

## **APPENDIX H**

### **Data Validation Report (Note – To be provided on disc only)**

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U.S. Army Corps of Engineers  
Louisville District

**Ravenna Army Ammunition Plant  
Ravenna, Ohio  
Remedial Investigation**

**Compliance Restoration Sites:**

**RVAAP-68 Electric Substations, RVAAP-69 Building 1048 Fire Station  
RVAAP-73 Coal Storage Area, RVAAP-74 Building 1034 Motor Pool  
Hydraulic Lift, RVAAP-76 Depot Area, RVAAP-78 Quarry Pond Surface  
Dump, RVAAP-79 DLA Ore Storage Site-Main Ore Storage Yard**

**Final Data Validation Report  
Sample Delivery Groups:  
Multiple**

**2014**

**Prepared for:  
U.S. Army Corps of Engineers  
Louisville District  
Contract No. W912QR-08-D-0012  
Delivery Order 001**

**Prepared by:**

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## CONTRACTOR STATEMENT OF INDEPENDANT TECHNICAL REVIEW

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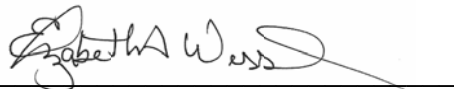
MEC<sup>x</sup>, LP (MEC<sup>x</sup>) has completed the Data Validation Report for Multiple Sample Delivery Groups from the Ravenna Army Ammunition Plant Remedial Investigation Compliance Restoration Sites.

Notice is hereby given that an independent technical review has been conducted to determine the usability and bias of the analytical data.

Significant concerns and the resolution are as follows:

None

As noted above, all concerns resulting from this independent technical review have been considered.



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## EXECUTIVE SUMMARY

The overall objective for the project data described in this document is to define the nature and extent of contamination for the completion of Remedial Investigations (RI) at each Compliance Restoration (CR) site.

Data described in this report are comprised of samples collected from seven CR sites at the Ravenna Army Ammunition Plant (RVAAP) by Environmental Chemical Corporation (ECC) from November 2012 to August 2013. The number and matrix of the samples, as described in numerous ECC Site Inspection Reports, are as shown below:

| Analysis                 | Soil |          |           | Sediment |           | Surface Water |           |
|--------------------------|------|----------|-----------|----------|-----------|---------------|-----------|
|                          | MI   | Discrete | Duplicate | Discrete | Duplicate | Discrete      | Duplicate |
| Metals                   | 350  | 1        | 31        | 13       | 3         | 17            | 4         |
| SVOCs                    | 212  | 34       | 24        | 13       | 3         | 13            | 3         |
| Explosives               | 46   | 1        | 8         | 3        | 1         | 3             | 1         |
| Propellants <sup>1</sup> | 84   | 1        | 11        | 3        | 1         | 3             | 1         |
| Volatiles                | 120  | 1        | 16        | 2        | 0         | 2             | 0         |
| BTEX                     | 1    | 0        | 0         | 0        | 0         | 0             | 0         |
| Pesticides               | 20   | 1        | 6         | 1        | 0         | 1             | 0         |
| PCBs                     | 108  | 1        | 13        | 8        | 2         | 7             | 2         |
| TPH                      | 2    | 34       | 2         | 0        | 0         | 0             | 0         |
| Hexavalent Chromium      | 1    | 0        | 0         | 0        | 0         | 0             | 0         |

<sup>1</sup> –nitroguanidine and nitrocellulose

MI – multi-incremental

PAH – polynuclear aromatic hydrocarbons

BTEX – benzene, toluene, ethylbenzene, xylenes

TPH – total petroleum hydrocarbons

This report details the data validation of 10% of the primary sample data, analysis of field duplicate results, and the determination of data usability of the validated samples. Validation results, field duplicate comparisons and data usability are presented by site, in Sections 4 through 10.

The primary samples were analyzed for one or more of the following parameters by TestAmerica Laboratories, North Canton (TA-North Canton) located in North Canton, Ohio.

- United States Environmental Protection Agency (USEPA) SW-846 Method 8260B for volatile organic compounds (VOCs)
- USEPA SW-846 Method 8270C for semivolatile compounds (SVOCs) or polynuclear aromatic hydrocarbons (PAHs)
- USEPA SW-846 Method 8015B for total petroleum hydrocarbons (TPH) - gasoline range organics (GRO) and diesel range organics (DRO)
- USEPA SW-846 Method 8081 for pesticides
- USEPA SW-846 Method 8082 for polychlorinated biphenyls (PCBs)
- USEPA SW-846 Method 8151 for herbicides

- USEPA SW-846 Method 6020 for metals
- USEPA SW-846 Method 7470A/7471A for mercury
- USEPA SW-846 Method 7196A for hexavalent chromium

TA-North Canton subcontracted the following analyses to TA-West Sacramento:

- USEPA SW-846 Method 8330B for explosive compounds
- USEPA SW-846 8330 Modified for nitroguanidine
- Laboratory Standard Operating Procedure (SOP) WS-WC-0050 for nitrocellulose

The quality assurance (QA) split samples were submitted to Microbac Laboratories (Microbac) in Marietta, Ohio and were analyzed for one or more of the aforementioned parameters. These data are discussed in a separate report (*Ravenna Army Ammunition Plant Compliance restoration Sites Chemical Quality Assurance Report*).

Specific concerns regarding the data are noted below:

- Limit of Detection (LOD) exceedances – a few LODs and detection limits (DLs) exceeded the project criteria. These exceedances are detailed in the individual Area of Concern (AOC) sections.
- Matrix interference was present in the primary column explosive analyses of the validated surface water sample. Target compounds were not detected on the primary column in most of the samples; therefore, no confirmation analyses were performed. The final data user should be aware that the interferent mass may have masked some target compound peaks.
- Due to instrument limitations, the mercury raw data did not list the sample absorbances; therefore, the reviewer was not able to calculate the sample results from the raw data. Additionally, the ICPMS raw data did not list absorbances for the ICV, CCV, ICSAB, and MRL samples, and the %R was listed instead of the sample concentrations.

Some data were rejected due to quality control outliers. Rejected data, presented in the table below, are not usable. Results with LODs that exceed project criteria may be usable for their intended purposes; however, it is dependent on the final data user to make this determination on a case-by-case basis. All remaining results are usable for their intended purposes as qualified by MEC<sup>x</sup>.

| Site | Sample              | SDG         | Analyte                   | Reason      |
|------|---------------------|-------------|---------------------------|-------------|
| 68   | 068SS-0003M-0001-SO | 240-17317-1 | n-Nitrosodiphenylamine    | Calibration |
|      | 068SD-0009-0001-SO  | 240-17422-1 | 3,3'-Dichlorobenzidine    | MS/MSD      |
|      |                     |             | hexachlorocyclopentadiene | Calibration |
| 69   | 069SB-0013M-0001-SO | 240-17602-1 | n-Nitrosodiphenylamine    | Calibration |
|      | 069SS-0001M-0001-SO | 240-17525-1 | Benzoic Acid              | MS/MSD      |
|      | 069SS-0001M-0001-SO | 240-17525-1 | 3,3'-Dichlorobenzidine    | MS/MSD      |
|      | 069SS-0001M-0001-SO | 240-17525-1 | n-Nitrosodiphenylamine    | Calibration |

*RVAAP Compliance Restoration SI Sites  
Data Validation Report*

| Site | Sample              | SDG         | Analyte                | Reason      |
|------|---------------------|-------------|------------------------|-------------|
| 73   | 073SB-0038M-0001-SO | 240-22663-2 | Benzoic Acid           | LCS         |
|      | 073SS-0002M-0001-SO | 240-17442-1 | Antimony               | MS/MSD      |
| 74   | 074SB-0010-0001-SO  | 240-22804-1 | Benzoic Acid           | LCS         |
| 76   | 076SB-0102M-0001-SO | 240-18544-1 | n-Nitrosodiphenylamine | Calibration |
|      | 076SB-0114M-0001-SO | 240-18544-1 | n-Nitrosodiphenylamine | Calibration |
|      | 076SD-0009-0001-SO  | 240-17317-1 | Antimony               | MS/MSD      |
|      |                     |             | 3,3'-Dichlorobenzidine | MS/MSD      |
|      |                     |             | 3-Nitroaniline         | MS/MSD      |
|      |                     |             | 4-Nitroaniline         | MS/MSD      |
|      | 076SS-0020M-0001-SO | 240-17422-1 | 3,3'-Dichlorobenzidine | MS/MSD      |
|      |                     |             | 3-Nitroaniline         | MS/MSD      |
| 79   | 079SB-0234M-0001-SO | 240-22381-1 | Antimony               | MS/MSD      |
|      | 079SB-0236M-0001-SO | 240-22381-1 | Antimony               | MS/MSD      |

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## *APPENDICES*

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## ACRONYMS AND ABBREVIATIONS

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|                  |                                                                       |
|------------------|-----------------------------------------------------------------------|
| ADR              | Automated Data Review                                                 |
| AST              | Aboveground Storage Tank                                              |
| °C               | Degrees Celsius                                                       |
| CCB              | Continuing Calibration Blank                                          |
| CCC              | Calibration Check Compounds                                           |
| CCV              | Continuing Calibration Verification                                   |
| CERCLA           | Comprehensive Environmental Response, Compensation, and Liability Act |
| CR               | Compliance Restoration                                                |
| CT               | CT Laboratories                                                       |
| %D               | Percent Difference                                                    |
| DL               | Detection Limit                                                       |
| DoD              | Department of Defense                                                 |
| EDD              | Electronic Data Deliverable                                           |
| FWQAPP           | Facility-Wide Quality Assurance Project Plan                          |
| GC/MS            | Gas Chromatography/Mass Spectrometry                                  |
| HHR              | Historical Records Review                                             |
| HTRW             | Hazardous, Toxic, Radioactive Waste                                   |
| ICSA             | Interference Check Sample A                                           |
| ICSAB            | Interference Check Sample AB                                          |
| ICV              | Initial Calibration Verification                                      |
| ICP              | Inductively Coupled Plasma                                            |
| LCG              | Louisville Chemistry Guidance                                         |
| LCS              | Laboratory Control Sample                                             |
| LCSD             | Laboratory Control Sample Duplicate                                   |
| LOD              | Limit of Detection                                                    |
| LOQ              | Limit of Quantitation                                                 |
| MEC              | Munitions and Explosives of Concern                                   |
| MEC <sup>x</sup> | MEC <sup>x</sup> , GP                                                 |
| Microbac         | Microbac Laboratories                                                 |
| MCL              | Maximum Contaminant Level                                             |
| MRL              | Method Reporting Limit                                                |
| MS               | Matrix Spike                                                          |
| MSD              | Matrix Spike Duplicate                                                |
| PAH              | Polynuclear Aromatic Hydrocarbon                                      |
| PCB              | Polychlorinated Biphenyl                                              |
| QA               | Quality Assurance                                                     |
| QAPP             | Quality Assurance Project Plan                                        |
| QC               | Quality Control                                                       |
| QSM              | Quality Systems Manual                                                |
| RI               | Remedial Investigation                                                |
| RPD              | Relative Percent Difference                                           |
| RRF              | Relative Response Factor                                              |
| RSD              | Relative Standard Deviation                                           |
| RVAAP            | Ravenna Army Ammunition Plant                                         |
| SAIC             | Science Applications International Corporation                        |
| SAP              | Sampling and Analysis Plan                                            |
| SDG              | Sample Delivery Group                                                 |
| SPCC             | System Performance Check Compound                                     |

|       |                                              |
|-------|----------------------------------------------|
| SVOC  | Semivolatile Organic Compounds               |
| TA    | TestAmerica Laboratories                     |
| USACE | United State Army Corps of Engineers         |
| USEPA | United State Environmental Protection Agency |

# 1 INTRODUCTION

## 1.1 Project Overview

The overall objective for the project data described in this document is to define the nature and extent of contamination for the completion of Remedial Investigations (RI) at each Compliance Restoration (CR) site. Project details can be found in the project documents, including *Final Site Inspection and Remedial Investigation Work Plan at Compliance Restoration Sites* (ECC, 2012).

Data described in this report are comprised of samples collected from seven CR sites at the Ravenna Army Ammunition Plant (RVAAP) by Environmental Chemical Corporation (ECC) from November 2012 to August 2013. The number and matrix of the samples, as described in numerous ECC Site Inspection Reports, are as shown below.

**Table 1.** RI Sites sample counts

| Analysis                 | Soil |          |           | Sediment |           | Surface Water |           |
|--------------------------|------|----------|-----------|----------|-----------|---------------|-----------|
|                          | MI   | Discrete | Duplicate | Discrete | Duplicate | Discrete      | Duplicate |
| Metals                   | 350  | 1        | 31        | 13       | 3         | 17            | 4         |
| SVOCs                    | 212  | 34       | 24        | 13       | 3         | 13            | 3         |
| Explosives               | 46   | 1        | 8         | 3        | 1         | 3             | 1         |
| Propellants <sup>1</sup> | 84   | 1        | 11        | 3        | 1         | 3             | 1         |
| Volatiles                | 120  | 1        | 16        | 2        | 0         | 2             | 0         |
| BTEX                     | 1    | 0        | 0         | 0        | 0         | 0             | 0         |
| Pesticides               | 20   | 1        | 6         | 1        | 0         | 1             | 0         |
| PCBs                     | 108  | 1        | 13        | 8        | 2         | 7             | 2         |
| TPH                      | 2    | 34       | 2         | 0        | 0         | 0             | 0         |
| Hexavalent Chromium      | 1    | 0        | 0         | 0        | 0         | 0             | 0         |

1 – nitroguanidine and nitrocellulose

MI – multi-incremental

BTEX – benzene, toluene, ethylbenzene, xylenes

SVOC – semivolatile organic compounds

TPH – total petroleum hydrocarbons

The primary samples were analyzed for one or more of the following parameters by TestAmerica Laboratories, North Canton (TA-North Canton) located in North Canton, Ohio.

- United States Environmental Protection Agency (USEPA) SW-846 Method 8260B for volatile organic compounds (VOCs)
- USEPA SW-846 Method 8270C for semivolatile compounds (SVOCs)
- USEPA SW-846 Method 8015B for total petroleum hydrocarbons (TPH) - gasoline range organics (GRO) and diesel range organics (DRO)
- USEPA SW-846 Method 8081 for pesticides
- USEPA SW-846 Method 8082 for polychlorinated biphenyls (PCBs)
- USEPA SW-846 Method 6020 for metals
- USEPA SW-846 Method 7470A/7471A for mercury

- USEPA SW-846 Method 7196A for hexavalent chromium

TA-North Canton subcontracted the following analyses to TA-West Sacramento:

- USEPA SW-846 Method 8330B for explosive compounds
- USEPA SW-846 8330 Modified for nitroguanidine
- Laboratory Standard Operating Procedure (SOP) WS-WC-0050 for nitrocellulose

The quality assurance (QA) split samples were submitted to Microbac Laboratories (Microbac) in Marietta, Ohio and were analyzed for one or more of the aforementioned parameters. These data are discussed in a separate report (*Ravenna Army Ammunition Plant Compliance restoration Sites Chemical Quality Assurance Report*).

This report details the data validation of approximately 10% of the primary sample data, analysis of field duplicate results, and the determination of data usability of the validated samples. Validation results, field duplicate comparisons and data usability are presented by site, in Sections 4 through 10.

## **1.2 Previous Activities and Data**

The following summary was adapted from the Facility-Wide Sampling and Analysis Plan for Environmental Investigations at the Ravenna Army Ammunition Plant, Ravenna, Ohio (FWQAPP) prepared by Science Applications International Corporation (SAIC), March 2001. AOC-specific information is presented in Sections 4 through 21.

Located in northeastern Ohio on approximately 21,000 acres, RVAAP was established in 1940 to load, store, and demilitarize conventional artillery ammunition, bombs, mines, fuses and boosters, primers and percussion elements. Originally RVAAP operated as two separate units, the Portage Ordnance Depot and the Ravenna Ordnance Plant. During World War II, a contractor operated the Ravenna Ordnance Depot and the government operated the Portage Ordnance Depot. Ordnance production and storage for World War II continued until August 1945, at which time the facility was renamed the Ravenna Arsenal, and the government assumed control of all operations. Then, from 1951 to 1999, the entire facility was operated by contractors. Ordnance production at the facility was phased out and sent to Plum Brook Ordnance Works in Sandusky, Ohio and Keystone Ordnance Works in Meadville, Pennsylvania. All production at the facility had ceased by 1957 and the plant was placed on standby. In 1961, the plant was operational for seven months, processing and performing explosive melt-out of bombs. After deactivation late in 1961, the facility was renamed RVAAP. From mid-1968 until 1971, the plant was reactivated to load, assemble, and pack munitions on three load lines and two component lines. Operations ceased at Load Lines 1, 2, 3, and 4 in 1971; however, the Lines were reactivated to perform demilitarization operations for several months in 1973 and 1974. In 1992, RVAAP was again placed on inactive status. Salvage and demolition operations started in 1998 and administrative control of the facility was transferred to the Ohio Army National Guard in 1999.

Since 1978, approximately 20 environmental condition investigations have been performed at RVAAP. Only a portion of these investigations are discussed below.

## 2 DESCRIPTION OF WORK PERFORMED

This section describes the data verification and data validation procedures used during the evaluation of the site samples reported in 35 sample delivery groups (SDGs) from TA-North Canton.

### 2.1 Data Validation Process

Level IV validation was performed on approximately 10% of the total number of primary samples collected. Primary samples with associated QA and field duplicate samples were prioritized for Level IV validation; however, not all samples validated at Level IV had associated QA or field duplicate samples.

Data validators assessed results based on the FWQAPP, Department of Defense Quality Systems Manual for Environmental Laboratories Version 4.2 (DoD QSM), Louisville DoD Quality Systems Manual Supplement, Version 1 (LS), the specific EPA methods, the National Functional Guidelines for Superfund Organic Methods Data Review (2008), and the National Functional Guidelines for Inorganic Superfund Data Review (2010). The following were reviewed for Level IV validation:

- Sample management (collection techniques, sample containers, preservation, handling, transport, chain-of-custody, holding times),
- Calibration results (initial, continuing, and method reporting limit),
- Method and calibration blank sample results,
- Laboratory control sample (LCS) or LCS/LCS duplicate (LCS/LCSD) recoveries and/or precision,
- Surrogate recoveries (if applicable),
- Metals interference check sample results
- Matrix spike/matrix spike duplicate (MS/MSD) recoveries and precision,
- Laboratory duplicate precision
- Post digestion spike accuracy,
- Serial dilution precision,
- Field QA/QC sample results (equipment rinsate, field blank, trip blank)
- Gas Chromatography/Mass Spectrometry (GC/MS) or inductively coupled plasma (ICP) MS tuning,
- Internal standards performance,
- Sample results verification,
- Target compound identification,
- Raw data.

Blanks – method, calibration, trip, field and equipment – were assessed using the National Functional Guidelines 5× and 10× rules. Target compound detections less than or equal to 5× a blank detections and common laboratory contaminant compound detections less than or equal to 10× a detections detect were qualified as nondetected. Nondetected results were reported at

the limit of detection if the original detections was less than or equal to the limit of detection or reported at the level of contamination if the original detect was greater than the limit of detection.

## **2.2 Data Validation Qualifiers**

Data qualifiers, as defined below, were applied following the FWQAPP and the DoD QSM:

- U Nondetected at the limit of detection  
The analyte was analyzed for but not definitively detected.
- J Estimated  
The identification of the analyte is acceptable but the quality assurance criteria indicate that the quantitative values may be outside the normal expected range of precision. Additionally used to identify detects reported below the limit of quantitation (LOQ).
- N Identity Presumptive and Tentative  
There is presumptive evidence that the analyte is present but it has not been confirmed. There is an indication that the reported analyte is present; however, all quality control requirements necessary for confirmation were not met.
- R Rejected  
Data are considered to be rejected and shall not be used for environmental decisions.

## **2.3 Data Validation Flagging Codes**

The qualification codes in the following table may have been used to flag the data described in this document: Sample qualifications are summarized in Appendix B. All qualifications and associated qualification codes have been entered into the electronic data deliverables (EDD) received from the laboratories and may be reviewed Appendices A and B of this report.

**Table 2.** Qualification code reference table

| Qualifier | Organics                                                                                                                          | Inorganics                                                                                                                        |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| H         | Holding times were exceeded.                                                                                                      | Holding times were exceeded.                                                                                                      |
| S         | Surrogate recovery was outside QC limits.                                                                                         | The sequence or number of standards used for the calibration was incorrect.                                                       |
| C         | Calibration %RSD or %D was noncompliant. MRL was outside control limits or missing.                                               | Correlation coefficient was noncompliant. MRL was outside control limits or missing.                                              |
| R         | Calibration RRF was noncompliant.                                                                                                 | %R for calibration is not within control limits.                                                                                  |
| B         | Presumed contamination as indicated by the preparation (method) blank results.                                                    | Presumed contamination as indicated by the preparation (method) or calibration blank results.                                     |
| L         | Laboratory Control Sample/Control Sample Duplicate %R was not within control limits.                                              | Laboratory Control Sample %R was not within control limits.                                                                       |
| Q         | MS/MSD recovery was poor or RPD high.                                                                                             | MS recovery was poor.                                                                                                             |
| E         | Not applicable                                                                                                                    | Duplicates showed poor agreement.                                                                                                 |
| I         | Internal standard performance was unsatisfactory.                                                                                 | ICP or ICPMS ICS results were unsatisfactory.                                                                                     |
| A         | Not applicable.                                                                                                                   | ICP Serial Dilution %D were not within control limits.                                                                            |
| M         | Tuning (BFB or DFTPP) was noncompliant.                                                                                           | ICPMS tuning was noncompliant                                                                                                     |
| T         | Presumed contamination as indicated by the trip blank results.                                                                    | Not applicable.                                                                                                                   |
| +         | False positive – reported compound was not present.                                                                               | False positive – reported compound was not present.                                                                               |
| -         | False negative – compound was present but not reported.                                                                           | False negative – compound was present but not reported.                                                                           |
| F         | Presumed contamination as indicated by the FB or ER results.                                                                      | Presumed contamination as indicated by the FB or ER results.                                                                      |
| \$        | Reported result or other information was incorrect.                                                                               | Reported result or other information was incorrect.                                                                               |
| ?         | TIC identity or reported retention time has been changed.                                                                         | Not applicable.                                                                                                                   |
| D         | The analysis with this flag should not be used because another more technically sound analysis is available.                      | The analysis with this flag should not be used because another more technically sound analysis is available.                      |
| P         | Instrument performance for pesticides was poor.                                                                                   | Post Digestion Spike recovery was not within control limits.                                                                      |
| *II, *III | A deficiency was found that has been described in the "Sample Management," section (*II) or the "Method Analyses" section (*III). | A deficiency was found that has been described in the "Sample Management," section (*II) or the "Method Analyses" section (*III). |



### 3 DATA ACQUISITION ACTIVITIES

#### 3.1 Sample Collection

Samples were collected from November 2012 to August 2013. The samples were submitted under chain-of-custody to the primary laboratory, TA-North Canton.

Site specific observations are noted in Sections 4 through 10. Unless noted in Sections 4 through 10, the chains-of-custody associated with the samples validated at Level IV were appropriately signed by both field and/or laboratory personnel with all samples and analyses accounted for, cooler custody seals intact, and within the temperature limits of  $4\pm2^{\circ}\text{C}$ . All documentation regarding sample handling as presented in the case narratives, chains-of-custody, correspondence, and sample condition upon receipt forms was evaluated. Unless noted in Sections 4 through 10, no additional requests were made to the primary contractor or the laboratories.

#### 3.2 Sample Analysis

The primary laboratories, or their subcontractors, analyzed the samples shown in Table 1 for the methods described in Section 1.1.

#### 3.3 Data Completeness

As noted in sections 4 through 10, portions of some metals data were incomplete. The laboratory was requested to provide the missing deliverables, and unless noted in Sections 4 through 10, these missing data were provided.

#### 3.4 Sample Preservation and Holding Time Requirements

All method preservation requirements were met. The extraction and analytical holding times for the soil analyses validated in this document are listed in the table below.

**Table 3.** Holding times

| Method           | Analysis            | Holding Time |          |
|------------------|---------------------|--------------|----------|
|                  |                     | Extraction   | Analysis |
| 6010C/6020       | Metals              | N/A          | 180 days |
| 7471A            | Mercury             | N/A          | 28 days  |
| 8260B/8260C      | VOCs                | N/A          | 14 days  |
| 8270C            | SVOCs               | 14 days      | 40 days  |
| 8015B/8015C      | TPH-GRO             | N/A          | 14 days  |
| 8015B/8015C      | TPH-DRO             | 14 days      | 40 days  |
| 8081/8081B       | Pesticides          | 14 days      | 40 days  |
| 8082/8082A       | PCBs                | 14 days      | 40 days  |
| 8330B            | Explosives          | 14 days      | 40 days  |
| 8330             | Nitroguanidine      | 14 days      | 40 days  |
| 9056M/WS-WC-0050 | Nitrocellulose      | N/A          | 28 days  |
| 7196A            | Hexavalent chromium | 30 days      | 24 hours |

Qualifications applied for missed holding times are discussed by Site in Sections 4 through 10.

### 3.5 Detection Limit Requirements

Limits of detection (LODs) and detection limits (DLs) for nondetected analytes were compared against the most stringent criteria listed in Tables 5-8, 5-9, and 5-10 of the *Final Facility-Wide Human Health Cleanup Goals for the Ravenna Army Ammunition Plant* (2010), the USEPA Regional Screening Levels (RSLs), or the Maximum Contaminant Levels (MCLs) for surface waters.

Some LODs and DLs exceeded the cleanup goals (CUGs) or project criteria. These exceedances are reported by site in Sections 4 through 10. Results with DLs exceeding project criteria may be usable for their intended purposes; however, it is dependent on the final data user to make this determination on a case-by-case basis.

## 4 ELECTRIC SUBSTATIONS, RVAAP-68

### 4.1 Current Investigation

ECC completed an RI at the Electric Substations (RVAAP-68). The work was in accordance with the *Site Inspection and Remedial Investigation Work Plan* (ECC 2012) and the *Facility-Wide Sampling and Analysis Plan* (FWSAP) (SAIC 2011). RVAAP-68 consists of three inactive properties – East Substation, West Substation, and Substation Number 3. No equipment remains at these properties. An historical records review (HRR) indicated that contaminants from unreported spills, or leaks from electrical equipment or lead acid batteries may have affected the site.

The data validated in this report are part of the intrusive RI at RVAAP-68 conducted to assess the potential presence of contamination. The sample counts, samples selected for data validation, and the field duplicates are presented in the tables below.

**Table 4.** Total sample count for RVAAP-68

| Matrix   | Primary Samples | Field Duplicates | Split Samples | Primary Sample Counts |             |            |      |       |      |        |
|----------|-----------------|------------------|---------------|-----------------------|-------------|------------|------|-------|------|--------|
|          |                 |                  |               | Explosives            | Propellants | Pesticides | PCBs | SVOCs | VOCs | Metals |
| Soil     | 38              | 4                | 3             | 4                     | 4           | 4          | 38   | 38    | 5    | 38     |
| Sediment | 3               | 1                | 0             | --                    | --          | --         | 3    | 3     | --   | 3      |
| Water    | 3               | 1                | 0             | --                    | --          | --         | 3    | 3     | --   | 3      |

**Table 5.** RVAAP-68 validated samples and methods

| Sample ID           | SDG         | Matrix   | Collected | Explosives | Propellants | PCBs | SVOCs | VOCs | Metals |
|---------------------|-------------|----------|-----------|------------|-------------|------|-------|------|--------|
| 068SS-0003M-0001-SO | 240-17317-1 | Soil     | 11/6/2012 | x          | x           | x    | x     | x    | x      |
| 068SD-0009-0001-SO  | 240-17422-1 | Sediment | 11/8/2012 | --         | --          | x    | x     | --   | x      |
| 068SW-0016-0001-SW  | 240-17477-1 | Water    | 11/8/2012 | --         | --          | x    | x     | --   | x      |
| 068SB-0053M-0001-SO | 240-22648-1 | Soil     | 3/29/2013 | --         | --          | x    | x     | --   | x      |

**Table 6.** RVAAP-68 field duplicate samples

| Duplicate Sample ID | Parent Sample       |
|---------------------|---------------------|
| 068SS-0004M-0001-SO | 068SS-0003M-0001-SO |
| 068SD-0010-0001-SO  | 068SD-0009-0001-SO  |
| 068SW-0014-0001-SW  | 068SW-0013-0001-SW  |
| 068SB-0022M-0001-SO | 068SB-0019M-0001-SO |
| 068SB-0036M-0001-SO | 068SB-0035M-0001-SO |
| 068SB-0054M-0001-SO | 068SB-0053M-0001-SO |

#### 4.1.1 Sample Collection

The chains-of-custody were appropriately signed and dated by field and laboratory personnel. According to the laboratory Sample Receipt Forms, custody seals were not utilized; however, in reviewing the relinquish and receipt times, it appeared the samples were transferred to the laboratory by courier. A correction made to the chain-of-custody in SDG 240-17422 was made by obliterating the original entry. The correction was not initialed or dated. No other sample collection issues were noted.

#### 4.1.2 Data Completeness

Data completeness for the project described in this report was found to be generally acceptable as no deliverables were missing from the SDGs reviewed.

#### 4.1.3 Preservation and Holding Time Requirements

The samples were received within the temperature limits of  $4 \pm 2^{\circ}\text{C}$  control limit. All remaining method preservation requirements were met. All holding times, as listed in Table 3, were met.

#### 4.1.4 Detection Limit Requirements

LODs and DLs for nondetected analytes were compared against the most stringent CUGs listed in Tables 5-8, 5-9, and 5-10 of *Final Facility-Wide Human Health Cleanup Goals for the Ravenna Army Ammunition Plant* (2010) or the RSLs if no CUG was listed. Three surface water SVOCs (benzo(b)fluoranthene, indeno (1,2,3-cd)pyrene, benzo(a)anthracene) had LODs and DLs that exceeded the CUGs. Results with DLs exceeding project criteria may be usable for their intended purposes; however, it is dependent on the final data user to make this determination on a case-by-case basis.

### 4.2 RVAAP-68 Data Quality Evaluation

This section summarizes the data quality of validated samples for each analytical method evaluated.

#### 4.2.1 Explosives

A total of 4 primary soil samples and 2 field duplicate sample were analyzed by TA-West Sacramento for explosives by USEPA SW-846 Method 8330B. A single primary soil sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.
- Calibration:
  - o The primary column initial calibration average percent relative standard deviations (%RSDs) for RDX and 2-nitrotoluene exceeded the control limit at 20% and 16%, respectively; therefore, the nondetected results for these compounds were qualified as estimated, "UJ," in 068SS-0003M-0001-SO. The qualified results were coded with a "C" qualification code. The remaining initial calibration average %RSDs were within the control limits listed in DoD QSM Table F-3 of  $\leq 15\%$ , or the linear regression  $r^2$  values were  $\geq 0.990$ .
  - o The second source initial calibration verification (ICV) standard recoveries were within the control limit listed in DoD QSM Table F-3 of  $\pm 20\%$ .
  - o The continuing calibration verification (CCV) standard %Ds were within the control limits listed in DoD QSM Table F-3 of  $\pm 20\%$ .
  - o Although not required by the DoD QSM, an MRL standard of  $3\times$  the DL is required by the FWQAPP. Low-level MRL standards were analyzed in association with the validated samples and the results were within the reasonable control limits of 70-130%.
- Blanks: Tetryl was detected in the method blank analyzed on the confirmation column. The tetryl peak was the second of a pair of small incompletely resolved peaks and was very similar to the peak identified in sample 068SS-00003M-0001-SO. Due to this similarity, tetryl reported in the sample was qualified as nondetected, "U," at the LOD. The qualified result was coded with a "B" qualification code. The method blanks associated with the validated sample had no other target compound detects above the control limit listed in DoD QSM Table F-3 of one-half the limit of quantitation (LOQ).
- Laboratory Control Samples: Recoveries were within the control limits listed in DoD QSM Tables G-2 and G-13 and within the reasonable laboratory control limits for nitroglycerin (76-116%) and PETN (76-116%).
- Surrogate Recovery: As no surrogate control limit was listed in the DoD QSM, surrogate recoveries were assessed against the reasonable laboratory-established control limits of 78-118%. The confirmation column surrogate recovery exceeded the control limit at 258%; however, as there were not retained detects, no qualification was necessary. The primary column recovery was within the control limits.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on sample 068SS-0003M-0001-SO. Recoveries were within the control limits listed in DoD QSM Tables G-2 and G-13 and within the reasonable laboratory control limits for nitroglycerin (76-116%) and PETN (76-116%). The RPDs were within the control limit listed in DoD QSM Table F-3 of  $\leq 20\%$ .

- **Compound Identification:** Compound identification was verified for the sample validated at Level IV. Review of sample chromatograms and retention times indicated no problems with target compound identification.
- **Compound Quantification and Reported Detection Limits:** Compound quantification was verified for the sample and a portion of the LCS and MS/MSD results. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.

Confirmation analyses were performed.

Target compounds 2,4-dinitrotoluene, 2,6-dinitrotoluene, and nitrobenzene were reported by both Method 8330B and 8270C in samples 068SS-0003M-0001-SO. As there were no detects for these compounds; the reviewer chose to report the results with the lowest LODs. The 8330B results for all three analytes were rejected, "R," as duplicate data and coded with a "D" qualification code.

- **System Performance:** Review of the raw data indicated no problems with system performance.
- **Manual Integrations:** Some manual integrations were performed for the initial calibrations and some QC samples. All manual integrations were performed in order to report incompletely resolved peaks or to account for baseline anomalies and were deemed acceptable by the reviewer.
- **Field QC Samples:** Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - o **Field Blanks and Equipment Rinsates:** Sample 070-0057-0001-Source Water was the field blank and 076-0067-0001-ER was the equipment rinsate associated with the validated sample. There were no detects in the field QC samples.
  - o **Field Duplicates:** One field duplicate sample was collected and analyzed for explosive compounds. The RPD criterion in FWQAPP Table 3-1 of  $\leq 50\%$  was only applied when results for common detects were  $\geq 5\times$  the LOQ. In cases where results were  $< 5\times$  the LOQ, the reasonable control limit of  $\pm$  the LOQ was applied. All results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

#### 4.2.2 Propellants

A total of 4 primary soil samples and 1 field duplicate were analyzed by TA-West Sacramento for nitroguanidine by USEPA SW-846 Method 8330 and for nitrocellulose by laboratory SOP WS-WC-0050. A single primary soil sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.
- Calibration:
  - o The nitroguanidine initial calibration average percent %RSD was within the control limit listed in DoD QSM Table F-2 of  $\leq 20\%$ . Nitrocellulose linear regression  $r$  values were within the control limit listed in the DoD QSM Table F-11 of  $\geq 0.995$ .
  - o The nitroguanidine second source ICV recovery was within the control limits listed in DoD QSM Table F-2 of 85-115%. The nitrocellulose ICV recovery was reported to be 192% in the ICV associated with the validated sample; however, the ICV appeared to have been spiked at the usual 1 ppm level and was recovered within the control limits listed in DoD QSM Table F-11 of 90-110%.
  - o The nitroguanidine CCV recoveries were within the control limits listed in DoD QSM Table F-2 of 85-115%. The nitrocellulose CCV recovery was within the control limits listed in DoD QSM Table F-11 of 90-110%.
  - o Although not required by the DoD QSM, an MRL standard of  $3\times$  the DL is required by the FWQAPP. The MRL recoveries associated with the sample were within the reasonable control limits of 70-130%.
- Blanks: The method blanks had no target compound detects above the control limits listed in DoD QSM Tables F-2 and F-11 of one-half the LOQ.
- Laboratory Control Samples: No nitroguanidine or nitrocellulose LCS control limits are listed in the DoD QSM; therefore, the laboratory control limits were used to assess the results. All nitroguanidine recoveries were within the control limits of 72-121%. The nitrocellulose recoveries were within the laboratory-established control limits of 34-115%.
- Surrogate Recovery: A surrogate was not required for the analysis of nitroguanidine or nitrocellulose.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on sample 068SS-0003M-0001-SO for both propellants. The recoveries were within the laboratory-established control limits of 72-121% for nitroguanidine. Both nitrocellulose recoveries were below the control limits of 34-115%, at 32% each; therefore, nitrocellulose detected in 068SS-0003M-0001-SO was qualified as estimated, "J," and coded with a "Q" qualification code. Both RPDs were  $\leq 20\%$ .

- **Compound Identification:** Compound identification was verified for the sample validated at Level IV. Review of the sample chromatograms and retention times indicated no problems with target compound identification.
- **Compound Quantification and Reported Detection Limits:** Compound quantification was verified for those samples validated at Level IV. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.

Nitroguanidine was not detected in the validated sample; therefore, confirmation analysis was not required.

- **System Performance:** Review of the raw data indicated no problems with system performance.
- **Manual Integrations:** Some manual integrations were performed for nitroguanidine. The manual integrations were performed to correct baseline integration. The manual integrations were deemed acceptable by the reviewer.
- **Field QC Samples:** Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - o **Field Blanks and Equipment Rinsates:** Sample 070-0057-0001-Source Water was the field blank and 076-0067-0001-ER was the equipment rinsate associated with the validated sample in RVAAP-68. There were no detects in the field QC samples.
  - o **Field Duplicates:** One field duplicate sample was collected and analyzed for propellants. The RPD criterion in FWQAPP Table 3-1 of  $\leq 50\%$  was only applied when results for common detects were  $\geq 5\times$  the LOQ. In cases where results were  $< 5\times$  the LOQ, the reasonable control limit of  $\pm$  the LOQ was applied. All results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

#### **4.2.3 Polychlorinated Biphenyls (PCBs)**

A total of 38 primary soil samples, 4 soil field duplicates samples, 3 primary sediment samples, 1 sediment field duplicate sample, 3 primary surface water samples, and 1 surface water field duplicate sample were analyzed by TA-North Canton for PCBs by USEPA SW-846 Method 8082. A total of 2 primary soil samples, one primary sediment sample, and one primary surface water sample were validated at Level IV.

- **MDL studies** were not evaluated as part of this project.
- **Calibration:** Calibration criteria were met, with the exception noted below.



- o Initial calibration average %RSDs were within the control limit listed in the DoD QSM Table F-2 of  $\leq 20\%$ , or the correlation coefficients were  $\leq 0.990$ .
- o The second source ICV recoveries were within the control limit listed in the DoD QSM Table F-2 of  $\pm 20\%$  for all applicable Aroclors, with the exception of Aroclor 1221 in the ICV associated with sample 068SB-0053M-0001-SO. One of three peaks for Aroclor 1221 on the CLP-1 column was missed by the data system due to coelution, and was not manually integrated. The CLP-2 column ICV for Aroclor 1221 was acceptable. The nondetected result for Aroclor 1221 in sample 068SB-0053M-0001-SO was qualified as estimated, "UJ," and coded with a "C" qualification code.
- o The CCV standard recoveries affecting sample results were within the control limit listed in the DoD QSM Table F-2 of  $\pm 20\%$ . A few individual Aroclor peak %Ds exceeded the control limit; however, as they were associated with high recoveries, the nondetected sample results were not qualified.
- o MRL standard recoveries affecting sample results were within the reasonable control limit of  $\pm 30\%$ . A few recoveries were nominally above the control limit; however, as there were no detects in the site samples, no qualifications were applied.
- Blanks: The method blanks associated with the validated samples had no target compound detects above the control limit listed in the DoD QSM Table F-2 of one-half the LOQ for target compounds.
- Laboratory Control Samples: Recoveries for Aroclor 1016 and Aroclor 1260 were within the control limits listed in DoD QSM Tables G-16 and G-17.
- Surrogate Recovery: Recoveries were within the control limits listed in DoD QSM Table G-3 of 60-125% for soil and 40-135% for water.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on samples 068SS-0003M-0001-SO, 068SD-0009-0001-SO, and 068SW-0016-0001-SW. Recoveries for Aroclor 1016 and Aroclor 1260 were within the control limits listed in DoD QSM Table G-17. The RPDs were within the control limit listed in DoD QSM Table F-2 of  $\leq 30\%$ .
- Compound Identification: Compound identification was verified for the validated samples. Review of the sample chromatograms, standards, and retention times indicated no problems with target compound identification. The samples were analyzed on two analytical columns; however, the samples had no Aroclor detects.
- Compound Quantification and Reported Detection Limits: Compound quantification was verified for the validated samples. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.

- System Performance: Review of the raw data indicated no problems with system performance.
- Manual Integrations: Some routine manual integrations were performed for the calibration and QC data associated with the sample data, primarily due to poor baseline integration or incorrectly split peaks. All manual integrations reviewed were deemed appropriate by the reviewer.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - o Field Blanks and Equipment Rinsates: Sample 070-0057-0001-Source Water was the field blank and 076-0067-0001-ER was the equipment rinsate associated with validated sample 068SS-0003M-0001-SO in RVAAP-68. There were no detects above the DL in the field QC samples.
  - o Field Duplicates: Four soil, one sediment, and one surface water field duplicate samples were collected and analyzed for PCBs. The RPD criteria in FWQAPP Table 3-1 of  $\leq 50\%$  for soils and  $\leq 30\%$  for waters were only applied when results for common detects were  $\geq 5\times$  the LOQ. In cases where results were  $< 5\times$  the LOQ, the reasonable control limit of  $\pm$  the LOQ was applied. The results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

#### 4.2.4 Semivolatile Organic Compounds (SVOCs)

A total of 38 primary soil samples, 4 soil field duplicates samples, 3 primary sediment samples, 1 sediment field duplicate sample, 3 primary surface water samples, and two surface water field duplicate samples were analyzed by TA-North Canton for SVOCs by USEPA Method 8270C. A total of 2 primary soil samples, one primary sediment sample, and one primary surface water sample were validated at Level IV.

- MDL studies were not evaluated as part of this project.
- GC/MS Tuning: The DFTPP tunes met the method abundance criteria. The samples were analyzed within 12 hours of the DFTPP injection time.
- Calibration: Calibration criteria listed in the DoD QSM Table F-4 were met, with exceptions affecting sample results noted in the tables below.
  - o Initial calibration average RRFs and ICV and CCV RRFs were within method control limits of  $\geq 0.050$ . All initial calibration %RSDs were within the control limits of  $\leq 30\%$  for calibration check compounds (CCCs) and  $\leq 15\%$  for remaining compounds, or linear regression  $r^2$  values  $\geq 0.990$ .

- o All second source ICV standard recoveries affecting sample data were within the control limit of  $\pm 20\%$ .
- o Continuing calibration %Ds affecting sample results were within the control limit of  $\leq 20\%$ .
- o Although not required by the DoD QSM, an MRL standard of  $3\times$  the DL is required by the FWQAPP. MRL standard recoveries were within the reasonable control limit of  $\pm 30\%$ , with exceptions noted in the table below. Results detected at concentrations more than  $10\times$  the LOQ were not qualified as it was the reviewer's professional opinion the CCVs were more indicative of instrument performance relative to the sample. The nondetected result for n-nitrosodiphenylamine and hexachlorocyclopentadiene were rejected, "R," in the affected samples and the remaining results listed in the table below were qualified as estimated, "UJ," for nondetects and, "J," for detects. All qualified results were coded with a "C" qualification code.

| Samples qualified for MRL %R outliers |           |                     |
|---------------------------------------|-----------|---------------------|
| Analyte                               | %R        | Qualified Samples   |
| 2,4-dinitrophenol                     | 50%       | 068SS-0003M-0001-SO |
| hexachloroethane                      | 69%       |                     |
| dibenz(a,h)anthracene                 | 240%      |                     |
| <b>n-nitrosodiphenylamine</b>         | <b>0%</b> |                     |
| 4,6-dinitro-2-methylphenol            | 59%       | 068SD-0009-0001-SO  |
| benzo(g,h,i)perylene                  | 58%       |                     |
| dibenz(a,h)anthracene                 | 65%       |                     |
| 2,4-dinitrophenol                     | 68%       |                     |
| Indeno(1,2,3-cd)pyrene                | 66%       |                     |
| <b>hexachlorocyclopentadiene</b>      | <b>0%</b> | 068SB-0053-0001-SO  |
| 2,4-dinitrophenol                     | 61%       |                     |

- Blanks: Bis(2-ethylhexyl)phthalate was detected in several soil method blanks at 20.5, 22.4, and 22.1  $\mu\text{g}/\text{Kg}$ ; therefore, bis(2-ethylhexyl)phthalate detected in 068SS-0003M-0001-SO, 068SB-0053M-0001-SO, and 068SD-0009-0001-SO was qualified as nondetected, "U," at the levels of contamination. The qualified results were coded with a "B" qualification code. The remaining method blanks associated with the validated samples had no target compound detects above the control limits listed in DoD QSM Table F-4 of one-half the LOQ for target compounds, and no common laboratory contaminants detected above the LOQ.
- Laboratory Control Samples: All LCS recoveries were within the control limits listed in DoD QSM Tables G-2 (poor performers), G-6 (water), and G-7 (soil). The reviewer noted hexachlorocyclopentadiene was not spiked in the LCS. Additionally, the LCS associate with sample 068SD-0009-0001-SO reported no recovery of benzoic acid. Upon review of the raw data, the reviewer determined that benzoic acid was spiked below the LOD but was acceptably recovered.

- **Surrogate Recovery:** All surrogate recoveries were within the control limits listed in the DoD QSM Tables G-2 (poor performers) or G-3.
- **Matrix Spike/Matrix Spike Duplicate:** MS/MSD analyses were performed on validated samples 068SS-0003M-0001-SO, 068SD-0009-0001-SO and 068SW-0016-0001-SW. Except as noted below, the recoveries were within the control limits listed in DoD QSM Tables G-2 (poor performers), G-6 (water) and G-7 (soil). The reviewer noted hexachlorocyclopentadiene was not spiked in the MS/MSD. Except as noted below, the RPDs were within the control limit of  $\leq 30\%$  listed in DoD QSM Table F-4.

The MS/MSD of 068SD-0009-0001-SO and 068SS-0003M-0001-SO reported no recovery of benzoic acid. Upon review of the raw data, the reviewer determined that benzoic acid was spiked below the LOD but was acceptably recovered in both the MS and MSD of 068SD-0009-0001-SO and the MS of 068SS-0003M-0001-SO.

Results were not qualified for recovery outliers unless both recoveries were outside the control limits. Nondetected results associated with compounds exhibiting no recovery were rejected, "R." The remaining results listed in the table below, all nondetects, were qualified as estimated, "UJ." All qualified results were coded with a "Q" qualification code.

| MS/MSD recovery and RPD outliers |                             |                 |            |                |
|----------------------------------|-----------------------------|-----------------|------------|----------------|
| Parent Sample                    | Analyte                     | MS/MSD %R       | RPD        | Control Limits |
| 068SS-0003M-0001-SO              | benzoic acid                | acceptable, 0%  | 200%       | 0-110%         |
|                                  | 3,3'-dichlorobenzidine      | 4%, 6%          | acceptable | 10-130%        |
| 068SD-0009-0001-SO               | 4-chloroaniline             | 9%, acceptable% | 74%        | 10-95%         |
|                                  | 3,3'-dichlorobenzidine      | 0%, 0%          | acceptable | 10-130%        |
|                                  | 3-nitroaniline              | 9%, 17%         | 64%        | 25-110%        |
|                                  | 4-nitroaniline              | 21%, 23%        | acceptable | 35-115%        |
| 068SW-0016-0001-SW               | 1,4-dichlorobenzene         | acceptable      | 33%        | N/A            |
|                                  | 1,3-dichlorobenzene         | acceptable      | 33%        | N/A            |
|                                  | 1,2-dichlorobenzene         | acceptable      | 34%        | N/A            |
|                                  | dibenz(a,h)anthracene       | acceptable      | 86%        | N/A            |
|                                  | bis(2-chloroethyl)ether     | acceptable      | 35%        | N/A            |
|                                  | benzo(g,h,i)perylene        | acceptable      | 31%        | N/A            |
|                                  | di-n-octyl phthalate        | acceptable      | 38%        | N/A            |
|                                  | hexachlorobutadiene         | acceptable      | 31%        | N/A            |
|                                  | indeno(1,2,3-cd)pyrene      | acceptable      | 34%        | N/A            |
|                                  | 1,2,4-trichlorobenzene      | acceptable      | 31%        | N/A            |
|                                  | hexachloroethane            | acceptable      | 31%        | N/A            |
|                                  | bis(2-chloroisopropyl)ether | acceptable      | 35%        | N/A            |

- **Internal Standards Performance:** The internal standard area counts and retention times were within the DoD QSM Table F-4 control limits established by the midpoint initial calibration standard:  $\pm 30$  seconds for retention times and  $-50\%$  /  $+100\%$  for internal standard areas.

- **Compound Identification:** Compound identification was verified for the samples validated at Level IV. Review of the sample chromatograms, retention times, and spectra indicated no problems with target compound identification.
- **Compound Quantification and Reported Detection Limits:** Compound quantification was verified for the samples validated at Level IV. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J," by the laboratory. Reported nondetects are valid to the LOD.
- **System Performance:** Review of the raw data indicated no problems with system performance.
- **Manual Integrations:** Some routine manual integrations were performed for the samples, calibration, and QC data associated with the sample data, primarily to split incompletely resolved peaks, identify missed peaks, or resolve poor baseline integration. All manual integrations reviewed were deemed appropriate by the reviewer.
- **Field QC Samples:** Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - o **Field Blanks and Equipment Rinsates:** Sample 070-0057-0001-Source Water was the field blank and 076-0067-0001-ER was the equipment rinsate associated with the sample 068SS-0003M-0001-SO. There were no detects in the field QC samples.
  - o **Field Duplicate Samples:** Four soil field duplicate samples, one sediment field duplicate sample, and two surface water field duplicate samples were collected and analyzed for SVOCs. The RPD criterion in FWQAPP Table 3-1 of  $\leq 50\%$  was only applied when results for common detects were  $\geq 5\times$  the LOQ. In cases where results were  $< 5\times$  the LOQ, the reasonable control limit of  $\pm$  the LOQ was applied. Except as noted below, the results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

| SVOC field duplicate outliers               |                            |     |          |
|---------------------------------------------|----------------------------|-----|----------|
| Field Duplicate Pair                        | Analyte                    | RPD | W/In LOQ |
| 068SD-0009-0001-SO/<br>068SD-0010-0001-SO   | Chrysene                   | N/A | No       |
|                                             | Pyrene                     | N/A | No       |
| 068SS-0003M-0001-SO/<br>068SS-0004M-0001-SO | Benzo(g,h,i)perylene       | N/A | No       |
|                                             | Benzo(k)fluoranthene       | N/A | No       |
|                                             | Dibenz(a,h)anthracene      | N/A | No       |
|                                             | Indeno(1,2,3-cd)pyrene     | N/A | No       |
|                                             | Phenanthrene               | N/A | No       |
| 068SW-0013-0001-SW/<br>068SW-0014-0001-SW   | Bis(2-ethylhexyl)phthalate | N/A | No       |

#### 4.2.5 Volatile Organic Compounds (VOCs)

A total of 5 primary soil samples and 1 field duplicate sample were analyzed by TA-North Canton for volatile compounds by USEPA Method 8260B. A single soil sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.
- GC/MS Tuning: The BFB tunes met the method abundance criteria. The samples were analyzed within 12 hours of the BFB injection time.
- Calibration: Calibration criteria listed in DoD QSM Table F-4 were met.
  - o Initial calibration average RRFs and ICV and CCV RRFs were within the control limits of  $\geq 0.30$  for chlorobenzene and 1,1,2,2-tetrachloroethane, and  $\geq 0.10$  for chloromethane, bromoform, and 1,1-dichloroethane.
  - o All initial calibration %RSDs were within the method control limits of  $\leq 30\%$  for the CCCs and  $\leq 15\%$  for remaining compounds, or linear regression  $r^2$  values  $\geq 0.990$ .
  - o All second source initial calibration verification standard recoveries were within the control limit of  $\pm 20\%$ .
  - o Continuing calibration %Ds affecting validated sample data were within the control limit of  $\leq 20\%$
  - o Although not required by the DoD QSM, an MRL standard of  $3\times$  the DL is required by the FWQAPP. MRL standard recoveries affecting sample data were within the reasonable control limit of  $\pm 30\%$ . Several recoveries were marginally above the control limits; however, none of the compounds with high recoveries were detected in the associated sample.
- Blanks: The method blank associated with the validated sample had no target compound detects above the control limits listed in DoD QSM Table F-4 of one-half the LOQ, and no common laboratory contaminants detected above the LOQ. The method blank had detects below the LOQ for acetone at 6.33(J)  $\mu\text{g/Kg}$ , 2-hexanone at 0.802(J)  $\mu\text{g/Kg}$ , and methylene chloride at 1.54(J)  $\mu\text{g/Kg}$ ; however, none of the method blank contaminants were detected in the validated sample.
- Laboratory Control Samples: LCS recoveries were within the control limits listed in DoD QSM Table G-4.
- Surrogate Recovery: Surrogate recoveries were within the control limits listed in DoD QSM Table G-3.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on validated sample 068SS-0003M-0001-SO. Qualifications were assigned only for outliers present in

both the MS and MSD. The following were recovered below the control limits of 75-125%: chlorobenzene at 57% and 67%, ethylbenzene at 53% and 66%, styrene at 54% and 66%, and total xylenes at 52% and 64%. Parent sample results for the compounds with recovery outliers, all nondetects, were qualified as estimated, "UJ," and coded with a "Q" qualification code. Remaining recoveries were within the control limits listed in DoD QSM Table G-4, and all RPDs were within the control limit listed in DoD QSM Table F-4, of  $\leq 30\%$ .

- Internal Standards Performance: The internal standard area counts and retention times were within DoD QSM Table F-4 control limits established by the midpoint initial calibration standard: -50% / +100% for internal standard areas and  $\pm 30$  seconds for retention times.
- Compound Identification: Compound identification was verified for the validated sample. Review of the sample chromatogram, retention times, and spectra indicated no problems with target compound identification.
- Compound Quantification and Reported Detection Limits: Compound quantification was verified for the validated sample. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J," by the laboratory. Reported nondetects are valid to the LOD.
- System Performance: Review of the raw data indicated no problems with system performance.
- Manual integrations: Manual integrations were not performed for the validated sample or for associated calibration and QC samples.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - o Trip Blanks: The trip blank associated with the validated sample in this SDG had no reportable.
  - o Field Blanks and Equipment Rinsates: Sample 070-0057-0001-Source Water was the field blank and 076-0067-0001-ER was the equipment rinsate associated with validated sample 068SS-0003M-0001-SO in RVAAP-68. The field blank had detects below the LOQ for acetone at 2.1(J)  $\mu\text{g/L}$  and 2-butanone at 1.2(J)  $\mu\text{g/L}$ , and detects above the LOQ for the following compounds: bromodichloromethane at 3.6  $\mu\text{g/L}$ , chloroform at 5.3  $\mu\text{g/L}$ , dibromochloromethane at 1.3  $\mu\text{g/L}$ , and toluene at 1.5  $\mu\text{g/L}$ . The equipment rinsate had a detect for chloroform below the LOQ at 0.61(J)  $\mu\text{g/L}$ . None of the field QC contaminants were detected in the validated sample. There were no other detects above the DL in the field QC samples.
  - o Field Duplicate Samples: One field duplicate sample was collected and analyzed for VOCs. The RPD criterion in FWQAPP Table 3-1 of  $\leq 50\%$  was only applied when

results for common detects were  $\geq 5\times$  the LOQ. In cases where results were  $< 5\times$  the LOQ, the reasonable control limit of  $\pm$  the LOQ was applied. All results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

#### 4.2.6 Metals

A total of 38 primary soil samples, 4 soil field duplicates samples, 3 primary sediment samples, 1 sediment field duplicate sample, 3 primary surface water samples, and 1 surface water field duplicate sample were analyzed by TA-North Canton for metals by USEPA Methods 6020 and 7470A/7471A. A total of 2 primary soil samples, one primary sediment sample, and one primary surface water sample were validated at Level IV.

- MDL studies were not evaluated as part of this project.
- Calibration: Except as noted below, calibration criteria were met.
  - o As per DoD QSM Table F-8, the mass calibrations were  $\leq 0.1$  amu of the true values and the resolutions were  $< 0.9$  amu at full width at 10% peak height. Except as noted below, the %RSDs were within the control limit listed in the DoD QSM Table F-8 of  $\leq 5\%$ . The detected results listed in the table below were qualified as estimated, “J,” nondetected as “UJ.” All results were coded with an “M” qualification code.

| Samples qualified for tune %RSD outliers |         |                     |
|------------------------------------------|---------|---------------------|
| Analyte                                  | %RSD    | Qualified Samples   |
| <sup>78</sup> Selenium                   | 20.427% | 068SS-0003M-0001-SO |
|                                          | 11.586% | 068SD-0009-0001-SO  |
|                                          | 8.029%  | 068SW-0016-0001-SW  |
| <sup>137</sup> Barium ratio              | 5.3446% |                     |
| <sup>137</sup> Barium                    | 91.287% | 068SB-0053M-0001-SO |
| <sup>138</sup> Barium                    | 19.999% |                     |

- o Initial calibration: The mercury linear regression correlation coefficients were within the control limit listed in the DoD QSM Table F-7 of  $\geq 0.995$ . The ICPMS analytes used a single point calibration.
- o The ICPMS ICV and CCV recoveries were within the control limits listed in DoD QSM Table F-8 of 90-110%. The mercury ICV and CCV recoveries were within the control limits listed in DoD QSM Table F-7 of 90-110% and 80-120%, respectively.
- o Except as noted below, CRI/MRL recoveries affecting sample results were within the control limits listed in DoD QSM Tables F-7 and F-8 of 80-120%. If the sample result was more than  $10\times$  the LOQ, it was the reviewer’s professional opinion that the CCVs were more indicative of instrument performance.

Results listed in the table below were qualified as estimated, “J,” for detects and, “UJ,” for nondetects. All qualified results were coded with a “C” qualification code. When no



other qualifications with conflicting bias were assigned, the results were qualified as estimated with a potential positive bias, “J+.”

| Samples qualified for CRI recovery outliers |          |                    |
|---------------------------------------------|----------|--------------------|
| Analyte                                     | Recovery | Qualified Samples  |
| Thallium                                    | 121%     | 068SD-0009-0001-SO |
| Iron                                        | 121%     | 068SW-0016-0001-SW |
| Mercury                                     | 72%      |                    |

- Blanks: Except as noted below, method blanks had no applicable detects above the control limits listed in DoD QSM Tables F-7 and F-8 of one-half the LOQ or greater than one-tenth the amount measured in any sample and CCBs had no applicable detects above the control limit of >LOD. Results in the table below, all detects, were qualified as nondetected, “U,” at the level of contamination if detected above the LOD or at the LOD if detected below. The qualified results were assigned a “B” qualification code.

| Samples qualified for method blank detects |                        |                    |                               |                     |
|--------------------------------------------|------------------------|--------------------|-------------------------------|---------------------|
| Analyte                                    | Detect (µg/L or mg/kg) | LOQ(µg/L or mg/kg) | Sample Detect (µg/L or mg/kg) | Qualified Samples   |
| Mercury                                    | 0.0276                 | 0.095              | 0.079                         | 068SD-0009-0001-SO  |
|                                            | 0.0245                 | 0.098              | 0.046                         | 068SS-0003M-0001-SO |
| Thallium                                   | 0.348                  | 2.0                | 0.43                          | 068SW-0016-0001-SW  |
| Zinc                                       | 10.4                   | 40                 | 12                            |                     |

- Interference Check Samples: ICPMS ICSA and ICSAB recoveries were within the control limits listed in DoD QSM Table F-8 of 80-120%. As most interferences were present in the samples at concentration less than 50% of the ICSA, the samples were not assessed for possible matrix interference.
- Laboratory Control Samples: All recoveries were within the control limits listed in DoD QSM Table G-19 of 80-120%.
- Laboratory Duplicates: Laboratory duplicate analyses were performed on 076SS-0020M-0001-SO, 073SS-0003M-0001-SO, 068SD-0009-0001-SO, 076SW-0013-0001-SW, 068SW-0016-0001-SW, 068SS-0003M-0001-SO, 076SD-0009-0001-SO, 073SD-0045-0001-SO, 079SB-0061M-0001,0002-SO, 079SB-0070M-0001-SO and 079SB-0072M-0001-SO. The RPD control limits listed in DoD QSM Tables F-7 and F-8 was ≤20%. The results were only assessed for common detects ≥5× the LOQ. In cases where results were <5× the LOQ, the reasonable control limit of ± the LOQ was applied. Except as noted below, the results were within the control limits.

Results listed in the table below were qualified as estimated, “J,” and coded with an “E” qualification code. As per the *National Functional Guidelines*, all samples in an SDG were qualified; however, the parent samples were qualified only for their own outliers.

| Samples qualified for laboratory duplicate RPD outliers |           |     |                     |
|---------------------------------------------------------|-----------|-----|---------------------|
| Parent Sample                                           | Analyte   | RPD | Qualified samples   |
| 068SD-0009-0001-SO                                      | Manganese | 29% | 068SD-0009-0001-SO  |
| 068SS-0003M-0001-SO                                     |           | 33% | 068SS-0003M-0001-SO |
| 073SD-0045-0001-SO                                      | Aluminum  | 24% | 068SB-0053M-0001-SO |
|                                                         | Arsenic   | 32% |                     |
|                                                         | Barium    | 29% |                     |
|                                                         | Calcium   | 26% |                     |
|                                                         | Chromium  | 25% |                     |
|                                                         | Cobalt    | 28% |                     |
|                                                         | Copper    | 27% |                     |
|                                                         | Iron      | 28% |                     |
|                                                         | Magnesium | 25% |                     |
|                                                         | Manganese | 43% |                     |
|                                                         | Sodium    | 22% |                     |
|                                                         | Nickel    | 27% |                     |
|                                                         | Lead      | 25% |                     |
|                                                         | Vanadium  | 26% |                     |
|                                                         | Zinc      | 27% |                     |
|                                                         | Potassium | 25% |                     |
| 079SB-0061M-0001-SO                                     | Calcium   | 24% |                     |
| 079SB-0070M-0001-SO                                     | Calcium   | 21% |                     |

- Matrix Spike/Matrix Spike Duplicate: Matrix spike analyses were performed on 076SS-0020M-0001-SO, 073SS-0003M-0001-SO, 068SD-0009-0001-SO, 076SW-0013-0001-SW, 068SW-0016-0001-SW, 068SS-0003M-0001-SO, 076SD-0009-0001-SO, 073SD-0045-0001-SO, 079SB-0061M-0001-SO, 079SB-0070M-0001-SO, and 079SB-0072M-0001-SO. The results were not assessed when the native sample concentration exceeded the spiked amount by 4× or more. Except as noted in the table below, the recoveries were within the control limits listed in DoD QSM Table G-19 of 80-120%.

Results listed in the table below, all detects, were qualified as estimated, “J.” In the absence of qualifications with conflicting bias, the results were qualified as estimated with a potential low bias, “J-,” or estimated with a potential high bias, “J+.” All qualified results were coded with a “Q” qualification code. As per the *National Functional Guidelines*, all samples in an SDG were qualified; however, the parent samples were qualified only for their own outliers.

| Samples qualified for matrix spike recovery outliers |          |      |                     |
|------------------------------------------------------|----------|------|---------------------|
| Parent Sample                                        | Analyte  | %R   | Qualified samples   |
| 068SD-0009-0001-SO                                   | Antimony | 23%  | 068SD-0009-0001-SO  |
|                                                      | Arsenic  | 59%  |                     |
|                                                      | Calcium  | 73%  |                     |
|                                                      | Lead     | 73%  |                     |
|                                                      | Selenium | 71%  |                     |
| 068SS-0003M-0001-SO                                  | Antimony | 25%  | 068SS-0003M-0001-SO |
| 073SD-0045-0001-SO                                   | Antimony | 41%  | 068SB-0053M-0001-SO |
|                                                      | Arsenic  | 66%  |                     |
| 079SB-0061M-0001-SO                                  | Antimony | 27%  |                     |
|                                                      | Calcium  | 73%  |                     |
|                                                      | Selenium | 60%  |                     |
| 079SB-0070M-0001-SO                                  | Antimony | 30%  |                     |
|                                                      | Calcium  | 140% |                     |
|                                                      | Selenium | 71%  |                     |
| 079SB-0072M-0001-SO                                  | Antimony | 30%  |                     |
|                                                      | Arsenic  | 62%  |                     |
|                                                      | Calcium  | 49%  |                     |
|                                                      | Selenium | 66%  |                     |
|                                                      | Zinc     | 68%  |                     |

All post digestion spike recoveries were within the control limits listed in DoD QSM Table F-8 of 75-125%.

- **Serial Dilution:** Serial dilution analyses were performed on 076SS-0020M-0001-SO, 076SW-0013-0001-SW, 073SD-0045-0001-SO, 079SB-0061M-0001-SO, 079SB-0070M-0001-SO and 079SB-0072M-0001-SO for the ICPMS analytes. Three zinc %Ds associated with sample 068SB-0053M-0001-SO exceeded the control limit at 11%, 11% and 12%; therefore, the zinc detect in the sample was qualified as estimated, "J," and coded with an "A" qualification code. All remaining %Ds were within the control limits listed in DoD QSM Table F-7 and F-8 of ≤10%. The serial dilution control limit is only applicable when the original sample concentration is minimally ≥50× the LOQ.
- **Internal Standards:** As per the DOD QSM Table F-8, the ICPMS sample internal standards intensities were within 30-120% of those in the ICV. <sup>89</sup>Yttrium was not spiked in sample 068SB-0053M-0001-SO, only for the QC runs.
- **Sample Result Verification:** For Level IV validation, calculations were verified and the sample results reported on the sample result summary were verified against the raw data. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.

Due to instrument limitations, the mercury raw data did not list the sample absorbances; therefore, the reviewer was not able to calculate the sample results from the raw data.

Additionally, the ICPMS raw data did not list absorbances for the ICV, CCV, ICSAB, and MRL samples, and the %R was listed instead of the sample concentrations.

A 20× dilution was performed on manganese for sample 068SD-0009-0001-SO; and 5× dilutions were performed for antimony, barium, iron, lead, manganese and thallium from sample 068SS-0003M-0001-SO.

- Manual Integrations: No manual integrations were noted in the mercury analyses.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - o Field Blanks and Equipment Rinsates: Sample 070-0057-0001-Source Water was identified as the field blank and sample 076-0067-0001-ER was the equipment rinsate associated with sample 068SS-0003M-0001-SO. Sodium was detected at 1600 µg/L in 070-0057-0001-Source Water; therefore, sodium detected in 068SS-0003M-0001-SO was qualified as nondetected, “U,” at the level of contamination. The qualified result was coded with an “F” qualification code. There were other detects in the field QC samples, but none at sufficient concentration to qualify the associated sample.
  - o Field Duplicate Samples: Six field duplicate samples were collected and analyzed for metals. The RPD criterion in FWQAPP Table 3-1 of ≤50% was only applied when results for common detects were ≥5× the LOQ. In cases where results were <5× the LOQ, the reasonable control limit of ± the LOQ was applied. Except as noted below, all results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

| Metals field duplicate outliers             |           |      |          |
|---------------------------------------------|-----------|------|----------|
| Field Duplicate Pair                        | Analyte   | RPD  | W/In LOQ |
| 068SB-0035M-0001-SO/<br>068SB-0054M-0001-SO | Manganese | 53%  | N/A      |
|                                             | Calcium   | 116% | N/A      |
| 068SW-0016-0001-SW/<br>068SW-0014-0001-SW   | Aluminum  | N/A  | No       |
|                                             | Manganese | 32%  | N/A      |
| 068SS-0003M-0001-SO/<br>068SS-0004M-0001-SO | Antimony  | N/A  | No       |
|                                             | Thallium  | N/A  | No       |

### 4.3 Data Usability

According to the Draft Site Inspection Report prepared by ECC, the field completeness was 100%.

Two data points were rejected for poor MS/MSD recoveries or calibration outliers. In instances where a data point had multiple results, the reviewer chose the most technically sound result to report and rejected the remaining data points. These rejected data points do not affect data quality or usability and are not included in the table below. Data with LODs or DLs that

exceeded the established criteria and data estimated for quality control outliers or for detects between the DL and the LOQ were included in the table below for informational purposes only.

**Table 7.** Analytical completeness for RVAAP-68 validated primary data

|                |                  |                     | Number of Results |          |                             |                           |                            | Percent Complete |
|----------------|------------------|---------------------|-------------------|----------|-----------------------------|---------------------------|----------------------------|------------------|
| Analysis       | Samples Analyzed | Analytes per Sample | Total             | Rejected | LODs/DLs Exceeding Criteria | Estimated for QC Outliers | Estimated for Detects <LOQ |                  |
| Explosives     | 1                | 16                  | 14                | 0        | 0/0                         | 3                         | 0                          | 100%             |
| Nitroguanidine | 1                | 1                   | 1                 | 0        | 0/0                         | 0                         | 0                          | 100%             |
| Nitrocellulose | 1                | 1                   | 1                 | 0        | 0/0                         | 1                         | 1                          | 100%             |
| PCBs           | 4                | 7                   | 28                | 0        | 0/0                         | 1                         | 0                          | 100%             |
| SVOCs          | 4                | 66                  | 264               | 2        | 3/3                         | 30                        | 5                          | 99.2%            |
| VOCs           | 1                | 35                  | 35                | 0        | 0/0                         | 4                         | 0                          | 100%             |
| Metals         | 4                | 23                  | 92                | 0        | 0/0                         | 37                        | 10                         | 100%             |
| <b>Totals</b>  |                  |                     | <b>435</b>        | <b>2</b> | <b>3/3</b>                  | <b>76</b>                 | <b>16</b>                  | <b>99.5%</b>     |

The analytical completeness goal for the project established in the FWQAPP was 90% for each method. The completeness goal was met for all analyses.

#### 4.4 Primary and Field Duplicate Comparison Summary

Primary and field duplicate sample comparisons were considered to be in good agreement as only 2.0% of the field duplicate pair results were above the FWQAPP control limit of 50% for soils, 50% for waters, or +/- the LOQ for results below the 5× the LOQ.

Five outliers were for PAH compounds in pair 068SS-0003M-0001-SO/068SS-0004M-0001-SO with all compounds were detected at lower concentrations in the duplicate sample. All comparison results are presented in Appendix C. A summary of the field duplicate results is presented in the table below. Please note that rejected results were not assessed and the rejected analytes do not appear in the "Total Analytes" field.

**Table 8.** RVAAP-68 primary/field duplicate sample comparison summary

| Method         | Primary/Field Duplicate Pairs | Number of Analytes | Total Analytes | Number of results within control limits | Number of results above control limit |
|----------------|-------------------------------|--------------------|----------------|-----------------------------------------|---------------------------------------|
| Explosives     | 1                             | 16                 | 13             | 13                                      | 0                                     |
| Nitroguanidine | 1                             | 1                  | 1              | 1                                       | 0                                     |
| Nitrocellulose | 1                             | 1                  | 1              | 1                                       | 0                                     |
| PCBs           | 6                             | 7                  | 42             | 42                                      | 0                                     |
| SVOCs          | 7                             | 66                 | 461            | 453                                     | 8                                     |
| VOCs           | 1                             | 35                 | 35             | 35                                      | 0                                     |
| Metals         | 6                             | 23                 | 138            | 132                                     | 6                                     |
| Pesticides     | 1                             | 21                 | 21             | 21                                      | 0                                     |

#### 4.5 Specific Data Concerns

Specific concerns regarding the data are noted below:

- A few LOQs and DLs exceeded the project criteria. These exceedances are detailed in Section 4.2.4.
- Due to instrument limitations, the mercury raw data did not list the sample absorbances; therefore, the reviewer was not able to calculate the sample results from the raw data. Additionally, the ICPMS raw data did not list absorbances for the ICV, CCV, ICSAB, and MRL samples, and the %R was listed instead of the sample concentrations.

In order to avoid repetition of the issues noted above, the following actions should be taken:

- MEC<sup>x</sup> recommends the laboratory be requested to alter the IPCMS and mercury instrument set up in order to report mercury and ICPMS raw absorbances and ICPMS ICV, CCV, ICSAB, and MRL concentrations.

## 5 BUILDING 1048 FIRE STATION, RVAAP-69

### 5.1 Current Investigation

ECC completed an RI at the Former Building 1048 Fire Station (RVAAP-69). The work was performed in accordance with the *Site Inspection and Remedial Investigation Work Plan* (ECC 2012) and the *Facility-Wide Sampling and Analysis Plan* (SAIC 2011).

A metal shed, designated Building T-4510, was located adjacent to the Building 1048 Fire Station and was used to store carbon tetrachloride and possibly other chemicals. The HHR (SAIC, 2011) recommended further investigation of the area behind Buildings 1048 and T-4510. The data validated in this report are part of the intrusive RI at RVAAP-69 conducted to assess the potential presence of contamination. The sample counts, samples selected for data validation, and the field duplicates are presented in the tables below.

**Table 9.** Total sample count for RVAAP-69

| Matrix | Primary Samples | Field Duplicates | Split Samples | Primary Sample Count |             |           |      |       |      |        |
|--------|-----------------|------------------|---------------|----------------------|-------------|-----------|------|-------|------|--------|
|        |                 |                  |               | Explosives           | Propellants | Pesticide | PCBs | SVOCs | VOCs | Metals |
| Soil   | 26              | 1                | 0             | 1                    | 1           | 1         | 1    | 26    | 26   | 26     |

**Table 10.** RVAAP-69 validated samples and methods

| Sample ID           | SDG         | Matrix | Collected  | Explosives | Propellants | PCBs | SVOCs | VOCs | Metals |
|---------------------|-------------|--------|------------|------------|-------------|------|-------|------|--------|
| 069SS-0001M-0001-SO | 240-17525-2 | soil   | 11/11/2012 | x          | x           | x    | x     | x    | x      |
| 069SB-0013M-0001-SO | 240-17602-1 | soil   | 11/12/2012 | --         | --          | --   | x     | x    | x      |

**Table 11.** RVAAP-69 field duplicate samples

| Duplicate Sample ID | Parent Sample       |
|---------------------|---------------------|
| 069SS-0002M-0001-SO | 069SS-0001M-0001-SO |

#### 5.1.1 Sample Collection

The chains-of-custody were appropriately signed and dated by field and laboratory personnel. According to the laboratory Sample Receipt Forms, custody seals were not utilized; however, in reviewing the relinquish and receipt times, it appeared the samples were transferred to the laboratory by courier. The following sample collection issues were noted.

- Some corrections made to the chains-of-custody were properly made but were not dated.

- Some corrections were made by overwriting or obliterating the original entry. These corrections were not initialed or dated.

### 5.1.2 Data Completeness

Data completeness for the project described in this report was found to be generally acceptable as no deliverables were missing from the SDGs reviewed.

### 5.1.3 Preservation and Holding Time Requirements

A portion of the samples were received at temperatures nominally below the  $4\pm 2^{\circ}\text{C}$  control limit; however, as the samples were not noted to be frozen or damaged, no qualifications were required. All remaining method preservation requirements were met. Holding times, as listed in Table 3, were met.

### 5.1.4 Detection Limit Requirements

LODs and DLs for nondetected analytes were compared against the most stringent CUGs listed in Tables 5-8, 5-9, and 5-10 of *Final Facility-Wide Human Health Cleanup Goals for the Ravenna Army Ammunition Plant* (2010) or the RSLs if no CUG was listed. Two SVOCs (dibenz(a,h)anthracene and n-nitroso-di-n-propylamine) had LODs and DLs that exceeded the CUGs. Results with DLs exceeding project criteria may be usable for their intended purposes; however, it is dependent on the final data user to make this determination on a case-by-case basis.

## 5.2 RVAAP-69 Data Quality Evaluation

This section summarizes the data quality of validated samples for each analytical method evaluated.

### 5.2.1 Explosives

A single primary soil sample and 1 soil field duplicate sample were analyzed by TA-West Sacramento for explosives by USEPA SW-846 Method 8330B. The primary soil sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.
- Calibration:
  - o The primary column initial calibration average percent relative standard deviations (%RSDs) for RDX and 2-nitrotoluene exceeded the control limit at 20% and 16%, respectively; therefore, the nondetected results for these compounds were qualified as estimated, "UJ," in 069SS-0001M-0001-SO. The qualified results were coded with a "C" qualification code. The remaining initial calibration average %RSDs were within the control limits listed in DoD QSM Table F-3 of  $\leq 15\%$ , or the linear regression  $r^2$  values were  $\geq 0.990$ .



- o The second source ICV standard recoveries were within the control limit listed in DoD QSM Table F-3 of  $\pm 20\%$ .
- o The CCV %Ds were within the control limits listed in DoD QSM Table F-3 of  $\pm 20\%$ .
- o Although not required by the DoD QSM, an MRL standard of  $3\times$  the DL is required by the FWQAPP. Low-level MRL standards were analyzed in association with the validated samples and the recoveries affecting sample results were within the reasonable control limits of 70-130%.
- Blanks: The method blanks associated with the validated samples had no target compound detects above the control limit listed in DoD QSM Table F-3 of one-half the LOQ.
- Laboratory Control Samples: Recoveries were within the control limits listed in DoD QSM Tables G-2 and G-13 and within the reasonable laboratory control limits for nitroglycerin (76-116%) and PETN (76-116%).
- Surrogate Recovery: As no surrogate control limit was listed in the DoD QSM, surrogate recoveries were assessed against the reasonable laboratory-established control limits of 78-118%. The confirmation column recovery was above the control limit at 121%; however, as there were no confirmed compounds, no qualifications were required. The primary column recovery was within the control limits.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on sample 069SS-0001M-0001-SO. Recoveries were within the control limits listed in DoD QSM Tables G-2 and G-13 and within the reasonable laboratory control limits for nitroglycerin (76-116%) and PETN (76-116%). The RPDs were within the control limit listed in DoD QSM Table F-3 of  $\leq 20\%$ .
- Compound Identification: Compound identification was verified for those samples validated at Level IV. Review of sample chromatograms and retention times indicated no problems with target compound identification.
- Compound Quantification and Reported Detection Limits: As no target compounds were reported in the samples validated at Level IV, compound quantification was verified for a portion of the LCS and MS/MSD results. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.

Confirmation analyses were performed; however, no compounds were confirmed.

Target compounds 2,4-dinitrotoluene, 2,6-dinitrotoluene, and nitrobenzene were reported by both Method 8330B and 8270C in samples 069SS-0001M-0001-SO. As there were no detects for these compounds; the reviewer chose to report the results with the lowest LODs. The 8330B result for nitrobenzene was rejected, "R," as duplicate data and coded with a "D" qualification code. The results for 2,4-dinitrotoluene and 2,6-dinitrotoluene were retained.

- System Performance: Review of the raw data indicated no problems with system performance.
- Manual Integrations: Some manual integrations were performed. All manual integrations were performed in order to report incompletely resolved peaks, to complete the integrations, or to account for baseline anomalies. All manual integrations were deemed acceptable by the reviewer.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - o Field Blanks and Equipment Rinsates: Sample 070-0057-0001-Source Water was the field blank and 076-0067-0001-ER was the equipment rinsate associated with the validated sample in RVAAP-68. There were no detects in the field QC samples.
  - o Field Duplicates: One field duplicate sample was collected and analyzed for explosive compounds. The RPD criterion in FWQAPP Table 3-1 of  $\leq 50\%$  was only applied when results for common detects were  $\geq 5\times$  the LOQ. In cases where results were  $< 5\times$  the LOQ, the reasonable control limit of  $\pm$  the LOQ was applied. All results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

### **5.2.2 Propellants**

A single primary soil sample and 1 soil field duplicate sample were analyzed by TA-West Sacramento for nitroguanidine by USEPA SW-846 Method 8330 and for nitrocellulose by laboratory SOP WS-WC-0050. The primary soil sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.
- Calibration:
  - o The nitroguanidine initial calibration average percent %RSD was within the control limit listed in DoD QSM Table F-2 of  $\leq 20\%$ . The nitrocellulose linear regression correlation coefficient was within the control limit listed in the DoD QSM Table F-11 of  $\geq 0.995$ .
  - o The nitroguanidine second source ICV recovery was within the control limits listed in DoD QSM Table F-2 of 85-115%. The nitrocellulose ICV recovery was reported to be 187% in the ICV associated with the validated sample; however, the ICV appeared to have been spiked at the usual 1 ppm level and was recovered within the control limits listed in DoD QSM Table F-11 of 90-110%.
  - o The nitroguanidine CCV recoveries were within the control limits listed in DoD QSM Table F-2 of 85-115%. The nitrocellulose CCV recoveries were within the control limits listed in DoD QSM Table F-11 of 90-110%.

- o Although not required by the DoD QSM, an MRL standard of 3× the DL is required by the FWQAPP. MRL recoveries associated with the sample were within the reasonable control limits of 70-130%.
- Blanks: The method blanks had no target compound detects above the control limits listed in DoD QSM Tables F-2 and F-11 of one-half the LOQ.
- Laboratory Control Samples: No nitroguanidine or nitrocellulose LCS control limits are listed in the DoD QSM; therefore, the laboratory control limits were used to assess the results. All nitroguanidine recoveries were within the control limits of 72-121% for soils. The nitrocellulose recoveries were within the laboratory-established control limits of 34-115% for soils.
- Surrogate Recovery: A surrogate was not required for the analysis of nitroguanidine or nitrocellulose.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on sample 069SS-0001M-0001-SO for both propellants. The recoveries were within the laboratory-established control limits of 72-121% for nitroguanidine and 34-115% for nitrocellulose. Both RPDs were ≤20%.
- Compound Identification: Compound identification was verified for the sample validated at Level IV. Review of the sample chromatograms and retention times indicated no problems with target compound identification.
- Compound Quantification and Reported Detection Limits: Compound quantification was verified for those samples validated at Level IV. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.

Nitroguanidine was reported on the primary column for sample 069SS-0001M-0001-SO, but was not detected on the confirmation column.
- System Performance: Review of the raw data indicated no problems with system performance.
- Manual Integrations: No manual integrations were reported for nitroguanidine.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - o Field Blanks and Equipment Rinsates: Sample 070-0057-0001-Source Water was the field blank and 076-0067-0001-ER was the equipment rinsate associated with the validated sample in RVAAP-68. There were no detects in the field QC samples.

- o Field Duplicates: One field duplicate sample was collected and analyzed for propellants. The RPD criterion in FWQAPP Table 3-1 of  $\leq 50\%$  was only applied when results for common detects were  $\geq 5\times$  the LOQ. In cases where results were  $< 5\times$  the LOQ, the reasonable control limit of  $\pm$  the LOQ was applied. Nitroguanidine was detected in the duplicate sample 069SS-0002M-0001-SO above the LOQ but was not detected in the parent sample, 069SS-0001M-0001-SO. The nitrocellulose results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

### 5.2.3 Polychlorinated Biphenyls (PCBs)

A single primary soil sample and 1 field duplicate sample were analyzed by TA-North Canton for PCBs by USEPA SW-846 Method 8082. The primary soil sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.
- Calibration: Calibration criteria were met.
  - o Initial calibration average %RSDs were within the control limit listed in the DoD QSM Table F-2 of  $\leq 20\%$ .
  - o The second source ICV recoveries were within the control limit listed in the DoD QSM Table F-2 of  $\pm 20\%$  for all applicable Aroclors.
  - o The CCV standard recoveries were within the control limit listed in the DoD QSM Table F-2 of  $\pm 20\%$ .
  - o MRL standard recoveries were within the reasonable control limit of  $\pm 30\%$ .
- Blanks: The method blank associated with the validated sample had no target compound detects above the control limit listed in the DoD QSM Table F-2 of one-half the LOQ for target compounds.
- Laboratory Control Samples: LCS recoveries for Aroclor 1016 and Aroclor 1260 were within the control limits listed in DoD QSM Table G-17.
- Surrogate Recovery: Recoveries were within the control limits listed in DoD QSM Table G-3 of 60-125%.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on the validated sample, 069SS-0001M-0001-SO. Recoveries for Aroclor 1016 and Aroclor 1260 were within the control limits listed in DoD QSM Table G-17. The RPDs were within the control limit listed in DoD QSM Table F-2 of  $\leq 30\%$ .
- Compound Identification: Compound identification was verified for the validated sample. Review of the sample chromatogram, standards, and retention times indicated no problems

with target compound identification. The sample was analyzed on two analytical columns; however, the sample had no Aroclor detects.

- **Compound Quantification and Reported Detection Limits:** Compound quantification was verified for the validated sample. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.
- **System Performance:** Review of the raw data indicated no problems with system performance.
- **Manual Integrations:** Some routine manual integrations were performed for the calibration and QC data associated with the sample data, primarily to resolve poor baseline integration or correct previously incorrectly split peaks. All manual integrations reviewed were deemed appropriate by the reviewer.
- **Field QC Samples:** Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - o **Field Blanks and Equipment Rinsates:** Sample 070-0057-0001-Source Water was the field blank and 076-0067-0001-ER was the equipment rinsate associated with validated sample 069SS-0001M-0001-SO in RVAAP-69. There were no detects above the DL in the field QC samples.
  - o **Field Duplicates:** One field duplicate sample was collected from RVAAP-69 for PCBs. The RPD criteria in FWQAPP Table 3-1 of  $\leq 50\%$  for soils and  $\leq 30\%$  for waters were only applied when results for common detects were  $\geq 5\times$  the LOQ. In cases where results were  $< 5\times$  the LOQ, the reasonable control limit of  $\pm$  the LOQ was applied. The results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

#### **5.2.4 Semivolatile Organic Compounds (SVOCs)**

A total of 26 primary soil samples and 1 field duplicate sample were analyzed by TA-North Canton for SVOCs by USEPA Method 8270C. A total of 2 primary soil samples were validated at Level IV.

- MDL studies were not evaluated as part of this project.
- **GC/MS Tuning:** The DFTPP tunes met the method abundance criteria. The samples were analyzed within 12 hours of the DFTPP injection time.
- **Calibration:** Calibration criteria listed in the DoD QSM Table F-4 were met, with exceptions affecting sample results noted below.

- o Initial calibration average RRFs and ICV and CCV RRFs were within method control limits of  $\geq 0.050$ . All initial calibration %RSDs were within the control limits of  $\leq 30\%$  for CCCs and  $\leq 15\%$  for remaining compounds, or linear regression  $r^2$  values  $\geq 0.990$ .
- o The recovery for 3,3'dichlorobenzidine was 79% in the ICV associated with sample 069SB-0013M-0001-SO; therefore, the nondetected result for this compound in sample 069SB-0013M-0001-SO was qualified as estimated, "UJ," and coded with a "C" qualification code. The remaining second source ICV standard recoveries affecting sample data were within the control limit of  $\pm 20\%$ .
- o Continuing calibration %Ds affecting sample results were within the control limit of  $\leq 20\%$ .
- o MRL standard recoveries were within the reasonable control limit of  $\pm 30\%$ , with the noted exception. Target compound n-nitrosodiphenylamine was not recovered in an MRL associated with samples 069SS-0001M-0001-SO and 069SB-0013M-0001-SO; therefore, the nondetected results for this compound in both samples were rejected, "R," and coded with a "C" qualification code.
- Blanks: Bis(2-ethylhexyl)phthalate was detected in the method blank associated with sample 069SB-0013M-0001-SO; therefore, the detect for this compound in sample 069SB-0013M-0001-SO was qualified as nondetected, "U," at the level of contamination. The qualified result was coded with a "B" qualification code. The method blanks associated with the validated samples had no other target compound detects above the control limits listed in DoD QSM Table B-3 of one-half the LOQ for target compounds, and no common laboratory contaminants detected above the LOQ.
- Laboratory Control Samples: All LCS recoveries were within the control limits listed in DoD QSM Tables G-2 (poor performers) and G-7. The reviewer noted hexachlorocyclopentadiene was not spiked in the LCS. Additionally, the LCS associated with sample 069SS-0001M-0001-SO reported no recovery of benzoic acid. Upon review of the raw data, the reviewer determined that benzoic acid was spiked below the LOD but was acceptably recovered.
- Surrogate Recovery: All surrogate recoveries were within the control limits listed in the DoD QSM Tables G-2 (poor performers) or G-3.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on sample 069SS-0001M-0001-SO. Except as noted below, the recoveries were within the control limits listed in DoD QSM Tables G-2 (poor performers) and G-7 (soil). Except as noted below, the RPDs were within the control limit of  $\leq 30\%$  listed in DoD QSM Table F-4.

