
Group # WSCF101327
Report Date October 6, 2010

Analytical: Electronically signed by Scot Fitzgerald

Client Services: Electronically signed by Marisol Avila

Solid samples results that have a 'Percent Solid' test are reported on a "dry weight basis", except results of TCLP, Percent Solid, and Total Activity. If no `Percent Solid' test is reported then the results are reported on an "as received" basis.

This information is intended for the use of the addressee only. If the reader of this report is not the intended recipient or is not authorized by the recipient to receive the report, you are hereby notified that any dissemination, distribution or copying of this report is strictly prohibited. If you have received this report in error, please notify WSCF Laboratory immediately by telephone at (509) 373-7020 or (509) 531-8004. Information designation of this report is the responsibility of the customer.

Batch QC List

Attention Melissa Garrard
Department Organic, Volatiles

Group # WSCF101327

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
139890	139891	1	BLANK	31782	BLANK		SW-846 8260B Volatiles, separate prep
139890	139891	2	LCS	31783	LCS		SW-846 8260B Volatiles, separate prep
139890	139891	3	MS	31784	B23V99(101327007MS)	101327007	SW-846 8260B Volatiles, separate prep
139890	139891	4	MSD	31785	B23V99(101327007MSD)	101327007	SW-846 8260B Volatiles, separate prep
139890	139891	5	SAMPLE	101327007	B23V99		SW-846 8260B Volatiles, separate prep
139890	139891	6	SAMPLE	101327005	B23VB3		SW-846 8260B Volatiles, separate prep
139890	139891	7	SAMPLE	101327006	B23VC2		SW-846 8260B Volatiles, separate prep
139890	139891	8	SAMPLE	101327003	B23VB4		SW-846 8260B Volatiles, separate prep
139890	139891	9	SAMPLE	101327004	B23VC3		SW-846 8260B Volatiles, separate prep
139890	139891	10	SAMPLE	101327001	B23VB5		SW-846 8260B Volatiles, separate prep
139890	139891	11	SAMPLE	101327002	B23VC4		SW-846 8260B Volatiles, separate prep

Method Reference

Attention Melissa Garrard
Department Organic, Volatiles

Group # WSCF101327

The results provided in this report were generated using the following WSCF Laboratory procedures. For your convenience, this table provides a listing of the regulatory, industry methods or HEIS methods that are referenced by each of these WSCF procedures. Please note that the most recent version of the regulatory or industry method is listed here even though WSCF procedure may reference an older version of the method. Also, a reference to a regulatory or industry method here does not necessarily indicate a verbatim implementation of that method.

LA-523-455	Volatile Sample Analysis by SW-846 Method 8260B		
	EPA SW-846	8000B	Determinative Chromographic Separations
	EPA SW-846	8260B	Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)
	HEIS	8260_VOA_GCMS	Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Note: A complete list of WSCF analytical procedures and reference regulatory or industry methods is available online at http://www7.rl.gov/rapidweb/AS-DOL/index.cfm

WSCF Analytical Results Report

Attention Melissa Garrard
Department Organic, Volatiles

Group # WSCF101327

Sample # 101327001
SAF# V10-002
Sample ID B23VB5

Matrix WATER
Sampled 06/08/10
Received 06/08/10

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
8260 Prep										**06/13/10**
SW-846 8260B										
1,1-Dichloroethene	75-35-4	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Trichloroethene	79-01-6	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Benzene	71-43-2	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Toluene	108-88-3	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Chlorobenzene	108-90-7	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Ethylbenzene	100-41-4	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
trans-1,3-Dichloropropene	10061-02-6	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
1,2-Dichloroethane	107-06-2	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Methyl isobutyl ketone	108-10-1	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Tetrachloroethene	127-18-4	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Total Xylenes	1330-20-7	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Carbon tetrachloride	56-23-5	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Acetone	67-64-1	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Chloroform	67-66-3	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
1,1,1-Trichloroethane	71-55-6	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Vinyl chloride	75-01-4	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Methylene chloride	75-09-2	LA-523-455	U	<1		ug/L	1	1	5	06/13/10

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
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WSCF Analytical Results Report

Attention Melissa Garrard
Department Organic, Volatiles

Group # WSCF101327

Sample # 101327001
SAF# V10-002
Sample ID B23VB5

Matrix WATER
Sampled 06/08/10
Received 06/08/10

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Carbon disulfide	75-15-0	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Methyl ethyl ketone	78-93-3	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
1,1,2-Trichloroethane	79-00-5	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
1,1,2,2-Tetrachloroethane	79-34-5	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
1-Butanol	71-36-3	LA-523-455	U	<100		ug/L	1	100	500	06/13/10
Trichlorofluoromethane	75-69-4	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
trans-1,2-Dichloroethene	156-60-5	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
cis-1,2-Dichloroethene	156-59-2	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
m,p-xylene	179601-23-1	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
o-xylene	95-47-6	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
1,1,2-Trifluorotrichloroethane	76-13-1	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
2-Nitropropane	79-46-9	LA-523-455	U	<1		ug/L	1	1	2	06/13/10
Ethyl acetate	141-78-6	LA-523-455	U	<5		ug/L	1	5	20	06/13/10
Diethyl ether	60-29-7	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Isobutyl alcohol	78-83-1	LA-523-455	U	<200		ug/L	1	200	1.E3	06/13/10

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J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
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WSCF Analytical Results Report

Attention Melissa Garrard
Department Organic, Volatiles

Group # WSCF101327

Sample # 101327002
SAF# V10-002
Sample ID B23VC4

Matrix WATER
Sampled 06/07/10
Received 06/08/10

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
8260 Prep										**06/13/10**
SW-846 8260B										
1,1-Dichloroethene	75-35-4	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Trichloroethene	79-01-6	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Benzene	71-43-2	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Toluene	108-88-3	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Chlorobenzene	108-90-7	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Ethylbenzene	100-41-4	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
trans-1,3-Dichloropropene	10061-02-6	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
1,2-Dichloroethane	107-06-2	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Methyl isobutyl ketone	108-10-1	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Tetrachloroethene	127-18-4	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Total Xylenes	1330-20-7	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Carbon tetrachloride	56-23-5	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Acetone	67-64-1	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Chloroform	67-66-3	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
1,1,1-Trichloroethane	71-55-6	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Vinyl chloride	75-01-4	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Methylene chloride	75-09-2	LA-523-455	J	1.1		ug/L	1	1	5	06/13/10

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J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

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U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
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WSCF Analytical Results Report

Attention Melissa Garrard
Department Organic, Volatiles

Group # WSCF101327

Sample # 101327002
SAF# V10-002
Sample ID B23VC4

Matrix WATER
Sampled 06/07/10
Received 06/08/10

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Carbon disulfide	75-15-0	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Methyl ethyl ketone	78-93-3	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
1,1,2-Trichloroethane	79-00-5	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
1,1,2,2-Tetrachloroethane	79-34-5	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
1-Butanol	71-36-3	LA-523-455	U	<100		ug/L	1	100	500	06/13/10
Trichlorofluoromethane	75-69-4	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
trans-1,2-Dichloroethene	156-60-5	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
cis-1,2-Dichloroethene	156-59-2	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
m,p-xylene	179601-23-1	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
o-xylene	95-47-6	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
1,1,2-Trifluorotrichloroethane	76-13-1	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
2-Nitropropane	79-46-9	LA-523-455	U	<1		ug/L	1	1	2	06/13/10
Ethyl acetate	141-78-6	LA-523-455	U	<5		ug/L	1	5	20	06/13/10
Diethyl ether	60-29-7	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Isobutyl alcohol	78-83-1	LA-523-455	U	<200		ug/L	1	200	1.E3	06/13/10

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WSCF Analytical Results Report

Attention Melissa Garrard
Department Organic, Volatiles

Group # WSCF101327

Sample # 101327003
SAF# V10-002
Sample ID B23VB4

Matrix WATER
Sampled 06/03/10
Received 06/03/10

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
8260 Prep										**06/13/10**
SW-846 8260B										
1,1-Dichloroethene	75-35-4	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Trichloroethene	79-01-6	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Benzene	71-43-2	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Toluene	108-88-3	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Chlorobenzene	108-90-7	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Ethylbenzene	100-41-4	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
trans-1,3-Dichloropropene	10061-02-6	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
1,2-Dichloroethane	107-06-2	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Methyl isobutyl ketone	108-10-1	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Tetrachloroethene	127-18-4	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Total Xylenes	1330-20-7	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Carbon tetrachloride	56-23-5	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Acetone	67-64-1	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Chloroform	67-66-3	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
1,1,1-Trichloroethane	71-55-6	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Vinyl chloride	75-01-4	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Methylene chloride	75-09-2	LA-523-455	J	1.1		ug/L	1	1	5	06/13/10

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U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
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WSCF Analytical Results Report

Attention Melissa Garrard
Department Organic, Volatiles

Group # WSCF101327

Sample # 101327003
SAF# V10-002
Sample ID B23VB4

Matrix WATER
Sampled 06/03/10
Received 06/03/10

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Carbon disulfide	75-15-0	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Methyl ethyl ketone	78-93-3	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
1,1,2-Trichloroethane	79-00-5	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
1,1,2,2-Tetrachloroethane	79-34-5	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
1-Butanol	71-36-3	LA-523-455	U	<100		ug/L	1	100	500	06/13/10
Trichlorofluoromethane	75-69-4	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
trans-1,2-Dichloroethene	156-60-5	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
cis-1,2-Dichloroethene	156-59-2	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
m,p-xylene	179601-23-1	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
o-xylene	95-47-6	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
1,1,2-Trifluorotrichloroethane	76-13-1	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
2-Nitropropane	79-46-9	LA-523-455	U	<1		ug/L	1	1	2	06/13/10
Ethyl acetate	141-78-6	LA-523-455	U	<10		ug/L	1	10	5.E3	06/13/10
Diethyl ether	60-29-7	LA-523-455	U	<1		ug/L	1	1	5.E3	06/13/10
Isobutyl alcohol	78-83-1	LA-523-455	U	<500		ug/L	1	500	5.E3	06/13/10