Results were not qualified for recovery outliers unless both recoveries were outside the control limits. Nondetected results associated with compounds exhibiting no recovery were rejected, "R." The remaining results listed in the table below, all nondetects, were qualified as estimated, "UJ." All qualified results were coded with a "Q" qualification code.

| MS/MSD recovery and RPD outliers |                                 |                |      |                |
|----------------------------------|---------------------------------|----------------|------|----------------|
| Parent Sample                    | Analyte                         | MS/MSD %R      | RPD  | Control Limits |
| 069SS-0001M-0001-SO              | benzoic acid                    | 0%, 0%         | N/A  | 0-110%         |
|                                  | 3,3'-dichlorobenzidine          | 0%, 0%         | N/A  | 10-130%        |
|                                  | 4,6-dinitro-2-methylnaphthalene | acceptable, 0% | 200% | 30-135%        |
|                                  | 4-nitrophenol                   | acceptable, 0% | 200% | 15-140%        |

- **Internal Standards Performance:** The internal standard area counts and retention times were within the DoD QSM F-4 control limits established by the midpoint initial calibration standard:  $\pm 30$  seconds for retention times and  $-50\%$  /  $+100\%$  for internal standard areas.
- **Compound Identification:** Compound identification was verified for the samples validated at Level IV. Review of the sample chromatograms, retention times, and spectra indicated no problems with target compound identification.
- **Target compounds 2,4-dinitrotoluene, 2,6-dinitrotoluene, and nitrobenzene** were reported by both Method 8330B and 8270C in samples 069SS-0001M-0001-SO. As there were no detects for these compounds; the reviewer chose to report the results with the lowest LODs. The 8270C results for 2,4-dinitrotoluene and 2,6-dinitrotoluene was rejected, "R," as duplicate data and coded with a "D" qualification code. The result for nitrobenzene was retained.
- **Compound Quantification and Reported Detection Limits:** Compound quantification was verified for the samples validated at Level IV. All of the samples had a two-milliliter final extract volume, resulting in an effective  $2\times$  dilution. Due to the matrix, sample 069SS-0001M-0001-SO was analyzed at a  $5\times$  dilution. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J," by the laboratory. Reported nondetects are valid to the LOD.
- **System Performance:** Review of the raw data indicated no problems with system performance.
- **Manual Integrations:** Some routine manual integrations were performed for the samples, calibration, and QC data associated with the sample data, primarily to split the benzo(b)fluoranthene and benzo(k)fluoranthene peaks and to account for baseline anomalies. All manual integrations reviewed at Level IV were deemed appropriate by the reviewer.
- **Field QC Samples:** Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

- o Field Blanks and Equipment Rinsates: Sample 070-0057-0001-Source Water was the field blank and 076-0067-0001-ER was the equipment rinsate associated with the sample 069SS-0001M-0001-SO. There were no detects in the field QC samples.
- o Field Duplicate Samples: One soil field duplicate sample was collected and analyzed for SVOCs. The RPD criterion in FWQAPP Table 3-1 of  $\leq 50\%$  for soil samples was only applied when results for common detects were  $\geq 5\times$  the LOQ. In cases where results were  $< 5\times$  the LOQ, the reasonable control limit of  $\pm$  the LOQ was applied. Except as noted below, all results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

| SVOC field duplicate outliers               |                      |     |          |
|---------------------------------------------|----------------------|-----|----------|
| Field Duplicate Pair                        | Analyte              | RPD | W/In LOQ |
| 069SS-0001M-0001-SO/<br>069SS-0002M-0001-SO | Benzo(a)anthracene   | N/A | No       |
|                                             | Benzo(b)fluoranthene | N/A | No       |
|                                             | Chrysene             | N/A | No       |
|                                             | Fluoranthene         | N/A | No       |
|                                             | Pyrene               | N/A | No       |

### 5.2.5 Volatile Organic Compounds (VOCs)

A total of 26 primary soil samples and 1 field duplicate sample were analyzed by TA-North Canton for volatile compounds by USEPA Method 8260B. A total of 2 primary soil samples were validated at Level IV.

- MDL studies were not evaluated as part of this project.
- GC/MS Tuning: The BFB tunes met the method abundance criteria. The samples were analyzed within 12 hours of the BFB injection time.
- Calibration: Calibration criteria listed in DoD QSM Table F-4 were met with the exception noted below.
  - o Initial calibration average RRFs and ICV and CCV RRFs were within the control limits of  $\geq 0.30$  for chlorobenzene and 1,1,2,2-tetrachloroethane, and  $\geq 0.10$  for chloromethane, bromoform, and 1,1-dichloroethane.
  - o All initial calibration %RSDs were within the method control limits of  $\leq 30\%$  for the CCCs and  $\leq 15\%$  for remaining compounds, or linear regression  $r^2$  values  $\geq 0.990$ .
  - o All second source ICV standard recoveries were within the control limit of  $\pm 20\%$ .
  - o Continuing calibration %Ds affecting validated sample data were within the control limit of  $\leq 20\%$ , with the exception of the %D of -30.2% for carbon disulfide in the CCV associated with both samples. The nondetected results for carbon disulfide were qualified as estimated, "UJ," and coded with a "C" qualification code.



- o Although not required by the DoD QSM, an MRL standard of 3× the DL is required by the FWQAPP. MRL standard recoveries affecting sample data were within the reasonable control limit of  $\pm 30\%$ . Several recoveries were marginally above the control limits; however, none of the compounds with high recoveries were detected in the associated samples.
- Blanks: The method blank associated with the validated samples had no target compound detects above the control limits listed in DoD QSM Table F-4 of one-half the LOQ, and no common laboratory contaminants detected above the LOQ. The method blank had detects below the LOQ for acetone at 6.33(J)  $\mu\text{g/Kg}$ , 2-hexanone at 0.802(J)  $\mu\text{g/Kg}$ , and methylene chloride at 1.54(J)  $\mu\text{g/Kg}$ ; however, none of the method blank contaminants were detected in the validated samples.
- Laboratory Control Samples: LCS recoveries were within the control limits listed in DoD QSM Table G-4.
- Surrogate Recovery: Surrogate recoveries for the validated samples were within the control limits listed in DoD QSM Table G-3.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed on a validated sample. Evaluation of method accuracy was based on the LCS results.
- Internal Standards Performance: Internal standard area counts and retention times were within DoD QSM Table F-4 control limits established by the midpoint initial calibration standard, of -50% / +100% for internal standard areas and  $\pm 30$  seconds for retention times.
- Compound Identification: Compound identification was verified for the validated sample. Review of the sample chromatogram, retention times, and spectra indicated no problems with target compound identification.
- Compound Quantification and Reported Detection Limits: Compound quantification was verified for the validated sample. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J," by the laboratory. Reported nondetects are valid to the LOD.
- System Performance: Review of the raw data indicated no problems with system performance.
- Manual integrations: Manual integrations were not performed for the validated samples or for associated calibration and QC samples.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

- o Trip Blanks: The trip blank associated with the validated samples in this SDG had no reportable detects above the DL.
- o Field Blanks and Equipment Rinsates: Sample 070-0057-0001-Source Water was the field blank and 076-0067-0001-ER was the equipment rinsate associated with validated sample 069SS-0001M-0001-SO in RVAAP-69. The field blank had detects below the LOQ for acetone at 2.1(J) µg/L and 2-butanone at 1.2(J) µg/L, and detects above the LOQ for the following compounds: bromodichloromethane at 3.6 µg/L, chloroform at 5.3 µg/L, dibromochloromethane at 1.3 µg/L, and toluene at 1.5 µg/L. None of the field QC contaminants were detected in the validated samples.
- o Field Duplicate Samples: One field duplicate sample was collected and analyzed for VOCs. The RPD criterion in FWQAPP Table 3-1 of ≤50% was only applied when results for common detects were ≥5× the LOQ. In cases where results were <5× the LOQ, the reasonable control limit of ± the LOQ was applied. All results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

#### 5.2.6 Metals

A total of 26 primary soil samples and 1 field duplicate sample were analyzed by TA-North Canton for various metals by USEPA Methods 6020 and 7471A. A total of 2 primary soil samples were validated at Level IV.

- MDL studies were not evaluated as part of this project.
- Calibration: Except as noted below, calibration criteria were met.
  - o As per DoD QSM Table F-8, the mass calibrations were ≤0.1 amu of the true values and the resolutions were <0.9 amu at full width at 10% peak height. A <sup>137</sup>barium RSD associated with samples 069SS-0001M-0001-SO and 069SB-0013M-0001-SO exceeded the control limit at 15.469%; therefore, barium detected in both site samples was qualified as estimated, “J.” Both results were coded with an “M” qualification code. The remaining %RSDs were within the control limit listed in the DoD QSM Table F-8 of ≤5%.
  - o Initial calibration: The mercury linear regression correlation coefficients were within the control limit listed in the DoD QSM Table F-7 of ≥0.995. The ICPMS analytes used a single point calibration.
  - o The ICPMS ICV and CCV recoveries were within the control limits listed in DoD QSM Table F-8 of 90-110%. The mercury ICV and CCV recoveries were within the control limits listed in DoD QSM Table F-7 of 90-110% and 80-120%, respectively.
  - o CRI/MRL recoveries affecting sample results were within the control limits listed in DoD QSM Tables F-7 and F-8 of 80-120%.

- **Blanks:** Method blanks had no applicable detects above the control limits listed in DoD QSM Tables F-7 and F-8 of one-half the LOQ or greater than one-tenth the amount measured in any sample and CCBs had no applicable detects above the control limit of >LOD.
- **Interference Check Samples:** ICPMS ICSA and ICSAB recoveries were within the control limits listed in DoD QSM Table F-8 of 80-120%. Except as noted below, there were no analytes affecting sample results detected in the ICSA above the control limit listed in DoD QSM Table F-8 of >LOD.

When the interferents were present in the samples at similar concentration to the ICSA, the samples were further reviewed for possible matrix interference, based on detects for unspiked compounds in the ICSA. If the unspiked compounds were present in the samples at concentrations within 10× of the ICSA detect, the results were qualified. Results listed in the table below, all detects, were qualified as estimated, “J,” and coded with an “I” qualification code. When no other qualifications with conflicting bias were assigned, the results were qualified as estimated with a potential positive bias, “J+.”

| Samples qualified for ICSA detects |          |               |                     |
|------------------------------------|----------|---------------|---------------------|
| SDG                                | Analyte  | Detect (µg/L) | Qualified samples   |
| 240-17525-2                        | Antimony | 0.259         | 069SS-0001M-0001-SO |
|                                    | Silver   | 0.095         |                     |
| 240-17602-2                        | Antimony | 0.259         | 069SB-0013M-0001-SO |
|                                    | Cadmium  | 0.249         |                     |
|                                    | Silver   | 0.095         |                     |

- **Laboratory Control Samples:** All recoveries were within the control limits listed in DoD QSM Table G-19 of 80-120%.
- **Laboratory Duplicates:** Laboratory duplicate analyses were performed on 069SS-0001M-0001-SO, 077SS-0001M-0001-SO and 069SB-0015M-0001-SO for all analytes. The RPD control limit listed in DoD QSM Tables F-7 and F-8 was ≤20%. The RPD control limit was only applied for common detects ≥5× the LOQ. In cases where results were <5× the LOQ, the reasonable control limit of ± the LOQ was applied. With two exceptions, the results were within the control limits.

Two calcium RPDs associated with sample 069SS-0001M-0001-SO were outside the control limit at 21% each; therefore, calcium detected in the sample was qualified as estimated, “J,” and coded with an “E” qualification code. As per the *National Functional Guidelines*, all samples in an SDG were qualified; however, the parent samples were qualified only for their own outliers.

- **Matrix Spike/Matrix Spike Duplicate:** Matrix spike analyses were performed on 069SS-0001M-0001-SO, 077SS-0001M-0001-SO and 069SB-0015M-0001-SO for all analytes. The results were not assessed when the native sample concentration exceeded the spiked

amount by a factor of four or more. Except as noted in the table below, the recoveries were within the control limits listed in DoD QSM Table G-19 of 80-120%.

Results listed in the table below, all detects, were qualified as estimated, “J.” In the absence of qualifications with conflicting bias, the results were qualified as estimated with a potential low bias, “J-,” or estimated with a potential high bias, “J+.” All results were coded with a “Q” qualification code. As per the *National Functional Guidelines*, all samples in an SDG were qualified; however, the parent samples were qualified only for their own outliers.

| Samples qualified for matrix spike recovery outliers |          |     |                     |
|------------------------------------------------------|----------|-----|---------------------|
| Parent Sample                                        | Analyte  | %R  | Qualified samples   |
| 069SS-0001M-0001-S0                                  | Antimony | 22% | 069SS-0001M-0001-S0 |
|                                                      | Arsenic  | 72% |                     |
|                                                      | Cadmium  | 79% |                     |
|                                                      | Copper   | 75% |                     |
|                                                      | Selenium | 64% |                     |
| 069SB-0015M-0001-SO                                  | Antimony | 21% | 069SB-0013M-0001-SO |
|                                                      | Calcium  | 69% |                     |
|                                                      | Selenium | 71% |                     |

All post digestion spike recoveries were within the control limits listed in DoD QSM Table F-8 of 75-125%.

- **Serial Dilution:** Serial dilution analyses were performed on 069SS-0001M-0001-S0, 077SS-0001M-0001-SO, and 069SB-0015M-0001-SO for the ICPMS analytes. Two calcium %Ds associated with sample 069SS-0001M-0001-S0 exceeded the control limit at 11% and 12%; therefore, the calcium detect in the sample was qualified as estimated, “J,” and coded with an “A” qualification code. All remaining %Ds were within the control limits listed in DoD QSM Table F-7 and F-8 of ≤10%. The serial dilution control limit is only applicable when the original sample concentration is minimally ≥50× the LOQ.
- **Internal Standards:** As per the DOD QSM Table F-8, the ICPMS sample internal standards intensities were within 30-120% of those in the ICV. <sup>89</sup>Yttrium was not spiked in the site samples, only in QC runs.
- **Sample Result Verification:** For Level IV validation, calculations were verified and the sample results reported on the sample result summary were verified against the raw data. Any result reported between the DL and the LOQ was qualified as estimated, “J.” Reported nondetects are valid to the LOD.

Due to instrument limitations, the mercury raw data did not list the sample absorbances; therefore, the reviewer was not able to calculate the sample results from the raw data. Additionally, the ICPMS raw data did not list absorbances for the ICV, CCV, ICSAB, and MRL samples, and the %R was listed instead of the sample concentrations.

- Manual Integrations: No manual integrations were noted in the mercury analyses.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - o Field Blanks and Equipment Rinsates: Sample 070-0057-0001-Source Water was identified as the field blank and sample 076-0067-0001-ER was the equipment rinsate associated with sample 069SS-0001M-0001-S0. Sodium was detected at 1600 µg/L in 070-0057-0001-Source Water and thallium was detected at 0.75 µg/L in 076-0067-0001-ER; therefore, sodium and thallium detected in 069SS-0001M-0001-S0 were qualified as nondetected, “U,” at the levels of contamination. The qualified results were coded with an “F” qualification code. There were other detects in the field QC samples, but none at sufficient concentration to qualify the associated sample.
  - o Field Duplicate Samples: One field duplicate sample was collected and analyzed for metals. The RPD criterion in FWQAPP Table 3-1 of ≤50% for soil samples was only applied when results for common detects were ≥5× the LOQ. In cases where results were <5× the LOQ, the reasonable control limit of ± the LOQ was applied. All results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

### 5.3 Data Usability

According to the Draft Site Inspection Report prepared by ECC, the field completeness was 100%.

Four data points were rejected for calibration outliers or poor MS/MSD recoveries. In instances where a data point had multiple results, the reviewer chose the most technically sound result to report and rejected the remaining data points. These data points, rejected to choose the most technically sound data, do not affect data quality or usability and are not included in the table below. Data with LODs/DLs that exceeded the established criteria and data estimated for quality control outliers or for detects between the LOQ and the DL were included in the table below for informational purposes only.

**Table 12.** Analytical completeness for RVAAP-69 validated primary data

|                |                  |                     | Number of Results |          |                             |                           |                            | Percent Complete |
|----------------|------------------|---------------------|-------------------|----------|-----------------------------|---------------------------|----------------------------|------------------|
| Analysis       | Samples Analyzed | Analytes per Sample | Total             | Rejected | LODs/DLs Exceeding Criteria | Estimated for QC Outliers | Estimated for Detects <LOQ |                  |
| Explosives     | 1                | 16                  | 15                | 0        | 0/0                         | 2                         | 0                          | 100%             |
| Nitroguanidine | 1                | 1                   | 1                 | 0        | 0/0                         | 0                         | 0                          | 100%             |
| Nitrocellulose | 1                | 1                   | 1                 | 0        | 0/0                         | 0                         | 0                          | 100%             |
| PCBs           | 1                | 7                   | 7                 | 0        | 0/0                         | 0                         | 1                          | 100%             |
| SVOCs          | 2                | 66                  | 130               | 4        | 2/2                         | 4                         | 6                          | 96.9%            |
| VOCs           | 2                | 36                  | 72                | 0        | 0/0                         | 2                         | 1                          | 100%             |
| Metals         | 2                | 23                  | 46                | 0        | 0/0                         | 16                        | 5                          | 100%             |
| <b>Totals</b>  |                  |                     | <b>272</b>        | <b>4</b> | <b>2/2</b>                  | <b>24</b>                 | <b>13</b>                  | <b>98.5%</b>     |

The analytical completeness goal for the project established in the FWQAPP was 90% for each method. The completeness goal was met for all analyses.

#### 5.4 Primary and Field Duplicate Comparison Summary

Primary and field duplicate sample comparisons were considered to be in good agreement as only 4.2% of the field duplicate pair results were above the FWQAPP control limit of 50% for soils or +/- the LOQ for results below 5× the LOQ.

Five of the six outliers were PAH compounds, all of which were detected at higher concentration in the field duplicate samples. The total analyte count in the table below does not include rejected results. All comparison results are presented in Appendix C.

**Table 13.** RVAAP-69 primary/field duplicate sample comparison summary

| Method*        | Primary/Field Duplicate Pairs | Number of Analytes | Total Analytes | Number of results within control limits | Number of results above control limit |
|----------------|-------------------------------|--------------------|----------------|-----------------------------------------|---------------------------------------|
| Explosives     | 1                             | 16                 | 15             | 15                                      | 0                                     |
| Nitroguanidine | 1                             | 1                  | 1              | 0                                       | 1                                     |
| Nitrocellulose | 1                             | 1                  | 1              | 1                                       | 0                                     |
| PCBs           | 1                             | 7                  | 7              | 7                                       | 0                                     |
| SVOCs          | 1                             | 66                 | 61             | 61                                      | 5                                     |
| VOCs           | 1                             | 36                 | 36             | 36                                      | 0                                     |
| Metals         | 1                             | 23                 | 23             | 23                                      | 0                                     |

#### 5.5 Specific Data Concerns

Specific concerns regarding the data are noted below:

- A few LODs and some DLs exceeded the project criteria. These exceedances are detailed in Section 5.2.4.
- Due to instrument limitations, the mercury raw data did not list the sample absorbances; therefore, the reviewer was not able to calculate the sample results from the raw data. Additionally, the ICPMS raw data did not list absorbances for the ICV, CCV, ICSAB, and MRL samples, and the %R was listed instead of the sample concentrations.

In order to avoid repetition of the issues noted above, the following actions should be taken:

- MEC<sup>x</sup> recommends the laboratory be requested to alter the IPCMS and mercury instrument set up in order to report mercury and ICPMS raw absorbances and ICPMS ICV, CCV, ICSAB, and MRL concentrations.

## 6 COAL STORAGE AREA, RVAAP-73

### 6.1 Current Investigation

ECC completed an RI at the Facility-Wide Coal Storage (RVAAP-73). The work was performed in accordance with the *Site Inspection and Remedial Investigation Work Plan* (ECC 2012) and the *Facility-Wide Sampling and Analysis Plan* (SAIC 2011).

Coal was used at RVAAP in steam generation to supply power houses, production facilities, and in heating systems. The material was received in bulk, primarily by rail, and was typically stored and staged in uncovered piles on the ground. From there, it was distributed throughout the facility by truck. Point-of-use coal storage locations included covered bins and uncovered storage piles on the ground. No documentation of accidental large-volume spills or releases associated with the coal storage areas was found.

RVAAP-73 is comprised of four separate coal storage areas.

- Building U-16 Boiler House was used to store coal for boiler supply and steam generation.
- North Line Road Coal Tipple was used as a bulk coal receiving, storage and distribution area.
- Sand Creek Coal Tipple was used as a bulk coal receiving, storage and distribution area.
- East Classification Yard Roundhouse was used to store coal for boiler supply and steam generation.

The data validated in this report are part of the intrusive RI at RVAAP-73 conducted to assess the potential presence of contamination. The total sample counts, samples selected for data validation, and the field duplicates are presented in the tables below.

**Table 14.** Total sample count for RVAAP-73

| Matrix        | Primary Samples | Field Duplicates | Split Samples | Primary Sample Counts |             |      |            |       |      |        |
|---------------|-----------------|------------------|---------------|-----------------------|-------------|------|------------|-------|------|--------|
|               |                 |                  |               | Explosives            | Propellants | PCBs | Pesticides | SVOCs | VOCs | Metals |
| Soil          | 36              | 5                | 3             | 4                     | 4           | 4    | 4          | 36    | 4    | 36     |
| Sediment      | 7               | 1*               | 3             | 1                     | 1           | 1    | 1          | 7     | 1    | 7      |
| Surface Water | 7               | 1*               | 3             | 1                     | 1           | 1    | 1          | 7     | 1    | 7      |

\*Analyzed for SVOCs and metals only



**Table 15.** RVAAP-73 validated samples and methods

| Sample ID           | SDG           | Matrix   | Collected | Explosives | Propellants | PCBs | Pesticides | SVOCs | VOCs | Metals |
|---------------------|---------------|----------|-----------|------------|-------------|------|------------|-------|------|--------|
| 073SS-0002M-0001-SO | 240-17422-1   | Soil     | 11/8/2012 | x          | x           | x    | x          | x     | x    | x      |
| 073SB-0009M-0001-SO | 240-18441-1   | Soil     | 12/4/2012 | --         | --          | --   | --         | x     | --   | x      |
| 073SB-0016M-0001-SO | 240-22648-1   | Soil     | 3/28/2013 | --         | --          | --   | --         | x     | --   | x      |
| 073SB-0038M-0001-SO | 240-22663-1/2 | Soil     | 4/1/2013  | --         | --          | --   | --         | x     | --   | x      |
| 073SD-0047-0001-SD  | 240-22648-1   | sediment | 3/28/2013 | --         | --          | --   | --         | x     | --   | --     |

**Table 16.** RVAAP-73 field duplicate samples

| Duplicate Sample ID | Parent Sample       |
|---------------------|---------------------|
| 073SS-0003M-0001-SO | 073SS-0002M-0001-SO |
| 073SB-0010M-0001-SO | 073SB-0009M-0001-SO |
| 073SB-0017M-0001-SO | 073SB-0016M-0001-SO |
| 073SB-0028M-0001-SO | 073SM-0027M-0001-SO |
| 073SB-0039M-0001-SO | 073SB-0038M-0001-SO |
| 073SD-0048-0001-SD  | 073SD-0047-0001-SD  |
| 073SW-0059-0001-SW  | 073SW-0058-0001-SW  |

### 6.1.1 Sample Collection

The chains-of-custody were appropriately signed and dated by field and laboratory personnel. Custody seals were intact. Cooler custody seals were not utilized. It was determined by reviewing the relinquished and receipt times that the samples were transferred to the laboratory by courier. With exceptions noted below, no sample collection issues were identified.

- Some corrections made to the chains-of-custody were properly made but were not dated.
- Some corrections were made by overwriting or obliterating the original entry. These corrections were not initialed or dated.
- SVOC analysis was not requested on the chain-of-custody for sample 073SB-0038M-0001-SO. According to the case narrative, the analysis was requested after the samples were received.

### 6.1.2 Data Completeness

The data completeness for the project described in this report was found to be generally acceptable for all analyses except metals, as no deliverables were missing from the SDGs reviewed. The metals data was missing the following:

- No ICPMS raw data was provided for SDG 240-22663-1.
- The ICPMS tune was missing from the analytical sequence dated 11/23/2012 in SDG 240-17422-1.

- The matrix spike, post digestion spike, laboratory duplicate and serial dilution results were not listed on the summary forms in SDG 240-18441-1 for parent sample 073SB-0007M-0001-SO.

These materials were requested from and provided by the laboratory.

### 6.1.3 Preservation and Holding Time Requirements

A portion of the samples were received at temperatures nominally below the  $4\pm 2^{\circ}\text{C}$  control limit; however, as the samples were not noted to be frozen or damaged, no qualifications were required. All remaining method preservation requirements were met.

The SVOC fraction for sample 073SB-0038M-0001-SO was extracted 11 days beyond the 14 day holding time; therefore, the results for this sample were qualified as estimated, "UJ," and coded with an "H" qualification code. The remaining holding times, as listed in Table 3, were met.

### 6.1.4 Detection Limit Requirements

LODs and DLs for nondetected analytes were compared against the most stringent CUGs listed in Tables 5-8, 5-9, and 5-10 of *Final Facility-Wide Human Health Cleanup Goals for the Ravenna Army Ammunition Plant* (2010) or the RSLs if no CUG was listed. Three SVOCs (benzo(a)pyrene, dibenz(a,h)anthracene, n-nitroso-di-n-propylamine) had LODs and DLs that exceeded the CUGs. Results with DLs exceeding project criteria may be usable for their intended purposes; however, it is dependent on the final data user to make this determination on a case-by-case basis.

## 6.2 RVAAP-73 Data Quality Evaluation

This section summarizes the data quality of validated samples for each analytical method evaluated.

### 6.2.1 Explosives

A total of 4 primary soil samples, 1 soil field duplicate sample, 1 primary sediment sample, and 1 primary surface water sample were analyzed by TA-West Sacramento for explosives by USEPA SW-846 Method 8330B. A single primary soil sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.
- Calibration:
  - o The primary column initial calibration average %RSDs for RDX and 2-nitrotoluene exceeded the control limit at 20% and 16%, respectively; therefore, the nondetected results for these compounds were qualified as estimated, "UJ," in 073SS-0002M-0001-SO. The qualified results were coded with a "C" qualification code. The remaining initial

calibration average %RSDs were within the control limits listed in DoD QSM Table F-3 of  $\leq 15\%$ , or the linear regression  $r^2$  values were  $\geq 0.990$ .

- o The second source initial calibration verification standard recoveries were within the control limit listed in DoD QSM Table F-3 of  $\pm 20\%$ .
  - o The CCV standard %Ds were within the control limits listed in DoD QSM Table F-3 of  $\pm 20\%$ .
  - o Although not required by the DoD QSM, an MRL standard of  $3\times$  the DL is required by the FWQAPP. Low-level MRL standards were analyzed in association with the validated samples and the results affecting the sample were within the reasonable control limits of 70-130%.
- Blanks: Tetryl was detected in the method blank analyzed on the confirmation column. The tetryl peak was the second of a pair of small, incompletely resolved peaks and was very similar to the peak identified in sample 073SS-0002M-0001-SO. Due to this similarity, tetryl reported in the sample was qualified as nondetected, "U," at the LOD. The qualified result was coded with a "B" qualification code. The method blank associated with the validated sample had no other target compound detects above the control limit listed in DoD QSM Table F-3 of one-half the LOQ.
- Laboratory Control Samples: Recoveries were within the control limits listed in DoD QSM Tables G-2 and G-13 and within the reasonable laboratory control limits for nitroglycerin (76-116%) and PETN (76-116%).
- Surrogate Recovery: As no surrogate control limit was listed in the DoD QSM, surrogate recoveries were assessed against the reasonable laboratory-established control limits of 78-118%. The surrogate recovery on the secondary column exceeded the control limit at 121%; however, as there were no confirmed detects, no qualifications were required. The remaining recoveries were within the control limits.
- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed on the validated sample. Method accuracy was evaluated based on LCS results.
- Compound Identification: Compound identification was verified for the sample validated at Level IV. Review of the sample chromatogram and retention times indicated no problems with target compound identification.

Although not affecting the nondetected sample results, the primary column MRL recoveries for the later eluting compounds were recovered above the control limit. Review of the chromatogram indicated poorer peak shape for these compounds.

- Compound Quantification and Reported Detection Limits: As no target compounds were detected in the samples validated at Level IV, compound quantification was verified for a portion of the LCS results. The LOQs were supported by the low point of the initial

calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.

Confirmation analyses were performed; however, no compounds were confirmed.

Target compounds 2,4-dinitrotoluene, 2,6-dinitrotoluene, and nitrobenzene were reported by both Method 8330B and 8270C in sample 073SS-0002M-0001-SO. As there were no detects for these compounds; the reviewer chose to report the results with the lowest LODs. The 8330B result for nitrobenzene was rejected, "R," as duplicate data and coded with a "D" qualification code. The 8330B results for 2,4-dinitrotoluene and 2,6-dinitrotoluene were retained.

- System Performance: Review of the raw data indicated no problems with system performance.
- Manual Integrations: Some manual integrations were performed for the initial calibrations and low-level CCVs. All manual integrations were performed in order to report incompletely resolved peaks or to account for baseline anomalies and were deemed acceptable by the reviewer.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - o Field Blanks and Equipment Rinsates: Sample 070-0057-0001-Source Water was identified as the field blank and sample 076-0067-0001-ER was identified as the equipment rinsate sample associated with the validated sample. There were no detects in the field QC samples.
  - o Field Duplicates: One field duplicate sample was collected and analyzed for explosive compounds. The RPD criterion in FWQAPP Table 3-1 of  $\leq 50\%$  was only applied when results for common detects were  $\geq 5\times$  the LOQ. In cases where results were  $< 5\times$  the LOQ, the reasonable control limit of  $\pm$  the LOQ was applied. All results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

### 6.2.2 Propellants

A total of 4 primary soil samples, 1 soil field duplicate sample, 1 primary sediment sample, and 1 primary surface water sample were analyzed by TA-West Sacramento for nitroguanidine by USEPA SW-846 Method 8330 and for nitrocellulose by laboratory SOP WS-WC-0050. A single primary soil sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.
- Calibration:

- o The nitroguanidine initial calibration average percent %RSD was within the control limit listed in DoD QSM Table F-2 of  $\leq 20\%$ . The nitrocellulose linear regression correlation coefficient was within the control limit listed in the DoD QSM Table F-11 of  $\geq 0.995$ .
  - o The nitroguanidine second source ICV recovery was within the control limits listed in DoD QSM Table F-2 of 85-115%. The nitrocellulose ICV recovery was reported to be 187% in the ICV associated with 073SS-0002M-0001-SO; however, the ICV appeared to have been spiked at the usual 1 ppm level and was recovered within the control limits listed in DoD QSM Table F-11 of 90-110%.
  - o The nitroguanidine CCV recoveries were within the control limits listed in DoD QSM Table F-2 of 85-115%. The nitrocellulose CCV recoveries were within the control limits listed in DoD QSM Table F-11 of 90-110%.
  - o Although not required by the DoD QSM, an MRL standard of  $3\times$  the DL is required by the FWQAPP. MRL recoveries affecting sample results were within the reasonable control limits of 70-130%.
  - Blanks: The method blanks had no target compound detects above the control limits listed in DoD QSM Tables F-2 and F-11 of one-half the LOQ.
  - Laboratory Control Samples: No nitroguanidine or nitrocellulose LCS control limits are listed in the DoD QSM; therefore, the laboratory control limits were used to assess the results. The nitroguanidine recovery was within the control limits of 72-121% and the nitrocellulose recovery was within the laboratory-established control limits of 34-115%.
  - Surrogate Recovery: A surrogate was not required for the analysis of nitroguanidine or nitrocellulose.
  - Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed on the validated sample. Method accuracy was evaluated based on LCS results.
  - Compound Identification: Compound identification was verified for the sample validated at Level IV. Review of the sample chromatograms and retention times indicated no problems with target compound identification.
  - Compound Quantification and Reported Detection Limits: Compound quantification was verified for those samples validated at Level IV. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.
- Nitroguanidine was not detected in the validated sample; therefore, confirmation analysis was not required.
- System Performance: Review of the raw data indicated no problems with system performance.

- Manual Integrations: Some manual integrations were performed for nitroguanidine. The manual integrations were performed primarily to correct incomplete integration. The manual integrations were deemed acceptable by the reviewer.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - o Field Blanks and Equipment Rinsates: Sample 070-0057-0001-Source Water was identified as the field blank and sample 076-0067-0001-ER was identified as the equipment rinsate sample associated with the validated sample. There were no detects in the field QC samples.
  - o Field Duplicates One field duplicate sample was collected and analyzed for propellants. The RPD criterion in FWQAPP Table 3-1 of  $\leq 50\%$  was only applied when results for common detects were  $\geq 5\times$  the LOQ. In cases where results were  $< 5\times$  the LOQ, the reasonable control limit of  $\pm$  the LOQ was applied. All results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

### 6.2.3 Polychlorinated Biphenyls (PCBs)

A total of 4 primary soil samples, 1 soil field duplicate sample, 1 primary sediment sample, and 1 primary surface water sample were analyzed by TA-North Canton for PCBs by USEPA SW-846 Method 8082. A single primary soil sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.
- Calibration: Calibration criteria were met.
  - o Initial calibration average %RSDs were within the control limit listed in the DoD QSM Table F-2 of  $\leq 20\%$ .
  - o The second source ICV recoveries were within the control limit listed in the DoD QSM Table F-2 of  $\pm 20\%$  for all applicable Aroclors.
  - o The CCV standard recoveries were within the control limit listed in the DoD QSM Table F-2 of  $\pm 20\%$ .
  - o MRL recoveries affecting sample results were within the reasonable control limit of  $\pm 30\%$ . Two recoveries were nominally above the control limit; however, as there were no detects in the site sample, no qualifications were applied.

- Blanks: The method blank associated with the validated sample had no target compound detects above the control limit listed in the DoD QSM Table F-2 of one-half the LOQ for target compounds.
- Laboratory Control Samples: LCS recoveries for Aroclor 1016 and Aroclor 1260 were within the control limits listed in DoD QSM Table G-17.
- Surrogate Recovery: Recoveries were within the control limits listed in DoD QSM Table G-3 of 60-125%.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed on the validated sample. Evaluation of method accuracy was based on the LCS results.
- Compound Identification: Compound identification was verified for the validated sample. Review of the sample chromatogram, standards, and retention times indicated no problems with target compound identification. The sample was analyzed on two analytical columns; however, the sample had no Aroclor detects.
- Compound Quantification and Reported Detection Limits: Compound quantification was verified for the validated sample. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.
- System Performance: Review of the raw data indicated no problems with system performance.
- Manual Integrations: Some routine manual integrations were performed for the calibration and QC data associated with the sample data, primarily due to poor baseline integration or incorrectly split peaks. All manual integrations reviewed were deemed appropriate by the reviewer.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - o Field Blanks and Equipment Rinsates: Sample 070-0057-0001-Source Water was the field blank and 076-0067-0001-ER was the equipment rinsate associated with validated sample 073SS-0002M-0001-SO in RVAAP-73. There were no detects in the field QC samples.
  - o Field Duplicates: One field duplicate sample was collected from RVAAP-73 for PCBs. The RPD criteria in FWQAPP Table 3-1 of  $\leq 50\%$  for soils and  $\leq 30\%$  for waters were only applied when results for common detects were  $\geq 5\times$  the LOQ. In cases where results were  $< 5\times$  the LOQ, the reasonable control limit of  $\pm$  the LOQ was applied. The

results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

#### 6.2.4 Pesticides

A total of 4 primary soil samples, 1 soil field duplicate sample, 1 primary sediment sample, and 1 primary surface water sample were analyzed by TA-North Canton for pesticides by USEPA SW-846 Method 8081. A single primary soil sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.
- Calibration: Calibration criteria listed in the DoD QSM Table F-2 were met.
  - o Initial calibration average %RSDs were within the control limit of  $\leq 20\%$ .
  - o The performance evaluation mixture (PEM) %breakdown results were within the DoD QSM Table F-2 control limit of  $\leq 15\%$ .
  - o Both columns had individual toxaphene ICV peaks with %Ds exceeding the control limit. Column CLP-1 had two outliers at -20.9% and 53.7%, and column CLP-2 had two outliers at -34.0% and 88.2%. The nondetected result for toxaphene in sample 073SS-0002M-0001-SO was qualified as estimated, "UJ," and coded with a "C" qualification code. The remaining second source ICV recoveries were within the control limit of  $\pm 20\%$ .
  - o The CCV standard recoveries affecting sample data were within the control limit of  $\pm 20\%$ .
  - o Although not required by the DoD QSM, an MRL standard of  $3\times$  the DL is required by the FWQAPP. MRL standard recoveries affecting sample data were within the reasonable control limit of  $\pm 30\%$ . Several recoveries were nominally above the control limit; however, none of the outliers were detected in the validated sample.
- Blanks: The method blank associated with the validated sample had no target compound detects above the control limit listed in the DoD QSM Table F-2 of one-half the LOQ.
- Laboratory Control Samples: Recoveries were within the control limits listed in DoD QSM Table G-15. Toxaphene was not spiked in the LCS sample.
- Surrogate Recovery: Recoveries were within the control limits listed in DoD QSM Table G-3 of 60-125%.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed on the validated sample. Evaluation of method accuracy was based on the LCS results.



- **Compound Identification:** Compound identification was verified for the validated sample. Review of the sample chromatograms, standards, and retention times indicated no problems with target compound identification.
- **Compound Quantification and Reported Detection Limits:** Compound quantification was verified for the validated sample. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.
- **System Performance:** Review of the raw data indicated no problems with system performance.
- **Manual Integrations:** Some routine manual integrations were performed for the calibration and QC data, primarily due to poor baseline integration or to re-integrate incorrectly split peaks. All manual integrations reviewed were deemed appropriate by the reviewer.
- **Field QC Samples:** Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - o **Field Blanks and Equipment Rinsates:** Sample 070-0057-0001-Source Water was the field blank and 076-0067-0001-ER was the equipment rinsate associated with validated sample 073SS-0002M-0001-SO in RVAAP-73. There were no detects in the field QC samples.
  - o **Field Duplicate Samples:** One field duplicate sample was collected from RVAAP-73 for PCBs. The RPD criteria in FWQAPP Table 3-1 of  $\leq 50\%$  for soils and  $\leq 30\%$  for waters were only applied when results for common detects were  $\geq 5\times$  the LOQ. In cases where results were  $< 5\times$  the LOQ, the reasonable control limit of  $\pm$  the LOQ was applied. The results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate result.

#### **6.2.5 Semivolatile Organic Compounds (SVOCs)**

A total of 36 primary soil samples, 5 soil field duplicate samples, 7 primary sediment samples, 1 sediment field duplicate sample, 7 primary surface water samples, and 1 surface water field duplicate sample were analyzed by TA-North Canton for SVOCs by USEPA Method 8270C. A total of 5 primary soil samples were validated at Level IV.

- MDL studies were not evaluated as part of this project.
- **GC/MS Tuning:** The DFTPP tunes met the method abundance criteria. The samples were analyzed within 12 hours of the DFTPP injection time.

- Calibration: Calibration criteria listed in the DoD QSM Table F-4 were met, with exceptions affecting sample results noted in the tables below.
  - o Initial calibration average RRFs and ICV and CCV RRFs were within method control limits of  $\geq 0.050$ . All initial calibration %RSDs were within the control limits of  $\leq 30\%$  for calibration check compounds (CCCs) and  $\leq 15\%$  for remaining compounds, or linear regression  $r^2$  values  $\geq 0.990$ .
  - o All second source ICV standard recoveries affecting sample data were within the control limit of  $\pm 20\%$ , with the exception of the recovery of 78.9% for 3,3'-dichlorobenzidine in the ICV associated with samples 073SS-0002M-0001-SO, and 073SB-0009M-0001-SO. The nondetected results were qualified as estimated, "UJ," in the samples. The qualified results were coded with a "C" qualification code.
  - o Continuing calibration %Ds affecting sample data were within the control limit of  $\leq 20\%$ .
  - o Although not required by the DoD QSM, an MRL standard of  $3\times$  the DL is required by the FWQAPP. MRL standard recoveries were within the reasonable control limit of  $\pm 30\%$ , with exceptions noted in the table below. The results listed in the table below were qualified as estimated, "UJ," for nondetects and, "J," for detects. The qualified results were coded with a "C" qualification code.

| Samples qualified for MRL %R outliers |     |                                            |
|---------------------------------------|-----|--------------------------------------------|
| Analyte                               | %R  | Qualified Samples                          |
| hexachloroethane                      | 44% | 073SB-0016M-0001-SO,<br>073SD-0047-0001-SD |
| benzo(g,h,i)perylene                  | 58% | 073SS-0002M-0001-SD                        |
| dibenz(a,h)anthracene                 | 65% |                                            |
| 2,4-dinitrophenol                     | 68% |                                            |
| Indeno(1,2,3-cd)pyrene                | 66% |                                            |
| 4,6-Dinitro-2-methylphenol            | 58% | 073SB-0038M-0001-SO                        |
| 2,4-dinitrophenol                     | 39% |                                            |

- Blanks: Bis(2-ethylhexyl)phthalate and di-n-butyl phthalate were detected in one soil method blank at 28.2 and 15.5  $\mu\text{g/Kg}$ , respectively. Bis(2-ethylhexyl)phthalate detected in 073SB-0016M-0001-SO and 073SD-0047-0001-SD and di-n-butyl phthalate detected in 073SB-0016M-0001-SO were qualified as nondetected, "U," at the LOD, if detected below the LOD or at the level of contamination if detected above. The qualified results were coded with a "B" qualification code. The method blanks associated with the validated samples had no other target compound detects above the control limits listed in DoD QSM Table F-4 of one-half the LOQ for target compounds, and no common laboratory contaminants detected above the LOQ.
- Laboratory Control Samples: Benzoic acid was not detected in the LCSs associated with sample 073SB-0038M-0001-SO; therefore, the nondetected result for benzoic acid in this sample was rejected, "R." The qualified result was coded with an "L" qualification code. All

remaining LCS recoveries affecting sample data were within the control limits listed in DoD QSM Tables G-2 (poor performers) and G-7. The reviewer noted hexachlorocyclopentadiene was not spiked in the LCS. Additionally, the LCS associate with sample 073SB-0009M-0001-SO reported no recovery of benzoic acid. Upon review of the raw data, the reviewer determined that benzoic acid was spiked below the LOD but was acceptably recovered.

- Surrogate Recovery: All applicable surrogate recoveries were within the control limits listed in the DoD QSM Tables G-2 (poor performers) or G-3.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed on a validated sample. Method accuracy was evaluated based on LCS results.
- Internal Standards Performance: The internal standard area counts and retention times were within the DoD QSM Table F-4 control limits established by the midpoint initial calibration standard:  $\pm 30$  seconds for retention times and  $-50\%$  /  $+100\%$  for internal standard areas.
- Compound Identification: Compound identification was verified for the samples validated at Level IV. Review of the sample chromatograms, retention times, and spectra indicated no problems with target compound identification.
- Compound Quantification and Reported Detection Limits: Compound quantification was verified for the samples validated at Level IV. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J," by the laboratory. Reported nondetects are valid to the LOD. The samples had a 2-ml final extract volume, resulting in an effective 2 $\times$  dilution. Due to their matrices, sample 073SS-0002M-0001-SO was analyzed at a 4 $\times$  dilution, sample 073SB-0009M-0001-SO was analyzed at a 5 $\times$  dilution, and sample 073SB-0038M-0001-SO was analyzed at a 10 $\times$  dilution.

Target compounds 2,4-dinitrotoluene, 2,6-dinitrotoluene, and nitrobenzene were reported by both Method 8330B and 8270C in sample 073SS-0002M-0001-SO. As there were no detects for these compounds; the reviewer chose to report the results with the lowest LODs. The 8270C results for 2,4-dinitrotoluene and 2,6-dinitrotoluene were rejected, "R," as duplicate data and coded with a "D" qualification code. The 8270C result for nitrobenzene was retained.

- System Performance: Review of the raw data indicated no problems with system performance.
- Manual Integrations: Some routine manual integrations were performed for the samples, and for calibration and QC data associated with the sample data, primarily to correct the integration of improperly split peaks, or to correct poor baseline integration. All manual integrations reviewed were deemed appropriate by the reviewer.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - o Field Blanks and Equipment Rinsates: Sample 070-0057-0001-Source Water was identified as the field blank and sample 076-0067-0001-ER was identified as the equipment rinsate sample associated with sample 073SS-0002M-0001-SO. There were no detects in the field QC samples. The remaining validated samples had no associated field QC samples.
  - o Field Duplicate Samples: Seven field duplicate samples were collected and analyzed for SVOCs. The RPD criterion in FWQAPP Table 3-1 of  $\leq 50\%$  was only applied when results for common detects were  $\geq 5\times$  the LOQ. In cases where results were  $< 5\times$  the LOQ, the reasonable control limit of  $\pm$  the LOQ was applied. Except as noted below, the results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

| SVOC field duplicate outliers               |                            |     |          |
|---------------------------------------------|----------------------------|-----|----------|
| Field Duplicate Pair                        | Analyte                    | RPD | W/In LOQ |
| 073SB-0016M-0001-SO/<br>073SB-0017M-0001-SO | Anthracene                 | N/A | No       |
| 073SD-0047-0001-SD/<br>073SD-0048-0001-SD   | Bis(2-ethylhexyl)phthalate | N/A | No       |
| 073SB-0027M-0001-SO/<br>073SB-0028M-0001-SO | Benzo(b)fluoranthene       | N/A | No       |
| 073SS-0002M-0001-SO/<br>073SS-0003M-0001-SO | 2-Methylnaphthalene        | N/A | No       |

### 6.2.6 Volatile Organic Compounds (VOCs)

A total of 4 primary soil samples, 1 soil field duplicate sample, 1 primary sediment sample, and 1 primary surface water sample were analyzed by TA-North Canton for volatile compounds by USEPA Method 8260B. A single primary soil sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.
- GC/MS Tuning: The BFB tunes met the method abundance criteria. The samples were analyzed within 12 hours of the BFB injection time.
- Calibration: Calibration criteria listed in DoD QSM Table F-4 were met.
  - o Initial calibration average RRFs and ICV and CCV RRFs were within the control limits of  $\geq 0.30$  for chlorobenzene and 1,1,2,2-tetrachloroethane, and  $\geq 0.10$  for chloromethane, bromoform, and 1,1-dichloroethane.
  - o All initial calibration %RSDs were within the method control limits of  $\leq 30\%$  for the CCCs and  $\leq 15\%$  for remaining compounds, or linear regression  $r^2$  values  $\geq 0.990$ .

- o All second source ICV standard recoveries were within the control limit of  $\pm 20\%$ .
- o Continuing calibration %Ds affecting validated sample data were within the control limit of  $\leq 20\%$
- o Although not required by the DoD QSM, an MRL standard of  $3\times$  the DL is required by the FWQAPP. MRL standard recoveries affecting sample data were within the reasonable control limit of  $\pm 30\%$ . Several recoveries were marginally above the control limits; however, none of the compounds with high recoveries were detected in the associated sample.
- Blanks: The method blank associated with the validated sample had no target compound detects above the control limits listed in DoD QSM Table F-4 of one-half the LOQ, and no common laboratory contaminants detected above the LOQ. The method blank had detects below the LOQ for acetone at 6.33(J)  $\mu\text{g/Kg}$ , 2-hexanone at 0.802(J)  $\mu\text{g/Kg}$ , and methylene chloride at 1.54(J)  $\mu\text{g/Kg}$ ; however, none of the method blank contaminants were detected in the validated sample.
- Laboratory Control Samples: LCS recoveries were within the control limits listed in DoD QSM Table G-4.
- Surrogate Recovery: Surrogate recoveries were within the control limits listed in DoD QSM Table G-3.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed on the validated sample. Evaluation of method accuracy was based on the LCS results.
- Internal Standards Performance: Internal standard 1,4-dichlorobenzene-d4 was recovered below the control limits at 33% in sample 073SS-0002M-0001-SO. The nondetected result for associated target compound 1,1,2,2-tetrachloroethane was qualified as estimated, "UJ," and coded with an "I" qualification code. The remaining internal standard area counts and retention times were within DoD QSM Table F-4 control limits established by the midpoint initial calibration standard:  $-50\%$  /  $+100\%$  for internal standard areas and  $\pm 30$  seconds for retention times.
- Compound Identification: Compound identification was verified for the validated sample. Review of the sample chromatogram, retention times, and spectra indicated no problems with target compound identification.
- Compound Quantification and Reported Detection Limits: Compound quantification was verified for the validated sample. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J," by the laboratory. Reported nondetects are valid to the LOD.
- System Performance: Review of the raw data indicated no problems with system performance.

- Manual integrations: Manual integrations were not performed for the validated sample or for associated calibration and QC samples.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - o Trip Blanks: The trip blank associated with the validated sample in this SDG had no reportable detects above the DL.
  - o Field Blanks and Equipment Rinsates: Sample 070-0057-0001-Source Water was the field blank and 076-0067-0001-ER was the equipment rinsate associated with validated sample 073SS-0002M-0001-SO in RVAAP-73. The field blank had detects below the LOQ for acetone at 2.1(J) µg/L and 2-butanone at 1.2(J) µg/L, and detects above the LOQ for the following compounds: bromodichloromethane at 3.6 µg/L, chloroform at 5.3 µg/L, dibromochloromethane at 1.3 µg/L, and toluene at 1.5 µg/L. The equipment rinsate had a detect for chloroform below the LOQ at 0.61(J) µg/L. The result for toluene in sample 073SS-0002M-0001-SO was qualified as nondetected, "U," at the LOD, and coded with an "F" qualification code. None of the other field QC contaminants were detected in the validated sample.
  - o Field Duplicate Samples: One field duplicate sample was collected and analyzed for VOCs. The RPD criterion in FWQAPP Table 3-1 of  $\leq 50\%$  was only applied when results for common detects were  $\geq 5\times$  the LOQ. In cases where results were  $< 5\times$  the LOQ, the reasonable control limit of  $\pm$  the LOQ was applied. All results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

### 6.2.7 Metals

A total of 36 primary soil samples, 5 soil field duplicate samples, 7 primary sediment samples, 1 sediment field duplicate sample, 7 primary surface water samples, and 1 surface water field duplicate sample were analyzed by TA-North Canton for various metals by USEPA Methods 6020 and 7471. A total of 4 primary soil samples were validated at Level IV.

- MDL studies were not evaluated as part of this project.
- Calibration: Except as noted below, calibration criteria were met.
  - o As per DoD QSM Table F-8, the mass calibrations were  $\leq 0.1$  atomic mass units (amu) of the true values and the resolutions were  $< 0.9$  amu at full width at 10% peak height. The selenium %RSD associated with sample 073SS-0002M-0001-SO was 11.6%; therefore, selenium detected in the sample was qualified as estimated, "J," and coded with an "M" qualification code. The %RSDs were within the control limit listed in the DoD QSM Table F-8 of  $\leq 5\%$ .

- o Initial calibration: The mercury linear regression correlation coefficients were within the control limit listed in the DoD QSM Table F-7 of  $\geq 0.995$ . The ICPMS analytes used a single point calibration.
- o The ICPMS ICV and CCV recoveries were within the control limits listed in DoD QSM Table F-8 of 90-110%. The mercury ICV and CCV recoveries were within the control limits listed in DoD QSM Table F-7 of 90-110% and 80-120%, respectively.
- o CRI/MRL recoveries affecting sample results were within the control limits listed in DoD QSM Tables F-7 and F-8 of 80-120%.
- Blanks: Except as noted below, the method blanks had no applicable detects above the control limits listed in DoD QSM Tables F-7 and F-8 of one-half the LOQ or greater than one-tenth the amount measured in any sample and CCBs had no applicable detects above the control limit of greater than the LOD.

Results listed in the table below were qualified as nondetected, “U,” at the LOD if detected below the LOD or at the level of contamination if detected above the LOD. The qualified results were coded with a “B” qualification code.

| Samples qualified for blank detects |                      |            |                     |
|-------------------------------------|----------------------|------------|---------------------|
| Analyte                             | Method blank (mg/Kg) | CCB (µg/L) | Qualified samples   |
| Antimony                            | N/A                  | 0.342      | 073SS-0002M-0001-SO |
| Thallium                            | N/A                  | 0.448      |                     |
| Mercury                             | 0.0276               | N/A        |                     |

- Interference Check Samples: ICPMS ICSA and ICSAB recoveries were within the control limits listed in DoD QSM Table F-8 of 80-120%. Except as noted below, there were no analytes affecting sample results detected in the ICSA above the control limit listed in DoD QSM Table F-8 of >LOD.

When most interferents were present in the samples at similar concentration to the ICSA, the samples were further reviewed for possible matrix interference, based on detects for unspiked compounds in the ICSA. If the unspiked compounds were present in the samples at concentrations within 10× the ICSA detect, the results were qualified. Results listed in the table below, all detects, were qualified as estimated, “J,” and coded with an “I” qualification code. When no other qualifications with conflicting bias were assigned, the results were qualified as estimated with a potential positive bias, “J+.”

| Samples qualified for ICSA detects |               |                     |
|------------------------------------|---------------|---------------------|
| Analyte                            | Detect (µg/L) | Qualified samples   |
| Cadmium                            | 0.315         | 073SB-0009M-0001-SO |
| Cadmium                            | 0.490         | 073SB-0016M-0001-SO |
| Thallium                           | 0.177         |                     |

- **Laboratory Control Samples:** The recoveries were within the control limits listed in DoD QSM Table G-19 of 80-120%.
- **Laboratory Duplicates:** Laboratory duplicate analyses were performed on 076SS-0020M-0001-SO, 076SS-0003M-0001-SO, 072SB-0026M-0001-SO, 079SB-0072M-0001-SO, 079SB-0070M-0001-SO, 079SB-0061M-0001-SO, 079SB-0015M-0001-SO, 073SB-0040M-0001-SO, and 079SB-0024M-0001-SO for mercury and the ICPMS analytes. The results were only assessed for common detects  $\geq 5\times$  the LOQ. In cases where results were  $< 5\times$  the LOQ, the reasonable control limit of  $\pm$  the LOQ was applied. Except as noted in the table below, the RPDs were within the control limits listed in DoD QSM Tables F-7 and F-8 of  $\leq 20\%$ .

The RPD for calcium in parent sample 079SD-0061M-0001-SO was 24%; therefore, calcium detected in associated sample 073SB-0016M-0001-SO was qualified as estimated, "J," and coded with an "E" qualification code. As per the *National Functional Guidelines*, all samples in the associated SDG were qualified.

- **Matrix Spike/Matrix Spike Duplicate:** Matrix spike analyses were performed on 076SS-0020M-0001-SO, 076SS-0003M-0001-SO, 072SB-0026M-0001-SO, 073SB-0007M-0001-SO, 079SB-0072M-0001-SO, 079SB-0070M-0001-SO, 079SB-0061M-0001-SO, 079SB-0015M-0001-SO, 073SB-0040M-0001-SO, and 079SB-0024M-0001-SO for mercury and the ICPMS analytes. The results were not assessed when the native sample concentration exceeded the spiked amount by  $4\times$  or more. Except as noted in the table below, the recoveries were within the control limits listed in DoD QSM Table G-19 of 80-120%.

The *National Functional Guidelines* calls for the estimation of nondetected data associated with matrix spike recoveries less than 30% and acceptable post digestion spike recoveries. However, it was the reviewer's professional judgment that the poor antimony recoveries observed for this and other CR sites were a systemic problem associated with the sample digestion. Therefore, the nondetected antimony results associated with recoveries below 30% were rejected, "R."

Detected results listed in the table below were qualified as estimated, "J." In the absence of qualifications with conflicting bias, the results were qualified as estimated with a potential low bias, "J-," or estimated with a potential high bias, "J+." All qualified results were coded with a "Q" qualification code. As per the *National Functional Guidelines*, all samples in the associated SDG were qualified.

| Samples qualified for matrix spike recovery outliers |                 |            |                     |
|------------------------------------------------------|-----------------|------------|---------------------|
| Parent Sample                                        | Analyte         | %R         | Qualified samples   |
| 076SS-0020M-0001-SO                                  | Arsenic         | 70%        | 073SS-0002M-0001-SO |
|                                                      | <b>Antimony</b> | <b>25%</b> |                     |
|                                                      | Selenium        | 71%        |                     |
| 073SS-0003M-0001-SO                                  | <b>Antimony</b> | <b>25%</b> |                     |



| Samples qualified for matrix spike recovery outliers |           |      |                     |
|------------------------------------------------------|-----------|------|---------------------|
| Parent Sample                                        | Analyte   | %R   | Qualified samples   |
|                                                      | Selenium  | 72%  |                     |
| 072SB-0026M-0001-SO                                  | Arsenic   | 69%  | 073SB-0009M-0001-SO |
|                                                      | Calcium   | 74%  |                     |
|                                                      | Copper    | 75%  |                     |
|                                                      | Antimony  | 20%  |                     |
|                                                      | Thallium  | 75%  |                     |
|                                                      | Selenium  | 73%  |                     |
| 073SB-0007M-0001-SO                                  | Chromium  | 125% |                     |
|                                                      | Antimony  | 21%  |                     |
|                                                      | Vanadium  | 137% |                     |
|                                                      | Potassium | 150% |                     |
| 079SB-0072M-0001-SO                                  | Arsenic   | 62%  | 073SB-0016M-0001-SO |
|                                                      | Beryllium | 78%  |                     |
|                                                      | Calcium   | 49%  |                     |
|                                                      | Copper    | 77%  |                     |
|                                                      | Antimony  | 30%  |                     |
|                                                      | Zinc      | 68%  |                     |
|                                                      | Selenium  | 66%  |                     |
| 079SB-0070M-0001-SO                                  | Arsenic   | 78%  |                     |
|                                                      | Beryllium | 79%  |                     |
|                                                      | Antimony  | 30%  |                     |
|                                                      | Zinc      | 75%  |                     |
|                                                      | Selenium  | 71%  |                     |
| 079SB-0061M-0001-SO                                  | Antimony  | 27%  |                     |
|                                                      | Selenium  | 60%  |                     |
|                                                      | Calcium   | 73%  |                     |
| 079SB-0015M-0001-SO                                  | Antimony  | 25%  | 073SB-0038M-0001-SO |
|                                                      | Zinc      | 74%  |                     |
|                                                      | Selenium  | 70%  |                     |
| 073SB-0040M-0001-SO                                  | Arsenic   | 63%  |                     |
|                                                      | Antimony  | 46%  |                     |
|                                                      | Zinc      | 68%  |                     |
|                                                      | Selenium  | 75%  |                     |
| 079SB-0024M-0001-SO                                  | Antimony  | 21%  |                     |
|                                                      | Zinc      | 71%  |                     |
|                                                      | Selenium  | 70%  |                     |

Post digestion spike analyses were performed on 073SB-0007M-0001-SO, 076SS-0020M-0001-SO, 079SB-0072M-0001-SO, 079SB-0070M-0001-SO, 079SB-0061M-0001-SO, 079SB-0015M-0001-SO, 073SB-0040M-0001-SO, and 079SB-0024M-0001-SO for the ICPMS analytes. The recovery for zinc in the post digestion spike of sample 073SB-0007M-0001-SO was below the control limit at 72%; therefore, zinc detected in sample 073SB-0009M-0001-SO was qualified as estimated with a potential low bias, "J-," and was

coded with a “P” qualification code. The remaining recoveries were within the control limits listed in DoD QSM Table F-8 of 75-125%.

- **Serial Dilution:** Serial dilution analyses were performed on 073SB-0007M-0001-SO, 076SS-0020M-0001-SO, 073SB-0007M-0001-SO, 079SB-0072M-0001-SO, 079SB-0070M-0001-SO, 079SB-0061M-0001-SO, and 079SB-0015M-0001-SO, 073SB-0040M-0001-SO, and 079SB-0024M-0001-SO for the ICPMS analytes. Except as noted below, the %Ds were within the control limits listed in DoD QSM Table F-7 and F-8 of ≤10%. The serial dilution control limit is only applicable when the original sample concentration is nominally ≥50× the LOQ.

Results listed in the table below, all detects, were qualified as estimated, “J,” and coded with an “A” qualification code. As per the *National Functional Guidelines*, all samples in the associated SDG were qualified.

| Samples qualified for serial dilution %D outliers |           |     |                     |
|---------------------------------------------------|-----------|-----|---------------------|
| Parent Sample                                     | Analyte   | %R  | Qualified samples   |
| 079SB-0061M-0001-SO                               | Beryllium | 18% | 073SS-0016M-0001-SO |
|                                                   | Zinc      | 11% |                     |
| 079SB-0072M-0001-SO                               | Zinc      | 12% |                     |
| 079SB-0070M-0001-SO                               | Beryllium | 20% |                     |

- **Internal Standards:** As per the DoD QSM Table F-8, the ICPMS sample internal standards intensities were within 30-120% of those in the ICV. Yttrium (<sup>89</sup>Y) was spiked into the QC samples but not the site samples.
- **Sample Result Verification:** For Level IV validation, calculations were verified and the sample results reported on the sample result summary were verified against the raw data. Any result reported between the DL and the LOQ was qualified as estimated, “J.” Reported nondetects are valid to the LOD.

Due to instrument limitations, the mercury raw data did not list the sample absorbances; therefore, the reviewer was not able to calculate the sample results from the raw data. Additionally, the ICPMS raw data did not list absorbances for the ICV, CCV, ICSAB, and MRL samples, and the %R was listed instead of the sample concentrations.

- **Manual Integrations:** No manual integrations were noted in the mercury analyses.
- **Field QC Samples:** Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - o **Field Blanks and Equipment Rinsates:** No field blank or equipment rinsate samples were associated with the validated samples for RVAAP-73.

- o Field Duplicate Samples: Seven field duplicate samples were collected and analyzed for metals. The RPD criterion in FWQAPP Table 3-1 of  $\leq 50\%$  was only applied when results for common detects were  $\geq 5\times$  the LOQ. In cases where results were  $< 5\times$  the LOQ, the reasonable control limit of  $\pm$  the LOQ was applied. Except as noted below, all results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

| Metals field duplicate outliers             |           |     |          |
|---------------------------------------------|-----------|-----|----------|
| Field Duplicate Pair                        | Analyte   | RPD | W/In LOQ |
| 073SB-0016M-0001-SO/<br>073SB-0017M-0001-SO | Calcium   | 93% | N/A      |
| 073SD-0047-0001-SD/<br>073SD-0048-0001-SD   | Lead      | N/A | No       |
| 073SB-0009M-0001-SO/<br>073SB-0010M-0001-SO | Beryllium | N/A | No       |

### 6.3 Data Usability

According to the Draft Site Inspection Report prepared by ECC, the field completeness was 100%.

Two data points were rejected for poor LCS and MS/MSD recoveries. In instances where a data point had multiple results, the reviewer chose the most technically sound result to report and rejected the remaining data points. These data points, rejected to choose the most technically sound data, do not affect data quality or usability and are not included in the table below. Data with LODs that exceeded the established criteria and data estimated for quality control outliers or for detects between the LOQ and the DL were included in the table below for informational purposes only.

**Table 17.** Analytical completeness for RVAAP-73 validated primary data

|                |                  |                     | Number of Results |          |                             |                           |                            | Percent Complete |
|----------------|------------------|---------------------|-------------------|----------|-----------------------------|---------------------------|----------------------------|------------------|
| Analysis       | Samples Analyzed | Analytes per Sample | Total             | Rejected | LODs/DLs Exceeding Criteria | Estimated for QC Outliers | Estimated for Detects <LOQ |                  |
| Explosives     | 1                | 16                  | 15                | 0        | 0/0                         | 3                         | 0                          | 100%             |
| Nitroguanidine | 1                | 1                   | 1                 | 0        | 0/0                         | 0                         | 0                          | 100%             |
| Nitrocellulose | 1                | 1                   | 1                 | 0        | 0/0                         | 0                         | 0                          | 100%             |
| PCBs           | 1                | 7                   | 7                 | 0        | 0/0                         | 0                         | 0                          | 100%             |
| Pesticides     | 1                | 21                  | 21                | 0        | 0/0                         | 1                         | 0                          | 100%             |
| SVOCs          | 5                | 66                  | 326               | 1        | 3/3                         | 80                        | 14                         | 99.7%            |
| VOCs           | 1                | 36                  | 36                | 0        | 0/0                         | 2                         | 0                          | 100%             |
| Metals         | 4                | 23                  | 92                | 1        | 0/0                         | 28                        | 12                         | 98.9%            |
| <b>Totals</b>  |                  |                     | <b>499</b>        | <b>2</b> | <b>3/3</b>                  | <b>114</b>                | <b>26</b>                  | <b>99.6%</b>     |

The analytical completeness goal for the project established in the FWQAPP was 90% for each method. The completeness goal was met for all analyses.

#### 6.4 Primary and Field Duplicate Comparison Summary

Primary and field duplicate sample comparisons were considered to be in good agreement as only 0.1% of the field duplicate pair results were above the FWQAPP control limit of 50% for soils or +/- the LOQ for results below the LOQ. Rejected results are not listed in the table below.

Most of the outliers were metals and PAH compounds and the discrepancies occurred in four of the six field duplicate pairs. No pattern to the discrepancies was noted. All comparison results are presented in Appendix C.

**Table 18.** RVAAP-73 primary/field duplicate sample comparison summary

| Method         | Primary/Field Duplicate Pairs | Number of Analytes | Total Analytes | Number of results within control limits | Number of results above control limit |
|----------------|-------------------------------|--------------------|----------------|-----------------------------------------|---------------------------------------|
| Explosives     | 1                             | 16                 | 15             | 15                                      | 0                                     |
| PCBs           | 1                             | 7                  | 7              | 7                                       | 0                                     |
| Pesticides     | 1                             | 21                 | 21             | 21                                      | 0                                     |
| SVOCs          | 7                             | 66                 | 464            | 460                                     | 4                                     |
| VOCs           | 1                             | 36                 | 36             | 36                                      | 0                                     |
| Metals         | 7                             | 23                 | 160            | 157                                     | 3                                     |
| Nitroguanidine | 1                             | 1                  | 1              | 1                                       | 0                                     |
| Nitrocellulose | 1                             | 1                  | 1              | 1                                       | 0                                     |

#### 6.5 Specific Data Concerns

Specific concerns regarding the data are noted below:

- A few LODs and some DLs exceeded the project criteria. These exceedances are detailed in Section 6.2.5.
- Due to instrument limitations, the mercury raw data did not list the sample absorbances; therefore, the reviewer was not able to calculate the sample results from the raw data. Additionally, the ICPMS raw data did not list absorbances for the ICV, CCV, ICSAB, and MRL samples, and the %R was listed instead of the sample concentrations.

In order to avoid repetition of the issues noted above, the following actions should be taken:

- MEC<sup>x</sup> recommends the laboratory be requested to alter the IPC-MS and mercury instrument set up in order to report mercury and ICPMS raw absorbances and ICPMS ICV, CCV, ICSAB, and MRL concentrations.

## 7 BUILDING 1034 MOTOR POOL HYDRAULIC LIFT, RVAAP-74

### 7.1 Current Investigation

ECC completed an RI at Building 1034 Motor Pool Hydraulic Lift (RVAAP-74). The work was performed in accordance with the *Site Inspection and Remedial Investigation Work Plan* (ECC 2012) and the *Facility-Wide Sampling and Analysis Plan* (SAIC 2011).

Building 1034 was used for automotive repair and maintenance. Additionally, Building 1034 was used to store batteries and it contained a car wash area and an oil/water separator. The building drawings indicate it was part of the original facility construction and depict a below-grade hydraulic lift. According to multiple interviewees, maintenance workers needed to add hydraulic oil to the lift system annually. After it was discovered that the lift system was leaking and the leak could be located, the lift was taken out of service, but not removed. Since the year the lift was removed from service was not determined, it is unknown how long the lift was in operation. Currently, Building 1034 is not in use.

The data validated in this report are part of the intrusive RI at RVAAP-74 conducted to assess the potential presence of contamination. The total sample counts, samples selected for data validation, and the field duplicates are presented in the tables below.

**Table 19.** Total sample count for RVAAP-74

| Matrix | Primary Samples | Field Duplicates | Split Samples | Primary Sample Counts |             |      |            |       |         |      |        |
|--------|-----------------|------------------|---------------|-----------------------|-------------|------|------------|-------|---------|------|--------|
|        |                 |                  |               | Explosives            | Propellants | PCBs | Pesticides | SVOCs | TPH-DRO | VOCs | Metals |
| Soil   | 34              | 1                | 2             | 1                     | 1           | 1    | 1          | 34    | 34      | 1    | 1      |

**Table 20.** RVAAP-74 validated samples and methods

| Sample ID          | SDG         | Matrix | Collected | Explosives | Propellants | PCBs | SVOCs | TPH-DRO | VOCs | Metals |
|--------------------|-------------|--------|-----------|------------|-------------|------|-------|---------|------|--------|
| 074SB-0001-0001-SO | 240-22756-1 | soil   | 4/2/2013  | --         | --          | --   | --    | X       | --   | --     |
| 074SB-0002-0001-SO | 240-22756-1 | soil   | 4/2/2013  | --         | --          | --   | X     | X       | --   | --     |
| 074SB-0010-0001-SO | 240-22804-1 | soil   | 4/3/2013  | X          | X           | X    | X     | X       | X    | X      |
| 074SB-0027-0001-SO | 240-22804-1 | soil   | 4/3/2014  | --         | --          | --   | X     | X       | --   | --     |

**Table 21.** RVAAP-74 field duplicate samples

| Duplicate Sample ID | Parent Sample      |
|---------------------|--------------------|
| 074SB-0003-0001-SO  | 074SB-0002-0001-SO |

### 7.1.1 Sample Collection

According to the laboratory Sample Receipt Forms, custody seals were not utilized; however, in reviewing the relinquish and receipt times, it appeared the samples were transferred to the laboratory by courier. No sample collection issues, other than the items listed below, were noted.

- DRO analysis was not requested on the chain-of-custody for sample 074SB-0010-0001-SO. The analysis was performed although no documentation indicating the analysis was requested was provided in the data package.
- A correction was made to the COC using multiple lines to cross out the incorrect entry. The correction was not initialed or dated.

### 7.1.2 Data Completeness

Data completeness for the project described in this report was found to be generally acceptable as no deliverables were missing from the SDGs reviewed.

### 7.1.3 Preservation and Holding Time Requirements

The samples were received within the temperature limits of  $4 \pm 2^{\circ}\text{C}$  and all remaining method preservation requirements were met. The SVOC fraction of sample 074SB-0010-0001-SO was extracted 8 days beyond the 14 day holding time; therefore, the results for this sample were qualified as estimated, "UJ," for nondetects and, "J," for detects. The qualified results were coded with an "H" qualification code. The remaining holding times, as listed in Table 3, were met.

### 7.1.4 Detection Limit Requirements

LODs and DLs for nondetected analytes were compared against the most stringent CUGs listed in Tables 5-8, 5-9, and 5-10 of *Final Facility-Wide Human Health Cleanup Goals for the Ravenna Army Ammunition Plant* (2010) or the RSLs if no CUG was listed. No results exceeded project criteria.

## 7.2 RVAAP-74 Data Quality Evaluation

This section summarizes the data quality of validated samples for each analytical method evaluated.

### 7.2.1 Explosives

A single primary soil sample was analyzed by TA-West Sacramento for explosives by USEPA SW-846 Method 8330B. The primary soil sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.
- Calibration:

- o The initial calibration average %RSDs were within the control limits listed in DoD QSM Table F-3 of  $\leq 15\%$ , or the linear regression  $r^2$  values were  $\geq 0.990$ .
- o The second source ICV recoveries were within the control limit listed in DoD QSM Table F-3 of  $\pm 20\%$ .
- o The CCV standard %Ds were within the control limits listed in DoD QSM Table F-3 of  $\pm 20\%$ .
- o Although not required by the DoD QSM, an MRL standard of  $3\times$  the DL is required by the FWQAPP. Low-level MRL standards were analyzed in association with the validated samples and the results were within the reasonable control limits of 70-130%.
- Blanks: The method blank associated with the validated sample had no target compound detects above the control limit listed in DoD QSM Table F-3 of one-half the LOQ.
- Laboratory Control Samples: Recoveries were within the control limits listed in DoD QSM Tables G-2 and G-13 and within the reasonable laboratory control limits for nitroglycerin (76-116%) and PETN (76-116%).
- Surrogate Recovery: As no surrogate control limit was listed in the DoD QSM, surrogate recoveries were assessed against the reasonable laboratory-established control limits of 78-118%. Recoveries were within the control limits.
- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed on sample the validated sample. Method accuracy was evaluated based on the LCS results.
- Compound Identification: Compound identification was verified for the sample validated at Level IV. Review of sample chromatograms and retention times indicated no problems with target compound identification. Confirmation analyses were performed for the primary column detects for 1,3,5-trinitrobenzene. The detect was not confirmed but was reported as detected in the EDD. The reviewer changed the EDD result for this compound to a nondetect at the LOD.
- Compound Quantification and Reported Detection Limits: Compound quantification was verified for the primary column sample detect and a portion of the LCS results. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.

Target compounds 2,4-dinitrotoluene, 2,6-dinitrotoluene, and nitrobenzene were reported by both Method 8330B and 8270C in sample 074SD-0010-0001-SO. As there were no detects for these compounds; the reviewer chose to report the results with the lowest LODs. The 8330B results for all three compounds were rejected, "R," as duplicate data and coded with a "D" qualification code.

- System Performance: Review of the raw data indicated no problems with system performance.
- Manual Integrations: Some manual integrations were performed. All manual integrations were performed in order to account for baseline anomalies and were deemed acceptable by the reviewer.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - o Field Blanks and Equipment Rinsates: No field blank or equipment rinsate samples were associated with the validated sample.
  - o Field Duplicates: No field duplicate samples were collected for explosive compounds at RVAAP-74.

### **7.2.2 Propellants**

A single primary soil sample was analyzed by TA-West Sacramento for nitroguanidine by USEPA SW-846 Method 8330 and for nitrocellulose by laboratory SOP WS-WC-0050. The primary soil sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.
- Calibration:
  - o The nitroguanidine initial calibration average percent %RSD was within the control limit listed in DoD QSM Table F-2 of  $\leq 20\%$ . Nitrocellulose linear regression correlation coefficient was within the control limit listed in the DoD QSM Table F-11 of  $\geq 0.995$ .
  - o The nitroguanidine second source ICV recovery was within the control limits listed in DoD QSM Table F-2 of 85-115%. The nitrocellulose ICV recovery was within the control limit listed in DoD QSM Table F-11 of 90-110%.
  - o The nitroguanidine CCV recoveries were within the control limits listed in DoD QSM Table F-2 of 85-115%. The nitrocellulose CCV recoveries were within the control limits listed in DoD QSM Table F-11 of 90-110%.
  - o Although not required by the DoD QSM, an MRL standard of  $3\times$  the DL is required by the FWQAPP. MRL recoveries associated with the sample were within the reasonable control limits of 70-130%.
- Blanks: The method blanks had no target compound detects above the control limits listed in DoD QSM Tables F-2 and F-11 of one-half the LOQ.



- **Laboratory Control Samples:** No nitroguanidine or nitrocellulose LCS control limits are listed in the DoD QSM; therefore, the laboratory control limits were used to assess the results. The nitroguanidine recovery was within the control limits of 72-121%. The nitrocellulose recovery was within the laboratory-established control limits of 34-115%.
- **Surrogate Recovery:** A surrogate was not required for the analysis of nitroguanidine or nitrocellulose.
- **Matrix Spike/Matrix Spike Duplicate:** No MS/MSD analyses were performed on the validated sample. Method accuracy was evaluated based on the LCS results
- **Compound Identification:** Compound identification was verified for the sample validated at Level IV. Review of the sample chromatograms and retention times indicated no problems with target compound identification.
- **Compound Quantification and Reported Detection Limits:** Compound quantification was verified for those samples validated at Level IV. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.

Nitroguanidine was not detected in the validated sample; therefore, confirmation analysis was not required.

- **System Performance:** Review of the raw data indicated no problems with system performance.
- **Manual Integrations:** One manual integration was performed for an MRL in order to complete the nitroguanidine peak integration. The manual integration was deemed acceptable by the reviewer.
- **Field QC Samples:** Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - o **Field Blanks and Equipment Rinsates:** No field blank or equipment rinsate samples were associated with the validated sample.
  - o **Field Duplicates:** No field duplicate samples were collected for explosive compounds at RVAAP-74.

### **7.2.3 Polychlorinated Biphenyls (PCBs)**

A single primary soil sample was analyzed by TA-North Canton for PCBs by USEPA SW-846 Method 8082. The primary soil sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.

- Calibration: Calibration criteria were met with the exception noted below.
  - o Initial calibration average %RSDs were within the control limit listed in the DoD QSM Table F-2 of  $\leq 20\%$ .
  - o The second source ICV recoveries were within the control limit listed in the DoD QSM Table F-2 of  $\pm 20\%$  for all applicable Aroclors.
  - o The CCV standard recoveries were within the control limit listed in the DoD QSM Table F-2 of  $\pm 20\%$ .
  - o MRL recoveries affecting sample results were within the reasonable control limit of  $\pm 30\%$ . Two recoveries were nominally above the control limit; however, as there were no detects in the site sample, no qualifications were applied.
- Blanks: The method blank associated with the validated sample had no target compound detects above the control limit listed in the DoD QSM Table F-2 of one-half the LOQ for target compounds.
- Laboratory Control Samples: LCS recoveries for Aroclor 1016 and Aroclor 1260 were within the control limits listed in DoD QSM Table G-17.
- Surrogate Recovery: Recoveries were within the control limits listed in DoD QSM Table G-3 of 60-125%.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed on the validated sample. Evaluation of method accuracy was based on the LCS results.
- Compound Identification: Compound identification was verified for the validated sample. Review of the sample chromatogram, standards, and retention times indicated no problems with target compound identification. The sample was analyzed on two analytical columns; however, the sample had no Aroclor detects.
- Compound Quantification and Reported Detection Limits: Compound quantification was verified for the validated sample. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.
- System Performance: Review of the raw data indicated no problems with system performance.
- Manual Integrations: Some routine manual integrations were performed for the calibration and QC data associated with the sample data, primarily to resolve poor baseline integration or correctly split previously incorrectly split peaks. All manual integrations reviewed were deemed appropriate by the reviewer.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - o Field Blanks and Equipment Rinsates: No field blank or equipment rinsate samples were associated with the validated sample in RVAAP-74.
  - o Field Duplicates: No field duplicate samples were collected from RVAAP-74 for PCBs.

#### **7.2.4 Total Petroleum Hydrocarbons (TPH)**

A total of 34 primary soil samples and 1 field duplicate sample were analyzed by TA-North Canton for DRO by USEPA SW-846 Method 8015B. A total of 4 primary soil samples were validated at Level IV.

- MDL studies were not evaluated as part of this project.
- Calibration: Calibration criteria listed in the DoD QSM Table F-2 were met.
  - o Initial calibration average %RSDs were within the control limit of  $\leq 20\%$  or linear regression  $r^2$  values  $\geq 0.990$ .
  - o The second source ICV recoveries were within the control limit of  $\pm 20\%$ .
  - o The CCV standard recoveries were within the control limit of  $\pm 20\%$ .
  - o Although not required by the DoD QSM, an MRL standard of  $3\times$  the DL is required by the FWQAPP. MRL standard recoveries affecting sample data were within the reasonable control limit of  $\pm 30\%$ .
- Blanks: The method blanks associated with the validated samples had no target compound detects above the control limit listed in the DoD QSM Table F-2 of one-half the LOQ.
- Laboratory Control Samples: As no QSM limits are prescribed, recoveries were within the laboratory-established control limits of 47-138% for DRO.
- Surrogate Recovery: As no QSM limits are prescribed, recoveries were within the laboratory-established control limits of 10-110% for DRO surrogate n-nonane.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on samples 074SB-0001-0001-SO and 074SB-0010-0001-SO. As no QSM limits are prescribed, the laboratory-established soil control limits of 10-199% for DRO were applied, and RPDs were evaluated using the control limit listed in the DoD QSM Table F-2 of  $\leq 30\%$ . Recoveries were within the laboratory-established control limits of 10-199%, and the RPD was within the control limit of  $\leq 30\%$ .

- **Compound Identification:** Compound identification was verified for the validated samples. Review of the sample chromatograms, standards, and retention times indicated no problems with target compound identification. The laboratory analyzed for DRO hydrocarbon ranges C10-C20 and C20-C34.
- **Compound Quantification and Reported Detection Limits:** Compound quantification was verified for the validated samples. The samples required no dilution. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.
- **System Performance:** Review of the raw data indicated no problems with system performance.
- **Manual Integrations:** Manual integrations were not performed for the validated samples or associated calibration and QC.
- **Field QC Samples:** Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - o **Field Blanks and Equipment Rinsates:** No field blank or equipment rinsate samples were associated with the validated samples for RVAAP-74.
  - o **Field Duplicate Samples:** One field duplicate sample was collected and analyzed for DRO. The RPD criterion in FWQAPP Table 3-1 of  $\leq 50\%$  was only applied when results for common detects were  $\geq 5\times$  the LOQ. In cases where results were  $< 5\times$  the LOQ, the reasonable control limit of  $\pm$  the LOQ was applied. All results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

#### **7.2.5 Semivolatile Organic Compounds (SVOCs)**

A total of 34 primary soil samples and 1 field duplicate sample were analyzed by TA-North Canton for SVOCs by USEPA Method 8270C. A total of 3 primary soil samples were validated at Level IV.

- MDL studies were not evaluated as part of this project.
- **GC/MS Tuning:** The DFTPP tunes met the method abundance criteria. The samples were analyzed within 12 hours of the DFTPP injection time.
- **Calibration:** Calibration criteria listed in the DoD QSM Table F-4 were met, with exceptions affecting sample results noted below.

- o Initial calibration average RRFs and ICV and CCV RRFs were within method control limits of  $\geq 0.050$  for SPCCs. All initial calibration %RSDs were within the control limits of  $\leq 30\%$  for CCCs and  $\leq 15\%$  for remaining compounds, or linear regression  $r^2$  values  $\geq 0.990$ .
- o All second source ICV standard recoveries affecting sample data were within the control limit of  $\pm 20\%$ .
- o Continuing calibration %Ds affecting sample data were within the control limit of  $\leq 20\%$ .
- o Although not required by the DoD QSM, an MRL standard of  $3\times$  the DL is required by the FWQAPP. MRL standard recoveries were within the reasonable control limit of  $\pm 30\%$ , with exceptions noted in the table below. Results listed in the table below were qualified as estimated, "J," for detects, and "UJ," for nondetects in the affected sample. The qualified results were coded with a "C" qualification code.

| Samples qualified for MRL %R outliers |     |                    |
|---------------------------------------|-----|--------------------|
| Analyte                               | %R  | Qualified Samples  |
| 2,4-dinitrophenol                     | 40% | 074SB-0002-0001-SO |
| 4,6-dinitro-2-methylphenol            | 57% |                    |
| 2,4-dinitrophenol                     | 49% | 074SB-0010-0001-SO |

- Blanks: One method blank had a detect for bis(2-ethylhexyl)phthalate at 19.9  $\mu\text{g/Kg}$  and another had a detect for di-n-butyl phthalate at 24.5  $\mu\text{g/Kg}$ ; therefore, bis(2-ethylhexyl)phthalate detected in 074SB-0002-0001-SO was qualified as nondetected, "U," at the LOD and di-n-butyl phthalate detected in 074SB-0027-0001-SO was qualified as nondetected, "U," at the level of contamination. The qualified results were coded with a "B" qualification code. The method blanks associated with the validated samples had no other target compound detects above the control limits listed in DoD QSM Table F-4 of one-half the LOQ for target compounds, and no other common laboratory contaminants detected above the LOQ.
- Laboratory Control Samples: Benzoic acid was reported as not detected in the LCS associated with sample 074SB-0010-0001-SO; therefore, the nondetected result for benzoic acid in sample 074SB-0010-0001-SO was rejected, "R," and coded with an "L" qualification code. Additionally, the LCSs associated with the validated samples 074SB-0002-0001-SO and 074SB-0027-0001-SO also reported benzoic acid as nondetected. Upon review of the raw data, the reviewer determined that benzoic acid was spiked below the LOD but was acceptably recovered in both LCSs. All remaining LCS recoveries were within the control limits listed in DoD QSM Tables G-2 (poor performers) and G-7. The reviewer noted hexachlorocyclopentadiene was not spiked in the LCS.
- Surrogate Recovery: All surrogate recoveries were within the control limits listed in the DoD QSM Tables G-2 (poor performers) or G-3.

- **Matrix Spike/Matrix Spike Duplicate:** No MS/MSD analyses were performed on a validated sample. Method accuracy was evaluated based on LCS results.
- **Internal Standards Performance:** The internal standard area counts and retention times were within the DoD QSM Table F-4 control limits established by the midpoint initial calibration standard:  $\pm 30$  seconds for retention times and  $-50\%$  /  $+100\%$  for internal standard areas.
- **Compound Identification:** Compound identification was verified for the samples validated at Level IV. Review of the sample chromatograms, retention times, and spectra indicated no problems with target compound identification.
- **Compound Quantification and Reported Detection Limits:** Compound quantification was verified for the samples validated at Level IV. The samples had a 2-ml final extract volume, resulting in an effective 2 $\times$  dilution. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J," by the laboratory. Reported nondetects are valid to the LOD.
- **System Performance:** Review of the raw data indicated no problems with system performance.
- **Manual Integrations:** Some routine manual integrations were performed for calibration and QC data associated with the sample data, primarily to integrate peaks missed or peaks incorrectly chosen by the data system and to correct poor baseline integration. All manual integrations reviewed were deemed appropriate by the reviewer.
- **Field QC Samples:** Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - o **Field Blanks and Equipment Rinsates:** No field blank or equipment rinsate samples were associated with the validated samples for RVAAP-74.
  - o **Field Duplicate Samples:** One field duplicate sample was collected and analyzed for SVOCs. The RPD criterion in FWQAPP Table 3-1 of  $\leq 50\%$  was only applied when results for common detects were  $\geq 5\times$  the LOQ. In cases where results were  $< 5\times$  the LOQ, the reasonable control limit of  $\pm$  the LOQ was applied. All results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

#### **7.2.6 Volatile Organic Compounds (VOCs)**

A single primary soil sample was analyzed by TA-North Canton for volatile compounds by USEPA Method 8260B. The primary soil sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.
- GC/MS Tuning: The BFB tunes met the method abundance criteria. The samples were analyzed within 12 hours of the BFB injection time.
- Calibration: Calibration criteria listed in DoD QSM Table F-4 were met.
  - o Initial calibration average RRFs and ICV and CCV RRFs were within the control limits of  $\geq 0.30$  for chlorobenzene and 1,1,2,2-tetrachloroethane, and  $\geq 0.10$  for chloromethane, bromoform, and 1,1-dichloroethane.
  - o All initial calibration %RSDs were within the method control limits of  $\leq 30\%$  for the CCCs and  $\leq 15\%$  for remaining compounds, or linear regression  $r^2$  values  $\geq 0.990$ .
  - o All second source initial calibration verification standard recoveries were within the control limit of  $\pm 20\%$ .
  - o Continuing calibration %Ds affecting validated sample data were within the control limit of  $\leq 20\%$
  - o Although not required by the DoD QSM, an MRL standard of  $3\times$  the DL is required by the FWQAPP. MRL standard recoveries affecting sample data were within the reasonable control limit of  $\pm 30\%$ .
- Blanks: The method blank associated with the validated sample had no target compound detects above the control limits listed in DoD QSM Table F-4 of one-half the LOQ, and no common laboratory contaminants detected above the LOQ. Acetone detected below the LOQ in the method blank was not detected in the associated sample.
- Laboratory Control Samples: LCS recoveries were within the control limits listed in DoD QSM Table G-4.
- Surrogate Recovery: BFB and toluene-d8 were recovered below the control limits at 35% (limits 85-120%) and 54% (85-115%), respectively in the analysis of sample 074SB-0010-0001-SO for target compounds 2-butanone (methyl ethyl ketone), 2-hexanone, and 4-methyl-2-pentanone (methyl isobutyl ketone). The affected results, all nondetects, were qualified as estimated, "UJ," and coded with an "S" qualification code. The remaining analytes in sample 074SB-0010-001-SO were reported from a separate analysis which had acceptable surrogate recoveries. Remaining surrogate recoveries affecting sample data were within the control limits listed in DoD QSM Table G-3.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed on the validated sample. Evaluation of method accuracy was based on the LCS results.

- **Internal Standards Performance:** The internal standard area counts and retention times were within DoD QSM Table F-4 control limits established by the midpoint initial calibration standard: -50% / +100% for internal standard areas and  $\pm 30$  seconds for retention times.
- **Compound Identification:** Compound identification was verified for the validated sample. Review of the sample chromatogram, retention times, and spectra indicated no problems with target compound identification.
- **Compound Quantification and Reported Detection Limits:** Compound quantification was verified for the validated sample. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J," by the laboratory. Reported nondetects are valid to the LOD.
- **System Performance:** Review of the raw data indicated no problems with system performance.
- **Manual integrations:** Manual integrations were not performed for the validated sample or for associated calibration and QC samples.
- **Field QC Samples:** Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - o **Trip Blanks:** The trip blank associated with the validated sample in this SDG had a detect below the LOQ for methylene chloride; however, methylene chloride was not detected in the associated sample. The trip blank had no other reportable detects above the DL.
  - o **Field Blanks and Equipment Rinsates:** No field blank or equipment rinsate samples were associated with the validated sample for RVAAP-74.
  - o **Field Duplicate Samples:** No field duplicate samples were collected for VOCs.

#### **7.2.7 Metals**

A single primary soil sample was analyzed by TA-North Canton for various metals by USEPA Methods 6020 and 7471. The primary soil sample was validated at Level IV.

- **MDL studies** were not evaluated as part of this project.
- **Calibration:** Except as noted below, calibration criteria were met with the exception noted below.
  - o As per DoD QSM Table F-8, the mass calibrations were  $\leq 0.1$  atomic mass units (amu) of the true values and the resolutions were  $< 0.9$  amu at full width at 10% peak height. The %RSDs were within the control limit listed in the DoD QSM Table F-8 of  $\leq 5\%$ .



- o Initial calibration: The mercury linear regression correlation coefficient was within the control limit listed in the DoD QSM Table F-7 of  $\geq 0.995$ . The remaining analytes used a single point calibration.
- o The ICPMS ICV and CCV recoveries were within the control limits listed in DoD QSM Table F-8 of 90-110%. The mercury ICV and CCV recoveries were within the control limits listed in DoD QSM Table F-7 of 90-110% and 80-120%, respectively.
- o Mercury was recovered at 65% in the closing MRL; therefore, nondetected mercury in sample 074SB-0010-0001-SO was qualified as estimated, "UJ," and was coded with a "C" qualification code. The remaining CRI/MRL recoveries affecting sample results were within the control limits listed in DoD QSM Tables F-7 and F-8 of 80-120%.
- Blanks: The method blanks had no applicable detects above the control limits listed in DoD QSM Tables F-7 and F-8 of one-half the LOQ or greater than one-tenth the amount measured in any sample and the CCBs had no applicable detects above the control limit of >LOD.
- Interference Check Samples: ICPMS ICSA and ICSAB recoveries were within the control limits listed in DoD QSM Table F-8 of 80-120%. There were several analytes detected in the ICSA, but not at sufficient concentration to warrant qualification of the site sample.

When most interferents were present in the samples at similar concentration to the ICSA, the samples were further reviewed for possible matrix interference, based on detects for unspiked compounds in the ICSA. If the unspiked compounds were present in the samples at concentrations within 10 $\times$  of the ICSA detect, the results were qualified. Results listed in the table below, all detects, were qualified as estimated, "J," and coded with an "I" qualification code. As no other qualifications with conflicting bias were assigned, the results were qualified as estimated with a potential positive bias, "J+."

| Samples qualified for ICSA detects |                            |                    |
|------------------------------------|----------------------------|--------------------|
| Analyte                            | Detect ( $\mu\text{g/L}$ ) | Qualified samples  |
| Cadmium                            | 0.271                      | 074SB-0010-0001-SO |
| Silver                             | 0.195                      |                    |
| Selenium                           | 0.553                      |                    |

- Laboratory Control Samples: The recoveries were within the control limits listed in DoD QSM Table G-19 of 80-120%.
- Laboratory Duplicates: No laboratory duplicate analysis was performed for a sample of the same matrix as the validated sample.
- Matrix Spike/Matrix Spike Duplicate: No matrix spike or MS/MSD analyses were performed for a sample of the same matrix as the validated sample. Method accuracy was evaluated based on the LCS results.

- **Serial Dilution:** No serial dilution analysis was performed on a sample of the same matrix as the validated sample.
- **Internal Standards:** As per the DoD QSM Table F-8, the ICPMS sample internal standards intensities were within 30-120% of those in the ICV.
- **Sample Result Verification:** For Level IV validation, calculations were verified and the sample results reported on the sample result summary were verified against the raw data. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.

Due to instrument limitations, the mercury raw data did not list the sample absorbances; therefore, the reviewer was not able to calculate the sample results from the raw data. Additionally, the ICPMS raw data did not list absorbances for the ICV, CCV, ICSAB, and MRL samples, and the %R was listed instead of the sample concentrations.

- **Manual Integrations:** No manual integrations were noted in the mercury analyses.
- **Field QC Samples:** Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - o **Field Blanks and Equipment Rinsates:** No field blank or equipment rinsate samples were associated with the validated samples for RVAAP-74.
  - o **Field Duplicate Samples:** No field duplicate samples were collected for metals.

### **7.3 Data Usability**

According to the Draft Site Inspection Report prepared by ECC, the field completeness was 100%.

One SVOC data point was rejected for a poor LCS recovery. In instances where a data point had multiple results, the reviewer chose the most technically sound result to report and rejected the remaining data points. These data points, rejected to choose the most technically sound data, do not affect data quality or usability and are not included in the table below. Data with detects between the LOQ and the DL were included in the table below for informational purposes only.

**Table 22.** Analytical completeness for RVAAP-74 validated primary data

|                |                  |                     | Number of Results |          |                             |                           |                            | Percent Complete |
|----------------|------------------|---------------------|-------------------|----------|-----------------------------|---------------------------|----------------------------|------------------|
| Analysis       | Samples Analyzed | Analytes per Sample | Total             | Rejected | LODs/DLs Exceeding Criteria | Estimated for QC Outliers | Estimated for Detects <LOQ |                  |
| Explosives     | 1                | 16                  | 13                | 0        | 0/0                         | 0                         | 1                          | 100%             |
| Nitroguanidine | 1                | 1                   | 1                 | 0        | 0/0                         | 0                         | 0                          | 100%             |
| Nitrocellulose | 1                | 1                   | 1                 | 0        | 0/0                         | 0                         | 0                          | 100%             |
| PCBs           | 1                | 7                   | 7                 | 0        | 0/0                         | 0                         | 0                          | 100%             |
| TPH            | 4                | 2                   | 8                 | 0        | 0/0                         | 0                         | 0                          | 100%             |
| SVOCs          | 3                | 66                  | 198               | 1        | 0/0                         | 70                        | 1                          | 99.4%            |
| VOCs           | 1                | 35                  | 35                | 0        | 0/0                         | 3                         | 0                          | 100%             |
| Metals         | 1                | 23                  | 23                | 0        | 0/0                         | 4                         | 2                          | 100%             |
| <b>Totals</b>  |                  |                     | <b>286</b>        | <b>1</b> | <b>0/0</b>                  | <b>77</b>                 | <b>4</b>                   | <b>99.7%</b>     |

The analytical completeness goal for the project established in the FWQAPP was 90% for each method. The completeness goal was met for all analyses.

#### 7.4 Primary and Field Duplicate Comparison Summary

Primary and field duplicate sample comparisons were considered to be in good agreement as all results were within the FWQAPP control limit of 50% for soils or +/- the LOQ for results below the LOQ. Rejected results are not listed in the table below. All comparison results are presented in Appendix C.

**Table 23.** RVAAP-74 primary/field duplicate sample comparison summary

| Method | Primary/Field Duplicate Pairs | Number of Analytes | Total Analytes | Number of results within control limits | Number of results above control limit |
|--------|-------------------------------|--------------------|----------------|-----------------------------------------|---------------------------------------|
| SVOCs  | 1                             | 66                 | 66             | 66                                      | 0                                     |
| TPH    | 1                             | 2                  | 2              | 2                                       | 0                                     |

#### 7.5 Specific Data Concerns

Specific concerns regarding the data are noted below:

- Due to instrument limitations, the mercury raw data did not list the sample absorbances; therefore, the reviewer was not able to calculate the sample results from the raw data. Additionally, the ICPMS raw data did not list absorbances for the ICV, CCV, ICSAB, and MRL samples, and the %R was listed instead of the sample concentrations.

In order to avoid repetition of the issues noted above, the following actions should be taken:

- MEC<sup>x</sup> recommends the laboratory be requested to alter the IPCMS and mercury instrument set up in order to report mercury and ICPMS raw absorbances and ICPMS ICV, CCV, ICSAB, and MRL concentrations.

## 8 DEPOT AREA, RVAAP-76

### 8.1 Current Investigation

ECC completed an RI at the Depot Area (RVAAP-76). RVAAP-76 was constructed as part of the original RVAAP facility. The work was performed in accordance with the *Site Inspection and Remedial Investigation Work Plan* (ECC 2012) and the *Facility-Wide Sampling and Analysis Plan* (SAIC 2011).

Prior to the purchase of the property in 1940, the site consisted of Bolton Farm. The Depot Administration Area Telephone Building is the last remaining building from Bolton Farm and the namesake of the site. The HRR (SAIC, 2011) identified historic uses and potential environmental concerns at this site with respect to possible HTRW and/or MEC issues.

The following areas at RVAAP-76 were identified as candidates for further investigation:

- Building U-4 Material Handling Equipment Repair Shop – Samples were collected to investigate potential contamination from former activities including rail car/heavy equipment repair and petroleum product storage.
- Building U-5 Equipment Repair Building and nearby drainage ditch – Samples were collected to investigate potential contamination from former activities including locomotive repair.
- Building U-10 - Demilitarization Operations (formerly Box Repair Shop) – samples were collected to investigate potential contamination from former demilitarization operations.
- Building U-20 Incinerator – Samples were collected to investigate potential contamination from former activities, including incinerator operations.
- Building A-2 Motor Repair Building – Samples were collected to investigate potential contamination from a former motor repair facility.
- Building A-3 Service Garage/Tool Crib – Samples were collected to investigate potential contamination from a former service garage.
- Building EE-102, Bolton Barn – Samples were collected to investigate potential contamination from former tank maintenance activities.
- Paint Can Area (near Bolton Barn) – Samples were collected to investigate potential contamination associated with twelve buried paint cans identified during an underground storage tank removal project in 1991 and documented by a spill report.

The data validated in this report are part of the intrusive RI at RVAAP-76 conducted to assess and characterize the nature and extent of contamination, conduct an evaluation of the results in a pathway analysis, and present remedial alternatives for cleanup. The total sample counts, samples selected for data validation, and the field duplicates are presented in the tables below.

**Table 24.** Total sample count for RVAAP-76

| Matrix        | Primary Samples | Field Duplicates | Split Samples | Primary Sample Counts |             |      |            |       |      |           |        |                     |
|---------------|-----------------|------------------|---------------|-----------------------|-------------|------|------------|-------|------|-----------|--------|---------------------|
|               |                 |                  |               | Explosives            | Propellants | PCBs | Pesticides | SVOCs | TPHs | VOCs/BTEX | Metals | Hexavalent Chromium |
| Soil          | 78              | 11               | 0             | 28                    | 43          | 34   | 8          | 78    | 2    | 58        | 78     | 1                   |
| Sediment      | 4               | 1                | 0             | 4                     | 4           | 4    | --         | 4     | --   | --        | 4      | --                  |
| Surface Water | 2               | 1                | 0             | 2                     | 2           | 2    | --         | --    | --   | --        | --     | --                  |

**Table 25.** RVAAP-76 validated samples and methods

| Sample ID           | SDG         | Matrix   | Collected | Explosives | Propellants | PCBs | Pesticides | SVOCs | VOCs | Metals |
|---------------------|-------------|----------|-----------|------------|-------------|------|------------|-------|------|--------|
| 076SD-0009-0001-SO  | 240-17317-1 | sediment | 11/6/2012 | --         | --          | --   | --         | X     | --   | X      |
| 076SS-0020M-0001-SO | 240-17422-1 | soil     | 11/7/2012 | X          | X           | X    | X          | X     | X    | X      |
| 076SB-0094-0001-SO  | 240-18544-1 | soil     | 12/6/2012 | --         | --          | --   | --         | X     | X    | X      |
| 076SB-0096-0001-SO  | 240-18544-1 | soil     | 12/6/2012 | --         | --          | --   | --         | X     | --   | X      |
| 076SB-0102M-0001-SO | 240-18544-1 | soil     | 12/6/2012 | X          | X           | X    | --         | X     | X    | X      |
| 076SB-0114M-0001-SO | 240-18544-1 | soil     | 12/6/2012 | X          | --          | --   | --         | X     | X    | X      |

**Table 26.** RVAAP-76 field duplicate samples

| Duplicate Sample ID | Parent Sample       |
|---------------------|---------------------|
| 076SD-0010-0001-SO  | 076SD-0009-0001-SO  |
| 076SW-0014-0001-SW  | 076SW-0013-0001-SW  |
| 076SS-0021M-0001-SO | 076SS-0020M-0001-SO |
| 076SB-0093M-0001-SO | 076SB-0092M-0001-SO |
| 076SB-0095-0001-SO  | 076SB-0094-0001SO   |
| 076SB-0097-000SO    | 076SB-0096-0001-SO  |
| 076SB-0103M-0001-SO | 076SB-0102M-0001-SO |
| 076SB-0105M-0001-SO | 076SB-0104M-0001-SO |
| 076SB-0107M-0001-SO | 076SB-0106M-0001-SO |
| 076SB-0111M-0001-SO | 076SB-0110M-0001-SO |
| 076SB-0113M-0001-SO | 076SB-0112M-0001-SO |
| 076SB-0115M-0001-SO | 076SB-0114M-0001-SO |

### 8.1.1 Sample Collection

According to the laboratory Sample Receipt Forms, custody seals were not utilized; however, in reviewing the relinquished and receipt times, it appeared the samples were transferred to the laboratory by courier. Other than the items listed below, no sample collection issues were noted.

- Some properly made corrections to the chains-of-custody were initialed but not dated, and some were neither initialed nor dated.
- A few corrections were made by overwriting the original entries. Those were neither initialed nor dated.

### 8.1.2 Data Completeness

Data completeness for the project described in this report was found to be generally acceptable as no deliverables were missing from the SDGs reviewed.

### 8.1.3 Preservation and Holding Time Requirements

A portion of the samples were received at temperatures nominally below the  $4 \pm 2^{\circ}\text{C}$  control limit; however, as the samples were not noted to be frozen or damaged, no qualifications were required. Holding times, as listed in Table 3, were met.

### 8.1.4 Detection Limit Requirements

LODs and DLs for nondetected analytes were compared against the most stringent CUGs listed in Tables 5-8, 5-9, and 5-10 of *Final Facility-Wide Human Health Cleanup Goals for the Ravenna Army Ammunition Plant* (2010) or the RSLs if no CUG was listed. Two thallium results had LODs and DLs that exceeded the CUGs. Results with DLs exceeding project criteria may be usable for their intended purposes; however, it is dependent on the final data user to make this determination on a case-by-case basis.

## 8.2 RVAAP-76 Data Quality Evaluation

This section summarizes the data quality of validated samples for each analytical method evaluated.

### 8.2.1 Explosives

A total of 28 primary soil samples and 4 soil field duplicate samples, 4 primary sediment samples and one sediment field duplicate sample, and 2 primary surface water samples and 1 field duplicate sample were analyzed by TA-West Sacramento for explosives by USEPA SW-846 Method 8330B. A total of 3 primary soil samples were validated at Level IV.

- MDL studies were not evaluated as part of this project.
- Calibration:
  - o The primary column initial calibration average %RSDs for RDX and 2-nitrotoluene exceeded the control limit at 20% and 16%, respectively; therefore, the nondetected results for these compounds were qualified as estimated, "UJ," in 076SB-0102M-0001-SO, 076SB-0114M-0001-SO, and 076SS-0020M-0001-SO. The qualified results were coded with a "C" qualification code. The remaining initial calibration average %RSDs

were within the control limits listed in DoD QSM Table F-3 of  $\leq 15\%$ , or the linear regression  $r^2$  values were  $\geq 0.990$ .

- o The second source initial calibration verification standard recoveries were within the control limit listed in DoD QSM Table F-3 of  $\pm 20\%$ .
- o Some CCV %Ds exceeded the control limit; however, as they were associated with high recoveries and the target compounds were not detected in the site samples, no qualifications were applied. All other CCV %Ds were within the control limits listed in DoD QSM Table F-3 of  $\pm 20\%$ .
- o Although not required by the DoD QSM, an MRL standard at  $3\times$  the DL is required by the FWQAPP. Low-level MRL standards were analyzed in association with the validated samples and the results were within the reasonable control limits of 70-130%.
- Blanks: The method blank associated with the validated samples had no target compound detects above the control limit listed in DoD QSM Table F-3 of one-half the LOQ.

Tetryl was detected on the confirmation column in the method blank in SDG 240-17422-1 at 0.0189 mg/Kg. This method blank was associated with sample 076SS-0020M-0001-SO in which tetryl was confirmed at 0.012 mg/Kg. As tetryl was not detected in the method blank on the primary column, the detect for tetryl in sample 076SS-0020M-0001-SO was not qualified.

- Laboratory Control Samples: Recoveries were within the control limits listed in DoD QSM Tables G-2 and G-13 and within the reasonable laboratory control limits for nitroglycerin (76-116%) and PETN (76-116%).
- Surrogate Recovery: As no surrogate control limit was listed in the DoD QSM, surrogate recoveries were assessed against the reasonable laboratory-established control limits of 78-118%. Recoveries were within the control limits.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on sample 076SS-0020M-0001-SO. The recoveries were within the control limits listed in DoD QSM Tables G-2 and G-13 and within the reasonable laboratory control limits for nitroglycerin (76-116%) and PETN (76-116%). The RPDs were within the control limit listed in DoD QSM Table F-3 of  $\leq 20\%$ .
- Compound Identification: Compound identification was verified for those samples validated at Level IV. Review of sample chromatograms and retention times indicated no problems with target compound identification.

Confirmation analyses were performed. The intercolumn RPD for tetryl in sample 076SS-0020M-0001-SO was 109%; therefore, this detect was qualified as tentatively identified, "N," and coded with an "\*III" qualification code.



- **Compound Quantification and Reported Detection Limits:** As no target compounds were detected in the samples validated at Level IV, compound quantification was verified for a portion of the LCS results. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.

Confirmation analyses were performed. The intercolumn RPD for tetryl in sample 076SS-0020M-0001-SO exceeded the control limit listed in DoD QSM Table F-3 of  $\leq 40\%$ , at 109%; therefore, this detect was qualified as estimated, "J," and coded with an "\*III" qualification code.

Target compounds 2,4-dinitrotoluene, 2,6-dinitrotoluene, and nitrobenzene were reported by both Method 8330B and 8270C in sample 076SS-0020M-0001-SO, 076SB-0102M-0001-SO, 076SB-0114M-0001-SO. As there were no detects for these compounds; the reviewer chose to report the results with the lowest LODs; therefore, the 8330B results for these three compounds were rejected, "R," as duplicate data and coded with a "D" qualification code.

- **System Performance:** Review of the raw data indicated no problems with system performance.
- **Manual Integrations:** Some manual integrations were performed for the initial calibrations and low-level CCVs. All manual integrations were performed in order to report incompletely resolved peaks or to account for baseline anomalies and were deemed acceptable by the reviewer.
- **Field QC Samples:** Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - o **Field Blanks and Equipment Rinsates:** There was 1 field blank and 2 equipment rinsate samples collected in association with the samples in this field effort. There were no detects in these samples.
  - o **Field Duplicates:** Four soil, one sediment and one surface water field duplicate samples were collected and analyzed for explosive compounds. The RPD criteria in FWQAPP Table 3-1 of  $\leq 50\%$  for soils and  $\leq 30\%$  for waters were only applied when results for common detects were  $\geq 5\times$  the LOQ. In cases where results were  $< 5\times$  the LOQ, the reasonable control limit of  $\pm$  the LOQ was applied. All results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

### 8.2.2 Propellants

A total of 43 primary soil samples and 4 soil field duplicate samples, 4 primary sediment samples and one sediment field duplicate sample, and 2 primary surface water samples and 1

field duplicate sample were analyzed by TA-West Sacramento for nitroguanidine by USEPA SW-846 Method 8330 and for nitrocellulose by laboratory SOP WS-WC-0050. A total of 2 primary soil samples were validated at Level IV.

- MDL studies were not evaluated as part of this project.
- Calibration:
  - o The nitroguanidine initial calibration average percent %RSD was within the control limit listed in DoD QSM Table F-2 of  $\leq 20\%$ . Nitrocellulose linear regression r values were within the control limit listed in the DoD QSM Table F-11 of  $\geq 0.995$ .
  - o The nitroguanidine second source ICV recovery was within the control limits listed in DoD QSM Table F-2 of 85-115%. The nitrocellulose ICV recovery was reported to be 187% in the ICV associated with 076SS-0020M-0001-SO; however, the ICV appeared to have been spiked at the usual 1 ppm level and was recovered at 102%, within the control limits listed in DoD QSM Table F-11 of 90-110%. The nitrocellulose ICV recovery associated with SDG 240-18544-1 was within the control limits.
  - o The nitroguanidine CCV recoveries were within the control limits listed in DoD QSM Table F-2 of 85-115%. The nitrocellulose CCV recoveries were within the control limits listed in DoD QSM Table F-11 of 90-110%.
  - o Although not required by the DoD QSM, an MRL standard at  $3\times$  the DL is required by the FWQAPP. MRL recoveries associated with the samples were within the reasonable control limits of 70-130%.
- Blanks: Nitrocellulose was detected in the method blank associated with 076SB-0102M-0001-SO, but not at sufficient concentration to qualify the sample. The method blanks had no other target compound detects above the control limits listed in DoD QSM Tables F-2 and F-11 of one-half the LOQ.
- Laboratory Control Samples: No nitroguanidine or nitrocellulose LCS control limits are listed in the DoD QSM; therefore, the laboratory control limits were used to assess the results. All nitroguanidine recoveries were within the control limits of 72-121% for soils. The nitrocellulose recoveries were within the laboratory-established control limits of 34-115% for soils.
- Surrogate Recovery: A surrogate was not required for the analysis of nitroguanidine or nitrocellulose.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on sample 076SS-0020M-0001-SO for both propellants. The recoveries were within the laboratory-established control limits of 72-121% for nitroguanidine and 34-115% for nitrocellulose. Both RPDs were  $\leq 20\%$ .

- **Compound Identification:** Compound identification was verified for the sample validated at Level IV. Review of the sample chromatograms and retention times indicated no problems with target compound identification.

The sample chromatogram for 076SS-0020M-0001-SO had several large early eluting peaks and one large peak eluting very near the nitroguanidine retention time. The reviewer checked the MS/MSD for the sample and noted the nitroguanidine spike was completely resolved from this interferent peak.

- **Compound Quantification and Reported Detection Limits:** Compound quantification was verified for those samples validated at Level IV. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.

Nitroguanidine was not detected in the validated samples; therefore, confirmation analyses were not required.

- **System Performance:** Review of the raw data indicated no problems with system performance.
- **Manual Integrations:** Some manual integrations were performed for nitroguanidine. The manual integrations were performed to correct baseline integration. The manual integrations were deemed acceptable by the reviewer.
- **Field QC Samples:** Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - o **Field Blanks and Equipment Rinsates:** There was 1 field blank and 2 equipment rinsate samples collected in association with the samples in this field effort. There were no detects in the field blank or equipment rinsate samples.
  - o **Field Duplicates:** Four soil, one sediment, and one surface water field duplicate sample were collected and analyzed for propellants. The RPD criteria in FWQAPP Table 3-1 of  $\leq 50\%$  for soils and  $\leq 30\%$  for waters were only applied when results for common detects were  $\geq 5\times$  the LOQ. In cases where results were  $< 5\times$  the LOQ, the reasonable control limit of  $\pm$  the LOQ was applied. All results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

### 8.2.3 Polychlorinated Biphenyls (PCBs)

A total of 34 primary soil samples and 5 soil field duplicate samples, 4 primary sediment samples, and 2 primary surface water samples and 1 field duplicate sample were analyzed by TA-North Canton for PCBs by USEPA SW-846 Method 8082. A total of 2 primary soil samples were validated at Level IV.

- MDL studies were not evaluated as part of this project.
- Calibration: Calibration criteria were met.
  - o Initial calibration average %RSDs were within the control limit listed in the DoD QSM Table F-2 of  $\leq 20\%$ , or the correlation coefficients were  $\leq 0.990$ .
  - o The second source ICV recoveries were within the control limit listed in the DoD QSM Table F-2 of  $\pm 20\%$  for all applicable Aroclors.
  - o The CCV standard recoveries affecting sample results were within the control limit listed in the DoD QSM Table F-2 of  $\pm 20\%$ . A few individual Aroclor peak %Ds exceeded the control limit; however, as they were associated with high recoveries, the nondetected sample results were not qualified.
  - o MRL standard recoveries affecting sample results were within the reasonable control limit of  $\pm 30\%$ . A few recoveries were nominally above the control limit; however, as there were no detects in the site samples, no qualifications were applied.
- Blanks: The method blank associated with the validated sample had no target compound detects above the control limit listed in the DoD QSM Table F-2, of one-half the LOQ for target compounds.
- Laboratory Control Samples: Recoveries for Aroclor 1016 and Aroclor 1260 were within the control limits listed in DoD QSM Table G-17.
- Surrogate Recovery: Recoveries were within the control limits listed in DoD QSM Table G-3 of 60-125%.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on 076SS-0020M-0001-SO. Recoveries for Aroclor 1016 and Aroclor 1260 were within the control limits listed in DoD QSM Table G-17. The RPDs were within the control limit listed in DoD QSM Table F-2 of  $\leq 30\%$ .
- Compound Identification: Compound identification was verified for the validated samples. Review of the sample chromatograms, standards, and retention times indicated no problems with target compound identification.
- Compound Quantification and Reported Detection Limits: Compound quantification was verified for the validated samples. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.
- System Performance: Review of the raw data indicated no problems with system performance.

- Manual Integrations: Some routine manual integrations were performed for the calibration and QC data associated with the sample data, primarily due poor baseline integration. All manual integrations reviewed were deemed appropriate by the reviewer.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - o Field Blanks and Equipment Rinsates: There was 1 field blank and 1 equipment rinsate sample collected in association with sample 076SS-0020M-0001-SO. There were no detects in the field QC samples.
  - o Field Duplicates: Five soil and one surface water field duplicate samples were collected and analyzed for PCBs. The RPD criteria in FWQAPP Table 3-1 of  $\leq 50\%$  for soils and  $\leq 30\%$  for waters were only applied when results for common detects were  $\geq 5\times$  the LOQ. In cases where results were  $< 5\times$  the LOQ, the reasonable control limit of  $\pm$  the LOQ was applied. The results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

#### 8.2.4 Pesticides

A total of 8 primary soil samples and one field duplicate were analyzed by TA-North Canton for pesticides by USEPA SW-846 Method 8081. A single primary soil sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.
- Calibration: Calibration criteria listed in the DoD QSM Table F-2 were met with the exceptions noted below.
  - o Initial calibration average %RSDs were within the control limit of  $\leq 20\%$ .
  - o The performance evaluation mixture (PEM) %breakdown results were within the DoD QSM Table F-2 control limit of  $\leq 15\%$ .
  - o The column used to report the sample results had a toxaphene peak %D of -34.0%. As the %D was associated with a low recovery, nondetected toxaphene in 076SS-0020M-0001-SO was qualified as estimated, "UJ." The qualified result was coded with a "C" qualification code. The remaining second source ICV recoveries were within the control limit of  $\pm 20\%$ .
  - o The CCV standard recoveries were within the control limit of  $\pm 20\%$ . A few compounds had %Ds that exceeded the control limit; however, as they were associated with high recoveries, the nondetected sample results were not qualified.

- o MRL standard recoveries were within the reasonable control limit of  $\pm 30\%$ . A few recoveries were nominally above the control limit; however, as there were no detects in the site samples, no qualifications were applied.
- Blanks: The method blank associated with the validated sample had no target compound detects above the control limit listed in the DoD QSM Table F-2, of one-half the LOQ.
- Laboratory Control Samples: Recoveries were within the control limits listed in DoD QSM Table G-15. Toxaphene was not spiked in the LCS sample.
- Surrogate Recovery: Recoveries were within the control limits listed in DoD QSM Table G-3 of 60-125%.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on the sample, 076SS-0020M-0001-SO. The recoveries were within the control limits listed in DoD QSM Table G-15. The RPDs were within the control limit listed in DoD QSM Table F-2 of  $\leq 30\%$ . Toxaphene was not spiked in the MS/MSD samples.
- Compound Identification: Compound identification was verified for the validated sample. Review of the sample chromatograms, standards, and retention times indicated no problems with target compound identification.
- Compound Quantification and Reported Detection Limits: Compound quantification was verified for the validated sample. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.
- System Performance: Review of the raw data indicated no problems with system performance.
- Manual Integrations: Some routine manual integrations were performed for the calibration and QC data, primarily to resolve poor baseline integration. All manual integrations reviewed were deemed appropriate by the reviewer.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - o Field Blanks and Equipment Rinsates: There was 1 field blank and 1 equipment rinsate sample collected in association with the pesticide sample. There were no detects in the field QC samples.
  - o Field Duplicate Samples: One soil field duplicate sample was collected and analyzed for pesticides. The RPD criterion in FWQAPP Table 3-1 of  $\leq 50\%$  was only applied when results for common detects were  $\geq 5\times$  the LOQ. In cases where results were  $< 5\times$  the

LOQ, the reasonable control limit of  $\pm$  the LOQ was applied. All results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

### 8.2.5 Semivolatile Organic Compounds (SVOCs)

A total of 78 primary soil samples and 11 soil field duplicate samples, 4 primary sediment samples and 1 field duplicate sample were analyzed by TA-North Canton for SVOCs by USEPA Method 8270C. A total of 5 primary soil samples and one sediment sample were validated at Level IV.

- MDL studies were not evaluated as part of this project.
- GC/MS Tuning: The DFTPP tunes met the method abundance criteria. The samples were analyzed within 12 hours of the DFTPP injection time.
- Calibration: Calibration criteria listed in the DoD QSM Table F-4 were met, with exceptions affecting sample results noted below.
  - o Initial calibration average RRFs and ICV and CCV RRFs were within method control limits of  $\geq 0.050$ . All initial calibration %RSDs were within the control limits of  $\leq 30\%$  for CCCs and  $\leq 15\%$  for remaining compounds, or linear regression  $r^2$  values  $\geq 0.990$ .
  - o All second source ICV standard recoveries affecting retained sample data were within the control limit of  $\pm 20\%$ , with the exception of the recovery of 79.5% for 4-bromophenyl phenyl ether in the ICV associated with sample 076SD-0009-0001-SO. The nondetected result for 4-bromophenyl phenyl ether was qualified as estimated, "UJ," in the affected sample and coded with a "C" qualification code.
  - o Continuing calibration %Ds affecting retained sample data were within the control limit of  $\leq 20\%$ .
  - o MRL standard recoveries were within the reasonable control limit of  $\pm 30\%$ , with exceptions affecting sample data noted in the table below. The nondetected results for n-nitrosodiphenylamine were rejected, "R," in the affected samples and the remaining results listed in the table below, all nondetects, were qualified as estimated, "UJ." All qualified results were coded with a "C" qualification code.

| Samples qualified for MRL %R outliers |     |                                            |
|---------------------------------------|-----|--------------------------------------------|
| Analyte                               | %R  | Qualified Samples                          |
| 2,4-dinitrophenol                     | 53% | 076SD-0009-0001-SO                         |
| benzoic acid                          | 63% |                                            |
| hexachloroethane                      | 58% |                                            |
| pentachlorophenol                     | 61% |                                            |
| n-nitrosodiphenylamine                | 0%  | 076SD-0102M-0001-SO<br>076SD-0114M-0001-SO |

- **Blanks:** The method blank associated with validated sample 076SS-0020M-0001-SO had detects below the LOQ for bis(2-ethylhexyl)phthalate at 19.8(J) µg/Kg and diethyl phthalate at 27.7(J) µg/Kg. Results for both phthalates in the associated sample were qualified as nondetected, "U," at the level of contamination. The method blanks associated 076SB-0094-001-SO, 076SB-0096-001-SO, 076SB-0102M-0001-SO, and 076SB-0114M-0001-SO had detects below the LOQ for bis(2-ethylhexyl)phthalate at 30.9(J) µg/Kg and 21.2(J) µg/Kg. Results for bis(2-ethylhexyl)phthalate were qualified as nondetected, "U," at the LOD in the affected samples. All qualified results were coded with a "B" qualification code. The method blanks had no other target compound detects above the control limits listed in DoD QSM Table F-4 of one-half the LOQ for target compounds, and no common laboratory contaminants detected above the LOQ.
- **Laboratory Control Samples:** All LCS recoveries were within the control limits listed in DoD QSM Tables G-2 (poor performers) and G-7. The reviewer noted hexachlorocyclopentadiene was not spiked in the LCS.
- **Surrogate Recovery:** All surrogate recoveries were within the control limits listed in the DoD QSM Tables G-2 (poor performers) or G-3.
- **Matrix Spike/Matrix Spike Duplicate:** MS/MSD analyses were performed on validated samples 076SD-0009-0001-SO and 076SS-0020M-0001-SO. As the spiking level was below the DL for benzoic acid, it was reported as "NC" (not calculated); however, the reviewer-calculated recoveries and RPDs from the MS/MSD concentrations in the raw data were within the control limits. Qualifications were not assigned if recoveries were not out of control limits in both the MS and MSD. Bolded results listed in the table below were rejected, "R," for recoveries of 0%. Remaining results were qualified as estimated, "J," for detects, or "UJ," for nondetects in the parent sample. All qualified results were coded with a "Q" qualification code. All RPDs were within the control limit of ≤30% listed in DoD QSM Table F-4.

| Samples Qualified for MS/MSD Recovery Outliers |                 |         |                         |
|------------------------------------------------|-----------------|---------|-------------------------|
| Analyte                                        | % Recoveries    | Limits  | Qualified Parent Sample |
| <b>3,3'-dichlorobenzidine</b>                  | <b>0% / 0%</b>  | 10-130% | 076SD-0009-0001-SO      |
| <b>3-nitroaniline</b>                          | <b>0% / 0%</b>  | 25-110% |                         |
| 4-chloroaniline                                | 3% / 3%         | 10-95%  |                         |
| <b>4-nitroaniline</b>                          | <b>0% / 0%</b>  | 35-115% |                         |
| benzo(g,h,i)perylene                           | 32% / 35%       | 40-125% |                         |
| hexachloroethane                               | 19% / 21%       | 35-110% |                         |
| <b>3,3'-dichlorobenzidine</b>                  | <b>0% / 0%</b>  | 10-130% | 076SS-0020M-0001-SO     |
| <b>3-nitroaniline</b>                          | <b>8% / 12%</b> | 25-110% |                         |
| 4-chloroaniline                                | 5% / 7%         | 10-95%  |                         |
| 4-nitroaniline                                 | 19% / 23%       | 35-115% |                         |

- **Internal Standards Performance:** The internal standard retention times and area counts were within the DoD QSM Table F-4 control limits established by the midpoint initial



calibration standard:  $\pm 30$  seconds for retention times and  $-50\%$  /  $+100\%$  for internal standard areas.

- **Compound Identification:** Compound identification was verified for the samples validated at Level IV. Review of the sample chromatograms, retention times, and spectra indicated no problems with target compound identification.
- **Compound Quantification and Reported Detection Limits:** Compound quantification was verified for the samples validated at Level IV. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J," by the laboratory. Reported nondetects are valid to the LOD. The samples had a 2-ml final extract volume, resulting in an effective 2 $\times$  dilution. No further dilutions were required.
- **System Performance:** Review of the raw data indicated no problems with system performance.
- **Manual Integrations:** Some routine manual integrations were performed for the samples, and for calibration and QC data associated with the sample data, primarily to correct for peaks missed or incorrectly chosen by the data system, or to correct for poor baseline integration. All manual integrations reviewed were deemed appropriate by the reviewer.
- **Field QC Samples:** Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - o **Field Blanks and Equipment Rinsates:** There was 1 field blank and 1 equipment rinsate associated with validated sample 076SS-0020M-0001-SO. The field blank and equipment rinsate had no target compound detects. The validated subsurface soil samples had no associated field QC samples.
  - o **Field Duplicate Samples:** Eleven soil and one sediment field duplicate samples were collected and analyzed for SVOCs. The RPD criteria in FWQAPP Table 3-1 of  $\leq 50\%$  for soils and  $\leq 30\%$  for waters were only applied when results for common detects were  $\geq 5\times$  the LOQ. In cases where results were  $< 5\times$  the LOQ, the reasonable control limit of  $\pm$  the LOQ was applied. Except as noted below, the results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

| SVOC field duplicate outliers |                     |                      |     |          |
|-------------------------------|---------------------|----------------------|-----|----------|
| Primary Sample                | Field Duplicate     | Analyte              | RPD | W/In LOQ |
| 076SB-0110M-0001-SO           | 076SB-0111M-0001-SO | Pyrene               | 86  | N/A      |
|                               |                     | Anthracene           | N/A | No       |
|                               |                     | Benzo(a)anthracene   | N/A | No       |
|                               |                     | Chrysene             | N/A | No       |
|                               |                     | Fluoranthene         | N/A | No       |
| 076SB-0112M-0001-SO           | 076SB-0113M-0001-SO | Phenanthrene         | N/A | No       |
|                               |                     | Fluoranthene         | N/A | No       |
|                               |                     | Phenanthrene         | N/A | No       |
|                               |                     | Pyrene               | N/A | No       |
|                               |                     | Benzo(a)anthracene   | N/A | No       |
|                               |                     | Benzo()pyrene        | N/A | No       |
|                               |                     | Benzo(g,h,i)perylene | N/A | No       |
| 076SD-0009-0001-SO            | 076SD-0010-0001-SO  | Benzo(k)fluoranthene | N/A | No       |
|                               |                     | Chrysene             | N/A | No       |
|                               |                     | 2-Methynaphthalene   | N/A | No       |
|                               |                     | Benzo(g,h,i)perylene | N/A | No       |
| 076SS-0020M-0001-SO           | 076SS-0021-0001-SO  | Benzo(k)fluoranthene | N/A | No       |
|                               |                     | Naphthalene          | N/A | No       |
| 076SS-0020M-0001-SO           | 076SS-0021-0001-SO  | Chrysene             | N/A | No       |
|                               |                     | Fluoranthene         | N/A | No       |

## 8.2.6 Volatile Organic Compounds (VOCs)

A total of 58 primary soil samples and 10 field duplicate samples were analyzed by TA-North Canton for volatile compounds by USEPA Method 8260B. A total of 4 primary soil samples were validated at Level IV.

- MDL studies were not evaluated as part of this project.
- GC/MS Tuning: The BFB tunes met the method abundance criteria. The samples were analyzed within 12 hours of the BFB injection time.
- Calibration: Calibration criteria listed in DoD QSM Table F-4 were met, with exceptions noted below.
  - o Initial calibration average RRFs and ICV and CCV RRFs were within the control limits of  $\geq 0.30$  for chlorobenzene and 1,1,2,2-tetrachloroethane, and  $\geq 0.10$  for chloromethane, bromoform, and 1,1-dichloroethane.
  - o All initial calibration %RSDs were within the method control limits of  $\leq 30\%$  for the CCCs and  $\leq 15\%$  for remaining compounds, or linear regression  $r^2$  values  $\geq 0.990$ .
  - o All second source initial calibration verification standard recoveries were within the control limit of  $\pm 20\%$ .
  - o Continuing calibration %Ds affecting validated sample data were within the method control limit of  $\leq 20\%$ .

- o MRL standard recoveries affecting sample data were within the reasonable control limit of  $\pm 30\%$ , with exceptions listed in the table below. The sample results, all nondetects, were qualified as estimated, "UJ," and coded with a "C" qualification code.

| Samples qualified for MRL recovery outliers |            |                     |
|---------------------------------------------|------------|---------------------|
| Analyte                                     | % Recovery | Qualified Sample(s) |
| 2-hexanone                                  | 63%        | 076SB-0094M-0001-SO |
| methyl isobutyl ketone                      | 69%        | 076SB-0102M-0001-SO |

- Blanks: The method blanks associated with the validated samples had no target compound detects above the control limits listed in DoD QSM Table F-4 of one-half the LOQ, and no common laboratory contaminants detected above the LOQ. Acetone was detected below the LOQ at 6.4(J)  $\mu\text{g/Kg}$  in the method blank associated with sample 076SS-0020M-0001-SO; therefore, the result for acetone (26  $\mu\text{g/Kg}$ ) in the sample was qualified as nondetected, "U," at the level of contamination, since the result was above the LOD of 7.3  $\mu\text{g/Kg}$ . The qualified result was coded with a "B" qualification code.

The method blanks associated with the remaining samples had detects below the LOQ for 2-hexanone, acetone, and methylene chloride; however, the associated samples had no detects for the method blank contaminants, and required no qualification.

- Laboratory Control Samples: LCS recoveries were within the control limits listed in DoD QSM Table G-4.
- Surrogate Recovery: Surrogate recoveries affecting sample data were within the control limits listed in DoD QSM Table G-3, with the exception of BFB recovered below the control limits of 85-120% at 81% in sample 076SB-0094M-0001-SO. The sample was reanalyzed, with similar results, indicating a matrix effect on the surrogate. Results were qualified as estimated, "J," for detects, and "UJ," for nondetects. The qualified results were coded with an "S" qualification code.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on sample 076SS-0020M-0001-SO. The MSD had recoveries marginally below the control limits of 75-125% for chlorobenzene (69%), ethylbenzene (71%), styrene (67%), and total xylenes (69%); however, qualifications were not assigned if recoveries were not out of control limits in both the MS and MSD. The remaining recoveries were within the control limits listed in DoD QSM Table G-5. All RPDs were within the control limit listed in DoD QSM Table F-4.
- Internal Standards Performance: The internal standard area counts and retention times were within DoD QSM Table F-4 control limits established by the midpoint initial calibration standard:  $\pm 30$  seconds for retention times and -50% / +100% for internal standard areas.
- Compound Identification: Compound identification was verified for the validated samples. Review of the sample chromatograms, retention times, and spectra indicated no problems with target compound identification.

- **Compound Quantification and Reported Detection Limits:** Compound quantification was verified for the samples validated at Level IV. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J," by the laboratory. Reported nondetects are valid to the LOD.
- **System Performance:** Review of the raw data indicated no problems with system performance.
- **Manual integrations:** Manual integrations were not performed for the validated samples or for associated calibration and QC samples.
- **Field QC Samples:** Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - o **Trip Blanks:** The trip blanks associated with the validated samples in this SDG had no reportable detects affecting sample results.
  - o **Field Blanks and Equipment Rinsates:** There was 1 field blank and 1 equipment rinsate associated with validated sample 076SS-0020M-0001-SO. The field blank had detects below the LOQ for acetone, bromodichloromethane, toluene, dibromochloromethane, 2-butanone, and chloroform, and the equipment rinsate also had a detect below the LOQ for chloroform; however, none of the field QC contaminants were present or reportable in the validated site sample. The validated subsurface soil sample had no associated field QC samples.
  - o **Field Duplicate Samples:** Ten field duplicate samples were collected and analyzed for VOCs. The RPD criterion in FWQAPP Table 3-1 of  $\leq 50\%$  was only applied when results for common detects were  $\geq 5\times$  the LOQ. In cases where results were  $< 5\times$  the LOQ, the reasonable control limit of  $\pm$  the LOQ was applied. Except as noted below, the results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

| VOCs field duplicate outliers |                     |         |     |          |
|-------------------------------|---------------------|---------|-----|----------|
| Primary Sample                | Field Duplicate     | Analyte | RPD | W/In LOQ |
| 076SS-0020M-0001-SO           | 076SS-0020M-0001-SO | Acetone | N/A | No       |

### 8.2.7 Metals

A total of 78 primary soil samples and 11 soil field duplicate samples, 4 primary sediment samples and 1 field duplicate sample were analyzed by TA-North Canton for various metals by USEPA Methods 6020 and 7470A/7471A. A total of 5 primary soil samples and one sediment sample were validated at Level IV.

- MDL studies were not evaluated as part of this project.
- Calibration: Except as noted below, calibration criteria were met.
  - o As per DoD QSM Table F-8, the mass calibrations were  $\leq 0.1$  amu of the true values and the resolutions were  $< 0.9$  amu at full width at 10% peak height. Except as noted below, the %RSDs were within the control limit listed in the DoD QSM Table F-8 of  $\leq 5\%$ . The detected results listed in the table below were qualified as estimated, “J,” and were coded with an “M” qualification code.

| Samples qualified for tune %RSD outliers |        |                                                             |
|------------------------------------------|--------|-------------------------------------------------------------|
| Analyte                                  | %RSD   | Qualified Samples                                           |
| <sup>78</sup> Selenium                   | 20.43% | 076SD-0009-0001-SO                                          |
|                                          | 11.59% | 076SS-0020M-0001-SO                                         |
| <sup>137</sup> Barium                    | 19.32% | 076SB-0094-0001-SO, 076SB-0096-0001-SO, 076SB-0102M-0001-SO |
|                                          | 19.30% | 076SB-0114M-0001-SO                                         |
| <sup>138</sup> Barium                    | 7.81%  | 076SB-0094-0001-SO, 076SB-0096-0001-SO, 076SB-0102M-0001-SO |
|                                          | 6.88%  | 076SB-0114M-0001-SO                                         |

- o Initial calibration: Linear regression correlation coefficients were within the control limit listed in the DoD QSM Tables F-7 and F-8 of  $\geq 0.995$ .
- o The ICPMS ICV and CCV recoveries were within the control limits listed in DoD QSM Table F-8 of 90-110%. The mercury ICV and CCV recoveries were within the control limits listed in DoD QSM Table F-7 of 90-110% and 80-120%, respectively.
- o CRI/MRL recoveries affecting sample results were within the control limits listed in DoD QSM Tables F-7 and F-8 of 80-120%, with one exception. A thallium recovery was above the control limit at 121%; therefore, thallium detected in 076SS-0020M-0001-SO was qualified as estimated with potential positive bias, “J+,” and coded with a “C” qualification code.
- Blanks: Except as noted below, method blanks had no applicable detects above the control limits listed in DoD QSM Tables F-7 and F-8 of one-half the LOQ or greater than one-tenth the amount measured in any sample. CCBs had no detects, affecting sample results, above the control limit listed in DoD QSM Tables F-7 and F-8 of greater than the LOD.

Mercury was detected in two method blanks at 0.027 and 0.0276 mg/kg; therefore, as mercury detected in 076SD-0009-0001-SO and 76SS-0020M-0001-SO was qualified as nondetected, “U,” at the levels of contamination. The qualified results were coded with a “B” qualification code.

- **Interference Check Samples:** ICPMS ICSA and ICSAB recoveries were within the control limits listed in DoD QSM Table F-8 of 80-120%. There were no analytes affecting sample results detected in the ICSA above the control limit listed in DoD QSM Table F-8 of >LOD.
- **Laboratory Control Samples:** The recoveries were within the control limits listed in DoD QSM Table G-19 of 80-120%.
- **Laboratory Duplicates:** Laboratory duplicate analyses were performed on 068SS-0003M-0001-SO, 076SD-0009-0001-SO, 076SS-0020M-0001-SO, 073SS-0003M-0001-SO, 068SD-0009-0001-SO, 076SW-0013-0001-SW, 072SB-0063-0001-SO, 076SB-0090M-0001-SO, 076SB-0091M-0001-SO and 076SB-0100M-0001-SO for all analytes. There was also a duplicate performed on 075TR-0002-0001-SO for mercury. Except as listed below, RPDs were within the control limits listed in DoD QSM Tables F-7 and F-8 of  $\leq 20\%$ . RPDs were only assessed for common detects  $\geq 5\times$  the LOQ. In cases where results were  $< 5\times$  the LOQ, the reasonable control limit of  $\pm$  the LOQ was applied. Results listed below were qualified as estimated, "J," for detects and, "UJ," for nondetects. The qualified results were coded with an "E" qualification code.

| Samples qualified for laboratory duplicate outliers |           |     |                                                                                  |
|-----------------------------------------------------|-----------|-----|----------------------------------------------------------------------------------|
| Parent sample                                       | Analyte   | RPD | Qualified samples                                                                |
| 076SD-0009-0001-SO                                  | Chromium  | 23% | 076SD-0009-0001-SO                                                               |
| 072SB-0063-0001-SO                                  | Manganese | 36% | 076SB-0094-0001-SO, 076SB-0096-0001-SO, 076SB-0102M-0001-SO, 076SB-0114M-0001-SO |
| 076SB-0090M-0001-SO                                 | Lead      | 24% |                                                                                  |

- **Matrix Spike/Matrix Spike Duplicate:** Matrix spike analyses were performed on 068SS-0003M-0001-SO, 076SD-0009-0001-SO, 076SS-0020M-0001-SO, 073SS-0003M-0001-SO, 068SD-0009-0001-SO, 076SW-0013-0001-SW, 072SB-0063-0001-SO, 076SB-0090M-0001-SO, 076SB-0091M-0001-SO and 076SB-0100M-0001-SO for all analytes. There was also a matrix spike performed on 075TR-0002-0001-SO for mercury. Except as noted below, recoveries were within the control limits listed in DoD QSM Table G-19 of 80-120%. Matrix spike control limits were not applied when the native sample concentration exceeded the spiked amount by a factor of four or more.

The *National Functional Guidelines* calls for the estimation of nondetected data associated with matrix spike recoveries less than 30% and acceptable post digestion spike recoveries. However, it was the reviewer's professional judgment that the poor antimony recoveries observed for this and other CR Sites was a systemic problem associated with the sample digestion. Therefore, nondetected antimony in 076SD-0009-0001-SO, which was associated with recoveries below 30%, was rejected, "R."

The remaining results listed in the table below, all detects, were qualified as estimated, "J," and coded with a "Q" qualification code. When no other qualifications with conflicting bias were assigned to a result, detected results with low recoveries were assigned a negative

bias, “J-,” and detected results with high recoveries were assigned a positive bias, “J+.” As per the *National Functional Guidelines*, all samples in the SDG were qualified.

| Samples qualified for matrix spike recovery outliers |           |      |                                                                                           |
|------------------------------------------------------|-----------|------|-------------------------------------------------------------------------------------------|
| Parent Sample                                        | Analyte   | %R   | Sample qualified                                                                          |
| 076SD-0009-0001-SO                                   | antimony  | 30%  | 076SD-0009-0001-SO                                                                        |
|                                                      | calcium   | 143% |                                                                                           |
|                                                      | nickel    | 71%  |                                                                                           |
|                                                      | potassium | 128% |                                                                                           |
|                                                      | vanadium  | 122% |                                                                                           |
| 076SS-0020M-0001-SO                                  | antimony  | 25%  | 076SS-0020M-0001-SO                                                                       |
|                                                      | arsenic   | 70%  |                                                                                           |
|                                                      | selenium  | 71%  |                                                                                           |
| 072SB-0063-0001-SO                                   | silver    | 39%  | 076SB-0094-0001-SO,<br>076SB-0096-0001-SO,<br>076SB-0102M-0001-SO,<br>076SB-0114M-0001-SO |
|                                                      | arsenic   | 0%   |                                                                                           |
|                                                      | calcium   | 193% |                                                                                           |
|                                                      | cadmium   | 60%  |                                                                                           |
|                                                      | chromium  | 79%  |                                                                                           |
|                                                      | cobalt    | 52%  |                                                                                           |
|                                                      | copper    | 16%  |                                                                                           |
|                                                      | nickel    | 39%  |                                                                                           |
|                                                      | antimony  | 28%  |                                                                                           |
|                                                      | potassium | 70%  |                                                                                           |
|                                                      | selenium  | 25%  |                                                                                           |
| 076SB-0090M-0001-SO                                  | arsenic   | 78%  |                                                                                           |
|                                                      | antimony  | 25%  |                                                                                           |
|                                                      | selenium  | 71%  |                                                                                           |
| 076SB-0091M-0001-SO                                  | antimony  | 26%  |                                                                                           |
|                                                      | selenium  | 71%  |                                                                                           |
| 076SB-0100M-0001-SO                                  | beryllium | 79%  |                                                                                           |
|                                                      | antimony  | 19%  |                                                                                           |
|                                                      | potassium | 74%  |                                                                                           |
|                                                      | selenium  | 72%  |                                                                                           |

All post digestion spike recoveries were within the control limits listed in DoD QSM Table F-8 of 75-125%.

- Serial Dilution: Serial dilution analyses were performed on 076SS-0020M-0001-SO, 076SW-0013-0001-SW, 072SB-0063-0001-SO, 076SB-0090M-0001-SO, 076SB-0091M-0001-SO and 076SB-0100M-0001-SO. A %D for zinc associated with samples 076SB-0094-0001-SO, 076SB-0096-0001-SO, 076SB-0102M-0001-SO and 076SB-0114M-0001-SO exceeded the control limit at 11%; therefore, the zinc detected in the samples was qualified as estimated, “J,” and coded with an “A” qualification code. All remaining serial dilution %Ds were within the control limits listed in DoD QSM Table F-8 of ≤10%. The serial dilution control limit is only applicable when the original sample concentration is minimally ≥50× the LOQ.

- **Internal Standards:** All ICPMS sample internal standards intensities were within 30-120% of those in the ICV, as per the DoD QSM Table F-8. Yttrium (<sup>89</sup>Y) was spiked into the QC samples but not samples 076SB-0094-0001-SO, 076SB-0096-0001-SO, 076SB-0102M-0001-SO and 076SB-0114M-0001-SO.
- **Sample Result Verification:** For Level IV validation, calculations were verified and the sample result reported on the sample result summary was verified against the raw data. Antimony, barium, lead and thallium were reported from 5× dilutions in sample 076SD-0009-0001-SO. Any result reported between the DL and the LOQ was qualified as estimated, “J.” Reported nondetects are valid to the LOD.

Due to instrument limitations, the mercury raw data did not list the sample absorbances; therefore, the reviewer was not able to calculate the sample results from the raw data. Additionally, the ICPMS raw data did not list absorbances for the ICV, CCV, ICSAB, and MRL samples, and the %R was listed instead of the sample concentrations.

- **Manual Integrations:** No manual integrations were noted in the mercury analyses.
- **Field QC Samples:** Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - o **Field Blanks and Equipment Rinsates:** There was 1 field blank and 1 equipment rinsate associated with validated sample 076SS-0020M-0001-SO. Except as noted below, there were no detects affecting sample results found in the field QC samples. Analytes listed in the table below were qualified as nondetected, “U,” at the level of contamination if detected above the LOD or at the LOD if detected below. The qualified results were coded with an “F” qualification code.

| Samples qualified for field QC detects |          |               |                     |
|----------------------------------------|----------|---------------|---------------------|
| Parent sample                          | Analyte  | Detect (µg/L) | Qualified sample    |
| 070-0057-0001-Source Water             | Sodium   | 1600          | 076SS-0020M-0001-SO |
| 076-0067-0001-ER                       | Thallium | 0.75          |                     |

- o **Field Duplicate Samples:** Eleven soil, one sediment, and one surface water field duplicate samples were collected and analyzed for metals. The RPD criteria in FWQAPP Table 3-1 of ≤50% for soils and ≤30% for waters were only applied when results for common detects were ≥5× the LOQ. In cases where results were <5× the LOQ, the reasonable control limit of ± the LOQ was applied. Except as noted below, the results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.



| Metals field duplicate outliers |                    |          |     |          |
|---------------------------------|--------------------|----------|-----|----------|
| Primary Sample                  | Field Duplicate    | Analyte  | RPD | W/In LOQ |
| 076SD-0009-0001-SO              | 076SD-0010-0001-SO | Chromium | 55  | N/A      |

### 8.3 Data Usability

According to the Draft Site Inspection Report prepared by ECC, the field completeness was 100%.

Ten data points were rejected for poor calibration standard recoveries or poor MS/MSD recoveries. In instances where a data point had multiple results, the reviewer chose the most technically sound result to report and rejected the remaining data points. Those data points, rejected in order to choose the most technically sound result, do not affect data quality or usability and are not included in the table below. Data with LODs that exceeded the established criteria and data estimated for quality control outliers or for detects between the DL and the LOQ were included in the table below for informational purposes only.

**Table 27.** Analytical completeness for RVAAP-76 validated primary data

|                |                  |                     | Number of Results |           |                             |                  |           |                            | Percent Complete |
|----------------|------------------|---------------------|-------------------|-----------|-----------------------------|------------------|-----------|----------------------------|------------------|
| Analysis       | Samples Analyzed | Analytes per Sample | Total             | Rejected  | LODs/DLs Exceeding Criteria | Estimated for QC | Outliers  | Estimated for Detects <LOQ |                  |
| Explosives*    | 3                | 16                  | 39                | 0         | 0/0                         | 5                | 1         |                            | 100%             |
| Nitroguanidine | 1                | 1                   | 1                 | 0         | 0/0                         | 0                | 0         |                            | 100%             |
| Nitrocellulose | 1                | 1                   | 1                 | 0         | 0/0                         | 0                | 0         |                            | 100%             |
| PCBs           | 2                | 7                   | 14                | 0         | 0/0                         | 0                | 0         |                            | 100%             |
| Pesticides     | 1                | 21                  | 21                | 0         | 0/0                         | 1                | 0         |                            | 100%             |
| VOCs           | 4                | 47                  | 141               | 0         | 0/0                         | 38               | 3         |                            | 100%             |
| SVOCs          | 6                | 66                  | 396               | 9         | 0/0                         | 13               | 12        |                            | 97.7%            |
| Metals         | 6                | 23                  | 138               | 1         | 2/0                         | 78               | 25        |                            | 99.3%            |
| <b>Totals</b>  |                  |                     | <b>751</b>        | <b>10</b> | <b>2/0</b>                  | <b>135</b>       | <b>41</b> |                            | <b>98.7%</b>     |

\*Total analyte count affected by data rejected as duplicate.

The analytical completeness goal for the project established in the FWQAPP was 90% for each method. The completeness goal was met for all analyses.

### 8.4 Primary and Field Duplicate Comparison Summary

Primary and field duplicate sample comparisons were considered to be in good agreement as only 1.5% of the field duplicate pair results were above the FWQAPP control limits of  $\leq 50\%$  for soils,  $\leq 30\%$  for waters, or  $\pm$  the LOQ for results below  $5 \times$  the LOQ. Rejected results are not listed in the table below.

Most of the outliers were SVOCs. All comparison results are presented in Appendix C.

**Table 28.** RVAAP-76 primary/field duplicate sample comparison summary

| Method         | Primary/Field Duplicate Pairs | Number of Analytes | Total Analytes | Number of results within control limits | Number of results above control limit |
|----------------|-------------------------------|--------------------|----------------|-----------------------------------------|---------------------------------------|
| Explosives     | 6                             | 16                 | 90             | 90                                      | 0                                     |
| Nitroguanidine | 6                             | 1                  | 6              | 6                                       | 0                                     |
| Nitrocellulose | 6                             | 1                  | 6              | 6                                       | 0                                     |
| PCBs           | 6                             | 7                  | 42             | 42                                      | 0                                     |
| Pesticides     | 1                             | 21                 | 21             | 21                                      | 0                                     |
| VOCs           | 10                            | 34                 | 337            | 336                                     | 1                                     |
| SVOCs          | 11                            | 66                 | 717            | 322                                     | 20                                    |
| Metals         | 11                            | 23                 | 253            | 252                                     | 1                                     |

## 8.5 Specific Data Concerns

Specific concerns regarding the data are noted below:

- Due to instrument limitations, the mercury raw data did not list the sample absorbances; therefore, the reviewer was not able to calculate the sample results from the raw data. Additionally, the ICPMS raw data did not list absorbances for the ICV, CCV, ICSAB, and MRL samples, and the %R was listed instead of the sample concentrations.

In order to avoid repetition of the issues noted above, the following actions should be taken:

- MEC<sup>x</sup> recommends the laboratory be requested to alter the IPCMS and mercury instrument set up in order to report mercury and ICPMS raw absorbances and ICPMS ICV, CCV, ICSAB, and MRL concentrations.

## 9 QUARRY POND SURFACE DUMP, RVAAP-78

### 9.1 Current Investigation

ECC completed an RI at the Quarry Pond Surface Dump (RVAAP-78). The work was performed in accordance with the *Site Inspection and Remedial Investigation Work Plan* (ECC 2012) and the *Facility-Wide Sampling and Analysis Plan* (SAIC 2011).

RVAAP-78 consists of three debris piles located at the bases of steep rocky slopes. Debris Pile A is approximately 425 feet in length varying in surface width from 18 to 68 feet and consists of construction debris, scrap metal, cultural debris, and asbestos-containing materials. Debris Pile B is smaller, at approximately 296 feet in length and 24 feet wide. A rusted 55-gallon drum and an apparent burn area (approximately 20 feet by 20 feet) are located within Debris Pile B. Debris Pile C is approximately 120 feet by 45 feet. This pile is suspected to contain asbestos-containing material, construction debris, scrap metal, and unidentified materials. A second rusted 55-gallon drum was located within this area.

The data validated in this report are part of the intrusive RI at RVAAP-78 conducted to assess the potential presence of contamination. The total sample counts, samples selected for data validation, and the field duplicates are presented in the tables below.

**Table 29.** Total sample count for RVAAP-78

| Matrix | Primary Samples | Field Duplicates | Split Samples | Primary Sample Counts |             |      |            |       |      |        |
|--------|-----------------|------------------|---------------|-----------------------|-------------|------|------------|-------|------|--------|
|        |                 |                  |               | Explosives            | Propellants | PCBs | Pesticides | SVOCs | VOCs | Metals |
| Soil   | 34              | 3                | 3             | 5                     | 29          | 29   | 5          | 29    | 25   | 29     |

**Table 30.** RVAAP-78 validated samples and methods

| Sample ID           | SDG         | Matrix | Collected | Explosives | Propellants | PCBs | Pesticides | SVOCs | VOCs | Metals |
|---------------------|-------------|--------|-----------|------------|-------------|------|------------|-------|------|--------|
| 078SB-0008M-0001-SO | 240-22559-1 | Soil   | 3/26/2013 | --         | --          | X    | --         | X     | X    | X      |
| 078SB-0016M-0001-SO | 240-22559-1 | Soil   | 3/26/2013 | X          | X           | X    | X          | X     | X    | X      |

**Table 31.** RVAAP-78 field duplicate samples

| Duplicate Sample ID | Parent Sample       |
|---------------------|---------------------|
| 078SB-0009M-0001-SO | 078SB-0056M-0001-SO |
| 078SB-0018M-0001-SO | 078SB-0017M-0001-SO |
| 078SB-0026M-0001-SO | 078SB-0025M-0001-SO |

### 9.1.1 Sample Collection

Corrections were made to the chains-of-custody by obliterating the original entry. The corrections were not initialed or dated. The chains-of-custody were appropriately signed and dated by field and laboratory personnel. According to the laboratory Sample Receipt Form, custody seals were not utilized; however, in reviewing the relinquished and receipt times, it appeared the samples were transferred to the laboratory by courier. No other sample collection issues were noted.

### 9.1.2 Data Completeness

Data completeness for the project described in this report was found to be generally acceptable as no deliverables were missing from the SDGs reviewed.

### 9.1.3 Preservation and Holding Time Requirements

A portion of the samples were received at temperatures nominally below the  $4 \pm 2^{\circ}\text{C}$  control limit; however, as the samples were not noted to be frozen or damaged, no qualifications were required. All remaining method preservation requirements were met. Holding times, as listed in Table 3, were met.

### 9.1.4 Detection Limit Requirements

LODs and DLs for nondetected analytes were compared against the most stringent CUGs listed in Tables 5-8, 5-9, and 5-10 of *Final Facility-Wide Human Health Cleanup Goals for the Ravenna Army Ammunition Plant* (2010) or the RSLs if no CUG was listed. No results exceeded the project criteria.

## 9.2 RVAAP-78 Data Quality Evaluation

This section summarizes the data quality of validated samples for each analytical method evaluated.

### 9.2.1 Explosives

A total of 5 primary soil samples were analyzed by TA-West Sacramento for explosives by USEPA SW-846 Methods 8330 and 8330B. A single primary soil sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.
- Calibration:
  - o The initial calibration average %RSDs were within the control limits listed in DoD QSM Table F-3 of  $\leq 15\%$ , or the linear regression  $r^2$  values were  $\geq 0.990$ .
  - o The second source ICV standard recoveries were within the control limit listed in DoD QSM Table F-3 of  $\pm 20\%$ .

- o The CCV standard %Ds were within the control limits listed in DoD QSM Table F-3 of  $\pm 20\%$ .
- o Although not required by the DoD QSM, an MRL standard of  $3\times$  the DL is required by the FWQAPP. Low-level MRL standards were analyzed in association with the validated sample and the results were within the reasonable control limits of 70-130%.
- Blanks: The method blank associated with the validated sample had no target compound detects above the control limit listed in DoD QSM Table F-3 of one-half the LOQ.
- Laboratory Control Samples: Recoveries were within the control limits listed in DoD QSM Tables G-2 and G-13 and within the reasonable laboratory control limits for nitroglycerin (76-116%) and PETN (76-116%).
- Surrogate Recovery: As no surrogate control limit was listed in the DoD QSM, surrogate recoveries were assessed against the reasonable laboratory-established control limits of 78-118%. Recoveries were within the control limits.
- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed on the validated sample. Method accuracy was evaluated based on LCS results.
- Compound Identification: Compound identification was verified for the sample validated at Level IV. Review of sample chromatograms and retention times indicated no problems with target compound identification.
- Compound Quantification and Reported Detection Limits: As no target compounds were detected in the sample validated at Level IV, compound quantification was verified for a portion of the LCS results. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.

As no target compounds were detected on the primary column, a confirmation analysis was not performed.

Target compounds 2,4-dinitrotoluene, 2,6-dinitrotoluene, and nitrobenzene were reported by both Method 8330B and 8270C in sample 078SB-0016M-0001-SO. As there were no detects for these compounds, the reviewer chose to report the results with the lowest LODs. The 8330B results for all three compounds were rejected, "R," as duplicate data and coded with a "D" qualification code.

- System Performance: Review of the raw data indicated no problems with system performance.
- Manual Integrations: Some manual integrations were performed. All manual integrations were performed in order to report incompletely resolved peaks or to account for baseline anomalies and were deemed acceptable by the reviewer.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - o Field Blanks and Equipment Rinsates: There were no field QC samples associated with the validated sample.
  - o Field Duplicates: No field duplicate samples were collected for explosive compounds.

### 9.2.2 Propellants

A total of 29 primary soil samples and 2 field duplicate sample were analyzed by TA-West Sacramento for nitroguanidine by USEPA SW-846 Method 8330 and for nitrocellulose by laboratory SOP WS-WC-0050. A single primary soil sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.
- Calibration:
  - o The nitroguanidine initial calibration average percent %RSD was within the control limit listed in DoD QSM Table F-2 of  $\leq 20\%$ . The nitrocellulose linear regression correlation coefficient was within the control limit listed in the DoD QSM Table F-11 of  $\geq 0.995$ .
  - o The nitroguanidine second source ICV recovery was within the control limits listed in DoD QSM Table F-2 of 85-115%. The nitrocellulose ICV recovery was within the control limits listed in DoD QSM Table F-11 of 90-110%.
  - o The nitroguanidine CCV recoveries were within the control limits listed in DoD QSM Table F-2 of 85-115%. The nitrocellulose CCV recoveries were within the control limits listed in DoD QSM Table F-11 of 90-110%.
  - o Although not required by the DoD QSM, an MRL standard of  $3\times$  the DL is required by the FWQAPP. MRL recoveries associated with the sample were within the reasonable control limits of 70-130%.
- Blanks: The method blanks had no target compound detects above the control limits listed in DoD QSM Tables F-2 and F-11 of one-half the LOQ.
- Laboratory Control Samples: No nitroguanidine or nitrocellulose LCS control limits are listed in the DoD QSM; therefore, the laboratory control limits were used to assess the results. The nitroguanidine recovery was within the control limits of 72-121% and the nitrocellulose recovery was within the laboratory-established control limits of 34-115%.
- Surrogate Recovery: A surrogate was not required for the analysis of nitroguanidine or nitrocellulose.

- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed on the validated sample. Method accuracy was evaluated based on LCS results.
- Compound Identification: Compound identification was verified for the sample validated at Level IV. Review of the sample chromatograms and retention times indicated no problems with target compound identification.
- Compound Quantification and Reported Detection Limits: Compound quantification was verified for the sample validated at Level IV. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.

Nitroguanidine was not detected in the validated sample; therefore, confirmation analysis was not required.

- System Performance: Review of the raw data indicated no problems with system performance.
- Manual Integrations: Some manual integrations were performed for nitroguanidine. The manual integrations were performed to correct baseline integration. The manual integrations were deemed acceptable by the reviewer.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - o Field Blanks and Equipment Rinsates: There were no field QC samples associated with the validated sample.
  - o Field Duplicates: Two field duplicate samples were collected and analyzed for nitroguanidine and nitrocellulose. The RPD criterion in FWQAPP Table 3-1 of  $\leq 50\%$  for soil samples and Table 3-2 of  $\leq 30\%$  for aqueous samples was only applied when results for common detects were  $\geq 5\times$  the LOQ. In cases where results were  $< 5\times$  the LOQ, the reasonable control limit of  $\pm$  the LOQ was applied. All results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

### 9.2.3 Polychlorinated Biphenyls (PCBs)

A total of 29 primary soil samples and 2 field duplicate samples were analyzed by TA-North Canton for PCBs by USEPA SW-846 Method 8082. A total of 2 primary soil samples were validated at Level IV.

- MDL studies were not evaluated as part of this project.
- Calibration: Calibration criteria were met, with the exception noted below.

- o Initial calibration average %RSDs were within the control limit listed in the DoD QSM Table F-2 of  $\leq 20\%$ , or the correlation coefficients were  $\leq 0.990$ .
- o The second source ICV recoveries were within the control limit listed in the DoD QSM Table F-2 of  $\pm 20\%$  for all applicable Aroclors, with the exception of Aroclor 1221 in the ICV associated with sample 078SB-0008M-0001-SO. One of three peaks for Aroclor 1221 on the CLP-1 column was missed by the data system due to coelution, and was not manually integrated. The CLP-2 column ICV for Aroclor 1221 was acceptable. The nondetected result for Aroclor 1221 in sample 078SB-0008M-0001-SO was qualified as estimated, "UJ," and coded with a "C" qualification code.
- o The CCV standard recoveries affecting sample results were within the control limit listed in the DoD QSM Table F-2 of  $\pm 20\%$ . A few individual Aroclor peak %Ds exceeded the control limit; however, as they were associated with high recoveries, the nondetected sample results were not qualified.
- o MRL standard recoveries affecting sample results were within the reasonable control limit of  $\pm 30\%$ . A few recoveries were nominally above the control limit; however, as there were no detects in the site samples, no qualifications were applied.
- Blanks: The method blank associated with the validated samples had no target compound detects above the control limit listed in the DoD QSM Table F-2, of one-half the LOQ for target compounds.
- Laboratory Control Samples: Recoveries for Aroclor 1016 and Aroclor 1260 were within the control limits listed in DoD QSM Table G-17.
- Surrogate Recovery: Recoveries were within the control limits listed in DoD QSM Table G-3 of 60-125%.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed on a validated sample. Evaluation of method accuracy was based on the LCS results.
- Compound Identification: Compound identification was verified for the validated samples. Review of the sample chromatograms, standards, and retention times indicated no problems with target compound identification. The samples were analyzed on two analytical columns; however, the samples had no Aroclor detects.
- Compound Quantification and Reported Detection Limits: Compound quantification was verified for the validated samples. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.
- System Performance: Review of the raw data indicated no problems with system performance.



- Manual Integrations: Some routine manual integrations were performed for the calibration and QC data associated with the sample data, primarily to correct poor baseline integration or to correctly split previously incorrectly split peaks. All manual integrations reviewed were deemed appropriate by the reviewer.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - o Field Blanks and Equipment Rinsates: No field blank or equipment rinsate samples were associated with the validated samples for RVAAP-78.
  - o Field Duplicates: Two soil field duplicate samples were collected and analyzed for PCBs. The RPD criteria in FWQAPP Table 3-1 of  $\leq 50\%$  for soils and  $\leq 30\%$  for waters were only applied when results for common detects were  $\geq 5\times$  the LOQ. In cases where results were  $< 5\times$  the LOQ, the reasonable control limit of  $\pm$  the LOQ was applied. The results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

#### **9.2.4 Pesticides**

A total of 5 primary soil samples were analyzed by TA-North Canton for pesticides by USEPA SW-846 Method 8081. A single primary soil sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.
- Calibration: Calibration criteria listed in the DoD QSM Table F-2 were met with the exceptions noted below.
  - o Initial calibration average %RSDs were within the control limit of  $\leq 20\%$ .
  - o The PEM %breakdown results were within the DoD QSM Table F-2 control limit of  $\leq 15\%$ .
  - o Both columns had individual toxaphene peaks with %Ds exceeding the control limit. Column CLP-1 had two outliers at -26.2% and 40.5%, and column CLP-2 had three outliers at -33.9%, -38.1, and 60.1%. The nondetected result for toxaphene in sample 078SB-0016M-0001-SO was qualified as estimated, "UJ," and coded with a "C" qualification code. The remaining second source ICV recoveries were within the control limit of  $\pm 20\%$ .
  - o The CCV standard recoveries affecting sample data were within the control limit of  $\pm 20\%$ .
  - o Although not required by the DoD QSM, an MRL standard of  $3\times$  the DL is required by the FWQAPP. MRL standard recoveries affecting sample data were within the

reasonable control limit of  $\pm 30\%$ , with the exception of the recovery of 68% for 4,4'-DDD in the opening MRL. The nondetected result for 4,4'-DDD in sample 078SB-0016M-0001-SO was qualified as estimated, "UJ," and coded with a "C" qualification code. Several other recoveries were nominally above the control limit; however, none of the high recovery outliers were detected in the validated sample.

- Blanks: The method blank associated with the validated sample had no target compound detects above the control limit listed in the DoD QSM Table F-2, of one-half the LOQ.
- Laboratory Control Samples: Recoveries were within the control limits listed in DoD QSM Table G-15. Toxaphene was not spiked in the LCS sample.
- Surrogate Recovery: Recoveries were within the control limits listed in DoD QSM Table G-3 of 60-125%.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed on the validated sample. Evaluation of method accuracy was based on the LCS results.
- Compound Identification: Compound identification was verified for the validated sample. Review of the sample chromatograms, standards, and retention times indicated no problems with target compound identification.
- Compound Quantification and Reported Detection Limits: Compound quantification was verified for the validated sample. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.
- System Performance: Review of the raw data indicated no problems with system performance.
- Manual Integrations: Some routine manual integrations were performed for the calibration and QC data, primarily to correct poor baseline integration or to re-integrate incorrectly split peaks. All manual integrations reviewed were deemed appropriate by the reviewer.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - o Field Blanks and Equipment Rinsates: No field blank or equipment rinsate samples were associated with the validated sample for RVAAP-78.
  - o Field Duplicate Samples: No field duplicate samples were collected from RVAAP-78 for pesticide compounds.

### 9.2.5 Semivolatile Organic Compounds (SVOCs)

A total of 29 primary soil samples and 2 field duplicate sample were analyzed by TA-North Canton for SVOCs by USEPA Method 8270C. A total of 2 primary soil samples were validated at Level IV.

- MDL studies were not evaluated as part of this project.
- GC/MS Tuning: The DFTPP tunes met the method abundance criteria. The samples were analyzed within 12 hours of the DFTPP injection time.
- Calibration: Calibration criteria listed in the DoD QSM Table F-4 were met, with exceptions affecting sample results noted below.
  - o Initial calibration average RRFs and ICV and CCV RRFs were within method control limits of  $\geq 0.050$ . All initial calibration %RSDs were within the control limits of  $\leq 30\%$  for CCCs and  $\leq 15\%$  for remaining compounds, or linear regression  $r^2$  values  $\geq 0.990$ .
  - o All second source ICV standard recoveries affecting retained sample data were within the control limit of  $\pm 20\%$ .
  - o Continuing calibration %Ds affecting retained sample data were within the control limit of  $\leq 20\%$ .
  - o MRL standard recoveries were within the reasonable control limit of  $\pm 30\%$ , with exceptions affecting sample data noted in the table below. The results listed in the table below were qualified as estimated, "UJ," for nondetects and, "J," for detects. All qualified results were coded with a "C" qualification code.

| Samples qualified for MRL %R outliers |     |                                            |
|---------------------------------------|-----|--------------------------------------------|
| Analyte                               | %R  | Qualified Samples                          |
| 2,4-dinitrophenol                     | 15% | 078SB-0008M-0001-SO<br>078SB-0016M-0001-SO |
| 4,6-dinitro-2-methylphenol            | 13% |                                            |
| Hexachloroethane                      | 63% |                                            |
| Benzo(g,h,i)perylene                  | 62% |                                            |

- Blanks: The method blanks had no target compound detects above the control limits listed in DoD QSM Table F-4 of one-half the LOQ for target compounds, and no common laboratory contaminants detected above the LOQ.
- Laboratory Control Samples: All LCS recoveries were within the control limits listed in DoD QSM Tables G-2 (poor performers) and G-7. The reviewer noted hexachlorocyclopentadiene was not spiked in the LCS. Additionally, the LCS reported no recovery of benzoic acid. Upon review of the raw data, the reviewer determined that benzoic acid was spiked below the LOD but was acceptably recovered.

- **Surrogate Recovery:** All surrogate recoveries were within the control limits listed in the DoD QSM Tables G-2 (poor performers) or G-3.
- **Matrix Spike/Matrix Spike Duplicate:** No MS/MSD analyses were performed on a validated sample. Method accuracy was evaluated based on LCS results.
- **Internal Standards Performance:** The internal standard retention times and area counts were within the DoD QSM Table F-4 control limits established by the midpoint initial calibration standard:  $\pm 30$  seconds for retention times and  $-50\%$  /  $+100\%$  for internal standard areas.
- **Compound Identification:** Compound identification was verified for the samples validated at Level IV. Review of the sample chromatograms, retention times, and spectra indicated no problems with target compound identification.
- **Compound Quantification and Reported Detection Limits:** Compound quantification was verified for the samples validated at Level IV. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J," by the laboratory. Reported nondetects are valid to the LOD. The samples had a 2-ml final extract volume, resulting in an effective 2 $\times$  dilution. No further dilutions were required.
- **System Performance:** Review of the raw data indicated no problems with system performance.
- **Manual Integrations:** Some routine manual integrations were performed for the samples, and for calibration and QC data associated with the sample data, primarily due to peaks missed or incorrectly chosen by the data system, or poor baseline integration. All manual integrations reviewed were deemed appropriate by the reviewer.
- **Field QC Samples:** Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - o **Field Blanks and Equipment Rinsates:** There were no field blank or equipment rinsate samples associated with the RVAAP-78 samples.
  - o **Field Duplicate Samples:** Two field duplicate samples were collected and analyzed for SVOCs. The RPD criterion in FWQAPP Table 3-1 of  $\leq 50\%$  for soil samples was only applied when results for common detects were  $\geq 5\times$  the LOQ. In cases where results were  $< 5\times$  the LOQ, the reasonable control limit of  $\pm$  the LOQ was applied. All results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

### 9.2.6 Volatile Organic Compounds (VOCs)

A total of 25 primary soil samples and 3 field duplicate samples were analyzed by TA-North Canton for volatile compounds by USEPA Method 8260B. A total of 2 primary soil samples were validated at Level IV.

- MDL studies were not evaluated as part of this project.
- GC/MS Tuning: The BFB tunes met the method abundance criteria. The samples were analyzed within 12 hours of the BFB injection time.
- Calibration: Calibration criteria listed in DoD QSM Table F-4 were met.
  - o Initial calibration average RRFs and ICV and CCV RRFs were within the control limits of  $\geq 0.30$  for chlorobenzene and 1,1,2,2-tetrachloroethane, and  $\geq 0.10$  for chloromethane, bromoform, and 1,1-dichloroethane.
  - o All initial calibration %RSDs were within the method control limits of  $\leq 30\%$  for the CCCs and  $\leq 15\%$  for remaining compounds, or linear regression  $r^2$  values  $\geq 0.990$ .
  - o All second source ICV standard recoveries were within the control limit of  $\pm 20\%$ .
  - o Continuing calibration %Ds affecting validated sample data were within the control limit of  $\leq 20\%$
  - o Although not required by the DoD QSM, an MRL standard of  $3\times$  the DL is required by the FWQAPP. MRL standard recoveries affecting sample data were within the reasonable control limit of  $\pm 30\%$ . Several recoveries were marginally above the control limits; however, none of the compounds with high recoveries were detected in the associated samples.
- Blanks: The method blanks associated with the validated samples had no target compound detects above the control limits listed in DoD QSM Table F-4 of one-half the LOQ, and no common laboratory contaminants detected above the LOQ. Methylene chloride was detected below the LOQ in both method blanks at concentrations of 3.14(J)  $\mu\text{g/Kg}$  and 4.25(J)  $\mu\text{g/Kg}$ . Sample results for methylene chloride were qualified as nondetects, "U," at the level of contamination. The qualified results were coded with a "B" qualification code.
- Laboratory Control Samples: LCS recoveries were within the control limits listed in DoD QSM Table G-4.
- Surrogate Recovery: BFB was recovered below the control limits of 85-120% at 84% the analysis of sample 078SB-0008M-0001-SO. The detected result for toluene was qualified as estimated, "J," and the remaining nondetected results were qualified as estimated, "UJ." The qualified results were coded with an "S" qualification code. Remaining surrogate recoveries affecting sample data were within the control limits listed in DoD QSM Table G-3.

- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed on a validated sample. Evaluation of method accuracy was based on the LCS results.
- Internal Standards Performance: The internal standard area counts and retention times were within DoD QSM Table F-4 control limits established by the midpoint initial calibration standard: -50% / +100% for internal standard areas and  $\pm 30$  seconds for retention times.
- Compound Identification: Compound identification was verified for the validated samples. Review of the sample chromatogram, retention times, and spectra indicated no problems with target compound identification.
- Compound Quantification and Reported Detection Limits: Compound quantification was verified for the validated samples. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J," by the laboratory. Reported nondetects are valid to the LOD.
- System Performance: Review of the raw data indicated no problems with system performance.
- Manual integrations: Manual integrations were not performed for the validated samples or for associated calibration and QC samples.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - o Trip Blanks: The trip blanks associated with the validated samples in this SDG had detects below the LOQ for acetone and methylene chloride; however, neither compound was detected in the associated samples. The trip blanks had no other reportable detects above the DL.
  - o Field Blanks and Equipment Rinsates: No field blank or equipment rinsate samples were associated with the validated samples for RVAAP-78.
  - o Field Duplicate Samples: One field duplicate sample was collected and analyzed for VOCs. The RPD criterion in FWQAPP Table 3-1 of  $\leq 50\%$  was only applied when results for common detects were  $\geq 5\times$  the LOQ. In cases where results were  $< 5\times$  the LOQ, the reasonable control limit of  $\pm$  the LOQ was applied. All results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

### 9.2.7 Metals

A total of 29 primary soil samples and 2 field duplicate samples were analyzed by TA-North Canton for various metals by USEPA Methods 6020 and 7471A. A total of 2 primary soil samples were validated at Level IV.

- MDL studies were not evaluated as part of this project.
- Calibration: Calibration criteria were met.
  - o As per DoD QSM Table F-8, the mass calibrations were  $\leq 0.1$  atomic mass units (amu) of the true values and the resolutions were  $< 0.9$  amu at full width at 10% peak height. The %RSDs were within the control limit listed in the DoD QSM Table F-8 of  $\leq 5\%$ .
  - o Initial calibration: Linear regression correlation coefficients were within the control limit listed in the DoD QSM Tables F-7 and F-8 of  $\geq 0.995$ .
  - o The ICPMS ICV and CCV recoveries were within the control limits listed in DoD QSM Table F-8 of 90-110%. The mercury ICV and CCV recoveries were within the control limits listed in DoD QSM Table F-7 of 90-110% and 80-120%, respectively.
  - o CRI/MRL recoveries affecting sample results were within the control limits listed in DoD QSM Tables F-7 and F-8 of 80-120%.
- Blanks: Method blanks had no applicable detects above the control limits listed in DoD QSM Tables F-7 and F-8 of one-half the LOQ or greater than one-tenth the amount measured in any sample. CCBs had no detects affecting sample results above the control limit listed in DoD QSM Tables F-7 and F-8 of greater than the LOD.
- Interference Check Samples: ICPMS ICSA and ICSAB recoveries were within the control limits listed in DoD QSM Table F-8 of 80-120%. There were some analytes detected in the ICSA above the control limit listed in DoD QSM Table F-8 of  $> \text{LOD}$ ; however, as most interferences were present in the sample at concentrations less than 50% of that in the ICSA, the samples were not assessed for matrix interference.
- Laboratory Control Samples: The recoveries were within the control limits listed in DoD QSM Table G-19 of 80-120%. All 6020 RPDs were within the control limit listed in DoD QSM Table F-8 of  $\leq 20\%$ .
- Laboratory Duplicates: Laboratory duplicate analyses were performed on 078SB-0006M-0001-SO and 078SB-0015M-0001-SO for all analytes and on 078SB-0031M-0001-SO for mercury. The RPD control limit listed in DoD QSM Tables F-7 and F-8 was  $\leq 20\%$ . The control limit was only applied to results  $\geq 5 \times$  the LOQ. A control limit of  $\pm \text{LOQ}$  was used for results below  $5 \times$  the LOQ. All results were within the control limits.

- Matrix Spike/Matrix Spike Duplicate: Matrix spike analyses were performed on samples 078SB-0006M-0001-SO and 078SB-0015M-0001-SO for all analytes and on 078SB-0031M-0001-SO for mercury. Except as noted below, recoveries were within the control limits listed in DoD QSM Table G-19 of 80-120%. Matrix spike control limits were not applied when the native sample concentration exceeded the spiked amount by 4× or more.

The results listed in the table below were qualified as estimated, “J,” for detects and, “UJ,” for nondetects. The qualified results were coded with a “Q” qualification code. When no other qualifications with conflicting bias were assigned to a result, detected results with low recoveries were assigned a negative bias, “J-,” and detected results with high recoveries were assigned a positive bias, “J+.”

| Samples qualified for matrix spike recovery outliers |           |      |                                             |
|------------------------------------------------------|-----------|------|---------------------------------------------|
| Parent Sample                                        | Analyte   | %R   | Qualified Samples                           |
| 078-0006M-0001-SO                                    | Arsenic   | 72%  | 078SB-0008M-0010-SO,<br>078SB-0016M-0001-SO |
|                                                      | Manganese | 122% |                                             |
|                                                      | Antimony  | 68%  |                                             |
|                                                      | Selenium  | 35%  |                                             |
| 078SB-0015M-0001-SO                                  | Arsenic   | 67%  | 078SB-0008M-0010-SO,<br>078SB-0016M-0001-SO |
|                                                      | Antimony  | 69%  |                                             |
|                                                      | Selenium  | 51%  |                                             |

Post digestion spike analyses were performed on 078SB-0006M-0001-SO and 078SB-0015M-0001-SO for the ICPMS analytes. All recoveries were within the control limits listed in DoD QSM Table F-8 of 75-125%.

- Serial Dilution: Serial dilution analyses were performed on samples 078SB-0006M-0001-SO and 078SB-0015M-0001-SO. The %Ds were within the control limit listed in DoD QSM Table F-8 of ≤10%. The serial dilution control limit is only applicable when the original sample concentration is minimally ≥50× the LOQ.
- Internal Standards: All ICPMS sample internal standards intensities were within 30-120% of those in the ICV, as per the DOD QSM Table F-8. Yttrium (<sup>89</sup>Y) was spiked into the QC samples but not the site samples.
- Sample Result Verification: For Level IV validation, calculations were verified and the sample results reported on the sample result summary were verified against the raw data. Any result reported between the DL and the LOQ was qualified as estimated, “J.” Reported nondetects are valid to the LOD.

Due to instrument limitations, the mercury raw data did not list the sample absorbances; therefore, the reviewer was not able to calculate the sample results from the raw data. Additionally, the ICPMS raw data did not list absorbances for the ICV, CCV, ICSAB, and MRL samples, and the %R was listed instead of the sample concentrations.



- Manual Integrations: No manual integrations were noted in the mercury analyses.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - o Field Blanks and Equipment Rinsates: There were no field blank or equipment rinsate samples associated with the validated samples at RVAAP-78.
  - o Field Duplicate Samples: A total of two field duplicate samples were collected and analyzed for metals. The RPD criterion in FWQAPP Table 3-1 of  $\leq 50\%$  was only applied when results for common detects were  $\geq 5\times$  the LOQ. In cases where results were  $< 5\times$  the LOQ, the reasonable control limit of  $\pm$  the LOQ was applied. Except as noted below, the results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

| Metals field duplicate outliers             |           |     |          |
|---------------------------------------------|-----------|-----|----------|
| Primary/Field Duplicate Sample              | Analyte   | RPD | W/In LOQ |
| 078SB-0025M-0001-SO/<br>078SB-0026M-0001-SO | Aluminum  | 59% | N/A      |
|                                             | Arsenic   | 63% | N/A      |
|                                             | Beryllium | 69% | N/A      |
|                                             | Calcium   | 57% | N/A      |
|                                             | Chromium  | 58% | N/A      |
|                                             | Cobalt    | 72% | N/A      |
|                                             | Copper    | 91% | N/A      |
|                                             | Magnesium | 59% | N/A      |
|                                             | Vanadium  | 51% | N/A      |

### 9.3 Data Usability

According to the Draft Site Inspection Report prepared by ECC, one VOC sample was not collected due to refusal. Due to this, the field completeness was nominally less than 100%.

No data points were rejected. In instances where a data point had multiple results, the reviewer chose the most technically sound result to report and rejected the remaining data points. Those data points, rejected in order to choose the most technically sound result, do not affect data quality or usability and are not included in the table below. Data with detects between the DL and the LOQ were included in the table below for informational purposes only.

**Table 32.** Analytical completeness for RVAAP-78 validated primary data

|                |                  |                     | Number of Results |          |                             |                           |                            | Percent Complete |
|----------------|------------------|---------------------|-------------------|----------|-----------------------------|---------------------------|----------------------------|------------------|
| Analysis       | Samples Analyzed | Analytes per Sample | Total             | Rejected | LODs/DLs Exceeding Criteria | Estimated for QC Outliers | Estimated for Detects <LOQ |                  |
| Explosives     | 1                | 16                  | 13                | 0        | 0/0                         | 0                         | 0                          | 100%             |
| Nitroguanidine | 1                | 1                   | 1                 | 0        | 0/0                         | 0                         | 0                          | 100%             |
| Nitrocellulose | 1                | 1                   | 1                 | 0        | 0/0                         | 0                         | 0                          | 100%             |
| PCBs           | 2                | 7                   | 14                | 0        | 0/0                         | 1                         | 0                          | 100%             |
| Pesticides     | 1                | 21                  | 21                | 0        | 0/0                         | 2                         | 1                          | 100%             |
| VOCs           | 2                | 35                  | 70                | 0        | 0/0                         | 36                        | 1                          | 100%             |
| SVOCs          | 2                | 66                  | 132               | 0        | 0/0                         | 8                         | 3                          | 100%             |
| Metals         | 2                | 23                  | 46                | 0        | 0/0                         | 8                         | 8                          | 100%             |
| <b>Totals</b>  |                  |                     | <b>298</b>        | <b>0</b> | <b>0/0</b>                  | <b>55</b>                 | <b>13</b>                  | <b>100%</b>      |

The analytical completeness goal for the project established in the FWQAPP was 90% for each method. The completeness goal was met for all analyses.