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WSCF Analytical Results Report

Attention Melissa Garrard
Department Organic, Volatiles

Group # WSCF101327

Sample # 101327004
SAF# V10-002
Sample ID B23VC3

Matrix WATER
Sampled 06/03/10
Received 06/03/10

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
8260 Prep										**06/13/10**
SW-846 8260B										
1,1-Dichloroethene	75-35-4	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Trichloroethene	79-01-6	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Benzene	71-43-2	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Toluene	108-88-3	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Chlorobenzene	108-90-7	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Ethylbenzene	100-41-4	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
trans-1,3-Dichloropropene	10061-02-6	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
1,2-Dichloroethane	107-06-2	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Methyl isobutyl ketone	108-10-1	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Tetrachloroethene	127-18-4	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Total Xylenes	1330-20-7	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Carbon tetrachloride	56-23-5	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Acetone	67-64-1	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Chloroform	67-66-3	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
1,1,1-Trichloroethane	71-55-6	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Vinyl chloride	75-01-4	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Methylene chloride	75-09-2	LA-523-455	U	<1		ug/L	1	1	5	06/13/10

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U - Analyzed for but not detected above limiting criteria.
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WSCF Analytical Results Report

Attention Melissa Garrard
Department Organic, Volatiles

Group # WSCF101327

Sample # 101327004
SAF# V10-002
Sample ID B23VC3

Matrix WATER
Sampled 06/03/10
Received 06/03/10

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Carbon disulfide	75-15-0	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Methyl ethyl ketone	78-93-3	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
1,1,2-Trichloroethane	79-00-5	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
1,1,2,2-Tetrachloroethane	79-34-5	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
1-Butanol	71-36-3	LA-523-455	U	<100		ug/L	1	100	500	06/13/10
Trichlorofluoromethane	75-69-4	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
trans-1,2-Dichloroethene	156-60-5	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
cis-1,2-Dichloroethene	156-59-2	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
m,p-xylene	179601-23-1	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
o-xylene	95-47-6	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
1,1,2-Trifluorotrichloroethane	76-13-1	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
2-Nitropropane	79-46-9	LA-523-455	U	<1		ug/L	1	1	2	06/13/10
Ethyl acetate	141-78-6	LA-523-455	U	<10		ug/L	1	10	5.E3	06/13/10
Diethyl ether	60-29-7	LA-523-455	U	<1		ug/L	1	1	5.E3	06/13/10
Isobutyl alcohol	78-83-1	LA-523-455	U	<500		ug/L	1	500	5.E3	06/13/10

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
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B - Analyte was detected in both the BLANK and SAMPLE
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J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
N - MS and/or MSD recovery outside control limits.

WSCF Analytical Results Report

Attention Melissa Garrard
Department Organic, Volatiles

Group # WSCF101327

Sample # 101327005
SAF# V10-002
Sample ID B23VB3

Matrix WATER
Sampled 06/01/10
Received 06/01/10

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
8260 Prep										**06/13/10**
SW-846 8260B										
1,1-Dichloroethene	75-35-4	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Trichloroethene	79-01-6	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Benzene	71-43-2	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Toluene	108-88-3	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Chlorobenzene	108-90-7	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Ethylbenzene	100-41-4	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
trans-1,3-Dichloropropene	10061-02-6	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
1,2-Dichloroethane	107-06-2	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Methyl isobutyl ketone	108-10-1	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Tetrachloroethene	127-18-4	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Total Xylenes	1330-20-7	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Carbon tetrachloride	56-23-5	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Acetone	67-64-1	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Chloroform	67-66-3	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
1,1,1-Trichloroethane	71-55-6	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Vinyl chloride	75-01-4	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Methylene chloride	75-09-2	LA-523-455	U	<1		ug/L	1	1	5	06/13/10

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D - Analyte was reported at a secondary diltution factor.
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J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
N - MS and/or MSD recovery outside control limits.

WSCF Analytical Results Report

Attention Melissa Garrard
Department Organic, Volatiles

Group # WSCF101327

Sample # 101327005
SAF# V10-002
Sample ID B23VB3

Matrix WATER
Sampled 06/01/10
Received 06/01/10

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Carbon disulfide	75-15-0	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Methyl ethyl ketone	78-93-3	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
1,1,2-Trichloroethane	79-00-5	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
1,1,2,2-Tetrachloroethane	79-34-5	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
1-Butanol	71-36-3	LA-523-455	U	<100		ug/L	1	100	500	06/13/10
Trichlorofluoromethane	75-69-4	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
trans-1,2-Dichloroethene	156-60-5	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
cis-1,2-Dichloroethene	156-59-2	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
m,p-xylene	179601-23-1	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
o-xylene	95-47-6	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
1,1,2-Trifluorotrichloroethane	76-13-1	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
2-Nitropropane	79-46-9	LA-523-455	U	<1		ug/L	1	1	2	06/13/10
Ethyl acetate	141-78-6	LA-523-455	U	<10		ug/L	1	10	5.E3	06/13/10
Diethyl ether	60-29-7	LA-523-455	U	<1		ug/L	1	1	5.E3	06/13/10
Isobutyl alcohol	78-83-1	LA-523-455	U	<500		ug/L	1	500	5.E3	06/13/10

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DF = Dilution Factor
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N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
N - MS and/or MSD recovery outside control limits.

WSCF Analytical Results Report

Attention Melissa Garrard
Department Organic, Volatiles

Group # WSCF101327

Sample # 101327006
SAF# V10-002
Sample ID B23VC2

Matrix WATER
Sampled 06/01/10
Received 06/01/10

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
8260 Prep										**06/13/10**
SW-846 8260B										
1,1-Dichloroethene	75-35-4	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Trichloroethene	79-01-6	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Benzene	71-43-2	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Toluene	108-88-3	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Chlorobenzene	108-90-7	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Ethylbenzene	100-41-4	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
trans-1,3-Dichloropropene	10061-02-6	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
1,2-Dichloroethane	107-06-2	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Methyl isobutyl ketone	108-10-1	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Tetrachloroethene	127-18-4	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Total Xylenes	1330-20-7	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Carbon tetrachloride	56-23-5	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Acetone	67-64-1	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Chloroform	67-66-3	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
1,1,1-Trichloroethane	71-55-6	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Vinyl chloride	75-01-4	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Methylene chloride	75-09-2	LA-523-455	J	1.1		ug/L	1	1	5	06/13/10

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
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J - Analyte < lowest calibration but >= MDL.
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U - Analyzed for but not detected above limiting criteria.
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WSCF Analytical Results Report

Attention Melissa Garrard
Department Organic, Volatiles

Group # WSCF101327

Sample # 101327006
SAF# V10-002
Sample ID B23VC2

Matrix WATER
Sampled 06/01/10
Received 06/01/10

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Carbon disulfide	75-15-0	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Methyl ethyl ketone	78-93-3	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
1,1,2-Trichloroethane	79-00-5	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
1,1,2,2-Tetrachloroethane	79-34-5	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
1-Butanol	71-36-3	LA-523-455	U	<100		ug/L	1	100	500	06/13/10
Trichlorofluoromethane	75-69-4	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
trans-1,2-Dichloroethene	156-60-5	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
cis-1,2-Dichloroethene	156-59-2	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
m,p-xylene	179601-23-1	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
o-xylene	95-47-6	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
1,1,2-Trifluorotrichloroethane	76-13-1	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
2-Nitropropane	79-46-9	LA-523-455	U	<1		ug/L	1	1	2	06/13/10
Ethyl acetate	141-78-6	LA-523-455	U	<10		ug/L	1	10	5.E3	06/13/10
Diethyl ether	60-29-7	LA-523-455	U	<1		ug/L	1	1	5.E3	06/13/10
Isobutyl alcohol	78-83-1	LA-523-455	U	<500		ug/L	1	500	5.E3	06/13/10

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WSCF Analytical Results Report

Attention Melissa Garrard
Department Organic, Volatiles

Group # WSCF101327

Sample # 101327007
SAF# V10-002
Sample ID B23V99

Matrix WATER
Sampled 05/20/10
Received 06/11/10

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
8260 Prep										**06/13/10**
SW-846 8260B										
1,1-Dichloroethene	75-35-4	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Trichloroethene	79-01-6	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Benzene	71-43-2	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Toluene	108-88-3	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Chlorobenzene	108-90-7	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Ethylbenzene	100-41-4	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
trans-1,3-Dichloropropene	10061-02-6	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
1,2-Dichloroethane	107-06-2	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Methyl isobutyl ketone	108-10-1	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Tetrachloroethene	127-18-4	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Total Xylenes	1330-20-7	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Carbon tetrachloride	56-23-5	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Acetone	67-64-1	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Chloroform	67-66-3	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
1,1,1-Trichloroethane	71-55-6	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Vinyl chloride	75-01-4	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Methylene chloride	75-09-2	LA-523-455	J	1.1		ug/L	1	1	5	06/13/10

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WSCF Analytical Results Report

Attention Melissa Garrard
Department Organic, Volatiles

Group # WSCF101327

Sample # 101327007
SAF# V10-002
Sample ID B23V99

Matrix WATER
Sampled 05/20/10
Received 06/11/10

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Carbon disulfide	75-15-0	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
Methyl ethyl ketone	78-93-3	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
1,1,2-Trichloroethane	79-00-5	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
1,1,2,2-Tetrachloroethane	79-34-5	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
1-Butanol	71-36-3	LA-523-455	U	<100		ug/L	1	100	500	06/13/10
Trichlorofluoromethane	75-69-4	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
trans-1,2-Dichloroethene	156-60-5	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
cis-1,2-Dichloroethene	156-59-2	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
m,p-xylene	179601-23-1	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
o-xylene	95-47-6	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
1,1,2-Trifluorotrichloroethane	76-13-1	LA-523-455	U	<1		ug/L	1	1	5	06/13/10
2-Nitropropane	79-46-9	LA-523-455	U	<1		ug/L	1	1	2	06/13/10
Ethyl acetate	141-78-6	LA-523-455	U	<10		ug/L	1	10	5.E3	06/13/10
Diethyl ether	60-29-7	LA-523-455	U	<1		ug/L	1	1	5.E3	06/13/10
Isobutyl alcohol	78-83-1	LA-523-455	U	<500		ug/L	1	500	5.E3	06/13/10

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Quality Control Report

Attention Melissa Garrard
Department Organic, Volatiles

Group # WSCF101327

QC Batch 139890 **Test** SW-846 8260B Volatiles, separate prep
Associated Samples 101327001, 101327002, 101327003, 101327004, 101327005, 101327006, 101327007

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #31782**							
1,1-Dichloroethene	75-35-4		<1	ug/L					U	06/13/10
Trichloroethene	79-01-6		<1	ug/L					U	06/13/10
Benzene	71-43-2		<1	ug/L					U	06/13/10
Toluene	108-88-3		<1	ug/L					U	06/13/10
Chlorobenzene	108-90-7		<1	ug/L					U	06/13/10
Ethylbenzene	100-41-4		<1	ug/L					U	06/13/10
trans-1,3-Dichloropropene	10061-02-6		<1	ug/L					U	06/13/10
1,2-Dichloroethane	107-06-2		<1	ug/L					U	06/13/10
Methyl isobutyl ketone	108-10-1		<1	ug/L					U	06/13/10
Tetrachloroethene	127-18-4		<1	ug/L					U	06/13/10
Total Xylenes	1330-20-7		<1	ug/L					U	06/13/10
Carbon tetrachloride	56-23-5		<1	ug/L					U	06/13/10
Acetone	67-64-1		<1	ug/L					U	06/13/10
Chloroform	67-66-3		<1	ug/L					U	06/13/10
1,1,1-Trichloroethane	71-55-6		<1	ug/L					U	06/13/10
Vinyl chloride	75-01-4		<1	ug/L					U	06/13/10
Methylene chloride	75-09-2		<1	ug/L					U	06/13/10
Carbon disulfide	75-15-0		<1	ug/L					U	06/13/10

Quality Control Report

Attention Melissa Garrard
Department Organic, Volatiles

Group # WSCF101327

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Methyl ethyl ketone	78-93-3		<1	ug/L					U	06/13/10
1,1,2-Trichloroethane	79-00-5		<1	ug/L					U	06/13/10
1,1,2,2-Tetrachloroethane	79-34-5		<1	ug/L					U	06/13/10
1-Butanol	71-36-3		<100	ug/L					U	06/13/10
Trichlorofluoromethane	75-69-4		<1	ug/L					U	06/13/10
trans-1,2-Dichloroethene	156-60-5		<1	ug/L					U	06/13/10
cis-1,2-Dichloroethene	156-59-2		<1	ug/L					U	06/13/10
m,p-xylene	179601-23-1		<1	ug/L					U	06/13/10
o-xylene	95-47-6		<1	ug/L					U	06/13/10
1,1,2-Trifluorotrichloroethane	76-13-1		<1	ug/L					U	06/13/10
2-Nitropropane	79-46-9		<1	ug/L					U	06/13/10
Ethyl acetate	141-78-6		<5	ug/L					U	06/13/10
Diethyl ether	60-29-7		<1	ug/L					U	06/13/10
Isobutyl alcohol	78-83-1		<200	ug/L					U	06/13/10
LCS			**QC Sample #31783**							
1,1-Dichloroethene	75-35-4		26	ug/L	103	75 - 125				06/13/10
Trichloroethene	79-01-6		24	ug/L	95.2	75 - 125				06/13/10
Benzene	71-43-2		27	ug/L	108.6	75 - 125				06/13/10
Toluene	108-88-3		27	ug/L	107.8	75 - 125				06/13/10
Chlorobenzene	108-90-7		26	ug/L	105.1	75 - 125				06/13/10

Quality Control Report

Attention Melissa Garrard
Department Organic, Volatiles

Group # WSCF101327

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
MS			**QC Sample #31784**							
			Original 101327007							
1,1-Dichloroethene	75-35-4	<1	25	ug/L	100.4	75 - 125				06/13/10
Trichloroethene	79-01-6	<1	23	ug/L	92.1	75 - 125				06/13/10
Benzene	71-43-2	<1	27	ug/L	106.2	75 - 125				06/13/10
Toluene	108-88-3	<1	27	ug/L	106.5	75 - 125				06/13/10
Chlorobenzene	108-90-7	<1	26	ug/L	102.8	75 - 125				06/13/10
MSD			**QC Sample #31785**							
			Original 101327007						**Paired 31784**	
1,1-Dichloroethene	75-35-4	<1	23	ug/L	91	75 - 125	9.80	20		06/13/10
Trichloroethene	79-01-6	<1	21	ug/L	82.6	75 - 125	10.80	20		06/13/10
Benzene	71-43-2	<1	24	ug/L	97.4	75 - 125	8.70	20		06/13/10
Toluene	108-88-3	<1	24	ug/L	96.6	75 - 125	9.70	20		06/13/10
Chlorobenzene	108-90-7	<1	23	ug/L	93	75 - 125	10.00	20		06/13/10
SAMPLE			**Sample #101327001**							
1,2-Dichloroethane-d4	17060-07-0				96.9	75 - 125				06/13/10
Toluene-d8	2037-26-5				108.2	75 - 125				06/13/10
4-Bromofluorobenzene	460-00-4				101.7	75 - 125				06/13/10
SAMPLE			**Sample #101327002**							
1,2-Dichloroethane-d4	17060-07-0				99.6	75 - 125				06/13/10
Toluene-d8	2037-26-5				108.5	75 - 125				06/13/10
4-Bromofluorobenzene	460-00-4				101.6	75 - 125				06/13/10

Quality Control Report

Attention Melissa Garrard
Department Organic, Volatiles

Group # WSCF101327

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #101327003**							
1,2-Dichloroethane-d4	17060-07-0				99.8	75 - 125				06/13/10
Toluene-d8	2037-26-5				109.5	75 - 125				06/13/10
4-Bromofluorobenzene	460-00-4				101.3	75 - 125				06/13/10
SAMPLE			**Sample #101327004**							
1,2-Dichloroethane-d4	17060-07-0				97.9	75 - 125				06/13/10
Toluene-d8	2037-26-5				109.7	75 - 125				06/13/10
4-Bromofluorobenzene	460-00-4				101.1	75 - 125				06/13/10
SAMPLE			**Sample #101327005**							
1,2-Dichloroethane-d4	17060-07-0				99.2	75 - 125				06/13/10
Toluene-d8	2037-26-5				109.3	75 - 125				06/13/10
4-Bromofluorobenzene	460-00-4				102.2	75 - 125				06/13/10
SAMPLE			**Sample #101327006**							
1,2-Dichloroethane-d4	17060-07-0				99.4	75 - 125				06/13/10
Toluene-d8	2037-26-5				108.5	75 - 125				06/13/10
4-Bromofluorobenzene	460-00-4				102.3	75 - 125				06/13/10
SAMPLE			**Sample #101327007**							
1,2-Dichloroethane-d4	17060-07-0				100	75 - 125				06/13/10
Toluene-d8	2037-26-5				110.4	75 - 125				06/13/10

Quality Control Report

Attention Melissa Garrard
Department Organic, Volatiles

Group # WSCF101327

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
4-Bromofluorobenzene	460-00-4				102.6	75 - 125				06/13/10
BLANK			**QC Sample #31782**							
1,2-Dichloroethane-d4	17060-07-0				97.9	75 - 125				06/13/10
Toluene-d8	2037-26-5				107.6	75 - 125				06/13/10
4-Bromofluorobenzene	460-00-4				101.6	75 - 125				06/13/10
LCS			**QC Sample #31783**							
1,2-Dichloroethane-d4	17060-07-0				96.5	75 - 125				06/13/10
Toluene-d8	2037-26-5				108.5	75 - 125				06/13/10
4-Bromofluorobenzene	460-00-4				101.8	75 - 125				06/13/10
MS			**QC Sample #31784**							
			Original 101327007							
1,2-Dichloroethane-d4	17060-07-0				98.2	75 - 125				06/13/10
Toluene-d8	2037-26-5				108.6	75 - 125				06/13/10
4-Bromofluorobenzene	460-00-4				103.3	75 - 125				06/13/10
MSD			**QC Sample #31785**							
			Original 101327007						**Paired 31784**	
1,2-Dichloroethane-d4	17060-07-0				97.8	75 - 125	0.40	20		06/13/10
Toluene-d8	2037-26-5				108.6	75 - 125	0.00	20		06/13/10
4-Bromofluorobenzene	460-00-4				102.7	75 - 125	0.60	20		06/13/10

Analytical Comment Report

Attention: Melissa Garrard

Group # WSCF101327

101327007	**B23V99**

VOA: Sample Holding time exceedance. Analysis completed per client request. gar

ATTACHMENT4

SAMPLE RECEIPT

Consisting of 11 pages
Including cover page

Sample Receipt

Waste Sampling and Characterization Facility
P.O. Box 1970 S3-30, Richland WA 99352
Phone: (509) 373-7004/FAX: (509) 373-7134

ACKNOWLEDGEMENT OF SAMPLES RECEIVED

WSCF Laboratory
PO Box 1000 S3-30
Richland, WA 99352

ATTN: Melissa Garrard

Customer Code: WRPS
PO #:
Work Order #: 101327
Profile #: V10-002-053
Proj. Mgr.:
Phone:

The following samples were received from you on 6/8/2010 12:00:00 PM. They have been scheduled for the tests listed beside each sample. If this information is incorrect, please contact your service representative. Thank you for using Waste Sampling and Characterization Facility.