#### 9.4 Primary and Field Duplicate Comparison Summary

Primary and field duplicate sample comparisons were considered to be in good agreement as only 3.1% of the field duplicate pair results were above the FWQAPP control limits of  $\leq 50\%$  for soils,  $\leq 30\%$  for waters, or  $\pm$  the LOQ for results below  $5 \times$  the LOQ. Rejected results are not listed in the table below.

All field duplicate comparison results are presented in Appendix C. All outliers were metals in field duplicate pair 078SB-0025M-0001-SO/078SB-0026M-0001-SO and all results were higher in the duplicate. All comparison results are presented in Appendix C.

**Table 33.** RVAAP-78 primary/field duplicate sample comparison summary

| Method         | Primary/Field Duplicate Pairs | Number of Analytes | Total Analytes | Number of results within control limits | Number of results above control limit |
|----------------|-------------------------------|--------------------|----------------|-----------------------------------------|---------------------------------------|
| Metals         | 2                             | 23                 | 46             | 35                                      | 9                                     |
| Nitroguanidine | 2                             | 1                  | 2              | 2                                       | 0                                     |
| Nitrocellulose | 2                             | 1                  | 2              | 2                                       | 0                                     |
| PCBs           | 2                             | 7                  | 14             | 14                                      | 0                                     |
| SVOCs          | 2                             | 66                 | 132            | 132                                     | 0                                     |
| VOCs           | 3                             | 35                 | 105            | 105                                     | 0                                     |

#### 9.5 Specific Data Concerns

Specific concerns regarding the data are noted below:

- Due to instrument limitations, the mercury raw data did not list the sample absorbances; therefore, the reviewer was not able to calculate the sample results from the raw data. Additionally, the ICPMS raw data did not list absorbances for the ICV, CCV, ICSAB, and MRL samples, and the %R was listed instead of the sample concentrations.

In order to avoid repetition of the issues noted above, the following actions should be taken:

- MEC<sup>x</sup> recommends the laboratory be requested to alter the IPCMS and mercury instrument set up in order to report mercury and ICPMS raw absorbances and ICPMS ICV, CCV, ICSAB, and MRL concentrations.

## 10 DEFENSE LOGISTICS AGENCY ORE STORAGE SITE – MAIN STORAGE YARD, RVAAP-79

### 10.1 Current Investigation

ECC completed an RI at the Defense Logistics Agency Main Ore Storage Yard (RVAAP-79). The work was performed in accordance with the *Site Inspection and Remedial Investigation Work Plan* (ECC 2012) and the *Facility-Wide Sampling and Analysis Plan* (SAIC 2011).

RVAAP-79 includes the Main Ore Storage Yard and three sub-areas – area west of the railroad, concrete pad storage, and the east transportation yard. These areas are mostly devoid of vegetation. Historical operations conducted at the facility included handling and storage of strategic and critical materials, including various types of ore, for the General Services Administration. The Defense Logistics Agency, Defense National Stockpile Center leased space at the facility for the storage of the ore materials (chemical chrome ore, ferrochrome ore, and metallurgical manganese ore), which were located on the ground. The ores were stockpiled at various locations within RVAAP-79 and were transported to and from these areas via rail.

The data validated in this report are part of the intrusive RI at RVAAP-79 conducted to assess the potential presence of contamination. The sample counts, samples selected for data validation, and the field duplicates are presented in the tables below.

**Table 34.** Total sample count for RVAAP-79

| Matrix        | Primary Samples | Field Duplicates | Split Samples | Primary Sample Counts |             |      |            |       |      |        |
|---------------|-----------------|------------------|---------------|-----------------------|-------------|------|------------|-------|------|--------|
|               |                 |                  |               | Explosives            | Propellants | PCBs | Pesticides | SVOCs | VOCs | Metals |
| Soil          | 136             | 6                | 11            | 2                     | 2           | 2    | 2          | 2     | 2    | 136    |
| Sediment      | 4               | 1*               | 1             | 1                     | 1           | 1    | 1          | 1     | 1    | 4      |
| Surface Water | 4               | 1*               | 1             | 1                     | 1           | 1    | 1          | 1     | 1    | 4      |

\*Analyzed for metals only

**Table 35.** RVAAP-79 validated samples and methods

| Sample ID           | SDG         | Matrix   | Collected | Explosives | Propellants | PCBs | Pesticides | SVOCs | VOCs | Metals |
|---------------------|-------------|----------|-----------|------------|-------------|------|------------|-------|------|--------|
| 079SB-0217M-0001-SO | 240-22381-1 | soil     | 3/21/2013 | --         | --          | --   | --         | --    | --   | X      |
| 079SB-0234M-0001-SO | 240-22381-1 | soil     | 3/21/2013 | --         | --          | --   | --         | --    | --   | X      |
| 079SB-0236M-0001-SO | 240-22381-1 | soil     | 3/21/2013 | --         | --          | --   | --         | --    | --   | X      |
| 079SB-0245M-0001-SO | 240-22281-1 | soil     | 3/20/2013 | --         | --          | --   | --         | --    | --   | X      |
| 079SB-0247M-0001-SO | 240-22281-1 | soil     | 3/20/2013 | --         | --          | --   | --         | --    | --   | X      |
| 079SB-0252M-0001-SO | 240-22281-1 | soil     | 3/20/2013 | --         | --          | --   | --         | --    | --   | X      |
| 079SB-0267M-0001-SO | 240-22281-1 | soil     | 3/20/2013 | --         | --          | --   | --         | --    | --   | X      |
| 079SB-0269M-0001-SO | 240-22281-1 | soil     | 3/20/2013 | --         | --          | --   | --         | --    | --   | X      |
| 079SB-0272M-0001-SO | 240-22281-1 | soil     | 3/20/2013 | --         | --          | --   | --         | --    | --   | X      |
| 079SD-0305-0001-SD  | 240-22274-1 | sediment | 3/19/2013 | --         | --          | --   | --         | --    | --   | X      |
| 079SW-0311-0001-SW  | 240-22662-1 | water    | 4/1/2013  | X          | X           | X    | X          | X     | X    | X      |

**Table 36.** RVAAP-79 field duplicate samples

| Duplicate Sample ID | Parent Sample       |
|---------------------|---------------------|
| 079SB-0319M-0001-SO | 079SB-0217M-0001-SO |
| 079SB-0150M-0001-SO | 079SB-0234M-0001-SO |
| 079SB-0165M-0001-SO | 079SB-0236M-0001-SO |
| 079SB-0325M-0001-SO | 079SB-0247M-0001-SO |
| 079SB-0322M-0001-SO | 079SB-0267M-0001-SO |
| 079SB-0323M-0001-SO | 079SB-0269M-0001-SO |
| 079SD-0306-0001-SD  | 079SD-0305-0001-SD  |
| 079SW-0312-0001-SW  | 079SW-0311-0001-SW  |

### 10.1.1 Sample Collection

The chains-of-custody were appropriately signed and dated by field and laboratory personnel. According to the laboratory Sample Receipt Forms, custody seals were not utilized; however, in reviewing relinquish and receipt times, it appeared the samples were transferred to the laboratory by courier. Other than the items listed below, no sample collection issues were noted.

- Some corrections made to the chains-of-custody were properly made, but were not dated.
- Some corrections were made by overwriting or obliterating the original entry. These corrections were not initialed or dated.

### 10.1.2 Data Completeness

The data completeness for the project described in this report was found to be generally acceptable for all analyses except metals, as no deliverables were missing from the SDGs reviewed. The metals data was missing the following:

- The ICPMS raw data sequence containing the validated sample was missing in SDG 240-22662-1.

This material was requested from the laboratory and was subsequently provided.

### 10.1.3 Preservation and Holding Time Requirements

A portion of the samples were received at temperatures below the  $4 \pm 2^{\circ}\text{C}$  control limit; however, as the samples were not noted to be frozen or damaged, no qualifications were required. All remaining method preservation requirements were met. All holding times, as listed in Table 3, were met.

### 10.1.4 Detection Limit Requirements

LODs and DLs for nondetected analytes were compared against the most stringent CUGs listed in Tables 5-8, 5-9, and 5-10 of *Final Facility-Wide Human Health Cleanup Goals for the Ravenna Army Ammunition Plant* (2010) or the RSLs if no CUG was listed. No results exceeded project criteria.

## 10.2 RVAAP-79 Data Quality Evaluation

This section summarizes the data quality of validated samples for each analytical method evaluated.

### 10.2.1 Explosives

A total of 2 primary soil samples, 1 primary sediment sample, and 1 primary surface water sample were analyzed by TA-West Sacramento for explosives by USEPA SW-846 Methods 8330 and 8330B. The primary surface water sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.
- Calibration:
  - o The initial calibration average %RSDs were within the control limits listed in DoD QSM Table F-3 of  $\leq 15\%$ , or the linear regression  $r^2$  values were  $\geq 0.990$ .
  - o The second source initial calibration verification standard recoveries were within the control limit listed in DoD QSM Table F-3 of  $\pm 20\%$ .
  - o The CCV %Ds were within the control limits listed in DoD QSM Table F-3 of  $\pm 20\%$ .

- o Although not required by the DoD QSM, an MRL standard of 3× the DL is required by the FWQAPP. Low-level MRL standards were analyzed in association with the validated sample and the results affecting sample results were within the reasonable control limits of 70-130%.
- Blanks: The method blank associated with the validated sample had no target compound detects above the control limit listed in DoD QSM Table F-3 of one-half the LOQ.
- Laboratory Control Samples: Recoveries were within the control limits listed in DoD QSM Tables G-12 and G-13 and within the reasonable laboratory control limits for nitroglycerin (76-116%) and PETN (76-116%).
- Surrogate Recovery: As no surrogate control limit was listed in the DoD QSM, surrogate recoveries were assessed against the reasonable laboratory-established control limits of 78-118%. Recoveries were within the control limits.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on sample 079SW-0311-0001-SW. Recoveries were within the control limits listed in DoD QSM Tables G-12 and G-13 and within the reasonable laboratory control limits for nitroglycerin (76-116%) and PETN (76-116%). The RPD were within the control limit listed in DoD QSM Table F-3 of ≤20%.
- Compound Identification: Compound identification was verified for the validated sample. Review of sample chromatograms and retention times indicated no problems with target compound identification.
- Compound Quantification and Reported Detection Limits: As no target compounds were detected in the sample validated at Level IV, compound quantification was verified for a portion of the LCS and MS/MSD results. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD. As there were no reported detects on the primary column, no confirmation analysis was performed.

The reviewer noted a solvent mass on the primary column that eluted over the retention time period encompassing most analytes. The following procedure was adopted in order to assess the potential effect of the interference.

- o As no confirmation analysis was performed, the reviewer compared the height of the mass on the primary column to the primary column initial calibration standards, at the retention times of the affected target compounds.
- o The nondetected target compound results were raised to the level of the calibration standard with the most closely matching response. The LOD was raised to the same concentration.

- o As the raised results exceeded the LOQs, the LOQs and LODs were raised to the same concentration.

The affected results, shown in the table below, were coded with a "\$" qualification code.

| Samples affected by matrix interference |                |                       |                             |                            |
|-----------------------------------------|----------------|-----------------------|-----------------------------|----------------------------|
| Sample                                  | Mass Height    |                       | Raised Concentration (µg/L) | Analytes                   |
|                                         | Standard Level | Concentration (ng/ml) |                             |                            |
| 079SW-0311-0001-SW                      | 4              | 50                    | 1.1                         | HMX                        |
|                                         | 5              | 100                   | 2.2                         | RDX                        |
|                                         | 5              | 100                   | 2.2                         | 1,3,5-trinitrobenzene      |
|                                         | 4              | 50                    | 1.1                         | 1,3-dinitrobenzene         |
|                                         | 5              | 100                   | 2.2                         | nitrobenzene               |
|                                         | 4              | 50                    | 1.1                         | tetryl                     |
|                                         | 4              | 50                    | 1.1                         | 2,4,6-trinitrotoluene      |
|                                         | 4              | 50                    | 1.1                         | 4-amino-2,6-dinitrotoluene |
|                                         | 4              | 50                    | 1.1                         | 2-amino-4,6-dinitrotoluene |
|                                         | 6              | 200                   | 4.4                         | nitroglycerin              |

Target compounds 2,4-dinitrotoluene, 2,6-dinitrotoluene, and nitrobenzene were reported by both Method 8330B and 8270C in sample 079SW-0001-0001-SW. As there were no detects for these compounds; the reviewer chose to report the results with the lowest LODs. The 8330B results for nitrobenzene were rejected, "R," as duplicate data and coded with a "D" qualification code. The 8330B results for 2,4-dinitrotoluene and 2,6-dinitrotoluene were retained.

- System Performance: Review of the raw data indicated no problems with system performance.
- Manual Integrations: A manual integration was performed to adjust the baseline for the sample surrogate. The manual integration was deemed acceptable by the reviewer.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - o Field Blanks and Equipment Rinsates: There was no field blank or equipment rinsate samples associated with the validated sample.
  - o Field Duplicates: There were no explosive field duplicate samples collected for RVAAP-79.



### 10.2.2 Propellants

A total of 2 primary soil samples, 1 primary sediment sample, and 1 primary surface water sample were analyzed by TA-West Sacramento for nitroguanidine by USEPA SW-846 Method 8330 and for nitrocellulose by laboratory SOP WS-WC-0050. The primary surface water sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.
- Calibration:
  - o The nitroguanidine initial calibration average percent %RSD was within the control limit listed in DoD QSM Table F-2 of  $\leq 20\%$ . Nitrocellulose linear regression correlation coefficient was within the control limit listed in the DoD QSM Table F-11 of  $\geq 0.995$ .
  - o The nitroguanidine second source ICV recovery was within the control limits listed in DoD QSM Table F-2 of 85-115%. The nitrocellulose ICV recovery was within the control limits listed in DoD QSM Table F-11 of 90-110%.
  - o The nitroguanidine CCV recoveries were within the control limits listed in DoD QSM Table F-2 of 85-115%. The nitrocellulose CCV recoveries were within the control limits listed in DoD QSM Table F-11 of 90-110%.
  - o Although not required by the DoD QSM, an MRL standard of  $3\times$  the DL is required by the FWQAPP. MRL recoveries associated with the sample were within the reasonable control limits of 70-130%.
- Blanks: The method blanks had no target compound detects above the control limits listed in DoD QSM Tables F-2 and F-11 of one-half the LOQ.
- Laboratory Control Samples: No nitroguanidine or nitrocellulose LCS control limits are listed in the DoD QSM; therefore, the laboratory control limits were used to assess the results. The nitroguanidine recovery was within the control limits of 73-117% for soils. The nitrocellulose recovery was within the laboratory-established control limits of 26-144%.
- Surrogate Recovery: A surrogate was not required for the analysis of nitroguanidine or nitrocellulose.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on sample 079SW-0311-0001-SW for nitroguanidine. The recoveries were within the laboratory-established control limits of 72-121%. The RPD was within the control limit listed in DoD QSM Table F-2 of  $\leq 20\%$ .
- Compound Identification: Compound identification was verified for the sample validated at Level IV. Review of the sample chromatograms and retention times indicated no problems with target compound identification.

- **Compound Quantification and Reported Detection Limits:** Compound quantification was verified for the sample validated at Level IV. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.

Nitroguanidine was not detected in the validated sample; therefore, confirmation analysis was not required.

- **System Performance:** Review of the raw data indicated no problems with system performance.
- **Manual Integrations:** A manual integration was performed for nitroguanidine in an MRL. The manual integration was performed to complete the peak integration. The manual integration was deemed acceptable by the reviewer.
- **Field QC Samples:** Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - o **Field Blanks and Equipment Rinsates:** There was no field blank or equipment rinsate samples associated with the validated sample.
  - o **Field Duplicates:** There were no explosive field duplicate samples collected for RVAAP-79.

### 10.2.3 Polychlorinated Biphenyls (PCBs)

A total of 2 primary soil samples, 1 primary sediment sample, and 1 primary surface water sample were analyzed by TA-North Canton for PCBs by USEPA SW-846 Method 8082. The primary surface water sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.
- **Calibration:** Calibration criteria were met with the exception noted below.
  - o Initial calibration average %RSDs were within the control limit listed in the DoD QSM Table F-2 of  $\leq 20\%$ .
  - o The second source ICV recoveries were within the control limit listed in the DoD QSM Table F-2 of  $\pm 20\%$  for all applicable Aroclors, with the exception of Aroclor 1221 in the ICV associated with sample 079W-0311-0001-SW. One of three peaks for Aroclor 1221 on the CLP-1 column was missed by the data system due to coelution, and was not manually integrated. The CLP-2 column ICV for Aroclor 1221 was acceptable. The nondetected result for Aroclor 1221 in sample 079W-0311-0001-SW was qualified as estimated, "UJ," and coded with a "C" qualification code.

- o The CCV standard recoveries were within the control limit listed in the DoD QSM Table F-2 of  $\pm 20\%$ .
- o MRL standard recoveries were within the reasonable control limit of  $\pm 30\%$ .
- Blanks: The method blank associated with the validated sample had no target compound detects above the control limit listed in the DoD QSM Table F-2 of one-half the LOQ for target compounds.
- Laboratory Control Samples: LCS recoveries for Aroclor 1016 and Aroclor 1260 were within the control limits listed in DoD QSM Table G-16.
- Surrogate Recovery: Recoveries were within the control limits listed in DoD QSM Table G-3 of 40-135%.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed on the validated sample. Evaluation of method accuracy was based on the LCS results.
- Compound Identification: Compound identification was verified for the validated sample. Review of the sample chromatogram, standards, and retention times indicated no problems with target compound identification. The sample was analyzed on two analytical columns; however, the sample had no Aroclor detects.
- Compound Quantification and Reported Detection Limits: Compound quantification was verified for the validated sample. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.
- System Performance: Review of the raw data indicated no problems with system performance.
- Manual Integrations: Some routine manual integrations were performed for the calibration and QC data associated with the sample data, primarily due to poor baseline integration or incorrectly split peaks. All manual integrations reviewed were deemed appropriate by the reviewer.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - o Field Blanks and Equipment Rinsates: No field blank or equipment rinsate samples were associated with the validated sample for RVAAP-79.
  - o Field Duplicates: No field duplicate samples were collected from RVAAP-79.

#### 10.2.4 Pesticides

A total of 2 primary soil samples, 1 primary sediment sample, and 1 primary surface water sample were analyzed by TA-North Canton for pesticides by USEPA SW-846 Method 8081. The primary surface water sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.
- Calibration: Calibration criteria listed in the DoD QSM Table F-2 were met, with the exception noted below.
  - o Initial calibration average %RSDs were within the control limit of  $\leq 20\%$ .
  - o The PEM %breakdown results were within the DoD QSM Table F-2 control limit of  $\leq 15\%$ .
  - o The secondary column had individual toxaphene peaks with %Ds exceeding the control limit which affected the sample data. Column CLP-2 had four outliers at -32.8%, -36.4%, -33.3%, and 72.2%. The nondetected result for toxaphene in sample 079W-0311-0001-SW was qualified as estimated, "UJ," and coded with a "C" qualification code. The remaining second source ICV recoveries were within the control limit of  $\pm 20\%$ .
  - o The CCV standard recoveries affecting sample data were within the control limit of  $\pm 20\%$ .
  - o Although not required by the DoD QSM, an MRL standard of  $3\times$  the DL is required by the FWQAPP. MRL standard recoveries affecting sample data were within the reasonable control limit of  $\pm 30\%$ .
- Blanks: The method blank associated with the validated sample had no target compound detects above the control limit listed in the DoD QSM Table F-2, of one-half the LOQ.
- Laboratory Control Samples: Recoveries were within the control limits listed in DoD QSM Table G-14. Toxaphene was not spiked in the LCS sample.
- Surrogate Recovery: Recoveries were within the control limits listed in DoD QSM Table G-3 of 25-140%.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed on the validated sample. Evaluation of method accuracy was based on the LCS results.
- Compound Identification: Compound identification was verified for the validated sample. Review of the sample chromatograms, standards, and retention times indicated no problems with target compound identification.
- Compound Quantification and Reported Detection Limits: Compound quantification was verified for the validated sample. The LOQs were supported by the low point of the initial

calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.

- System Performance: Review of the raw data indicated no problems with system performance.
- Manual Integrations: Some routine manual integrations were performed for the calibration and QC data, primarily due to poor baseline integration or to re-integrate incorrectly split peaks. All manual integrations reviewed were deemed appropriate by the reviewer.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - o Field Blanks and Equipment Rinsates: No field blank or equipment rinsate samples were associated with the validated sample for RVAAP-79.
  - o Field Duplicate Samples: No field duplicate samples were collected for pesticides. The

#### **10.2.5 Semivolatile Organic Compounds (SVOCs)**

A total of 2 primary soil samples, 1 primary sediment sample, and 1 primary surface water sample were analyzed by TA-North Canton for SVOCs by USEPA Method 8270C. The primary surface water sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.
- GC/MS Tuning: The DFTPP tunes met the method abundance criteria. The sample was analyzed within 12 hours of the DFTPP injection time.
- Calibration: Calibration criteria listed in the DoD QSM Table F-4 were met.
  - o Initial calibration average RRFs and ICV and CCV RRFs were within method control limits of  $\geq 0.050$ . All initial calibration %RSDs were within the control limits of  $\leq 30\%$  for CCCs and  $\leq 15\%$  for remaining compounds, or linear regression  $r^2$  values  $\geq 0.990$ .
  - o All second source ICV standard recoveries affecting sample data were within the control limit of  $\pm 20\%$ .
  - o Continuing calibration %Ds affecting sample data were within the control limit of  $\leq 20\%$ .
  - o Although not required by the DoD QSM, an MRL standard of  $3\times$  the DL is required by the FWQAPP. MRL standard recoveries were within the reasonable control limit of 70-130%.

- Blanks: The method blank associated with the validated sample had numerous target compound detects below the LOQ; however, there were no detects in the validated sample.
- Laboratory Control Samples: Benzoic acid was reported as not detected in the LCS; however, the recovery calculated from the raw data was acceptable. All LCS recoveries were within the control limits listed in DoD QSM Tables G-2 (poor performers) and G-6. The reviewer noted hexachlorocyclopentadiene was not spiked in the LCS.
- Surrogate Recovery: All surrogate recoveries were within the control limits listed in the DoD QSM Tables G-2 (poor performers) or G-3.
- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed on the validated sample. Method accuracy was evaluated based on LCS results.
- Internal Standards Performance: The internal standard area counts and retention times were within the DoD QSM Table F-4 control limits established by the midpoint initial calibration standard:  $\pm 30$  seconds for retention times and  $-50\%$  /  $+100\%$  for internal standard areas.
- Compound Identification: Compound identification was verified for the sample validated at Level IV. Review of the sample chromatograms, retention times, and spectra indicated no problems with target compound identification.
- Compound Quantification and Reported Detection Limits: Compound quantification was verified for the sample validated at Level IV. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J," by the laboratory. Reported nondetects are valid to the LOD. The sample had a 2-ml final extract volume, resulting in an effective 2 $\times$  dilution.

Target compounds 2,4-dinitrotoluene, 2,6-dinitrotoluene, and nitrobenzene were reported by both Method 8330B and 8270C in sample 079SW-0311-0001-SW. As there were no detects for these compounds; the reviewer chose to report the results with the lowest LODs. The 8270C results for 2,4-dinitrotoluene and 2,6-dinitrotoluene were rejected, "R," as duplicate data and coded with a "D" qualification code. The 8270C results for nitrobenzene were retained.

- System Performance: Review of the raw data indicated no problems with system performance.
- Manual Integrations: Some routine manual integrations were performed for the sample, and for calibration and QC data associated with the sample data, primarily to correct for peaks missed or incorrectly chosen by the data system, or to correct poor baseline integration. All manual integrations reviewed were deemed appropriate by the reviewer.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data.

Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

- o Field Blanks and Equipment Rinsates: No field blank or equipment rinsate samples were associated with the validated sample for RVAAP-79.
- o Field Duplicate Samples: There were no SVOC field duplicate samples collected for RVAAP-79.

#### **10.2.6 Volatile Organic Compounds (VOCs)**

A total of 2 primary soil samples, 1 primary sediment sample, and 1 primary surface water sample were analyzed by TA-North Canton for volatile compounds by USEPA Method 8260B. The primary surface water sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.
- GC/MS Tuning: The BFB tunes met the method abundance criteria. The samples were analyzed within 12 hours of the BFB injection time.
- Calibration: Calibration criteria listed in DoD QSM Table F-4 were met. Other calibration outliers are noted below.
  - o Initial calibration average RRFs and ICV and CCV RRFs were within the control limits of  $\geq 0.30$  for chlorobenzene and 1,1,2,2-tetrachloroethane, and  $\geq 0.10$  for chloromethane, bromoform, and 1,1-dichloroethane.
  - o All initial calibration %RSDs were within the method control limits of  $\leq 30\%$  for the CCCs and  $\leq 15\%$  for remaining compounds, or linear regression  $r^2$  values  $\geq 0.990$ .
  - o All second source initial calibration verification standard recoveries were within the control limit of  $\pm 20\%$ .
  - o Continuing calibration %Ds affecting validated sample data were within the method control limit of  $\leq 20\%$ .
  - o Although not required by the DoD QSM, a standard of  $3\times$  the DL is required by the FWQAPP. MRL standard recoveries affecting sample data were within the reasonable control limit of  $\pm 30\%$ , with the exception of a recovery of 68% for acetone in the MRL bracketing the sample. The detect for acetone in sample 079W-0311-0001-SW was qualified as estimated, "J," and coded with a "C" qualification code.
- Blanks: The method blank associated with the validated sample had no target compound detects above the control limits listed in DoD QSM Table F-4 of one-half the LOQ, and no common laboratory contaminants detected above the LOQ

- Laboratory Control Samples: LCS/LCSD recoveries were within the control limits listed in DoD QSM Table G-4, and RPDs were within the QSM Table F-4 control limit of  $\leq 30\%$ .
- Surrogate Recovery: Surrogate recoveries were within the control limits listed in DoD QSM Table G-3.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed on the validated sample. Evaluation of method accuracy was based on the LCS results.
- Internal Standards Performance: The internal standard area counts and retention times were within DoD QSM Table F-4 control limits established by the midpoint initial calibration standard:  $-50\%$  /  $+100\%$  for internal standard areas and  $\pm 30$  seconds for retention times.
- Compound Identification: Compound identification was verified for the validated sample. Review of the sample chromatograms, retention times, and spectra indicated no problems with target compound identification.
- Compound Quantification and Reported Detection Limits: Compound quantification was verified for the sample validated at Level IV. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J," by the laboratory. Reported nondetects are valid to the LOD.
- System Performance: Review of the raw data indicated no problems with system performance.
- Manual integrations: Manual integrations were not performed for the validated sample or for associated calibration and QC samples.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - o Trip Blanks: The validated sample in this SDG had no associated trip blank, as the trip blank listed on the COC was not received by the laboratory.
  - o Field Blanks and Equipment Rinsates: No field blank or equipment rinsate samples were associated with the validated sample for RVAAP-79.
  - o Field Duplicate Samples: No field duplicate samples were collected for VOCs.

#### **10.2.7 Metals**

A total of 136 primary soil samples, 6 soil field duplicate samples, 4 primary sediment samples, 1 sediment field duplicate samples, 4 primary surface water samples, and 1 surface water field duplicate sample were analyzed by TA-North Canton for metals by USEPA Methods 6020 and



7470A/7471A. A total of 9 primary soil samples, 1 primary sediment sample, and 1 primary surface water sample were validated at Level IV.

- MDL studies were not evaluated as part of this project.
- Calibration: Except as noted below, calibration criteria were met.
  - o As per DoD QSM Table F-8, the mass calibrations were  $\leq 0.1$  atomic mass units (amu) of the true values and the resolutions were  $< 0.9$  amu at full width at 10% peak height. Except as noted below, the %RSDs were within the control limit listed in the DoD QSM Table F-8 of  $\leq 5\%$ . The detected results listed in the table below were qualified as estimated, "J," and were coded with an "M" qualification code.

| Samples qualified for tune %RSD outliers |      |                    |
|------------------------------------------|------|--------------------|
| Analyte                                  | %RSD | Qualified Samples  |
| <sup>138</sup> Barium                    | 6.52 | 079SD-0305-0001-SD |

- o Initial calibration: Linear regression correlation coefficients were within the control limit listed in the DoD QSM Tables F-7 and F-8 of  $\geq 0.995$ .
- o The ICPMS ICV and CCV recoveries were within the control limits listed in DoD QSM Table F-8 of 90-110%. The mercury ICV and CCV recoveries were within the control limits listed in DoD QSM Table F-7 of 90-110% and 80-120%, respectively.
- o CRI/MRL recoveries affecting sample results were within the control limits listed in DoD QSM Tables F-7 and F-8 of 80-120%.
- Blanks: Method blanks had no applicable detects above the control limits listed in DoD QSM Tables F-7 and F-8 of one-half the LOQ or greater than one-tenth the amount measured in any sample. CCBs had no detects above the control limit listed in DoD QSM Tables F-7 and F-8 of greater than the LOD.

There were detects and negative results in the method blanks and CCBs affecting sample results. Results listed in the table below associated with negative results were qualified as estimated, "UJ," for nondetects and "J," for detects. In the absence of qualifications with conflicting bias, detects were qualified as estimated with a potential negative bias, "J-." The remaining results listed in the table below were qualified as nondetected, "U," at the LOD if detected below the LOD or at the level of contamination if detected above. All qualified results were coded with a "B" qualification code.

| Sample qualified for blank results |                      |            |                                                                                                                              |
|------------------------------------|----------------------|------------|------------------------------------------------------------------------------------------------------------------------------|
| Analyte                            | Method blank (mg/Kg) | CCB (µg/L) | Qualified samples                                                                                                            |
| Sodium                             | 4.67                 | N/A        | 079SB-0252M-0001-SO                                                                                                          |
| Selenium                           | -0.11                | -1.8       | 079SB-0245M-0001-SO, 079SB-0247M-0001-SO, 079SB-0252M-0001-SO, 079SB-0267M-0001-SO, 079SB-0269M-0001-SO, 079SB-0272M-0001-SO |
| Selenium                           | -0.28                | N/A        | 079SB-0305-0001-SD                                                                                                           |
| Lead                               | N/A                  | 0232       | 079SW-0311-0001-SW                                                                                                           |

- **Interference Check Samples:** ICPMS ICSA and ICSAB recoveries were within the control limits listed in DoD QSM Table F-8 of 80-120%. There were analytes affecting sample results detected in the ICSA above the control limit listed in DoD QSM Table F-8 of >LOD; however, as most of the interferents were present in the samples at concentrations less than 50% that of the ICSA, the samples were not assessed for matrix interference.
- **Laboratory Control Samples:** The recoveries were within the control limits listed in DoD QSM Tables G-18 and G-19 of 80-120%.
- **Laboratory Duplicates:** Laboratory duplicate analyses were performed on samples 079SB-0267M-0001-SO, 079SB-0298M-0001-SO, 079SB0215M-0001-SO, 079SB-0244M-0001-SO, 079SD-0305-0001-SD, 079SB-0264M-0001-SO, 079SD-0305-0001-SD, 079SB-0264M-0001-SO, and 079SW-0311-0001-SW for mercury. Laboratory duplicate analyses were also performed on samples 079SB-0324M-0001-SO, 079SB-0271M-0001-SO, 079SB-0220M-0001-SO, 079SB-0171M-0001-SO, 079SD-0305-0001-SD, and 079SW-0311-0001-SW for the ICPMS analytes. The RPDs control limits listed in DoD QSM Tables F-7 and F-8 was ≤20%. The control limit was only applied for detects ≥5× the LOQ. A control limit of ± the LOQ was applied to detects at concentrations below 5× the LOQ. Except as noted below, the results were within the control limits.

Results listed in the table below, all detects, were qualified as estimated, "J," and coded with an "E" qualification code.

| Samples qualified for laboratory duplicate outliers |           |       |                                                               |
|-----------------------------------------------------|-----------|-------|---------------------------------------------------------------|
| Parent Sample                                       | Analyte   | RPD   | Qualified Samples                                             |
| 079SB-0220M-0001-SO                                 | Barium    | 123%  | 079SB-0217M-0001-SO, 079SB-0234M-0001-SO, 079SB-0236M-0001-SO |
|                                                     | Manganese | 142%  |                                                               |
|                                                     | Sodium    | 70%   |                                                               |
|                                                     | Lead      | 66%   |                                                               |
|                                                     | Thallium  | >±LOQ |                                                               |
| 079SD-0305-0001-SD                                  | Calcium   | 82%   | 079SD-0305-0001-SD                                            |

- **Matrix Spike/Matrix Spike Duplicate:** Matrix spike analyses were performed on samples 079SB-0267M-0001-SO, 079SB-0298M-0001-SO, 079SB-0218M-0001-SO, 079SB-0244M-0001-SO for mercury. Matrix spike analyses were also performed on 079SD-0305-0001-SD and 079SW-0311-0001-SW for the ICPMS analytes. MS/MSD analyses

were performed on samples 079SB-0324M-0001-SO, 079SB-0271M-0001-SO, 079SB-0151M-0001-SO, 079SB-0220M-0001-SO, and 079SB-0171M-0001-SO for the ICPMS analytes. Except as noted below, recoveries were within the control limits listed in DoD QSM Tables G-18 and G-19 of 80-120%. The control limits were not applied when the native sample concentration exceeded the spiked amount by 4× or more. RPDs were within the control limits listed in DoD QSM Tables F-8 and F-9 of ≤20%.

The *National Functional Guidelines* calls for the estimation of nondetected data associated with matrix spike recoveries less than 30% and acceptable post digestion spike recoveries. However, it was the reviewer's professional judgment that the poor antimony recoveries observed for this and other CR Sites was a systemic problem associated with the sample digestion. Therefore, the nondetected antimony results associated with recoveries below 30% were rejected, "R."

The remaining results listed in the table below were qualified as estimated, "J," for detects and, "UJ," for nondetects. When no other qualifications with conflicting bias were assigned to a result, detected results with low recoveries were assigned a negative bias, "J-." The qualified results were coded with a "Q" qualification code.

| Samples qualified for MS/MSD recovery outliers |          |                 |                                                                                                                                             |
|------------------------------------------------|----------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| Parent Sample                                  | Analyte  | %Rs             | Qualified Samples                                                                                                                           |
| 079SB-0342M-0001-SO                            | Arsenic  | 73%, acceptable | 079SB-0245M-0001-SO,<br>079SB-0247M-0001-SO,<br>079SB-0252M-0001-SO,<br>079SB-0267M-0001-SO,<br>079SB-0269M-0001-SO,<br>079SB-0272M-0001-SO |
|                                                | Antimony | 39%, 36%        |                                                                                                                                             |
|                                                | Zinc     | 77%, acceptable |                                                                                                                                             |
|                                                | Selenium | 61%, 63%        |                                                                                                                                             |
| 079SB-0271M-0001-SO                            | Arsenic  | 68%, 76%        |                                                                                                                                             |
|                                                | Antimony | 52%, 56%        |                                                                                                                                             |
|                                                | Selenium | 77%, acceptable |                                                                                                                                             |
| 079SB-0151M-0001-SO                            | Nickel   | 79%, acceptable |                                                                                                                                             |
|                                                | Antimony | 28%, 33%        |                                                                                                                                             |
|                                                | Zinc     | 77%, acceptable |                                                                                                                                             |
|                                                | Selenium | 57%, 64%        |                                                                                                                                             |
| 079SB-0220M-0001-SO                            | Barium   | 79%, 79%        | 079SB-00217M-0001-SO,<br>079SB-0234M-0001-SO,<br>079SB-0236M-0001-SO                                                                        |
|                                                | Nickel   | 77%, acceptable |                                                                                                                                             |
|                                                | Antimony | 26%, 26%        |                                                                                                                                             |
|                                                | Selenium | 64%, 64%        |                                                                                                                                             |
|                                                | Arsenic  | acceptable, 77% |                                                                                                                                             |
|                                                | Copper   | acceptable, 79% |                                                                                                                                             |
| 079SB-0171M-0001-SO                            | Antimony | 23%, 24%        |                                                                                                                                             |
|                                                | Selenium | 70%, 69%        |                                                                                                                                             |
| 079SD-0305-0001-SD                             | Antimony | 49%, N/A        | 079SD-0305-0001-SO                                                                                                                          |

Post digestion spike analyses were performed on samples 079SB-0324M-0001-SO, 079SB-0271M-0001-SO, 079SB-0171M-0001-SO, 079SB-0220M-0001-SO, 079SB-0151M-0001-SO, 079SB-0305-0001-SO and 079SW-0311-0001-SW for the ICPMS

analytes. All recoveries were within the control limits listed in DoD QSM Table F-8 of 75-125%.

- Serial Dilution: Serial dilution analyses were performed on 079SB-0324M-0001-SO, 079SB-0271M-0001-SO, 079SB-0171M-0001-SO, 079SB-0220M-0001-SO, 079SB-0151M-0001-SO, 079SD-0305-0001-SO, and 079SW-0311-0001-SW. Except as noted below, serial dilution %Ds were within the control limits listed in DoD QSM Table F-8 of  $\leq 10\%$ . The serial dilution control limit is only applicable when the original sample concentration is minimally  $\geq 50\times$  the LOQ.

Results listed in the table below were qualified as estimated, "J," and were coded with an "A" qualification code.

| Samples qualified for serial dilution %D outliers |         |     |                                                                                                                              |
|---------------------------------------------------|---------|-----|------------------------------------------------------------------------------------------------------------------------------|
| Parent Sample                                     | Analyte | %Ds | Qualified Samples                                                                                                            |
| 079SB-0342M-0001-SO                               | Zinc    | 12% | 079SB-0245M-0001-SO, 079SB-0247M-0001-SO, 079SB-0252M-0001-SO, 079SB-0267M-0001-SO, 079SB-0269M-0001-SO, 079SB-0272M-0001-SO |
| 079SB-0271M-0001-SO                               | Arsenic | 12% |                                                                                                                              |
|                                                   | Zinc    | 16% |                                                                                                                              |
| 079SB-0171M-0001-SO                               | Zinc    | 12% | 079SB-00217M-0001-SO, 079SB-0234M-0001-SO, 079SB-0236M-0001-SO                                                               |

- Internal Standards: All ICPMS sample internal standards intensities were within 30-120% of those in the ICV, as per the DOD QSM Table F-8. Yttrium ( $^{89}\text{Y}$ ) was spiked into the QC samples but not the site samples.
- Sample Result Verification: For Level IV validation, calculations were verified and the sample results reported on the sample result summary were verified against the raw data. In order to report the analyte within the linear range of the calibration, manganese in samples 079SB-0269M-0001-SO and 079SB-0236M-0001-SO was reported from a  $5\times$  dilution. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.

Due to instrument limitations, the mercury raw data did not list the sample absorbances; therefore, the reviewer was not able to calculate the sample results from the raw data. Additionally, the ICPMS raw data did not list absorbances for the ICV, CCV, ICSAB, and MRL samples, and the %R was listed instead of the sample concentrations.

- Manual Integrations: No manual integrations were noted in the mercury analyses.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

- o Field Blanks and Equipment Rinsates: There were no field blanks or equipment rinsates associated with the validated site samples.
- o Field Duplicate Samples: A total of eight field duplicate samples were collected and analyzed for metals. The RPD criterion in FWQAPP Table 3-1 of  $\leq 50\%$  was only applied when results for common detects were  $\geq 5\times$  the LOQ. In cases where results were  $< 5\times$  the LOQ, the reasonable control limit of  $\pm$  the LOQ was applied. All results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

### 10.3 Data Usability

According to the Draft Site Inspection Report prepared by ECC, the field completeness was 100%.

Two metals data points were rejected for poor MS/MSD recoveries. In instances where a data point had multiple results, the reviewer chose the most technically sound result to report and rejected the remaining data points. Data points rejected to choose the most technically sound data do not affect data quality or usability and are not included in the table below. Data detects between the DL and the LOQ were included in the table below for informational purposes only.

**Table 37.** Analytical completeness for RVAAP-79 validated primary data

|                |                  |                     | Number of Results |          |                             |                           |                               | Percent Complete |
|----------------|------------------|---------------------|-------------------|----------|-----------------------------|---------------------------|-------------------------------|------------------|
| Analysis       | Samples Analyzed | Analytes per Sample | Total             | Rejected | LODs/DLs Exceeding Criteria | Estimated for QC Outliers | Estimated for Detects $< LOQ$ |                  |
| Explosives     | 1                | 16                  | 15                | 0        | 0/0                         | 0                         | 0                             | 100%             |
| Nitroguanidine | 1                | 1                   | 1                 | 0        | 0/0                         | 0                         | 0                             | 100%             |
| Nitrocellulose | 1                | 1                   | 1                 | 0        | 0/0                         | 0                         | 0                             | 100%             |
| PCBs           | 1                | 7                   | 7                 | 0        | 0/0                         | 1                         | 0                             | 100%             |
| Pesticides     | 1                | 21                  | 21                | 0        | 0/0                         | 1                         | 0                             | 100%             |
| SVOCs          | 1                | 66                  | 64                | 0        | 0/0                         | 0                         | 0                             | 100%             |
| VOCs           | 1                | 35                  | 35                | 0        | 0/0                         | 1                         | 1                             | 100%             |
| Metals         | 11               | 23                  | 253               | 2        | 0/0                         | 61                        | 36                            | 99.2%            |
| <b>Totals</b>  |                  |                     | <b>397</b>        | <b>2</b> | <b>0/0</b>                  | <b>64</b>                 | <b>37</b>                     | <b>99.5%</b>     |

The analytical completeness goal for the project established in the FWQAPP was 90% for each method. The completeness goal was met for all analyses.

#### 10.4 Primary and Field Duplicate Comparison Summary

Primary and field duplicate sample comparisons were considered to be in good agreement as all results were within the FWQAPP control limit of 50% for soils or +/- the LOQ for results below the LOQ. Rejected results are not included in the table below. All results (182) were within the control limits.

All field duplicate comparison results are presented in Appendix C.

**Table 38.** RVAAP-79 primary/field duplicate sample comparison summary

| Method | Primary/Field Duplicate Pairs | Number of Analytes | Total Analytes | Number of results within control limits | Number of results above control limit |
|--------|-------------------------------|--------------------|----------------|-----------------------------------------|---------------------------------------|
| Metals | 8                             | 23                 | 182            | 182                                     | 0                                     |

#### 10.5 Specific Data Concerns

Specific concerns regarding the data are noted below:

- Due to instrument limitations, the mercury raw data did not list the sample absorbances; therefore, the reviewer was not able to calculate the sample results from the raw data. Additionally, the ICPMS raw data did not list absorbances for the ICV, CCV, ICSAB, and MRL samples, and the %R was listed instead of the sample concentrations.

In order to avoid repetition of the issues noted above, the following actions should be taken:

- MEC<sup>x</sup> recommends the laboratory be requested to alter the IPCMS and mercury instrument set up in order to report mercury and ICPMS raw absorbances and ICPMS ICV, CCV, ICSAB, and MRL concentrations.

## **11 CONCLUSIONS**

### **11.1 Data Qualification Summary**

A summary of the qualifications applied to the data can be found in Appendix B as can a summary of all rejected results.

### **11.2 Primary and Field Duplicate Summary**

Site-specific comparison summaries can be found in Sections 4 through 10. A summary of the results can be found in Appendix C.

### **11.3 Data Usability**

Site-specific data usability summaries can be found in Sections 4 through 10.

## **12 RECOMMENDATIONS**

Specific concerns regarding the data are noted below:

- A few LODs and DLs exceeded the project criteria. These exceedances are detailed in in the AOC-specific sections.
- Matrix interference was present in the primary column explosive analyses of the validated the surface water sample. Target compounds were not detected on the primary column in most of the samples; therefore, no confirmation analyses were performed. The final data user should be aware that the mass may have masked some target compound peaks.
- Due to instrument limitations, the mercury raw data did not list the sample absorbances; therefore, the reviewer was not able to calculate the sample results from the raw data. Additionally, the ICPMS raw data did not list absorbances for the ICV, CCV, ICSAB, and MRL samples, and the %R was listed instead of the sample concentrations.

In order to avoid repetition of the issues noted above, the following actions should be taken:

- When significant matrix interference is noted in primary column, MEC<sup>x</sup> suggests the laboratory be requested to perform confirmation analyses even when there are no primary column detects to confirm, as the matrix interference may suppress identification on the primary column. MEC<sup>x</sup> recommends all surface water samples be validated at Level IV in order to assess if they were affected by matrix interference.
- MEC<sup>x</sup> recommends the laboratory be requested to alter the IPCMS and mercury instrument set up in order to report mercury and ICPMS raw absorbances and ICPMS ICV, CCV, ICSAB, and MRL concentrations.



## **13 REFERENCES**

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Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Revision 6. United States Environmental Protection Agency. February 2007.

**APPENDIX A**  
**Qualified Sample Result Forms**

**Qualification Code Reference Table**

| Qualifier | Organics                                                                                                                          | Inorganics                                                                                                                        |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| H         | Holding times were exceeded.                                                                                                      | Holding times were exceeded.                                                                                                      |
| S         | Surrogate recovery was outside QC limits.                                                                                         | The sequence or number of standards used for the calibration was incorrect.                                                       |
| C         | Calibration %RSD or %D was noncompliant.                                                                                          | Correlation coefficient was noncompliant.                                                                                         |
| R         | Calibration RRF was noncompliant.                                                                                                 | %R for calibration is not within control limits.                                                                                  |
| B         | Presumed contamination as indicated by the preparation (method) blank results.                                                    | Presumed contamination as indicated by the preparation (method) or calibration blank results.                                     |
| L         | Laboratory Control Sample/Control Sample Duplicate %R was not within control limits.                                              | Laboratory Control Sample %R was not within control limits.                                                                       |
| Q         | MS/MSD recovery was poor or RPD high.                                                                                             | MS recovery was poor.                                                                                                             |
| E         | Not applicable                                                                                                                    | Duplicates showed poor agreement.                                                                                                 |
| I         | Internal standard performance was unsatisfactory.                                                                                 | ICP or ICPMS ICS results were unsatisfactory.                                                                                     |
| A         | Not applicable                                                                                                                    | ICP Serial Dilution %D were not within control limits.                                                                            |
| M         | Tuning (BFB or DFTPP) was noncompliant.                                                                                           | ICPMS tuning was noncompliant                                                                                                     |
| T         | Presumed contamination as indicated by the trip blank results.                                                                    | Not applicable                                                                                                                    |
| +         | False positive – reported compound was not present.                                                                               | False positive – reported compound was not present.                                                                               |
| -         | False negative – compound was present but not reported.                                                                           | False negative – compound was present but not reported.                                                                           |
| F         | Presumed contamination as indicated by the FB or ER results.                                                                      | Presumed contamination as indicated by the FB or ER results.                                                                      |
| \$        | Reported result or other information was incorrect.                                                                               | Reported result or other information was incorrect.                                                                               |
| ?         | TIC identity or reported retention time has been changed.                                                                         | Not applicable.                                                                                                                   |
| D         | The analysis with this flag should not be used because another more technically sound analysis is available.                      | The analysis with this flag should not be used because another more technically sound analysis is available.                      |
| P         | Instrument performance for pesticides was poor.                                                                                   | Post Digestion Spike recovery was not within control limits.                                                                      |
| *II, *III | A deficiency was found that has been described in the "Sample Management," section (*II) or the "Method Analyses" section (*III). | A deficiency was found that has been described in the "Sample Management," section (*II) or the "Method Analyses" section (*III). |

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Validated Sample Result Forms for Sampling : Ravenna Army  
Ammunition Plant Ravenna, Ohio  
Remediation Investigation Compliance Restoration Site: RVAAP-68  
Electric Substations

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*Sample Delivery Group:* 240-17317-1

*Analysis Method* E353.2

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|                         |               |                     |            |                             |                      |                             |                                  |
|-------------------------|---------------|---------------------|------------|-----------------------------|----------------------|-----------------------------|----------------------------------|
| <b>Sample Name</b>      |               | 068SS-0003M-0001-SO |            | <b>AnalysisType:</b> N      |                      |                             |                                  |
| <b>Lab Sample Name:</b> |               | 240-17317-7         |            | <b>Validation Level:</b> IV |                      |                             |                                  |
| <b>Analyte</b>          | <b>CAS No</b> | <b>Result Value</b> | <b>LOQ</b> | <b>Result</b>               | <b>Lab Qualifier</b> | <b>Validation Qualifier</b> | <b>Validation Qualifier Code</b> |
| NITROCELLULOSE          | 9004-70-0     | 0.88                | 4.8        | MG/KG                       | J                    | J                           | Q                                |

Sample Delivery Group: 240-17317-1

Analysis Method SW6020

| Sample Name      |           | 068SS-0003M-0001-SO |       | AnalysisType: N      |               |                      |                           |
|------------------|-----------|---------------------|-------|----------------------|---------------|----------------------|---------------------------|
| Lab Sample Name: |           | 240-17317-7         |       | Validation Level: IV |               |                      |                           |
| Analyte          | CAS No    | Result Value        | LOQ   | Result               | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| ALUMINUM         | 7429-90-5 | 13000               | 8.5   | MG/KG                | J             |                      |                           |
| ANTIMONY         | 7440-36-0 | 2.16                | 0.85  | MG/KG                | D J           | J-                   | Q                         |
| ARSENIC          | 7440-38-2 | 12                  | 0.43  | MG/KG                |               |                      |                           |
| BARIUM           | 7440-39-3 | 90.5                | 2.1   | MG/KG                | D 4           |                      |                           |
| BERYLLIUM        | 7440-41-7 | 0.87                | 0.085 | MG/KG                |               |                      |                           |
| CADMIUM          | 7440-43-9 | 0.12                | 0.17  | MG/KG                | J             | J                    |                           |
| CALCIUM          | 7440-70-2 | 3900                | 170   | MG/KG                | J             |                      |                           |
| CHROMIUM         | 7440-47-3 | 22                  | 0.43  | MG/KG                |               |                      |                           |
| COBALT           | 7440-48-4 | 13                  | 0.085 | MG/KG                |               |                      |                           |
| COPPER           | 7440-50-8 | 18                  | 0.34  | MG/KG                |               |                      |                           |
| IRON             | 7439-89-6 | 29800               | 210   | MG/KG                | D 4           |                      |                           |
| LEAD             | 7439-92-1 | 26.3                | 1.3   | MG/KG                | D             |                      |                           |
| MAGNESIUM        | 7439-95-4 | 3700                | 85    | MG/KG                |               |                      |                           |
| MANGANESE        | 7439-96-5 | 386                 | 2.1   | MG/KG                | D 4           | J                    | E                         |
| NICKEL           | 7440-02-0 | 28                  | 0.43  | MG/KG                |               |                      |                           |
| POTASSIUM        | 7440-09-7 | 1200                | 85    | MG/KG                | J             |                      |                           |
| SELENIUM         | 7782-49-2 | 0.57                | 0.43  | MG/KG                |               | J                    | M                         |
| SILVER           | 7440-22-4 | 0.029               | 0.085 | MG/KG                | J             | J                    |                           |
| SODIUM           | 7440-23-5 | 52                  | 85    | MG/KG                | J             | U                    | F                         |
| THALLIUM         | 7440-28-0 | 7.97                | 0.85  | MG/KG                | D             |                      |                           |
| VANADIUM         | 7440-62-2 | 21                  | 0.43  | MG/KG                |               |                      |                           |
| ZINC             | 7440-66-6 | 63                  | 3.4   | MG/KG                |               |                      |                           |

Analysis Method SW7471A

| Sample Name      |           | 068SS-0003M-0001-SO |       | AnalysisType: N      |               |                      |                           |
|------------------|-----------|---------------------|-------|----------------------|---------------|----------------------|---------------------------|
| Lab Sample Name: |           | 240-17317-7         |       | Validation Level: IV |               |                      |                           |
| Analyte          | CAS No    | Result Value        | LOQ   | Result               | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| MERCURY          | 7439-97-6 | 0.046               | 0.098 | MG/KG                | J             | U                    | B                         |

*Sample Delivery Group: 240-17317-1*

*Analysis Method SW8082*

|                         |               |                     |            |                             |                      |                             |                                  |
|-------------------------|---------------|---------------------|------------|-----------------------------|----------------------|-----------------------------|----------------------------------|
| <b>Sample Name</b>      |               | 068SS-0003M-0001-SO |            | <b>AnalysisType:</b> N      |                      |                             |                                  |
| <b>Lab Sample Name:</b> |               | 240-17317-7         |            | <b>Validation Level:</b> IV |                      |                             |                                  |
| <b>Analyte</b>          | <b>CAS No</b> | <b>Result Value</b> | <b>LOQ</b> | <b>Result</b>               | <b>Lab Qualifier</b> | <b>Validation Qualifier</b> | <b>Validation Qualifier Code</b> |
| PCB-1016                | 12674-11-2    | 25                  | 65         | UG/KG                       | U                    | U                           |                                  |
| PCB-1221                | 11104-28-2    | 25                  | 50         | UG/KG                       | U                    | U                           |                                  |
| PCB-1232                | 11141-16-5    | 25                  | 45         | UG/KG                       | U                    | U                           |                                  |
| PCB-1242                | 53469-21-9    | 25                  | 40         | UG/KG                       | U                    | U                           |                                  |
| PCB-1248                | 12672-29-6    | 25                  | 55         | UG/KG                       | U                    | U                           |                                  |
| PCB-1254                | 11097-69-1    | 25                  | 55         | UG/KG                       | U                    | U                           |                                  |
| PCB-1260                | 11096-82-5    | 25                  | 55         | UG/KG                       | U                    | U                           |                                  |

# Sample Delivery Group: 240-17317-1

## Analysis Method SW8260B

| <b>Sample Name</b>        |            | 068SS-0003M-0001-SO |     | <b>AnalysisType:</b> N      |               |                      |                           |
|---------------------------|------------|---------------------|-----|-----------------------------|---------------|----------------------|---------------------------|
| <b>Lab Sample Name:</b>   |            | 240-17317-7         |     | <b>Validation Level:</b> IV |               |                      |                           |
| Analyte                   | CAS No     | Result Value        | LOQ | Result                      | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| 1,1,1-TRICHLOROETHANE     | 71-55-6    | 0.8                 | 4   | UG/KG                       | U             | U                    |                           |
| 1,1,2,2-TETRACHLOROETHANE | 79-34-5    | 0.4                 | 4   | UG/KG                       | U             | U                    |                           |
| 1,1,2-TRICHLOROETHANE     | 79-00-5    | 0.4                 | 4   | UG/KG                       | U             | U                    |                           |
| 1,1-DICHLOROETHANE        | 75-34-3    | 0.4                 | 4   | UG/KG                       | U             | U                    |                           |
| 1,1-DICHLOROETHENE        | 75-35-4    | 0.8                 | 4   | UG/KG                       | U             | U                    |                           |
| 1,2-DIBROMOETHANE         | 106-93-4   | 0.8                 | 4   | UG/KG                       | U             | U                    |                           |
| 1,2-DICHLOROETHANE        | 107-06-2   | 0.4                 | 4   | UG/KG                       | U             | U                    |                           |
| 1,2-DICHLOROPROPANE       | 78-87-5    | 0.8                 | 4   | UG/KG                       | U             | U                    |                           |
| 2-HEXANONE                | 591-78-6   | 0.8                 | 16  | UG/KG                       | U             | U                    |                           |
| ACETONE                   | 67-64-1    | 5                   | 16  | UG/KG                       | U             | U                    |                           |
| BENZENE                   | 71-43-2    | 0.4                 | 4   | UG/KG                       | U             | U                    |                           |
| BROMOCHLOROMETHANE        | 74-97-5    | 0.8                 | 4   | UG/KG                       | U             | U                    |                           |
| BROMODICHLOROMETHANE      | 75-27-4    | 0.4                 | 4   | UG/KG                       | U J           | U                    |                           |
| BROMOFORM                 | 75-25-2    | 0.4                 | 4   | UG/KG                       | U             | U                    |                           |
| BROMOMETHANE              | 74-83-9    | 0.8                 | 4   | UG/KG                       | U             | U                    |                           |
| CARBON DISULFIDE          | 75-15-0    | 0.69                | 4   | UG/KG                       | J             | J                    |                           |
| CARBON TETRACHLORIDE      | 56-23-5    | 0.4                 | 4   | UG/KG                       | U             | U                    |                           |
| CHLOROBENZENE             | 108-90-7   | 0.4                 | 4   | UG/KG                       | U J           | UJ                   | Q                         |
| CHLOROETHANE              | 75-00-3    | 0.8                 | 4   | UG/KG                       | U             | U                    |                           |
| CHLOROFORM                | 67-66-3    | 0.4                 | 4   | UG/KG                       | U             | U                    |                           |
| CHLOROMETHANE             | 74-87-3    | 0.4                 | 4   | UG/KG                       | U             | U                    |                           |
| CIS-1,3-DICHLOROPROPENE   | 10061-01-5 | 0.4                 | 4   | UG/KG                       | U J           | U                    |                           |
| DIBROMOCHLOROMETHANE      | 124-48-1   | 0.8                 | 4   | UG/KG                       | U             | U                    |                           |
| ETHYLBENZENE              | 100-41-4   | 0.4                 | 4   | UG/KG                       | U J           | UJ                   | Q                         |
| METHYL ETHYL KETONE       | 78-93-3    | 1.6                 | 16  | UG/KG                       | U             | U                    |                           |
| METHYL ISOBUTYL KETONE    | 108-10-1   | 0.8                 | 16  | UG/KG                       | U             | U                    |                           |
| METHYLENE CHLORIDE        | 75-09-2    | 0.8                 | 4   | UG/KG                       | U             | U                    |                           |
| STYRENE                   | 100-42-5   | 0.4                 | 4   | UG/KG                       | U J           | UJ                   | Q                         |

*Sample Delivery Group: 240-17317-1*

|                           |            |     |   |       |     |    |   |
|---------------------------|------------|-----|---|-------|-----|----|---|
| TETRACHLOROETHYLENE       | 127-18-4   | 0.8 | 4 | UG/KG | U J | U  |   |
| TOLUENE                   | 108-88-3   | 0.4 | 4 | UG/KG | U J | U  |   |
| TOTAL 1,2-DICHLOROETHENE  | 540-59-0   | 0.8 | 8 | UG/KG | U   | U  |   |
| TRANS-1,3-DICHLOROPROPENE | 10061-02-6 | 0.8 | 4 | UG/KG | U   | U  |   |
| TRICHLOROETHYLENE         | 79-01-6    | 0.4 | 4 | UG/KG | U   | U  |   |
| VINYL CHLORIDE            | 75-01-4    | 0.4 | 4 | UG/KG | U   | U  |   |
| XYLENES, TOTAL            |            | 1.2 | 8 | UG/KG | U J | UJ | Q |



# Sample Delivery Group: 240-17317-1

## Analysis Method SW8270C

| <b>Sample Name</b>         |           | 068SS-0003M-0001-SO |     | <b>AnalysisType:</b> N      |               |                      |                           |
|----------------------------|-----------|---------------------|-----|-----------------------------|---------------|----------------------|---------------------------|
| <b>Lab Sample Name:</b>    |           | 240-17317-7         |     | <b>Validation Level:</b> IV |               |                      |                           |
| Analyte                    | CAS No    | Result Value        | LOQ | Result                      | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| 1,2,4-TRICHLOROBENZENE     | 120-82-1  | 27                  | 50  | UG/KG                       | U             | U                    |                           |
| 1,2-DICHLOROBENZENE        | 95-50-1   | 27                  | 50  | UG/KG                       | U             | U                    |                           |
| 1,3-DICHLOROBENZENE        | 541-73-1  | 27                  | 50  | UG/KG                       | U             | U                    |                           |
| 1,4-DICHLOROBENZENE        | 106-46-7  | 27                  | 50  | UG/KG                       | U             | U                    |                           |
| 2,4,5-TRICHLOROPHENOL      | 95-95-4   | 27                  | 150 | UG/KG                       | U             | U                    |                           |
| 2,4,6-TRICHLOROPHENOL      | 88-06-2   | 80                  | 150 | UG/KG                       | U             | U                    |                           |
| 2,4-DICHLOROPHENOL         | 120-83-2  | 27                  | 150 | UG/KG                       | U             | U                    |                           |
| 2,4-DIMETHYLPHENOL         | 105-67-9  | 80                  | 150 | UG/KG                       | U             | U                    |                           |
| 2,4-DINITROPHENOL          | 51-28-5   | 80                  | 330 | UG/KG                       | U             | UJ                   | C                         |
| 2,4-DINITROTOLUENE         | 121-14-2  | 27                  | 200 | UG/KG                       | U             | U                    |                           |
| 2,6-DINITROTOLUENE         | 606-20-2  | 27                  | 200 | UG/KG                       | U             | U                    |                           |
| 2-CHLORONAPHTHALENE        | 91-58-7   | 3.3                 | 50  | UG/KG                       | U             | U                    |                           |
| 2-CHLOROPHENOL             | 95-57-8   | 27                  | 50  | UG/KG                       | U             | U                    |                           |
| 2-METHYLNAPHTHALENE        | 91-57-6   | 30                  | 6.7 | UG/KG                       |               |                      |                           |
| 2-METHYLPHENOL (O-CRESOL)  | 95-48-7   | 80                  | 200 | UG/KG                       | U             | U                    |                           |
| 2-NITROANILINE             | 88-74-4   | 27                  | 200 | UG/KG                       | U             | U                    |                           |
| 2-NITROPHENOL              | 88-75-5   | 27                  | 50  | UG/KG                       | U             | U                    |                           |
| 3,3'-DICHLOROBENZIDINE     | 91-94-1   | 80                  | 100 | UG/KG                       | U J           | UJ                   | Q                         |
| 3-NITROANILINE             | 99-09-2   | 80                  | 200 | UG/KG                       | U             | U                    |                           |
| 4,6-DINITRO-2-METHYLPHENOL | 534-52-1  | 80                  | 150 | UG/KG                       | U             | UJ                   | C                         |
| 4-BROMOPHENYL PHENYL ETHE  | 101-55-3  | 27                  | 50  | UG/KG                       | U             | U                    |                           |
| 4-CHLORO-3-METHYLPHENOL    | 59-50-7   | 27                  | 150 | UG/KG                       | U             | U                    |                           |
| 4-CHLOROANILINE            | 106-47-8  | 27                  | 150 | UG/KG                       | U J           | U                    |                           |
| 4-CHLOROPHENYL PHENYL ETH  | 7005-72-3 | 27                  | 50  | UG/KG                       | U             | U                    |                           |
| 4-NITROANILINE             | 100-01-6  | 27                  | 200 | UG/KG                       | U             | U                    |                           |
| 4-NITROPHENOL              | 100-02-7  | 80                  | 330 | UG/KG                       | U             | U                    |                           |
| ACENAPHTHENE               | 83-32-9   | 17                  | 6.7 | UG/KG                       |               |                      |                           |
| ACENAPHTHYLENE             | 208-96-8  | 9.2                 | 6.7 | UG/KG                       |               |                      |                           |

## Sample Delivery Group: 240-17317-1

|                             |          |     |     |       |   |    |   |
|-----------------------------|----------|-----|-----|-------|---|----|---|
| ANTHRACENE                  | 120-12-7 | 48  | 6.7 | UG/KG |   |    |   |
| BENZO(A)ANTHRACENE          | 56-55-3  | 270 | 6.7 | UG/KG |   |    |   |
| BENZO(A)PYRENE              | 50-32-8  | 330 | 6.7 | UG/KG | J |    |   |
| BENZO(B)FLUORANTHENE        | 205-99-2 | 520 | 6.7 | UG/KG |   |    |   |
| BENZO(G,H,I)PERYLENE        | 191-24-2 | 260 | 6.7 | UG/KG | J |    |   |
| BENZO(K)FLUORANTHENE        | 207-08-9 | 180 | 6.7 | UG/KG | M |    |   |
| BENZOIC ACID                | 65-85-0  | 330 | 660 | UG/KG | U | UJ | Q |
| BENZYL ALCOHOL              | 100-51-6 | 448 | 330 | UG/KG |   |    |   |
| BENZYL BUTYL PHTHALATE      | 85-68-7  | 27  | 50  | UG/KG | U | U  |   |
| BIS(2-CHLOROETHOXY) METHA   | 111-91-1 | 27  | 100 | UG/KG | U | U  |   |
| BIS(2-CHLOROETHYL) ETHER    | 111-44-4 | 3.3 | 100 | UG/KG | U | U  |   |
| BIS(2-CHLOROISOPROPYL) ETHE | 108-60-1 | 27  | 100 | UG/KG | U | U  |   |
| BIS(2-ETHYLHEXYL) PHTHALAT  | 117-81-7 | 34  | 50  | UG/KG | J | U  | B |
| CARBAZOLE                   | 86-74-8  | 44  | 50  | UG/KG | J | J  |   |
| CHRYSENE                    | 218-01-9 | 340 | 6.7 | UG/KG |   |    |   |
| CRESOLS, M & P              |          | 80  | 400 | UG/KG | U | U  |   |
| DIBENZ(A,H)ANTHRACENE       | 53-70-3  | 57  | 6.7 | UG/KG |   | J  | C |
| DIBENZOFURAN                | 132-64-9 | 15  | 50  | UG/KG |   |    |   |
| DIETHYL PHTHALATE           | 84-66-2  | 22  | 50  | UG/KG | J | J  |   |
| DIMETHYL PHTHALATE          | 131-11-3 | 27  | 50  | UG/KG | U | U  |   |
| DI-N-BUTYL PHTHALATE        | 84-74-2  | 19  | 50  | UG/KG | J | J  |   |
| DI-N-OCTYLPHTHALATE         | 117-84-0 | 27  | 50  | UG/KG | U | U  |   |
| FLUORANTHENE                | 206-44-0 | 650 | 6.7 | UG/KG | J |    |   |
| FLUORENE                    | 86-73-7  | 16  | 6.7 | UG/KG |   |    |   |
| HEXACHLOROBENZENE           | 118-74-1 | 3.3 | 6.7 | UG/KG | U | U  |   |
| HEXACHLOROBUTADIENE         | 87-68-3  | 27  | 50  | UG/KG | U | U  |   |
| HEXACHLOROCYCLOPENTADIE     | 77-47-4  | 27  | 330 | UG/KG | U | U  |   |
| HEXACHLOROETHANE            | 67-72-1  | 27  | 50  | UG/KG | U | UJ | C |
| INDENO(1,2,3-C,D)PYRENE     | 193-39-5 | 220 | 6.7 | UG/KG |   |    |   |
| ISOPHORONE                  | 78-59-1  | 16  | 50  | UG/KG |   |    |   |
| NAPHTHALENE                 | 91-20-3  | 24  | 6.7 | UG/KG |   |    |   |
| NITROBENZENE                | 98-95-3  | 3.3 | 100 | UG/KG | U | U  |   |
| N-NITROSODI-N-PROPYLAMINE   | 621-64-7 | 27  | 50  | UG/KG | U | U  |   |

## Sample Delivery Group: 240-17317-1

|                        |          |     |     |       |   |   |   |
|------------------------|----------|-----|-----|-------|---|---|---|
| N-NITROSODIPHENYLAMINE | 86-30-6  | 27  | 50  | UG/KG | U | R | C |
| PENTACHLOROPHENOL      | 87-86-5  | 80  | 150 | UG/KG | U | U |   |
| PHENANTHRENE           | 85-01-8  | 250 | 6.7 | UG/KG |   |   |   |
| PHENOL                 | 108-95-2 | 27  | 50  | UG/KG | U | U |   |
| PYRENE                 | 129-00-0 | 480 | 6.7 | UG/KG |   |   |   |

## Analysis Method SW8330B

**Sample Name** 068SS-0003M-0001-SO

**AnalysisType:** N

**Lab Sample Name:** 240-17317-7

**Validation Level:** IV

| Analyte                    | CAS No     | Result Value | LOQ   | Result | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
|----------------------------|------------|--------------|-------|--------|---------------|----------------------|---------------------------|
| 1,3,5-TRINITROBENZENE      | 99-35-4    | 0.05         | 0.25  | MG/KG  | U             | U                    |                           |
| 1,3-DINITROBENZENE         | 99-65-0    | 0.05         | 0.25  | MG/KG  | U             | U                    |                           |
| 2,4,6-TRINITROTOLUENE      | 118-96-7   | 0.05         | 0.25  | MG/KG  | U             | U                    |                           |
| 2,4-DINITROTOLUENE         | 121-14-2   | 0.05         | 0.25  | MG/KG  | U             | R                    | D                         |
| 2,6-DINITROTOLUENE         | 606-20-2   | 0.05         | 0.25  | MG/KG  | U             | R                    | D                         |
| 2-AMINO-4,6-DINITROTOLUENE | 35572-78-2 | 0.05         | 0.25  | MG/KG  | U             | U                    |                           |
| 2-NITROTOLUENE             | 88-72-2    | 0.05         | 0.25  | MG/KG  | U             | UJ                   | C                         |
| 3-NITROTOLUENE             | 99-08-1    | 0.05         | 0.25  | MG/KG  | U             | U                    |                           |
| 4-AMINO-2,6-DINITROTOLUENE | 19406-51-0 | 0.05         | 0.25  | MG/KG  | U             | U                    |                           |
| 4-NITROTOLUENE             | 99-99-0    | 0.05         | 0.25  | MG/KG  | U             | U                    |                           |
| HMX                        | 2691-41-0  | 0.05         | 0.25  | MG/KG  | U             | U                    |                           |
| NITROBENZENE               | 98-95-3    | 0.05         | 0.25  | MG/KG  | U             | R                    | D                         |
| NITROGLYCERIN              | 55-63-0    | 0.25         | 0.5   | MG/KG  | U             | U                    |                           |
| NITROGUANIDINE             | 556-88-7   | 0.04         | 0.025 | MG/KG  | U             | U                    |                           |
| PETN                       | 78-11-5    | 0.25         | 0.5   | MG/KG  | U             | U                    |                           |
| RDX                        | 121-82-4   | 0.05         | 0.25  | MG/KG  | U             | UJ                   | C                         |
| TETRYL                     | 479-45-8   | 0.05         | 0.25  | MG/KG  | J             | U                    | B                         |

Sample Delivery Group: 240-17422-1

Analysis Method SW6020

| Sample Name      |           | 068SD-0009-0001-SO |       | AnalysisType: N      |               |                      |                           |
|------------------|-----------|--------------------|-------|----------------------|---------------|----------------------|---------------------------|
| Lab Sample Name: |           | 240-17422-9        |       | Validation Level: IV |               |                      |                           |
| Analyte          | CAS No    | Result Value       | LOQ   | Result               | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| ALUMINUM         | 7429-90-5 | 12000              | 9.6   | MG/KG                | J             |                      |                           |
| ANTIMONY         | 7440-36-0 | 0.13               | 0.19  | MG/KG                | J             | J-                   | Q                         |
| ARSENIC          | 7440-38-2 | 16                 | 0.48  | MG/KG                |               | J-                   | Q                         |
| BARIUM           | 7440-39-3 | 78                 | 0.48  | MG/KG                |               |                      |                           |
| BERYLLIUM        | 7440-41-7 | 0.76               | 0.096 | MG/KG                |               |                      |                           |
| CADMIUM          | 7440-43-9 | 0.61               | 0.19  | MG/KG                |               |                      |                           |
| CALCIUM          | 7440-70-2 | 1500               | 190   | MG/KG                |               | J-                   | Q                         |
| CHROMIUM         | 7440-47-3 | 21                 | 0.48  | MG/KG                |               |                      |                           |
| COBALT           | 7440-48-4 | 12                 | 0.096 | MG/KG                |               |                      |                           |
| COPPER           | 7440-50-8 | 30                 | 0.38  | MG/KG                |               |                      |                           |
| IRON             | 7439-89-6 | 26000              | 48    | MG/KG                | J             |                      |                           |
| LEAD             | 7439-92-1 | 23                 | 0.29  | MG/KG                |               | J-                   | Q                         |
| MAGNESIUM        | 7439-95-4 | 2400               | 96    | MG/KG                |               |                      |                           |
| MANGANESE        | 7439-96-5 | 1200               | 9.6   | MG/KG                | D J           | J                    | E                         |
| NICKEL           | 7440-02-0 | 24                 | 0.48  | MG/KG                |               |                      |                           |
| POTASSIUM        | 7440-09-7 | 790                | 96    | MG/KG                |               |                      |                           |
| SELENIUM         | 7782-49-2 | 0.8                | 0.48  | MG/KG                |               | J-                   | M, Q                      |
| SILVER           | 7440-22-4 | 0.056              | 0.096 | MG/KG                | J             | J                    |                           |
| SODIUM           | 7440-23-5 | 47                 | 96    | MG/KG                | J             | J                    |                           |
| THALLIUM         | 7440-28-0 | 0.22               | 0.19  | MG/KG                |               | J+                   | C                         |
| VANADIUM         | 7440-62-2 | 19                 | 0.48  | MG/KG                |               |                      |                           |
| ZINC             | 7440-66-6 | 160                | 3.8   | MG/KG                |               |                      |                           |

Analysis Method SW7471A

| Sample Name      |           | 068SD-0009-0001-SO |       | AnalysisType: N      |               |                      |                           |
|------------------|-----------|--------------------|-------|----------------------|---------------|----------------------|---------------------------|
| Lab Sample Name: |           | 240-17422-9        |       | Validation Level: IV |               |                      |                           |
| Analyte          | CAS No    | Result Value       | LOQ   | Result               | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| MERCURY          | 7439-97-6 | 0.031              | 0.095 | MG/KG                | J             | U                    | B                         |

*Sample Delivery Group: 240-17422-1*

*Analysis Method SW8082*

| <b>Sample Name</b>      |               | 068SD-0009-0001-SO  |            | <b>AnalysisType:</b> N      |                      |                             |                                  |
|-------------------------|---------------|---------------------|------------|-----------------------------|----------------------|-----------------------------|----------------------------------|
| <b>Lab Sample Name:</b> |               | 240-17422-9         |            | <b>Validation Level:</b> IV |                      |                             |                                  |
| <b>Analyte</b>          | <b>CAS No</b> | <b>Result Value</b> | <b>LOQ</b> | <b>Result</b>               | <b>Lab Qualifier</b> | <b>Validation Qualifier</b> | <b>Validation Qualifier Code</b> |
| PCB-1016                | 12674-11-2    | 24                  | 64         | UG/KG                       | U                    | U                           |                                  |
| PCB-1221                | 11104-28-2    | 24                  | 49         | UG/KG                       | U                    | U                           |                                  |
| PCB-1232                | 11141-16-5    | 24                  | 44         | UG/KG                       | U                    | U                           |                                  |
| PCB-1242                | 53469-21-9    | 24                  | 39         | UG/KG                       | U                    | U                           |                                  |
| PCB-1248                | 12672-29-6    | 24                  | 54         | UG/KG                       | U                    | U                           |                                  |
| PCB-1254                | 11097-69-1    | 24                  | 54         | UG/KG                       | U                    | U                           |                                  |
| PCB-1260                | 11096-82-5    | 24                  | 54         | UG/KG                       | U                    | U                           |                                  |

# Sample Delivery Group: 240-17422-1

## Analysis Method SW8270C

| <b>Sample Name</b>         |           | 068SD-0009-0001-SO |     | <b>AnalysisType:</b> N      |               |                      |                           |
|----------------------------|-----------|--------------------|-----|-----------------------------|---------------|----------------------|---------------------------|
| <b>Lab Sample Name:</b>    |           | 240-17422-9        |     | <b>Validation Level:</b> IV |               |                      |                           |
| Analyte                    | CAS No    | Result Value       | LOQ | Result                      | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| 1,2,4-TRICHLOROBENZENE     | 120-82-1  | 27                 | 49  | UG/KG                       | U             | U                    |                           |
| 1,2-DICHLOROBENZENE        | 95-50-1   | 27                 | 49  | UG/KG                       | U             | U                    |                           |
| 1,3-DICHLOROBENZENE        | 541-73-1  | 27                 | 49  | UG/KG                       | U             | U                    |                           |
| 1,4-DICHLOROBENZENE        | 106-46-7  | 27                 | 49  | UG/KG                       | U             | U                    |                           |
| 2,4,5-TRICHLOROPHENOL      | 95-95-4   | 27                 | 150 | UG/KG                       | U             | U                    |                           |
| 2,4,6-TRICHLOROPHENOL      | 88-06-2   | 79                 | 150 | UG/KG                       | U             | U                    |                           |
| 2,4-DICHLOROPHENOL         | 120-83-2  | 27                 | 150 | UG/KG                       | U             | U                    |                           |
| 2,4-DIMETHYLPHENOL         | 105-67-9  | 79                 | 150 | UG/KG                       | U             | U                    |                           |
| 2,4-DINITROPHENOL          | 51-28-5   | 79                 | 330 | UG/KG                       | U             | UJ                   | C                         |
| 2,4-DINITROTOLUENE         | 121-14-2  | 27                 | 200 | UG/KG                       | U             | U                    |                           |
| 2,6-DINITROTOLUENE         | 606-20-2  | 27                 | 200 | UG/KG                       | U             | U                    |                           |
| 2-CHLORONAPHTHALENE        | 91-58-7   | 3.3                | 49  | UG/KG                       | U             | U                    |                           |
| 2-CHLOROPHENOL             | 95-57-8   | 27                 | 49  | UG/KG                       | U             | U                    |                           |
| 2-METHYLNAPHTHALENE        | 91-57-6   | 13                 | 6.6 | UG/KG                       |               |                      |                           |
| 2-METHYLPHENOL (O-CRESOL)  | 95-48-7   | 79                 | 200 | UG/KG                       | U             | U                    |                           |
| 2-NITROANILINE             | 88-74-4   | 27                 | 200 | UG/KG                       | U             | U                    |                           |
| 2-NITROPHENOL              | 88-75-5   | 27                 | 49  | UG/KG                       | U             | U                    |                           |
| 3,3'-DICHLOROBENZIDINE     | 91-94-1   | 79                 | 99  | UG/KG                       | U J           | R                    | Q                         |
| 3-NITROANILINE             | 99-09-2   | 79                 | 200 | UG/KG                       | U J           | UJ                   | Q                         |
| 4,6-DINITRO-2-METHYLPHENOL | 534-52-1  | 79                 | 150 | UG/KG                       | U             | U                    |                           |
| 4-BROMOPHENYL PHENYL ETHE  | 101-55-3  | 27                 | 49  | UG/KG                       | U             | U                    |                           |
| 4-CHLORO-3-METHYLPHENOL    | 59-50-7   | 27                 | 150 | UG/KG                       | U             | U                    |                           |
| 4-CHLOROANILINE            | 106-47-8  | 27                 | 150 | UG/KG                       | U J           | UJ                   | Q                         |
| 4-CHLOROPHENYL PHENYL ETH  | 7005-72-3 | 27                 | 49  | UG/KG                       | U             | U                    |                           |
| 4-NITROANILINE             | 100-01-6  | 27                 | 200 | UG/KG                       | U J           | UJ                   | Q                         |
| 4-NITROPHENOL              | 100-02-7  | 79                 | 330 | UG/KG                       | U             | U                    |                           |
| ACENAPHTHENE               | 83-32-9   | 3.3                | 6.6 | UG/KG                       | U             | U                    |                           |
| ACENAPHTHYLENE             | 208-96-8  | 3.3                | 6.6 | UG/KG                       | U             | U                    |                           |

## Sample Delivery Group: 240-17422-1

|                             |          |     |     |       |     |    |   |
|-----------------------------|----------|-----|-----|-------|-----|----|---|
| ANTHRACENE                  | 120-12-7 | 3.3 | 6.6 | UG/KG | J   | J  |   |
| BENZO(A)ANTHRACENE          | 56-55-3  | 16  | 6.6 | UG/KG |     |    |   |
| BENZO(A)PYRENE              | 50-32-8  | 26  | 6.6 | UG/KG |     |    |   |
| BENZO(B)FLUORANTHENE        | 205-99-2 | 46  | 6.6 | UG/KG |     |    |   |
| BENZO(G,H,I)PERYLENE        | 191-24-2 | 16  | 6.6 | UG/KG |     | J  | C |
| BENZO(K)FLUORANTHENE        | 207-08-9 | 12  | 6.6 | UG/KG | M   |    |   |
| BENZOIC ACID                | 65-85-0  | 330 | 650 | UG/KG | U   | U  |   |
| BENZYL ALCOHOL              | 100-51-6 | 27  | 330 | UG/KG | U   | U  |   |
| BENZYL BUTYL PHTHALATE      | 85-68-7  | 27  | 49  | UG/KG | U   | U  |   |
| BIS(2-CHLOROETHOXY) METHA   | 111-91-1 | 27  | 99  | UG/KG | U   | U  |   |
| BIS(2-CHLOROETHYL) ETHER    | 111-44-4 | 3.3 | 99  | UG/KG | U   | U  |   |
| BIS(2-CHLOROISOPROPYL) ETHE | 108-60-1 | 27  | 99  | UG/KG | U   | U  |   |
| BIS(2-ETHYLHEXYL) PHTHALAT  | 117-81-7 | 38  | 49  | UG/KG | J   | U  | B |
| CARBAZOLE                   | 86-74-8  | 27  | 49  | UG/KG | U   | U  |   |
| CHRYSENE                    | 218-01-9 | 28  | 6.6 | UG/KG |     |    |   |
| CRESOLS, M & P              |          | 79  | 400 | UG/KG | U   | U  |   |
| DIBENZ(A,H)ANTHRACENE       | 53-70-3  | 3.3 | 6.6 | UG/KG | U   | UJ | C |
| DIBENZOFURAN                | 132-64-9 | 3.3 | 49  | UG/KG | U   | U  |   |
| DIETHYL PHTHALATE           | 84-66-2  | 27  | 49  | UG/KG | U   | U  |   |
| DIMETHYL PHTHALATE          | 131-11-3 | 27  | 49  | UG/KG | U   | U  |   |
| DI-N-BUTYL PHTHALATE        | 84-74-2  | 27  | 49  | UG/KG | U   | U  |   |
| DI-N-OCTYLPHTHALATE         | 117-84-0 | 27  | 49  | UG/KG | U   | U  |   |
| FLUORANTHENE                | 206-44-0 | 38  | 6.6 | UG/KG |     |    |   |
| FLUORENE                    | 86-73-7  | 3.3 | 6.6 | UG/KG | U   | U  |   |
| HEXACHLOROBENZENE           | 118-74-1 | 3.3 | 6.6 | UG/KG | U   | U  |   |
| HEXACHLOROBUTADIENE         | 87-68-3  | 27  | 49  | UG/KG | U   | U  |   |
| HEXACHLOROCYCLOPENTADIE     | 77-47-4  | 27  | 330 | UG/KG | U   | R  | C |
| HEXACHLOROETHANE            | 67-72-1  | 27  | 49  | UG/KG | U J | U  |   |
| INDENO(1,2,3-C,D)PYRENE     | 193-39-5 | 17  | 6.6 | UG/KG |     | J  | C |
| ISOPHORONE                  | 78-59-1  | 27  | 49  | UG/KG | U   | U  |   |
| NAPHTHALENE                 | 91-20-3  | 11  | 6.7 | UG/KG |     |    |   |
| NITROBENZENE                | 98-95-3  | 3.3 | 99  | UG/KG | U   | U  |   |
| N-NITROSODI-N-PROPYLAMINE   | 621-64-7 | 27  | 49  | UG/KG | U   | U  |   |

*Sample Delivery Group: 240-17422-1*

|                        |          |    |     |       |   |   |
|------------------------|----------|----|-----|-------|---|---|
| N-NITROSODIPHENYLAMINE | 86-30-6  | 27 | 49  | UG/KG | U | U |
| PENTACHLOROPHENOL      | 87-86-5  | 79 | 150 | UG/KG | U | U |
| PHENANTHRENE           | 85-01-8  | 22 | 6.6 | UG/KG |   |   |
| PHENOL                 | 108-95-2 | 27 | 49  | UG/KG | U | U |
| PYRENE                 | 129-00-0 | 28 | 6.6 | UG/KG |   |   |



Sample Delivery Group: 240-17477-1

Analysis Method SW6020

| Sample Name      |           | 068SW-0016-0001-SW |      | AnalysisType: N      |               |                      |                           |
|------------------|-----------|--------------------|------|----------------------|---------------|----------------------|---------------------------|
| Lab Sample Name: |           | 240-17477-4        |      | Validation Level: IV |               |                      |                           |
| Analyte          | CAS No    | Result Value       | LOQ  | Result               | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| ALUMINUM         | 7429-90-5 | 320                | 60   | UG/L                 |               |                      |                           |
| ANTIMONY         | 7440-36-0 | 1                  | 2    | UG/L                 | J             | J                    |                           |
| ARSENIC          | 7440-38-2 | 0.78               | 5    | UG/L                 | J             | J                    |                           |
| BARIUM           | 7440-39-3 | 34                 | 5    | UG/L                 |               | J                    | M                         |
| BERYLLIUM        | 7440-41-7 | 0.5                | 1    | UG/L                 | U             | U                    |                           |
| CADMIUM          | 7440-43-9 | 0.4                | 2    | UG/L                 | U             | U                    |                           |
| CALCIUM          | 7440-70-2 | 31000              | 2000 | UG/L                 |               |                      |                           |
| CHROMIUM         | 7440-47-3 | 1.5                | 2    | UG/L                 | U             | U                    |                           |
| COBALT           | 7440-48-4 | 0.31               | 1    | UG/L                 | J             | J                    |                           |
| COPPER           | 7440-50-8 | 1.6                | 4    | UG/L                 | J             | J                    |                           |
| IRON             | 7439-89-6 | 1300               | 150  | UG/L                 |               | J+                   | C                         |
| LEAD             | 7439-92-1 | 0.59               | 1    | UG/L                 | J             | J                    |                           |
| MAGNESIUM        | 7439-95-4 | 8300               | 1000 | UG/L                 |               |                      |                           |
| MANGANESE        | 7439-96-5 | 330                | 5    | UG/L                 |               |                      |                           |
| NICKEL           | 7440-02-0 | 0.9                | 5    | UG/L                 | J             | J                    |                           |
| POTASSIUM        | 7440-09-7 | 1900               | 1000 | UG/L                 |               |                      |                           |
| SELENIUM         | 7782-49-2 | 0.5                | 5    | UG/L                 | U             | UJ                   | M                         |
| SILVER           | 7440-22-4 | 0.93               | 1    | UG/L                 | J             | J                    |                           |
| SODIUM           | 7440-23-5 | 3900               | 1000 | UG/L                 |               |                      |                           |
| THALLIUM         | 7440-28-0 | 1                  | 2    | UG/L                 | J             | U                    | B                         |
| VANADIUM         | 7440-62-2 | 0.72               | 5    | UG/L                 | J             | J                    |                           |
| ZINC             | 7440-66-6 | 20                 | 40   | UG/L                 | J             | U                    | B                         |

Analysis Method SW7470A

| Sample Name      |           | 068SW-0016-0001-SW |     | AnalysisType: N      |               |                      |                           |
|------------------|-----------|--------------------|-----|----------------------|---------------|----------------------|---------------------------|
| Lab Sample Name: |           | 240-17477-4        |     | Validation Level: IV |               |                      |                           |
| Analyte          | CAS No    | Result Value       | LOQ | Result               | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| MERCURY          | 7439-97-6 | 0.2                | 0.2 | UG/L                 | U             | UJ                   | C                         |

*Sample Delivery Group: 240-17477-1*

*Analysis Method SW8082*

| <b>Sample Name</b>      |               | 068SW-0016-0001-SW  |            | <b>AnalysisType:</b> N      |                      |                             |                                  |
|-------------------------|---------------|---------------------|------------|-----------------------------|----------------------|-----------------------------|----------------------------------|
| <b>Lab Sample Name:</b> |               | 240-17477-4         |            | <b>Validation Level:</b> IV |                      |                             |                                  |
| <b>Analyte</b>          | <b>CAS No</b> | <b>Result Value</b> | <b>LOQ</b> | <b>Result</b>               | <b>Lab Qualifier</b> | <b>Validation Qualifier</b> | <b>Validation Qualifier Code</b> |
| PCB-1016                | 12674-11-2    | 0.19                | 0.48       | UG/L                        | U                    | U                           |                                  |
| PCB-1221                | 11104-28-2    | 0.19                | 0.48       | UG/L                        | U                    | U                           |                                  |
| PCB-1232                | 11141-16-5    | 0.19                | 0.48       | UG/L                        | U                    | U                           |                                  |
| PCB-1242                | 53469-21-9    | 0.38                | 0.48       | UG/L                        | U                    | U                           |                                  |
| PCB-1248                | 12672-29-6    | 0.19                | 0.48       | UG/L                        | U                    | U                           |                                  |
| PCB-1254                | 11097-69-1    | 0.19                | 0.48       | UG/L                        | U                    | U                           |                                  |
| PCB-1260                | 11096-82-5    | 0.19                | 0.48       | UG/L                        | U                    | U                           |                                  |