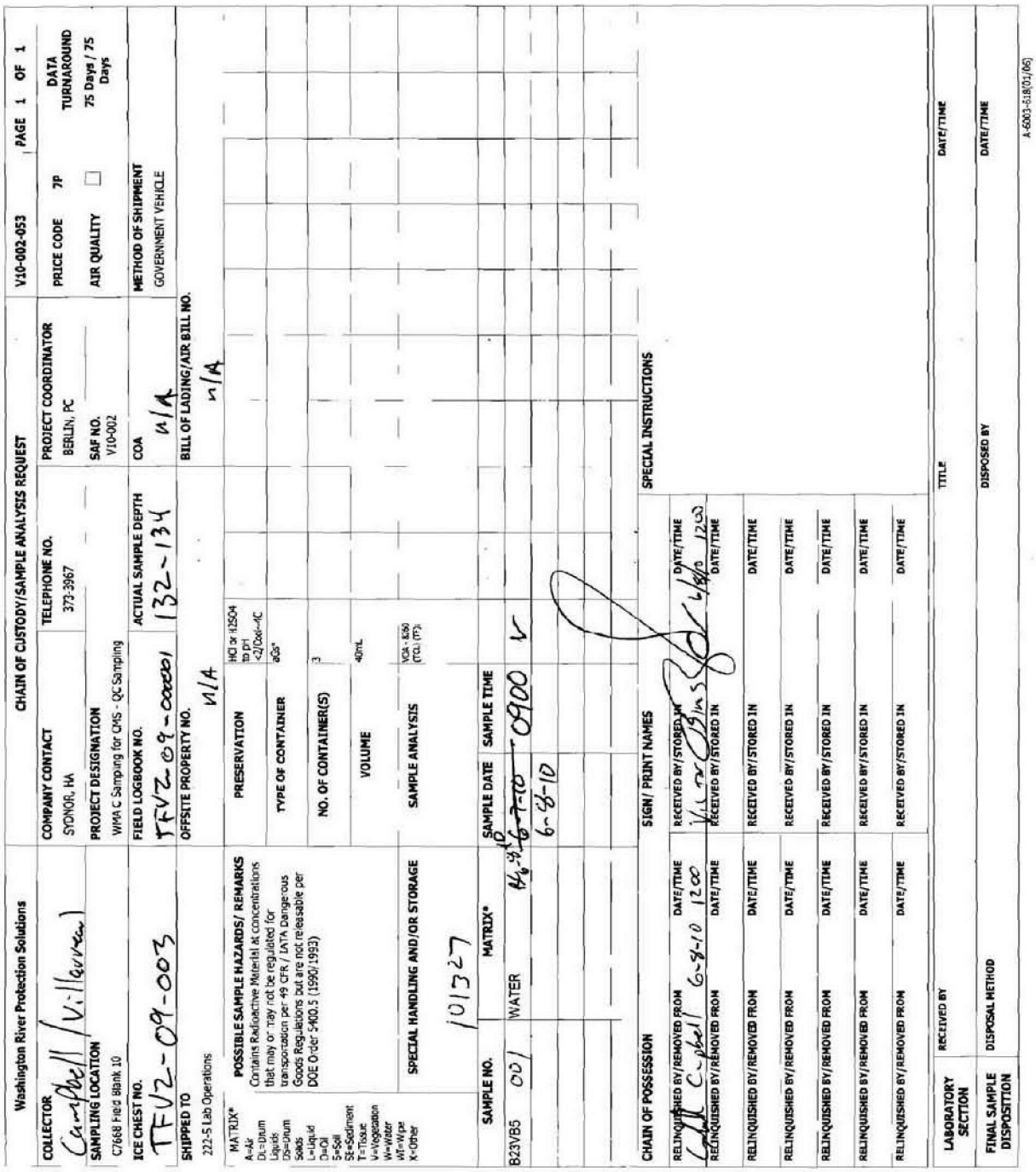
Sample #	Sample ID	Matrix	Collected	Received
		Tests scheduled		
101327001	B23VB5	WATER	6/8/2010 09:00	6/8/2010 12:00
		8260V-W		
101327002	B23VC4	WATER	6/7/2010 09:15	6/8/2010 12:00
		8260V-W		
101327003	B23VB4	WATER	6/3/2010 13:25	6/3/2010 15:15
		8260V-W		
101327004	B23VC3	WATER	6/3/2010 11:15	6/3/2010 15:15
		8260V-W		
101327005	B23VB3	WATER	6/1/2010 11:15	6/1/2010 13:00
		8260V-W		
101327006	B23VC2	WATER	6/1/2010 10:50	6/1/2010 13:00
		8260V-W		
101327007	B23V99	WATER	5/20/2010 10:45	6/11/2010 00:00
		8260V-W		

Test Acronym Description

Test Acronym	Description
8260V-W	Volatiles by 8260B (W)

Friday, June 11, 2010 7:05:17 PM Page 1 of 10 5007.1.0.0

Sample Receipt



Washington River Protection Solutions

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

V10-002-053 PAGE 1 OF 1

COLLECTOR: Campbell / Williams
COMPANY CONTACT: SYDNOR, HA
TELEPHONE NO.: 373-3967
PROJECT COORDINATOR: BERLIN, PC
PRICE CODE: 7P
DATA TURNAROUND: 75 Days / 75 Days
SAMPLING LOCATION: C7668 Field Blank 10
PROJECT DESIGNATION: WMA C Sampling for CMS - QC Sampling
SAF NO.: V10-002
AIR QUALITY
ICE CHEST NO.: TFV2-09-003
FIELD LOGBOOK NO.: TFV2 09-00001
ACTUAL SAMPLE DEPTH: 132-134
COA: N/A
METHOD OF SHIPMENT: GOVERNMENT VEHICLE
SHIPPED TO: 222-S Lab Operations
OFFSITE PROPERTY NO.: N/A
BILL OF LADING/AIR BILL NO.: N/A

MATRIX*: A=Air, DI=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / DATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

PRESERVATION: HCl or H2SO4 to pH <2/Cool~4C
TYPE OF CONTAINER: aGs*
NO. OF CONTAINER(S): 3
VOLUME: 40mL
SAMPLE ANALYSIS: VOA - 8260 (TCL (??))

SPECIAL HANDLING AND/OR STORAGE: 101327

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B23VB5 001	WATER	6-8-10	0900

SPECIAL INSTRUCTIONS

CHAIN OF POSSESSION

SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Campbell	6-9-10 1200	Williams	6/9/10 1200
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

LABORATORY SECTION: RECEIVED BY — TITLE — DATE/TIME
FINAL SAMPLE DISPOSITION: DISPOSAL METHOD — DISPOSED BY — DATE/TIME

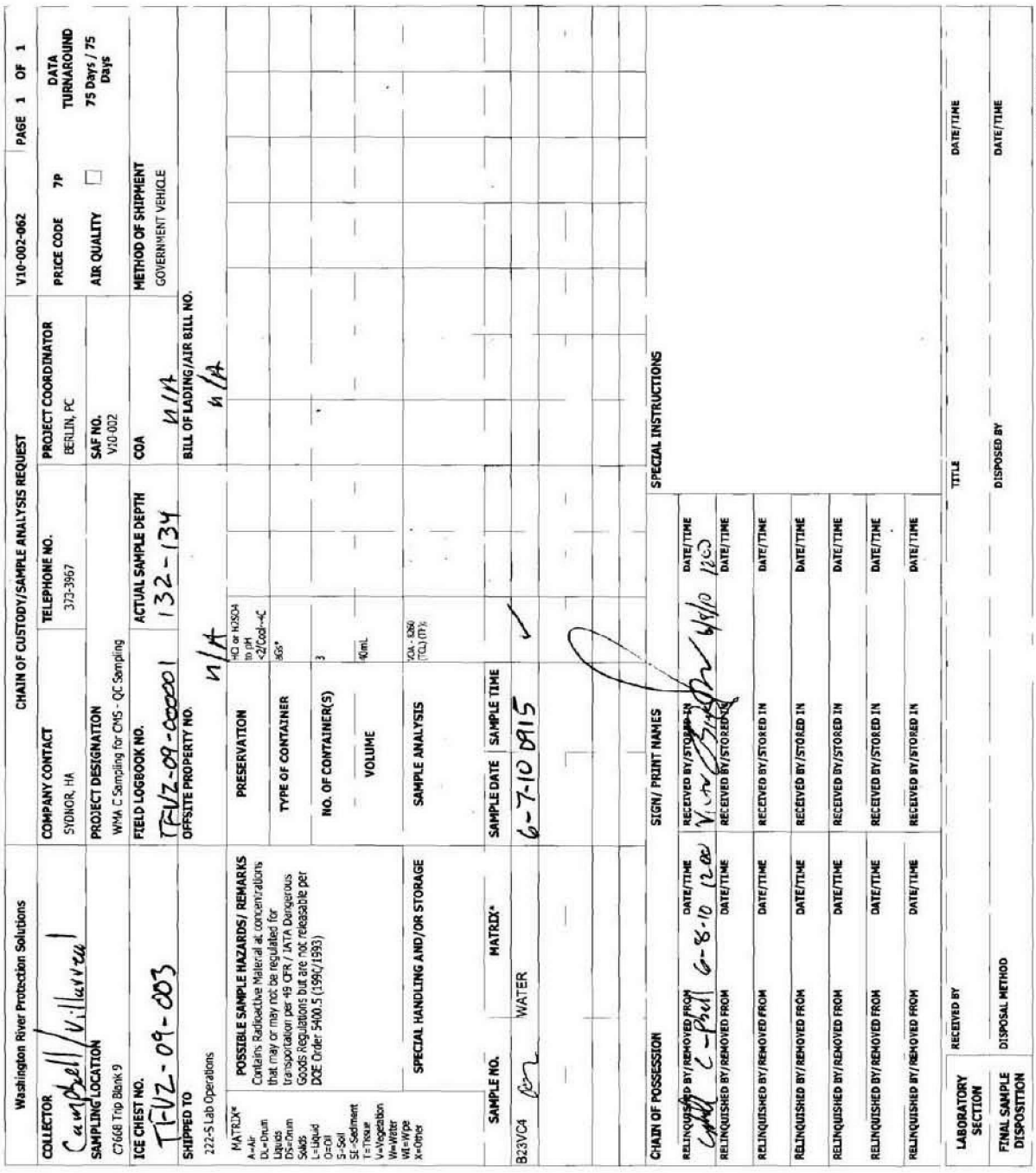
A-6003-518(03/06)

Friday, June 11, 2010 7:07:04 PM
Page 2 of 10

ChemWare

Sample Receipt

Chain of Custody



Washington River Protection Solutions — CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST — V10-002-062 — PAGE 1 OF 1