Sample Delivery Group: 240-17477-1

Analysis Method SW8270C

| Sample Name                |           | 068SW-0016-0001-SW |      | AnalysisType: N      |               |                      |                           |
|----------------------------|-----------|--------------------|------|----------------------|---------------|----------------------|---------------------------|
| Lab Sample Name:           |           | 240-17477-4        |      | Validation Level: IV |               |                      |                           |
| Analyte                    | CAS No    | Result Value       | LOQ  | Result               | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| 1,2,4-TRICHLOROBENZENE     | 120-82-1  | 0.76               | 0.95 | UG/L                 | U J           | UJ                   | Q                         |
| 1,2-DICHLOROBENZENE        | 95-50-1   | 0.76               | 0.95 | UG/L                 | U J           | UJ                   | Q                         |
| 1,3-DICHLOROBENZENE        | 541-73-1  | 0.76               | 0.95 | UG/L                 | U J           | UJ                   | Q                         |
| 1,4-DICHLOROBENZENE        | 106-46-7  | 0.76               | 0.95 | UG/L                 | U J           | UJ                   | Q                         |
| 2,4,5-TRICHLOROPHENOL      | 95-95-4   | 0.76               | 4.8  | UG/L                 | U             | U                    |                           |
| 2,4,6-TRICHLOROPHENOL      | 88-06-2   | 0.76               | 4.8  | UG/L                 | U             | U                    |                           |
| 2,4-DICHLOROPHENOL         | 120-83-2  | 0.76               | 1.9  | UG/L                 | U             | U                    |                           |
| 2,4-DIMETHYLPHENOL         | 105-67-9  | 0.76               | 1.9  | UG/L                 | U             | U                    |                           |
| 2,4-DINITROPHENOL          | 51-28-5   | 2.3                | 4.8  | UG/L                 | U             | U                    |                           |
| 2,4-DINITROTOLUENE         | 121-14-2  | 0.76               | 4.8  | UG/L                 | U             | U                    |                           |
| 2,6-DINITROTOLUENE         | 606-20-2  | 0.76               | 4.8  | UG/L                 | U             | U                    |                           |
| 2-CHLORONAPHTHALENE        | 91-58-7   | 0.095              | 0.95 | UG/L                 | U             | U                    |                           |
| 2-CHLOROPHENOL             | 95-57-8   | 0.76               | 0.95 | UG/L                 | U             | U                    |                           |
| 2-METHYLNAPHTHALENE        | 91-57-6   | 0.095              | 0.19 | UG/L                 | U             | U                    |                           |
| 2-METHYLPHENOL (O-CRESOL)  | 95-48-7   | 0.76               | 0.95 | UG/L                 | U             | U                    |                           |
| 2-NITROANILINE             | 88-74-4   | 0.76               | 1.9  | UG/L                 | U             | U                    |                           |
| 2-NITROPHENOL              | 88-75-5   | 0.76               | 1.9  | UG/L                 | U             | U                    |                           |
| 3,3'-DICHLOROBENZIDINE     | 91-94-1   | 0.76               | 4.8  | UG/L                 | U J           | U                    |                           |
| 3-NITROANILINE             | 99-09-2   | 0.76               | 1.9  | UG/L                 | U             | U                    |                           |
| 4,6-DINITRO-2-METHYLPHENOL | 534-52-1  | 2.3                | 4.8  | UG/L                 | U             | U                    |                           |
| 4-BROMOPHENYL PHENYL ETHE  | 101-55-3  | 0.76               | 1.9  | UG/L                 | U             | U                    |                           |
| 4-CHLORO-3-METHYLPHENOL    | 59-50-7   | 0.76               | 1.9  | UG/L                 | U             | U                    |                           |
| 4-CHLOROANILINE            | 106-47-8  | 0.76               | 1.9  | UG/L                 | U             | U                    |                           |
| 4-CHLOROPHENYL PHENYL ETH  | 7005-72-3 | 0.76               | 1.9  | UG/L                 | U             | U                    |                           |
| 4-NITROANILINE             | 100-01-6  | 0.76               | 1.9  | UG/L                 | U             | U                    |                           |
| 4-NITROPHENOL              | 100-02-7  | 2.3                | 4.8  | UG/L                 | U             | U                    |                           |
| ACENAPHTHENE               | 83-32-9   | 0.095              | 0.19 | UG/L                 | U             | U                    |                           |
| ACENAPHTHYLENE             | 208-96-8  | 0.095              | 0.19 | UG/L                 | U             | U                    |                           |

## Sample Delivery Group: 240-17477-1

|                             |          |       |      |      |     |    |   |
|-----------------------------|----------|-------|------|------|-----|----|---|
| ANTHRACENE                  | 120-12-7 | 0.095 | 0.19 | UG/L | U   | U  |   |
| BENZO(A)ANTHRACENE          | 56-55-3  | 0.095 | 0.19 | UG/L | U   | U  |   |
| BENZO(A)PYRENE              | 50-32-8  | 0.095 | 0.19 | UG/L | U J | U  |   |
| BENZO(B)FLUORANTHENE        | 205-99-2 | 0.095 | 0.19 | UG/L | U   | U  |   |
| BENZO(G,H,I)PERYLENE        | 191-24-2 | 0.095 | 0.19 | UG/L | U J | UJ | Q |
| BENZO(K)FLUORANTHENE        | 207-08-9 | 0.095 | 0.19 | UG/L | U   | U  |   |
| BENZOIC ACID                | 65-85-0  | 9.5   | 24   | UG/L | U   | U  |   |
| BENZYL ALCOHOL              | 100-51-6 | 0.76  | 4.8  | UG/L | U   | U  |   |
| BENZYL BUTYL PHTHALATE      | 85-68-7  | 0.76  | 0.95 | UG/L | U   | U  |   |
| BIS(2-CHLOROETHOXY) METHA   | 111-91-1 | 0.76  | 0.95 | UG/L | U   | U  |   |
| BIS(2-CHLOROETHYL) ETHER    | 111-44-4 | 0.095 | 0.95 | UG/L | U J | UJ | Q |
| BIS(2-CHLOROISOPROPYL) ETHE | 108-60-1 | 0.76  | 0.95 | UG/L | U J | UJ | Q |
| BIS(2-ETHYLHEXYL) PHTHALAT  | 117-81-7 | 0.76  | 1.9  | UG/L | U J | U  |   |
| CARBAZOLE                   | 86-74-8  | 0.76  | 0.95 | UG/L | U   | U  |   |
| CHRYSENE                    | 218-01-9 | 0.095 | 0.19 | UG/L | U   | U  |   |
| CRESOLS, M & P              |          | 0.76  | 1.9  | UG/L | U   | U  |   |
| DIBENZ(A,H)ANTHRACENE       | 53-70-3  | 0.095 | 0.19 | UG/L | U J | UJ | Q |
| DIBENZOFURAN                | 132-64-9 | 0.095 | 0.95 | UG/L | U   | U  |   |
| DIETHYL PHTHALATE           | 84-66-2  | 0.76  | 0.95 | UG/L | U   | U  |   |
| DIMETHYL PHTHALATE          | 131-11-3 | 0.76  | 0.95 | UG/L | U   | U  |   |
| DI-N-BUTYL PHTHALATE        | 84-74-2  | 0.76  | 0.95 | UG/L | U   | U  |   |
| DI-N-OCTYLPHTHALATE         | 117-84-0 | 0.76  | 0.95 | UG/L | U J | UJ | Q |
| FLUORANTHENE                | 206-44-0 | 0.095 | 0.19 | UG/L | U   | U  |   |
| FLUORENE                    | 86-73-7  | 0.095 | 0.19 | UG/L | U   | U  |   |
| HEXACHLOROBENZENE           | 118-74-1 | 0.095 | 0.19 | UG/L | U   | U  |   |
| HEXACHLOROBUTADIENE         | 87-68-3  | 0.76  | 0.95 | UG/L | U J | UJ | Q |
| HEXACHLOROCYCLOPENTADIE     | 77-47-4  | 0.76  | 9.5  | UG/L | U   | U  |   |
| HEXACHLOROETHANE            | 67-72-1  | 0.76  | 0.95 | UG/L | U J | UJ | Q |
| INDENO(1,2,3-C,D)PYRENE     | 193-39-5 | 0.095 | 0.19 | UG/L | U J | UJ | Q |
| ISOPHORONE                  | 78-59-1  | 0.76  | 0.95 | UG/L | U   | U  |   |
| NAPHTHALENE                 | 91-20-3  | 0.095 | 0.19 | UG/L | U   | U  |   |
| NITROBENZENE                | 98-95-3  | 0.095 | 0.95 | UG/L | U   | U  |   |
| N-NITROSODI-N-PROPYLAMINE   | 621-64-7 | 0.76  | 0.95 | UG/L | U   | U  |   |

*Sample Delivery Group: 240-17477-1*

|                        |          |       |      |      |   |   |
|------------------------|----------|-------|------|------|---|---|
| N-NITROSODIPHENYLAMINE | 86-30-6  | 0.76  | 0.95 | UG/L | U | U |
| PENTACHLOROPHENOL      | 87-86-5  | 2.3   | 4.8  | UG/L | U | U |
| PHENANTHRENE           | 85-01-8  | 0.095 | 0.19 | UG/L | U | U |
| PHENOL                 | 108-95-2 | 0.76  | 0.95 | UG/L | U | U |
| PYRENE                 | 129-00-0 | 0.095 | 0.19 | UG/L | U | U |

Sample Delivery Group: 240-22648-1

Analysis Method SW6020

| Sample Name      |           | 068SB-0053M-0001-SO |       | AnalysisType: N      |               |                      |                           |
|------------------|-----------|---------------------|-------|----------------------|---------------|----------------------|---------------------------|
| Lab Sample Name: |           | 240-22648-58        |       | Validation Level: IV |               |                      |                           |
| Analyte          | CAS No    | Result Value        | LOQ   | Result               | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| ALUMINUM         | 7429-90-5 | 8700                | 2.7   | MG/KG                |               | J                    | E                         |
| ANTIMONY         | 7440-36-0 | 0.046               | 0.18  | MG/KG                | J             | J-                   | Q                         |
| ARSENIC          | 7440-38-2 | 11                  | 0.091 | MG/KG                | Q             | J-                   | E, Q                      |
| BARIUM           | 7440-39-3 | 53                  | 0.91  | MG/KG                | Q             | J                    | M, E                      |
| BERYLLIUM        | 7440-41-7 | 0.5                 | 0.091 | MG/KG                | Q             |                      |                           |
| CADMIUM          | 7440-43-9 | 0.12                | 0.091 | MG/KG                | Q             |                      |                           |
| CALCIUM          | 7440-70-2 | 3400                | 9.1   | MG/KG                |               | J                    | E, Q                      |
| CHROMIUM         | 7440-47-3 | 12                  | 0.18  | MG/KG                |               | J                    | E                         |
| COBALT           | 7440-48-4 | 8.6                 | 0.045 | MG/KG                | Q             | J                    | E                         |
| COPPER           | 7440-50-8 | 16                  | 0.18  | MG/KG                | Q             | J                    | E                         |
| IRON             | 7439-89-6 | 21000               | 4.5   | MG/KG                |               | J                    | E                         |
| LEAD             | 7439-92-1 | 13                  | 0.091 | MG/KG                | Q             | J                    | E                         |
| MAGNESIUM        | 7439-95-4 | 2400                | 9.1   | MG/KG                |               | J                    | E                         |
| MANGANESE        | 7439-96-5 | 370                 | 0.45  | MG/KG                | Q             | J                    | E                         |
| NICKEL           | 7440-02-0 | 18                  | 0.091 | MG/KG                |               | J                    | E                         |
| POTASSIUM        | 7440-09-7 | 770                 | 9.1   | MG/KG                |               | J                    | E                         |
| SELENIUM         | 7782-49-2 | 0.29                | 0.45  | MG/KG                | J             | J-                   | Q                         |
| SILVER           | 7440-22-4 | 0.028               | 0.091 | MG/KG                | J Q           | J                    |                           |
| SODIUM           | 7440-23-5 | 44                  | 9.1   | MG/KG                |               | J                    | E                         |
| THALLIUM         | 7440-28-0 | 0.12                | 0.091 | MG/KG                | Q             |                      |                           |
| VANADIUM         | 7440-62-2 | 15                  | 0.091 | MG/KG                |               | J                    | E                         |
| ZINC             | 7440-66-6 | 40                  | 0.45  | MG/KG                | Q             | J-                   | E, Q, A                   |

Analysis Method SW7471A

| Sample Name      |           | 068SB-0053M-0001-SO |     | AnalysisType: N      |               |                      |                           |
|------------------|-----------|---------------------|-----|----------------------|---------------|----------------------|---------------------------|
| Lab Sample Name: |           | 240-22648-58        |     | Validation Level: IV |               |                      |                           |
| Analyte          | CAS No    | Result Value        | LOQ | Result               | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| MERCURY          | 7439-97-6 | 0.015               | 0.1 | MG/KG                | J             | J                    |                           |

*Sample Delivery Group: 240-22648-1*

*Analysis Method SW8082*

| <b>Sample Name</b>      |               | 068SB-0053M-0001-SO |            | <b>AnalysisType:</b> N      |                      |                             |                                  |
|-------------------------|---------------|---------------------|------------|-----------------------------|----------------------|-----------------------------|----------------------------------|
| <b>Lab Sample Name:</b> |               | 240-22648-58        |            | <b>Validation Level:</b> IV |                      |                             |                                  |
| <b>Analyte</b>          | <b>CAS No</b> | <b>Result Value</b> | <b>LOQ</b> | <b>Result</b>               | <b>Lab Qualifier</b> | <b>Validation Qualifier</b> | <b>Validation Qualifier Code</b> |
| PCB-1016                | 12674-11-2    | 25                  | 65         | UG/KG                       | U                    | U                           |                                  |
| PCB-1221                | 11104-28-2    | 25                  | 50         | UG/KG                       | U                    | UJ                          | C                                |
| PCB-1232                | 11141-16-5    | 25                  | 45         | UG/KG                       | U                    | U                           |                                  |
| PCB-1242                | 53469-21-9    | 25                  | 40         | UG/KG                       | U                    | U                           |                                  |
| PCB-1248                | 12672-29-6    | 25                  | 55         | UG/KG                       | U                    | U                           |                                  |
| PCB-1254                | 11097-69-1    | 25                  | 55         | UG/KG                       | U                    | U                           |                                  |
| PCB-1260                | 11096-82-5    | 25                  | 55         | UG/KG                       | U                    | U                           |                                  |

# Sample Delivery Group: 240-22648-1

## Analysis Method SW8270C

| <b>Sample Name</b>         |           | 068SB-0053M-0001-SO |     | <b>AnalysisType:</b> N      |               |                      |                           |
|----------------------------|-----------|---------------------|-----|-----------------------------|---------------|----------------------|---------------------------|
| <b>Lab Sample Name:</b>    |           | 240-22648-58        |     | <b>Validation Level:</b> IV |               |                      |                           |
| Analyte                    | CAS No    | Result Value        | LOQ | Result                      | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| 1,2,4-TRICHLOROBENZENE     | 120-82-1  | 27                  | 50  | UG/KG                       | U             | U                    |                           |
| 1,2-DICHLOROBENZENE        | 95-50-1   | 27                  | 50  | UG/KG                       | U             | U                    |                           |
| 1,3-DICHLOROBENZENE        | 541-73-1  | 27                  | 50  | UG/KG                       | U             | U                    |                           |
| 1,4-DICHLOROBENZENE        | 106-46-7  | 27                  | 50  | UG/KG                       | U             | U                    |                           |
| 2,4,5-TRICHLOROPHENOL      | 95-95-4   | 27                  | 150 | UG/KG                       | U             | U                    |                           |
| 2,4,6-TRICHLOROPHENOL      | 88-06-2   | 80                  | 150 | UG/KG                       | U             | U                    |                           |
| 2,4-DICHLOROPHENOL         | 120-83-2  | 27                  | 150 | UG/KG                       | U             | U                    |                           |
| 2,4-DIMETHYLPHENOL         | 105-67-9  | 80                  | 150 | UG/KG                       | U             | U                    |                           |
| 2,4-DINITROPHENOL          | 51-28-5   | 80                  | 330 | UG/KG                       | U             | UJ                   | C                         |
| 2,4-DINITROTOLUENE         | 121-14-2  | 27                  | 200 | UG/KG                       | U             | U                    |                           |
| 2,6-DINITROTOLUENE         | 606-20-2  | 27                  | 200 | UG/KG                       | U             | U                    |                           |
| 2-CHLORONAPHTHALENE        | 91-58-7   | 3.3                 | 50  | UG/KG                       | U             | U                    |                           |
| 2-CHLOROPHENOL             | 95-57-8   | 27                  | 50  | UG/KG                       | U             | U                    |                           |
| 2-METHYLNAPHTHALENE        | 91-57-6   | 4.4                 | 6.6 | UG/KG                       | J             | J                    |                           |
| 2-METHYLPHENOL (O-CRESOL)  | 95-48-7   | 80                  | 200 | UG/KG                       | U             | U                    |                           |
| 2-NITROANILINE             | 88-74-4   | 27                  | 200 | UG/KG                       | U             | U                    |                           |
| 2-NITROPHENOL              | 88-75-5   | 27                  | 50  | UG/KG                       | U             | U                    |                           |
| 3,3'-DICHLOROBENZIDINE     | 91-94-1   | 80                  | 100 | UG/KG                       | U             | U                    |                           |
| 3-NITROANILINE             | 99-09-2   | 80                  | 200 | UG/KG                       | U             | U                    |                           |
| 4,6-DINITRO-2-METHYLPHENOL | 534-52-1  | 80                  | 150 | UG/KG                       | U             | U                    |                           |
| 4-BROMOPHENYL PHENYL ETHE  | 101-55-3  | 27                  | 50  | UG/KG                       | U             | U                    |                           |
| 4-CHLORO-3-METHYLPHENOL    | 59-50-7   | 27                  | 150 | UG/KG                       | U             | U                    |                           |
| 4-CHLOROANILINE            | 106-47-8  | 27                  | 150 | UG/KG                       | U             | U                    |                           |
| 4-CHLOROPHENYL PHENYL ETH  | 7005-72-3 | 27                  | 50  | UG/KG                       | U             | U                    |                           |
| 4-NITROANILINE             | 100-01-6  | 27                  | 200 | UG/KG                       | U             | U                    |                           |
| 4-NITROPHENOL              | 100-02-7  | 80                  | 330 | UG/KG                       | U             | U                    |                           |
| ACENAPHTHENE               | 83-32-9   | 3.3                 | 6.6 | UG/KG                       | U             | U                    |                           |
| ACENAPHTHYLENE             | 208-96-8  | 3.3                 | 6.6 | UG/KG                       | U             | U                    |                           |



## Sample Delivery Group: 240-22648-1

|                             |          |     |     |       |   |     |
|-----------------------------|----------|-----|-----|-------|---|-----|
| ANTHRACENE                  | 120-12-7 | 3.3 | 6.6 | UG/KG | U | U   |
| BENZO(A)ANTHRACENE          | 56-55-3  | 3.3 | 6.6 | UG/KG | U | U   |
| BENZO(A)PYRENE              | 50-32-8  | 3.3 | 6.6 | UG/KG | U | U   |
| BENZO(B)FLUORANTHENE        | 205-99-2 | 3.3 | 6.6 | UG/KG | U | U   |
| BENZO(G,H,I)PERYLENE        | 191-24-2 | 3.3 | 6.6 | UG/KG | U | U   |
| BENZO(K)FLUORANTHENE        | 207-08-9 | 3.3 | 6.6 | UG/KG | U | U   |
| BENZOIC ACID                | 65-85-0  | 330 | 660 | UG/KG | U | U   |
| BENZYL ALCOHOL              | 100-51-6 | 27  | 330 | UG/KG | U | U   |
| BENZYL BUTYL PHTHALATE      | 85-68-7  | 27  | 70  | UG/KG | U | U   |
| BIS(2-CHLOROETHOXY) METHA   | 111-91-1 | 27  | 100 | UG/KG | U | U   |
| BIS(2-CHLOROETHYL) ETHER    | 111-44-4 | 3.3 | 100 | UG/KG | U | U   |
| BIS(2-CHLOROISOPROPYL) ETHE | 108-60-1 | 27  | 100 | UG/KG | U | U   |
| BIS(2-ETHYLHEXYL) PHTHALAT  | 117-81-7 | 74  | 74  | UG/KG |   | U B |
| CARBAZOLE                   | 86-74-8  | 27  | 50  | UG/KG | U | U   |
| CHRYSENE                    | 218-01-9 | 3.3 | 6.6 | UG/KG | U | U   |
| CRESOLS, M & P              |          | 80  | 400 | UG/KG | U | U   |
| DIBENZ(A,H)ANTHRACENE       | 53-70-3  | 3.3 | 6.6 | UG/KG | U | U   |
| DIBENZOFURAN                | 132-64-9 | 3.3 | 50  | UG/KG | U | U   |
| DIETHYL PHTHALATE           | 84-66-2  | 27  | 70  | UG/KG | U | U   |
| DIMETHYL PHTHALATE          | 131-11-3 | 27  | 70  | UG/KG | U | U   |
| DI-N-BUTYL PHTHALATE        | 84-74-2  | 27  | 70  | UG/KG | U | U   |
| DI-N-OCTYLPHTHALATE         | 117-84-0 | 27  | 70  | UG/KG | U | U   |
| FLUORANTHENE                | 206-44-0 | 3.3 | 6.6 | UG/KG | U | U   |
| FLUORENE                    | 86-73-7  | 3.3 | 6.6 | UG/KG | U | U   |
| HEXACHLOROBENZENE           | 118-74-1 | 3.3 | 6.6 | UG/KG | U | U   |
| HEXACHLOROBUTADIENE         | 87-68-3  | 27  | 50  | UG/KG | U | U   |
| HEXACHLOROCYCLOPENTADIE     | 77-47-4  | 27  | 330 | UG/KG | U | U   |
| HEXACHLOROETHANE            | 67-72-1  | 27  | 50  | UG/KG | U | U   |
| INDENO(1,2,3-C,D)PYRENE     | 193-39-5 | 3.3 | 6.6 | UG/KG | U | U   |
| ISOPHORONE                  | 78-59-1  | 27  | 50  | UG/KG | U | U   |
| NAPHTHALENE                 | 91-20-3  | 3.3 | 6.6 | UG/KG | U | U   |
| NITROBENZENE                | 98-95-3  | 3.3 | 100 | UG/KG | U | U   |
| N-NITROSODI-N-PROPYLAMINE   | 621-64-7 | 27  | 50  | UG/KG | U | U   |

*Sample Delivery Group: 240-22648-1*

|                        |          |     |     |       |   |   |
|------------------------|----------|-----|-----|-------|---|---|
| N-NITROSODIPHENYLAMINE | 86-30-6  | 27  | 50  | UG/KG | U | U |
| PENTACHLOROPHENOL      | 87-86-5  | 80  | 150 | UG/KG | U | U |
| PHENANTHRENE           | 85-01-8  | 3.3 | 6.6 | UG/KG | U | U |
| PHENOL                 | 108-95-2 | 27  | 50  | UG/KG | U | U |
| PYRENE                 | 129-00-0 | 3.3 | 6.6 | UG/KG | U | U |

Validated Sample Result Forms for Sampling : Ravenna Army  
Ammunition Plant Ravenna, Ohio  
Remediation Investigation Compliance Restoration Site: RVAAP-69  
Building 1048 Fire Station

*Sample Delivery Group:* 240-17477-1

*Analysis Method* E353.2

| <b>Sample Name</b>      |           | 069SS-0001M-0001-SO |     | <b>AnalysisType:</b> N      |               |                      |                           |
|-------------------------|-----------|---------------------|-----|-----------------------------|---------------|----------------------|---------------------------|
| <b>Lab Sample Name:</b> |           | 240-17525-1         |     | <b>Validation Level:</b> IV |               |                      |                           |
| Analyte                 | CAS No    | Result Value        | LOQ | Result                      | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| NITROCELLULOSE          | 9004-70-0 | 17                  | 47  | MG/KG                       | U             | U                    |                           |

*Analysis Method* SW7471A

| <b>Sample Name</b>      |           | 069SS-0001M-0001-SO |      | <b>AnalysisType:</b> N      |               |                      |                           |
|-------------------------|-----------|---------------------|------|-----------------------------|---------------|----------------------|---------------------------|
| <b>Lab Sample Name:</b> |           | 240-17525-1         |      | <b>Validation Level:</b> IV |               |                      |                           |
| Analyte                 | CAS No    | Result Value        | LOQ  | Result                      | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| MERCURY                 | 7439-97-6 | 0.206               | 0.11 | MG/KG                       |               |                      |                           |

*Analysis Method* SW8082

| <b>Sample Name</b>      |            | 069SS-0001M-0001-SO |     | <b>AnalysisType:</b> N      |               |                      |                           |
|-------------------------|------------|---------------------|-----|-----------------------------|---------------|----------------------|---------------------------|
| <b>Lab Sample Name:</b> |            | 240-17525-1         |     | <b>Validation Level:</b> IV |               |                      |                           |
| Analyte                 | CAS No     | Result Value        | LOQ | Result                      | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| PCB-1016                | 12674-11-2 | 24                  | 64  | UG/KG                       | U             | U                    |                           |
| PCB-1221                | 11104-28-2 | 24                  | 49  | UG/KG                       | U             | U                    |                           |
| PCB-1232                | 11141-16-5 | 24                  | 44  | UG/KG                       | U             | U                    |                           |
| PCB-1242                | 53469-21-9 | 24                  | 40  | UG/KG                       | U             | U                    |                           |
| PCB-1248                | 12672-29-6 | 24                  | 54  | UG/KG                       | U             | U                    |                           |
| PCB-1254                | 11097-69-1 | 24                  | 54  | UG/KG                       | U             | U                    |                           |
| PCB-1260                | 11096-82-5 | 41                  | 54  | UG/KG                       | J             | J                    |                           |

Sample Delivery Group: 240-17477-1

Analysis Method SW8260B

| Sample Name               |            | 069SS-0001M-0001-SO |     | AnalysisType: N      |               |                      |                           |
|---------------------------|------------|---------------------|-----|----------------------|---------------|----------------------|---------------------------|
| Lab Sample Name:          |            | 240-17525-1         |     | Validation Level: IV |               |                      |                           |
| Analyte                   | CAS No     | Result Value        | LOQ | Result               | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| 1,1,1-TRICHLOROETHANE     | 71-55-6    | 0.97                | 4.9 | UG/KG                | U             | U                    |                           |
| 1,1,2,2-TETRACHLOROETHANE | 79-34-5    | 0.51                | 5.1 | UG/KG                | U             | U                    |                           |
| 1,1,2-TRICHLOROETHANE     | 79-00-5    | 0.51                | 5.1 | UG/KG                | U             | U                    |                           |
| 1,1-DICHLOROETHANE        | 75-34-3    | 0.51                | 5.1 | UG/KG                | U             | U                    |                           |
| 1,1-DICHLOROETHENE        | 75-35-4    | 1                   | 5.1 | UG/KG                | U             | U                    |                           |
| 1,2-DIBROMOETHANE         | 106-93-4   | 1                   | 5.1 | UG/KG                | U             | U                    |                           |
| 1,2-DICHLOROETHANE        | 107-06-2   | 0.51                | 5.1 | UG/KG                | U             | U                    |                           |
| 1,2-DICHLOROPROPANE       | 78-87-5    | 1                   | 5.1 | UG/KG                | U             | U                    |                           |
| 2-HEXANONE                | 591-78-6   | 1                   | 20  | UG/KG                | U             | U                    |                           |
| ACETONE                   | 67-64-1    | 6.1                 | 19  | UG/KG                | U             | U                    |                           |
| BENZENE                   | 71-43-2    | 0.51                | 5.1 | UG/KG                | U             | U                    |                           |
| BROMOCHLOROMETHANE        | 74-97-5    | 1                   | 5.1 | UG/KG                | U             | U                    |                           |
| BROMODICHLOROMETHANE      | 75-27-4    | 0.51                | 5.1 | UG/KG                | U             | U                    |                           |
| BROMOFORM                 | 75-25-2    | 0.51                | 5.1 | UG/KG                | U             | U                    |                           |
| BROMOMETHANE              | 74-83-9    | 1                   | 5.1 | UG/KG                | U             | U                    |                           |
| CARBON DISULFIDE          | 75-15-0    | 0.51                | 5.1 | UG/KG                | U             | UJ                   | C                         |
| CARBON TETRACHLORIDE      | 56-23-5    | 0.49                | 4.9 | UG/KG                | U             | U                    |                           |
| CHLOROBENZENE             | 108-90-7   | 0.51                | 5.1 | UG/KG                | U J           | U                    |                           |
| CHLOROETHANE              | 75-00-3    | 1                   | 5.1 | UG/KG                | U             | U                    |                           |
| CHLOROFORM                | 67-66-3    | 0.51                | 5.1 | UG/KG                | U             | U                    |                           |
| CHLOROMETHANE             | 74-87-3    | 0.51                | 5.1 | UG/KG                | U             | U                    |                           |
| CIS-1,3-DICHLOROPROPENE   | 10061-01-5 | 0.51                | 5.1 | UG/KG                | U             | U                    |                           |
| DIBROMOCHLOROMETHANE      | 124-48-1   | 1                   | 5.1 | UG/KG                | U             | U                    |                           |
| ETHYLBENZENE              | 100-41-4   | 0.51                | 5.1 | UG/KG                | U             | U                    |                           |
| METHYL ETHYL KETONE       | 78-93-3    | 2                   | 20  | UG/KG                | U             | U                    |                           |
| METHYL ISOBUTYL KETONE    | 108-10-1   | 1                   | 20  | UG/KG                | U             | U                    |                           |
| METHYLENE CHLORIDE        | 75-09-2    | 1                   | 5.1 | UG/KG                | U             | U                    |                           |
| STYRENE                   | 100-42-5   | 0.51                | 5.1 | UG/KG                | U             | U                    |                           |

*Sample Delivery Group: 240-17477-1*

|                           |            |      |     |       |   |   |
|---------------------------|------------|------|-----|-------|---|---|
| TERT-BUTYL METHYL ETHER   | 1634-04-4  | 0.51 | 5.1 | UG/KG | U | U |
| TETRACHLOROETHYLENE       | 127-18-4   | 1    | 5.1 | UG/KG | U | U |
| TOLUENE                   | 108-88-3   | 0.51 | 5.1 | UG/KG | U | U |
| TOTAL 1,2-DICHLOROETHENE  | 540-59-0   | 1    | 10  | UG/KG | U | U |
| TRANS-1,3-DICHLOROPROPENE | 10061-02-6 | 1    | 5.1 | UG/KG | U | U |
| TRICHLOROETHYLENE         | 79-01-6    | 0.51 | 5.1 | UG/KG | U | U |
| VINYL CHLORIDE            | 75-01-4    | 0.51 | 5.1 | UG/KG | U | U |
| XYLENES, TOTAL            |            | 1.5  | 10  | UG/KG | U | U |

Sample Delivery Group: 240-17477-1

Analysis Method SW8270C

| Sample Name                |           | 069SS-0001M-0001-SO |      | AnalysisType: N      |               |                      |                           |
|----------------------------|-----------|---------------------|------|----------------------|---------------|----------------------|---------------------------|
| Lab Sample Name:           |           | 240-17525-1         |      | Validation Level: IV |               |                      |                           |
| Analyte                    | CAS No    | Result Value        | LOQ  | Result               | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| 1,2,4-TRICHLOROBENZENE     | 120-82-1  | 140                 | 250  | UG/KG                | U             | U                    |                           |
| 1,2-DICHLOROBENZENE        | 95-50-1   | 140                 | 250  | UG/KG                | U             | U                    |                           |
| 1,3-DICHLOROBENZENE        | 541-73-1  | 140                 | 250  | UG/KG                | U             | U                    |                           |
| 1,4-DICHLOROBENZENE        | 106-46-7  | 140                 | 250  | UG/KG                | U             | U                    |                           |
| 2,4,5-TRICHLOROPHENOL      | 95-95-4   | 140                 | 750  | UG/KG                | U             | U                    |                           |
| 2,4,6-TRICHLOROPHENOL      | 88-06-2   | 400                 | 750  | UG/KG                | U             | U                    |                           |
| 2,4-DICHLOROPHENOL         | 120-83-2  | 140                 | 750  | UG/KG                | U             | U                    |                           |
| 2,4-DIMETHYLPHENOL         | 105-67-9  | 400                 | 750  | UG/KG                | U             | U                    |                           |
| 2,4-DINITROPHENOL          | 51-28-5   | 400                 | 1700 | UG/KG                | U             | J                    |                           |
| 2,4-DINITROTOLUENE         | 121-14-2  | 140                 | 1000 | UG/KG                | U             | R                    | D                         |
| 2,6-DINITROTOLUENE         | 606-20-2  | 140                 | 1000 | UG/KG                | U             | R                    | D                         |
| 2-CHLORONAPHTHALENE        | 91-58-7   | 17                  | 250  | UG/KG                | U             | U                    |                           |
| 2-CHLOROPHENOL             | 95-57-8   | 140                 | 250  | UG/KG                | U             | U                    |                           |
| 2-METHYLNAPHTHALENE        | 91-57-6   | 20                  | 34   | UG/KG                | J D           | J                    |                           |
| 2-METHYLPHENOL (O-CRESOL)  | 95-48-7   | 400                 | 1000 | UG/KG                | U             | U                    |                           |
| 2-NITROANILINE             | 88-74-4   | 140                 | 1000 | UG/KG                | U             | U                    |                           |
| 2-NITROPHENOL              | 88-75-5   | 140                 | 250  | UG/KG                | U             | U                    |                           |
| 3,3'-DICHLOROBENZIDINE     | 91-94-1   | 400                 | 500  | UG/KG                | U             | R                    | Q                         |
| 3-NITROANILINE             | 99-09-2   | 400                 | 1000 | UG/KG                | U             | U                    |                           |
| 4,6-DINITRO-2-METHYLPHENOL | 534-52-1  | 400                 | 750  | UG/KG                | U             | UJ                   | Q                         |
| 4-BROMOPHENYL PHENYL ETHE  | 101-55-3  | 140                 | 250  | UG/KG                | U             | U                    |                           |
| 4-CHLORO-3-METHYLPHENOL    | 59-50-7   | 140                 | 750  | UG/KG                | U             | U                    |                           |
| 4-CHLOROANILINE            | 106-47-8  | 140                 | 750  | UG/KG                | U             | U                    |                           |
| 4-CHLOROPHENYL PHENYL ETH  | 7005-72-3 | 140                 | 250  | UG/KG                | U             | U                    |                           |
| 4-NITROANILINE             | 100-01-6  | 140                 | 1000 | UG/KG                | U             | U                    |                           |
| 4-NITROPHENOL              | 100-02-7  | 400                 | 1700 | UG/KG                | U             | UJ                   | Q                         |
| ACENAPHTHENE               | 83-32-9   | 17                  | 34   | UG/KG                | U             | U                    |                           |
| ACENAPHTHYLENE             | 208-96-8  | 17                  | 34   | UG/KG                | U             | U                    |                           |

## Sample Delivery Group: 240-17477-1

|                             |          |      |      |       |       |   |   |
|-----------------------------|----------|------|------|-------|-------|---|---|
| ANTHRACENE                  | 120-12-7 | 17   | 34   | UG/KG | U     | U |   |
| BENZO(A)ANTHRACENE          | 56-55-3  | 54   | 34   | UG/KG | D     |   |   |
| BENZO(A)PYRENE              | 50-32-8  | 93   | 34   | UG/KG | D     |   |   |
| BENZO(B)FLUORANTHENE        | 205-99-2 | 90   | 34   | UG/KG | D     |   |   |
| BENZO(G,H,I)PERYLENE        | 191-24-2 | 52   | 34   | UG/KG | D     |   |   |
| BENZO(K)FLUORANTHENE        | 207-08-9 | 28   | 34   | UG/KG | J D M | J |   |
| BENZOIC ACID                | 65-85-0  | 1700 | 3300 | UG/KG | U     | R | Q |
| BENZYL ALCOHOL              | 100-51-6 | 140  | 1700 | UG/KG | U     | U |   |
| BENZYL BUTYL PHTHALATE      | 85-68-7  | 140  | 250  | UG/KG | U     | U |   |
| BIS(2-CHLOROETHOXY) METHA   | 111-91-1 | 140  | 500  | UG/KG | U     | U |   |
| BIS(2-CHLOROETHYL) ETHER    | 111-44-4 | 17   | 500  | UG/KG | U     | U |   |
| BIS(2-CHLOROISOPROPYL) ETHE | 108-60-1 | 140  | 500  | UG/KG | U     | U |   |
| BIS(2-ETHYLHEXYL) PHTHALAT  | 117-81-7 | 140  | 250  | UG/KG | U     | U |   |
| CARBAZOLE                   | 86-74-8  | 140  | 250  | UG/KG | U     | U |   |
| CHRYSENE                    | 218-01-9 | 72   | 34   | UG/KG | D     |   |   |
| CRESOLS, M & P              |          | 400  | 2000 | UG/KG | U     | U |   |
| DIBENZ(A,H)ANTHRACENE       | 53-70-3  | 17   | 34   | UG/KG | U     | U |   |
| DIBENZOFURAN                | 132-64-9 | 17   | 250  | UG/KG | U     | U |   |
| DIETHYL PHTHALATE           | 84-66-2  | 140  | 250  | UG/KG | U     | U |   |
| DIMETHYL PHTHALATE          | 131-11-3 | 140  | 250  | UG/KG | U     | U |   |
| DI-N-BUTYL PHTHALATE        | 84-74-2  | 140  | 250  | UG/KG | U     | U |   |
| DI-N-OCTYLPHTHALATE         | 117-84-0 | 140  | 250  | UG/KG | U     | U |   |
| FLUORANTHENE                | 206-44-0 | 120  | 34   | UG/KG | D     |   |   |
| FLUORENE                    | 86-73-7  | 17   | 34   | UG/KG | U     | U |   |
| HEXACHLOROBENZENE           | 118-74-1 | 17   | 34   | UG/KG | U     | U |   |
| HEXACHLOROBUTADIENE         | 87-68-3  | 140  | 250  | UG/KG | U     | U |   |
| HEXACHLOROCYCLOPENTADIE     | 77-47-4  | 140  | 1700 | UG/KG | U     | U |   |
| HEXACHLOROETHANE            | 67-72-1  | 140  | 250  | UG/KG | U     | U |   |
| INDENO(1,2,3-C,D)PYRENE     | 193-39-5 | 69   | 34   | UG/KG | D M   |   |   |
| ISOPHORONE                  | 78-59-1  | 140  | 250  | UG/KG | U     | U |   |
| NAPHTHALENE                 | 91-20-3  | 18   | 34   | UG/KG | J D   | J |   |
| NITROBENZENE                | 98-95-3  | 17   | 500  | UG/KG | U     | U |   |
| N-NITROSODI-N-PROPYLAMINE   | 621-64-7 | 140  | 250  | UG/KG | U     | U |   |

## Sample Delivery Group: 240-17477-1

|                        |          |     |     |       |   |   |   |
|------------------------|----------|-----|-----|-------|---|---|---|
| N-NITROSODIPHENYLAMINE | 86-30-6  | 140 | 250 | UG/KG | U | R | C |
| PENTACHLOROPHENOL      | 87-86-5  | 400 | 750 | UG/KG | U | U |   |
| PHENANTHRENE           | 85-01-8  | 53  | 34  | UG/KG | D |   |   |
| PHENOL                 | 108-95-2 | 140 | 250 | UG/KG | U | U |   |
| PYRENE                 | 129-00-0 | 86  | 34  | UG/KG | D |   |   |

## Analysis Method SW8330B

**Sample Name** 069SS-0001M-0001-SO

**AnalysisType:** N

**Lab Sample Name:** 240-17525-1

**Validation Level:** IV

| Analyte                    | CAS No     | Result Value | LOQ  | Result | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
|----------------------------|------------|--------------|------|--------|---------------|----------------------|---------------------------|
| 1,3,5-TRINITROBENZENE      | 99-35-4    | 0.05         | 0.25 | MG/KG  | U             | U                    |                           |
| 1,3-DINITROBENZENE         | 99-65-0    | 0.05         | 0.25 | MG/KG  | U             | U                    |                           |
| 2,4,6-TRINITROTOLUENE      | 118-96-7   | 0.05         | 0.25 | MG/KG  | U             | U                    |                           |
| 2,4-DINITROTOLUENE         | 121-14-2   | 0.05         | 0.25 | MG/KG  | U             | U                    |                           |
| 2,6-DINITROTOLUENE         | 606-20-2   | 0.05         | 0.25 | MG/KG  | U             | U                    |                           |
| 2-AMINO-4,6-DINITROTOLUENE | 35572-78-2 | 0.05         | 0.25 | MG/KG  | U             | U                    |                           |
| 2-NITROTOLUENE             | 88-72-2    | 0.05         | 0.25 | MG/KG  | U             | UJ                   | C                         |
| 3-NITROTOLUENE             | 99-08-1    | 0.05         | 0.25 | MG/KG  | U             | U                    |                           |
| 4-AMINO-2,6-DINITROTOLUENE | 19406-51-0 | 0.05         | 0.25 | MG/KG  | U             | U                    |                           |
| 4-NITROTOLUENE             | 99-99-0    | 0.05         | 0.25 | MG/KG  | U             | U                    |                           |
| HMX                        | 2691-41-0  | 0.05         | 0.25 | MG/KG  | U             | U                    |                           |
| NITROBENZENE               | 98-95-3    | 0.05         | 0.25 | MG/KG  | U             | R                    | D                         |
| NITROGLYCERIN              | 55-63-0    | 0.25         | 0.5  | MG/KG  | U             | U                    |                           |
| NITROGUANIDINE             | 556-88-7   | 0.039        | 0.24 | MG/KG  | U             | U                    |                           |
| PETN                       | 78-11-5    | 0.25         | 0.5  | MG/KG  | U             | U                    |                           |
| RDX                        | 121-82-4   | 0.05         | 0.25 | MG/KG  | U             | UJ                   | C                         |
| TETRYL                     | 479-45-8   | 0.05         | 0.25 | MG/KG  | U             | U                    |                           |



*Sample Delivery Group: 240-17525-2*

*Analysis Method SW6020*

| <b>Sample Name</b>      |               | 069SS-0001M-0001-SO |            | <b>AnalysisType:</b> N      |                      |                             |                                  |
|-------------------------|---------------|---------------------|------------|-----------------------------|----------------------|-----------------------------|----------------------------------|
| <b>Lab Sample Name:</b> |               | 240-17525-1         |            | <b>Validation Level:</b> IV |                      |                             |                                  |
| <b>Analyte</b>          | <b>CAS No</b> | <b>Result Value</b> | <b>LOQ</b> | <b>Result</b>               | <b>Lab Qualifier</b> | <b>Validation Qualifier</b> | <b>Validation Qualifier Code</b> |
| ALUMINUM                | 7429-90-5     | 14000               | 2.7        | MG/KG                       | J                    | J                           |                                  |
| ANTIMONY                | 7440-36-0     | 0.14                | 0.18       | MG/KG                       | J                    | J                           | I, Q                             |
| ARSENIC                 | 7440-38-2     | 10.0                | 0.089      | MG/KG                       |                      | J-                          | Q                                |
| BARIUM                  | 7440-39-3     | 76.0                | 0.89       | MG/KG                       | Q                    | J                           | M                                |
| BERYLLIUM               | 7440-41-7     | 0.82                | 0.089      | MG/KG                       |                      |                             |                                  |
| CADMIUM                 | 7440-43-9     | 0.29                | 0.089      | MG/KG                       |                      | J-                          | Q                                |
| CALCIUM                 | 7440-70-2     | 5300                | 8.9        | MG/KG                       |                      | J                           | A, E                             |
| CHROMIUM                | 7440-47-3     | 24.0                | 0.18       | MG/KG                       |                      |                             |                                  |
| COBALT                  | 7440-48-4     | 11.0                | 0.045      | MG/KG                       | Q                    |                             |                                  |
| COPPER                  | 7440-50-8     | 19.0                | 0.18       | MG/KG                       | Q                    | J-                          | Q                                |
| IRON                    | 7439-89-6     | 24000               | 4.5        | MG/KG                       |                      |                             |                                  |
| LEAD                    | 7439-92-1     | 19.0                | 0.089      | MG/KG                       |                      |                             |                                  |
| MAGNESIUM               | 7439-95-4     | 3900                | 8.9        | MG/KG                       |                      |                             |                                  |
| MANGANESE               | 7439-96-5     | 430.0               | 0.45       | MG/KG                       | Q J                  | J                           |                                  |
| NICKEL                  | 7440-02-0     | 27.0                | 0.089      | MG/KG                       | Q                    |                             |                                  |
| POTASSIUM               | 7440-09-7     | 1500                | 8.9        | MG/KG                       |                      |                             |                                  |
| SELENIUM                | 7782-49-2     | 0.78                | 0.45       | MG/KG                       |                      | J-                          | Q                                |
| SILVER                  | 7440-22-4     | 0.034               | 0.089      | MG/KG                       | J                    | J+                          | I                                |
| SODIUM                  | 7440-23-5     | 53.0                | 8.9        | MG/KG                       |                      | U                           | F                                |
| THALLIUM                | 7440-28-0     | 0.23                | 0.089      | MG/KG                       |                      | U                           | F                                |
| VANADIUM                | 7440-62-2     | 21.0                | 0.089      | MG/KG                       |                      |                             |                                  |
| ZINC                    | 7440-66-6     | 79.0                | 0.45       | MG/KG                       | Q                    |                             |                                  |

*Sample Delivery Group: 240-17602-1*

*Analysis Method SW7471A*

|                         |               |                     |            |                             |                      |                             |                                  |
|-------------------------|---------------|---------------------|------------|-----------------------------|----------------------|-----------------------------|----------------------------------|
| <b>Sample Name</b>      |               | 069SB-0013M-0001-SO |            | <b>AnalysisType:</b> N      |                      |                             |                                  |
| <b>Lab Sample Name:</b> |               | 240-17602-9         |            | <b>Validation Level:</b> IV |                      |                             |                                  |
| <b>Analyte</b>          | <b>CAS No</b> | <b>Result Value</b> | <b>LOQ</b> | <b>Result</b>               | <b>Lab Qualifier</b> | <b>Validation Qualifier</b> | <b>Validation Qualifier Code</b> |
| MERCURY                 | 7439-97-6     | 0.021               | 0.11       | MG/KG                       | J                    | J                           |                                  |

# Sample Delivery Group: 240-17602-1

## Analysis Method SW8260B

| <b>Sample Name</b>        |            | 069SB-0013M-0001-SO |     | <b>AnalysisType:</b> N      |               |                      |                           |
|---------------------------|------------|---------------------|-----|-----------------------------|---------------|----------------------|---------------------------|
| <b>Lab Sample Name:</b>   |            | 240-17602-9         |     | <b>Validation Level:</b> IV |               |                      |                           |
| Analyte                   | CAS No     | Result Value        | LOQ | Result                      | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| 1,1,1-TRICHLOROETHANE     | 71-55-6    | 0.99                | 4.9 | UG/KG                       | U             | U                    |                           |
| 1,1,2,2-TETRACHLOROETHANE | 79-34-5    | 0.51                | 5.1 | UG/KG                       | U             | U                    |                           |
| 1,1,2-TRICHLOROETHANE     | 79-00-5    | 0.51                | 5.1 | UG/KG                       | U             | U                    |                           |
| 1,1-DICHLOROETHANE        | 75-34-3    | 0.51                | 5.1 | UG/KG                       | U             | U                    |                           |
| 1,1-DICHLOROETHENE        | 75-35-4    | 1.0                 | 5.1 | UG/KG                       | U             | U                    |                           |
| 1,2-DIBROMOETHANE         | 106-93-4   | 1.0                 | 5.1 | UG/KG                       | U             | U                    |                           |
| 1,2-DICHLOROETHANE        | 107-06-2   | 0.51                | 5.1 | UG/KG                       | U             | U                    |                           |
| 1,2-DICHLOROPROPANE       | 78-87-5    | 1.0                 | 5.1 | UG/KG                       | U             | U                    |                           |
| 2-HEXANONE                | 591-78-6   | 1.0                 | 20  | UG/KG                       | U             | U                    |                           |
| ACETONE                   | 67-64-1    | 6.2                 | 20  | UG/KG                       | U             | U                    |                           |
| BENZENE                   | 71-43-2    | 0.51                | 5.1 | UG/KG                       | U             | U                    |                           |
| BROMOCHLOROMETHANE        | 74-97-5    | 1.0                 | 5.1 | UG/KG                       | U             | U                    |                           |
| BROMODICHLOROMETHANE      | 75-27-4    | 0.51                | 5.1 | UG/KG                       | U             | U                    |                           |
| BROMOFORM                 | 75-25-2    | 0.51                | 5.1 | UG/KG                       | U             | U                    |                           |
| BROMOMETHANE              | 74-83-9    | 1.0                 | 5.1 | UG/KG                       | U             | U                    |                           |
| CARBON DISULFIDE          | 75-15-0    | 0.51                | 5.1 | UG/KG                       | U             | UJ                   | C                         |
| CARBON TETRACHLORIDE      | 56-23-5    | 2.7                 | 4.9 | UG/KG                       | J             | J                    |                           |
| CHLOROBENZENE             | 108-90-7   | 0.51                | 5.1 | UG/KG                       | U             | U                    |                           |
| CHLOROETHANE              | 75-00-3    | 1.0                 | 5.1 | UG/KG                       | U             | U                    |                           |
| CHLOROFORM                | 67-66-3    | 0.51                | 5.1 | UG/KG                       | U             | U                    |                           |
| CHLOROMETHANE             | 74-87-3    | 0.51                | 5.1 | UG/KG                       | U             | U                    |                           |
| CIS-1,3-DICHLOROPROPENE   | 10061-01-5 | 0.51                | 5.1 | UG/KG                       | U             | U                    |                           |
| DIBROMOCHLOROMETHANE      | 124-48-1   | 1.0                 | 5.1 | UG/KG                       | U             | U                    |                           |
| ETHYLBENZENE              | 100-41-4   | 0.51                | 5.1 | UG/KG                       | U             | U                    |                           |
| METHYL ETHYL KETONE       | 78-93-3    | 2.0                 | 20  | UG/KG                       | U             | U                    |                           |
| METHYL ISOBUTYL KETONE    | 108-10-1   | 1.0                 | 20  | UG/KG                       | U             | U                    |                           |
| METHYLENE CHLORIDE        | 75-09-2    | 1.0                 | 5.1 | UG/KG                       | U             | U                    |                           |
| STYRENE                   | 100-42-5   | 0.51                | 5.1 | UG/KG                       | U             | U                    |                           |

*Sample Delivery Group: 240-17602-1*

|                           |            |      |     |       |   |   |
|---------------------------|------------|------|-----|-------|---|---|
| TERT-BUTYL METHYL ETHER   | 1634-04-4  | 0.51 | 5.1 | UG/KG | U | U |
| TETRACHLOROETHYLENE       | 127-18-4   | 1.0  | 5.1 | UG/KG | U | U |
| TOLUENE                   | 108-88-3   | 0.51 | 5.1 | UG/KG | U | U |
| TOTAL 1,2-DICHLOROETHENE  | 540-59-0   | 1.0  | 10  | UG/KG | U | U |
| TRANS-1,3-DICHLOROPROPENE | 10061-02-6 | 1.0  | 5.1 | UG/KG | U | U |
| TRICHLOROETHYLENE         | 79-01-6    | 0.51 | 5.1 | UG/KG | U | U |
| VINYL CHLORIDE            | 75-01-4    | 0.51 | 5.1 | UG/KG | U | U |
| XYLENES, TOTAL            |            | 1.5  | 10  | UG/KG | U | U |

# Sample Delivery Group: 240-17602-1

## Analysis Method SW8270D

| <b>Sample Name</b>          |           | 069SB-0013M-0001-SO |     | <b>AnalysisType:</b> N      |               |                      |                           |
|-----------------------------|-----------|---------------------|-----|-----------------------------|---------------|----------------------|---------------------------|
| <b>Lab Sample Name:</b>     |           | 240-17602-9         |     | <b>Validation Level:</b> IV |               |                      |                           |
| Analyte                     | CAS No    | Result Value        | LOQ | Result                      | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| 1,2,4-TRICHLOROBENZENE      | 120-82-1  | 27                  | 49  | UG/KG                       | U             | U                    |                           |
| 1,2-DICHLOROBENZENE         | 95-50-1   | 20.0                | 49  | UG/KG                       | J             | J                    |                           |
| 1,3-DICHLOROBENZENE         | 541-73-1  | 27                  | 49  | UG/KG                       | U             | U                    |                           |
| 1,4-DICHLOROBENZENE         | 106-46-7  | 27                  | 49  | UG/KG                       | U             | U                    |                           |
| 2,2'-OXYBIS(1-CHLORO)PROPAN | 108-60-1  | 27                  | 98  | UG/KG                       | U             | U                    |                           |
| 2,4,5-TRICHLOROPHENOL       | 95-95-4   | 27                  | 150 | UG/KG                       | U             | U                    |                           |
| 2,4,6-TRICHLOROPHENOL       | 88-06-2   | 79                  | 150 | UG/KG                       | U             | U                    |                           |
| 2,4-DICHLOROPHENOL          | 120-83-2  | 27                  | 150 | UG/KG                       | U             | U                    |                           |
| 2,4-DIMETHYLPHENOL          | 105-67-9  | 79                  | 150 | UG/KG                       | U             | U                    |                           |
| 2,4-DINITROPHENOL           | 51-28-5   | 79                  | 320 | UG/KG                       | U             | U                    |                           |
| 2,4-DINITROTOLUENE          | 121-14-2  | 27                  | 200 | UG/KG                       | U             | U                    |                           |
| 2,6-DINITROTOLUENE          | 606-20-2  | 27                  | 200 | UG/KG                       | U             | U                    |                           |
| 2-CHLORONAPHTHALENE         | 91-58-7   | 3.2                 | 49  | UG/KG                       | U             | U                    |                           |
| 2-CHLOROPHENOL              | 95-57-8   | 27                  | 49  | UG/KG                       | U             | U                    |                           |
| 2-METHYLNAPHTHALENE         | 91-57-6   | 5.8                 | 6.6 | UG/KG                       | J             | J                    |                           |
| 2-METHYLPHENOL (O-CRESOL)   | 95-48-7   | 79                  | 200 | UG/KG                       | U             | U                    |                           |
| 2-NITROANILINE              | 88-74-4   | 27                  | 200 | UG/KG                       | U             | U                    |                           |
| 2-NITROPHENOL               | 88-75-5   | 27                  | 49  | UG/KG                       | U             | U                    |                           |
| 3,3'-DICHLOROBENZIDINE      | 91-94-1   | 79                  | 98  | UG/KG                       | U             | UJ                   | C                         |
| 3-NITROANILINE              | 99-09-2   | 79                  | 200 | UG/KG                       | U             | U                    |                           |
| 4,6-DINITRO-2-METHYLPHENOL  | 534-52-1  | 79                  | 150 | UG/KG                       | U             | U                    |                           |
| 4-BROMOPHENYL PHENYL ETHE   | 101-55-3  | 27                  | 49  | UG/KG                       | U             | U                    |                           |
| 4-CHLORO-3-METHYLPHENOL     | 59-50-7   | 27                  | 150 | UG/KG                       | U             | U                    |                           |
| 4-CHLOROANILINE             | 106-47-8  | 27                  | 150 | UG/KG                       | U             | U                    |                           |
| 4-CHLOROPHENYL PHENYL ETH   | 7005-72-3 | 27                  | 49  | UG/KG                       | U             | U                    |                           |
| 4-NITROANILINE              | 100-01-6  | 27                  | 200 | UG/KG                       | U             | U                    |                           |
| 4-NITROPHENOL               | 100-02-7  | 79                  | 320 | UG/KG                       | U             | U                    |                           |
| ACENAPHTHENE                | 83-32-9   | 3.2                 | 6.6 | UG/KG                       | U             | U                    |                           |

## Sample Delivery Group: 240-17602-1

|                            |          |       |     |       |   |     |
|----------------------------|----------|-------|-----|-------|---|-----|
| ACENAPHTHYLENE             | 208-96-8 | 3.2   | 6.6 | UG/KG | U | U   |
| ANTHRACENE                 | 120-12-7 | 3.2   | 6.6 | UG/KG | U | U   |
| BENZO(A)ANTHRACENE         | 56-55-3  | 3.2   | 6.6 | UG/KG | U | U   |
| BENZO(A)PYRENE             | 50-32-8  | 3.2   | 6.6 | UG/KG | U | U   |
| BENZO(B)FLUORANTHENE       | 205-99-2 | 3.2   | 6.6 | UG/KG | U | U   |
| BENZO(G,H,I)PERYLENE       | 191-24-2 | 3.2   | 6.6 | UG/KG | U | U   |
| BENZO(K)FLUORANTHENE       | 207-08-9 | 3.2   | 6.6 | UG/KG | U | U   |
| BENZOIC ACID               | 65-85-0  | 330   | 650 | UG/KG | U | U   |
| BENZYL ALCOHOL             | 100-51-6 | 27    | 320 | UG/KG | U | U   |
| BENZYL BUTYL PHTHALATE     | 85-68-7  | 27    | 49  | UG/KG | U | U   |
| BIS(2-CHLOROETHOXY) METHA  | 111-91-1 | 27    | 98  | UG/KG | U | U   |
| BIS(2-CHLOROETHYL) ETHER   | 111-44-4 | 3.2   | 98  | UG/KG | U | U   |
| BIS(2-ETHYLHEXYL) PHTHALAT | 117-81-7 | 130.0 | 49  | UG/KG |   | U B |
| CARBAZOLE                  | 86-74-8  | 27    | 49  | UG/KG | U | U   |
| CHRYSENE                   | 218-01-9 | 3.2   | 6.6 | UG/KG | U | U   |
| CRESOLS, M & P             |          | 79    | 390 | UG/KG | U | U   |
| DIBENZ(A,H)ANTHRACENE      | 53-70-3  | 3.2   | 6.6 | UG/KG | U | U   |
| DIBENZOFURAN               | 132-64-9 | 3.2   | 49  | UG/KG | U | U   |
| DIETHYL PHTHALATE          | 84-66-2  | 27    | 49  | UG/KG | U | U   |
| DIMETHYL PHTHALATE         | 131-11-3 | 27    | 49  | UG/KG | U | U   |
| DI-N-BUTYL PHTHALATE       | 84-74-2  | 27    | 49  | UG/KG | U | U   |
| DI-N-OCTYLPHTHALATE        | 117-84-0 | 27    | 49  | UG/KG | U | U   |
| FLUORANTHENE               | 206-44-0 | 3.2   | 6.6 | UG/KG | U | U   |
| FLUORENE                   | 86-73-7  | 3.2   | 6.6 | UG/KG | U | U   |
| HEXACHLOROBENZENE          | 118-74-1 | 3.2   | 6.6 | UG/KG | U | U   |
| HEXACHLOROBUTADIENE        | 87-68-3  | 27    | 49  | UG/KG | U | U   |
| HEXACHLOROCYCLOPENTADIE    | 77-47-4  | 27    | 320 | UG/KG | U | U   |
| HEXACHLOROETHANE           | 67-72-1  | 27    | 49  | UG/KG | U | U   |
| INDENO(1,2,3-C,D)PYRENE    | 193-39-5 | 3.2   | 6.6 | UG/KG | U | U   |
| ISOPHORONE                 | 78-59-1  | 27    | 49  | UG/KG | U | U   |
| NAPHTHALENE                | 91-20-3  | 7.1   | 6.6 | UG/KG |   |     |
| NITROBENZENE               | 98-95-3  | 3.2   | 98  | UG/KG | U | U   |
| N-NITROSODI-N-PROPYLAMINE  | 621-64-7 | 27    | 49  | UG/KG | U | U   |

### Sample Delivery Group: 240-17602-1

|                        |          |     |     |       |   |          |          |
|------------------------|----------|-----|-----|-------|---|----------|----------|
| N-NITROSODIPHENYLAMINE | 86-30-6  | 27  | 49  | UG/KG | U | <b>R</b> | <b>C</b> |
| PENTACHLOROPHENOL      | 87-86-5  | 79  | 150 | UG/KG | U | <b>U</b> |          |
| PHENANTHRENE           | 85-01-8  | 3.7 | 6.6 | UG/KG | J | <b>J</b> |          |
| PHENOL                 | 108-95-2 | 27  | 49  | UG/KG | U | <b>U</b> |          |
| PYRENE                 | 129-00-0 | 3.2 | 6.6 | UG/KG | U | <b>U</b> |          |

### Sample Delivery Group: 240-17602-2

#### Analysis Method SW6020

| <b>Sample Name</b>      |           | 069SB-0013M-0001-SO |       | <b>AnalysisType:</b> N      |               |                      |                           |
|-------------------------|-----------|---------------------|-------|-----------------------------|---------------|----------------------|---------------------------|
| <b>Lab Sample Name:</b> |           | 240-17602-9         |       | <b>Validation Level:</b> IV |               |                      |                           |
| Analyte                 | CAS No    | Result Value        | LOQ   | Result                      | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| ALUMINUM                | 7429-90-5 | 9700                | 2.7   | MG/KG                       |               |                      |                           |
| ANTIMONY                | 7440-36-0 | 0.052               | 0.18  | MG/KG                       | J             | <b>J</b>             | <b>I, Q</b>               |
| ARSENIC                 | 7440-38-2 | 13.0                | 0.091 | MG/KG                       |               |                      |                           |
| BARIUM                  | 7440-39-3 | 39.0                | 0.91  | MG/KG                       | Q             | <b>J</b>             | <b>M</b>                  |
| BERYLLIUM               | 7440-41-7 | 0.5                 | 0.091 | MG/KG                       |               |                      |                           |
| CADMIUM                 | 7440-43-9 | 0.17                | 0.091 | MG/KG                       |               | <b>J+</b>            | <b>I</b>                  |
| CALCIUM                 | 7440-70-2 | 10000               | 9.1   | MG/KG                       |               | <b>J-</b>            | <b>Q</b>                  |
| CHROMIUM                | 7440-47-3 | 16.0                | 0.18  | MG/KG                       |               |                      |                           |
| COBALT                  | 7440-48-4 | 10.0                | 0.045 | MG/KG                       | Q             |                      |                           |
| COPPER                  | 7440-50-8 | 18.0                | 0.18  | MG/KG                       | Q             |                      |                           |
| IRON                    | 7439-89-6 | 26000               | 4.5   | MG/KG                       |               |                      |                           |
| LEAD                    | 7439-92-1 | 10.0                | 0.091 | MG/KG                       |               |                      |                           |
| MAGNESIUM               | 7439-95-4 | 4800                | 9.1   | MG/KG                       |               |                      |                           |
| MANGANESE               | 7439-96-5 | 320.0               | 0.45  | MG/KG                       | Q             |                      |                           |
| NICKEL                  | 7440-02-0 | 25.0                | 0.091 | MG/KG                       | Q             |                      |                           |
| POTASSIUM               | 7440-09-7 | 1500                | 9.1   | MG/KG                       |               |                      |                           |
| SELENIUM                | 7782-49-2 | 0.47                | 0.45  | MG/KG                       |               | <b>J-</b>            | <b>Q</b>                  |
| SILVER                  | 7440-22-4 | 0.028               | 0.091 | MG/KG                       | J             | <b>J+</b>            | <b>I</b>                  |
| SODIUM                  | 7440-23-5 | 77.0                | 9.1   | MG/KG                       |               |                      |                           |
| THALLIUM                | 7440-28-0 | 0.13                | 0.091 | MG/KG                       |               |                      |                           |
| VANADIUM                | 7440-62-2 | 15.0                | 0.091 | MG/KG                       |               |                      |                           |
| ZINC                    | 7440-66-6 | 54.0                | 0.45  | MG/KG                       | Q             |                      |                           |

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Validated Sample Result Forms for Sampling : Ravenna Army  
Ammunition Plant Ravenna, Ohio  
Remediation Investigation Compliance Restoration Site: RVAAP-73  
Coal Storage Area

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*Sample Delivery Group:* 240-17422-1

*Analysis Method* E353.2

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|                         |               |                     |            |                             |                      |                             |                                  |
|-------------------------|---------------|---------------------|------------|-----------------------------|----------------------|-----------------------------|----------------------------------|
| <b>Sample Name</b>      |               | 073SS-0002M-0001-SO |            | <b>AnalysisType:</b> FD     |                      |                             |                                  |
| <b>Lab Sample Name:</b> |               | 240-17422-5         |            | <b>Validation Level:</b> IV |                      |                             |                                  |
| <b>Analyte</b>          | <b>CAS No</b> | <b>Result Value</b> | <b>LOQ</b> | <b>Result</b>               | <b>Lab Qualifier</b> | <b>Validation Qualifier</b> | <b>Validation Qualifier Code</b> |
| NITROCELLULOSE          | 9004-70-0     | 17                  | 47         | MG/KG                       | U                    | U                           |                                  |



# Sample Delivery Group: 240-17422-1

## Analysis Method SW6020

| Sample Name      |           | 073SS-0002M-0001-SO |       | AnalysisType: FD     |               |                      |                           |
|------------------|-----------|---------------------|-------|----------------------|---------------|----------------------|---------------------------|
| Lab Sample Name: |           | 240-17422-5         |       | Validation Level: IV |               |                      |                           |
| Analyte          | CAS No    | Result Value        | LOQ   | Result               | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| ALUMINUM         | 7429-90-5 | 6900                | 8.4   | MG/KG                |               |                      |                           |
| ANTIMONY         | 7440-36-0 | 0.13                | 0.17  | MG/KG                | J             | R                    | B, Q                      |
| ARSENIC          | 7440-38-2 | 9.4                 | 0.42  | MG/KG                |               | J-                   | Q                         |
| BARIUM           | 7440-39-3 | 48                  | 0.42  | MG/KG                |               |                      |                           |
| BERYLLIUM        | 7440-41-7 | 0.49                | 0.084 | MG/KG                |               |                      |                           |
| CADMIUM          | 7440-43-9 | 0.22                | 0.17  | MG/KG                |               |                      |                           |
| CALCIUM          | 7440-70-2 | 4400                | 170   | MG/KG                |               |                      |                           |
| CHROMIUM         | 7440-47-3 | 19                  | 0.42  | MG/KG                |               |                      |                           |
| COBALT           | 7440-48-4 | 6.8                 | 0.084 | MG/KG                |               |                      |                           |
| COPPER           | 7440-50-8 | 13                  | 0.34  | MG/KG                |               |                      |                           |
| IRON             | 7439-89-6 | 17000               | 42    | MG/KG                |               |                      |                           |
| LEAD             | 7439-92-1 | 14                  | 0.25  | MG/KG                |               |                      |                           |
| MAGNESIUM        | 7439-95-4 | 2300                | 84    | MG/KG                |               |                      |                           |
| MANGANESE        | 7439-96-5 | 380                 | 0.42  | MG/KG                |               |                      |                           |
| NICKEL           | 7440-02-0 | 22                  | 0.42  | MG/KG                |               |                      |                           |
| POTASSIUM        | 7440-09-7 | 950                 | 84    | MG/KG                |               |                      |                           |
| SELENIUM         | 7782-49-2 | 0.47                | 0.42  | MG/KG                |               | J-                   | M, Q                      |
| SILVER           | 7440-22-4 | 0.38                | 0.084 | MG/KG                |               |                      |                           |
| SODIUM           | 7440-23-5 | 42                  | 84    | MG/KG                | J             | J                    |                           |
| THALLIUM         | 7440-28-0 | 0.13                | 0.17  | MG/KG                | J             | U                    | B                         |
| VANADIUM         | 7440-62-2 | 11                  | 0.42  | MG/KG                |               |                      |                           |
| ZINC             | 7440-66-6 | 64                  | 3.4   | MG/KG                |               |                      |                           |

## Analysis Method SW7471A

| Sample Name      |           | 073SS-0002M-0001-SO |       | AnalysisType: FD     |               |                      |                           |
|------------------|-----------|---------------------|-------|----------------------|---------------|----------------------|---------------------------|
| Lab Sample Name: |           | 240-17422-5         |       | Validation Level: IV |               |                      |                           |
| Analyte          | CAS No    | Result Value        | LOQ   | Result               | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| MERCURY          | 7439-97-6 | 0.051               | 0.095 | MG/KG                | J             | U                    | B                         |

Sample Delivery Group: 240-17422-1

Analysis Method SW8081

|                     |                     |              |                      |                  |               |                      |                           |
|---------------------|---------------------|--------------|----------------------|------------------|---------------|----------------------|---------------------------|
| Sample Name         | 073SS-0002M-0001-SO |              |                      | AnalysisType: FD |               |                      |                           |
| Lab Sample Name:    | 240-17422-5         |              | Validation Level: IV |                  |               |                      |                           |
| Analyte             | CAS No              | Result Value | LOQ                  | Result           | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| ALDRIN              | 309-00-2            | 27           | 81                   | UG/KG            | U             | U                    |                           |
| ALPHA BHC           | 319-84-6            | 27           | 51                   | UG/KG            | U             | U                    |                           |
| ALPHA ENDOSULFAN    | 959-98-8            | 14           | 35                   | UG/KG            | U             | U                    |                           |
| ALPHA-CHLORDANE     | 5103-71-9           | 27           | 61                   | UG/KG            | U             | U                    |                           |
| BETA BHC            | 319-85-7            | 27           | 71                   | UG/KG            | U             | U                    |                           |
| BETA ENDOSULFAN     | 33213-65-9          | 27           | 51                   | UG/KG            | U             | U                    |                           |
| DELTA BHC           | 319-86-8            | 27           | 81                   | UG/KG            | U             | U                    |                           |
| DIELDRIN            | 60-57-1             | 14           | 35                   | UG/KG            | U             | U                    |                           |
| ENDOSULFAN SULFATE  | 1031-07-8           | 27           | 61                   | UG/KG            | U             | U                    |                           |
| ENDRIN              | 72-20-8             | 14           | 35                   | UG/KG            | U             | U                    |                           |
| ENDRIN ALDEHYDE     | 7421-93-4           | 27           | 61                   | UG/KG            | U             | U                    |                           |
| ENDRIN KETONE       | 53494-70-5          | 14           | 41                   | UG/KG            | U             | U                    |                           |
| GAMMA BHC (LINDANE) | 58-89-9             | 27           | 51                   | UG/KG            | U             | U                    |                           |
| GAMMA-CHLORDANE     | 5566-34-7           | 14           | 35                   | UG/KG            | U             | U                    |                           |
| HEPTACHLOR          | 76-44-8             | 27           | 71                   | UG/KG            | U             | U                    |                           |
| HEPTACHLOR EPOXIDE  | 1024-57-3           | 27           | 51                   | UG/KG            | U             | U                    |                           |
| METHOXYCHLOR        | 72-43-5             | 67           | 100                  | UG/KG            | U             | U                    |                           |
| P,P'-DDD            | 72-54-8             | 14           | 41                   | UG/KG            | U             | U                    |                           |
| P,P'-DDE            | 72-55-9             | 14           | 35                   | UG/KG            | U M           | U                    |                           |
| P,P'-DDT            | 50-29-3             | 14           | 41                   | UG/KG            | U             | U                    |                           |
| TOXAPHENE           | 8001-35-2           | 410          | 1400                 | UG/KG            | U             | UJ                   | C                         |

*Sample Delivery Group: 240-17422-1*

*Analysis Method SW8082*

| <b>Sample Name</b>      |               | 073SS-0002M-0001-SO |            | <b>AnalysisType:</b> FD     |                      |                             |                                  |
|-------------------------|---------------|---------------------|------------|-----------------------------|----------------------|-----------------------------|----------------------------------|
| <b>Lab Sample Name:</b> |               | 240-17422-5         |            | <b>Validation Level:</b> IV |                      |                             |                                  |
| <b>Analyte</b>          | <b>CAS No</b> | <b>Result Value</b> | <b>LOQ</b> | <b>Result</b>               | <b>Lab Qualifier</b> | <b>Validation Qualifier</b> | <b>Validation Qualifier Code</b> |
| PCB-1016                | 12674-11-2    | 25                  | 66         | UG/KG                       | U                    | U                           |                                  |
| PCB-1221                | 11104-28-2    | 25                  | 51         | UG/KG                       | U                    | U                           |                                  |
| PCB-1232                | 11141-16-5    | 25                  | 46         | UG/KG                       | U                    | U                           |                                  |
| PCB-1242                | 53469-21-9    | 25                  | 41         | UG/KG                       | U                    | U                           |                                  |
| PCB-1248                | 12672-29-6    | 25                  | 56         | UG/KG                       | U                    | U                           |                                  |
| PCB-1254                | 11097-69-1    | 25                  | 56         | UG/KG                       | U                    | U                           |                                  |
| PCB-1260                | 11096-82-5    | 25                  | 56         | UG/KG                       | U                    | U                           |                                  |

# Sample Delivery Group: 240-17422-1

## Analysis Method SW8260B

| <b>Sample Name</b>        |            | 073SS-0002M-0001-SO |     | <b>AnalysisType:</b> FD     |               |                      |                           |
|---------------------------|------------|---------------------|-----|-----------------------------|---------------|----------------------|---------------------------|
| <b>Lab Sample Name:</b>   |            | 240-17422-5         |     | <b>Validation Level:</b> IV |               |                      |                           |
| Analyte                   | CAS No     | Result Value        | LOQ | Result                      | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| 1,1,1-TRICHLOROETHANE     | 71-55-6    | 1.3                 | 6.7 | UG/KG                       | U             | U                    |                           |
| 1,1,2,2-TETRACHLOROETHANE | 79-34-5    | 0.67                | 6.7 | UG/KG                       | U             | UJ                   | I                         |
| 1,1,2-TRICHLOROETHANE     | 79-00-5    | 0.67                | 6.7 | UG/KG                       | U             | U                    |                           |
| 1,1-DICHLOROETHANE        | 75-34-3    | 0.67                | 6.7 | UG/KG                       | U             | U                    |                           |
| 1,1-DICHLOROETHENE        | 75-35-4    | 1.3                 | 6.7 | UG/KG                       | U             | U                    |                           |
| 1,2-DIBROMOETHANE         | 106-93-4   | 1.3                 | 6.7 | UG/KG                       | U             | U                    |                           |
| 1,2-DICHLOROETHANE        | 107-06-2   | 0.67                | 6.7 | UG/KG                       | U             | U                    |                           |
| 1,2-DICHLOROPROPANE       | 78-87-5    | 1.3                 | 6.7 | UG/KG                       | U             | U                    |                           |
| 2-HEXANONE                | 591-78-6   | 1.3                 | 27  | UG/KG                       | U             | U                    |                           |
| ACETONE                   | 67-64-1    | 8.4                 | 27  | UG/KG                       | U             | U                    |                           |
| BENZENE                   | 71-43-2    | 0.67                | 6.7 | UG/KG                       | U             | U                    |                           |
| BROMOCHLOROMETHANE        | 74-97-5    | 1.3                 | 6.7 | UG/KG                       | U             | U                    |                           |
| BROMODICHLOROMETHANE      | 75-27-4    | 0.67                | 6.7 | UG/KG                       | U             | U                    |                           |
| BROMOFORM                 | 75-25-2    | 0.67                | 6.7 | UG/KG                       | U             | U                    |                           |
| BROMOMETHANE              | 74-83-9    | 1.3                 | 6.7 | UG/KG                       | U             | U                    |                           |
| CARBON DISULFIDE          | 75-15-0    | 0.67                | 6.7 | UG/KG                       | U             | U                    |                           |
| CARBON TETRACHLORIDE      | 56-23-5    | 0.67                | 6.7 | UG/KG                       | U             | U                    |                           |
| CHLOROBENZENE             | 108-90-7   | 0.67                | 6.7 | UG/KG                       | U             | U                    |                           |
| CHLOROETHANE              | 75-00-3    | 1.3                 | 6.7 | UG/KG                       | U             | U                    |                           |
| CHLOROFORM                | 67-66-3    | 0.67                | 6.7 | UG/KG                       | U             | U                    |                           |
| CHLOROMETHANE             | 74-87-3    | 0.67                | 6.7 | UG/KG                       | U             | U                    |                           |
| CIS-1,3-DICHLOROPROPENE   | 10061-01-5 | 0.67                | 6.7 | UG/KG                       | U             | U                    |                           |
| DIBROMOCHLOROMETHANE      | 124-48-1   | 1.3                 | 6.7 | UG/KG                       | U             | U                    |                           |
| ETHYLBENZENE              | 100-41-4   | 0.67                | 6.7 | UG/KG                       | U             | U                    |                           |
| METHYL ETHYL KETONE       | 78-93-3    | 2.7                 | 27  | UG/KG                       | U             | U                    |                           |
| METHYL ISOBUTYL KETONE    | 108-10-1   | 1.3                 | 27  | UG/KG                       | U             | U                    |                           |
| METHYLENE CHLORIDE        | 75-09-2    | 1.3                 | 6.7 | UG/KG                       | U             | U                    |                           |
| STYRENE                   | 100-42-5   | 0.67                | 6.7 | UG/KG                       | U             | U                    |                           |

*Sample Delivery Group: 240-17422-1*

|                           |            |      |     |       |   |   |   |
|---------------------------|------------|------|-----|-------|---|---|---|
| TERT-BUTYL METHYL ETHER   | 1634-04-4  | 0.67 | 6.7 | UG/KG | U | U |   |
| TETRACHLOROETHYLENE       | 127-18-4   | 1.3  | 6.7 | UG/KG | U | U |   |
| TOLUENE                   | 108-88-3   | 0.67 | 6.7 | UG/KG | J | U | F |
| TOTAL 1,2-DICHLOROETHENE  | 540-59-0   | 1.3  | 13  | UG/KG | U | U |   |
| TRANS-1,3-DICHLOROPROPENE | 10061-02-6 | 1.3  | 6.7 | UG/KG | U | U |   |
| TRICHLOROETHYLENE         | 79-01-6    | 0.67 | 6.7 | UG/KG | U | U |   |
| VINYL CHLORIDE            | 75-01-4    | 0.67 | 6.7 | UG/KG | U | U |   |
| XYLENES, TOTAL            |            | 2    | 13  | UG/KG | U | U |   |

Sample Delivery Group: 240-17422-1

Analysis Method SW8270C

| Sample Name                |           | 073SS-0002M-0001-SO |      | AnalysisType: FD     |               |                      |                           |
|----------------------------|-----------|---------------------|------|----------------------|---------------|----------------------|---------------------------|
| Lab Sample Name:           |           | 240-17422-5         |      | Validation Level: IV |               |                      |                           |
| Analyte                    | CAS No    | Result Value        | LOQ  | Result               | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| 1,2,4-TRICHLOROBENZENE     | 120-82-1  | 110                 | 200  | UG/KG                | U             | U                    |                           |
| 1,2-DICHLOROBENZENE        | 95-50-1   | 110                 | 200  | UG/KG                | U             | U                    |                           |
| 1,3-DICHLOROBENZENE        | 541-73-1  | 110                 | 200  | UG/KG                | U             | U                    |                           |
| 1,4-DICHLOROBENZENE        | 106-46-7  | 110                 | 200  | UG/KG                | U             | U                    |                           |
| 2,4,5-TRICHLOROPHENOL      | 95-95-4   | 110                 | 610  | UG/KG                | U             | U                    |                           |
| 2,4,6-TRICHLOROPHENOL      | 88-06-2   | 320                 | 610  | UG/KG                | U             | U                    |                           |
| 2,4-DICHLOROPHENOL         | 120-83-2  | 110                 | 610  | UG/KG                | U             | U                    |                           |
| 2,4-DIMETHYLPHENOL         | 105-67-9  | 320                 | 610  | UG/KG                | U             | U                    |                           |
| 2,4-DINITROPHENOL          | 51-28-5   | 320                 | 1300 | UG/KG                | U             | UJ                   | C                         |
| 2,4-DINITROTOLUENE         | 121-14-2  | 110                 | 810  | UG/KG                | U             | R                    | D                         |
| 2,6-DINITROTOLUENE         | 606-20-2  | 110                 | 810  | UG/KG                | U             | R                    | D                         |
| 2-CHLORONAPHTHALENE        | 91-58-7   | 13                  | 200  | UG/KG                | U             | U                    |                           |
| 2-CHLOROPHENOL             | 95-57-8   | 110                 | 200  | UG/KG                | U             | U                    |                           |
| 2-METHYLNAPHTHALENE        | 91-57-6   | 90                  | 27   | UG/KG                |               |                      |                           |
| 2-METHYLPHENOL (O-CRESOL)  | 95-48-7   | 320                 | 810  | UG/KG                | U             | U                    |                           |
| 2-NITROANILINE             | 88-74-4   | 110                 | 810  | UG/KG                | U             | U                    |                           |
| 2-NITROPHENOL              | 88-75-5   | 110                 | 200  | UG/KG                | U             | U                    |                           |
| 3,3'-DICHLOROBENZIDINE     | 91-94-1   | 320                 | 400  | UG/KG                | U             | UJ                   | C                         |
| 3-NITROANILINE             | 99-09-2   | 320                 | 810  | UG/KG                | U             | U                    |                           |
| 4,6-DINITRO-2-METHYLPHENOL | 534-52-1  | 320                 | 610  | UG/KG                | U             | U                    |                           |
| 4-BROMOPHENYL PHENYL ETHE  | 101-55-3  | 110                 | 200  | UG/KG                | U             | U                    |                           |
| 4-CHLORO-3-METHYLPHENOL    | 59-50-7   | 110                 | 610  | UG/KG                | U             | U                    |                           |
| 4-CHLOROANILINE            | 106-47-8  | 110                 | 610  | UG/KG                | U             | U                    |                           |
| 4-CHLOROPHENYL PHENYL ETH  | 7005-72-3 | 110                 | 200  | UG/KG                | U             | U                    |                           |
| 4-NITROANILINE             | 100-01-6  | 110                 | 810  | UG/KG                | U             | U                    |                           |
| 4-NITROPHENOL              | 100-02-7  | 320                 | 1300 | UG/KG                | U             | U                    |                           |
| ACENAPHTHENE               | 83-32-9   | 13                  | 27   | UG/KG                | U             | U                    |                           |
| ACENAPHTHYLENE             | 208-96-8  | 13                  | 27   | UG/KG                | U             | U                    |                           |

## Sample Delivery Group: 240-17422-1

|                             |          |      |      |       |     |    |   |
|-----------------------------|----------|------|------|-------|-----|----|---|
| ANTHRACENE                  | 120-12-7 | 13   | 27   | UG/KG | U   | U  |   |
| BENZO(A)ANTHRACENE          | 56-55-3  | 52   | 27   | UG/KG |     |    |   |
| BENZO(A)PYRENE              | 50-32-8  | 87   | 27   | UG/KG |     |    |   |
| BENZO(B)FLUORANTHENE        | 205-99-2 | 120  | 27   | UG/KG |     |    |   |
| BENZO(G,H,I)PERYLENE        | 191-24-2 | 29   | 27   | UG/KG |     | J  | C |
| BENZO(K)FLUORANTHENE        | 207-08-9 | 26   | 27   | UG/KG | J M | J  |   |
| BENZOIC ACID                | 65-85-0  | 1300 | 2700 | UG/KG | U   | U  |   |
| BENZYL ALCOHOL              | 100-51-6 | 110  | 1300 | UG/KG | U   | U  |   |
| BENZYL BUTYL PHTHALATE      | 85-68-7  | 110  | 200  | UG/KG | U   | U  |   |
| BIS(2-CHLOROETHOXY) METHA   | 111-91-1 | 110  | 400  | UG/KG | U   | U  |   |
| BIS(2-CHLOROETHYL) ETHER    | 111-44-4 | 13   | 400  | UG/KG | U   | U  |   |
| BIS(2-CHLOROISOPROPYL) ETHE | 108-60-1 | 110  | 400  | UG/KG | U   | U  |   |
| BIS(2-ETHYLHEXYL) PHTHALAT  | 117-81-7 | 110  | 200  | UG/KG | U   | U  |   |
| CARBAZOLE                   | 86-74-8  | 110  | 200  | UG/KG | U   | U  |   |
| CHRYSENE                    | 218-01-9 | 80   | 27   | UG/KG |     |    |   |
| CRESOLS, M & P              |          | 320  | 1600 | UG/KG | U   | U  |   |
| DIBENZ(A,H)ANTHRACENE       | 53-70-3  | 13   | 27   | UG/KG | U   | UJ | C |
| DIBENZOFURAN                | 132-64-9 | 23   | 200  | UG/KG | J   | J  |   |
| DIETHYL PHTHALATE           | 84-66-2  | 110  | 200  | UG/KG | U   | U  |   |
| DIMETHYL PHTHALATE          | 131-11-3 | 110  | 200  | UG/KG | U   | U  |   |
| DI-N-BUTYL PHTHALATE        | 84-74-2  | 110  | 200  | UG/KG | U   | U  |   |
| DI-N-OCTYLPHTHALATE         | 117-84-0 | 110  | 200  | UG/KG | U   | U  |   |
| FLUORANTHENE                | 206-44-0 | 99   | 27   | UG/KG |     |    |   |
| FLUORENE                    | 86-73-7  | 13   | 27   | UG/KG | U   | U  |   |
| HEXACHLOROBENZENE           | 118-74-1 | 13   | 27   | UG/KG | U   | U  |   |
| HEXACHLOROBUTADIENE         | 87-68-3  | 110  | 200  | UG/KG | U   | U  |   |
| HEXACHLOROCYCLOPENTADIE     | 77-47-4  | 110  | 1300 | UG/KG | U   | U  |   |
| HEXACHLOROETHANE            | 67-72-1  | 110  | 200  | UG/KG | U   | U  |   |
| INDENO(1,2,3-C,D)PYRENE     | 193-39-5 | 54   | 27   | UG/KG |     | J  | C |
| ISOPHORONE                  | 78-59-1  | 110  | 200  | UG/KG | U   | U  |   |
| NAPHTHALENE                 | 91-20-3  | 63   | 27   | UG/KG |     |    |   |
| NITROBENZENE                | 98-95-3  | 13   | 400  | UG/KG | U   | U  |   |
| N-NITROSODI-N-PROPYLAMINE   | 621-64-7 | 110  | 200  | UG/KG | U   | U  |   |

## Sample Delivery Group: 240-17422-1

|                        |          |     |     |       |   |   |
|------------------------|----------|-----|-----|-------|---|---|
| N-NITROSODIPHENYLAMINE | 86-30-6  | 110 | 200 | UG/KG | U | U |
| PENTACHLOROPHENOL      | 87-86-5  | 320 | 610 | UG/KG | U | U |
| PHENANTHRENE           | 85-01-8  | 61  | 27  | UG/KG |   |   |
| PHENOL                 | 108-95-2 | 110 | 200 | UG/KG | U | U |
| PYRENE                 | 129-00-0 | 78  | 27  | UG/KG |   |   |

## Analysis Method SW8330B

**Sample Name** 073SS-0002M-0001-SO

**AnalysisType:** FD

**Lab Sample Name:** 240-17422-5

**Validation Level:** IV

| Analyte                    | CAS No     | Result Value | LOQ  | Result | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
|----------------------------|------------|--------------|------|--------|---------------|----------------------|---------------------------|
| 1,3,5-TRINITROBENZENE      | 99-35-4    | 0.049        | 0.25 | MG/KG  | U             | U                    |                           |
| 1,3-DINITROBENZENE         | 99-65-0    | 0.049        | 0.25 | MG/KG  | U             | U                    |                           |
| 2,4,6-TRINITROTOLUENE      | 118-96-7   | 0.049        | 0.25 | MG/KG  | U             | U                    |                           |
| 2,4-DINITROTOLUENE         | 121-14-2   | 0.049        | 0.25 | MG/KG  | U             | U                    |                           |
| 2,6-DINITROTOLUENE         | 606-20-2   | 0.049        | 0.25 | MG/KG  | U             | U                    |                           |
| 2-AMINO-4,6-DINITROTOLUENE | 35572-78-2 | 0.049        | 0.25 | MG/KG  | U             | U                    |                           |
| 2-NITROTOLUENE             | 88-72-2    | 0.049        | 0.25 | MG/KG  | U             | UJ                   | C                         |
| 3-NITROTOLUENE             | 99-08-1    | 0.049        | 0.25 | MG/KG  | U             | U                    |                           |
| 4-AMINO-2,6-DINITROTOLUENE | 19406-51-0 | 0.049        | 0.25 | MG/KG  | U             | U                    |                           |
| 4-NITROTOLUENE             | 99-99-0    | 0.049        | 0.25 | MG/KG  | U             | U                    |                           |
| HMX                        | 2691-41-0  | 0.049        | 0.25 | MG/KG  | U             | U                    |                           |
| NITROBENZENE               | 98-95-3    | 0.049        | 0.25 | MG/KG  | U             | R                    | D                         |
| NITROGLYCERIN              | 55-63-0    | 0.25         | 0.49 | MG/KG  | U             | U                    |                           |
| NITROGUANIDINE             |            | 0.039        | 0.25 | MG/KG  |               | U                    |                           |
| PETN                       | 78-11-5    | 0.25         | 0.49 | MG/KG  | U             | U                    |                           |
| RDX                        | 121-82-4   | 0.049        | 0.25 | MG/KG  | U             | UJ                   | C                         |
| TETRYL                     | 479-45-8   | 0.049        | 0.25 | MG/KG  | J             | U                    | B                         |



Sample Delivery Group: 240-18441-1

Analysis Method SW6020

| Sample Name      |           | 073SB-0009M-0001-SO |       | AnalysisType: N      |               |                      |                           |
|------------------|-----------|---------------------|-------|----------------------|---------------|----------------------|---------------------------|
| Lab Sample Name: |           | 240-18441-23        |       | Validation Level: IV |               |                      |                           |
| Analyte          | CAS No    | Result Value        | LOQ   | Result               | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| ALUMINUM         | 7429-90-5 | 7500.0              | 2.9   | MG/KG                |               |                      |                           |
| ANTIMONY         | 7440-36-0 | 0.065               | 0.19  | MG/KG                | J             | J-                   | Q                         |
| ARSENIC          | 7440-38-2 | 7.8                 | 0.095 | MG/KG                |               | J-                   | Q                         |
| BARIUM           | 7440-39-3 | 44.0                | 0.95  | MG/KG                | Q             |                      |                           |
| BERYLLIUM        | 7440-41-7 | 0.43                | 0.095 | MG/KG                |               |                      |                           |
| CADMIUM          | 7440-43-9 | 0.18                | 0.095 | MG/KG                | Q             | J+                   | I                         |
| CALCIUM          | 7440-70-2 | 6500.0              | 9.5   | MG/KG                |               | J-                   | Q                         |
| CHROMIUM         | 7440-47-3 | 14.0                | 0.19  | MG/KG                |               | J+                   | Q                         |
| COBALT           | 7440-48-4 | 7.7                 | 0.048 | MG/KG                | Q             |                      |                           |
| COPPER           | 7440-50-8 | 14.0                | 0.19  | MG/KG                | Q             | J-                   | Q                         |
| IRON             | 7439-89-6 | 18000.0             | 4.8   | MG/KG                |               |                      |                           |
| LEAD             | 7439-92-1 | 10.0                | 0.095 | MG/KG                |               |                      |                           |
| MAGNESIUM        | 7439-95-4 | 2900.0              | 9.5   | MG/KG                |               |                      |                           |
| MANGANESE        | 7439-96-5 | 280.0               | 0.48  | MG/KG                | Q             |                      |                           |
| NICKEL           | 7440-02-0 | 19.0                | 0.095 | MG/KG                | Q             |                      |                           |
| POTASSIUM        | 7440-09-7 | 1100.0              | 9.5   | MG/KG                |               | J+                   | Q                         |
| SELENIUM         | 7782-49-2 | 0.71                | 0.48  | MG/KG                |               | J-                   | Q                         |
| SILVER           | 7440-22-4 | 0.024               | 0.095 | MG/KG                | J             | J                    |                           |
| SODIUM           | 7440-23-5 | 78.0                | 9.5   | MG/KG                |               |                      |                           |
| THALLIUM         | 7440-28-0 | 0.13                | 0.095 | MG/KG                |               | J-                   | Q                         |
| VANADIUM         | 7440-62-2 | 13.0                | 0.095 | MG/KG                |               | J+                   | Q                         |
| ZINC             | 7440-66-6 | 45.0                | 0.48  | MG/KG                | Q             | J-                   | P                         |

Analysis Method SW7471A

| Sample Name      |           | 073SB-0009M-0001-SO |       | AnalysisType: N      |               |                      |                           |
|------------------|-----------|---------------------|-------|----------------------|---------------|----------------------|---------------------------|
| Lab Sample Name: |           | 240-18441-23        |       | Validation Level: IV |               |                      |                           |
| Analyte          | CAS No    | Result Value        | LOQ   | Result               | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| MERCURY          | 7439-97-6 | 0.026               | 0.092 | MG/KG                | J             | J                    |                           |

# Sample Delivery Group: 240-18441-1

## Analysis Method SW8270D

| <b>Sample Name</b>          |            | 073SB-0009M-0001-SO |      | <b>AnalysisType:</b> N      |               |                      |                           |
|-----------------------------|------------|---------------------|------|-----------------------------|---------------|----------------------|---------------------------|
| <b>Lab Sample Name:</b>     |            | 240-18441-23        |      | <b>Validation Level:</b> IV |               |                      |                           |
| Analyte                     | CAS No     | Result Value        | LOQ  | Result                      | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| 1,2,4-TRICHLOROBENZENE      | 120-82-1   | 130                 | 250  | UG/KG                       | U             | U                    |                           |
| 1,2-DICHLOROBENZENE         | 95-50-1    | 130                 | 250  | UG/KG                       | U             | U                    |                           |
| 1,3-DICHLOROBENZENE         | 541-73-1   | 130                 | 250  | UG/KG                       | U             | U                    |                           |
| 1,4-DICHLOROBENZENE         | 106-46-7   | 130                 | 250  | UG/KG                       | U             | U                    |                           |
| 2,2'-DICHLORODIISOPROPYL ET | 39638-32-9 | 16                  | 490  | UG/KG                       | U             | U                    |                           |
| 2,4,5-TRICHLOROPHENOL       | 95-95-4    | 130                 | 740  | UG/KG                       | U             | U                    |                           |
| 2,4,6-TRICHLOROPHENOL       | 88-06-2    | 390                 | 740  | UG/KG                       | U             | U                    |                           |
| 2,4-DICHLOROPHENOL          | 120-83-2   | 130                 | 740  | UG/KG                       | U             | U                    |                           |
| 2,4-DIMETHYLPHENOL          | 105-67-9   | 390                 | 740  | UG/KG                       | U             | U                    |                           |
| 2,4-DINITROPHENOL           | 51-28-5    | 390                 | 1600 | UG/KG                       | U             | U                    |                           |
| 2,4-DINITROTOLUENE          | 121-14-2   | 130                 | 990  | UG/KG                       | U             | U                    |                           |
| 2,6-DINITROTOLUENE          | 606-20-2   | 130                 | 990  | UG/KG                       | U             | U                    |                           |
| 2-CHLORONAPHTHALENE         | 91-58-7    | 16                  | 250  | UG/KG                       | U             | U                    |                           |
| 2-CHLOROPHENOL              | 95-57-8    | 130                 | 250  | UG/KG                       | U             | U                    |                           |
| 2-METHYLNAPHTHALENE         | 91-57-6    | 23.0                | 33   | UG/KG                       | J D           | J                    |                           |
| 2-METHYLPHENOL (O-CRESOL)   | 95-48-7    | 390                 | 990  | UG/KG                       | U             | U                    |                           |
| 2-NITROANILINE              | 88-74-4    | 130                 | 990  | UG/KG                       | U             | U                    |                           |
| 2-NITROPHENOL               | 88-75-5    | 130                 | 250  | UG/KG                       | U             | U                    |                           |
| 3,3'-DICHLOROBENZIDINE      | 91-94-1    | 390                 | 490  | UG/KG                       | U             | UJ                   | C                         |
| 3-NITROANILINE              | 99-09-2    | 390                 | 990  | UG/KG                       | U             | U                    |                           |
| 4,6-DINITRO-2-METHYLPHENOL  | 534-52-1   | 390                 | 740  | UG/KG                       | U             | U                    |                           |
| 4-BROMOPHENYL PHENYL ETHE   | 101-55-3   | 130                 | 250  | UG/KG                       | U             | U                    |                           |
| 4-CHLORO-3-METHYLPHENOL     | 59-50-7    | 130                 | 740  | UG/KG                       | U             | U                    |                           |
| 4-CHLOROANILINE             | 106-47-8   | 130                 | 740  | UG/KG                       | U             | U                    |                           |
| 4-CHLOROPHENYL PHENYL ETH   | 7005-72-3  | 130                 | 250  | UG/KG                       | U             | U                    |                           |
| 4-NITROANILINE              | 100-01-6   | 130                 | 990  | UG/KG                       | U             | U                    |                           |
| 4-NITROPHENOL               | 100-02-7   | 390                 | 1600 | UG/KG                       | U             | U                    |                           |
| ACENAPHTHENE                | 83-32-9    | 16                  | 33   | UG/KG                       | U             | U                    |                           |

## Sample Delivery Group: 240-18441-1

|                             |          |      |      |       |   |   |
|-----------------------------|----------|------|------|-------|---|---|
| ACENAPHTHYLENE              | 208-96-8 | 16   | 33   | UG/KG | U | U |
| ANTHRACENE                  | 120-12-7 | 16   | 33   | UG/KG | U | U |
| BENZO(A)ANTHRACENE          | 56-55-3  | 16   | 33   | UG/KG | U | U |
| BENZO(A)PYRENE              | 50-32-8  | 16   | 33   | UG/KG | U | U |
| BENZO(B)FLUORANTHENE        | 205-99-2 | 16   | 33   | UG/KG | U | U |
| BENZO(G,H,I)PERYLENE        | 191-24-2 | 16   | 33   | UG/KG | U | U |
| BENZO(K)FLUORANTHENE        | 207-08-9 | 16   | 33   | UG/KG | U | U |
| BENZOIC ACID                | 65-85-0  | 1600 | 3300 | UG/KG | U | U |
| BENZYL ALCOHOL              | 100-51-6 | 130  | 1600 | UG/KG | U | U |
| BENZYL BUTYL PHTHALATE      | 85-68-7  | 130  | 250  | UG/KG | U | U |
| BIS(2-CHLOROETHOXY) METHA   | 111-91-1 | 130  | 490  | UG/KG | U | U |
| BIS(2-CHLOROISOPROPYL) ETHE | 108-60-1 | 130  | 490  | UG/KG | U | U |
| BIS(2-ETHYLHEXYL) PHTHALAT  | 117-81-7 | 130  | 250  | UG/KG | U | U |
| CARBAZOLE                   | 86-74-8  | 130  | 250  | UG/KG | U | U |
| CHRYSENE                    | 218-01-9 | 16   | 33   | UG/KG | U | U |
| CRESOLS, M & P              |          | 390  | 2000 | UG/KG | U | U |
| DIBENZ(A,H)ANTHRACENE       | 53-70-3  | 16   | 33   | UG/KG | U | U |
| DIBENZOFURAN                | 132-64-9 | 16   | 250  | UG/KG | U | U |
| DIETHYL PHTHALATE           | 84-66-2  | 130  | 250  | UG/KG | U | U |
| DIMETHYL PHTHALATE          | 131-11-3 | 130  | 250  | UG/KG | U | U |
| DI-N-BUTYL PHTHALATE        | 84-74-2  | 130  | 250  | UG/KG | U | U |
| DI-N-OCTYLPHTHALATE         | 117-84-0 | 130  | 250  | UG/KG | U | U |
| FLUORANTHENE                | 206-44-0 | 16   | 33   | UG/KG | U | U |
| FLUORENE                    | 86-73-7  | 16   | 33   | UG/KG | U | U |
| HEXACHLOROBENZENE           | 118-74-1 | 16   | 33   | UG/KG | U | U |
| HEXACHLOROBUTADIENE         | 87-68-3  | 130  | 250  | UG/KG | U | U |
| HEXACHLOROCYCLOPENTADIE     | 77-47-4  | 130  | 1600 | UG/KG | U | U |
| HEXACHLOROETHANE            | 67-72-1  | 130  | 250  | UG/KG | U | U |
| INDENO(1,2,3-C,D)PYRENE     | 193-39-5 | 16   | 33   | UG/KG | U | U |
| ISOPHORONE                  | 78-59-1  | 130  | 250  | UG/KG | U | U |
| NAPHTHALENE                 | 91-20-3  | 16   | 33   | UG/KG | U | U |
| NITROBENZENE                | 98-95-3  | 16   | 490  | UG/KG | U | U |
| N-NITROSODI-N-PROPYLAMINE   | 621-64-7 | 130  | 250  | UG/KG | U | U |

*Sample Delivery Group: 240-18441-1*

|                        |          |      |     |       |     |   |
|------------------------|----------|------|-----|-------|-----|---|
| N-NITROSODIPHENYLAMINE | 86-30-6  | 130  | 250 | UG/KG | U   | U |
| PENTACHLOROPHENOL      | 87-86-5  | 390  | 740 | UG/KG | U   | U |
| PHENANTHRENE           | 85-01-8  | 27.0 | 33  | UG/KG | J D | J |
| PHENOL                 | 108-95-2 | 130  | 250 | UG/KG | U   | U |
| PYRENE                 | 129-00-0 | 17.0 | 33  | UG/KG | J D | J |

Sample Delivery Group: 240-22648-1

Analysis Method SW6020

| Sample Name      |           | 073SB-0016M-0001-SO |      | AnalysisType: N      |               |                      |                           |
|------------------|-----------|---------------------|------|----------------------|---------------|----------------------|---------------------------|
| Lab Sample Name: |           | 240-22648-1         |      | Validation Level: IV |               |                      |                           |
| Analyte          | CAS No    | Result Value        | LOQ  | Result               | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| ALUMINUM         | 7429-90-5 | 5500                | 3    | MG/KG                |               |                      |                           |
| ANTIMONY         | 7440-36-0 | 0.047               | 0.2  | MG/KG                | J             | J-                   | Q                         |
| ARSENIC          | 7440-38-2 | 7.3                 | 0.1  | MG/KG                | Q             | J-                   | Q                         |
| BARIUM           | 7440-39-3 | 50                  | 1    | MG/KG                | Q             |                      |                           |
| BERYLLIUM        | 7440-41-7 | 0.38                | 0.1  | MG/KG                | Q             | J-                   | Q, A                      |
| CADMIUM          | 7440-43-9 | 0.2                 | 0.1  | MG/KG                | Q             | J+                   | I                         |
| CALCIUM          | 7440-70-2 | 5500                | 10   | MG/KG                |               | J-                   | Q, E                      |
| CHROMIUM         | 7440-47-3 | 9.6                 | 0.2  | MG/KG                |               |                      |                           |
| COBALT           | 7440-48-4 | 6.6                 | 0.05 | MG/KG                | Q             |                      |                           |
| COPPER           | 7440-50-8 | 12                  | 0.2  | MG/KG                | Q             | J-                   | Q                         |
| IRON             | 7439-89-6 | 14000               | 5    | MG/KG                |               |                      |                           |
| LEAD             | 7439-92-1 | 11                  | 0.1  | MG/KG                | Q             |                      |                           |
| MAGNESIUM        | 7439-95-4 | 1800                | 10   | MG/KG                |               |                      |                           |
| MANGANESE        | 7439-96-5 | 360                 | 0.5  | MG/KG                | Q             |                      |                           |
| NICKEL           | 7440-02-0 | 15                  | 0.1  | MG/KG                |               |                      |                           |
| POTASSIUM        | 7440-09-7 | 560                 | 10   | MG/KG                |               |                      |                           |
| SELENIUM         | 7782-49-2 | 0.25                | 0.5  | MG/KG                | J             | J-                   | Q                         |
| SILVER           | 7440-22-4 | 0.24                | 0.1  | MG/KG                | Q             |                      |                           |
| SODIUM           | 7440-23-5 | 32                  | 10   | MG/KG                |               |                      |                           |
| THALLIUM         | 7440-28-0 | 0.091               | 0.1  | MG/KG                | J Q           | J+                   | I                         |
| VANADIUM         | 7440-62-2 | 9.8                 | 0.1  | MG/KG                |               |                      |                           |
| ZINC             | 7440-66-6 | 43                  | 0.5  | MG/KG                | Q             | J-                   | Q, A                      |

Analysis Method SW7471A

| Sample Name      |           | 073SB-0016M-0001-SO |      | AnalysisType: N      |               |                      |                           |
|------------------|-----------|---------------------|------|----------------------|---------------|----------------------|---------------------------|
| Lab Sample Name: |           | 240-22648-1         |      | Validation Level: IV |               |                      |                           |
| Analyte          | CAS No    | Result Value        | LOQ  | Result               | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| MERCURY          | 7439-97-6 | 0.03                | 0.11 | MG/KG                | J             | J                    |                           |

Sample Delivery Group: 240-22648-1

Analysis Method SW8270C

| Sample Name                |           | 073SB-0016M-0001-SO |     | AnalysisType: N      |               |                      |                           |
|----------------------------|-----------|---------------------|-----|----------------------|---------------|----------------------|---------------------------|
| Lab Sample Name:           |           | 240-22648-1         |     | Validation Level: IV |               |                      |                           |
| Analyte                    | CAS No    | Result Value        | LOQ | Result               | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| 1,2,4-TRICHLOROBENZENE     | 120-82-1  | 27                  | 50  | UG/KG                | U             | U                    |                           |
| 1,2-DICHLOROBENZENE        | 95-50-1   | 27                  | 50  | UG/KG                | U             | U                    |                           |
| 1,3-DICHLOROBENZENE        | 541-73-1  | 27                  | 50  | UG/KG                | U             | U                    |                           |
| 1,4-DICHLOROBENZENE        | 106-46-7  | 28                  | 50  | UG/KG                | J             | J                    |                           |
| 2,4,5-TRICHLOROPHENOL      | 95-95-4   | 27                  | 150 | UG/KG                | U             | U                    |                           |
| 2,4,6-TRICHLOROPHENOL      | 88-06-2   | 80                  | 150 | UG/KG                | U             | U                    |                           |
| 2,4-DICHLOROPHENOL         | 120-83-2  | 27                  | 150 | UG/KG                | U             | U                    |                           |
| 2,4-DIMETHYLPHENOL         | 105-67-9  | 80                  | 150 | UG/KG                | U             | U                    |                           |
| 2,4-DINITROPHENOL          | 51-28-5   | 80                  | 330 | UG/KG                | U             | U                    |                           |
| 2,4-DINITROTOLUENE         | 121-14-2  | 27                  | 200 | UG/KG                | U             | U                    |                           |
| 2,6-DINITROTOLUENE         | 606-20-2  | 27                  | 200 | UG/KG                | U             | U                    |                           |
| 2-CHLORONAPHTHALENE        | 91-58-7   | 3.3                 | 50  | UG/KG                | U             | U                    |                           |
| 2-CHLOROPHENOL             | 95-57-8   | 27                  | 50  | UG/KG                | U             | U                    |                           |
| 2-METHYLNAPHTHALENE        | 91-57-6   | 60                  | 6.6 | UG/KG                |               |                      |                           |
| 2-METHYLPHENOL (O-CRESOL)  | 95-48-7   | 80                  | 200 | UG/KG                | U             | U                    |                           |
| 2-NITROANILINE             | 88-74-4   | 27                  | 200 | UG/KG                | U             | U                    |                           |
| 2-NITROPHENOL              | 88-75-5   | 27                  | 50  | UG/KG                | U             | U                    |                           |
| 3,3'-DICHLOROBENZIDINE     | 91-94-1   | 80                  | 100 | UG/KG                | U             | U                    |                           |
| 3-NITROANILINE             | 99-09-2   | 80                  | 200 | UG/KG                | U             | U                    |                           |
| 4,6-DINITRO-2-METHYLPHENOL | 534-52-1  | 80                  | 150 | UG/KG                | U             | U                    |                           |
| 4-BROMOPHENYL PHENYL ETHE  | 101-55-3  | 27                  | 50  | UG/KG                | U             | U                    |                           |
| 4-CHLORO-3-METHYLPHENOL    | 59-50-7   | 27                  | 150 | UG/KG                | U             | U                    |                           |
| 4-CHLOROANILINE            | 106-47-8  | 27                  | 150 | UG/KG                | U             | U                    |                           |
| 4-CHLOROPHENYL PHENYL ETH  | 7005-72-3 | 27                  | 50  | UG/KG                | U             | U                    |                           |
| 4-NITROANILINE             | 100-01-6  | 27                  | 200 | UG/KG                | U             | U                    |                           |
| 4-NITROPHENOL              | 100-02-7  | 80                  | 330 | UG/KG                | U             | U                    |                           |
| ACENAPHTHENE               | 83-32-9   | 3.3                 | 6.6 | UG/KG                | U             | U                    |                           |
| ACENAPHTHYLENE             | 208-96-8  | 9.4                 | 6.6 | UG/KG                |               |                      |                           |

## Sample Delivery Group: 240-22648-1

|                             |          |     |     |       |   |      |
|-----------------------------|----------|-----|-----|-------|---|------|
| ANTHRACENE                  | 120-12-7 | 16  | 6.6 | UG/KG |   |      |
| BENZO(A)ANTHRACENE          | 56-55-3  | 77  | 6.6 | UG/KG |   |      |
| BENZO(A)PYRENE              | 50-32-8  | 62  | 6.6 | UG/KG |   |      |
| BENZO(B)FLUORANTHENE        | 205-99-2 | 110 | 6.6 | UG/KG |   |      |
| BENZO(G,H,I)PERYLENE        | 191-24-2 | 38  | 6.6 | UG/KG |   |      |
| BENZO(K)FLUORANTHENE        | 207-08-9 | 27  | 6.6 | UG/KG | M |      |
| BENZOIC ACID                | 65-85-0  | 330 | 660 | UG/KG | U | U    |
| BENZYL ALCOHOL              | 100-51-6 | 27  | 330 | UG/KG | U | U    |
| BENZYL BUTYL PHTHALATE      | 85-68-7  | 27  | 50  | UG/KG | U | U    |
| BIS(2-CHLOROETHOXY) METHA   | 111-91-1 | 27  | 100 | UG/KG | U | U    |
| BIS(2-CHLOROETHYL) ETHER    | 111-44-4 | 3.3 | 100 | UG/KG | U | U    |
| BIS(2-CHLOROISOPROPYL) ETHE | 108-60-1 | 27  | 100 | UG/KG | U | U    |
| BIS(2-ETHYLHEXYL) PHTHALAT  | 117-81-7 | 89  | 50  | UG/KG | B | U B  |
| CARBAZOLE                   | 86-74-8  | 27  | 50  | UG/KG | U | U    |
| CHRYSENE                    | 218-01-9 | 77  | 6.6 | UG/KG |   |      |
| CRESOLS, M & P              |          | 80  | 400 | UG/KG | U | U    |
| DIBENZ(A,H)ANTHRACENE       | 53-70-3  | 3.3 | 6.6 | UG/KG | U | U    |
| DIBENZOFURAN                | 132-64-9 | 14  | 50  | UG/KG | J | J    |
| DIETHYL PHTHALATE           | 84-66-2  | 27  | 50  | UG/KG | U | U    |
| DIMETHYL PHTHALATE          | 131-11-3 | 27  | 50  | UG/KG | U | U    |
| DI-N-BUTYL PHTHALATE        | 84-74-2  | 27  | 50  | UG/KG | J | U B  |
| DI-N-OCTYLPHTHALATE         | 117-84-0 | 27  | 50  | UG/KG | U | U    |
| FLUORANTHENE                | 206-44-0 | 130 | 6.6 | UG/KG |   |      |
| FLUORENE                    | 86-73-7  | 5.9 | 6.6 | UG/KG | J | J    |
| HEXACHLOROBENZENE           | 118-74-1 | 3.3 | 6.6 | UG/KG | U | U    |
| HEXACHLOROBUTADIENE         | 87-68-3  | 27  | 50  | UG/KG | U | U    |
| HEXACHLOROCYCLOPENTADIE     | 77-47-4  | 27  | 330 | UG/KG | U | U    |
| HEXACHLOROETHANE            | 67-72-1  | 27  | 50  | UG/KG | U | UJ C |
| INDENO(1,2,3-C,D)PYRENE     | 193-39-5 | 33  | 6.6 | UG/KG |   |      |
| ISOPHORONE                  | 78-59-1  | 18  | 50  | UG/KG | J | J    |
| NAPHTHALENE                 | 91-20-3  | 51  | 6.6 | UG/KG |   |      |
| NITROBENZENE                | 98-95-3  | 3.3 | 100 | UG/KG | U | U    |
| N-NITROSODI-N-PROPYLAMINE   | 621-64-7 | 27  | 50  | UG/KG | U | U    |

## Sample Delivery Group: 240-22648-1

|                        |          |     |     |       |   |   |
|------------------------|----------|-----|-----|-------|---|---|
| N-NITROSODIPHENYLAMINE | 86-30-6  | 27  | 50  | UG/KG | U | U |
| PENTACHLOROPHENOL      | 87-86-5  | 80  | 150 | UG/KG | U | U |
| PHENANTHRENE           | 85-01-8  | 62  | 6.6 | UG/KG |   |   |
| PHENOL                 | 108-95-2 | 27  | 50  | UG/KG | U | U |
| PYRENE                 | 129-00-0 | 100 | 6.6 | UG/KG |   |   |

**Sample Name** 073SD-0047-0001-SD

**AnalysisType:** N

**Lab Sample Name:** 240-22648-11

**Validation Level:** IV

| Analyte                     | CAS No    | Result Value | LOQ | Result | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
|-----------------------------|-----------|--------------|-----|--------|---------------|----------------------|---------------------------|
| 1,2,4-TRICHLOROBENZENE      | 120-82-1  | 41           | 75  | UG/KG  | U             | U                    |                           |
| 1,2-DICHLOROBENZENE         | 95-50-1   | 41           | 75  | UG/KG  | U             | U                    |                           |
| 1,3-DICHLOROBENZENE         | 541-73-1  | 41           | 75  | UG/KG  | U             | U                    |                           |
| 1,4-DICHLOROBENZENE         | 106-46-7  | 41           | 75  | UG/KG  | U             | U                    |                           |
| 2,4,5-TRICHLOROPHENOL       | 95-95-4   | 41           | 230 | UG/KG  | U             | U                    |                           |
| 2,4,6-TRICHLOROPHENOL       | 88-06-2   | 120          | 230 | UG/KG  | U             | U                    |                           |
| 2,4-DICHLOROPHENOL          | 120-83-2  | 41           | 230 | UG/KG  | U             | U                    |                           |
| 2,4-DIMETHYLPHENOL          | 105-67-9  | 120          | 230 | UG/KG  | U             | U                    |                           |
| 2,4-DINITROPHENOL           | 51-28-5   | 120          | 500 | UG/KG  | U             | U                    |                           |
| 2,4-DINITROTOLUENE          | 121-14-2  | 41           | 300 | UG/KG  | U             | U                    |                           |
| 2,6-DINITROTOLUENE          | 606-20-2  | 41           | 300 | UG/KG  | U             | U                    |                           |
| 2-CHLORONAPHTHALENE         | 91-58-7   | 5            | 75  | UG/KG  | U             | U                    |                           |
| 2-CHLOROPHENOL              | 95-57-8   | 41           | 75  | UG/KG  | U             | U                    |                           |
| 2-METHYLNAPHTHALENE         | 91-57-6   | 5            | 10  | UG/KG  | U             | U                    |                           |
| 2-METHYLPHENOL (O-CRESOL)   | 95-48-7   | 120          | 300 | UG/KG  | U             | U                    |                           |
| 2-NITROANILINE              | 88-74-4   | 41           | 300 | UG/KG  | U             | U                    |                           |
| 2-NITROPHENOL               | 88-75-5   | 41           | 75  | UG/KG  | U             | U                    |                           |
| 3,3'-DICHLOROBENZIDINE      | 91-94-1   | 120          | 150 | UG/KG  | U             | U                    |                           |
| 3-NITROANILINE              | 99-09-2   | 120          | 300 | UG/KG  | U             | U                    |                           |
| 4,6-DINITRO-2-METHYLPHENOL  | 534-52-1  | 120          | 230 | UG/KG  | U             | U                    |                           |
| 4-BROMOPHENYL PHENYL ETHER  | 101-55-3  | 41           | 75  | UG/KG  | U             | U                    |                           |
| 4-CHLORO-3-METHYLPHENOL     | 59-50-7   | 41           | 230 | UG/KG  | U             | U                    |                           |
| 4-CHLOROANILINE             | 106-47-8  | 41           | 230 | UG/KG  | U             | U                    |                           |
| 4-CHLOROPHENYL PHENYL ETHER | 7005-72-3 | 41           | 75  | UG/KG  | U             | U                    |                           |



## Sample Delivery Group: 240-22648-1

|                             |          |     |     |       |   |      |
|-----------------------------|----------|-----|-----|-------|---|------|
| 4-NITROANILINE              | 100-01-6 | 41  | 300 | UG/KG | U | U    |
| 4-NITROPHENOL               | 100-02-7 | 120 | 500 | UG/KG | U | U    |
| ACENAPHTHENE                | 83-32-9  | 5   | 10  | UG/KG | U | U    |
| ACENAPHTHYLENE              | 208-96-8 | 5   | 10  | UG/KG | U | U    |
| ANTHRACENE                  | 120-12-7 | 5   | 10  | UG/KG | U | U    |
| BENZO(A)ANTHRACENE          | 56-55-3  | 7.6 | 10  | UG/KG | J | J    |
| BENZO(A)PYRENE              | 50-32-8  | 5   | 10  | UG/KG | U | U    |
| BENZO(B)FLUORANTHENE        | 205-99-2 | 8.2 | 10  | UG/KG | J | J    |
| BENZO(G,H,I)PERYLENE        | 191-24-2 | 5   | 10  | UG/KG | U | U    |
| BENZO(K)FLUORANTHENE        | 207-08-9 | 5   | 10  | UG/KG | U | U    |
| BENZOIC ACID                | 65-85-0  | 500 | 990 | UG/KG | U | U    |
| BENZYL ALCOHOL              | 100-51-6 | 59  | 500 | UG/KG | J | J    |
| BENZYL BUTYL PHTHALATE      | 85-68-7  | 41  | 75  | UG/KG | U | U    |
| BIS(2-CHLOROETHOXY) METHA   | 111-91-1 | 41  | 150 | UG/KG | U | U    |
| BIS(2-CHLOROETHYL) ETHER    | 111-44-4 | 5   | 150 | UG/KG | U | U    |
| BIS(2-CHLOROISOPROPYL) ETHE | 108-60-1 | 41  | 150 | UG/KG | U | U    |
| BIS(2-ETHYLHEXYL) PHTHALAT  | 117-81-7 | 160 | 75  | UG/KG | B | U B  |
| CARBAZOLE                   | 86-74-8  | 41  | 75  | UG/KG | U | U    |
| CHRYSENE                    | 218-01-9 | 5.4 | 10  | UG/KG | J | J    |
| CRESOLS, M & P              |          | 120 | 600 | UG/KG | U | U    |
| DIBENZ(A,H)ANTHRACENE       | 53-70-3  | 5   | 10  | UG/KG | U | U    |
| DIBENZOFURAN                | 132-64-9 | 5   | 75  | UG/KG | U | U    |
| DIETHYL PHTHALATE           | 84-66-2  | 41  | 75  | UG/KG | U | U    |
| DIMETHYL PHTHALATE          | 131-11-3 | 41  | 75  | UG/KG | U | U    |
| DI-N-BUTYL PHTHALATE        | 84-74-2  | 41  | 75  | UG/KG | U | U    |
| DI-N-OCTYLPHTHALATE         | 117-84-0 | 41  | 75  | UG/KG | U | U    |
| FLUORANTHENE                | 206-44-0 | 11  | 10  | UG/KG |   |      |
| FLUORENE                    | 86-73-7  | 5   | 10  | UG/KG | U | U    |
| HEXACHLOROBENZENE           | 118-74-1 | 5   | 10  | UG/KG | U | U    |
| HEXACHLOROBUTADIENE         | 87-68-3  | 41  | 75  | UG/KG | U | U    |
| HEXACHLOROCYCLOPENTADIE     | 77-47-4  | 41  | 500 | UG/KG | U | U    |
| HEXACHLOROETHANE            | 67-72-1  | 41  | 75  | UG/KG | U | UJ C |
| INDENO(1,2,3-C,D)PYRENE     | 193-39-5 | 5   | 10  | UG/KG | U | U    |

*Sample Delivery Group: 240-22648-1*

|                           |          |     |     |       |   |   |
|---------------------------|----------|-----|-----|-------|---|---|
| ISOPHORONE                | 78-59-1  | 41  | 75  | UG/KG | U | U |
| NAPHTHALENE               | 91-20-3  | 5   | 10  | UG/KG | U | U |
| NITROBENZENE              | 98-95-3  | 5   | 150 | UG/KG | U | U |
| N-NITROSODI-N-PROPYLAMINE | 621-64-7 | 41  | 75  | UG/KG | U | U |
| N-NITROSODIPHENYLAMINE    | 86-30-6  | 41  | 75  | UG/KG | U | U |
| PENTACHLOROPHENOL         | 87-86-5  | 120 | 230 | UG/KG | U | U |
| PHENANTHRENE              | 85-01-8  | 5   | 10  | UG/KG | U | U |
| PHENOL                    | 108-95-2 | 41  | 75  | UG/KG | U | U |
| PYRENE                    | 129-00-0 | 8.3 | 10  | UG/KG | J | J |

Sample Delivery Group: 240-22663-1

Analysis Method SW6020

| <b>Sample Name</b>      |           | 073SB-0038M-0001-SO |       | <b>AnalysisType:</b> N      |               |                      |                           |
|-------------------------|-----------|---------------------|-------|-----------------------------|---------------|----------------------|---------------------------|
| <b>Lab Sample Name:</b> |           | 240-22663-14        |       | <b>Validation Level:</b> IV |               |                      |                           |
| Analyte                 | CAS No    | Result Value        | LOQ   | Result                      | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| ALUMINUM                | 7429-90-5 | 6800                | 2.8   | MG/KG                       |               |                      |                           |
| ANTIMONY                | 7440-36-0 | 0.067               | 0.19  | MG/KG                       | J             | J-                   | Q                         |
| ARSENIC                 | 7440-38-2 | 19                  | 0.093 | MG/KG                       |               | J-                   | Q                         |
| BARIUM                  | 7440-39-3 | 32                  | 0.93  | MG/KG                       | Q             |                      |                           |
| BERYLLIUM               | 7440-41-7 | 0.35                | 0.093 | MG/KG                       | Q             |                      |                           |
| CADMIUM                 | 7440-43-9 | 0.19                | 0.093 | MG/KG                       | Q             |                      |                           |
| CALCIUM                 | 7440-70-2 | 640                 | 9.3   | MG/KG                       |               |                      |                           |
| CHROMIUM                | 7440-47-3 | 10                  | 0.19  | MG/KG                       |               |                      |                           |
| COBALT                  | 7440-48-4 | 8.7                 | 0.046 | MG/KG                       | Q             |                      |                           |
| COPPER                  | 7440-50-8 | 20                  | 0.19  | MG/KG                       | Q             |                      |                           |
| IRON                    | 7439-89-6 | 22000               | 4.6   | MG/KG                       |               |                      |                           |
| LEAD                    | 7439-92-1 | 17                  | 0.093 | MG/KG                       | Q             |                      |                           |
| MAGNESIUM               | 7439-95-4 | 2100                | 9.3   | MG/KG                       |               |                      |                           |
| MANGANESE               | 7439-96-5 | 460                 | 0.46  | MG/KG                       | Q             |                      |                           |
| NICKEL                  | 7440-02-0 | 21                  | 0.093 | MG/KG                       |               |                      |                           |
| POTASSIUM               | 7440-09-7 | 1000                | 9.3   | MG/KG                       |               |                      |                           |
| SELENIUM                | 7782-49-2 | 0.28                | 0.46  | MG/KG                       | J             | J-                   | Q                         |
| SILVER                  | 7440-22-4 | 0.022               | 0.093 | MG/KG                       | J             | J                    |                           |
| SODIUM                  | 7440-23-5 | 40                  | 9.3   | MG/KG                       |               |                      |                           |
| THALLIUM                | 7440-28-0 | 0.15                | 0.093 | MG/KG                       |               |                      |                           |
| VANADIUM                | 7440-62-2 | 11                  | 0.093 | MG/KG                       |               |                      |                           |
| ZINC                    | 7440-66-6 | 64                  | 0.46  | MG/KG                       | Q             | J-                   | Q                         |

Analysis Method SW7471A

| <b>Sample Name</b>      |           | 073SB-0038M-0001-SO |      | <b>AnalysisType:</b> N      |               |                      |                           |
|-------------------------|-----------|---------------------|------|-----------------------------|---------------|----------------------|---------------------------|
| <b>Lab Sample Name:</b> |           | 240-22663-14        |      | <b>Validation Level:</b> IV |               |                      |                           |
| Analyte                 | CAS No    | Result Value        | LOQ  | Result                      | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| MERCURY                 | 7439-97-6 | 0.018               | 0.11 | MG/KG                       | J             | J                    |                           |

Sample Delivery Group: 240-22663-2

Analysis Method SW8270C

| Sample Name                |           | 073SB-0038M-0001-SO |      | AnalysisType: N      |               |                      |                           |
|----------------------------|-----------|---------------------|------|----------------------|---------------|----------------------|---------------------------|
| Lab Sample Name:           |           | 240-22663-14        |      | Validation Level: IV |               |                      |                           |
| Analyte                    | CAS No    | Result Value        | LOQ  | Result               | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| 1,2,4-TRICHLOROBENZENE     | 120-82-1  | 270                 | 500  | UG/KG                | U H           | UJ                   | H                         |
| 1,2-DICHLOROBENZENE        | 95-50-1   | 270                 | 500  | UG/KG                | U H           | UJ                   | H                         |
| 1,3-DICHLOROBENZENE        | 541-73-1  | 270                 | 500  | UG/KG                | U H           | UJ                   | H                         |
| 1,4-DICHLOROBENZENE        | 106-46-7  | 270                 | 500  | UG/KG                | U H           | UJ                   | H                         |
| 2,4,5-TRICHLOROPHENOL      | 95-95-4   | 270                 | 1500 | UG/KG                | U H           | UJ                   | H                         |
| 2,4,6-TRICHLOROPHENOL      | 88-06-2   | 810                 | 1500 | UG/KG                | U H           | UJ                   | H                         |
| 2,4-DICHLOROPHENOL         | 120-83-2  | 270                 | 1500 | UG/KG                | U H           | UJ                   | H                         |
| 2,4-DIMETHYLPHENOL         | 105-67-9  | 810                 | 1500 | UG/KG                | U H           | UJ                   | H                         |
| 2,4-DINITROPHENOL          | 51-28-5   | 810                 | 3300 | UG/KG                | U H           | UJ                   | H, C                      |
| 2,4-DINITROTOLUENE         | 121-14-2  | 270                 | 2000 | UG/KG                | U H           | UJ                   | H                         |
| 2,6-DINITROTOLUENE         | 606-20-2  | 270                 | 2000 | UG/KG                | U H           | UJ                   | H                         |
| 2-CHLORONAPHTHALENE        | 91-58-7   | 33                  | 500  | UG/KG                | U H           | UJ                   | H                         |
| 2-CHLOROPHENOL             | 95-57-8   | 270                 | 500  | UG/KG                | U H           | UJ                   | H                         |
| 2-METHYLNAPHTHALENE        | 91-57-6   | 33                  | 67   | UG/KG                | U H           | UJ                   | H                         |
| 2-METHYLPHENOL (O-CRESOL)  | 95-48-7   | 810                 | 2000 | UG/KG                | U H           | UJ                   | H                         |
| 2-NITROANILINE             | 88-74-4   | 270                 | 2000 | UG/KG                | U H           | UJ                   | H                         |
| 2-NITROPHENOL              | 88-75-5   | 270                 | 500  | UG/KG                | U H           | UJ                   | H                         |
| 3,3'-DICHLOROBENZIDINE     | 91-94-1   | 810                 | 1000 | UG/KG                | U H           | UJ                   | H                         |
| 3-NITROANILINE             | 99-09-2   | 810                 | 2000 | UG/KG                | U H           | UJ                   | H                         |
| 4,6-DINITRO-2-METHYLPHENOL | 534-52-1  | 810                 | 1500 | UG/KG                | U H           | UJ                   | H, C                      |
| 4-BROMOPHENYL PHENYL ETHE  | 101-55-3  | 270                 | 500  | UG/KG                | U H           | UJ                   | H                         |
| 4-CHLORO-3-METHYLPHENOL    | 59-50-7   | 270                 | 1500 | UG/KG                | U H           | UJ                   | H                         |
| 4-CHLOROANILINE            | 106-47-8  | 270                 | 1500 | UG/KG                | U H           | UJ                   | H                         |
| 4-CHLOROPHENYL PHENYL ETH  | 7005-72-3 | 270                 | 500  | UG/KG                | U H           | UJ                   | H                         |
| 4-NITROANILINE             | 100-01-6  | 270                 | 2000 | UG/KG                | U H           | UJ                   | H                         |
| 4-NITROPHENOL              | 100-02-7  | 810                 | 3300 | UG/KG                | U H           | UJ                   | H                         |
| ACENAPHTHENE               | 83-32-9   | 33                  | 67   | UG/KG                | U H           | UJ                   | H                         |
| ACENAPHTHYLENE             | 208-96-8  | 33                  | 67   | UG/KG                | U H           | UJ                   | H                         |

## Sample Delivery Group: 240-22663-2

|                             |          |      |      |       |       |    |   |
|-----------------------------|----------|------|------|-------|-------|----|---|
| ANTHRACENE                  | 120-12-7 | 33   | 67   | UG/KG | U H   | UJ | H |
| BENZO(A)ANTHRACENE          | 56-55-3  | 33   | 67   | UG/KG | U H   | UJ | H |
| BENZO(A)PYRENE              | 50-32-8  | 33   | 67   | UG/KG | U H   | UJ | H |
| BENZO(B)FLUORANTHENE        | 205-99-2 | 33   | 67   | UG/KG | U H   | UJ | H |
| BENZO(G,H,I)PERYLENE        | 191-24-2 | 33   | 67   | UG/KG | U H   | UJ | H |
| BENZO(K)FLUORANTHENE        | 207-08-9 | 33   | 67   | UG/KG | U H   | UJ | H |
| BENZOIC ACID                | 65-85-0  | 3400 | 6700 | UG/KG | U H   | R  | L |
| BENZYL ALCOHOL              | 100-51-6 | 270  | 3300 | UG/KG | U H   | UJ | H |
| BENZYL BUTYL PHTHALATE      | 85-68-7  | 270  | 710  | UG/KG | U H   | UJ | H |
| BIS(2-CHLOROETHOXY) METHA   | 111-91-1 | 270  | 1000 | UG/KG | U H   | UJ | H |
| BIS(2-CHLOROETHYL) ETHER    | 111-44-4 | 33   | 1000 | UG/KG | U H   | UJ | H |
| BIS(2-CHLOROISOPROPYL) ETHE | 108-60-1 | 270  | 1000 | UG/KG | U H   | UJ | H |
| BIS(2-ETHYLHEXYL) PHTHALAT  | 117-81-7 | 270  | 710  | UG/KG | U H   | UJ | H |
| CARBAZOLE                   | 86-74-8  | 270  | 500  | UG/KG | U H   | UJ | H |
| CHRYSENE                    | 218-01-9 | 33   | 67   | UG/KG | U H   | UJ | H |
| CRESOLS, M & P              |          | 810  | 4000 | UG/KG | U H   | UJ | H |
| DIBENZ(A,H)ANTHRACENE       | 53-70-3  | 33   | 67   | UG/KG | U H   | UJ | H |
| DIBENZOFURAN                | 132-64-9 | 33   | 500  | UG/KG | U H   | UJ | H |
| DIETHYL PHTHALATE           | 84-66-2  | 270  | 710  | UG/KG | U H   | UJ | H |
| DIMETHYL PHTHALATE          | 131-11-3 | 270  | 710  | UG/KG | U H   | UJ | H |
| DI-N-BUTYL PHTHALATE        | 84-74-2  | 270  | 710  | UG/KG | U H Q | UJ | H |
| DI-N-OCTYLPHTHALATE         | 117-84-0 | 270  | 710  | UG/KG | U H   | UJ | H |
| FLUORANTHENE                | 206-44-0 | 33   | 67   | UG/KG | U H Q | UJ | H |
| FLUORENE                    | 86-73-7  | 33   | 67   | UG/KG | U H   | UJ | H |
| HEXACHLOROBENZENE           | 118-74-1 | 33   | 67   | UG/KG | U H   | UJ | H |
| HEXACHLOROBUTADIENE         | 87-68-3  | 270  | 500  | UG/KG | U H   | UJ | H |
| HEXACHLOROCYCLOPENTADIE     | 77-47-4  | 270  | 3300 | UG/KG | U H   | UJ | H |
| HEXACHLOROETHANE            | 67-72-1  | 270  | 500  | UG/KG | U H   | UJ | H |
| INDENO(1,2,3-C,D)PYRENE     | 193-39-5 | 33   | 67   | UG/KG | U H   | UJ | H |
| ISOPHORONE                  | 78-59-1  | 270  | 500  | UG/KG | U H   | UJ | H |
| NAPHTHALENE                 | 91-20-3  | 33   | 67   | UG/KG | U H   | UJ | H |
| NITROBENZENE                | 98-95-3  | 33   | 1000 | UG/KG | U H   | UJ | H |
| N-NITROSODI-N-PROPYLAMINE   | 621-64-7 | 270  | 500  | UG/KG | U H   | UJ | H |

*Sample Delivery Group: 240-22663-2*

|                        |          |     |      |       |     |    |   |
|------------------------|----------|-----|------|-------|-----|----|---|
| N-NITROSODIPHENYLAMINE | 86-30-6  | 270 | 500  | UG/KG | U H | UJ | H |
| PENTACHLOROPHENOL      | 87-86-5  | 810 | 1500 | UG/KG | U H | UJ | H |
| PHENANTHRENE           | 85-01-8  | 33  | 67   | UG/KG | U H | UJ | H |
| PHENOL                 | 108-95-2 | 270 | 500  | UG/KG | U H | UJ | H |
| PYRENE                 | 129-00-0 | 33  | 67   | UG/KG | U H | UJ | H |

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Validated Sample Result Forms for Sampling : Ravenna Army  
Ammunition Plant Ravenna, Ohio  
Remediation Investigation Compliance Restoration Site: RVAAP-74  
Building 1034 Motor Pool Hydraulic Lift

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*Sample Delivery Group:* 240-22756-1

*Analysis Method* M8015D

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|                         |               |                     |            |                             |                      |                             |                                  |
|-------------------------|---------------|---------------------|------------|-----------------------------|----------------------|-----------------------------|----------------------------------|
| <b>Sample Name</b>      |               | 074SB-0001-0001-SO  |            | <b>AnalysisType:</b> N      |                      |                             |                                  |
| <b>Lab Sample Name:</b> |               | 240-22756-1         |            | <b>Validation Level:</b> IV |                      |                             |                                  |
| <b>Analyte</b>          | <b>CAS No</b> | <b>Result Value</b> | <b>LOQ</b> | <b>Result</b>               | <b>Lab Qualifier</b> | <b>Validation Qualifier</b> | <b>Validation Qualifier Code</b> |
| C20-C34                 |               | 11                  | 19         | MG/KG                       | U                    | U                           |                                  |

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|                         |               |                     |            |                             |                      |                             |                                  |
|-------------------------|---------------|---------------------|------------|-----------------------------|----------------------|-----------------------------|----------------------------------|
| <b>Sample Name</b>      |               | 074SB-0002-0001-SO  |            | <b>AnalysisType:</b> N      |                      |                             |                                  |
| <b>Lab Sample Name:</b> |               | 240-22756-2         |            | <b>Validation Level:</b> IV |                      |                             |                                  |
| <b>Analyte</b>          | <b>CAS No</b> | <b>Result Value</b> | <b>LOQ</b> | <b>Result</b>               | <b>Lab Qualifier</b> | <b>Validation Qualifier</b> | <b>Validation Qualifier Code</b> |
| C20-C34                 |               | 11                  | 19         | MG/KG                       | U                    | U                           |                                  |

# Sample Delivery Group: 240-22756-1

## Analysis Method SW8270C

| <b>Sample Name</b>         |           | 074SB-0002-0001-SO |     | <b>AnalysisType:</b> N      |               |                      |                           |
|----------------------------|-----------|--------------------|-----|-----------------------------|---------------|----------------------|---------------------------|
| <b>Lab Sample Name:</b>    |           | 240-22756-2        |     | <b>Validation Level:</b> IV |               |                      |                           |
| Analyte                    | CAS No    | Result Value       | LOQ | Result                      | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| 1,2,4-TRICHLOROBENZENE     | 120-82-1  | 32                 | 59  | UG/KG                       | U             | U                    |                           |
| 1,2-DICHLOROBENZENE        | 95-50-1   | 32                 | 59  | UG/KG                       | U             | U                    |                           |
| 1,3-DICHLOROBENZENE        | 541-73-1  | 32                 | 59  | UG/KG                       | U             | U                    |                           |
| 1,4-DICHLOROBENZENE        | 106-46-7  | 32                 | 59  | UG/KG                       | U             | U                    |                           |
| 2,4,5-TRICHLOROPHENOL      | 95-95-4   | 32                 | 180 | UG/KG                       | U             | U                    |                           |
| 2,4,6-TRICHLOROPHENOL      | 88-06-2   | 94                 | 180 | UG/KG                       | U             | U                    |                           |
| 2,4-DICHLOROPHENOL         | 120-83-2  | 32                 | 180 | UG/KG                       | U             | U                    |                           |
| 2,4-DIMETHYLPHENOL         | 105-67-9  | 94                 | 180 | UG/KG                       | U             | U                    |                           |
| 2,4-DINITROPHENOL          | 51-28-5   | 94                 | 390 | UG/KG                       | U             | UJ                   | C                         |
| 2,4-DINITROTOLUENE         | 121-14-2  | 32                 | 230 | UG/KG                       | U             | U                    |                           |
| 2,6-DINITROTOLUENE         | 606-20-2  | 32                 | 230 | UG/KG                       | U             | U                    |                           |
| 2-CHLORONAPHTHALENE        | 91-58-7   | 3.9                | 59  | UG/KG                       | U             | U                    |                           |
| 2-CHLOROPHENOL             | 95-57-8   | 32                 | 59  | UG/KG                       | U             | U                    |                           |
| 2-METHYLNAPHTHALENE        | 91-57-6   | 3.9                | 7.8 | UG/KG                       | U             | U                    |                           |
| 2-METHYLPHENOL (O-CRESOL)  | 95-48-7   | 94                 | 230 | UG/KG                       | U             | U                    |                           |
| 2-NITROANILINE             | 88-74-4   | 32                 | 230 | UG/KG                       | U             | U                    |                           |
| 2-NITROPHENOL              | 88-75-5   | 32                 | 59  | UG/KG                       | U             | U                    |                           |
| 3,3'-DICHLOROBENZIDINE     | 91-94-1   | 94                 | 120 | UG/KG                       | U             | U                    |                           |
| 3-NITROANILINE             | 99-09-2   | 94                 | 230 | UG/KG                       | U             | U                    |                           |
| 4,6-DINITRO-2-METHYLPHENOL | 534-52-1  | 94                 | 180 | UG/KG                       | U             | UJ                   | C                         |
| 4-BROMOPHENYL PHENYL ETHE  | 101-55-3  | 32                 | 59  | UG/KG                       | U             | U                    |                           |
| 4-CHLORO-3-METHYLPHENOL    | 59-50-7   | 32                 | 180 | UG/KG                       | U             | U                    |                           |
| 4-CHLOROANILINE            | 106-47-8  | 32                 | 180 | UG/KG                       | U             | U                    |                           |
| 4-CHLOROPHENYL PHENYL ETH  | 7005-72-3 | 32                 | 59  | UG/KG                       | U             | U                    |                           |
| 4-NITROANILINE             | 100-01-6  | 32                 | 230 | UG/KG                       | U             | U                    |                           |
| 4-NITROPHENOL              | 100-02-7  | 94                 | 390 | UG/KG                       | U             | U                    |                           |
| ACENAPHTHENE               | 83-32-9   | 3.9                | 7.8 | UG/KG                       | U             | U                    |                           |
| ACENAPHTHYLENE             | 208-96-8  | 3.9                | 7.8 | UG/KG                       | U             | U                    |                           |



## Sample Delivery Group: 240-22756-1

|                             |          |     |     |       |   |     |
|-----------------------------|----------|-----|-----|-------|---|-----|
| ANTHRACENE                  | 120-12-7 | 3.9 | 7.8 | UG/KG | U | U   |
| BENZO(A)ANTHRACENE          | 56-55-3  | 3.9 | 7.8 | UG/KG | U | U   |
| BENZO(A)PYRENE              | 50-32-8  | 3.9 | 7.8 | UG/KG | U | U   |
| BENZO(B)FLUORANTHENE        | 205-99-2 | 3.9 | 7.8 | UG/KG | U | U   |
| BENZO(G,H,I)PERYLENE        | 191-24-2 | 3.9 | 7.8 | UG/KG | U | U   |
| BENZO(K)FLUORANTHENE        | 207-08-9 | 3.9 | 7.8 | UG/KG | U | U   |
| BENZOIC ACID                | 65-85-0  | 390 | 770 | UG/KG | U | U   |
| BENZYL ALCOHOL              | 100-51-6 | 32  | 390 | UG/KG | U | U   |
| BENZYL BUTYL PHTHALATE      | 85-68-7  | 32  | 82  | UG/KG | U | U   |
| BIS(2-CHLOROETHOXY) METHA   | 111-91-1 | 32  | 120 | UG/KG | U | U   |
| BIS(2-CHLOROETHYL) ETHER    | 111-44-4 | 3.9 | 120 | UG/KG | U | U   |
| BIS(2-CHLOROISOPROPYL) ETHE | 108-60-1 | 32  | 120 | UG/KG | U | U   |
| BIS(2-ETHYLHEXYL) PHTHALAT  | 117-81-7 | 32  | 82  | UG/KG | J | U B |
| CARBAZOLE                   | 86-74-8  | 32  | 59  | UG/KG | U | U   |
| CHRYSENE                    | 218-01-9 | 3.9 | 7.8 | UG/KG | U | U   |
| CRESOLS, M & P              |          | 94  | 470 | UG/KG | U | U   |
| DIBENZ(A,H)ANTHRACENE       | 53-70-3  | 3.9 | 7.8 | UG/KG | U | U   |
| DIBENZOFURAN                | 132-64-9 | 3.9 | 59  | UG/KG | U | U   |
| DIETHYL PHTHALATE           | 84-66-2  | 32  | 82  | UG/KG | U | U   |
| DIMETHYL PHTHALATE          | 131-11-3 | 32  | 82  | UG/KG | U | U   |
| DI-N-BUTYL PHTHALATE        | 84-74-2  | 32  | 82  | UG/KG | U | U   |
| DI-N-OCTYLPHTHALATE         | 117-84-0 | 32  | 82  | UG/KG | U | U   |
| FLUORANTHENE                | 206-44-0 | 3.9 | 7.8 | UG/KG | U | U   |
| FLUORENE                    | 86-73-7  | 3.9 | 7.8 | UG/KG | U | U   |
| HEXACHLOROBENZENE           | 118-74-1 | 3.9 | 7.8 | UG/KG | U | U   |
| HEXACHLOROBUTADIENE         | 87-68-3  | 32  | 59  | UG/KG | U | U   |
| HEXACHLOROCYCLOPENTADIE     | 77-47-4  | 32  | 390 | UG/KG | U | U   |
| HEXACHLOROETHANE            | 67-72-1  | 32  | 59  | UG/KG | U | U   |
| INDENO(1,2,3-C,D)PYRENE     | 193-39-5 | 3.9 | 7.8 | UG/KG | U | U   |
| ISOPHORONE                  | 78-59-1  | 32  | 59  | UG/KG | U | U   |
| NAPHTHALENE                 | 91-20-3  | 3.9 | 7.8 | UG/KG | U | U   |
| NITROBENZENE                | 98-95-3  | 3.9 | 120 | UG/KG | U | U   |
| N-NITROSODI-N-PROPYLAMINE   | 621-64-7 | 32  | 59  | UG/KG | U | U   |

*Sample Delivery Group: 240-22756-1*

|                        |          |     |     |       |   |   |
|------------------------|----------|-----|-----|-------|---|---|
| N-NITROSODIPHENYLAMINE | 86-30-6  | 32  | 59  | UG/KG | U | U |
| PENTACHLOROPHENOL      | 87-86-5  | 94  | 180 | UG/KG | U | U |
| PHENANTHRENE           | 85-01-8  | 3.9 | 7.8 | UG/KG | U | U |
| PHENOL                 | 108-95-2 | 32  | 59  | UG/KG | U | U |
| PYRENE                 | 129-00-0 | 3.9 | 7.8 | UG/KG | U | U |

Sample Delivery Group: 240-22804-1

Analysis Method E353.2

|                  |           |                    |     |                      |               |                      |                           |
|------------------|-----------|--------------------|-----|----------------------|---------------|----------------------|---------------------------|
| Sample Name      |           | 074SB-0010-0001-SO |     | AnalysisType: N      |               |                      |                           |
| Lab Sample Name: |           | 240-22804-4        |     | Validation Level: IV |               |                      |                           |
| Analyte          | CAS No    | Result Value       | LOQ | Result               | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| NITROCELLULOSE   | 9004-70-0 | 2.1                | 5.9 | MG/KG                | U             | U                    |                           |

Analysis Method M8015D

|                  |        |                    |     |                      |               |                      |                           |
|------------------|--------|--------------------|-----|----------------------|---------------|----------------------|---------------------------|
| Sample Name      |        | 074SB-0010-0001-SO |     | AnalysisType: N      |               |                      |                           |
| Lab Sample Name: |        | 240-22804-4        |     | Validation Level: IV |               |                      |                           |
| Analyte          | CAS No | Result Value       | LOQ | Result               | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| C20-C34          |        | 11                 | 20  | MG/KG                | U             | U                    |                           |

|                  |        |                    |     |                      |               |                      |                           |
|------------------|--------|--------------------|-----|----------------------|---------------|----------------------|---------------------------|
| Sample Name      |        | 074SB-0027-0001-SO |     | AnalysisType: N      |               |                      |                           |
| Lab Sample Name: |        | 240-22804-10       |     | Validation Level: IV |               |                      |                           |
| Analyte          | CAS No | Result Value       | LOQ | Result               | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| C20-C34          |        | 11                 | 20  | MG/KG                | U             | U                    |                           |

Sample Delivery Group: 240-22804-1

Analysis Method SW6020

| Sample Name      |           | 074SB-0010-0001-SO |       | AnalysisType: N      |               |                      |                           |
|------------------|-----------|--------------------|-------|----------------------|---------------|----------------------|---------------------------|
| Lab Sample Name: |           | 240-22804-4        |       | Validation Level: IV |               |                      |                           |
| Analyte          | CAS No    | Result Value       | LOQ   | Result               | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| ALUMINUM         | 7429-90-5 | 12000              | 3.5   | MG/KG                |               |                      |                           |
| ANTIMONY         | 7440-36-0 | 0.12               | 0.24  | MG/KG                | U             | U                    |                           |
| ARSENIC          | 7440-38-2 | 8.2                | 0.12  | MG/KG                |               |                      |                           |
| BARIUM           | 7440-39-3 | 67                 | 1.2   | MG/KG                | Q             |                      |                           |
| BERYLLIUM        | 7440-41-7 | 0.6                | 0.12  | MG/KG                | Q             |                      |                           |
| CADMIUM          | 7440-43-9 | 0.2                | 0.12  | MG/KG                |               | J+                   | I                         |
| CALCIUM          | 7440-70-2 | 32000              | 12    | MG/KG                |               |                      |                           |
| CHROMIUM         | 7440-47-3 | 19                 | 0.24  | MG/KG                |               |                      |                           |
| COBALT           | 7440-48-4 | 12                 | 0.059 | MG/KG                | Q             |                      |                           |
| COPPER           | 7440-50-8 | 18                 | 0.24  | MG/KG                | Q             |                      |                           |
| IRON             | 7439-89-6 | 24000              | 5.9   | MG/KG                |               |                      |                           |
| LEAD             | 7439-92-1 | 11                 | 0.12  | MG/KG                | Q             |                      |                           |
| MAGNESIUM        | 7439-95-4 | 8000               | 12    | MG/KG                |               |                      |                           |
| MANGANESE        | 7439-96-5 | 350                | 0.59  | MG/KG                | Q             |                      |                           |
| NICKEL           | 7440-02-0 | 28                 | 0.12  | MG/KG                |               |                      |                           |
| POTASSIUM        | 7440-09-7 | 2200               | 12    | MG/KG                |               |                      |                           |
| SELENIUM         | 7782-49-2 | 0.26               | 0.59  | MG/KG                | J             | J+                   | I                         |
| SILVER           | 7440-22-4 | 0.037              | 0.12  | MG/KG                | J             | J+                   | I                         |
| SODIUM           | 7440-23-5 | 120                | 12    | MG/KG                |               |                      |                           |
| THALLIUM         | 7440-28-0 | 0.19               | 0.12  | MG/KG                |               |                      |                           |
| VANADIUM         | 7440-62-2 | 20                 | 0.12  | MG/KG                |               |                      |                           |
| ZINC             | 7440-66-6 | 52                 | 0.59  | MG/KG                | Q             |                      |                           |

Analysis Method SW7471A

| Sample Name      |           | 074SB-0010-0001-SO |      | AnalysisType: N      |               |                      |                           |
|------------------|-----------|--------------------|------|----------------------|---------------|----------------------|---------------------------|
| Lab Sample Name: |           | 240-22804-4        |      | Validation Level: IV |               |                      |                           |
| Analyte          | CAS No    | Result Value       | LOQ  | Result               | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| MERCURY          | 7439-97-6 | 0.039              | 0.12 | MG/KG                | U             | UJ                   | C                         |

*Sample Delivery Group: 240-22804-1*

*Analysis Method SW8082*

| <b>Sample Name</b>      |               | 074SB-0010-0001-SO  |            | <b>AnalysisType:</b> N      |                      |                             |                                  |
|-------------------------|---------------|---------------------|------------|-----------------------------|----------------------|-----------------------------|----------------------------------|
| <b>Lab Sample Name:</b> |               | 240-22804-4         |            | <b>Validation Level:</b> IV |                      |                             |                                  |
| <b>Analyte</b>          | <b>CAS No</b> | <b>Result Value</b> | <b>LOQ</b> | <b>Result</b>               | <b>Lab Qualifier</b> | <b>Validation Qualifier</b> | <b>Validation Qualifier Code</b> |
| PCB-1016                | 12674-11-2    | 29                  | 77         | UG/KG                       | U                    | U                           |                                  |
| PCB-1221                | 11104-28-2    | 29                  | 59         | UG/KG                       | U                    | U                           |                                  |
| PCB-1232                | 11141-16-5    | 29                  | 53         | UG/KG                       | U                    | U                           |                                  |
| PCB-1242                | 53469-21-9    | 29                  | 47         | UG/KG                       | U                    | U                           |                                  |
| PCB-1248                | 12672-29-6    | 29                  | 65         | UG/KG                       | U                    | U                           |                                  |
| PCB-1254                | 11097-69-1    | 29                  | 65         | UG/KG                       | U                    | U                           |                                  |
| PCB-1260                | 11096-82-5    | 29                  | 65         | UG/KG                       | U                    | U                           |                                  |

Sample Delivery Group: 240-22804-1

Analysis Method SW8260B

| Sample Name               |            | 074SB-0010-0001-SO |     | AnalysisType: N      |               |                      |                           |
|---------------------------|------------|--------------------|-----|----------------------|---------------|----------------------|---------------------------|
| Lab Sample Name:          |            | 240-22804-4        |     | Validation Level: IV |               |                      |                           |
| Analyte                   | CAS No     | Result Value       | LOQ | Result               | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| 1,1,1-TRICHLOROETHANE     | 71-55-6    | 0.91               | 4.5 | UG/KG                | U             | U                    |                           |
| 1,1,2,2-TETRACHLOROETHANE | 79-34-5    | 0.45               | 4.5 | UG/KG                | U             | U                    |                           |
| 1,1,2-TRICHLOROETHANE     | 79-00-5    | 0.45               | 4.5 | UG/KG                | U             | U                    |                           |
| 1,1-DICHLOROETHANE        | 75-34-3    | 0.45               | 4.5 | UG/KG                | U             | U                    |                           |
| 1,1-DICHLOROETHENE        | 75-35-4    | 0.91               | 4.5 | UG/KG                | U             | U                    |                           |
| 1,2-DIBROMOETHANE         | 106-93-4   | 0.91               | 4.5 | UG/KG                | U             | U                    |                           |
| 1,2-DICHLOROETHANE        | 107-06-2   | 0.45               | 4.5 | UG/KG                | U             | U                    |                           |
| 1,2-DICHLOROPROPANE       | 78-87-5    | 0.91               | 4.5 | UG/KG                | U             | U                    |                           |
| 2-HEXANONE                | 591-78-6   | 0.93               | 19  | UG/KG                | U             | UJ                   | S                         |
| ACETONE                   | 67-64-1    | 5.7                | 18  | UG/KG                | U             | U                    |                           |
| BENZENE                   | 71-43-2    | 0.45               | 4.5 | UG/KG                | U             | U                    |                           |
| BROMOCHLOROMETHANE        | 74-97-5    | 0.91               | 4.5 | UG/KG                | U             | U                    |                           |
| BROMODICHLOROMETHANE      | 75-27-4    | 0.45               | 4.5 | UG/KG                | U             | U                    |                           |
| BROMOFORM                 | 75-25-2    | 0.45               | 4.5 | UG/KG                | U             | U                    |                           |
| BROMOMETHANE              | 74-83-9    | 0.91               | 4.5 | UG/KG                | U             | U                    |                           |
| CARBON DISULFIDE          | 75-15-0    | 0.45               | 4.5 | UG/KG                | U             | U                    |                           |
| CARBON TETRACHLORIDE      | 56-23-5    | 0.45               | 4.5 | UG/KG                | U             | U                    |                           |
| CHLOROBENZENE             | 108-90-7   | 0.45               | 4.5 | UG/KG                | U             | U                    |                           |
| CHLOROETHANE              | 75-00-3    | 0.91               | 4.5 | UG/KG                | U             | U                    |                           |
| CHLOROFORM                | 67-66-3    | 0.45               | 4.5 | UG/KG                | U             | U                    |                           |
| CHLOROMETHANE             | 74-87-3    | 0.45               | 4.5 | UG/KG                | U             | U                    |                           |
| CIS-1,3-DICHLOROPROPENE   | 10061-01-5 | 0.45               | 4.5 | UG/KG                | U             | U                    |                           |
| DIBROMOCHLOROMETHANE      | 124-48-1   | 0.91               | 4.5 | UG/KG                | U             | U                    |                           |
| ETHYLBENZENE              | 100-41-4   | 0.45               | 4.5 | UG/KG                | U             | U                    |                           |
| METHYL ETHYL KETONE       | 78-93-3    | 1.9                | 19  | UG/KG                | U             | UJ                   | S                         |
| METHYL ISOBUTYL KETONE    | 108-10-1   | 0.93               | 19  | UG/KG                | U             | UJ                   | S                         |
| METHYLENE CHLORIDE        | 75-09-2    | 0.91               | 4.5 | UG/KG                | U             | U                    |                           |
| STYRENE                   | 100-42-5   | 0.45               | 4.5 | UG/KG                | U             | U                    |                           |

*Sample Delivery Group: 240-22804-1*

|                           |            |      |     |       |   |   |
|---------------------------|------------|------|-----|-------|---|---|
| TETRACHLOROETHYLENE       | 127-18-4   | 0.91 | 4.5 | UG/KG | U | U |
| TOLUENE                   | 108-88-3   | 0.45 | 4.5 | UG/KG | U | U |
| TOTAL 1,2-DICHLOROETHENE  | 540-59-0   | 0.91 | 9.1 | UG/KG | U | U |
| TRANS-1,3-DICHLOROPROPENE | 10061-02-6 | 0.91 | 4.5 | UG/KG | U | U |
| TRICHLOROETHYLENE         | 79-01-6    | 0.45 | 4.5 | UG/KG | U | U |
| VINYL CHLORIDE            | 75-01-4    | 0.45 | 4.5 | UG/KG | U | U |
| XYLENES, TOTAL            |            | 1.4  | 9.1 | UG/KG | U | U |

# Sample Delivery Group: 240-22804-1

## Analysis Method SW8270C

| <b>Sample Name</b>         |           | 074SB-0010-0001-SO |     | <b>AnalysisType:</b> N      |               |                      |                           |
|----------------------------|-----------|--------------------|-----|-----------------------------|---------------|----------------------|---------------------------|
| <b>Lab Sample Name:</b>    |           | 240-22804-4        |     | <b>Validation Level:</b> IV |               |                      |                           |
| Analyte                    | CAS No    | Result Value       | LOQ | Result                      | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| 1,2,4-TRICHLOROBENZENE     | 120-82-1  | 32                 | 58  | UG/KG                       | U H           | UJ                   | H                         |
| 1,2-DICHLOROBENZENE        | 95-50-1   | 32                 | 58  | UG/KG                       | U H           | UJ                   | H                         |
| 1,3-DICHLOROBENZENE        | 541-73-1  | 32                 | 58  | UG/KG                       | U H           | UJ                   | H                         |
| 1,4-DICHLOROBENZENE        | 106-46-7  | 32                 | 58  | UG/KG                       | U H           | UJ                   | H                         |
| 2,4,5-TRICHLOROPHENOL      | 95-95-4   | 32                 | 180 | UG/KG                       | U H           | UJ                   | H                         |
| 2,4,6-TRICHLOROPHENOL      | 88-06-2   | 93                 | 180 | UG/KG                       | U H           | UJ                   | H                         |
| 2,4-DICHLOROPHENOL         | 120-83-2  | 32                 | 180 | UG/KG                       | U H           | UJ                   | H                         |
| 2,4-DIMETHYLPHENOL         | 105-67-9  | 93                 | 180 | UG/KG                       | U H           | UJ                   | H                         |
| 2,4-DINITROPHENOL          | 51-28-5   | 93                 | 390 | UG/KG                       | U H           | UJ                   | H, C                      |
| 2,4-DINITROTOLUENE         | 121-14-2  | 32                 | 230 | UG/KG                       | U H           | UJ                   | H                         |
| 2,6-DINITROTOLUENE         | 606-20-2  | 32                 | 230 | UG/KG                       | U H           | UJ                   | H                         |
| 2-CHLORONAPHTHALENE        | 91-58-7   | 3.9                | 58  | UG/KG                       | U H           | UJ                   | H                         |
| 2-CHLOROPHENOL             | 95-57-8   | 32                 | 58  | UG/KG                       | U H           | UJ                   | H                         |
| 2-METHYLNAPHTHALENE        | 91-57-6   | 3.9                | 7.8 | UG/KG                       | U H           | UJ                   | H                         |
| 2-METHYLPHENOL (O-CRESOL)  | 95-48-7   | 93                 | 230 | UG/KG                       | U H           | UJ                   | H                         |
| 2-NITROANILINE             | 88-74-4   | 32                 | 230 | UG/KG                       | U H           | UJ                   | H                         |
| 2-NITROPHENOL              | 88-75-5   | 32                 | 58  | UG/KG                       | U H           | UJ                   | H                         |
| 3,3'-DICHLOROBENZIDINE     | 91-94-1   | 93                 | 120 | UG/KG                       | U H           | UJ                   | H                         |
| 3-NITROANILINE             | 99-09-2   | 93                 | 230 | UG/KG                       | U H           | UJ                   | H                         |
| 4,6-DINITRO-2-METHYLPHENOL | 534-52-1  | 93                 | 180 | UG/KG                       | U H           | UJ                   | H                         |
| 4-BROMOPHENYL PHENYL ETHE  | 101-55-3  | 32                 | 58  | UG/KG                       | U H           | UJ                   | H                         |
| 4-CHLORO-3-METHYLPHENOL    | 59-50-7   | 32                 | 180 | UG/KG                       | U H           | UJ                   | H                         |
| 4-CHLOROANILINE            | 106-47-8  | 32                 | 180 | UG/KG                       | U H           | UJ                   | H                         |
| 4-CHLOROPHENYL PHENYL ETH  | 7005-72-3 | 32                 | 58  | UG/KG                       | U H           | UJ                   | H                         |
| 4-NITROANILINE             | 100-01-6  | 32                 | 230 | UG/KG                       | U H           | UJ                   | H                         |
| 4-NITROPHENOL              | 100-02-7  | 93                 | 390 | UG/KG                       | U H           | UJ                   | H                         |
| ACENAPHTHENE               | 83-32-9   | 3.9                | 7.8 | UG/KG                       | U H           | UJ                   | H                         |
| ACENAPHTHYLENE             | 208-96-8  | 3.9                | 7.8 | UG/KG                       | U H           | UJ                   | H                         |



## Sample Delivery Group: 240-22804-1

|                             |          |     |     |       |     |    |   |
|-----------------------------|----------|-----|-----|-------|-----|----|---|
| ANTHRACENE                  | 120-12-7 | 3.9 | 7.8 | UG/KG | U H | UJ | H |
| BENZO(A)ANTHRACENE          | 56-55-3  | 3.9 | 7.8 | UG/KG | U H | UJ | H |
| BENZO(A)PYRENE              | 50-32-8  | 3.9 | 7.8 | UG/KG | U H | UJ | H |
| BENZO(B)FLUORANTHENE        | 205-99-2 | 3.9 | 7.8 | UG/KG | U H | UJ | H |
| BENZO(G,H,I)PERYLENE        | 191-24-2 | 3.9 | 7.8 | UG/KG | U H | UJ | H |
| BENZO(K)FLUORANTHENE        | 207-08-9 | 3.9 | 7.8 | UG/KG | U H | UJ | H |
| BENZOIC ACID                | 65-85-0  | 390 | 770 | UG/KG | U H | R  | L |
| BENZYL ALCOHOL              | 100-51-6 | 32  | 390 | UG/KG | U H | UJ | H |
| BENZYL BUTYL PHTHALATE      | 85-68-7  | 32  | 82  | UG/KG | U H | UJ | H |
| BIS(2-CHLOROETHOXY) METHA   | 111-91-1 | 32  | 120 | UG/KG | U H | UJ | H |
| BIS(2-CHLOROETHYL) ETHER    | 111-44-4 | 3.9 | 120 | UG/KG | U H | UJ | H |
| BIS(2-CHLOROISOPROPYL) ETHE | 108-60-1 | 32  | 120 | UG/KG | U H | UJ | H |
| BIS(2-ETHYLHEXYL) PHTHALAT  | 117-81-7 | 120 | 82  | UG/KG | H   | J  | H |
| CARBAZOLE                   | 86-74-8  | 32  | 58  | UG/KG | U H | UJ | H |
| CHRYSENE                    | 218-01-9 | 3.9 | 7.8 | UG/KG | U H | UJ | H |
| CRESOLS, M & P              |          | 93  | 470 | UG/KG | U H | UJ | H |
| DIBENZ(A,H)ANTHRACENE       | 53-70-3  | 3.9 | 7.8 | UG/KG | U H | UJ | H |
| DIBENZOFURAN                | 132-64-9 | 3.9 | 58  | UG/KG | U H | UJ | H |
| DIETHYL PHTHALATE           | 84-66-2  | 32  | 82  | UG/KG | U H | UJ | H |
| DIMETHYL PHTHALATE          | 131-11-3 | 32  | 82  | UG/KG | U H | UJ | H |
| DI-N-BUTYL PHTHALATE        | 84-74-2  | 32  | 82  | UG/KG | U H | UJ | H |
| DI-N-OCTYLPHTHALATE         | 117-84-0 | 32  | 82  | UG/KG | U H | UJ | H |
| FLUORANTHENE                | 206-44-0 | 3.9 | 7.8 | UG/KG | U H | UJ | H |
| FLUORENE                    | 86-73-7  | 3.9 | 7.8 | UG/KG | U H | UJ | H |
| HEXACHLOROBENZENE           | 118-74-1 | 3.9 | 7.8 | UG/KG | U H | UJ | H |
| HEXACHLOROBUTADIENE         | 87-68-3  | 32  | 58  | UG/KG | U H | UJ | H |
| HEXACHLOROCYCLOPENTADIE     | 77-47-4  | 32  | 390 | UG/KG | U H | UJ | H |
| HEXACHLOROETHANE            | 67-72-1  | 32  | 58  | UG/KG | U H | UJ | H |
| INDENO(1,2,3-C,D)PYRENE     | 193-39-5 | 3.9 | 7.8 | UG/KG | U H | UJ | H |
| ISOPHORONE                  | 78-59-1  | 32  | 58  | UG/KG | U H | UJ | H |
| NAPHTHALENE                 | 91-20-3  | 3.9 | 7.8 | UG/KG | U H | UJ | H |
| NITROBENZENE                | 98-95-3  | 3.9 | 120 | UG/KG | U H | UJ | H |
| N-NITROSODI-N-PROPYLAMINE   | 621-64-7 | 32  | 58  | UG/KG | U H | UJ | H |

## Sample Delivery Group: 240-22804-1

|                        |          |     |     |       |     |           |          |
|------------------------|----------|-----|-----|-------|-----|-----------|----------|
| N-NITROSODIPHENYLAMINE | 86-30-6  | 32  | 58  | UG/KG | U H | <b>UJ</b> | <b>H</b> |
| PENTACHLOROPHENOL      | 87-86-5  | 93  | 180 | UG/KG | U H | <b>UJ</b> | <b>H</b> |
| PHENANTHRENE           | 85-01-8  | 3.9 | 7.8 | UG/KG | U H | <b>UJ</b> | <b>H</b> |
| PHENOL                 | 108-95-2 | 32  | 58  | UG/KG | U H | <b>UJ</b> | <b>H</b> |
| PYRENE                 | 129-00-0 | 3.9 | 7.8 | UG/KG | U H | <b>UJ</b> | <b>H</b> |

**Sample Name** 074SB-0027-0001-SO

**AnalysisType:** N

**Lab Sample Name:** 240-22804-10

**Validation Level:** IV

| Analyte                    | CAS No    | Result Value | LOQ | Result | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
|----------------------------|-----------|--------------|-----|--------|---------------|----------------------|---------------------------|
| 1,2,4-TRICHLOROBENZENE     | 120-82-1  | 32           | 59  | UG/KG  | U             | <b>U</b>             |                           |
| 1,2-DICHLOROBENZENE        | 95-50-1   | 32           | 59  | UG/KG  | U             | <b>U</b>             |                           |
| 1,3-DICHLOROBENZENE        | 541-73-1  | 32           | 59  | UG/KG  | U             | <b>U</b>             |                           |
| 1,4-DICHLOROBENZENE        | 106-46-7  | 32           | 59  | UG/KG  | U             | <b>U</b>             |                           |
| 2,4,5-TRICHLOROPHENOL      | 95-95-4   | 32           | 180 | UG/KG  | U             | <b>U</b>             |                           |
| 2,4,6-TRICHLOROPHENOL      | 88-06-2   | 94           | 180 | UG/KG  | U             | <b>U</b>             |                           |
| 2,4-DICHLOROPHENOL         | 120-83-2  | 32           | 180 | UG/KG  | U             | <b>U</b>             |                           |
| 2,4-DIMETHYLPHENOL         | 105-67-9  | 94           | 180 | UG/KG  | U             | <b>U</b>             |                           |
| 2,4-DINITROPHENOL          | 51-28-5   | 94           | 390 | UG/KG  | U             | <b>U</b>             |                           |
| 2,4-DINITROTOLUENE         | 121-14-2  | 32           | 240 | UG/KG  | U             | <b>U</b>             |                           |
| 2,6-DINITROTOLUENE         | 606-20-2  | 32           | 240 | UG/KG  | U             | <b>U</b>             |                           |
| 2-CHLORONAPHTHALENE        | 91-58-7   | 3.9          | 59  | UG/KG  | U             | <b>U</b>             |                           |
| 2-CHLOROPHENOL             | 95-57-8   | 32           | 59  | UG/KG  | U             | <b>U</b>             |                           |
| 2-METHYLNAPHTHALENE        | 91-57-6   | 3.9          | 7.8 | UG/KG  | U             | <b>U</b>             |                           |
| 2-METHYLPHENOL (O-CRESOL)  | 95-48-7   | 94           | 240 | UG/KG  | U             | <b>U</b>             |                           |
| 2-NITROANILINE             | 88-74-4   | 32           | 240 | UG/KG  | U             | <b>U</b>             |                           |
| 2-NITROPHENOL              | 88-75-5   | 32           | 59  | UG/KG  | U             | <b>U</b>             |                           |
| 3,3'-DICHLOROBENZIDINE     | 91-94-1   | 94           | 120 | UG/KG  | U             | <b>U</b>             |                           |
| 3-NITROANILINE             | 99-09-2   | 94           | 240 | UG/KG  | U             | <b>U</b>             |                           |
| 4,6-DINITRO-2-METHYLPHENOL | 534-52-1  | 94           | 180 | UG/KG  | U             | <b>U</b>             |                           |
| 4-BROMOPHENYL PHENYL ETHE  | 101-55-3  | 32           | 59  | UG/KG  | U             | <b>U</b>             |                           |
| 4-CHLORO-3-METHYLPHENOL    | 59-50-7   | 32           | 180 | UG/KG  | U             | <b>U</b>             |                           |
| 4-CHLOROANILINE            | 106-47-8  | 32           | 180 | UG/KG  | U             | <b>U</b>             |                           |
| 4-CHLOROPHENYL PHENYL ETH  | 7005-72-3 | 32           | 59  | UG/KG  | U             | <b>U</b>             |                           |

## Sample Delivery Group: 240-22804-1

|                             |          |     |     |       |   |     |
|-----------------------------|----------|-----|-----|-------|---|-----|
| 4-NITROANILINE              | 100-01-6 | 32  | 240 | UG/KG | U | U   |
| 4-NITROPHENOL               | 100-02-7 | 94  | 390 | UG/KG | U | U   |
| ACENAPHTHENE                | 83-32-9  | 3.9 | 7.8 | UG/KG | U | U   |
| ACENAPHTHYLENE              | 208-96-8 | 3.9 | 7.8 | UG/KG | U | U   |
| ANTHRACENE                  | 120-12-7 | 3.9 | 7.8 | UG/KG | U | U   |
| BENZO(A)ANTHRACENE          | 56-55-3  | 3.9 | 7.8 | UG/KG | U | U   |
| BENZO(A)PYRENE              | 50-32-8  | 3.9 | 7.8 | UG/KG | U | U   |
| BENZO(B)FLUORANTHENE        | 205-99-2 | 3.9 | 7.8 | UG/KG | U | U   |
| BENZO(G,H,I)PERYLENE        | 191-24-2 | 3.9 | 7.8 | UG/KG | U | U   |
| BENZO(K)FLUORANTHENE        | 207-08-9 | 3.9 | 7.8 | UG/KG | U | U   |
| BENZOIC ACID                | 65-85-0  | 390 | 780 | UG/KG | U | U   |
| BENZYL ALCOHOL              | 100-51-6 | 32  | 390 | UG/KG | U | U   |
| BENZYL BUTYL PHTHALATE      | 85-68-7  | 32  | 82  | UG/KG | U | U   |
| BIS(2-CHLOROETHOXY) METHA   | 111-91-1 | 32  | 120 | UG/KG | U | U   |
| BIS(2-CHLOROETHYL) ETHER    | 111-44-4 | 3.9 | 120 | UG/KG | U | U   |
| BIS(2-CHLOROISOPROPYL) ETHE | 108-60-1 | 32  | 120 | UG/KG | U | U   |
| BIS(2-ETHYLHEXYL) PHTHALAT  | 117-81-7 | 26  | 82  | UG/KG | J | J   |
| CARBAZOLE                   | 86-74-8  | 32  | 59  | UG/KG | U | U   |
| CHRYSENE                    | 218-01-9 | 3.9 | 7.8 | UG/KG | U | U   |
| CRESOLS, M & P              |          | 94  | 470 | UG/KG | U | U   |
| DIBENZ(A,H)ANTHRACENE       | 53-70-3  | 3.9 | 7.8 | UG/KG | U | U   |
| DIBENZOFURAN                | 132-64-9 | 3.9 | 59  | UG/KG | U | U   |
| DIETHYL PHTHALATE           | 84-66-2  | 32  | 82  | UG/KG | U | U   |
| DIMETHYL PHTHALATE          | 131-11-3 | 32  | 82  | UG/KG | U | U   |
| DI-N-BUTYL PHTHALATE        | 84-74-2  | 33  | 82  | UG/KG | J | U B |
| DI-N-OCTYLPHTHALATE         | 117-84-0 | 32  | 82  | UG/KG | U | U   |
| FLUORANTHENE                | 206-44-0 | 3.9 | 7.8 | UG/KG | U | U   |
| FLUORENE                    | 86-73-7  | 3.9 | 7.8 | UG/KG | U | U   |
| HEXACHLOROBENZENE           | 118-74-1 | 3.9 | 7.8 | UG/KG | U | U   |
| HEXACHLOROBUTADIENE         | 87-68-3  | 32  | 59  | UG/KG | U | U   |
| HEXACHLOROCYCLOPENTADIE     | 77-47-4  | 32  | 390 | UG/KG | U | U   |
| HEXACHLOROETHANE            | 67-72-1  | 32  | 59  | UG/KG | U | U   |
| INDENO(1,2,3-C,D)PYRENE     | 193-39-5 | 3.9 | 7.8 | UG/KG | U | U   |

## Sample Delivery Group: 240-22804-1

|                           |          |     |     |       |   |   |
|---------------------------|----------|-----|-----|-------|---|---|
| ISOPHORONE                | 78-59-1  | 32  | 59  | UG/KG | U | U |
| NAPHTHALENE               | 91-20-3  | 3.9 | 7.8 | UG/KG | U | U |
| NITROBENZENE              | 98-95-3  | 3.9 | 120 | UG/KG | U | U |
| N-NITROSODI-N-PROPYLAMINE | 621-64-7 | 32  | 59  | UG/KG | U | U |
| N-NITROSODIPHENYLAMINE    | 86-30-6  | 32  | 59  | UG/KG | U | U |
| PENTACHLOROPHENOL         | 87-86-5  | 94  | 180 | UG/KG | U | U |
| PHENANTHRENE              | 85-01-8  | 3.9 | 7.8 | UG/KG | U | U |
| PHENOL                    | 108-95-2 | 32  | 59  | UG/KG | U | U |
| PYRENE                    | 129-00-0 | 3.9 | 7.8 | UG/KG | U | U |

## Analysis Method SW8330B

**Sample Name** 074SB-0010-0001-SO

**AnalysisType:** N

**Lab Sample Name:** 240-22804-4

**Validation Level:** IV

| Analyte                    | CAS No     | Result Value | LOQ  | Result | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
|----------------------------|------------|--------------|------|--------|---------------|----------------------|---------------------------|
| 1,3,5-TRINITROBENZENE      | 99-35-4    | 0.05         | 0.25 | MG/KG  | U             | U                    |                           |
| 1,3-DINITROBENZENE         | 99-65-0    | 0.05         | 0.25 | MG/KG  | U             | U                    |                           |
| 2,4,6-TRINITROTOLUENE      | 118-96-7   | 0.05         | 0.25 | MG/KG  | U             | U                    |                           |
| 2,4-DINITROTOLUENE         | 121-14-2   | 0.05         | 0.25 | MG/KG  | U             | R                    | D                         |
| 2,6-DINITROTOLUENE         | 606-20-2   | 0.05         | 0.25 | MG/KG  | U             | R                    | D                         |
| 2-AMINO-4,6-DINITROTOLUENE | 35572-78-2 | 0.05         | 0.25 | MG/KG  | U             | U                    |                           |
| 2-NITROTOLUENE             | 88-72-2    | 0.05         | 0.25 | MG/KG  | U             | U                    |                           |
| 3-NITROTOLUENE             | 99-08-1    | 0.05         | 0.25 | MG/KG  | U             | U                    |                           |
| 4-AMINO-2,6-DINITROTOLUENE | 19406-51-0 | 0.05         | 0.25 | MG/KG  | U             | U                    |                           |
| 4-NITROTOLUENE             | 99-99-0    | 0.05         | 0.25 | MG/KG  | U             | U                    |                           |
| HMX                        | 2691-41-0  | 0.05         | 0.25 | MG/KG  | U             | U                    |                           |
| NITROBENZENE               | 98-95-3    | 0.05         | 0.25 | MG/KG  | U             | R                    | D                         |
| NITROGLYCERIN              | 55-63-0    | 0.25         | 0.5  | MG/KG  | U             | U                    |                           |
| NITROGUANIDINE             | 556-88-7   | 0.038        | 0.24 | MG/KG  | U             | U                    |                           |
| PETN                       | 78-11-5    | 0.25         | 0.5  | MG/KG  | U             | U                    |                           |
| RDX                        | 121-82-4   | 0.05         | 0.25 | MG/KG  | U             | U                    |                           |
| TETRYL                     | 479-45-8   | 0.05         | 0.25 | MG/KG  | U             | U                    |                           |

Validated Sample Result Forms for Sampling : Ravenna Army  
Ammunition Plant Ravenna, Ohio  
Remediation Investigation Compliance Restoration Site: RVAAP-76  
Depot Area