COLLECTOR: Campbell / Villarreal
COMPANY CONTACT: SYDNOR, HA
TELEPHONE NO.: 373-3967
PROJECT COORDINATOR: BERLIN, PC
PRICE CODE: 7P
DATA TURNAROUND: 75 Days / 75 Days
SAMPLING LOCATION: C7668 Trip Blank 9
PROJECT DESIGNATION: WMA C Sampling for CMS - QC Sampling
SAF NO.: V10-002
AIR QUALITY: ☐
METHOD OF SHIPMENT: GOVERNMENT VEHICLE
ICE CHEST NO.: T-VZ-09-003
FIELD LOGBOOK NO.: TFVZ-09-00001
ACTUAL SAMPLE DEPTH: 132-134
COA: N/A
SHIPPED TO: 222-S Lab Operations
OFFSITE PROPERTY NO.: N/A
BILL OF LADING/AIR BILL NO.: N/A

MATRIX*: A=Air; DL=Drum Liquids; DS=Drum Solids; L=Liquid; O=Oil; S=Soil; SE=Sediment; T=Tissue; V=Vegetation; W=Water; WI=Wipe; X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

PRESERVATION: HCl or H2SO4 to pH <2/Cool~4C
TYPE OF CONTAINER: aGs*
NO. OF CONTAINER(S): 3
VOLUME: 40mL
SAMPLE ANALYSIS: VOA - 8260 (TCL) (T);
SPECIAL HANDLING AND/OR STORAGE

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B23VC4	WATER	6-7-10	0915

CHAIN OF POSSESSION — SIGN/ PRINT NAMES — SPECIAL INSTRUCTIONS

	SIGN/ PRINT NAMES	DATE/TIME
RELINQUISHED BY/REMOVED FROM	Campbell E-Port	6-8-10 1200
RECEIVED BY/STORED IN		6/8/10 1200
RELINQUISHED BY/REMOVED FROM		DATE/TIME
RECEIVED BY/STORED IN		DATE/TIME
RELINQUISHED BY/REMOVED FROM		DATE/TIME
RECEIVED BY/STORED IN		DATE/TIME
RELINQUISHED BY/REMOVED FROM		DATE/TIME
RECEIVED BY/STORED IN		DATE/TIME
RELINQUISHED BY/REMOVED FROM		DATE/TIME
RECEIVED BY/STORED IN		DATE/TIME
RELINQUISHED BY/REMOVED FROM		DATE/TIME
RECEIVED BY/STORED IN		DATE/TIME
RELINQUISHED BY/REMOVED FROM		DATE/TIME
RECEIVED BY/STORED IN		DATE/TIME

LABORATORY SECTION — RECEIVED BY — TITLE — DATE/TIME
FINAL SAMPLE DISPOSITION — DISPOSAL METHOD — DISPOSED BY — DATE/TIME

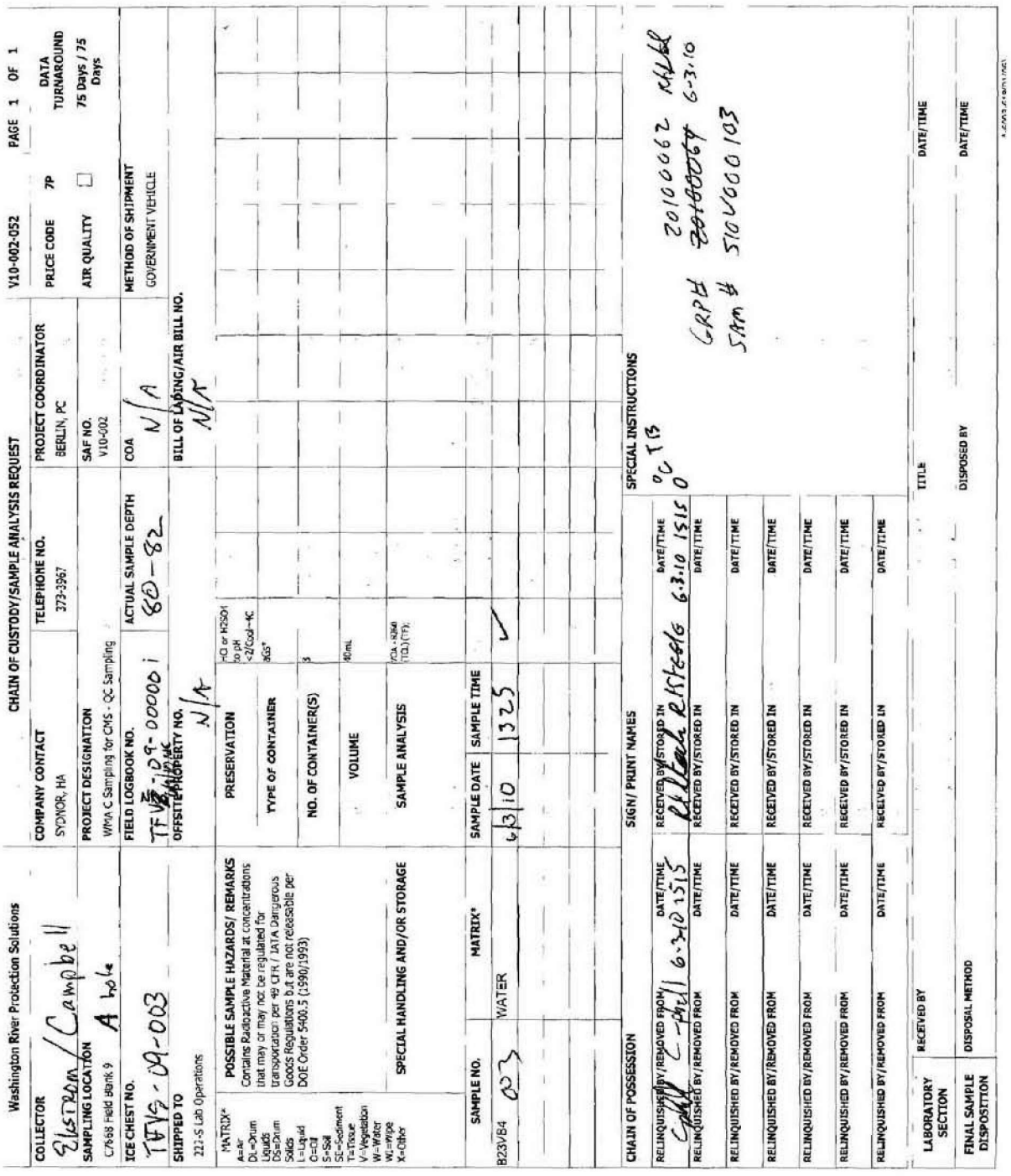
A-6002-618(01/06)

ChemWare

Friday, June 11, 2010 7:07:04 PM
Page 3 of 10

Sample Receipt

Chain of Custody



Washington River Protection Solutions — CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST — V10-002-052 — PAGE 1 OF 1

COLLECTOR: Elstrom / Campbell
COMPANY CONTACT: SYDNOR, HA
TELEPHONE NO.: 373-3967
PROJECT COORDINATOR: BERLIN, PC
PRICE CODE: 7P
DATA TURNAROUND: 75 Days / 75 Days

SAMPLING LOCATION: C7668 Field Blank 9 — A Hole
PROJECT DESIGNATION: WMA C Sampling for CMS - QC Sampling
SAF NO.: V10-002
AIR QUALITY:

ICE CHEST NO.: TFV8-09-003
FIELD LOGBOOK NO.: TFV8-09-00000 i
ACTUAL SAMPLE DEPTH: 80-82
COA: N/A
METHOD OF SHIPMENT: GOVERNMENT VEHICLE

SHIPPED TO: 222-S Lab Operations
OFFSITE PROPERTY NO.: N/A
BILL OF LADING/AIR BILL NO.: N/A

MATRIX*: A=Air; DL=Drum Liquids; DS=Drum Solids; L=Liquid; O=Oil; S=Soil; SE=Sediment; T=Tissue; V=Vegetation; W=Water; W=Wipe; X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION: HCl or H2SO4 to pH <2/Cool-4C
TYPE OF CONTAINER: 8GS*
NO. OF CONTAINER(S): 3
VOLUME: 40mL
SAMPLE ANALYSIS: (VOA - 8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B23VB4	WATER	6/3/10	1325

CHAIN OF POSSESSION — SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
[illegible]	6-3-10 1515	[illegible]	6.3.10 1515
	DATE/TIME		DATE/TIME
	DATE/TIME		DATE/TIME
	DATE/TIME		DATE/TIME
	DATE/TIME		DATE/TIME
	DATE/TIME		DATE/TIME
	DATE/TIME		DATE/TIME