*Sample Delivery Group: 240-17317-1*

*Analysis Method SW6020*

| <b>Sample Name</b>      |           | 076SD-0009-0001-SO |       | <b>AnalysisType:</b> N      |               |                      |                           |
|-------------------------|-----------|--------------------|-------|-----------------------------|---------------|----------------------|---------------------------|
| <b>Lab Sample Name:</b> |           | 240-17317-19       |       | <b>Validation Level:</b> IV |               |                      |                           |
| Analyte                 | CAS No    | Result Value       | LOQ   | Result                      | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| ALUMINUM                | 7429-90-5 | 7500.0             | 9.6   | MG/KG                       | J             | J                    |                           |
| ANTIMONY                | 7440-36-0 | 0.72               | 0.96  | MG/KG                       | U J           | R                    | Q                         |
| ARSENIC                 | 7440-38-2 | 9.5                | 0.48  | MG/KG                       |               |                      |                           |
| BARIUM                  | 7440-39-3 | 57.0               | 2.4   | MG/KG                       | D             |                      |                           |
| BERYLLIUM               | 7440-41-7 | 0.45               | 0.096 | MG/KG                       |               |                      |                           |
| CADMIUM                 | 7440-43-9 | 0.16               | 0.19  | MG/KG                       | J             | J                    |                           |
| CALCIUM                 | 7440-70-2 | 1800.0             | 190   | MG/KG                       | J             | J+                   | Q                         |
| CHROMIUM                | 7440-47-3 | 44.0               | 0.48  | MG/KG                       |               | J                    | E                         |
| COBALT                  | 7440-48-4 | 7.3                | 0.096 | MG/KG                       |               |                      |                           |
| COPPER                  | 7440-50-8 | 15.0               | 0.38  | MG/KG                       |               |                      |                           |
| IRON                    | 7439-89-6 | 19000.0            | 48    | MG/KG                       | J             | J                    |                           |
| LEAD                    | 7439-92-1 | 19.0               | 1.4   | MG/KG                       | D             |                      |                           |
| MAGNESIUM               | 7439-95-4 | 1800.0             | 96    | MG/KG                       |               |                      |                           |
| MANGANESE               | 7439-96-5 | 310.0              | 0.48  | MG/KG                       |               |                      |                           |
| NICKEL                  | 7440-02-0 | 30.0               | 0.48  | MG/KG                       |               | J                    | Q                         |
| POTASSIUM               | 7440-09-7 | 590.0              | 96    | MG/KG                       |               | J+                   | Q                         |
| SELENIUM                | 7782-49-2 | 0.52               | 0.48  | MG/KG                       |               | J                    | M                         |
| SILVER                  | 7440-22-4 | 0.029              | 0.096 | MG/KG                       | J             | J                    |                           |
| SODIUM                  | 7440-23-5 | 49.0               | 96    | MG/KG                       | J             | J                    |                           |
| THALLIUM                | 7440-28-0 | 0.72               | 0.96  | MG/KG                       | U             | U                    |                           |
| VANADIUM                | 7440-62-2 | 14.0               | 0.48  | MG/KG                       |               | J+                   | Q                         |
| ZINC                    | 7440-66-6 | 49.0               | 3.8   | MG/KG                       |               |                      |                           |

*Sample Delivery Group: 240-17317-1*

*Analysis Method SW7471A*

|                         |               |                     |            |                             |                      |                             |                                  |
|-------------------------|---------------|---------------------|------------|-----------------------------|----------------------|-----------------------------|----------------------------------|
| <b>Sample Name</b>      |               | 076SD-0009-0001-SO  |            | <b>AnalysisType:</b> N      |                      |                             |                                  |
| <b>Lab Sample Name:</b> |               | 240-17317-19        |            | <b>Validation Level:</b> IV |                      |                             |                                  |
| <b>Analyte</b>          | <b>CAS No</b> | <b>Result Value</b> | <b>LOQ</b> | <b>Result</b>               | <b>Lab Qualifier</b> | <b>Validation Qualifier</b> | <b>Validation Qualifier Code</b> |
| MERCURY                 | 7439-97-6     | 0.053               | 0.095      | MG/KG                       | J                    | U                           | B                                |

# Sample Delivery Group: 240-17317-1

## Analysis Method SW8270D

| <b>Sample Name</b>          |           | 076SD-0009-0001-SO |     | <b>AnalysisType:</b> N      |               |                      |                           |
|-----------------------------|-----------|--------------------|-----|-----------------------------|---------------|----------------------|---------------------------|
| <b>Lab Sample Name:</b>     |           | 240-17317-19       |     | <b>Validation Level:</b> IV |               |                      |                           |
| Analyte                     | CAS No    | Result Value       | LOQ | Result                      | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| 1,2,4-TRICHLOROBENZENE      | 120-82-1  | 27                 | 51  | UG/KG                       | U             | U                    |                           |
| 1,2-DICHLOROBENZENE         | 95-50-1   | 27                 | 51  | UG/KG                       | U             | U                    |                           |
| 1,3-DICHLOROBENZENE         | 541-73-1  | 27                 | 51  | UG/KG                       | U             | U                    |                           |
| 1,4-DICHLOROBENZENE         | 106-46-7  | 27                 | 51  | UG/KG                       | U             | U                    |                           |
| 2,2'-OXYBIS(1-CHLORO)PROPAN | 108-60-1  | 27                 | 100 | UG/KG                       | U             | U                    |                           |
| 2,4,5-TRICHLOROPHENOL       | 95-95-4   | 27                 | 150 | UG/KG                       | U             | U                    |                           |
| 2,4,6-TRICHLOROPHENOL       | 88-06-2   | 81                 | 150 | UG/KG                       | U             | U                    |                           |
| 2,4-DICHLOROPHENOL          | 120-83-2  | 27                 | 150 | UG/KG                       | U             | U                    |                           |
| 2,4-DIMETHYLPHENOL          | 105-67-9  | 81                 | 150 | UG/KG                       | U             | U                    |                           |
| 2,4-DINITROPHENOL           | 51-28-5   | 81                 | 330 | UG/KG                       | U             | UJ                   | C                         |
| 2,4-DINITROTOLUENE          | 121-14-2  | 27                 | 200 | UG/KG                       | U             | U                    |                           |
| 2,6-DINITROTOLUENE          | 606-20-2  | 27                 | 200 | UG/KG                       | U             | U                    |                           |
| 2-CHLORONAPHTHALENE         | 91-58-7   | 3.3                | 51  | UG/KG                       | U             | U                    |                           |
| 2-CHLOROPHENOL              | 95-57-8   | 27                 | 51  | UG/KG                       | U             | U                    |                           |
| 2-METHYLNAPHTHALENE         | 91-57-6   | 30.0               | 6.8 | UG/KG                       |               |                      |                           |
| 2-METHYLPHENOL (O-CRESOL)   | 95-48-7   | 81                 | 200 | UG/KG                       | U             | U                    |                           |
| 2-NITROANILINE              | 88-74-4   | 27                 | 200 | UG/KG                       | U             | U                    |                           |
| 2-NITROPHENOL               | 88-75-5   | 27                 | 51  | UG/KG                       | U             | U                    |                           |
| 3,3'-DICHLOROBENZIDINE      | 91-94-1   | 81                 | 100 | UG/KG                       | U J           | R                    | Q                         |
| 3-NITROANILINE              | 99-09-2   | 81                 | 200 | UG/KG                       | U J           | R                    | Q                         |
| 4,6-DINITRO-2-METHYLPHENOL  | 534-52-1  | 81                 | 150 | UG/KG                       | U             | U                    |                           |
| 4-BROMOPHENYL PHENYL ETHE   | 101-55-3  | 27                 | 51  | UG/KG                       | U             | UJ                   | C                         |
| 4-CHLORO-3-METHYLPHENOL     | 59-50-7   | 27                 | 150 | UG/KG                       | U             | U                    |                           |
| 4-CHLOROANILINE             | 106-47-8  | 27                 | 150 | UG/KG                       | U J           | UJ                   | Q                         |
| 4-CHLOROPHENYL PHENYL ETH   | 7005-72-3 | 27                 | 51  | UG/KG                       | U             | U                    |                           |
| 4-NITROANILINE              | 100-01-6  | 27                 | 200 | UG/KG                       | U J           | R                    | Q                         |
| 4-NITROPHENOL               | 100-02-7  | 81                 | 330 | UG/KG                       | U             | U                    |                           |
| ACENAPHTHENE                | 83-32-9   | 7.1                | 6.8 | UG/KG                       |               |                      |                           |

## Sample Delivery Group: 240-17317-1

|                            |          |       |     |       |     |    |      |
|----------------------------|----------|-------|-----|-------|-----|----|------|
| ACENAPHTHYLENE             | 208-96-8 | 13.0  | 6.8 | UG/KG |     |    |      |
| ANTHRACENE                 | 120-12-7 | 16.0  | 6.8 | UG/KG |     |    |      |
| BENZO(A)ANTHRACENE         | 56-55-3  | 71.0  | 6.8 | UG/KG |     |    |      |
| BENZO(A)PYRENE             | 50-32-8  | 69.0  | 6.8 | UG/KG |     |    |      |
| BENZO(B)FLUORANTHENE       | 205-99-2 | 110.0 | 6.8 | UG/KG |     |    |      |
| BENZO(G,H,I)PERYLENE       | 191-24-2 | 39.0  | 6.8 | UG/KG | J   | J  | Q    |
| BENZO(K)FLUORANTHENE       | 207-08-9 | 38.0  | 6.8 | UG/KG |     |    |      |
| BENZOIC ACID               | 65-85-0  | 340   | 670 | UG/KG | U   | UJ | C    |
| BENZYL ALCOHOL             | 100-51-6 | 27    | 330 | UG/KG | U   | U  |      |
| BENZYL BUTYL PHTHALATE     | 85-68-7  | 27    | 51  | UG/KG | U   | U  |      |
| BIS(2-CHLOROETHOXY) METHA  | 111-91-1 | 27    | 100 | UG/KG | U   | U  |      |
| BIS(2-CHLOROETHYL) ETHER   | 111-44-4 | 3.3   | 100 | UG/KG | U   | U  |      |
| BIS(2-ETHYLHEXYL) PHTHALAT | 117-81-7 | 89.0  | 51  | UG/KG |     |    |      |
| CARBAZOLE                  | 86-74-8  | 27    | 51  | UG/KG | U   | U  |      |
| CHRYSENE                   | 218-01-9 | 73.0  | 6.8 | UG/KG |     |    |      |
| CRESOLS, M & P             |          | 81    | 410 | UG/KG | U   | U  |      |
| DIBENZ(A,H)ANTHRACENE      | 53-70-3  | 3.3   | 6.8 | UG/KG | U   | U  |      |
| DIBENZOFURAN               | 132-64-9 | 14.0  | 51  | UG/KG | J   | J  |      |
| DIETHYL PHTHALATE          | 84-66-2  | 23.0  | 51  | UG/KG | J   | J  |      |
| DIMETHYL PHTHALATE         | 131-11-3 | 27    | 51  | UG/KG | U   | U  |      |
| DI-N-BUTYL PHTHALATE       | 84-74-2  | 27    | 51  | UG/KG | U   | U  |      |
| DI-N-OCTYLPHTHALATE        | 117-84-0 | 27    | 51  | UG/KG | U   | U  |      |
| FLUORANTHENE               | 206-44-0 | 120.0 | 6.8 | UG/KG |     |    |      |
| FLUORENE                   | 86-73-7  | 12.0  | 6.8 | UG/KG |     |    |      |
| HEXACHLOROBENZENE          | 118-74-1 | 3.3   | 6.8 | UG/KG | U   | U  |      |
| HEXACHLOROBUTADIENE        | 87-68-3  | 27    | 51  | UG/KG | U   | U  |      |
| HEXACHLOROCYCLOPENTADIE    | 77-47-4  | 27    | 330 | UG/KG | U   | U  |      |
| HEXACHLOROETHANE           | 67-72-1  | 27    | 51  | UG/KG | U J | UJ | C, Q |
| INDENO(1,2,3-C,D)PYRENE    | 193-39-5 | 33.0  | 6.8 | UG/KG | M J |    |      |
| ISOPHORONE                 | 78-59-1  | 18.0  | 51  | UG/KG | J   | J  |      |
| NAPHTHALENE                | 91-20-3  | 22.0  | 6.8 | UG/KG |     |    |      |
| NITROBENZENE               | 98-95-3  | 3.3   | 100 | UG/KG | U   | U  |      |
| N-NITROSODI-N-PROPYLAMINE  | 621-64-7 | 27    | 51  | UG/KG | U   | U  |      |



*Sample Delivery Group: 240-17317-1*

|                        |          |       |     |       |   |    |   |
|------------------------|----------|-------|-----|-------|---|----|---|
| N-NITROSODIPHENYLAMINE | 86-30-6  | 27    | 51  | UG/KG | U | U  |   |
| PENTACHLOROPHENOL      | 87-86-5  | 81    | 150 | UG/KG | U | UJ | C |
| PHENANTHRENE           | 85-01-8  | 68.0  | 6.8 | UG/KG |   |    |   |
| PHENOL                 | 108-95-2 | 27    | 51  | UG/KG | U | U  |   |
| PYRENE                 | 129-00-0 | 100.0 | 6.8 | UG/KG |   |    |   |

Sample Delivery Group: 240-17422-1

Analysis Method E353.2

| Sample Name      |           | 076SS-0020M-0001-SO |     | AnalysisType: N      |               |                      |                           |
|------------------|-----------|---------------------|-----|----------------------|---------------|----------------------|---------------------------|
| Lab Sample Name: |           | 240-17422-2         |     | Validation Level: IV |               |                      |                           |
| Analyte          | CAS No    | Result Value        | LOQ | Result               | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| NITROCELLULOSE   | 9004-70-0 | 18                  | 50  | MG/KG                | U             | U                    |                           |

Analysis Method SW6020

| Sample Name      |           | 076SS-0020M-0001-SO |       | AnalysisType: N      |               |                      |                           |
|------------------|-----------|---------------------|-------|----------------------|---------------|----------------------|---------------------------|
| Lab Sample Name: |           | 240-17422-2         |       | Validation Level: IV |               |                      |                           |
| Analyte          | CAS No    | Result Value        | LOQ   | Result               | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| ALUMINUM         | 7429-90-5 | 11000.0             | 9.3   | MG/KG                |               |                      |                           |
| ANTIMONY         | 7440-36-0 | 0.17                | 0.19  | MG/KG                | J             | J-                   | Q                         |
| ARSENIC          | 7440-38-2 | 11.0                | 0.46  | MG/KG                |               | J-                   | Q                         |
| BARIUM           | 7440-39-3 | 100.0               | 0.46  | MG/KG                |               |                      |                           |
| BERYLLIUM        | 7440-41-7 | 0.62                | 0.093 | MG/KG                |               |                      |                           |
| CADMIUM          | 7440-43-9 | 0.2                 | 0.19  | MG/KG                |               |                      |                           |
| CALCIUM          | 7440-70-2 | 1100.0              | 190   | MG/KG                |               |                      |                           |
| CHROMIUM         | 7440-47-3 | 16.0                | 0.46  | MG/KG                |               |                      |                           |
| COBALT           | 7440-48-4 | 9.4                 | 0.093 | MG/KG                |               |                      |                           |
| COPPER           | 7440-50-8 | 12.0                | 0.37  | MG/KG                |               |                      |                           |
| IRON             | 7439-89-6 | 19000.0             | 46    | MG/KG                |               |                      |                           |
| LEAD             | 7439-92-1 | 38.0                | 0.28  | MG/KG                |               |                      |                           |
| MAGNESIUM        | 7439-95-4 | 2000.0              | 93    | MG/KG                |               |                      |                           |
| MANGANESE        | 7439-96-5 | 760.0               | 0.46  | MG/KG                | J             | J                    |                           |
| NICKEL           | 7440-02-0 | 18.0                | 0.46  | MG/KG                |               |                      |                           |
| POTASSIUM        | 7440-09-7 | 801.0               | 93    | MG/KG                |               |                      |                           |
| SELENIUM         | 7782-49-2 | 0.6                 | 0.46  | MG/KG                |               | J-                   | M, Q                      |
| SILVER           | 7440-22-4 | 0.073               | 0.093 | MG/KG                | J             | J                    |                           |
| SODIUM           | 7440-23-5 | 37                  | 93    | MG/KG                | J             | U                    | F                         |
| THALLIUM         | 7440-28-0 | 0.21                | 0.19  | MG/KG                |               | UJ                   | C, F                      |
| VANADIUM         | 7440-62-2 | 18.0                | 0.46  | MG/KG                |               |                      |                           |
| ZINC             | 7440-66-6 | 120.0               | 3.7   | MG/KG                |               |                      |                           |

Sample Delivery Group: 240-17422-1

Analysis Method SW7471A

| Sample Name      |           | 076SS-0020M-0001-SO |      | AnalysisType: N      |               |                      |                           |
|------------------|-----------|---------------------|------|----------------------|---------------|----------------------|---------------------------|
| Lab Sample Name: |           | 240-17422-2         |      | Validation Level: IV |               |                      |                           |
| Analyte          | CAS No    | Result Value        | LOQ  | Result               | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| MERCURY          | 7439-97-6 | 0.077               | 0.10 | MG/KG                | J             | U                    | B                         |

Analysis Method SW8081

| Sample Name         |            | 076SS-0020M-0001-SO |     | AnalysisType: N      |               |                      |                           |
|---------------------|------------|---------------------|-----|----------------------|---------------|----------------------|---------------------------|
| Lab Sample Name:    |            | 240-17422-2         |     | Validation Level: IV |               |                      |                           |
| Analyte             | CAS No     | Result Value        | LOQ | Result               | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| ALDRIN              | 309-00-2   | 6.7                 | 20  | UG/KG                | U             | U                    |                           |
| ALPHA BHC           | 319-84-6   | 6.7                 | 13  | UG/KG                | U             | U                    |                           |
| ALPHA ENDOSULFAN    | 959-98-8   | 3.4                 | 8.6 | UG/KG                | U             | U                    |                           |
| ALPHA-CHLORDANE     | 5103-71-9  | 6.7                 | 15  | UG/KG                | U             | U                    |                           |
| BETA BHC            | 319-85-7   | 6.7                 | 18  | UG/KG                | U             | U                    |                           |
| BETA ENDOSULFAN     | 33213-65-9 | 6.7                 | 13  | UG/KG                | U             | U                    |                           |
| DELTA BHC           | 319-86-8   | 6.7                 | 20  | UG/KG                | U             | U                    |                           |
| DIELDRIN            | 60-57-1    | 3.4                 | 8.6 | UG/KG                | U             | U                    |                           |
| ENDOSULFAN SULFATE  | 1031-07-8  | 6.7                 | 15  | UG/KG                | U             | U                    |                           |
| ENDRIN              | 72-20-8    | 3.4                 | 8.6 | UG/KG                | U             | U                    |                           |
| ENDRIN ALDEHYDE     | 7421-93-4  | 6.7                 | 15  | UG/KG                | U             | U                    |                           |
| ENDRIN KETONE       | 53494-70-5 | 3.4                 | 10  | UG/KG                | U             | U                    |                           |
| GAMMA BHC (LINDANE) | 58-89-9    | 6.7                 | 13  | UG/KG                | U             | U                    |                           |
| GAMMA-CHLORDANE     | 5566-34-7  | 3.4                 | 8.6 | UG/KG                | U             | U                    |                           |
| HEPTACHLOR          | 76-44-8    | 6.7                 | 18  | UG/KG                | U             | U                    |                           |
| HEPTACHLOR EPOXIDE  | 1024-57-3  | 6.7                 | 13  | UG/KG                | U J           | U                    |                           |
| METHOXYCHLOR        | 72-43-5    | 17                  | 25  | UG/KG                | U             | U                    |                           |
| P,P'-DDD            | 72-54-8    | 3.4                 | 10  | UG/KG                | U             | U                    |                           |
| P,P'-DDE            | 72-55-9    | 3.4                 | 8.6 | UG/KG                | U             | U                    |                           |
| P,P'-DDT            | 50-29-3    | 3.4                 | 10  | UG/KG                | U             | U                    |                           |
| TOXAPHENE           | 8001-35-2  | 100                 | 340 | UG/KG                | U             | UJ                   | C                         |

Sample Delivery Group: 240-17422-1

Analysis Method SW8082

|                  |            |                     |     |                      |               |                      |                           |
|------------------|------------|---------------------|-----|----------------------|---------------|----------------------|---------------------------|
| Sample Name      |            | 076SS-0020M-0001-SO |     | AnalysisType: N      |               |                      |                           |
| Lab Sample Name: |            | 240-17422-2         |     | Validation Level: IV |               |                      |                           |
| Analyte          | CAS No     | Result Value        | LOQ | Result               | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| AROCLOR 1016     | 12674-11-2 | 25                  | 66  | UG/KG                | U             | U                    |                           |
| AROCLOR 1221     | 11104-28-2 | 25                  | 51  | UG/KG                | U             | U                    |                           |
| AROCLOR 1232     | 11141-16-5 | 25                  | 46  | UG/KG                | U             | U                    |                           |
| AROCLOR 1242     | 53469-21-9 | 25                  | 40  | UG/KG                | U             | U                    |                           |
| AROCLOR 1248     | 12672-29-6 | 25                  | 56  | UG/KG                | U             | U                    |                           |
| AROCLOR 1254     | 11097-69-1 | 25                  | 56  | UG/KG                | U             | U                    |                           |
| AROCLOR 1260     | 11096-82-5 | 25                  | 56  | UG/KG                | U             | U                    |                           |

# Sample Delivery Group: 240-17422-1

## Analysis Method SW8260B

| <b>Sample Name</b>        |            | 076SS-0020M-0001-SO |     | <b>AnalysisType:</b> N      |               |                      |                           |
|---------------------------|------------|---------------------|-----|-----------------------------|---------------|----------------------|---------------------------|
| <b>Lab Sample Name:</b>   |            | 240-17422-2         |     | <b>Validation Level:</b> IV |               |                      |                           |
| Analyte                   | CAS No     | Result Value        | LOQ | Result                      | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| 1,1,1-TRICHLOROETHANE     | 71-55-6    | 1.2                 | 5.8 | UG/KG                       | U             | U                    |                           |
| 1,1,2,2-TETRACHLOROETHANE | 79-34-5    | 0.58                | 5.8 | UG/KG                       | U             | U                    |                           |
| 1,1,2-TRICHLOROETHANE     | 79-00-5    | 0.58                | 5.8 | UG/KG                       | U             | U                    |                           |
| 1,1-DICHLOROETHANE        | 75-34-3    | 0.58                | 5.8 | UG/KG                       | U             | U                    |                           |
| 1,1-DICHLOROETHENE        | 75-35-4    | 1.2                 | 5.8 | UG/KG                       | U             | U                    |                           |
| 1,2-DIBROMOETHANE         | 106-93-4   | 1.2                 | 5.8 | UG/KG                       | U             | U                    |                           |
| 1,2-DICHLOROETHANE        | 107-06-2   | 0.58                | 5.8 | UG/KG                       | U             | U                    |                           |
| 1,2-DICHLOROPROPANE       | 78-87-5    | 1.2                 | 5.8 | UG/KG                       | U             | U                    |                           |
| 2-HEXANONE                | 591-78-6   | 1.2                 | 23  | UG/KG                       | U             | U                    |                           |
| ACETONE                   | 67-64-1    | 26.0                | 23  | UG/KG                       |               | U                    | B                         |
| BENZENE                   | 71-43-2    | 0.58                | 5.8 | UG/KG                       | U             | U                    |                           |
| BROMOCHLOROMETHANE        | 74-97-5    | 1.2                 | 5.8 | UG/KG                       | U             | U                    |                           |
| BROMODICHLOROMETHANE      | 75-27-4    | 0.58                | 5.8 | UG/KG                       | U             | U                    |                           |
| BROMOFORM                 | 75-25-2    | 0.58                | 5.8 | UG/KG                       | U             | U                    |                           |
| BROMOMETHANE              | 74-83-9    | 1.2                 | 5.8 | UG/KG                       | U             | U                    |                           |
| CARBON DISULFIDE          | 75-15-0    | 0.58                | 5.8 | UG/KG                       | U             | U                    |                           |
| CARBON TETRACHLORIDE      | 56-23-5    | 0.58                | 5.8 | UG/KG                       | U             | U                    |                           |
| CHLOROBENZENE             | 108-90-7   | 0.58                | 5.8 | UG/KG                       | U J           | U                    |                           |
| CHLOROETHANE              | 75-00-3    | 1.2                 | 5.8 | UG/KG                       | U             | U                    |                           |
| CHLOROFORM                | 67-66-3    | 0.58                | 5.8 | UG/KG                       | U             | U                    |                           |
| CHLOROMETHANE             | 74-87-3    | 0.58                | 5.8 | UG/KG                       | U             | U                    |                           |
| CIS-1,3-DICHLOROPROPENE   | 10061-01-5 | 0.58                | 5.8 | UG/KG                       | U             | U                    |                           |
| DIBROMOCHLOROMETHANE      | 124-48-1   | 1.2                 | 5.8 | UG/KG                       | U             | U                    |                           |
| ETHYLBENZENE              | 100-41-4   | 0.58                | 5.8 | UG/KG                       | U J           | U                    |                           |
| METHYL ETHYL KETONE       | 78-93-3    | 2.3                 | 23  | UG/KG                       | U             | U                    |                           |
| METHYL ISOBUTYL KETONE    | 108-10-1   | 1.2                 | 23  | UG/KG                       | U             | U                    |                           |
| METHYLENE CHLORIDE        | 75-09-2    | 1.2                 | 5.8 | UG/KG                       | U             | U                    |                           |
| STYRENE                   | 100-42-5   | 0.58                | 5.8 | UG/KG                       | U J           | U                    |                           |

*Sample Delivery Group: 240-17422-1*

|                           |            |      |     |       |     |   |
|---------------------------|------------|------|-----|-------|-----|---|
| TERT-BUTYL METHYL ETHER   | 1634-04-4  | 0.58 | 5.8 | UG/KG | U   | U |
| TETRACHLOROETHYLENE       | 127-18-4   | 1.2  | 5.8 | UG/KG | U   | U |
| TOLUENE                   | 108-88-3   | 0.58 | 5.8 | UG/KG | U   | U |
| TOTAL 1,2-DICHLOROETHENE  | 540-59-0   | 1.2  | 12  | UG/KG | U   | U |
| TRANS-1,3-DICHLOROPROPENE | 10061-02-6 | 1.2  | 5.8 | UG/KG | U   | U |
| TRICHLOROETHYLENE         | 79-01-6    | 0.58 | 5.8 | UG/KG | U   | U |
| VINYL CHLORIDE            | 75-01-4    | 0.58 | 5.8 | UG/KG | U   | U |
| XYLENES, TOTAL            |            | 1.7  | 12  | UG/KG | U J | U |

# Sample Delivery Group: 240-17422-1

## Analysis Method SW8270D

| <b>Sample Name</b>          |           | 076SS-0020M-0001-SO |     | <b>AnalysisType:</b> N      |               |                      |                           |
|-----------------------------|-----------|---------------------|-----|-----------------------------|---------------|----------------------|---------------------------|
| <b>Lab Sample Name:</b>     |           | 240-17422-2         |     | <b>Validation Level:</b> IV |               |                      |                           |
| Analyte                     | CAS No    | Result Value        | LOQ | Result                      | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| 1,2,4-TRICHLOROBENZENE      | 120-82-1  | 27                  | 49  | UG/KG                       | U             | U                    |                           |
| 1,2-DICHLOROBENZENE         | 95-50-1   | 27                  | 49  | UG/KG                       | U             | U                    |                           |
| 1,3-DICHLOROBENZENE         | 541-73-1  | 27                  | 49  | UG/KG                       | U             | U                    |                           |
| 1,4-DICHLOROBENZENE         | 106-46-7  | 33.0                | 49  | UG/KG                       | J             | J                    |                           |
| 2,2'-OXYBIS(1-CHLORO)PROPAN | 108-60-1  | 27                  | 98  | UG/KG                       | U             | U                    |                           |
| 2,4,5-TRICHLOROPHENOL       | 95-95-4   | 27                  | 150 | UG/KG                       | U             | U                    |                           |
| 2,4,6-TRICHLOROPHENOL       | 88-06-2   | 79                  | 150 | UG/KG                       | U             | U                    |                           |
| 2,4-DICHLOROPHENOL          | 120-83-2  | 27                  | 150 | UG/KG                       | U             | U                    |                           |
| 2,4-DIMETHYLPHENOL          | 105-67-9  | 79                  | 150 | UG/KG                       | U             | U                    |                           |
| 2,4-DINITROPHENOL           | 51-28-5   | 79                  | 330 | UG/KG                       | U             | U                    |                           |
| 2,4-DINITROTOLUENE          | 121-14-2  | 27                  | 200 | UG/KG                       | U             | U                    |                           |
| 2,6-DINITROTOLUENE          | 606-20-2  | 27                  | 200 | UG/KG                       | U             | U                    |                           |
| 2-CHLORONAPHTHALENE         | 91-58-7   | 3.3                 | 49  | UG/KG                       | U             | U                    |                           |
| 2-CHLOROPHENOL              | 95-57-8   | 27                  | 49  | UG/KG                       | U             | U                    |                           |
| 2-METHYLNAPHTHALENE         | 91-57-6   | 18.0                | 6.6 | UG/KG                       |               |                      |                           |
| 2-METHYLPHENOL (O-CRESOL)   | 95-48-7   | 79                  | 200 | UG/KG                       | U             | U                    |                           |
| 2-NITROANILINE              | 88-74-4   | 27                  | 200 | UG/KG                       | U             | U                    |                           |
| 2-NITROPHENOL               | 88-75-5   | 27                  | 49  | UG/KG                       | U             | U                    |                           |
| 3,3'-DICHLOROBENZIDINE      | 91-94-1   | 79                  | 98  | UG/KG                       | U J           | R                    | Q                         |
| 3-NITROANILINE              | 99-09-2   | 79                  | 200 | UG/KG                       | U J           | R                    | Q                         |
| 4,6-DINITRO-2-METHYLPHENOL  | 534-52-1  | 79                  | 150 | UG/KG                       | U             | U                    |                           |
| 4-BROMOPHENYL PHENYL ETHE   | 101-55-3  | 27                  | 49  | UG/KG                       | U             | U                    |                           |
| 4-CHLORO-3-METHYLPHENOL     | 59-50-7   | 27                  | 150 | UG/KG                       | U             | U                    |                           |
| 4-CHLOROANILINE             | 106-47-8  | 27                  | 150 | UG/KG                       | U J           | UJ                   | Q                         |
| 4-CHLOROPHENYL PHENYL ETH   | 7005-72-3 | 27                  | 49  | UG/KG                       | U             | U                    |                           |
| 4-NITROANILINE              | 100-01-6  | 27                  | 200 | UG/KG                       | U J           | UJ                   | Q                         |
| 4-NITROPHENOL               | 100-02-7  | 79                  | 330 | UG/KG                       | U             | U                    |                           |
| ACENAPHTHENE                | 83-32-9   | 3.3                 | 6.6 | UG/KG                       | U             | U                    |                           |

## Sample Delivery Group: 240-17422-1

|                            |          |      |     |       |     |   |   |
|----------------------------|----------|------|-----|-------|-----|---|---|
| ACENAPHTHYLENE             | 208-96-8 | 3.3  | 6.6 | UG/KG | U   | U |   |
| ANTHRACENE                 | 120-12-7 | 3.3  | 6.6 | UG/KG | U   | U |   |
| BENZO(A)ANTHRACENE         | 56-55-3  | 3.3  | 6.6 | UG/KG | U   | U |   |
| BENZO(A)PYRENE             | 50-32-8  | 19.0 | 6.6 | UG/KG |     |   |   |
| BENZO(B)FLUORANTHENE       | 205-99-2 | 19.0 | 6.6 | UG/KG |     |   |   |
| BENZO(G,H,I)PERYLENE       | 191-24-2 | 10.0 | 6.6 | UG/KG | M   |   |   |
| BENZO(K)FLUORANTHENE       | 207-08-9 | 9.7  | 6.6 | UG/KG | M   |   |   |
| BENZOIC ACID               | 65-85-0  | 330  | 650 | UG/KG | U   | U |   |
| BENZYL ALCOHOL             | 100-51-6 | 27   | 330 | UG/KG | U   | U |   |
| BENZYL BUTYL PHTHALATE     | 85-68-7  | 27   | 49  | UG/KG | U   | U |   |
| BIS(2-CHLOROETHOXY) METHA  | 111-91-1 | 27   | 98  | UG/KG | U   | U |   |
| BIS(2-CHLOROETHYL) ETHER   | 111-44-4 | 3.3  | 98  | UG/KG | U   | U |   |
| BIS(2-ETHYLHEXYL) PHTHALAT | 117-81-7 | 36.0 | 49  | UG/KG | J   | U | B |
| CARBAZOLE                  | 86-74-8  | 27   | 49  | UG/KG | U   | U |   |
| CHRYSENE                   | 218-01-9 | 3.3  | 6.6 | UG/KG | U   | U |   |
| CRESOLS, M & P             |          | 79   | 390 | UG/KG | U   | U |   |
| DIBENZ(A,H)ANTHRACENE      | 53-70-3  | 3.3  | 6.6 | UG/KG | U   | U |   |
| DIBENZOFURAN               | 132-64-9 | 7.0  | 49  | UG/KG | J   | J |   |
| DIETHYL PHTHALATE          | 84-66-2  | 21.0 | 49  | UG/KG | J B | U | B |
| DIMETHYL PHTHALATE         | 131-11-3 | 27   | 49  | UG/KG | U   | U |   |
| DI-N-BUTYL PHTHALATE       | 84-74-2  | 16.0 | 49  | UG/KG | J   | J |   |
| DI-N-OCTYLPHTHALATE        | 117-84-0 | 27   | 49  | UG/KG | U   | U |   |
| FLUORANTHENE               | 206-44-0 | 28.0 | 6.6 | UG/KG |     |   |   |
| FLUORENE                   | 86-73-7  | 4.7  | 6.6 | UG/KG | J   | J |   |
| HEXACHLOROBENZENE          | 118-74-1 | 3.3  | 6.6 | UG/KG | U   | U |   |
| HEXACHLOROBUTADIENE        | 87-68-3  | 27   | 49  | UG/KG | U   | U |   |
| HEXACHLOROCYCLOPENTADIE    | 77-47-4  | 27   | 330 | UG/KG | U   | U |   |
| HEXACHLOROETHANE           | 67-72-1  | 27   | 49  | UG/KG | U   | U |   |
| INDENO(1,2,3-C,D)PYRENE    | 193-39-5 | 13.0 | 6.6 | UG/KG |     |   |   |
| ISOPHORONE                 | 78-59-1  | 20.0 | 49  | UG/KG | J   | J |   |
| NAPHTHALENE                | 91-20-3  | 20.0 | 6.6 | UG/KG |     |   |   |
| NITROBENZENE               | 98-95-3  | 3.3  | 98  | UG/KG | U   | U |   |
| N-NITROSODI-N-PROPYLAMINE  | 621-64-7 | 27   | 49  | UG/KG | U   | U |   |



## Sample Delivery Group: 240-17422-1

|                        |          |      |     |       |   |   |
|------------------------|----------|------|-----|-------|---|---|
| N-NITROSODIPHENYLAMINE | 86-30-6  | 27   | 49  | UG/KG | U | U |
| PENTACHLOROPHENOL      | 87-86-5  | 79   | 150 | UG/KG | U | U |
| PHENANTHRENE           | 85-01-8  | 22.0 | 6.6 | UG/KG |   |   |
| PHENOL                 | 108-95-2 | 27   | 49  | UG/KG | U | U |
| PYRENE                 | 129-00-0 | 19.0 | 6.6 | UG/KG |   |   |

## Analysis Method SW8330

**Sample Name** 076SS-0020M-0001-SO

**AnalysisType:** N

**Lab Sample Name:** 240-17422-2

**Validation Level:** IV

| Analyte                    | CAS No     | Result Value | LOQ  | Result | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
|----------------------------|------------|--------------|------|--------|---------------|----------------------|---------------------------|
| 1,3,5-TRINITROBENZENE      | 99-35-4    | 0.050        | 0.25 | MG/KG  | U             | U                    |                           |
| 1,3-DINITROBENZENE         | 99-65-0    | 0.050        | 0.25 | MG/KG  | U             | U                    |                           |
| 2,4,6-TRINITROTOLUENE      | 118-96-7   | 0.050        | 0.25 | MG/KG  | U             | U                    |                           |
| 2,4-DINITROTOLUENE         | 121-14-2   | 0.050        | 0.25 | MG/KG  | U             | R                    | D                         |
| 2,6-DINITROTOLUENE         | 606-20-2   | 0.050        | 0.25 | MG/KG  | U             | R                    | D                         |
| 2-AMINO-4,6-DINITROTOLUENE | 35572-78-2 | 0.050        | 0.25 | MG/KG  | U             | U                    |                           |
| 2-NITROTOLUENE             | 88-72-2    | 0.050        | 0.25 | MG/KG  | U             | UJ                   | C                         |
| 3-NITROTOLUENE             | 99-08-1    | 0.050        | 0.25 | MG/KG  | U             | U                    |                           |
| 4-AMINO-2,6-DINITROTOLUENE | 19406-51-0 | 0.050        | 0.25 | MG/KG  | U             | U                    |                           |
| 4-NITROTOLUENE             | 99-99-0    | 0.050        | 0.25 | MG/KG  | U             | U                    |                           |
| HMX                        | 2691-41-0  | 0.050        | 0.25 | MG/KG  | U             | U                    |                           |
| NITROBENZENE               | 98-95-3    | 0.050        | 0.25 | MG/KG  | U             | R                    | D                         |
| NITROGLYCERIN              | 55-63-0    | 0.25         | 0.50 | MG/KG  | U             | U                    |                           |
| NITROGUANIDINE             | 556-88-7   | 0.040        | 0.25 | MG/KG  | U             | U                    |                           |
| PETN                       | 78-11-5    | 0.25         | 0.50 | MG/KG  | U             | U                    |                           |
| RDX                        | 121-82-4   | 0.050        | 0.25 | MG/KG  | U             | UJ                   | C                         |
| TETRYL                     | 479-45-8   | 0.041        | 0.25 | MG/KG  | J             | NJ                   | *III                      |

*Sample Delivery Group: 240-18544-1*

*Analysis Method E353.2*

|                         |               |                     |            |                             |                      |                             |                                  |
|-------------------------|---------------|---------------------|------------|-----------------------------|----------------------|-----------------------------|----------------------------------|
| <b>Sample Name</b>      |               | 076SB-0102M-0001-SO |            | <b>AnalysisType:</b> N      |                      |                             |                                  |
| <b>Lab Sample Name:</b> |               | 240-18544-21        |            | <b>Validation Level:</b> IV |                      |                             |                                  |
| <b>Analyte</b>          | <b>CAS No</b> | <b>Result Value</b> | <b>LOQ</b> | <b>Result</b>               | <b>Lab Qualifier</b> | <b>Validation Qualifier</b> | <b>Validation Qualifier Code</b> |
| NITROCELLULOSE          | 9004-70-0     | 9.3                 | 46         | MG/KG                       | J                    | J                           |                                  |

# Sample Delivery Group: 240-18544-1

## Analysis Method SW6020

| <b>Sample Name</b>      |           | 076SB-0094-0001-SO |       | <b>AnalysisType:</b> N      |               |                      |                           |
|-------------------------|-----------|--------------------|-------|-----------------------------|---------------|----------------------|---------------------------|
| <b>Lab Sample Name:</b> |           | 240-18544-12       |       | <b>Validation Level:</b> IV |               |                      |                           |
| Analyte                 | CAS No    | Result Value       | LOQ   | Result                      | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| ALUMINUM                | 7429-90-5 | 9500.0             | 2.7   | MG/KG                       |               |                      |                           |
| ANTIMONY                | 7440-36-0 | 0.23               | 0.18  | MG/KG                       |               | J-                   | Q                         |
| ARSENIC                 | 7440-38-2 | 17.0               | 0.089 | MG/KG                       |               | J-                   | Q                         |
| BARIUM                  | 7440-39-3 | 47.0               | 0.89  | MG/KG                       | Q             | J                    | M                         |
| BERYLLIUM               | 7440-41-7 | 0.51               | 0.089 | MG/KG                       |               | J-                   | Q                         |
| CADMIUM                 | 7440-43-9 | 0.13               | 0.089 | MG/KG                       | Q             | J-                   | Q                         |
| CALCIUM                 | 7440-70-2 | 970.0              | 8.9   | MG/KG                       |               | J+                   | Q                         |
| CHROMIUM                | 7440-47-3 | 17.0               | 0.18  | MG/KG                       |               | J-                   | Q                         |
| COBALT                  | 7440-48-4 | 9.7                | 0.045 | MG/KG                       | Q             | J-                   | Q                         |
| COPPER                  | 7440-50-8 | 17.0               | 0.18  | MG/KG                       | Q             | J-                   | Q                         |
| IRON                    | 7439-89-6 | 29000.0            | 4.5   | MG/KG                       |               |                      |                           |
| LEAD                    | 7439-92-1 | 24.0               | 0.089 | MG/KG                       |               | J                    | E                         |
| MAGNESIUM               | 7439-95-4 | 2100.0             | 8.9   | MG/KG                       |               |                      |                           |
| MANGANESE               | 7439-96-5 | 380.0              | 0.45  | MG/KG                       | Q             | J                    | E                         |
| NICKEL                  | 7440-02-0 | 21.0               | 0.089 | MG/KG                       | Q             | J-                   | Q                         |
| POTASSIUM               | 7440-09-7 | 790.0              | 8.9   | MG/KG                       |               | J-                   | Q                         |
| SELENIUM                | 7782-49-2 | 0.47               | 0.45  | MG/KG                       |               | J-                   | Q                         |
| SILVER                  | 7440-22-4 | 0.025              | 0.089 | MG/KG                       | J             | J-                   | Q                         |
| SODIUM                  | 7440-23-5 | 39.0               | 8.9   | MG/KG                       |               |                      |                           |
| THALLIUM                | 7440-28-0 | 0.14               | 0.089 | MG/KG                       |               |                      |                           |
| VANADIUM                | 7440-62-2 | 18.0               | 0.089 | MG/KG                       |               |                      |                           |
| ZINC                    | 7440-66-6 | 63.0               | 0.45  | MG/KG                       | Q             | J                    | A                         |

| <b>Sample Name</b>      |           | 076SB-0096-0001-SO |      | <b>AnalysisType:</b> N      |               |                      |                           |
|-------------------------|-----------|--------------------|------|-----------------------------|---------------|----------------------|---------------------------|
| <b>Lab Sample Name:</b> |           | 240-18544-14       |      | <b>Validation Level:</b> IV |               |                      |                           |
| Analyte                 | CAS No    | Result Value       | LOQ  | Result                      | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| ALUMINUM                | 7429-90-5 | 6600.0             | 2.1  | MG/KG                       |               |                      |                           |
| ANTIMONY                | 7440-36-0 | 0.11               | 0.14 | MG/KG                       | J             | J-                   | Q                         |

## Sample Delivery Group: 240-18544-1

|           |           |         |       |       |   |    |   |
|-----------|-----------|---------|-------|-------|---|----|---|
| ARSENIC   | 7440-38-2 | 13.0    | 0.070 | MG/KG |   | J- | Q |
| BARIUM    | 7440-39-3 | 29.0    | 0.70  | MG/KG | Q | J  | M |
| BERYLLIUM | 7440-41-7 | 0.42    | 0.070 | MG/KG |   | J- | Q |
| CADMIUM   | 7440-43-9 | 0.19    | 0.070 | MG/KG | Q | J- | Q |
| CALCIUM   | 7440-70-2 | 700.0   | 7.0   | MG/KG |   | J+ | Q |
| CHROMIUM  | 7440-47-3 | 14.0    | 0.14  | MG/KG |   | J- | Q |
| COBALT    | 7440-48-4 | 8.3     | 0.035 | MG/KG | Q | J- | Q |
| COPPER    | 7440-50-8 | 17.0    | 0.14  | MG/KG | Q | J- | Q |
| IRON      | 7439-89-6 | 26000.0 | 3.5   | MG/KG |   |    |   |
| LEAD      | 7439-92-1 | 14.0    | 0.070 | MG/KG |   | J  | E |
| MAGNESIUM | 7439-95-4 | 1900.0  | 7.0   | MG/KG |   |    |   |
| MANGANESE | 7439-96-5 | 510.0   | 0.35  | MG/KG | Q | J  | E |
| NICKEL    | 7440-02-0 | 21.0    | 0.070 | MG/KG | Q | J- | Q |
| POTASSIUM | 7440-09-7 | 810.0   | 7.0   | MG/KG |   | J- | Q |
| SELENIUM  | 7782-49-2 | 0.32    | 0.35  | MG/KG | J | J- | Q |
| SILVER    | 7440-22-4 | 0.019   | 0.070 | MG/KG | J | J- | Q |
| SODIUM    | 7440-23-5 | 20.0    | 7.0   | MG/KG |   |    |   |
| THALLIUM  | 7440-28-0 | 0.13    | 0.070 | MG/KG |   |    |   |
| VANADIUM  | 7440-62-2 | 13.0    | 0.070 | MG/KG |   |    |   |
| ZINC      | 7440-66-6 | 62.0    | 0.35  | MG/KG | Q | J  | A |

**Sample Name** 076SB-0102M-0001-SO

**AnalysisType:** N

**Lab Sample Name:** 240-18544-21

**Validation Level:** IV

| Analyte   | CAS No    | Result Value | LOQ   | Result | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
|-----------|-----------|--------------|-------|--------|---------------|----------------------|---------------------------|
| ALUMINUM  | 7429-90-5 | 7900.0       | 2.3   | MG/KG  |               |                      |                           |
| ANTIMONY  | 7440-36-0 | 0.12         | 0.15  | MG/KG  | J             | J-                   | Q                         |
| ARSENIC   | 7440-38-2 | 15.0         | 0.076 | MG/KG  |               | J-                   | Q                         |
| BARIUM    | 7440-39-3 | 34.0         | 0.76  | MG/KG  | Q             | J                    | M                         |
| BERYLLIUM | 7440-41-7 | 0.53         | 0.076 | MG/KG  |               | J-                   | Q                         |
| CADMIUM   | 7440-43-9 | 0.19         | 0.076 | MG/KG  | Q             | J-                   | Q                         |
| CALCIUM   | 7440-70-2 | 680.0        | 7.6   | MG/KG  |               | J+                   | Q                         |
| CHROMIUM  | 7440-47-3 | 22.0         | 0.15  | MG/KG  |               | J-                   | Q                         |
| COBALT    | 7440-48-4 | 9.2          | 0.038 | MG/KG  | Q             | J-                   | Q                         |

## Sample Delivery Group: 240-18544-1

|           |           |         |       |       |   |    |   |
|-----------|-----------|---------|-------|-------|---|----|---|
| COPPER    | 7440-50-8 | 16.0    | 0.15  | MG/KG | Q | J- | Q |
| IRON      | 7439-89-6 | 27000.0 | 3.8   | MG/KG |   |    |   |
| LEAD      | 7439-92-1 | 15.0    | 0.076 | MG/KG |   | J  | E |
| MAGNESIUM | 7439-95-4 | 2000.0  | 7.6   | MG/KG |   |    |   |
| MANGANESE | 7439-96-5 | 430.0   | 0.38  | MG/KG | Q | J  | E |
| NICKEL    | 7440-02-0 | 23.0    | 0.076 | MG/KG | Q | J- | Q |
| POTASSIUM | 7440-09-7 | 840.0   | 7.6   | MG/KG |   | J- | Q |
| SELENIUM  | 7782-49-2 | 0.29    | 0.38  | MG/KG | J | J- | Q |
| SILVER    | 7440-22-4 | 0.02    | 0.076 | MG/KG | J | J- | Q |
| SODIUM    | 7440-23-5 | 28.0    | 7.6   | MG/KG |   |    |   |
| THALLIUM  | 7440-28-0 | 0.13    | 0.076 | MG/KG |   |    |   |
| VANADIUM  | 7440-62-2 | 15.0    | 0.076 | MG/KG |   |    |   |
| ZINC      | 7440-66-6 | 75.0    | 0.38  | MG/KG | Q | J  | A |

**Sample Name** 076SB-0114M-0001-SO

**AnalysisType:** N

**Lab Sample Name:** 240-18544-33

**Validation Level:** IV

| Analyte   | CAS No    | Result Value | LOQ   | Result | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
|-----------|-----------|--------------|-------|--------|---------------|----------------------|---------------------------|
| ALUMINUM  | 7429-90-5 | 7600.0       | 2.7   | MG/KG  |               |                      |                           |
| ANTIMONY  | 7440-36-0 | 0.088        | 0.18  | MG/KG  | J             | J-                   | Q                         |
| ARSENIC   | 7440-38-2 | 13.0         | 0.091 | MG/KG  |               | J-                   | Q                         |
| BARIUM    | 7440-39-3 | 36.0         | 0.91  | MG/KG  | Q             | J                    | M                         |
| BERYLLIUM | 7440-41-7 | 0.35         | 0.091 | MG/KG  |               | J-                   | Q                         |
| CADMIUM   | 7440-43-9 | 0.15         | 0.091 | MG/KG  |               | J-                   | Q                         |
| CALCIUM   | 7440-70-2 | 530.0        | 9.1   | MG/KG  |               | J+                   | Q                         |
| CHROMIUM  | 7440-47-3 | 12.0         | 0.18  | MG/KG  |               | J-                   | Q                         |
| COBALT    | 7440-48-4 | 8.0          | 0.045 | MG/KG  | Q             | J-                   | Q                         |
| COPPER    | 7440-50-8 | 16.0         | 0.18  | MG/KG  | Q             | J-                   | Q                         |
| IRON      | 7439-89-6 | 20000.0      | 4.5   | MG/KG  |               |                      |                           |
| LEAD      | 7439-92-1 | 11.0         | 0.091 | MG/KG  |               | J                    | E                         |
| MAGNESIUM | 7439-95-4 | 1900.0       | 9.1   | MG/KG  |               |                      |                           |
| MANGANESE | 7439-96-5 | 420.0        | 0.45  | MG/KG  |               | J                    | E                         |
| NICKEL    | 7440-02-0 | 17.0         | 0.091 | MG/KG  |               | J-                   | Q                         |
| POTASSIUM | 7440-09-7 | 550.0        | 9.1   | MG/KG  |               | J-                   | Q                         |

## Sample Delivery Group: 240-18544-1

|          |           |       |       |       |   |    |   |
|----------|-----------|-------|-------|-------|---|----|---|
| SELENIUM | 7782-49-2 | 0.51  | 0.45  | MG/KG | Q | J- | Q |
| SILVER   | 7440-22-4 | 0.019 | 0.091 | MG/KG | J | J- | Q |
| SODIUM   | 7440-23-5 | 20.0  | 9.1   | MG/KG |   |    |   |
| THALLIUM | 7440-28-0 | 0.12  | 0.091 | MG/KG |   |    |   |
| VANADIUM | 7440-62-2 | 13.0  | 0.091 | MG/KG |   |    |   |
| ZINC     | 7440-66-6 | 54.0  | 0.45  | MG/KG | Q | J  | A |

## Analysis Method SW7471A

|                         |               |                     |            |                             |                      |                             |                                  |
|-------------------------|---------------|---------------------|------------|-----------------------------|----------------------|-----------------------------|----------------------------------|
| <b>Sample Name</b>      |               | 076SB-0094-0001-SO  |            | <b>AnalysisType:</b> N      |                      |                             |                                  |
| <b>Lab Sample Name:</b> |               | 240-18544-12        |            | <b>Validation Level:</b> IV |                      |                             |                                  |
| <b>Analyte</b>          | <b>CAS No</b> | <b>Result Value</b> | <b>LOQ</b> | <b>Result</b>               | <b>Lab Qualifier</b> | <b>Validation Qualifier</b> | <b>Validation Qualifier Code</b> |
| MERCURY                 | 7439-97-6     | 0.042               | 0.10       | MG/KG                       | J                    | J                           |                                  |
| <b>Sample Name</b>      |               | 076SB-0096-0001-SO  |            | <b>AnalysisType:</b> N      |                      |                             |                                  |
| <b>Lab Sample Name:</b> |               | 240-18544-14        |            | <b>Validation Level:</b> IV |                      |                             |                                  |
| <b>Analyte</b>          | <b>CAS No</b> | <b>Result Value</b> | <b>LOQ</b> | <b>Result</b>               | <b>Lab Qualifier</b> | <b>Validation Qualifier</b> | <b>Validation Qualifier Code</b> |
| MERCURY                 | 7439-97-6     | 0.031               | 0.098      | MG/KG                       | J                    | J                           |                                  |
| <b>Sample Name</b>      |               | 076SB-0102M-0001-SO |            | <b>AnalysisType:</b> N      |                      |                             |                                  |
| <b>Lab Sample Name:</b> |               | 240-18544-21        |            | <b>Validation Level:</b> IV |                      |                             |                                  |
| <b>Analyte</b>          | <b>CAS No</b> | <b>Result Value</b> | <b>LOQ</b> | <b>Result</b>               | <b>Lab Qualifier</b> | <b>Validation Qualifier</b> | <b>Validation Qualifier Code</b> |
| MERCURY                 | 7439-97-6     | 0.03                | 0.092      | MG/KG                       | J                    | J                           |                                  |
| <b>Sample Name</b>      |               | 076SB-0114M-0001-SO |            | <b>AnalysisType:</b> N      |                      |                             |                                  |
| <b>Lab Sample Name:</b> |               | 240-18544-33        |            | <b>Validation Level:</b> IV |                      |                             |                                  |
| <b>Analyte</b>          | <b>CAS No</b> | <b>Result Value</b> | <b>LOQ</b> | <b>Result</b>               | <b>Lab Qualifier</b> | <b>Validation Qualifier</b> | <b>Validation Qualifier Code</b> |
| MERCURY                 | 7439-97-6     | 0.03                | 0.090      | MG/KG                       | J                    | J                           |                                  |

Sample Delivery Group: 240-18544-1

Analysis Method SW8082

|                  |            |                     |     |                      |               |                      |                           |
|------------------|------------|---------------------|-----|----------------------|---------------|----------------------|---------------------------|
| Sample Name      |            | 076SB-0102M-0001-SO |     | AnalysisType: N      |               |                      |                           |
| Lab Sample Name: |            | 240-18544-21        |     | Validation Level: IV |               |                      |                           |
| Analyte          | CAS No     | Result Value        | LOQ | Result               | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| AROCLOR 1016     | 12674-11-2 | 25                  | 65  | UG/KG                | U             | U                    |                           |
| AROCLOR 1221     | 11104-28-2 | 25                  | 50  | UG/KG                | U             | U                    |                           |
| AROCLOR 1232     | 11141-16-5 | 25                  | 45  | UG/KG                | U             | U                    |                           |
| AROCLOR 1242     | 53469-21-9 | 25                  | 40  | UG/KG                | U             | U                    |                           |
| AROCLOR 1248     | 12672-29-6 | 25                  | 55  | UG/KG                | U             | U                    |                           |
| AROCLOR 1254     | 11097-69-1 | 25                  | 55  | UG/KG                | U             | U                    |                           |
| AROCLOR 1260     | 11096-82-5 | 25                  | 55  | UG/KG                | U             | U                    |                           |

# Sample Delivery Group: 240-18544-1

## Analysis Method SW8260B

| <b>Sample Name</b>        |            | 076SB-0094-0001-SO |     | <b>AnalysisType:</b> N      |               |                      |                           |
|---------------------------|------------|--------------------|-----|-----------------------------|---------------|----------------------|---------------------------|
| <b>Lab Sample Name:</b>   |            | 240-18544-12       |     | <b>Validation Level:</b> IV |               |                      |                           |
| Analyte                   | CAS No     | Result Value       | LOQ | Result                      | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| 1,1,1-TRICHLOROETHANE     | 71-55-6    | 1.1                | 5.7 | UG/KG                       | U             | UJ                   | S                         |
| 1,1,2,2-TETRACHLOROETHANE | 79-34-5    | 0.57               | 5.7 | UG/KG                       | U             | UJ                   | S                         |
| 1,1,2-TRICHLOROETHANE     | 79-00-5    | 0.57               | 5.7 | UG/KG                       | U             | UJ                   | S                         |
| 1,1-DICHLOROETHANE        | 75-34-3    | 0.57               | 5.7 | UG/KG                       | U             | UJ                   | S                         |
| 1,1-DICHLOROETHENE        | 75-35-4    | 1.1                | 5.7 | UG/KG                       | U             | UJ                   | S                         |
| 1,2-DIBROMOETHANE         | 106-93-4   | 1.1                | 5.7 | UG/KG                       | U             | UJ                   | S                         |
| 1,2-DICHLOROETHANE        | 107-06-2   | 0.57               | 5.7 | UG/KG                       | U             | UJ                   | S                         |
| 1,2-DICHLOROPROPANE       | 78-87-5    | 1.1                | 5.7 | UG/KG                       | U             | UJ                   | S                         |
| 2-HEXANONE                | 591-78-6   | 1.1                | 23  | UG/KG                       | U             | UJ                   | C, S                      |
| ACETONE                   | 67-64-1    | 7.2                | 23  | UG/KG                       | U             | UJ                   | S                         |
| BENZENE                   | 71-43-2    | 0.57               | 5.7 | UG/KG                       | U             | UJ                   | S                         |
| BROMOCHLOROMETHANE        | 74-97-5    | 1.1                | 5.7 | UG/KG                       | U             | UJ                   | S                         |
| BROMODICHLOROMETHANE      | 75-27-4    | 0.57               | 5.7 | UG/KG                       | U             | UJ                   | S                         |
| BROMOFORM                 | 75-25-2    | 0.57               | 5.7 | UG/KG                       | U             | UJ                   | S                         |
| BROMOMETHANE              | 74-83-9    | 1.1                | 5.7 | UG/KG                       | U             | UJ                   | S                         |
| CARBON DISULFIDE          | 75-15-0    | 0.57               | 5.7 | UG/KG                       | U             | UJ                   | S                         |
| CARBON TETRACHLORIDE      | 56-23-5    | 0.57               | 5.7 | UG/KG                       | U             | UJ                   | S                         |
| CHLOROBENZENE             | 108-90-7   | 0.57               | 5.7 | UG/KG                       | U             | UJ                   | S                         |
| CHLOROETHANE              | 75-00-3    | 1.1                | 5.7 | UG/KG                       | U             | UJ                   | S                         |
| CHLOROFORM                | 67-66-3    | 0.57               | 5.7 | UG/KG                       | U             | UJ                   | S                         |
| CHLOROMETHANE             | 74-87-3    | 0.57               | 5.7 | UG/KG                       | U             | UJ                   | S                         |
| CIS-1,3-DICHLOROPROPENE   | 10061-01-5 | 0.57               | 5.7 | UG/KG                       | U             | UJ                   | S                         |
| DIBROMOCHLOROMETHANE      | 124-48-1   | 1.1                | 5.7 | UG/KG                       | U             | UJ                   | S                         |
| ETHYLBENZENE              | 100-41-4   | 0.57               | 5.7 | UG/KG                       | U             | UJ                   | S                         |
| METHYL ETHYL KETONE       | 78-93-3    | 2.3                | 23  | UG/KG                       | U             | UJ                   | S                         |
| METHYL ISOBUTYL KETONE    | 108-10-1   | 1.1                | 23  | UG/KG                       | U             | UJ                   | C, S                      |
| METHYLENE CHLORIDE        | 75-09-2    | 1.1                | 5.7 | UG/KG                       | U             | UJ                   | S                         |
| STYRENE                   | 100-42-5   | 0.57               | 5.7 | UG/KG                       | U             | UJ                   | S                         |



## Sample Delivery Group: 240-18544-1

|                           |            |      |     |       |   |    |   |
|---------------------------|------------|------|-----|-------|---|----|---|
| TETRACHLOROETHYLENE       | 127-18-4   | 1.1  | 5.7 | UG/KG | U | UJ | S |
| TOLUENE                   | 108-88-3   | 1.0  | 5.7 | UG/KG | J | J  | S |
| TOTAL 1,2-DICHLOROETHENE  | 540-59-0   | 1.1  | 11  | UG/KG | U | UJ | S |
| TRANS-1,3-DICHLOROPROPENE | 10061-02-6 | 1.1  | 5.7 | UG/KG | U | UJ | S |
| TRICHLOROETHYLENE         | 79-01-6    | 0.57 | 5.7 | UG/KG | U | UJ | S |
| VINYL CHLORIDE            | 75-01-4    | 0.57 | 5.7 | UG/KG | U | UJ | S |
| XYLENES, TOTAL            |            | 1.7  | 11  | UG/KG | U | UJ | S |

**Sample Name** 076SB-0102M-0001-SO **AnalysisType:** N

**Lab Sample Name:** 240-18544-21 **Validation Level:** IV

| Analyte                   | CAS No     | Result Value | LOQ | Result | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
|---------------------------|------------|--------------|-----|--------|---------------|----------------------|---------------------------|
| 1,1,1-TRICHLOROETHANE     | 71-55-6    | 1.1          | 5.6 | UG/KG  | U             | U                    |                           |
| 1,1,2,2-TETRACHLOROETHANE | 79-34-5    | 0.56         | 5.6 | UG/KG  | U             | U                    |                           |
| 1,1,2-TRICHLOROETHANE     | 79-00-5    | 0.56         | 5.6 | UG/KG  | U             | U                    |                           |
| 1,1-DICHLOROETHANE        | 75-34-3    | 0.56         | 5.6 | UG/KG  | U             | U                    |                           |
| 1,1-DICHLOROETHENE        | 75-35-4    | 1.1          | 5.6 | UG/KG  | U             | U                    |                           |
| 1,2-DIBROMOETHANE         | 106-93-4   | 1.1          | 5.6 | UG/KG  | U             | U                    |                           |
| 1,2-DICHLOROETHANE        | 107-06-2   | 0.56         | 5.6 | UG/KG  | U             | U                    |                           |
| 1,2-DICHLOROPROPANE       | 78-87-5    | 1.1          | 5.6 | UG/KG  | U             | U                    |                           |
| 2-HEXANONE                | 591-78-6   | 1.1          | 22  | UG/KG  | U             | UJ                   | C                         |
| ACETONE                   | 67-64-1    | 7.0          | 22  | UG/KG  | U             | U                    |                           |
| BENZENE                   | 71-43-2    | 0.56         | 5.6 | UG/KG  | U             | U                    |                           |
| BROMOCHLOROMETHANE        | 74-97-5    | 1.1          | 5.6 | UG/KG  | U             | U                    |                           |
| BROMODICHLOROMETHANE      | 75-27-4    | 0.56         | 5.6 | UG/KG  | U             | U                    |                           |
| BROMOFORM                 | 75-25-2    | 0.56         | 5.6 | UG/KG  | U             | U                    |                           |
| BROMOMETHANE              | 74-83-9    | 1.1          | 5.6 | UG/KG  | U             | U                    |                           |
| CARBON DISULFIDE          | 75-15-0    | 0.56         | 5.6 | UG/KG  | U             | U                    |                           |
| CARBON TETRACHLORIDE      | 56-23-5    | 0.56         | 5.6 | UG/KG  | U             | U                    |                           |
| CHLOROBENZENE             | 108-90-7   | 0.56         | 5.6 | UG/KG  | U             | U                    |                           |
| CHLOROETHANE              | 75-00-3    | 1.1          | 5.6 | UG/KG  | U             | U                    |                           |
| CHLOROFORM                | 67-66-3    | 0.56         | 5.6 | UG/KG  | U             | U                    |                           |
| CHLOROMETHANE             | 74-87-3    | 0.56         | 5.6 | UG/KG  | U             | U                    |                           |
| CIS-1,3-DICHLOROPROPENE   | 10061-01-5 | 0.56         | 5.6 | UG/KG  | U             | U                    |                           |

## Sample Delivery Group: 240-18544-1

|                           |            |      |     |       |   |      |
|---------------------------|------------|------|-----|-------|---|------|
| DIBROMOCHLOROMETHANE      | 124-48-1   | 1.1  | 5.6 | UG/KG | U | U    |
| ETHYLBENZENE              | 100-41-4   | 0.56 | 5.6 | UG/KG | U | U    |
| METHYL ETHYL KETONE       | 78-93-3    | 2.2  | 22  | UG/KG | U | U    |
| METHYL ISOBUTYL KETONE    | 108-10-1   | 1.1  | 22  | UG/KG | U | UJ C |
| METHYLENE CHLORIDE        | 75-09-2    | 1.1  | 5.6 | UG/KG | U | U    |
| STYRENE                   | 100-42-5   | 0.56 | 5.6 | UG/KG | U | U    |
| TETRACHLOROETHYLENE       | 127-18-4   | 1.1  | 5.6 | UG/KG | U | U    |
| TOLUENE                   | 108-88-3   | 1.7  | 5.6 | UG/KG | J | J    |
| TOTAL 1,2-DICHLOROETHENE  | 540-59-0   | 1.1  | 11  | UG/KG | U | U    |
| TRANS-1,3-DICHLOROPROPENE | 10061-02-6 | 1.1  | 5.6 | UG/KG | U | U    |
| TRICHLOROETHYLENE         | 79-01-6    | 0.56 | 5.6 | UG/KG | U | U    |
| VINYL CHLORIDE            | 75-01-4    | 0.56 | 5.6 | UG/KG | U | U    |
| XYLENES, TOTAL            |            | 1.7  | 11  | UG/KG | U | U    |

**Sample Name** 076SB-0114M-0001-SO

**AnalysisType:** N

**Lab Sample Name:** 240-18544-33

**Validation Level:** IV

| Analyte                   | CAS No   | Result Value | LOQ | Result | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
|---------------------------|----------|--------------|-----|--------|---------------|----------------------|---------------------------|
| 1,1,1-TRICHLOROETHANE     | 71-55-6  | 0.96         | 4.8 | UG/KG  | U             | U                    |                           |
| 1,1,2,2-TETRACHLOROETHANE | 79-34-5  | 0.48         | 4.8 | UG/KG  | U             | U                    |                           |
| 1,1,2-TRICHLOROETHANE     | 79-00-5  | 0.48         | 4.8 | UG/KG  | U             | U                    |                           |
| 1,1-DICHLOROETHANE        | 75-34-3  | 0.48         | 4.8 | UG/KG  | U             | U                    |                           |
| 1,1-DICHLOROETHENE        | 75-35-4  | 0.96         | 4.8 | UG/KG  | U             | U                    |                           |
| 1,2-DIBROMOETHANE         | 106-93-4 | 0.96         | 4.8 | UG/KG  | U             | U                    |                           |
| 1,2-DICHLOROETHANE        | 107-06-2 | 0.48         | 4.8 | UG/KG  | U             | U                    |                           |
| 1,2-DICHLOROPROPANE       | 78-87-5  | 0.96         | 4.8 | UG/KG  | U             | U                    |                           |
| 2-HEXANONE                | 591-78-6 | 0.96         | 19  | UG/KG  | U             | U                    |                           |
| ACETONE                   | 67-64-1  | 6.0          | 19  | UG/KG  | U             | U                    |                           |
| BENZENE                   | 71-43-2  | 0.48         | 4.8 | UG/KG  | U             | U                    |                           |
| BROMOCHLOROMETHANE        | 74-97-5  | 0.96         | 4.8 | UG/KG  | U             | U                    |                           |
| BROMODICHLOROMETHANE      | 75-27-4  | 0.48         | 4.8 | UG/KG  | U             | U                    |                           |
| BROMOFORM                 | 75-25-2  | 0.48         | 4.8 | UG/KG  | U             | U                    |                           |
| BROMOMETHANE              | 74-83-9  | 0.96         | 4.8 | UG/KG  | U             | U                    |                           |
| CARBON DISULFIDE          | 75-15-0  | 0.48         | 4.8 | UG/KG  | U             | U                    |                           |

*Sample Delivery Group: 240-18544-1*

|                           |            |      |     |       |   |   |
|---------------------------|------------|------|-----|-------|---|---|
| CARBON TETRACHLORIDE      | 56-23-5    | 0.48 | 4.8 | UG/KG | U | U |
| CHLOROBENZENE             | 108-90-7   | 0.48 | 4.8 | UG/KG | U | U |
| CHLOROETHANE              | 75-00-3    | 0.96 | 4.8 | UG/KG | U | U |
| CHLOROFORM                | 67-66-3    | 0.48 | 4.8 | UG/KG | U | U |
| CHLOROMETHANE             | 74-87-3    | 0.48 | 4.8 | UG/KG | U | U |
| CIS-1,3-DICHLOROPROPENE   | 10061-01-5 | 0.48 | 4.8 | UG/KG | U | U |
| DIBROMOCHLOROMETHANE      | 124-48-1   | 0.96 | 4.8 | UG/KG | U | U |
| ETHYLBENZENE              | 100-41-4   | 0.48 | 4.8 | UG/KG | U | U |
| METHYL ETHYL KETONE       | 78-93-3    | 1.9  | 19  | UG/KG | U | U |
| METHYL ISOBUTYL KETONE    | 108-10-1   | 0.96 | 19  | UG/KG | U | U |
| METHYLENE CHLORIDE        | 75-09-2    | 0.96 | 4.8 | UG/KG | U | U |
| STYRENE                   | 100-42-5   | 0.48 | 4.8 | UG/KG | U | U |
| TETRACHLOROETHYLENE       | 127-18-4   | 0.96 | 4.8 | UG/KG | U | U |
| TOLUENE                   | 108-88-3   | 0.52 | 4.8 | UG/KG | J | J |
| TOTAL 1,2-DICHLOROETHENE  | 540-59-0   | 0.96 | 9.6 | UG/KG | U | U |
| TRANS-1,3-DICHLOROPROPENE | 10061-02-6 | 0.96 | 4.8 | UG/KG | U | U |
| TRICHLOROETHYLENE         | 79-01-6    | 0.48 | 4.8 | UG/KG | U | U |
| VINYL CHLORIDE            | 75-01-4    | 0.48 | 4.8 | UG/KG | U | U |
| XYLENES, TOTAL            |            | 1.4  | 9.6 | UG/KG | U | U |

# Sample Delivery Group: 240-18544-1

## Analysis Method SW8270D

| <b>Sample Name</b>         |           | 076SB-0094-0001-SO |     | <b>AnalysisType:</b> N      |               |                      |                           |
|----------------------------|-----------|--------------------|-----|-----------------------------|---------------|----------------------|---------------------------|
| <b>Lab Sample Name:</b>    |           | 240-18544-12       |     | <b>Validation Level:</b> IV |               |                      |                           |
| Analyte                    | CAS No    | Result Value       | LOQ | Result                      | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| 1,2,4-TRICHLOROBENZENE     | 120-82-1  | 27                 | 50  | UG/KG                       | U             | U                    |                           |
| 1,2-DICHLOROBENZENE        | 95-50-1   | 27                 | 50  | UG/KG                       | U             | U                    |                           |
| 1,3-DICHLOROBENZENE        | 541-73-1  | 27                 | 50  | UG/KG                       | U             | U                    |                           |
| 1,4-DICHLOROBENZENE        | 106-46-7  | 27                 | 50  | UG/KG                       | U             | U                    |                           |
| 2,4,5-TRICHLOROPHENOL      | 95-95-4   | 27                 | 150 | UG/KG                       | U             | U                    |                           |
| 2,4,6-TRICHLOROPHENOL      | 88-06-2   | 79                 | 150 | UG/KG                       | U             | U                    |                           |
| 2,4-DICHLOROPHENOL         | 120-83-2  | 27                 | 150 | UG/KG                       | U             | U                    |                           |
| 2,4-DIMETHYLPHENOL         | 105-67-9  | 79                 | 150 | UG/KG                       | U             | U                    |                           |
| 2,4-DINITROPHENOL          | 51-28-5   | 79                 | 330 | UG/KG                       | U             | U                    |                           |
| 2,4-DINITROTOLUENE         | 121-14-2  | 27                 | 200 | UG/KG                       | U             | U                    |                           |
| 2,6-DINITROTOLUENE         | 606-20-2  | 27                 | 200 | UG/KG                       | U             | U                    |                           |
| 2-CHLORONAPHTHALENE        | 91-58-7   | 3.3                | 50  | UG/KG                       | U             | U                    |                           |
| 2-CHLOROPHENOL             | 95-57-8   | 27                 | 50  | UG/KG                       | U             | U                    |                           |
| 2-METHYLNAPHTHALENE        | 91-57-6   | 3.3                | 6.6 | UG/KG                       | U             | U                    |                           |
| 2-METHYLPHENOL (O-CRESOL)  | 95-48-7   | 79                 | 200 | UG/KG                       | U             | U                    |                           |
| 2-NITROANILINE             | 88-74-4   | 27                 | 200 | UG/KG                       | U             | U                    |                           |
| 2-NITROPHENOL              | 88-75-5   | 27                 | 50  | UG/KG                       | U             | U                    |                           |
| 3,3'-DICHLOROBENZIDINE     | 91-94-1   | 79                 | 99  | UG/KG                       | U             | U                    |                           |
| 3-NITROANILINE             | 99-09-2   | 79                 | 200 | UG/KG                       | U             | U                    |                           |
| 4,6-DINITRO-2-METHYLPHENOL | 534-52-1  | 79                 | 150 | UG/KG                       | U             | U                    |                           |
| 4-BROMOPHENYL PHENYL ETHE  | 101-55-3  | 27                 | 50  | UG/KG                       | U             | U                    |                           |
| 4-CHLORO-3-METHYLPHENOL    | 59-50-7   | 27                 | 150 | UG/KG                       | U             | U                    |                           |
| 4-CHLOROANILINE            | 106-47-8  | 27                 | 150 | UG/KG                       | U             | U                    |                           |
| 4-CHLOROPHENYL PHENYL ETH  | 7005-72-3 | 27                 | 50  | UG/KG                       | U             | U                    |                           |
| 4-NITROANILINE             | 100-01-6  | 27                 | 200 | UG/KG                       | U             | U                    |                           |
| 4-NITROPHENOL              | 100-02-7  | 79                 | 330 | UG/KG                       | U             | U                    |                           |
| ACENAPHTHENE               | 83-32-9   | 3.3                | 6.6 | UG/KG                       | U             | U                    |                           |
| ACENAPHTHYLENE             | 208-96-8  | 3.3                | 6.6 | UG/KG                       | U             | U                    |                           |

## Sample Delivery Group: 240-18544-1

|                             |          |      |     |       |     |     |
|-----------------------------|----------|------|-----|-------|-----|-----|
| ANTHRACENE                  | 120-12-7 | 3.3  | 6.6 | UG/KG | U   | U   |
| BENZO(A)ANTHRACENE          | 56-55-3  | 3.3  | 6.6 | UG/KG | U   | U   |
| BENZO(A)PYRENE              | 50-32-8  | 3.3  | 6.6 | UG/KG | U   | U   |
| BENZO(B)FLUORANTHENE        | 205-99-2 | 3.3  | 6.6 | UG/KG | U   | U   |
| BENZO(G,H,I)PERYLENE        | 191-24-2 | 3.3  | 6.6 | UG/KG | U   | U   |
| BENZO(K)FLUORANTHENE        | 207-08-9 | 3.3  | 6.6 | UG/KG | U   | U   |
| BENZOIC ACID                | 65-85-0  | 330  | 650 | UG/KG | U   | U   |
| BENZYL ALCOHOL              | 100-51-6 | 27   | 330 | UG/KG | U   | U   |
| BENZYL BUTYL PHTHALATE      | 85-68-7  | 27   | 50  | UG/KG | U   | U   |
| BIS(2-CHLOROETHOXY) METHA   | 111-91-1 | 27   | 99  | UG/KG | U   | U   |
| BIS(2-CHLOROETHYL) ETHER    | 111-44-4 | 3.3  | 99  | UG/KG | U   | U   |
| BIS(2-CHLOROISOPROPYL) ETHE | 108-60-1 | 27   | 99  | UG/KG | U   | U   |
| BIS(2-ETHYLHEXYL) PHTHALAT  | 117-81-7 | 27.0 | 50  | UG/KG | J B | U B |
| CARBAZOLE                   | 86-74-8  | 27   | 50  | UG/KG | U   | U   |
| CHRYSENE                    | 218-01-9 | 3.3  | 6.6 | UG/KG | U   | U   |
| CRESOLS, M & P              |          | 79   | 400 | UG/KG | U   | U   |
| DIBENZ(A,H)ANTHRACENE       | 53-70-3  | 3.3  | 6.6 | UG/KG | U   | U   |
| DIBENZOFURAN                | 132-64-9 | 3.3  | 50  | UG/KG | U   | U   |
| DIETHYL PHTHALATE           | 84-66-2  | 27   | 50  | UG/KG | U   | U   |
| DIMETHYL PHTHALATE          | 131-11-3 | 27   | 50  | UG/KG | U   | U   |
| DI-N-BUTYL PHTHALATE        | 84-74-2  | 27   | 50  | UG/KG | U   | U   |
| DI-N-OCTYLPHTHALATE         | 117-84-0 | 27   | 50  | UG/KG | U   | U   |
| FLUORANTHENE                | 206-44-0 | 3.3  | 6.6 | UG/KG | U   | U   |
| FLUORENE                    | 86-73-7  | 3.3  | 6.6 | UG/KG | U   | U   |
| HEXACHLOROBENZENE           | 118-74-1 | 3.3  | 6.6 | UG/KG | U   | U   |
| HEXACHLOROBUTADIENE         | 87-68-3  | 27   | 50  | UG/KG | U   | U   |
| HEXACHLOROCYCLOPENTADIE     | 77-47-4  | 27   | 330 | UG/KG | U   | U   |
| HEXACHLOROETHANE            | 67-72-1  | 27   | 50  | UG/KG | U   | U   |
| INDENO(1,2,3-C,D)PYRENE     | 193-39-5 | 3.3  | 6.6 | UG/KG | U   | U   |
| ISOPHORONE                  | 78-59-1  | 27   | 50  | UG/KG | U   | U   |
| NAPHTHALENE                 | 91-20-3  | 3.3  | 6.6 | UG/KG | U   | U   |
| NITROBENZENE                | 98-95-3  | 3.3  | 99  | UG/KG | U   | U   |
| N-NITROSODI-N-PROPYLAMINE   | 621-64-7 | 27   | 50  | UG/KG | U   | U   |

## Sample Delivery Group: 240-18544-1

|                        |          |     |     |       |   |   |
|------------------------|----------|-----|-----|-------|---|---|
| N-NITROSODIPHENYLAMINE | 86-30-6  | 27  | 50  | UG/KG | U | U |
| PENTACHLOROPHENOL      | 87-86-5  | 79  | 150 | UG/KG | U | U |
| PHENANTHRENE           | 85-01-8  | 3.3 | 6.6 | UG/KG | U | U |
| PHENOL                 | 108-95-2 | 27  | 50  | UG/KG | U | U |
| PYRENE                 | 129-00-0 | 3.3 | 6.6 | UG/KG | U | U |

**Sample Name** 076SB-0096-0001-SO

**AnalysisType:** N

**Lab Sample Name:** 240-18544-14

**Validation Level:** IV

| Analyte                     | CAS No    | Result Value | LOQ | Result | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
|-----------------------------|-----------|--------------|-----|--------|---------------|----------------------|---------------------------|
| 1,2,4-TRICHLOROBENZENE      | 120-82-1  | 27           | 50  | UG/KG  | U             | U                    |                           |
| 1,2-DICHLOROBENZENE         | 95-50-1   | 27           | 50  | UG/KG  | U             | U                    |                           |
| 1,3-DICHLOROBENZENE         | 541-73-1  | 27           | 50  | UG/KG  | U             | U                    |                           |
| 1,4-DICHLOROBENZENE         | 106-46-7  | 27           | 50  | UG/KG  | U             | U                    |                           |
| 2,4,5-TRICHLOROPHENOL       | 95-95-4   | 27           | 150 | UG/KG  | U             | U                    |                           |
| 2,4,6-TRICHLOROPHENOL       | 88-06-2   | 80           | 150 | UG/KG  | U             | U                    |                           |
| 2,4-DICHLOROPHENOL          | 120-83-2  | 27           | 150 | UG/KG  | U             | U                    |                           |
| 2,4-DIMETHYLPHENOL          | 105-67-9  | 80           | 150 | UG/KG  | U             | U                    |                           |
| 2,4-DINITROPHENOL           | 51-28-5   | 80           | 330 | UG/KG  | U             | U                    |                           |
| 2,4-DINITROTOLUENE          | 121-14-2  | 27           | 200 | UG/KG  | U             | U                    |                           |
| 2,6-DINITROTOLUENE          | 606-20-2  | 27           | 200 | UG/KG  | U             | U                    |                           |
| 2-CHLORONAPHTHALENE         | 91-58-7   | 3.3          | 50  | UG/KG  | U             | U                    |                           |
| 2-CHLOROPHENOL              | 95-57-8   | 27           | 50  | UG/KG  | U             | U                    |                           |
| 2-METHYLNAPHTHALENE         | 91-57-6   | 3.3          | 6.7 | UG/KG  | U             | U                    |                           |
| 2-METHYLPHENOL (O-CRESOL)   | 95-48-7   | 80           | 200 | UG/KG  | U             | U                    |                           |
| 2-NITROANILINE              | 88-74-4   | 27           | 200 | UG/KG  | U             | U                    |                           |
| 2-NITROPHENOL               | 88-75-5   | 27           | 50  | UG/KG  | U             | U                    |                           |
| 3,3'-DICHLOROBENZIDINE      | 91-94-1   | 80           | 100 | UG/KG  | U             | U                    |                           |
| 3-NITROANILINE              | 99-09-2   | 80           | 200 | UG/KG  | U             | U                    |                           |
| 4,6-DINITRO-2-METHYLPHENOL  | 534-52-1  | 80           | 150 | UG/KG  | U             | U                    |                           |
| 4-BROMOPHENYL PHENYL ETHER  | 101-55-3  | 27           | 50  | UG/KG  | U             | U                    |                           |
| 4-CHLORO-3-METHYLPHENOL     | 59-50-7   | 27           | 150 | UG/KG  | U             | U                    |                           |
| 4-CHLOROANILINE             | 106-47-8  | 27           | 150 | UG/KG  | U             | U                    |                           |
| 4-CHLOROPHENYL PHENYL ETHER | 7005-72-3 | 27           | 50  | UG/KG  | U             | U                    |                           |

## Sample Delivery Group: 240-18544-1

|                             |          |      |     |       |     |     |
|-----------------------------|----------|------|-----|-------|-----|-----|
| 4-NITROANILINE              | 100-01-6 | 27   | 200 | UG/KG | U   | U   |
| 4-NITROPHENOL               | 100-02-7 | 80   | 330 | UG/KG | U   | U   |
| ACENAPHTHENE                | 83-32-9  | 3.3  | 6.7 | UG/KG | U   | U   |
| ACENAPHTHYLENE              | 208-96-8 | 3.3  | 6.7 | UG/KG | U   | U   |
| ANTHRACENE                  | 120-12-7 | 3.3  | 6.7 | UG/KG | U   | U   |
| BENZO(A)ANTHRACENE          | 56-55-3  | 3.3  | 6.7 | UG/KG | U   | U   |
| BENZO(A)PYRENE              | 50-32-8  | 3.3  | 6.7 | UG/KG | U   | U   |
| BENZO(B)FLUORANTHENE        | 205-99-2 | 3.3  | 6.7 | UG/KG | U   | U   |
| BENZO(G,H,I)PERYLENE        | 191-24-2 | 3.3  | 6.7 | UG/KG | U   | U   |
| BENZO(K)FLUORANTHENE        | 207-08-9 | 3.3  | 6.7 | UG/KG | U   | U   |
| BENZOIC ACID                | 65-85-0  | 330  | 660 | UG/KG | U   | U   |
| BENZYL ALCOHOL              | 100-51-6 | 27   | 330 | UG/KG | U   | U   |
| BENZYL BUTYL PHTHALATE      | 85-68-7  | 27   | 50  | UG/KG | U   | U   |
| BIS(2-CHLOROETHOXY) METHA   | 111-91-1 | 27   | 100 | UG/KG | U   | U   |
| BIS(2-CHLOROETHYL) ETHER    | 111-44-4 | 3.3  | 100 | UG/KG | U   | U   |
| BIS(2-CHLOROISOPROPYL) ETHE | 108-60-1 | 27   | 100 | UG/KG | U   | U   |
| BIS(2-ETHYLHEXYL) PHTHALAT  | 117-81-7 | 27.0 | 50  | UG/KG | J B | U B |
| CARBAZOLE                   | 86-74-8  | 27   | 50  | UG/KG | U   | U   |
| CHRYSENE                    | 218-01-9 | 3.3  | 6.7 | UG/KG | U   | U   |
| CRESOLS, M & P              |          | 80   | 400 | UG/KG | U   | U   |
| DIBENZ(A,H)ANTHRACENE       | 53-70-3  | 3.3  | 6.7 | UG/KG | U   | U   |
| DIBENZOFURAN                | 132-64-9 | 3.3  | 50  | UG/KG | U   | U   |
| DIETHYL PHTHALATE           | 84-66-2  | 27   | 50  | UG/KG | U   | U   |
| DIMETHYL PHTHALATE          | 131-11-3 | 27   | 50  | UG/KG | U   | U   |
| DI-N-BUTYL PHTHALATE        | 84-74-2  | 27   | 50  | UG/KG | U   | U   |
| DI-N-OCTYLPHTHALATE         | 117-84-0 | 27   | 50  | UG/KG | U   | U   |
| FLUORANTHENE                | 206-44-0 | 3.3  | 6.7 | UG/KG | U   | U   |
| FLUORENE                    | 86-73-7  | 3.3  | 6.7 | UG/KG | U   | U   |
| HEXACHLOROBENZENE           | 118-74-1 | 3.3  | 6.7 | UG/KG | U   | U   |
| HEXACHLOROBUTADIENE         | 87-68-3  | 27   | 50  | UG/KG | U   | U   |
| HEXACHLOROCYCLOPENTADIE     | 77-47-4  | 27   | 330 | UG/KG | U   | U   |
| HEXACHLOROETHANE            | 67-72-1  | 27   | 50  | UG/KG | U   | U   |
| INDENO(1,2,3-C,D)PYRENE     | 193-39-5 | 3.3  | 6.7 | UG/KG | U   | U   |

## Sample Delivery Group: 240-18544-1

|                           |          |     |     |       |   |   |
|---------------------------|----------|-----|-----|-------|---|---|
| ISOPHORONE                | 78-59-1  | 27  | 50  | UG/KG | U | U |
| NAPHTHALENE               | 91-20-3  | 3.3 | 6.7 | UG/KG | U | U |
| NITROBENZENE              | 98-95-3  | 3.3 | 100 | UG/KG | U | U |
| N-NITROSODI-N-PROPYLAMINE | 621-64-7 | 27  | 50  | UG/KG | U | U |
| N-NITROSODIPHENYLAMINE    | 86-30-6  | 27  | 50  | UG/KG | U | U |
| PENTACHLOROPHENOL         | 87-86-5  | 80  | 150 | UG/KG | U | U |
| PHENANTHRENE              | 85-01-8  | 3.3 | 6.7 | UG/KG | U | U |
| PHENOL                    | 108-95-2 | 27  | 50  | UG/KG | U | U |
| PYRENE                    | 129-00-0 | 3.3 | 6.7 | UG/KG | U | U |

**Sample Name** 076SB-0102M-0001-SO

**AnalysisType:** N

**Lab Sample Name:** 240-18544-21

**Validation Level:** IV

| Analyte                    | CAS No   | Result Value | LOQ | Result | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
|----------------------------|----------|--------------|-----|--------|---------------|----------------------|---------------------------|
| 1,2,4-TRICHLOROBENZENE     | 120-82-1 | 27           | 50  | UG/KG  | U             | U                    |                           |
| 1,2-DICHLOROBENZENE        | 95-50-1  | 27           | 50  | UG/KG  | U             | U                    |                           |
| 1,3-DICHLOROBENZENE        | 541-73-1 | 27           | 50  | UG/KG  | U             | U                    |                           |
| 1,4-DICHLOROBENZENE        | 106-46-7 | 27           | 50  | UG/KG  | U             | U                    |                           |
| 2,4,5-TRICHLOROPHENOL      | 95-95-4  | 27           | 150 | UG/KG  | U             | U                    |                           |
| 2,4,6-TRICHLOROPHENOL      | 88-06-2  | 81           | 150 | UG/KG  | U             | U                    |                           |
| 2,4-DICHLOROPHENOL         | 120-83-2 | 27           | 150 | UG/KG  | U             | U                    |                           |
| 2,4-DIMETHYLPHENOL         | 105-67-9 | 81           | 150 | UG/KG  | U             | U                    |                           |
| 2,4-DINITROPHENOL          | 51-28-5  | 81           | 330 | UG/KG  | U             | U                    |                           |
| 2,4-DINITROTOLUENE         | 121-14-2 | 27           | 200 | UG/KG  | U             | U                    |                           |
| 2,6-DINITROTOLUENE         | 606-20-2 | 27           | 200 | UG/KG  | U             | U                    |                           |
| 2-CHLORONAPHTHALENE        | 91-58-7  | 3.3          | 50  | UG/KG  | U             | U                    |                           |
| 2-CHLOROPHENOL             | 95-57-8  | 27           | 50  | UG/KG  | U             | U                    |                           |
| 2-METHYLNAPHTHALENE        | 91-57-6  | 4.9          | 6.7 | UG/KG  | J             | J                    |                           |
| 2-METHYLPHENOL (O-CRESOL)  | 95-48-7  | 81           | 200 | UG/KG  | U             | U                    |                           |
| 2-NITROANILINE             | 88-74-4  | 27           | 200 | UG/KG  | U             | U                    |                           |
| 2-NITROPHENOL              | 88-75-5  | 27           | 50  | UG/KG  | U             | U                    |                           |
| 3,3'-DICHLOROBENZIDINE     | 91-94-1  | 81           | 100 | UG/KG  | U             | U                    |                           |
| 3-NITROANILINE             | 99-09-2  | 81           | 200 | UG/KG  | U             | U                    |                           |
| 4,6-DINITRO-2-METHYLPHENOL | 534-52-1 | 81           | 150 | UG/KG  | U             | U                    |                           |