SPECIAL INSTRUCTIONS: 0°C TB
CRPH 20100062 6-3-10
SAM # 510V000103

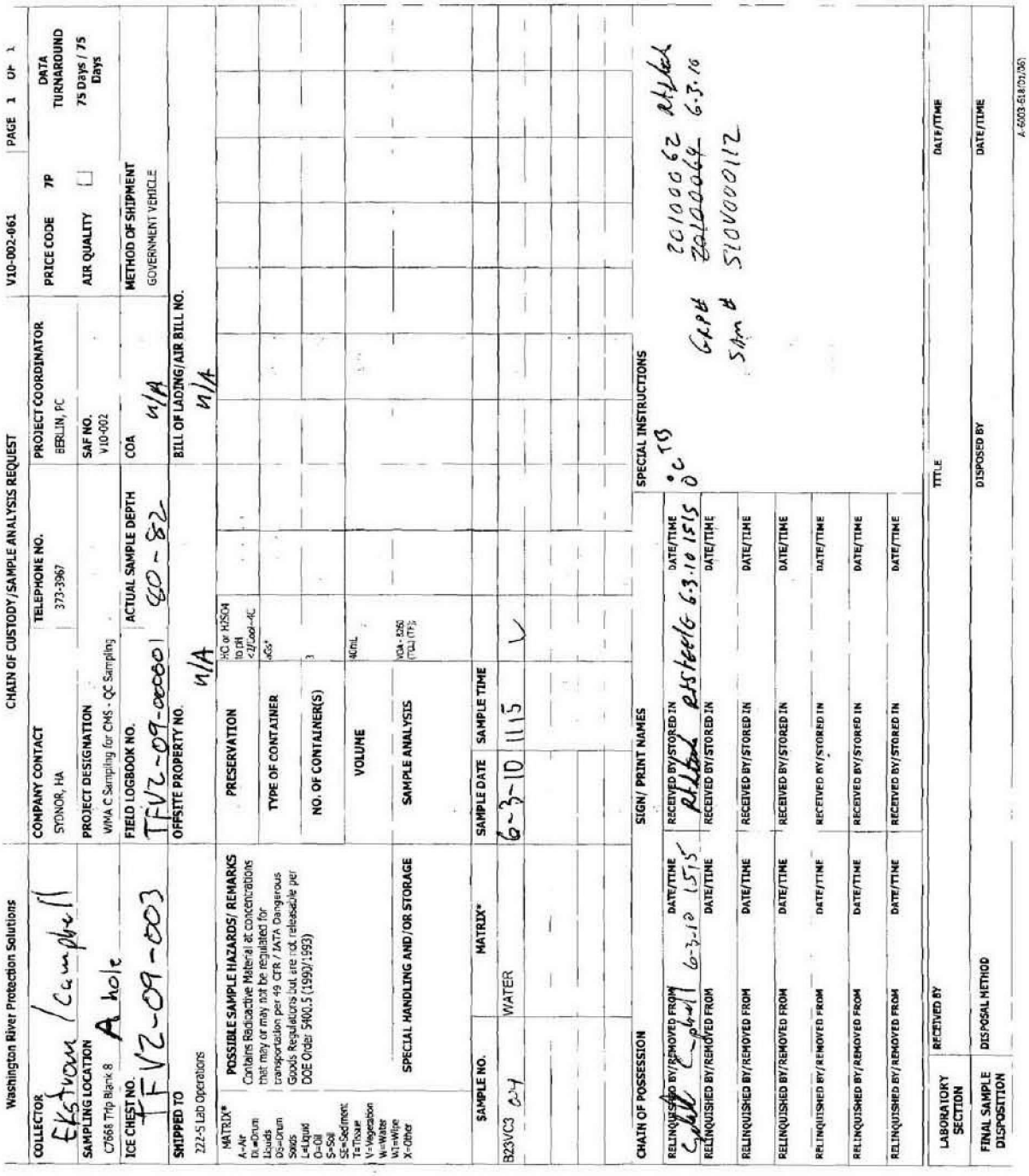
LABORATORY SECTION: RECEIVED BY — TITLE — DATE/TIME
FINAL SAMPLE DISPOSITION: DISPOSAL METHOD — DISPOSED BY — DATE/TIME

Friday, June 11, 2010 7:07:04 PM
Page 4 of 10

ChemWare

Sample Receipt

Chain of Custody



Washington River Protection Solutions — CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST — V10-002-061 — PAGE 1 OF 1

COLLECTOR: Ekstrom / Campbell
COMPANY CONTACT: SYDNOR, HA
TELEPHONE NO.: 373-3967
PROJECT COORDINATOR: BERLIN, PC
PRICE CODE: 7P
DATA TURNAROUND: 75 Days / 75 Days
SAMPLING LOCATION: A hole
PROJECT DESIGNATION: VMA C Sampling for CMS - QC Sampling
SAF NO.: V10-002
AIR QUALITY: [ ]
ICE CHEST NO.: TFV2-09-00003
FIELD LOGBOOK NO.: TFV2-09-00001
ACTUAL SAMPLE DEPTH: 60 - 82
COA: N/A
METHOD OF SHIPMENT: GOVERNMENT VEHICLE
SHIPPED TO: 222-S Lab Operations
OFFSITE PROPERTY NO.: N/A
BILL OF LADING/AIR BILL NO.: N/A

MATRIX*: A=Air, D=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990)/1993)

SPECIAL HANDLING AND/OR STORAGE

SAMPLE NO.	MATRIX*	PRESERVATION	TYPE OF CONTAINER	NO. OF CONTAINER(S)	VOLUME	SAMPLE ANALYSIS	SAMPLE DATE	SAMPLE TIME
B23VC3 004	WATER	HCl or H2SO4 to pH <2 / cool ~4C	40's*	3	40mL	VOA - 8260 (TCL) (TPL)	6-3-10	1115

SPECIAL INSTRUCTIONS: • DOT

CHAIN OF POSSESSION — SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
Ekstrom / Campbell	6-3-10 1515	Rutledge Eastridge	6.3.10 1515	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

GWP # 2010006262 Rutledge 6.3.10
Sam # S10V000112

LABORATORY SECTION — RECEIVED BY — TITLE — DATE/TIME
FINAL SAMPLE DISPOSITION — DISPOSAL METHOD — DISPOSED BY — DATE/TIME

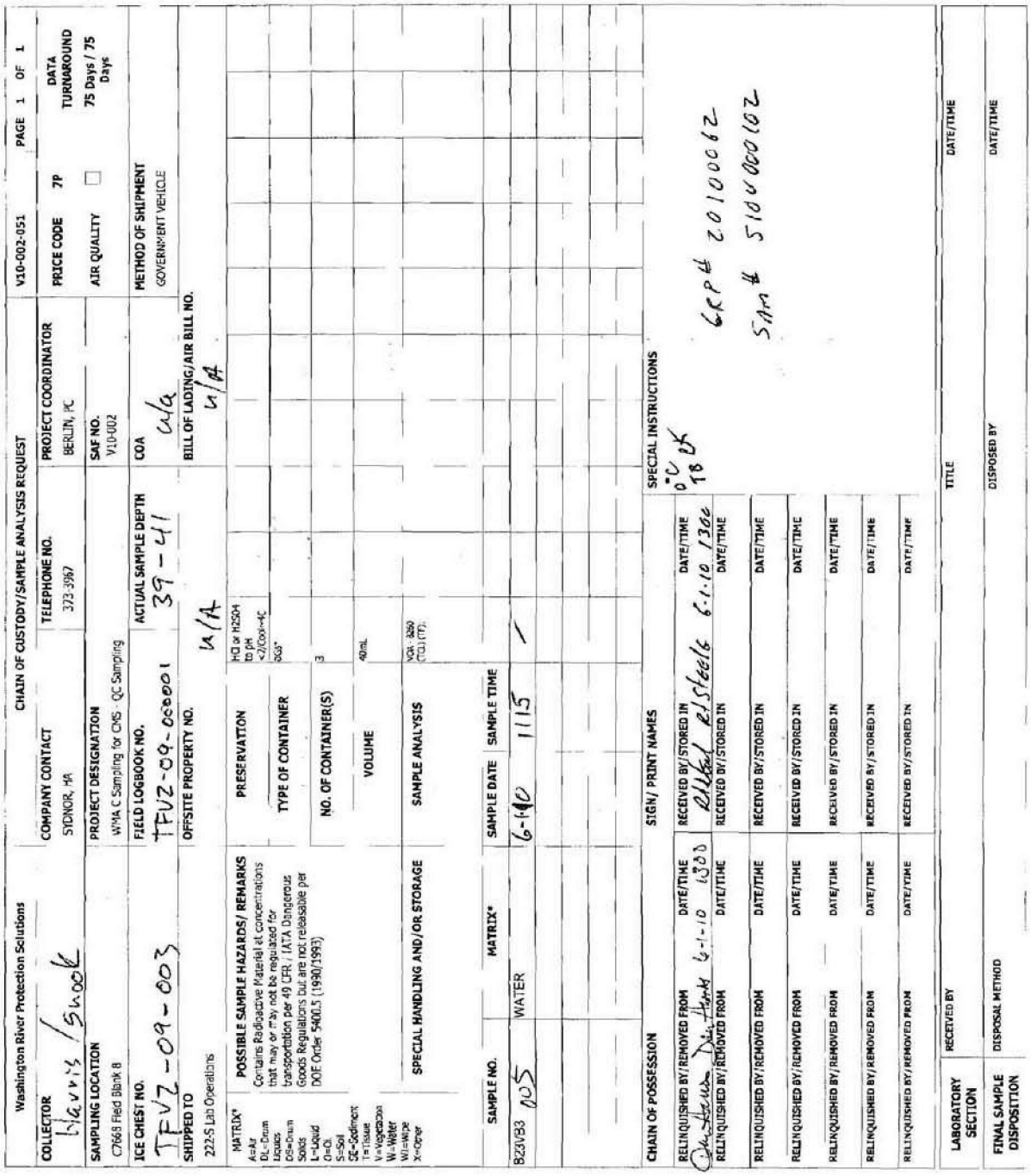
A-6003-618 (01/06)

Friday, June 11, 2010 7:07:04 PM
Page 5 of 10

ChemWare

Sample Receipt

Chain of Custody



Washington River Protection Solutions — CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST — V10-002-051 — PAGE 1 OF 1

COLLECTOR: Davis / Snook
COMPANY CONTACT: SYDNOR, MA
TELEPHONE NO.: 373-3987
PROJECT COORDINATOR: BERLIN, PC
PRICE CODE: 7P
DATA TURNAROUND: 75 Days / 75 Days
SAMPLING LOCATION: C7668 Field Blank 8
PROJECT DESIGNATION: WMA C Sampling for CMS - QC Sampling
SAF NO.: V10-002
AIR QUALITY:
ICE CHEST NO.: TFV2-09-003
FIELD LOGBOOK NO.: TFV2-09-000001
ACTUAL SAMPLE DEPTH: 39-41
COA: n/a
METHOD OF SHIPMENT: GOVERNMENT VEHICLE
SHIPPED TO: 222-S Lab Operations
OFFSITE PROPERTY NO.: N/A
BILL OF LADING/AIR BILL NO.: N/A

MATRIX*: A=Air, DL=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

PRESERVATION: HCl or H2SO4 to pH <2/Cool~4C
TYPE OF CONTAINER: 3GS*
NO. OF CONTAINER(S): 3
VOLUME: 40mL
SAMPLE ANALYSIS: VOA: 8260 (TCL) (TT).
SPECIAL HANDLING AND/OR STORAGE:

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B23V93 005	WATER	6-1-10	1115

CHAIN OF POSSESSION — SIGN/ PRINT NAMES

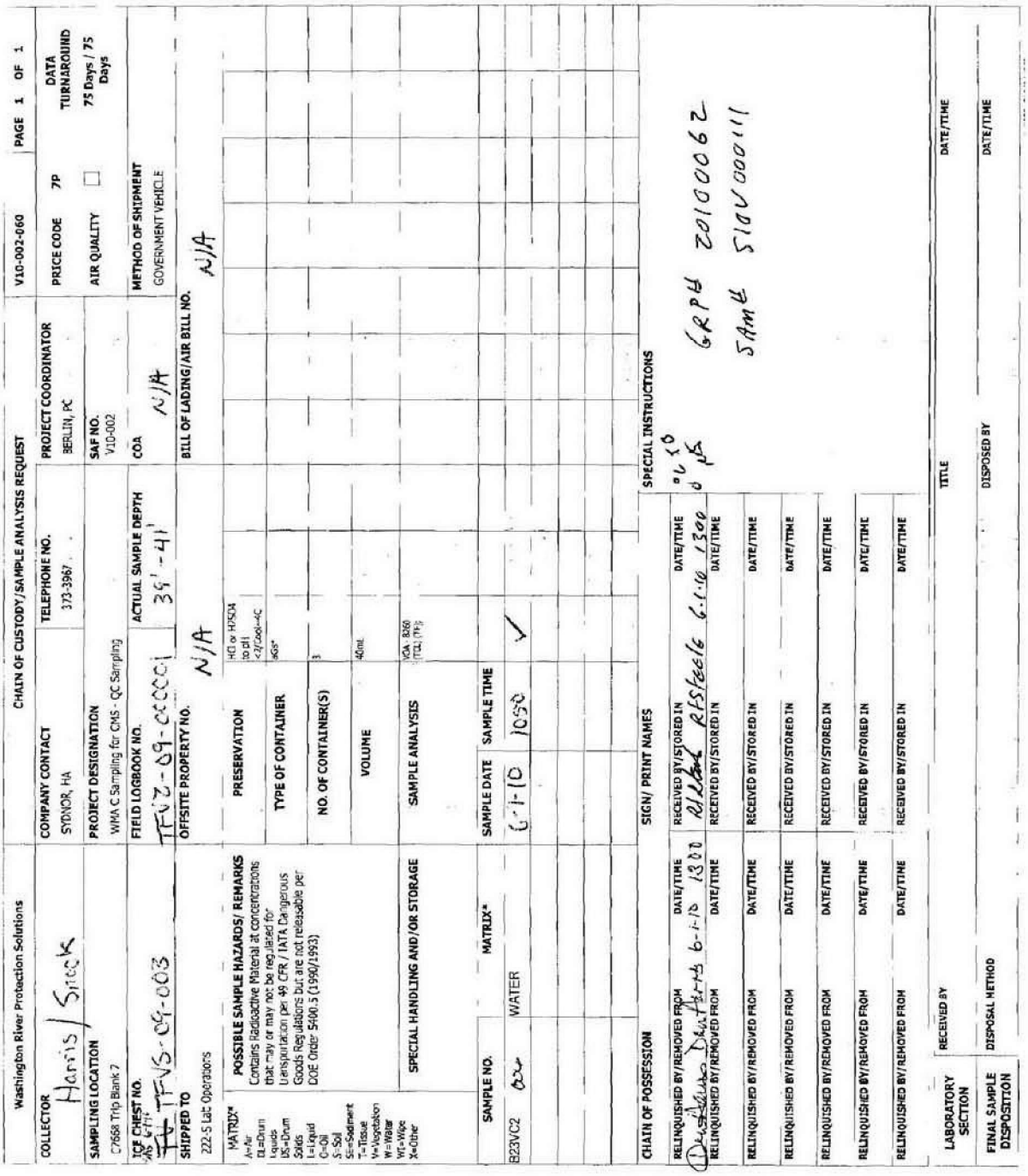
SPECIAL INSTRUCTIONS: °C 0.0 pH 7.0 GRP # 2010062 Sam # S10V000102

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
[illegible] Davis	6-1-10 1300	Rikel Steele	6-1-10 1300
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

LABORATORY SECTION — RECEIVED BY — TITLE — DATE/TIME
FINAL SAMPLE DISPOSITION — DISPOSAL METHOD — DISPOSED BY — DATE/TIME

Sample Receipt

Chain of Custody



Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			V10-002-060	PAGE 1 OF 1
COLLECTOR: Harris / Sieck	COMPANY CONTACT: SYDNOR, HA	TELEPHONE NO.: 373-3967	PROJECT COORDINATOR: BERLIN, PC	PRICE CODE: 7P	DATA TURNAROUND: 75 Days / 75 Days
SAMPLING LOCATION: C7668 Trip Blank 2	PROJECT DESIGNATION: WMA C Sampling for CMS - QC Sampling		SAF NO.: V10-002	AIR QUALITY: ☐	
ICE CHEST NO.: 4 of 4	FIELD LOGBOOK NO.: TFVS-09-00003	ACTUAL SAMPLE DEPTH: 39'-41'	COA: N/A	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	
SHIPPED TO: 222-S Lab Operations	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A		

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

MATRIX*: A=Air, B=Drum Liquids, BS=Drum Solids, L=Liquid, O=Oil, S=Soil, Se=Sediment, T=Tissue, V=Vegetation, W=Water, Wi=Wipe, X=Other

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	PRESERVATION	TYPE OF CONTAINER	NO. OF CONTAINER(S)	VOLUME	SAMPLE ANALYSIS
B23VC2	WATER	6-1-10	1050	HCl or HNO3 to pH <2/Cool~4C	60s*	3	40mL	VOA 8260 (TCL (TP))

SPECIAL HANDLING AND/OR STORAGE

CHAIN OF POSSESSION

SIGN/ PRINT NAMES			
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Dustin Duffield	6-1-10 1300	Richard Rifsteeg	6-1-10 1300
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS: 8 x 5 GRPH 20100062 SAME SIGV000111

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

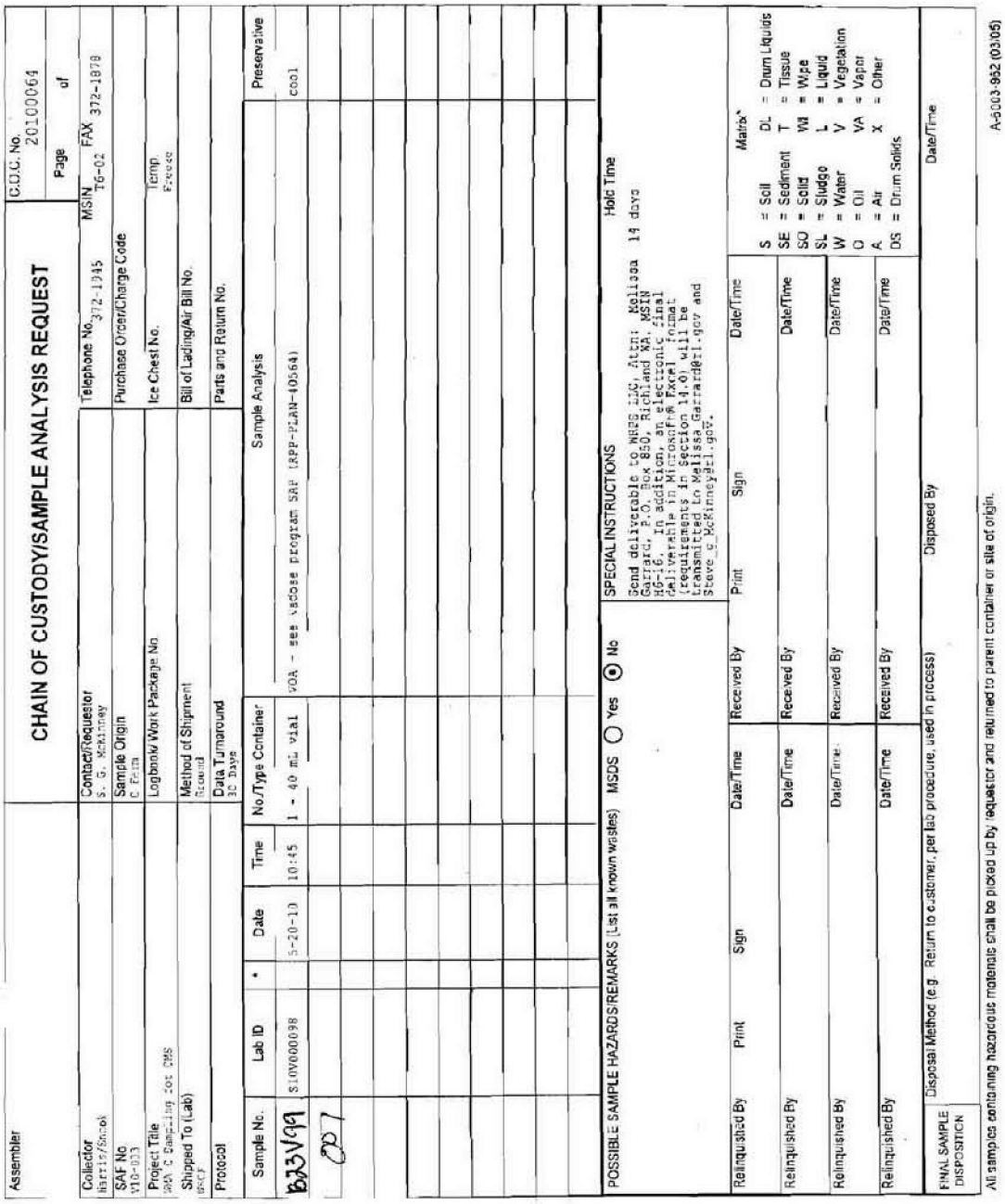
ChemWare

Friday, June 11, 2010 7:07:04 PM

Page 7 of 10

Sample Receipt

Chain of Custody



CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

COC No. 20100064

Page of

Assembler

Collector: Harris/Simcoe

Contact/Requestor: S. G. McKinney

Telephone No. 372-1945 MSIN T6-02 FAX 372-1878

SAF No. Y10-033

Sample Origin: C Farm

Purchase Order/Charge Code

Project Title: 200 C Sampling for CMS

Logbook/ Work Package No.

Ice Chest No. Temp Blanks

Shipped To (Lab): WSCF

Method of Shipment: Ground

Bill of Lading/Air Bill No.

Protocol

Data Turnaround: 30 Days

Parts and Return No.

Sample No.	Lab ID	*	Date	Time	No./Type Container	Sample Analysis	Preservative
B33V9	S10V000098		5-20-10	10:45	1 - 40 mL vial	VOA - see vadose program SAP (RPP-PLAN-40564)	cool
007							

POSSIBLE SAMPLE HAZARDS/REMARKS (List all known wastes) MSDS ○ Yes ◉ No

SPECIAL INSTRUCTIONS

Send deliverable to NHRS ISM, Attn: Melissa Garrard, P.O. Box 850, Richland WA, MSIN H0-16. In addition, an electronic final deliverable in Microsoft® Excel® format (requirements in Section 14.0) will be transmitted to Melissa.Garrard@rl.gov and Steve_G_McKinney@rl.gov.

Hold Time: 14 days

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix^

S = Soil	SE = Sediment	SO = Solid	SL = Sludge
W = Water	O = Oil	A = Air	DS = Drum Solids
DL = Drum Liquids	T = Tissue	WI = Wipe	L = Liquid
V = Vegetation	VA = Vapor	X = Other	

FINAL SAMPLE DISPOSITION

Disposal Method (e.g. Return to customer, per lab procedure, used in process)

Disposed By

Date/Time

All samples containing hazardous materials shall be picked up by requestor and returned to parent container or site of origin.

A-6003-952 (03/05)

ChemWare

Friday, June 11, 2010 7:07:04 PM

Page 8 of 10

Sample Receipt

Chain of Custody

RADIOACTIVE SHIPMENT RECORD — Page 1 of 1 — 4. Ship: Prepaid — 5. Via: Motor

1. SHIP FROM U.S. DEPT. OF ENERGY C/O	2. SHIP TO ☒ U.S. DEPT. OF ENERGY C/O	5. SHIPMENT AUTHORIZATION NUMBER: AL1108
Company: Washington River Protec Solution	Company: Mission Support Alliance	7. EMERGENCY RESPONSE
Address: 222-S Laboratory; 200-West Area	Address: WSCF	Telephone: 373-3800
City, State, Zip: Hanford Site	City, State, Zip: Hanford Site	Emergency Response Guide(s): 131
Contact: Gene Jetteau	Attention: Heather Medley	
Phone: (509) 376-6966	Phone: (509) 372-1488	

HM 8. Proper Shipping Name: X — Methanol, solution Limited Quantity — PGII — PRI HAZ: 3 — SUB HAZ: N/A — UN ID: UN1230

9. No. Pkg	Model Package	COC/Spec	Serial No.	Seal No.	Isotopes	C.S.I.	T.I.	Bq/Package	Gr. Wt. Kg.
1	Cooler	Excepted	N/A	N/A	N/A	N/A	N/A	N/A	20

10. Identify for Normal Form Only — Physical Form: ~~Liquid~~ Solid — Chemical Form: Mixture

11. ☐ Highway Route Controlled Quantity; ☐ Exclusive Use Shipment with Instructions; ☐ Placards Applied; ☐ Fissile Excepted, Grams; ☒ UN ID Marking: UN1230

12. LABELS APPLIED: N/A

13. ADDITIONAL LABELS / MARKINGS

HM 8. Proper Shipping Name: — PRI HAZ — SUB HAZ — UN ID

9. No. Pkg	Model Package	COC/Spec	Serial No.	Seal No.	Isotopes	C.S.I.	T.I.	Bq/Package	Gr. Wt. Kg.

Cooler

The following container(s) contain RADIOACTIVE MATERIAL at concentrations that are not regulated for transportation per 49 CFR 173.403 but are not releasable per DOE Order 5400.5

10. Identify for Normal Form Only — Physical Form — Chemical Form

11. ☐ Highway Route Controlled Quantity; ☐ Exclusive Use Shipment with instructions; ☐ Placards Applied; ☐ Fissile Excepted, Grams; ☐ UN ID Marking

13. ADDITIONAL LABELS / MARKINGS

HM 8. Proper Shipping Name: — PRI HAZ — SUB HAZ — UN ID

9. No. Pkg	Model Package	COC/Spec	Serial No.	Seal No.	Isotopes	C.S.I.	T.I.	Bq/Package	Gr. Wt. Kg.

10. Identify for Normal Form Only — Physical Form — Chemical Form

11. ☐ Highway Route Controlled Quantity; ☐ Exclusive Use Shipment with instructions; ☐ Placards Applied; ☐ Fissile Excepted, Grams; ☐ UN ID Marking

12. LABELS APPLIED

13. ADDITIONAL LABELS / MARKINGS

14. Shipment DE-CI: N/A

Shipment Totals	C.S.I.	T.I.	Bq/Package	Gr. Wt. Kg.
	N/A	N/A	N/A	20

15. Surface Dose Rate of Package: ☐ <0.005 or _____ mSv/hr; <0.5 or _____ mrem/hr (N+ß γ)

Dose Rate @ 1 Meter from Surface of Package: ☐ <0.005 or _____ mSv/hr; <0.5 or _____ mrem/hr (N+ß γ)

Smears of Outer Container: ☐ <4.0 Bq (220 dpm) ß γ/cm²; ☐ <0.4 Bq (22 dpm) α /cm²; ☐ <Tbl. 2-2 HNF-5173 Limits

TRUCK LOAD OR EXCLUSIVE USE: Surface @ 2 meters / @ Cab or sleeper — ☐ <2 mSv/hr (200 mrem/hr); ☐ <0.1 mSv/hr (10 mrem/hr); ☐ <0.02 mSv/hr (2 mrem/hr) (Using N+ß γ)

Additional Data and Instructions (inc. Readings on internal Packaging)

Bldg. | Survey No. | Date

16. TRANSPORTER			17. RECEIVER		
Vehicle Number	DRIVER SIGNATURE	PRINT NAME	RECEIVER SIGNATURE	PRINT NAME	Date
6662 33353H	L.D Wall	L.D. WALL	[signature]	[signature]	6-10-10

18. This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

Certifier's Signature	Print Name	On behalf of DOE-RL	Date	Organization
[signature]	[signature]		6/10/10	222-S

19. AUTHORIZATION FOR SHIPMENT

AIR TRANSPORT CERTIFICATION	CARGO AIRCRAFT	PASSENGER AIRCRAFT	Pkg. Dimensions (cm)
☐ N/A	☐ Cargo Aircraft Only Labels Applied	☐ Ltd Qty ☐ Research/Medical Diagnosis ☐ <3 T.I. ☐ Human Medical Research	

20. OFFSITE AUTHORIZATION

Survey No.	Date Shipped	Routing	ETA
Approved for Shipment Offsite			Date

A-6003-214.1 (REV 2)

Sample Receipt

Chain of Custody

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. No. 20100064 — Page of

Assembler

Collector: Harris/Shook

Contact/Requestor: S. D. McKinney

Telephone No 372-1945 — MSIN 16-02 — FAX 372-1878

SAF No. 10-003

Sample Origin: C Farm

Purchase Order/Charge Code

Project Title: WRPS Sampling for QAS

Logbook/ Work Package No.

Ice Chest No. — Temp.

Shipped To (Lab): WSCF

Method of Shipment: Ground

Bill of Lading/Air Bill No.

Protocol

Data Turnaround: 30 Days

Parts and Return No.

Sample No.	Lab ID	*	Date	Time	No./Type Container	Sample Analysis	Preservative
	S10V00112		6-3-10	11:15	3 - 40 mL vial	VOA - see Vadose program SAP (RPP-PLAN-40564) (water sample)	cool
	S10V00103		6-3-10	11:15	3 - 40 mL vial	VOA - see Vadose program SAP (RPP-PLAN-40564) (water sample)	cool
	S10V00111		6-1-10	10:50	3 - 40 mL vial	VOA - see Vadose program SAP (RPP-PLAN-40564) (water sample)	cool
	S10V00102		6-1-10	10:50	3 - 40 mL vial	VOA - see Vadose program SAP (RPP-PLAN-40564) (water sample)	cool

POSSIBLE SAMPLE HAZARDS/REMARKS (List all known wastes) MSDS ○ Yes ◉ No

SPECIAL INSTRUCTIONS — Hold Time

Send deliverable to WRPS IIC, Attn: Melissa Gartrell, P.O. Box 850, Richland WA, MSIN H6-16. In addition, an electronic final deliverable in Microsoft® Excel format (requirements in Section 14.0) will be transmitted to Melissa.Gartrell@rl.gov and Steve.J.McKinney@rl.gov. 14 days

Relinquished By — Print / Sign — Date/Time: 6.10.10 0930

Received By — Print: L.D.WALL — Sign: L.D. Wall — Date/Time: 6/10/10 0930

Relinquished By — Date/Time: 6/10/10

Received By — Date/Time

Relinquished By — Date/Time

Received By — Date/Time

Relinquished By — Date/Time

Received By — Date/Time

FINAL SAMPLE DISPOSITION — Disposal Method (e.g., Return to customer, per lab procedure, used in process) — Disposed By — Date/Time

All samples containing hazardous materials shall be picked up by requestor and returned to parent container on site of origin.

Matrix*: S = Soil, SE = Sediment, SO = Solid, SL = Sludge, W = Water, O = Oil, A = Air, DS = Drum Solids, DL = Drum Liquids, T = Tissue, WI = Wipe, L = Liquid, V = Vegetation, VA = Vapor, X = Other

A-6003-662 (03/05)

ChemWare

Friday, June 11, 2010 7:07:04 PM

Page 10 of 10