## Sample Delivery Group: 240-18544-1

|                             |           |      |     |       |   |     |
|-----------------------------|-----------|------|-----|-------|---|-----|
| 4-BROMOPHENYL PHENYL ETHE   | 101-55-3  | 27   | 50  | UG/KG | U | U   |
| 4-CHLORO-3-METHYLPHENOL     | 59-50-7   | 27   | 150 | UG/KG | U | U   |
| 4-CHLOROANILINE             | 106-47-8  | 27   | 150 | UG/KG | U | U   |
| 4-CHLOROPHENYL PHENYL ETH   | 7005-72-3 | 27   | 50  | UG/KG | U | U   |
| 4-NITROANILINE              | 100-01-6  | 27   | 200 | UG/KG | U | U   |
| 4-NITROPHENOL               | 100-02-7  | 81   | 330 | UG/KG | U | U   |
| ACENAPHTHENE                | 83-32-9   | 3.3  | 6.7 | UG/KG | U | U   |
| ACENAPHTHYLENE              | 208-96-8  | 3.3  | 6.7 | UG/KG | U | U   |
| ANTHRACENE                  | 120-12-7  | 3.3  | 6.7 | UG/KG | U | U   |
| BENZO(A)ANTHRACENE          | 56-55-3   | 3.3  | 6.7 | UG/KG | U | U   |
| BENZO(A)PYRENE              | 50-32-8   | 3.3  | 6.7 | UG/KG | U | U   |
| BENZO(B)FLUORANTHENE        | 205-99-2  | 3.3  | 6.7 | UG/KG | U | U   |
| BENZO(G,H,I)PERYLENE        | 191-24-2  | 3.3  | 6.7 | UG/KG | U | U   |
| BENZO(K)FLUORANTHENE        | 207-08-9  | 3.3  | 6.7 | UG/KG | U | U   |
| BENZOIC ACID                | 65-85-0   | 340  | 670 | UG/KG | U | U   |
| BENZYL ALCOHOL              | 100-51-6  | 27   | 330 | UG/KG | U | U   |
| BENZYL BUTYL PHTHALATE      | 85-68-7   | 27   | 50  | UG/KG | U | U   |
| BIS(2-CHLOROETHOXY) METHA   | 111-91-1  | 27   | 100 | UG/KG | U | U   |
| BIS(2-CHLOROETHYL) ETHER    | 111-44-4  | 3.3  | 100 | UG/KG | U | U   |
| BIS(2-CHLOROISOPROPYL) ETHE | 108-60-1  | 27   | 100 | UG/KG | U | U   |
| BIS(2-ETHYLHEXYL) PHTHALAT  | 117-81-7  | 27.0 | 50  | UG/KG | J | U B |
| CARBAZOLE                   | 86-74-8   | 27   | 50  | UG/KG | U | U   |
| CHRYSENE                    | 218-01-9  | 3.3  | 6.7 | UG/KG | U | U   |
| CRESOLS, M & P              |           | 81   | 400 | UG/KG | U | U   |
| DIBENZ(A,H)ANTHRACENE       | 53-70-3   | 3.3  | 6.7 | UG/KG | U | U   |
| DIBENZOFURAN                | 132-64-9  | 3.3  | 50  | UG/KG | U | U   |
| DIETHYL PHTHALATE           | 84-66-2   | 27   | 50  | UG/KG | U | U   |
| DIMETHYL PHTHALATE          | 131-11-3  | 27   | 50  | UG/KG | U | U   |
| DI-N-BUTYL PHTHALATE        | 84-74-2   | 27   | 50  | UG/KG | U | U   |
| DI-N-OCTYLPHTHALATE         | 117-84-0  | 27   | 50  | UG/KG | U | U   |
| FLUORANTHENE                | 206-44-0  | 3.3  | 6.7 | UG/KG | U | U   |
| FLUORENE                    | 86-73-7   | 3.3  | 6.7 | UG/KG | U | U   |
| HEXACHLOROBENZENE           | 118-74-1  | 3.3  | 6.7 | UG/KG | U | U   |

## Sample Delivery Group: 240-18544-1

|                           |          |     |     |       |   |     |
|---------------------------|----------|-----|-----|-------|---|-----|
| HEXACHLOROBUTADIENE       | 87-68-3  | 27  | 50  | UG/KG | U | U   |
| HEXACHLOROCYCLOPENTADIE   | 77-47-4  | 27  | 330 | UG/KG | U | U   |
| HEXACHLOROETHANE          | 67-72-1  | 27  | 50  | UG/KG | U | U   |
| INDENO(1,2,3-C,D)PYRENE   | 193-39-5 | 3.3 | 6.7 | UG/KG | U | U   |
| ISOPHORONE                | 78-59-1  | 27  | 50  | UG/KG | U | U   |
| NAPHTHALENE               | 91-20-3  | 4.8 | 6.7 | UG/KG | J | J   |
| NITROBENZENE              | 98-95-3  | 3.3 | 100 | UG/KG | U | U   |
| N-NITROSODI-N-PROPYLAMINE | 621-64-7 | 27  | 50  | UG/KG | U | U   |
| N-NITROSODIPHENYLAMINE    | 86-30-6  | 27  | 50  | UG/KG | U | R C |
| PENTACHLOROPHENOL         | 87-86-5  | 81  | 150 | UG/KG | U | U   |
| PHENANTHRENE              | 85-01-8  | 3.3 | 6.7 | UG/KG | U | U   |
| PHENOL                    | 108-95-2 | 27  | 50  | UG/KG | U | U   |
| PYRENE                    | 129-00-0 | 3.3 | 6.7 | UG/KG | U | U   |

**Sample Name** 076SB-0114M-0001-SO

**AnalysisType:** N

**Lab Sample Name:** 240-18544-33

**Validation Level:** IV

| Analyte                   | CAS No   | Result Value | LOQ | Result | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
|---------------------------|----------|--------------|-----|--------|---------------|----------------------|---------------------------|
| 1,2,4-TRICHLOROBENZENE    | 120-82-1 | 27           | 50  | UG/KG  | U             | U                    |                           |
| 1,2-DICHLOROBENZENE       | 95-50-1  | 27           | 50  | UG/KG  | U             | U                    |                           |
| 1,3-DICHLOROBENZENE       | 541-73-1 | 27           | 50  | UG/KG  | U             | U                    |                           |
| 1,4-DICHLOROBENZENE       | 106-46-7 | 27           | 50  | UG/KG  | U             | U                    |                           |
| 2,4,5-TRICHLOROPHENOL     | 95-95-4  | 27           | 150 | UG/KG  | U             | U                    |                           |
| 2,4,6-TRICHLOROPHENOL     | 88-06-2  | 81           | 150 | UG/KG  | U             | U                    |                           |
| 2,4-DICHLOROPHENOL        | 120-83-2 | 27           | 150 | UG/KG  | U             | U                    |                           |
| 2,4-DIMETHYLPHENOL        | 105-67-9 | 81           | 150 | UG/KG  | U             | U                    |                           |
| 2,4-DINITROPHENOL         | 51-28-5  | 81           | 330 | UG/KG  | U             | U                    |                           |
| 2,4-DINITROTOLUENE        | 121-14-2 | 27           | 200 | UG/KG  | U             | U                    |                           |
| 2,6-DINITROTOLUENE        | 606-20-2 | 27           | 200 | UG/KG  | U             | U                    |                           |
| 2-CHLORONAPHTHALENE       | 91-58-7  | 3.3          | 50  | UG/KG  | U             | U                    |                           |
| 2-CHLOROPHENOL            | 95-57-8  | 27           | 50  | UG/KG  | U             | U                    |                           |
| 2-METHYLNAPHTHALENE       | 91-57-6  | 8.3          | 6.7 | UG/KG  |               |                      |                           |
| 2-METHYLPHENOL (O-CRESOL) | 95-48-7  | 81           | 200 | UG/KG  | U             | U                    |                           |
| 2-NITROANILINE            | 88-74-4  | 27           | 200 | UG/KG  | U             | U                    |                           |

## Sample Delivery Group: 240-18544-1

|                             |           |      |     |       |   |     |
|-----------------------------|-----------|------|-----|-------|---|-----|
| 2-NITROPHENOL               | 88-75-5   | 27   | 50  | UG/KG | U | U   |
| 3,3'-DICHLOROBENZIDINE      | 91-94-1   | 81   | 100 | UG/KG | U | U   |
| 3-NITROANILINE              | 99-09-2   | 81   | 200 | UG/KG | U | U   |
| 4,6-DINITRO-2-METHYLPHENOL  | 534-52-1  | 81   | 150 | UG/KG | U | U   |
| 4-BROMOPHENYL PHENYL ETHE   | 101-55-3  | 27   | 50  | UG/KG | U | U   |
| 4-CHLORO-3-METHYLPHENOL     | 59-50-7   | 27   | 150 | UG/KG | U | U   |
| 4-CHLOROANILINE             | 106-47-8  | 27   | 150 | UG/KG | U | U   |
| 4-CHLOROPHENYL PHENYL ETH   | 7005-72-3 | 27   | 50  | UG/KG | U | U   |
| 4-NITROANILINE              | 100-01-6  | 27   | 200 | UG/KG | U | U   |
| 4-NITROPHENOL               | 100-02-7  | 81   | 330 | UG/KG | U | U   |
| ACENAPHTHENE                | 83-32-9   | 3.3  | 6.7 | UG/KG | U | U   |
| ACENAPHTHYLENE              | 208-96-8  | 3.3  | 6.7 | UG/KG | U | U   |
| ANTHRACENE                  | 120-12-7  | 4.5  | 6.7 | UG/KG | J | J   |
| BENZO(A)ANTHRACENE          | 56-55-3   | 23.0 | 6.7 | UG/KG |   |     |
| BENZO(A)PYRENE              | 50-32-8   | 23.0 | 6.7 | UG/KG |   |     |
| BENZO(B)FLUORANTHENE        | 205-99-2  | 35.0 | 6.7 | UG/KG |   |     |
| BENZO(G,H,I)PERYLENE        | 191-24-2  | 17.0 | 6.7 | UG/KG |   |     |
| BENZO(K)FLUORANTHENE        | 207-08-9  | 8.6  | 6.7 | UG/KG | M |     |
| BENZOIC ACID                | 65-85-0   | 340  | 660 | UG/KG | U | U   |
| BENZYL ALCOHOL              | 100-51-6  | 27   | 330 | UG/KG | U | U   |
| BENZYL BUTYL PHTHALATE      | 85-68-7   | 27   | 50  | UG/KG | U | U   |
| BIS(2-CHLOROETHOXY) METHA   | 111-91-1  | 27   | 100 | UG/KG | U | U   |
| BIS(2-CHLOROETHYL) ETHER    | 111-44-4  | 3.3  | 100 | UG/KG | U | U   |
| BIS(2-CHLOROISOPROPYL) ETHE | 108-60-1  | 27   | 100 | UG/KG | U | U   |
| BIS(2-ETHYLHEXYL) PHTHALAT  | 117-81-7  | 27.0 | 50  | UG/KG | J | U B |
| CARBAZOLE                   | 86-74-8   | 27   | 50  | UG/KG | U | U   |
| CHRYSENE                    | 218-01-9  | 28.0 | 6.7 | UG/KG |   |     |
| CRESOLS, M & P              |           | 81   | 400 | UG/KG | U | U   |
| DIBENZ(A,H)ANTHRACENE       | 53-70-3   | 3.3  | 6.7 | UG/KG | U | U   |
| DIBENZOFURAN                | 132-64-9  | 4.2  | 50  | UG/KG | J | J   |
| DIETHYL PHTHALATE           | 84-66-2   | 27   | 50  | UG/KG | U | U   |
| DIMETHYL PHTHALATE          | 131-11-3  | 27   | 50  | UG/KG | U | U   |
| DI-N-BUTYL PHTHALATE        | 84-74-2   | 27   | 50  | UG/KG | U | U   |

*Sample Delivery Group: 240-18544-1*

|                           |          |      |     |       |   |     |
|---------------------------|----------|------|-----|-------|---|-----|
| DI-N-OCTYLPHTHALATE       | 117-84-0 | 27   | 50  | UG/KG | U | U   |
| FLUORANTHENE              | 206-44-0 | 53.0 | 6.7 | UG/KG |   |     |
| FLUORENE                  | 86-73-7  | 3.3  | 6.7 | UG/KG | U | U   |
| HEXACHLOROBENZENE         | 118-74-1 | 3.3  | 6.7 | UG/KG | U | U   |
| HEXACHLOROBUTADIENE       | 87-68-3  | 27   | 50  | UG/KG | U | U   |
| HEXACHLOROCYCLOPENTADIE   | 77-47-4  | 27   | 330 | UG/KG | U | U   |
| HEXACHLOROETHANE          | 67-72-1  | 27   | 50  | UG/KG | U | U   |
| INDENO(1,2,3-C,D)PYRENE   | 193-39-5 | 14.0 | 6.7 | UG/KG |   |     |
| ISOPHORONE                | 78-59-1  | 27   | 50  | UG/KG | U | U   |
| NAPHTHALENE               | 91-20-3  | 8.3  | 6.7 | UG/KG |   |     |
| NITROBENZENE              | 98-95-3  | 3.3  | 100 | UG/KG | U | U   |
| N-NITROSODI-N-PROPYLAMINE | 621-64-7 | 27   | 50  | UG/KG | U | U   |
| N-NITROSODIPHENYLAMINE    | 86-30-6  | 27   | 50  | UG/KG | U | R C |
| PENTACHLOROPHENOL         | 87-86-5  | 81   | 150 | UG/KG | U | U   |
| PHENANTHRENE              | 85-01-8  | 34.0 | 6.7 | UG/KG |   |     |
| PHENOL                    | 108-95-2 | 27   | 50  | UG/KG | U | U   |
| PYRENE                    | 129-00-0 | 44.0 | 6.7 | UG/KG |   |     |

# Sample Delivery Group: 240-18544-1

## Analysis Method SW8330

| <b>Sample Name</b>         |            | 076SB-0102M-0001-SO |      | <b>AnalysisType:</b> N      |               |                      |                           |
|----------------------------|------------|---------------------|------|-----------------------------|---------------|----------------------|---------------------------|
| <b>Lab Sample Name:</b>    |            | 240-18544-21        |      | <b>Validation Level:</b> IV |               |                      |                           |
| Analyte                    | CAS No     | Result Value        | LOQ  | Result                      | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| 1,3,5-TRINITROBENZENE      | 99-35-4    | 0.050               | 0.25 | MG/KG                       | U             | U                    |                           |
| 1,3-DINITROBENZENE         | 99-65-0    | 0.050               | 0.25 | MG/KG                       | U             | U                    |                           |
| 2,4,6-TRINITROTOLUENE      | 118-96-7   | 0.050               | 0.25 | MG/KG                       | U             | U                    |                           |
| 2,4-DINITROTOLUENE         | 121-14-2   | 0.050               | 0.25 | MG/KG                       | U             | R                    | D                         |
| 2,6-DINITROTOLUENE         | 606-20-2   | 0.050               | 0.25 | MG/KG                       | U             | R                    | D                         |
| 2-AMINO-4,6-DINITROTOLUENE | 35572-78-2 | 0.050               | 0.25 | MG/KG                       | U             | U                    |                           |
| 2-NITROTOLUENE             | 88-72-2    | 0.050               | 0.25 | MG/KG                       | U             | UJ                   | C                         |
| 3-NITROTOLUENE             | 99-08-1    | 0.050               | 0.25 | MG/KG                       | U             | U                    |                           |
| 4-AMINO-2,6-DINITROTOLUENE | 19406-51-0 | 0.050               | 0.25 | MG/KG                       | U             | U                    |                           |
| 4-NITROTOLUENE             | 99-99-0    | 0.050               | 0.25 | MG/KG                       | U             | U                    |                           |
| HMX                        | 2691-41-0  | 0.050               | 0.25 | MG/KG                       | U             | U                    |                           |
| NITROBENZENE               | 98-95-3    | 0.050               | 0.25 | MG/KG                       | U             | R                    | D                         |
| NITROGLYCERIN              | 55-63-0    | 0.25                | 0.50 | MG/KG                       | U             | U                    |                           |
| NITROGUANIDINE             | 556-88-7   | 0.039               | 0.24 | MG/KG                       | U             | U                    |                           |
| PETN                       | 78-11-5    | 0.25                | 0.50 | MG/KG                       | U             | U                    |                           |
| RDX                        | 121-82-4   | 0.050               | 0.25 | MG/KG                       | U             | UJ                   | C                         |
| TETRYL                     | 479-45-8   | 0.050               | 0.25 | MG/KG                       | U J           | U                    |                           |

| <b>Sample Name</b>         |            | 076SB-0114M-0001-SO |      | <b>AnalysisType:</b> N      |               |                      |                           |
|----------------------------|------------|---------------------|------|-----------------------------|---------------|----------------------|---------------------------|
| <b>Lab Sample Name:</b>    |            | 240-18544-33        |      | <b>Validation Level:</b> IV |               |                      |                           |
| Analyte                    | CAS No     | Result Value        | LOQ  | Result                      | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| 1,3,5-TRINITROBENZENE      | 99-35-4    | 0.050               | 0.25 | MG/KG                       | U             | U                    |                           |
| 1,3-DINITROBENZENE         | 99-65-0    | 0.050               | 0.25 | MG/KG                       | U             | U                    |                           |
| 2,4,6-TRINITROTOLUENE      | 118-96-7   | 0.050               | 0.25 | MG/KG                       | U             | U                    |                           |
| 2,4-DINITROTOLUENE         | 121-14-2   | 0.050               | 0.25 | MG/KG                       | U             | R                    | D                         |
| 2,6-DINITROTOLUENE         | 606-20-2   | 0.050               | 0.25 | MG/KG                       | U             | R                    | D                         |
| 2-AMINO-4,6-DINITROTOLUENE | 35572-78-2 | 0.050               | 0.25 | MG/KG                       | U             | U                    |                           |
| 2-NITROTOLUENE             | 88-72-2    | 0.050               | 0.25 | MG/KG                       | U             | UJ                   | C                         |

*Sample Delivery Group: 240-18544-1*

|                            |            |       |      |       |   |    |   |
|----------------------------|------------|-------|------|-------|---|----|---|
| 3-NITROTOLUENE             | 99-08-1    | 0.050 | 0.25 | MG/KG | U | U  |   |
| 4-AMINO-2,6-DINITROTOLUENE | 19406-51-0 | 0.050 | 0.25 | MG/KG | U | U  |   |
| 4-NITROTOLUENE             | 99-99-0    | 0.050 | 0.25 | MG/KG | U | U  |   |
| HMX                        | 2691-41-0  | 0.050 | 0.25 | MG/KG | U | U  |   |
| NITROBENZENE               | 98-95-3    | 0.050 | 0.25 | MG/KG | U | R  | D |
| NITROGLYCERIN              | 55-63-0    | 0.25  | 0.50 | MG/KG | U | U  |   |
| PETN                       | 78-11-5    | 0.25  | 0.50 | MG/KG | U | U  |   |
| RDX                        | 121-82-4   | 0.050 | 0.25 | MG/KG | U | UJ | C |
| TETRYL                     | 479-45-8   | 0.050 | 0.25 | MG/KG | U | U  |   |

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Validated Sample Result Forms for Sampling : Ravenna Army  
Ammunition Plant Ravenna, Ohio  
Remediation Investigation Compliance Restoration Site: RVAAP-78  
Quarry Pond Surface Dump

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*Sample Delivery Group:* 240-22559-1\_78\_SB

*Analysis Method* E353.2

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|                         |               |                     |            |                             |                      |                             |                                  |
|-------------------------|---------------|---------------------|------------|-----------------------------|----------------------|-----------------------------|----------------------------------|
| <b>Sample Name</b>      |               | 078SB-0016M-0001-SO |            | <b>AnalysisType:</b> N      |                      |                             |                                  |
| <b>Lab Sample Name:</b> |               | 240-22559-14        |            | <b>Validation Level:</b> IV |                      |                             |                                  |
| <b>Analyte</b>          | <b>CAS No</b> | <b>Result Value</b> | <b>LOQ</b> | <b>Result</b>               | <b>Lab Qualifier</b> | <b>Validation Qualifier</b> | <b>Validation Qualifier Code</b> |
| NITROCELLULOSE          | 9004-70-0     | 1.8                 | 4.9        | MG/KG                       | U                    | U                           |                                  |

Sample Delivery Group: 240-22559-1\_78\_SB

Analysis Method SW6020

| Sample Name      |           | 078SB-0008M-0001-SO |      | AnalysisType: N      |               |                      |                           |
|------------------|-----------|---------------------|------|----------------------|---------------|----------------------|---------------------------|
| Lab Sample Name: |           | 240-22559-8         |      | Validation Level: IV |               |                      |                           |
| Analyte          | CAS No    | Result Value        | LOQ  | Result               | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| ALUMINUM         | 7429-90-5 | 3400                | 3    | MG/KG                |               |                      |                           |
| ANTIMONY         | 7440-36-0 | 0.097               | 0.2  | MG/KG                | J             | J-                   | Q                         |
| ARSENIC          | 7440-38-2 | 4.7                 | 0.1  | MG/KG                |               | J-                   | Q                         |
| BARIUM           | 7440-39-3 | 30                  | 1    | MG/KG                | Q             |                      |                           |
| BERYLLIUM        | 7440-41-7 | 0.2                 | 0.1  | MG/KG                |               |                      |                           |
| CADMIUM          | 7440-43-9 | 0.1                 | 0.1  | MG/KG                |               |                      |                           |
| CALCIUM          | 7440-70-2 | 410                 | 10   | MG/KG                |               |                      |                           |
| CHROMIUM         | 7440-47-3 | 5.7                 | 0.2  | MG/KG                |               |                      |                           |
| COBALT           | 7440-48-4 | 4                   | 0.05 | MG/KG                | Q             |                      |                           |
| COPPER           | 7440-50-8 | 8.9                 | 0.2  | MG/KG                | Q             |                      |                           |
| IRON             | 7439-89-6 | 12000               | 5    | MG/KG                |               |                      |                           |
| LEAD             | 7439-92-1 | 9.5                 | 0.1  | MG/KG                | Q             |                      |                           |
| MAGNESIUM        | 7439-95-4 | 740                 | 10   | MG/KG                |               |                      |                           |
| MANGANESE        | 7439-96-5 | 280                 | 0.5  | MG/KG                | Q             | J+                   | Q                         |
| NICKEL           | 7440-02-0 | 8.1                 | 0.1  | MG/KG                |               |                      |                           |
| POTASSIUM        | 7440-09-7 | 480                 | 10   | MG/KG                |               |                      |                           |
| SELENIUM         | 7782-49-2 | 0.12                | 0.5  | MG/KG                | J             | J-                   | Q                         |
| SILVER           | 7440-22-4 | 0.015               | 0.1  | MG/KG                | J             | J                    |                           |
| SODIUM           | 7440-23-5 | 21                  | 10   | MG/KG                |               |                      |                           |
| THALLIUM         | 7440-28-0 | 0.074               | 0.1  | MG/KG                | J             | J                    |                           |
| VANADIUM         | 7440-62-2 | 6.8                 | 0.1  | MG/KG                |               |                      |                           |
| ZINC             | 7440-66-6 | 29                  | 0.5  | MG/KG                | Q             |                      |                           |

| Sample Name      |           | 078SB-0016M-0001-SO |      | AnalysisType: N      |               |                      |                           |
|------------------|-----------|---------------------|------|----------------------|---------------|----------------------|---------------------------|
| Lab Sample Name: |           | 240-22559-14        |      | Validation Level: IV |               |                      |                           |
| Analyte          | CAS No    | Result Value        | LOQ  | Result               | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| ALUMINUM         | 7429-90-5 | 1200                | 2.7  | MG/KG                |               |                      |                           |
| ANTIMONY         | 7440-36-0 | 0.31                | 0.18 | MG/KG                |               | J-                   | Q                         |



## Sample Delivery Group: 240-22559-1\_78\_SB

|           |           |       |       |       |   |    |   |
|-----------|-----------|-------|-------|-------|---|----|---|
| ARSENIC   | 7440-38-2 | 0.94  | 0.09  | MG/KG |   | J- | Q |
| BARIUM    | 7440-39-3 | 11    | 0.9   | MG/KG | Q |    |   |
| BERYLLIUM | 7440-41-7 | 0.18  | 0.09  | MG/KG |   |    |   |
| CADMIUM   | 7440-43-9 | 0.079 | 0.09  | MG/KG | J | J  |   |
| CALCIUM   | 7440-70-2 | 200   | 9     | MG/KG |   |    |   |
| CHROMIUM  | 7440-47-3 | 2.9   | 0.18  | MG/KG |   |    |   |
| COBALT    | 7440-48-4 | 2.3   | 0.045 | MG/KG | Q |    |   |
| COPPER    | 7440-50-8 | 4.6   | 0.18  | MG/KG | Q |    |   |
| IRON      | 7439-89-6 | 6600  | 4.5   | MG/KG |   |    |   |
| LEAD      | 7439-92-1 | 7     | 0.09  | MG/KG | Q |    |   |
| MAGNESIUM | 7439-95-4 | 300   | 9     | MG/KG |   |    |   |
| MANGANESE | 7439-96-5 | 160   | 0.45  | MG/KG | Q | J+ | Q |
| NICKEL    | 7440-02-0 | 4.9   | 0.09  | MG/KG |   |    |   |
| POTASSIUM | 7440-09-7 | 340   | 9     | MG/KG |   |    |   |
| SELENIUM  | 7782-49-2 | 0.09  | 0.45  | MG/KG | U | UJ | Q |
| SILVER    | 7440-22-4 | 0.021 | 0.09  | MG/KG | J | J  |   |
| SODIUM    | 7440-23-5 | 16    | 9     | MG/KG |   |    |   |
| THALLIUM  | 7440-28-0 | 0.035 | 0.09  | MG/KG | J | J  |   |
| VANADIUM  | 7440-62-2 | 2.8   | 0.09  | MG/KG |   |    |   |
| ZINC      | 7440-66-6 | 20    | 0.45  | MG/KG | Q |    |   |

## Analysis Method SW7471A

| <b>Sample Name</b>      |           | 078SB-0008M-0001-SO |      | <b>AnalysisType:</b> N      |               |                      |                           |
|-------------------------|-----------|---------------------|------|-----------------------------|---------------|----------------------|---------------------------|
| <b>Lab Sample Name:</b> |           | 240-22559-8         |      | <b>Validation Level:</b> IV |               |                      |                           |
| Analyte                 | CAS No    | Result Value        | LOQ  | Result                      | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| MERCURY                 | 7439-97-6 | 0.053               | 0.1  | MG/KG                       | J             | J                    |                           |
| <b>Sample Name</b>      |           | 078SB-0016M-0001-SO |      | <b>AnalysisType:</b> N      |               |                      |                           |
| <b>Lab Sample Name:</b> |           | 240-22559-14        |      | <b>Validation Level:</b> IV |               |                      |                           |
| Analyte                 | CAS No    | Result Value        | LOQ  | Result                      | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| MERCURY                 | 7439-97-6 | 0.039               | 0.12 | MG/KG                       | U             | U                    |                           |

Sample Delivery Group: 240-22559-1\_78\_SB

Analysis Method SW8081

|                     |            |                     |     |                      |               |                      |                           |
|---------------------|------------|---------------------|-----|----------------------|---------------|----------------------|---------------------------|
| Sample Name         |            | 078SB-0016M-0001-SO |     | AnalysisType: N      |               |                      |                           |
| Lab Sample Name:    |            | 240-22559-14        |     | Validation Level: IV |               |                      |                           |
| Analyte             | CAS No     | Result Value        | LOQ | Result               | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| ALDRIN              | 309-00-2   | 1.3                 | 4   | UG/KG                | U             | U                    |                           |
| ALPHA BHC           | 319-84-6   | 1.3                 | 2.5 | UG/KG                | U             | U                    |                           |
| ALPHA ENDOSULFAN    | 959-98-8   | 0.67                | 1.7 | UG/KG                | U             | U                    |                           |
| ALPHA-CHLORDANE     | 5103-71-9  | 1.3                 | 3   | UG/KG                | U             | U                    |                           |
| BETA BHC            | 319-85-7   | 1.3                 | 3.5 | UG/KG                | U             | U                    |                           |
| BETA ENDOSULFAN     | 33213-65-9 | 1.3                 | 2.5 | UG/KG                | U             | U                    |                           |
| DELTA BHC           | 319-86-8   | 1.3                 | 4   | UG/KG                | U             | U                    |                           |
| DIELDRIN            | 60-57-1    | 0.67                | 1.7 | UG/KG                | U             | U                    |                           |
| ENDOSULFAN SULFATE  | 1031-07-8  | 1.3                 | 3   | UG/KG                | U             | U                    |                           |
| ENDRIN              | 72-20-8    | 0.67                | 1.7 | UG/KG                | U             | U                    |                           |
| ENDRIN ALDEHYDE     | 7421-93-4  | 1.3                 | 3   | UG/KG                | U             | U                    |                           |
| ENDRIN KETONE       | 53494-70-5 | 0.67                | 2   | UG/KG                | U             | U                    |                           |
| GAMMA BHC (LINDANE) | 58-89-9    | 1.3                 | 2.5 | UG/KG                | U             | U                    |                           |
| GAMMA-CHLORDANE     | 5566-34-7  | 0.67                | 1.7 | UG/KG                | U             | U                    |                           |
| HEPTACHLOR          | 76-44-8    | 1.3                 | 3.5 | UG/KG                | U             | U                    |                           |
| HEPTACHLOR EPOXIDE  | 1024-57-3  | 1.3                 | 2.5 | UG/KG                | U             | U                    |                           |
| METHOXYCHLOR        | 72-43-5    | 3.3                 | 5   | UG/KG                | U             | U                    |                           |
| P,P'-DDD            | 72-54-8    | 0.67                | 2   | UG/KG                | U             | UJ                   | C                         |
| P,P'-DDE            | 72-55-9    | 0.67                | 1.7 | UG/KG                | U             | U                    |                           |
| P,P'-DDT            | 50-29-3    | 1.7                 | 2   | UG/KG                | J             | J                    |                           |
| TOXAPHENE           | 8001-35-2  | 20                  | 67  | UG/KG                | U             | UJ                   | C                         |

Sample Delivery Group: 240-22559-1\_78\_SB

Analysis Method SW8082

|                  |            |                     |     |                      |               |                      |                           |
|------------------|------------|---------------------|-----|----------------------|---------------|----------------------|---------------------------|
| Sample Name      |            | 078SB-0008M-0001-SO |     | AnalysisType: N      |               |                      |                           |
| Lab Sample Name: |            | 240-22559-8         |     | Validation Level: IV |               |                      |                           |
| Analyte          | CAS No     | Result Value        | LOQ | Result               | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| PCB-1016         | 12674-11-2 | 25                  | 65  | UG/KG                | U             | U                    |                           |
| PCB-1221         | 11104-28-2 | 25                  | 50  | UG/KG                | U             | UJ                   | C                         |
| PCB-1232         | 11141-16-5 | 25                  | 45  | UG/KG                | U             | U                    |                           |
| PCB-1242         | 53469-21-9 | 25                  | 40  | UG/KG                | U             | U                    |                           |
| PCB-1248         | 12672-29-6 | 25                  | 55  | UG/KG                | U             | U                    |                           |
| PCB-1254         | 11097-69-1 | 25                  | 55  | UG/KG                | U             | U                    |                           |
| PCB-1260         | 11096-82-5 | 25                  | 55  | UG/KG                | U             | U                    |                           |

|                  |            |                     |     |                      |               |                      |                           |
|------------------|------------|---------------------|-----|----------------------|---------------|----------------------|---------------------------|
| Sample Name      |            | 078SB-0016M-0001-SO |     | AnalysisType: N      |               |                      |                           |
| Lab Sample Name: |            | 240-22559-14        |     | Validation Level: IV |               |                      |                           |
| Analyte          | CAS No     | Result Value        | LOQ | Result               | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| PCB-1016         | 12674-11-2 | 25                  | 65  | UG/KG                | U             | U                    |                           |
| PCB-1221         | 11104-28-2 | 25                  | 50  | UG/KG                | U             | U                    |                           |
| PCB-1232         | 11141-16-5 | 25                  | 45  | UG/KG                | U             | U                    |                           |
| PCB-1242         | 53469-21-9 | 25                  | 40  | UG/KG                | U             | U                    |                           |
| PCB-1248         | 12672-29-6 | 25                  | 55  | UG/KG                | U             | U                    |                           |
| PCB-1254         | 11097-69-1 | 25                  | 55  | UG/KG                | U             | U                    |                           |
| PCB-1260         | 11096-82-5 | 25                  | 55  | UG/KG                | U             | U                    |                           |

Sample Delivery Group: 240-22559-1\_78\_SB

Analysis Method SW8260B

|                           |            |                     |     |                      |               |                      |                           |
|---------------------------|------------|---------------------|-----|----------------------|---------------|----------------------|---------------------------|
| Sample Name               |            | 078SB-0008M-0001-SO |     | AnalysisType: N      |               |                      |                           |
| Lab Sample Name:          |            | 240-22559-8         |     | Validation Level: IV |               |                      |                           |
| Analyte                   | CAS No     | Result Value        | LOQ | Result               | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| 1,1,1-TRICHLOROETHANE     | 71-55-6    | 1.1                 | 5.5 | UG/KG                | U             | UJ                   | S                         |
| 1,1,2,2-TETRACHLOROETHANE | 79-34-5    | 0.55                | 5.5 | UG/KG                | U             | UJ                   | S                         |
| 1,1,2-TRICHLOROETHANE     | 79-00-5    | 0.55                | 5.5 | UG/KG                | U             | UJ                   | S                         |
| 1,1-DICHLOROETHANE        | 75-34-3    | 0.55                | 5.5 | UG/KG                | U             | UJ                   | S                         |
| 1,1-DICHLOROETHENE        | 75-35-4    | 1.1                 | 5.5 | UG/KG                | U             | UJ                   | S                         |
| 1,2-DIBROMOETHANE         | 106-93-4   | 1.1                 | 5.5 | UG/KG                | U             | UJ                   | S                         |
| 1,2-DICHLOROETHANE        | 107-06-2   | 0.55                | 5.5 | UG/KG                | U             | UJ                   | S                         |
| 1,2-DICHLOROPROPANE       | 78-87-5    | 1.1                 | 5.5 | UG/KG                | U             | UJ                   | S                         |
| 2-HEXANONE                | 591-78-6   | 1.1                 | 22  | UG/KG                | U             | UJ                   | S                         |
| ACETONE                   | 67-64-1    | 7                   | 22  | UG/KG                | U             | UJ                   | S                         |
| BENZENE                   | 71-43-2    | 0.55                | 5.5 | UG/KG                | U             | UJ                   | S                         |
| BROMOCHLOROMETHANE        | 74-97-5    | 1.1                 | 5.5 | UG/KG                | U             | UJ                   | S                         |
| BROMODICHLOROMETHANE      | 75-27-4    | 0.55                | 5.5 | UG/KG                | U             | UJ                   | S                         |
| BROMOFORM                 | 75-25-2    | 0.55                | 5.5 | UG/KG                | U             | UJ                   | S                         |
| BROMOMETHANE              | 74-83-9    | 1.1                 | 5.5 | UG/KG                | U             | UJ                   | S                         |
| CARBON DISULFIDE          | 75-15-0    | 0.55                | 5.5 | UG/KG                | U             | UJ                   | S                         |
| CARBON TETRACHLORIDE      | 56-23-5    | 0.55                | 5.5 | UG/KG                | U             | UJ                   | S                         |
| CHLOROBENZENE             | 108-90-7   | 0.55                | 5.5 | UG/KG                | U             | UJ                   | S                         |
| CHLOROETHANE              | 75-00-3    | 1.1                 | 5.5 | UG/KG                | U             | UJ                   | S                         |
| CHLOROFORM                | 67-66-3    | 0.55                | 5.5 | UG/KG                | U             | UJ                   | S                         |
| CHLOROMETHANE             | 74-87-3    | 0.55                | 5.5 | UG/KG                | U             | UJ                   | S                         |
| CIS-1,3-DICHLOROPROPENE   | 10061-01-5 | 0.55                | 5.5 | UG/KG                | U             | UJ                   | S                         |
| DIBROMOCHLOROMETHANE      | 124-48-1   | 1.1                 | 5.5 | UG/KG                | U             | UJ                   | S                         |
| ETHYLBENZENE              | 100-41-4   | 0.55                | 5.5 | UG/KG                | U             | UJ                   | S                         |
| METHYL ETHYL KETONE       | 78-93-3    | 2.2                 | 22  | UG/KG                | U             | UJ                   | S                         |
| METHYL ISOBUTYL KETONE    | 108-10-1   | 1.1                 | 22  | UG/KG                | U             | UJ                   | S                         |
| METHYLENE CHLORIDE        | 75-09-2    | 2                   | 5.5 | UG/KG                | J B           | UJ                   | B, S                      |
| STYRENE                   | 100-42-5   | 0.55                | 5.5 | UG/KG                | U             | UJ                   | S                         |

## Sample Delivery Group: 240-22559-1\_78\_SB

|                           |            |      |     |       |   |    |   |
|---------------------------|------------|------|-----|-------|---|----|---|
| TETRACHLOROETHYLENE       | 127-18-4   | 1.1  | 5.5 | UG/KG | U | UJ | S |
| TOLUENE                   | 108-88-3   | 0.3  | 5.5 | UG/KG | J | J  | S |
| TOTAL 1,2-DICHLOROETHENE  | 540-59-0   | 1.1  | 11  | UG/KG | U | UJ | S |
| TRANS-1,3-DICHLOROPROPENE | 10061-02-6 | 1.1  | 5.5 | UG/KG | U | UJ | S |
| TRICHLOROETHYLENE         | 79-01-6    | 0.55 | 5.5 | UG/KG | U | UJ | S |
| VINYL CHLORIDE            | 75-01-4    | 0.55 | 5.5 | UG/KG | U | UJ | S |
| XYLENES, TOTAL            |            | 1.7  | 11  | UG/KG | U | UJ | S |

**Sample Name** 078SB-0016M-0001-SO

**AnalysisType:** N

**Lab Sample Name:** 240-22559-14

**Validation Level:** IV

| Analyte                   | CAS No     | Result Value | LOQ | Result | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
|---------------------------|------------|--------------|-----|--------|---------------|----------------------|---------------------------|
| 1,1,1-TRICHLOROETHANE     | 71-55-6    | 0.95         | 4.8 | UG/KG  | U             | U                    |                           |
| 1,1,2,2-TETRACHLOROETHANE | 79-34-5    | 0.48         | 4.8 | UG/KG  | U             | U                    |                           |
| 1,1,2-TRICHLOROETHANE     | 79-00-5    | 0.48         | 4.8 | UG/KG  | U             | U                    |                           |
| 1,1-DICHLOROETHANE        | 75-34-3    | 0.48         | 4.8 | UG/KG  | U             | U                    |                           |
| 1,1-DICHLOROETHENE        | 75-35-4    | 0.95         | 4.8 | UG/KG  | U             | U                    |                           |
| 1,2-DIBROMOETHANE         | 106-93-4   | 0.95         | 4.8 | UG/KG  | U             | U                    |                           |
| 1,2-DICHLOROETHANE        | 107-06-2   | 0.48         | 4.8 | UG/KG  | U             | U                    |                           |
| 1,2-DICHLOROPROPANE       | 78-87-5    | 0.95         | 4.8 | UG/KG  | U             | U                    |                           |
| 2-HEXANONE                | 591-78-6   | 0.95         | 19  | UG/KG  | U             | U                    |                           |
| ACETONE                   | 67-64-1    | 6            | 19  | UG/KG  | U             | U                    |                           |
| BENZENE                   | 71-43-2    | 0.48         | 4.8 | UG/KG  | U             | U                    |                           |
| BROMOCHLOROMETHANE        | 74-97-5    | 0.95         | 4.8 | UG/KG  | U             | U                    |                           |
| BROMODICHLOROMETHANE      | 75-27-4    | 0.48         | 4.8 | UG/KG  | U             | U                    |                           |
| BROMOFORM                 | 75-25-2    | 0.48         | 4.8 | UG/KG  | U             | U                    |                           |
| BROMOMETHANE              | 74-83-9    | 0.95         | 4.8 | UG/KG  | U             | U                    |                           |
| CARBON DISULFIDE          | 75-15-0    | 0.48         | 4.8 | UG/KG  | U             | U                    |                           |
| CARBON TETRACHLORIDE      | 56-23-5    | 0.48         | 4.8 | UG/KG  | U             | U                    |                           |
| CHLOROBENZENE             | 108-90-7   | 0.48         | 4.8 | UG/KG  | U             | U                    |                           |
| CHLOROETHANE              | 75-00-3    | 0.95         | 4.8 | UG/KG  | U             | U                    |                           |
| CHLOROFORM                | 67-66-3    | 0.48         | 4.8 | UG/KG  | U             | U                    |                           |
| CHLOROMETHANE             | 74-87-3    | 0.48         | 4.8 | UG/KG  | U             | U                    |                           |
| CIS-1,3-DICHLOROPROPENE   | 10061-01-5 | 0.48         | 4.8 | UG/KG  | U             | U                    |                           |

*Sample Delivery Group: 240-22559-1\_78\_SB*

|                           |            |      |     |       |     |     |
|---------------------------|------------|------|-----|-------|-----|-----|
| DIBROMOCHLOROMETHANE      | 124-48-1   | 0.95 | 4.8 | UG/KG | U   | U   |
| ETHYLBENZENE              | 100-41-4   | 0.48 | 4.8 | UG/KG | U   | U   |
| METHYL ETHYL KETONE       | 78-93-3    | 1.9  | 19  | UG/KG | U   | U   |
| METHYL ISOBUTYL KETONE    | 108-10-1   | 0.95 | 19  | UG/KG | U   | U   |
| METHYLENE CHLORIDE        | 75-09-2    | 1.4  | 4.8 | UG/KG | J B | U B |
| STYRENE                   | 100-42-5   | 0.48 | 4.8 | UG/KG | U   | U   |
| TETRACHLOROETHYLENE       | 127-18-4   | 0.95 | 4.8 | UG/KG | U   | U   |
| TOLUENE                   | 108-88-3   | 0.48 | 4.8 | UG/KG | U   | U   |
| TOTAL 1,2-DICHLOROETHENE  | 540-59-0   | 0.95 | 9.5 | UG/KG | U   | U   |
| TRANS-1,3-DICHLOROPROPENE | 10061-02-6 | 0.95 | 4.8 | UG/KG | U   | U   |
| TRICHLOROETHYLENE         | 79-01-6    | 0.48 | 4.8 | UG/KG | U   | U   |
| VINYL CHLORIDE            | 75-01-4    | 0.48 | 4.8 | UG/KG | U   | U   |
| XYLENES, TOTAL            |            | 1.4  | 9.5 | UG/KG | U   | U   |

Sample Delivery Group: 240-22559-1\_78\_SB

Analysis Method SW8270C

| Sample Name                |           | 078SB-0008M-0001-SO |     | AnalysisType: N      |               |                      |                           |
|----------------------------|-----------|---------------------|-----|----------------------|---------------|----------------------|---------------------------|
| Lab Sample Name:           |           | 240-22559-8         |     | Validation Level: IV |               |                      |                           |
| Analyte                    | CAS No    | Result Value        | LOQ | Result               | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| 1,2,4-TRICHLOROBENZENE     | 120-82-1  | 27                  | 50  | UG/KG                | U             | U                    |                           |
| 1,2-DICHLOROBENZENE        | 95-50-1   | 27                  | 50  | UG/KG                | U             | U                    |                           |
| 1,3-DICHLOROBENZENE        | 541-73-1  | 27                  | 50  | UG/KG                | U             | U                    |                           |
| 1,4-DICHLOROBENZENE        | 106-46-7  | 27                  | 50  | UG/KG                | U             | U                    |                           |
| 2,4,5-TRICHLOROPHENOL      | 95-95-4   | 27                  | 150 | UG/KG                | U             | U                    |                           |
| 2,4,6-TRICHLOROPHENOL      | 88-06-2   | 79                  | 150 | UG/KG                | U             | U                    |                           |
| 2,4-DICHLOROPHENOL         | 120-83-2  | 27                  | 150 | UG/KG                | U             | U                    |                           |
| 2,4-DIMETHYLPHENOL         | 105-67-9  | 79                  | 150 | UG/KG                | U             | U                    |                           |
| 2,4-DINITROPHENOL          | 51-28-5   | 79                  | 330 | UG/KG                | U             | UJ                   | C                         |
| 2,4-DINITROTOLUENE         | 121-14-2  | 27                  | 200 | UG/KG                | U             | U                    |                           |
| 2,6-DINITROTOLUENE         | 606-20-2  | 27                  | 200 | UG/KG                | U             | U                    |                           |
| 2-CHLORONAPHTHALENE        | 91-58-7   | 3.3                 | 50  | UG/KG                | U             | U                    |                           |
| 2-CHLOROPHENOL             | 95-57-8   | 27                  | 50  | UG/KG                | U             | U                    |                           |
| 2-METHYLNAPHTHALENE        | 91-57-6   | 3.7                 | 6.6 | UG/KG                | J             | J                    |                           |
| 2-METHYLPHENOL (O-CRESOL)  | 95-48-7   | 79                  | 200 | UG/KG                | U             | U                    |                           |
| 2-NITROANILINE             | 88-74-4   | 27                  | 200 | UG/KG                | U             | U                    |                           |
| 2-NITROPHENOL              | 88-75-5   | 27                  | 50  | UG/KG                | U             | U                    |                           |
| 3,3'-DICHLOROBENZIDINE     | 91-94-1   | 79                  | 99  | UG/KG                | U             | U                    |                           |
| 3-NITROANILINE             | 99-09-2   | 79                  | 200 | UG/KG                | U             | U                    |                           |
| 4,6-DINITRO-2-METHYLPHENOL | 534-52-1  | 79                  | 150 | UG/KG                | U             | UJ                   | C                         |
| 4-BROMOPHENYL PHENYL ETHE  | 101-55-3  | 27                  | 50  | UG/KG                | U             | U                    |                           |
| 4-CHLORO-3-METHYLPHENOL    | 59-50-7   | 27                  | 150 | UG/KG                | U             | U                    |                           |
| 4-CHLOROANILINE            | 106-47-8  | 27                  | 150 | UG/KG                | U             | U                    |                           |
| 4-CHLOROPHENYL PHENYL ETH  | 7005-72-3 | 27                  | 50  | UG/KG                | U             | U                    |                           |
| 4-NITROANILINE             | 100-01-6  | 27                  | 200 | UG/KG                | U             | U                    |                           |
| 4-NITROPHENOL              | 100-02-7  | 79                  | 330 | UG/KG                | U             | U                    |                           |
| ACENAPHTHENE               | 83-32-9   | 3.3                 | 6.6 | UG/KG                | U             | U                    |                           |
| ACENAPHTHYLENE             | 208-96-8  | 3.3                 | 6.6 | UG/KG                | U             | U                    |                           |

### Sample Delivery Group: 240-22559-1\_78\_SB

|                             |          |     |     |       |   |    |   |
|-----------------------------|----------|-----|-----|-------|---|----|---|
| ANTHRACENE                  | 120-12-7 | 3.3 | 6.6 | UG/KG | U | U  |   |
| BENZO(A)ANTHRACENE          | 56-55-3  | 3.3 | 6.6 | UG/KG | U | U  |   |
| BENZO(A)PYRENE              | 50-32-8  | 3.3 | 6.6 | UG/KG | U | U  |   |
| BENZO(B)FLUORANTHENE        | 205-99-2 | 3.3 | 6.6 | UG/KG | U | U  |   |
| BENZO(G,H,I)PERYLENE        | 191-24-2 | 3.3 | 6.6 | UG/KG | U | UJ | C |
| BENZO(K)FLUORANTHENE        | 207-08-9 | 3.3 | 6.6 | UG/KG | U | U  |   |
| BENZOIC ACID                | 65-85-0  | 330 | 660 | UG/KG | U | U  |   |
| BENZYL ALCOHOL              | 100-51-6 | 27  | 330 | UG/KG | U | U  |   |
| BENZYL BUTYL PHTHALATE      | 85-68-7  | 27  | 50  | UG/KG | U | U  |   |
| BIS(2-CHLOROETHOXY) METHA   | 111-91-1 | 27  | 99  | UG/KG | U | U  |   |
| BIS(2-CHLOROETHYL) ETHER    | 111-44-4 | 3.3 | 99  | UG/KG | U | U  |   |
| BIS(2-CHLOROISOPROPYL) ETHE | 108-60-1 | 27  | 99  | UG/KG | U | U  |   |
| BIS(2-ETHYLHEXYL) PHTHALAT  | 117-81-7 | 54  | 50  | UG/KG |   |    |   |
| CARBAZOLE                   | 86-74-8  | 27  | 50  | UG/KG | U | U  |   |
| CHRYSENE                    | 218-01-9 | 3.3 | 6.6 | UG/KG | U | U  |   |
| CRESOLS, M & P              |          | 79  | 400 | UG/KG | U | U  |   |
| DIBENZ(A,H)ANTHRACENE       | 53-70-3  | 3.3 | 6.6 | UG/KG | U | U  |   |
| DIBENZOFURAN                | 132-64-9 | 3.3 | 50  | UG/KG | U | U  |   |
| DIETHYL PHTHALATE           | 84-66-2  | 27  | 50  | UG/KG | U | U  |   |
| DIMETHYL PHTHALATE          | 131-11-3 | 27  | 50  | UG/KG | U | U  |   |
| DI-N-BUTYL PHTHALATE        | 84-74-2  | 27  | 50  | UG/KG | U | U  |   |
| DI-N-OCTYLPHTHALATE         | 117-84-0 | 27  | 50  | UG/KG | U | U  |   |
| FLUORANTHENE                | 206-44-0 | 3.3 | 6.6 | UG/KG | U | U  |   |
| FLUORENE                    | 86-73-7  | 3.3 | 6.6 | UG/KG | U | U  |   |
| HEXACHLOROBENZENE           | 118-74-1 | 3.3 | 6.6 | UG/KG | U | U  |   |
| HEXACHLOROBUTADIENE         | 87-68-3  | 27  | 50  | UG/KG | U | U  |   |
| HEXACHLOROCYCLOPENTADIE     | 77-47-4  | 27  | 330 | UG/KG | U | U  |   |
| HEXACHLOROETHANE            | 67-72-1  | 27  | 50  | UG/KG | U | UJ | C |
| INDENO(1,2,3-C,D)PYRENE     | 193-39-5 | 3.3 | 6.6 | UG/KG | U | U  |   |
| ISOPHORONE                  | 78-59-1  | 27  | 50  | UG/KG | U | U  |   |
| NAPHTHALENE                 | 91-20-3  | 3.9 | 6.6 | UG/KG | J | J  |   |
| NITROBENZENE                | 98-95-3  | 3.3 | 99  | UG/KG | U | U  |   |
| N-NITROSODI-N-PROPYLAMINE   | 621-64-7 | 27  | 50  | UG/KG | U | U  |   |



## Sample Delivery Group: 240-22559-1\_78\_SB

|                        |          |     |     |       |   |   |
|------------------------|----------|-----|-----|-------|---|---|
| N-NITROSODIPHENYLAMINE | 86-30-6  | 27  | 50  | UG/KG | U | U |
| PENTACHLOROPHENOL      | 87-86-5  | 79  | 150 | UG/KG | U | U |
| PHENANTHRENE           | 85-01-8  | 3.3 | 6.6 | UG/KG | U | U |
| PHENOL                 | 108-95-2 | 27  | 50  | UG/KG | U | U |
| PYRENE                 | 129-00-0 | 3.3 | 6.6 | UG/KG | U | U |

**Sample Name** 078SB-0016M-0001-SO

**AnalysisType:** N

**Lab Sample Name:** 240-22559-14

**Validation Level:** IV

| Analyte                    | CAS No    | Result Value | LOQ | Result | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
|----------------------------|-----------|--------------|-----|--------|---------------|----------------------|---------------------------|
| 1,2,4-TRICHLOROBENZENE     | 120-82-1  | 27           | 50  | UG/KG  | U             | U                    |                           |
| 1,2-DICHLOROBENZENE        | 95-50-1   | 27           | 50  | UG/KG  | U             | U                    |                           |
| 1,3-DICHLOROBENZENE        | 541-73-1  | 27           | 50  | UG/KG  | U             | U                    |                           |
| 1,4-DICHLOROBENZENE        | 106-46-7  | 27           | 50  | UG/KG  | U             | U                    |                           |
| 2,4,5-TRICHLOROPHENOL      | 95-95-4   | 27           | 150 | UG/KG  | U             | U                    |                           |
| 2,4,6-TRICHLOROPHENOL      | 88-06-2   | 80           | 150 | UG/KG  | U             | U                    |                           |
| 2,4-DICHLOROPHENOL         | 120-83-2  | 27           | 150 | UG/KG  | U             | U                    |                           |
| 2,4-DIMETHYLPHENOL         | 105-67-9  | 80           | 150 | UG/KG  | U             | U                    |                           |
| 2,4-DINITROPHENOL          | 51-28-5   | 80           | 330 | UG/KG  | U             | UJ                   | C                         |
| 2,4-DINITROTOLUENE         | 121-14-2  | 27           | 200 | UG/KG  | U             | U                    |                           |
| 2,6-DINITROTOLUENE         | 606-20-2  | 27           | 200 | UG/KG  | U             | U                    |                           |
| 2-CHLORONAPHTHALENE        | 91-58-7   | 3.3          | 50  | UG/KG  | U             | U                    |                           |
| 2-CHLOROPHENOL             | 95-57-8   | 27           | 50  | UG/KG  | U             | U                    |                           |
| 2-METHYLNAPHTHALENE        | 91-57-6   | 11           | 6.6 | UG/KG  |               |                      |                           |
| 2-METHYLPHENOL (O-CRESOL)  | 95-48-7   | 80           | 200 | UG/KG  | U             | U                    |                           |
| 2-NITROANILINE             | 88-74-4   | 27           | 200 | UG/KG  | U             | U                    |                           |
| 2-NITROPHENOL              | 88-75-5   | 27           | 50  | UG/KG  | U             | U                    |                           |
| 3,3'-DICHLOROBENZIDINE     | 91-94-1   | 80           | 100 | UG/KG  | U             | U                    |                           |
| 3-NITROANILINE             | 99-09-2   | 80           | 200 | UG/KG  | U             | U                    |                           |
| 4,6-DINITRO-2-METHYLPHENOL | 534-52-1  | 80           | 150 | UG/KG  | U             | UJ                   | C                         |
| 4-BROMOPHENYL PHENYL ETHER | 101-55-3  | 27           | 50  | UG/KG  | U             | U                    |                           |
| 4-CHLORO-3-METHYLPHENOL    | 59-50-7   | 27           | 150 | UG/KG  | U             | U                    |                           |
| 4-CHLOROANILINE            | 106-47-8  | 27           | 150 | UG/KG  | U             | U                    |                           |
| 4-CHLOROPHENYL PHENYL ETH  | 7005-72-3 | 27           | 50  | UG/KG  | U             | U                    |                           |

## Sample Delivery Group: 240-22559-1\_78\_SB

|                             |          |     |     |       |   |    |   |
|-----------------------------|----------|-----|-----|-------|---|----|---|
| 4-NITROANILINE              | 100-01-6 | 27  | 200 | UG/KG | U | U  |   |
| 4-NITROPHENOL               | 100-02-7 | 80  | 330 | UG/KG | U | U  |   |
| ACENAPHTHENE                | 83-32-9  | 3.3 | 6.6 | UG/KG | U | U  |   |
| ACENAPHTHYLENE              | 208-96-8 | 3.3 | 6.6 | UG/KG | U | U  |   |
| ANTHRACENE                  | 120-12-7 | 3.3 | 6.6 | UG/KG | U | U  |   |
| BENZO(A)ANTHRACENE          | 56-55-3  | 3.3 | 6.6 | UG/KG | U | U  |   |
| BENZO(A)PYRENE              | 50-32-8  | 7.5 | 6.6 | UG/KG |   |    |   |
| BENZO(B)FLUORANTHENE        | 205-99-2 | 19  | 6.6 | UG/KG | M |    |   |
| BENZO(G,H,I)PERYLENE        | 191-24-2 | 7.6 | 6.6 | UG/KG |   | J  | C |
| BENZO(K)FLUORANTHENE        | 207-08-9 | 3.3 | 6.6 | UG/KG | U | U  |   |
| BENZOIC ACID                | 65-85-0  | 330 | 660 | UG/KG | U | U  |   |
| BENZYL ALCOHOL              | 100-51-6 | 27  | 330 | UG/KG | U | U  |   |
| BENZYL BUTYL PHTHALATE      | 85-68-7  | 27  | 50  | UG/KG | U | U  |   |
| BIS(2-CHLOROETHOXY) METHA   | 111-91-1 | 27  | 100 | UG/KG | U | U  |   |
| BIS(2-CHLOROETHYL) ETHER    | 111-44-4 | 3.3 | 100 | UG/KG | U | U  |   |
| BIS(2-CHLOROISOPROPYL) ETHE | 108-60-1 | 27  | 100 | UG/KG | U | U  |   |
| BIS(2-ETHYLHEXYL) PHTHALAT  | 117-81-7 | 55  | 50  | UG/KG |   |    |   |
| CARBAZOLE                   | 86-74-8  | 27  | 50  | UG/KG | U | U  |   |
| CHRYSENE                    | 218-01-9 | 3.3 | 6.6 | UG/KG | U | U  |   |
| CRESOLS, M & P              |          | 80  | 400 | UG/KG | U | U  |   |
| DIBENZ(A,H)ANTHRACENE       | 53-70-3  | 3.3 | 6.6 | UG/KG | U | U  |   |
| DIBENZOFURAN                | 132-64-9 | 3.3 | 50  | UG/KG | U | U  |   |
| DIETHYL PHTHALATE           | 84-66-2  | 27  | 50  | UG/KG | U | U  |   |
| DIMETHYL PHTHALATE          | 131-11-3 | 27  | 50  | UG/KG | U | U  |   |
| DI-N-BUTYL PHTHALATE        | 84-74-2  | 27  | 50  | UG/KG | U | U  |   |
| DI-N-OCTYLPHTHALATE         | 117-84-0 | 27  | 50  | UG/KG | U | U  |   |
| FLUORANTHENE                | 206-44-0 | 16  | 6.6 | UG/KG |   |    |   |
| FLUORENE                    | 86-73-7  | 3.3 | 6.6 | UG/KG | U | U  |   |
| HEXACHLOROBENZENE           | 118-74-1 | 3.3 | 6.6 | UG/KG | U | U  |   |
| HEXACHLOROBUTADIENE         | 87-68-3  | 27  | 50  | UG/KG | U | U  |   |
| HEXACHLOROCYCLOPENTADIE     | 77-47-4  | 27  | 330 | UG/KG | U | U  |   |
| HEXACHLOROETHANE            | 67-72-1  | 27  | 50  | UG/KG | U | UJ | C |
| INDENO(1,2,3-C,D)PYRENE     | 193-39-5 | 3.3 | 6.6 | UG/KG | U | U  |   |

## Sample Delivery Group: 240-22559-1\_78\_SB

|                           |          |     |     |       |   |   |
|---------------------------|----------|-----|-----|-------|---|---|
| ISOPHORONE                | 78-59-1  | 27  | 50  | UG/KG | U | U |
| NAPHTHALENE               | 91-20-3  | 5.9 | 6.6 | UG/KG | J | J |
| NITROBENZENE              | 98-95-3  | 3.3 | 100 | UG/KG | U | U |
| N-NITROSODI-N-PROPYLAMINE | 621-64-7 | 27  | 50  | UG/KG | U | U |
| N-NITROSODIPHENYLAMINE    | 86-30-6  | 27  | 50  | UG/KG | U | U |
| PENTACHLOROPHENOL         | 87-86-5  | 80  | 150 | UG/KG | U | U |
| PHENANTHRENE              | 85-01-8  | 34  | 6.6 | UG/KG |   |   |
| PHENOL                    | 108-95-2 | 27  | 50  | UG/KG | U | U |
| PYRENE                    | 129-00-0 | 16  | 6.6 | UG/KG |   |   |

## Analysis Method SW8330B

**Sample Name** 078SB-0016M-0001-SO

**AnalysisType:** N

**Lab Sample Name:** 240-22559-14

**Validation Level:** IV

| Analyte                    | CAS No     | Result Value | LOQ  | Result | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
|----------------------------|------------|--------------|------|--------|---------------|----------------------|---------------------------|
| 1,3,5-TRINITROBENZENE      | 99-35-4    | 0.05         | 0.25 | MG/KG  | U             | U                    |                           |
| 1,3-DINITROBENZENE         | 99-65-0    | 0.05         | 0.25 | MG/KG  | U             | U                    |                           |
| 2,4,6-TRINITROTOLUENE      | 118-96-7   | 0.05         | 0.25 | MG/KG  | U             | U                    |                           |
| 2,4-DINITROTOLUENE         | 121-14-2   | 0.05         | 0.25 | MG/KG  | U             | R                    | D                         |
| 2,6-DINITROTOLUENE         | 606-20-2   | 0.05         | 0.25 | MG/KG  | U             | R                    | D                         |
| 2-AMINO-4,6-DINITROTOLUENE | 35572-78-2 | 0.05         | 0.25 | MG/KG  | U             | U                    |                           |
| 2-NITROTOLUENE             | 88-72-2    | 0.05         | 0.25 | MG/KG  | U             | U                    |                           |
| 3-NITROTOLUENE             | 99-08-1    | 0.05         | 0.25 | MG/KG  | U             | U                    |                           |
| 4-AMINO-2,6-DINITROTOLUENE | 19406-51-0 | 0.05         | 0.25 | MG/KG  | U             | U                    |                           |
| 4-NITROTOLUENE             | 99-99-0    | 0.05         | 0.25 | MG/KG  | U             | U                    |                           |
| HMX                        | 2691-41-0  | 0.05         | 0.25 | MG/KG  | U             | U                    |                           |
| NITROBENZENE               | 98-95-3    | 0.05         | 0.25 | MG/KG  | U             | R                    | D                         |
| NITROGLYCERIN              | 55-63-0    | 0.25         | 0.5  | MG/KG  | U             | U                    |                           |
| NITROGUANIDINE             | 556-88-7   | 0.039        | 0.25 | MG/KG  | U             | U                    |                           |
| PETN                       | 78-11-5    | 0.25         | 0.5  | MG/KG  | U             | U                    |                           |
| RDX                        | 121-82-4   | 0.05         | 0.25 | MG/KG  | U             | U                    |                           |
| TETRYL                     | 479-45-8   | 0.05         | 0.25 | MG/KG  | U             | U                    |                           |

Validated Sample Result Forms for Sampling : Ravenna Army  
Ammunition Plant Ravenna, Ohio  
Remediation Investigation Compliance Restoration Site: RVAAP-79  
DLA Ore Storage Site-Main Ore Storage Yard

*Sample Delivery Group:* 240-22274-1

*Analysis Method* SW6020

| <b>Sample Name</b>      |           | 079SD-0305-0001-SD |       | <b>AnalysisType:</b> N      |               |                      |                           |
|-------------------------|-----------|--------------------|-------|-----------------------------|---------------|----------------------|---------------------------|
| <b>Lab Sample Name:</b> |           | 240-22274-3        |       | <b>Validation Level:</b> IV |               |                      |                           |
| Analyte                 | CAS No    | Result Value       | LOQ   | Result                      | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| ALUMINUM                | 7429-90-5 | 12000              | 5     | MG/KG                       | J             |                      |                           |
| ANTIMONY                | 7440-36-0 | 0.14               | 0.33  | MG/KG                       | J             | J-                   | Q                         |
| ARSENIC                 | 7440-38-2 | 240                | 0.17  | MG/KG                       | J             |                      |                           |
| BARIUM                  | 7440-39-3 | 71                 | 1.7   | MG/KG                       | Q             | J                    | M                         |
| BERYLLIUM               | 7440-41-7 | 0.65               | 0.17  | MG/KG                       |               |                      |                           |
| CADMIUM                 | 7440-43-9 | 0.35               | 0.17  | MG/KG                       |               |                      |                           |
| CALCIUM                 | 7440-70-2 | 2400               | 17    | MG/KG                       |               | J                    | E                         |
| CHROMIUM                | 7440-47-3 | 28                 | 0.33  | MG/KG                       |               |                      |                           |
| COBALT                  | 7440-48-4 | 8.6                | 0.083 | MG/KG                       | Q             |                      |                           |
| COPPER                  | 7440-50-8 | 21                 | 0.33  | MG/KG                       | Q             |                      |                           |
| IRON                    | 7439-89-6 | 21000              | 8.3   | MG/KG                       | J             |                      |                           |
| LEAD                    | 7439-92-1 | 51                 | 0.17  | MG/KG                       | J             |                      |                           |
| MAGNESIUM               | 7439-95-4 | 2800               | 17    | MG/KG                       |               |                      |                           |
| MANGANESE               | 7439-96-5 | 710                | 0.83  | MG/KG                       | Q             |                      |                           |
| NICKEL                  | 7440-02-0 | 29                 | 0.17  | MG/KG                       |               |                      |                           |
| POTASSIUM               | 7440-09-7 | 1500               | 17    | MG/KG                       |               |                      |                           |
| SELENIUM                | 7782-49-2 | 0.61               | 0.83  | MG/KG                       | J Q           | J-                   | B                         |
| SILVER                  | 7440-22-4 | 0.08               | 0.17  | MG/KG                       | J             | J                    |                           |
| SODIUM                  | 7440-23-5 | 67                 | 17    | MG/KG                       |               |                      |                           |
| THALLIUM                | 7440-28-0 | 0.17               | 0.17  | MG/KG                       |               |                      |                           |
| VANADIUM                | 7440-62-2 | 27                 | 0.17  | MG/KG                       |               |                      |                           |
| ZINC                    | 7440-66-6 | 80                 | 0.83  | MG/KG                       | Q             |                      |                           |

*Sample Delivery Group: 240-22274-1*

*Analysis Method SW7471A*

|                         |               |                     |            |                             |                      |                             |                                  |
|-------------------------|---------------|---------------------|------------|-----------------------------|----------------------|-----------------------------|----------------------------------|
| <b>Sample Name</b>      |               | 079SD-0305-0001-SD  |            | <b>AnalysisType:</b> N      |                      |                             |                                  |
| <b>Lab Sample Name:</b> |               | 240-22274-3         |            | <b>Validation Level:</b> IV |                      |                             |                                  |
| <b>Analyte</b>          | <b>CAS No</b> | <b>Result Value</b> | <b>LOQ</b> | <b>Result</b>               | <b>Lab Qualifier</b> | <b>Validation Qualifier</b> | <b>Validation Qualifier Code</b> |
| MERCURY                 | 7439-97-6     | 0.046               | 0.19       | MG/KG                       | J                    | J                           |                                  |

# Sample Delivery Group: 240-22281-1

## Analysis Method SW6020

| <b>Sample Name</b>      |           | 079SB-0245M-0001-SO |       | <b>AnalysisType:</b> N      |               |                      |                           |
|-------------------------|-----------|---------------------|-------|-----------------------------|---------------|----------------------|---------------------------|
| <b>Lab Sample Name:</b> |           | 240-22281-1         |       | <b>Validation Level:</b> IV |               |                      |                           |
| Analyte                 | CAS No    | Result Value        | LOQ   | Result                      | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| ALUMINUM                | 7429-90-5 | 4500                | 2.9   | MG/KG                       |               |                      |                           |
| ANTIMONY                | 7440-36-0 | 0.097               | 0.19  | MG/KG                       | U             | UJ                   | Q                         |
| ARSENIC                 | 7440-38-2 | 5                   | 0.097 | MG/KG                       |               | J-                   | Q, A                      |
| BARIUM                  | 7440-39-3 | 25                  | 0.97  | MG/KG                       | Q             |                      |                           |
| BERYLLIUM               | 7440-41-7 | 0.26                | 0.097 | MG/KG                       |               |                      |                           |
| CADMIUM                 | 7440-43-9 | 0.046               | 0.097 | MG/KG                       | J             | J                    |                           |
| CALCIUM                 | 7440-70-2 | 260                 | 9.7   | MG/KG                       |               |                      |                           |
| CHROMIUM                | 7440-47-3 | 6                   | 0.19  | MG/KG                       |               |                      |                           |
| COBALT                  | 7440-48-4 | 4.8                 | 0.049 | MG/KG                       | Q             |                      |                           |
| COPPER                  | 7440-50-8 | 6.4                 | 0.19  | MG/KG                       | Q             |                      |                           |
| IRON                    | 7439-89-6 | 10000               | 4.9   | MG/KG                       |               |                      |                           |
| LEAD                    | 7439-92-1 | 5.2                 | 0.097 | MG/KG                       | Q             |                      |                           |
| MAGNESIUM               | 7439-95-4 | 940                 | 9.7   | MG/KG                       |               |                      |                           |
| MANGANESE               | 7439-96-5 | 270                 | 0.49  | MG/KG                       | Q             |                      |                           |
| NICKEL                  | 7440-02-0 | 10                  | 0.097 | MG/KG                       |               |                      |                           |
| POTASSIUM               | 7440-09-7 | 420                 | 9.7   | MG/KG                       |               |                      |                           |
| SELENIUM                | 7782-49-2 | 0.067               | 0.49  | MG/KG                       | J             | J-                   | B, Q                      |
| SILVER                  | 7440-22-4 | 0.029               | 0.097 | MG/KG                       | U Q           | U                    |                           |
| SODIUM                  | 7440-23-5 | 26                  | 9.7   | MG/KG                       |               |                      |                           |
| THALLIUM                | 7440-28-0 | 0.084               | 0.097 | MG/KG                       | J             | J                    |                           |
| VANADIUM                | 7440-62-2 | 7.9                 | 0.097 | MG/KG                       |               |                      |                           |
| ZINC                    | 7440-66-6 | 19                  | 0.49  | MG/KG                       | Q             | J-                   | Q, A                      |

| <b>Sample Name</b>      |           | 079SB-0247M-0001-SO |     | <b>AnalysisType:</b> N      |               |                      |                           |
|-------------------------|-----------|---------------------|-----|-----------------------------|---------------|----------------------|---------------------------|
| <b>Lab Sample Name:</b> |           | 240-22281-4         |     | <b>Validation Level:</b> IV |               |                      |                           |
| Analyte                 | CAS No    | Result Value        | LOQ | Result                      | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| ALUMINUM                | 7429-90-5 | 2100                | 2.9 | MG/KG                       |               |                      |                           |
| ANTIMONY                | 7440-36-0 | 0.19                | 0.2 | MG/KG                       | J             | J-                   | Q                         |

## Sample Delivery Group: 240-22281-1

|           |           |       |       |       |     |    |      |
|-----------|-----------|-------|-------|-------|-----|----|------|
| ARSENIC   | 7440-38-2 | 4.7   | 0.098 | MG/KG |     | J- | Q, A |
| BARIUM    | 7440-39-3 | 45    | 0.98  | MG/KG | Q   |    |      |
| BERYLLIUM | 7440-41-7 | 0.14  | 0.098 | MG/KG |     |    |      |
| CADMIUM   | 7440-43-9 | 0.055 | 0.098 | MG/KG | J   | J  |      |
| CALCIUM   | 7440-70-2 | 210   | 9.8   | MG/KG |     |    |      |
| CHROMIUM  | 7440-47-3 | 7.8   | 0.2   | MG/KG |     |    |      |
| COBALT    | 7440-48-4 | 4.5   | 0.049 | MG/KG | Q   |    |      |
| COPPER    | 7440-50-8 | 3.6   | 0.2   | MG/KG | Q   |    |      |
| IRON      | 7439-89-6 | 6800  | 4.9   | MG/KG |     |    |      |
| LEAD      | 7439-92-1 | 3.6   | 0.098 | MG/KG | Q   |    |      |
| MAGNESIUM | 7439-95-4 | 450   | 9.8   | MG/KG |     |    |      |
| MANGANESE | 7439-96-5 | 950   | 0.49  | MG/KG | Q   |    |      |
| NICKEL    | 7440-02-0 | 11    | 0.098 | MG/KG |     |    |      |
| POTASSIUM | 7440-09-7 | 350   | 9.8   | MG/KG |     |    |      |
| SELENIUM  | 7782-49-2 | 0.098 | 0.49  | MG/KG | U   | UJ | B, Q |
| SILVER    | 7440-22-4 | 0.029 | 0.098 | MG/KG | U Q | U  |      |
| SODIUM    | 7440-23-5 | 24    | 9.8   | MG/KG |     |    |      |
| THALLIUM  | 7440-28-0 | 0.061 | 0.098 | MG/KG | J   | J  |      |
| VANADIUM  | 7440-62-2 | 4.2   | 0.098 | MG/KG |     |    |      |
| ZINC      | 7440-66-6 | 21    | 0.49  | MG/KG | Q   | J- | Q, A |

**Sample Name** 079SB-0252M-0001-SO

**AnalysisType:** N

**Lab Sample Name:** 240-22281-10

**Validation Level:** IV

| Analyte   | CAS No    | Result Value | LOQ   | Result | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
|-----------|-----------|--------------|-------|--------|---------------|----------------------|---------------------------|
| ALUMINUM  | 7429-90-5 | 4500         | 2.9   | MG/KG  |               |                      |                           |
| ANTIMONY  | 7440-36-0 | 0.097        | 0.19  | MG/KG  | U             | UJ                   | Q                         |
| ARSENIC   | 7440-38-2 | 12           | 0.097 | MG/KG  |               | J-                   | Q, A                      |
| BARIUM    | 7440-39-3 | 20           | 0.97  | MG/KG  | Q             |                      |                           |
| BERYLLIUM | 7440-41-7 | 0.24         | 0.097 | MG/KG  |               |                      |                           |
| CADMIUM   | 7440-43-9 | 0.066        | 0.097 | MG/KG  | J             | J                    |                           |
| CALCIUM   | 7440-70-2 | 150          | 9.7   | MG/KG  |               |                      |                           |
| CHROMIUM  | 7440-47-3 | 7.2          | 0.19  | MG/KG  |               |                      |                           |
| COBALT    | 7440-48-4 | 3.9          | 0.049 | MG/KG  | Q             |                      |                           |

## Sample Delivery Group: 240-22281-1

|           |           |       |       |       |     |    |      |
|-----------|-----------|-------|-------|-------|-----|----|------|
| COPPER    | 7440-50-8 | 6.4   | 0.19  | MG/KG | Q   |    |      |
| IRON      | 7439-89-6 | 11000 | 4.9   | MG/KG |     |    |      |
| LEAD      | 7439-92-1 | 5.1   | 0.097 | MG/KG | Q   |    |      |
| MAGNESIUM | 7439-95-4 | 900   | 9.7   | MG/KG |     |    |      |
| MANGANESE | 7439-96-5 | 150   | 0.49  | MG/KG | Q   |    |      |
| NICKEL    | 7440-02-0 | 11    | 0.097 | MG/KG |     |    |      |
| POTASSIUM | 7440-09-7 | 520   | 9.7   | MG/KG |     |    |      |
| SELENIUM  | 7782-49-2 | 0.07  | 0.49  | MG/KG | J   | J- | B, Q |
| SILVER    | 7440-22-4 | 0.029 | 0.097 | MG/KG | U Q | U  |      |
| SODIUM    | 7440-23-5 | 23    | 9.7   | MG/KG |     | U  | B    |
| THALLIUM  | 7440-28-0 | 0.11  | 0.097 | MG/KG |     |    |      |
| VANADIUM  | 7440-62-2 | 7.7   | 0.097 | MG/KG |     |    |      |
| ZINC      | 7440-66-6 | 22    | 0.49  | MG/KG | Q   | J- | Q, A |

**Sample Name** 079SB-0267M-0001-SO

**AnalysisType:** N

**Lab Sample Name:** 240-22281-20

**Validation Level:** IV

| Analyte   | CAS No    | Result Value | LOQ   | Result | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
|-----------|-----------|--------------|-------|--------|---------------|----------------------|---------------------------|
| ALUMINUM  | 7429-90-5 | 8400         | 3     | MG/KG  |               |                      |                           |
| ANTIMONY  | 7440-36-0 | 0.099        | 0.2   | MG/KG  | U             | UJ                   | Q                         |
| ARSENIC   | 7440-38-2 | 51           | 0.099 | MG/KG  |               | J-                   | Q, A                      |
| BARIUM    | 7440-39-3 | 58           | 0.99  | MG/KG  | Q             |                      |                           |
| BERYLLIUM | 7440-41-7 | 0.57         | 0.099 | MG/KG  |               |                      |                           |
| CADMIUM   | 7440-43-9 | 0.1          | 0.099 | MG/KG  |               |                      |                           |
| CALCIUM   | 7440-70-2 | 3800         | 9.9   | MG/KG  |               |                      |                           |
| CHROMIUM  | 7440-47-3 | 12           | 0.2   | MG/KG  |               |                      |                           |
| COBALT    | 7440-48-4 | 7.3          | 0.05  | MG/KG  | Q             |                      |                           |
| COPPER    | 7440-50-8 | 12           | 0.2   | MG/KG  | Q             |                      |                           |
| IRON      | 7439-89-6 | 18000        | 5     | MG/KG  |               |                      |                           |
| LEAD      | 7439-92-1 | 12           | 0.099 | MG/KG  | Q             |                      |                           |
| MAGNESIUM | 7439-95-4 | 2900         | 9.9   | MG/KG  |               |                      |                           |
| MANGANESE | 7439-96-5 | 390          | 0.5   | MG/KG  | Q             |                      |                           |
| NICKEL    | 7440-02-0 | 17           | 0.099 | MG/KG  |               |                      |                           |
| POTASSIUM | 7440-09-7 | 1300         | 9.9   | MG/KG  |               |                      |                           |



## Sample Delivery Group: 240-22281-1

|          |           |       |       |       |     |    |      |
|----------|-----------|-------|-------|-------|-----|----|------|
| SELENIUM | 7782-49-2 | 0.22  | 0.5   | MG/KG | J   | J- | B, Q |
| SILVER   | 7440-22-4 | 0.018 | 0.099 | MG/KG | J Q | J  |      |
| SODIUM   | 7440-23-5 | 240   | 9.9   | MG/KG |     |    |      |
| THALLIUM | 7440-28-0 | 0.12  | 0.099 | MG/KG |     |    |      |
| VANADIUM | 7440-62-2 | 13    | 0.099 | MG/KG |     |    |      |
| ZINC     | 7440-66-6 | 36    | 0.5   | MG/KG | Q   | J- | Q, A |

**Sample Name** 079SB-0269M-0001-SO

**AnalysisType:** N

**Lab Sample Name:** 240-22281-22

**Validation Level:** IV

| Analyte   | CAS No    | Result Value | LOQ   | Result | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
|-----------|-----------|--------------|-------|--------|---------------|----------------------|---------------------------|
| ALUMINUM  | 7429-90-5 | 2300         | 3     | MG/KG  |               |                      |                           |
| ANTIMONY  | 7440-36-0 | 0.099        | 0.2   | MG/KG  | U             | UJ                   | Q                         |
| ARSENIC   | 7440-38-2 | 27           | 0.099 | MG/KG  |               | J-                   | Q, A                      |
| BARIUM    | 7440-39-3 | 39           | 0.99  | MG/KG  | Q             |                      |                           |
| BERYLLIUM | 7440-41-7 | 0.19         | 0.099 | MG/KG  |               |                      |                           |
| CADMIUM   | 7440-43-9 | 0.035        | 0.099 | MG/KG  | J             | J                    |                           |
| CALCIUM   | 7440-70-2 | 1400         | 9.9   | MG/KG  |               |                      |                           |
| CHROMIUM  | 7440-47-3 | 4.6          | 0.2   | MG/KG  |               |                      |                           |
| COBALT    | 7440-48-4 | 2.7          | 0.05  | MG/KG  | Q             |                      |                           |
| COPPER    | 7440-50-8 | 18           | 0.2   | MG/KG  | Q             |                      |                           |
| IRON      | 7439-89-6 | 6400         | 5     | MG/KG  |               |                      |                           |
| LEAD      | 7439-92-1 | 160          | 0.099 | MG/KG  | Q             |                      |                           |
| MAGNESIUM | 7439-95-4 | 980          | 9.9   | MG/KG  |               |                      |                           |
| MANGANESE | 7439-96-5 | 5000         | 5     | MG/KG  | D Q           |                      |                           |
| NICKEL    | 7440-02-0 | 6.8          | 0.099 | MG/KG  |               |                      |                           |
| POTASSIUM | 7440-09-7 | 490          | 9.9   | MG/KG  |               |                      |                           |
| SELENIUM  | 7782-49-2 | 0.099        | 0.5   | MG/KG  | U             | UJ                   | B, Q                      |
| SILVER    | 7440-22-4 | 0.03         | 0.099 | MG/KG  | U Q           | U                    |                           |
| SODIUM    | 7440-23-5 | 130          | 9.9   | MG/KG  |               |                      |                           |
| THALLIUM  | 7440-28-0 | 0.049        | 0.099 | MG/KG  | J             | J                    |                           |
| VANADIUM  | 7440-62-2 | 5            | 0.099 | MG/KG  |               |                      |                           |
| ZINC      | 7440-66-6 | 17           | 0.5   | MG/KG  | Q             | J-                   | Q, A                      |

## Sample Delivery Group: 240-22281-1

Sample Name 079SB-0272M-0001-SO

AnalysisType: N

Lab Sample Name: 240-22281-26

Validation Level: IV

| Analyte   | CAS No    | Result Value | LOQ  | Result | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
|-----------|-----------|--------------|------|--------|---------------|----------------------|---------------------------|
| ALUMINUM  | 7429-90-5 | 990          | 3    | MG/KG  |               |                      |                           |
| ANTIMONY  | 7440-36-0 | 0.18         | 0.2  | MG/KG  | J             | J-                   | Q                         |
| ARSENIC   | 7440-38-2 | 8.8          | 0.1  | MG/KG  |               | J-                   | Q, A                      |
| BARIUM    | 7440-39-3 | 7.7          | 1    | MG/KG  | Q             |                      |                           |
| BERYLLIUM | 7440-41-7 | 0.088        | 0.1  | MG/KG  | J             | J                    |                           |
| CADMIUM   | 7440-43-9 | 0.11         | 0.1  | MG/KG  |               |                      |                           |
| CALCIUM   | 7440-70-2 | 170          | 10   | MG/KG  |               |                      |                           |
| CHROMIUM  | 7440-47-3 | 4.5          | 0.2  | MG/KG  |               |                      |                           |
| COBALT    | 7440-48-4 | 1.9          | 0.05 | MG/KG  | Q             |                      |                           |
| COPPER    | 7440-50-8 | 2            | 0.2  | MG/KG  | Q             |                      |                           |
| IRON      | 7439-89-6 | 15000        | 5    | MG/KG  |               |                      |                           |
| LEAD      | 7439-92-1 | 2.5          | 0.1  | MG/KG  | Q             |                      |                           |
| MAGNESIUM | 7439-95-4 | 410          | 10   | MG/KG  |               |                      |                           |
| MANGANESE | 7439-96-5 | 300          | 0.5  | MG/KG  | Q             |                      |                           |
| NICKEL    | 7440-02-0 | 6.4          | 0.1  | MG/KG  |               |                      |                           |
| POTASSIUM | 7440-09-7 | 280          | 10   | MG/KG  |               |                      |                           |
| SELENIUM  | 7782-49-2 | 0.1          | 0.5  | MG/KG  | U             | UJ                   | B, Q                      |
| SILVER    | 7440-22-4 | 0.03         | 0.1  | MG/KG  | U Q           | U                    |                           |
| SODIUM    | 7440-23-5 | 24           | 10   | MG/KG  |               |                      |                           |
| THALLIUM  | 7440-28-0 | 0.058        | 0.1  | MG/KG  | J             | J                    |                           |
| VANADIUM  | 7440-62-2 | 2.6          | 0.1  | MG/KG  |               |                      |                           |
| ZINC      | 7440-66-6 | 56           | 0.5  | MG/KG  | Q             | J-                   | Q, A                      |

Sample Delivery Group: 240-22281-1

Analysis Method SW7471A

|                         |               |                     |            |                             |                      |                             |                                  |
|-------------------------|---------------|---------------------|------------|-----------------------------|----------------------|-----------------------------|----------------------------------|
| <b>Sample Name</b>      |               | 079SB-0245M-0001-SO |            | <b>AnalysisType:</b> N      |                      |                             |                                  |
| <b>Lab Sample Name:</b> |               | 240-22281-1         |            | <b>Validation Level:</b> IV |                      |                             |                                  |
| <b>Analyte</b>          | <b>CAS No</b> | <b>Result Value</b> | <b>LOQ</b> | <b>Result</b>               | <b>Lab Qualifier</b> | <b>Validation Qualifier</b> | <b>Validation Qualifier Code</b> |
| MERCURY                 | 7439-97-6     | 0.016               | 0.1        | MG/KG                       | J                    | J                           |                                  |
| <b>Sample Name</b>      |               | 079SB-0247M-0001-SO |            | <b>AnalysisType:</b> N      |                      |                             |                                  |
| <b>Lab Sample Name:</b> |               | 240-22281-4         |            | <b>Validation Level:</b> IV |                      |                             |                                  |
| <b>Analyte</b>          | <b>CAS No</b> | <b>Result Value</b> | <b>LOQ</b> | <b>Result</b>               | <b>Lab Qualifier</b> | <b>Validation Qualifier</b> | <b>Validation Qualifier Code</b> |
| MERCURY                 | 7439-97-6     | 0.031               | 0.095      | MG/KG                       | U                    | U                           |                                  |
| <b>Sample Name</b>      |               | 079SB-0252M-0001-SO |            | <b>AnalysisType:</b> N      |                      |                             |                                  |
| <b>Lab Sample Name:</b> |               | 240-22281-10        |            | <b>Validation Level:</b> IV |                      |                             |                                  |
| <b>Analyte</b>          | <b>CAS No</b> | <b>Result Value</b> | <b>LOQ</b> | <b>Result</b>               | <b>Lab Qualifier</b> | <b>Validation Qualifier</b> | <b>Validation Qualifier Code</b> |
| MERCURY                 | 7439-97-6     | 0.038               | 0.12       | MG/KG                       | U                    | U                           |                                  |
| <b>Sample Name</b>      |               | 079SB-0267M-0001-SO |            | <b>AnalysisType:</b> N      |                      |                             |                                  |
| <b>Lab Sample Name:</b> |               | 240-22281-20        |            | <b>Validation Level:</b> IV |                      |                             |                                  |
| <b>Analyte</b>          | <b>CAS No</b> | <b>Result Value</b> | <b>LOQ</b> | <b>Result</b>               | <b>Lab Qualifier</b> | <b>Validation Qualifier</b> | <b>Validation Qualifier Code</b> |
| MERCURY                 | 7439-97-6     | 0.023               | 0.11       | MG/KG                       | J                    | J                           |                                  |
| <b>Sample Name</b>      |               | 079SB-0269M-0001-SO |            | <b>AnalysisType:</b> N      |                      |                             |                                  |
| <b>Lab Sample Name:</b> |               | 240-22281-22        |            | <b>Validation Level:</b> IV |                      |                             |                                  |
| <b>Analyte</b>          | <b>CAS No</b> | <b>Result Value</b> | <b>LOQ</b> | <b>Result</b>               | <b>Lab Qualifier</b> | <b>Validation Qualifier</b> | <b>Validation Qualifier Code</b> |
| MERCURY                 | 7439-97-6     | 0.034               | 0.1        | MG/KG                       | U                    | U                           |                                  |
| <b>Sample Name</b>      |               | 079SB-0272M-0001-SO |            | <b>AnalysisType:</b> N      |                      |                             |                                  |
| <b>Lab Sample Name:</b> |               | 240-22281-26        |            | <b>Validation Level:</b> IV |                      |                             |                                  |
| <b>Analyte</b>          | <b>CAS No</b> | <b>Result Value</b> | <b>LOQ</b> | <b>Result</b>               | <b>Lab Qualifier</b> | <b>Validation Qualifier</b> | <b>Validation Qualifier Code</b> |
| MERCURY                 | 7439-97-6     | 0.037               | 0.11       | MG/KG                       | U                    | U                           |                                  |

# Sample Delivery Group: 240-22381-1

## Analysis Method SW6020

| Sample Name      |           | 079SB-0217M-0001-SO |       | AnalysisType: N      |               |                      |                           |
|------------------|-----------|---------------------|-------|----------------------|---------------|----------------------|---------------------------|
| Lab Sample Name: |           | 240-22381-19        |       | Validation Level: IV |               |                      |                           |
| Analyte          | CAS No    | Result Value        | LOQ   | Result               | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| ALUMINUM         | 7429-90-5 | 6100                | 2.8   | MG/KG                |               |                      |                           |
| ANTIMONY         | 7440-36-0 | 0.053               | 0.19  | MG/KG                | J             | J-                   | Q                         |
| ARSENIC          | 7440-38-2 | 6.6                 | 0.094 | MG/KG                |               | J-                   | Q                         |
| BARIUM           | 7440-39-3 | 36                  | 0.94  | MG/KG                | Q             | J-                   | E, Q                      |
| BERYLLIUM        | 7440-41-7 | 0.36                | 0.094 | MG/KG                |               |                      |                           |
| CADMIUM          | 7440-43-9 | 0.13                | 0.094 | MG/KG                | Q             |                      |                           |
| CALCIUM          | 7440-70-2 | 330                 | 9.4   | MG/KG                |               |                      |                           |
| CHROMIUM         | 7440-47-3 | 8.2                 | 0.19  | MG/KG                |               |                      |                           |
| COBALT           | 7440-48-4 | 6.9                 | 0.047 | MG/KG                | Q             |                      |                           |
| COPPER           | 7440-50-8 | 11                  | 0.19  | MG/KG                | Q             | J-                   | Q                         |
| IRON             | 7439-89-6 | 15000               | 4.7   | MG/KG                |               |                      |                           |
| LEAD             | 7439-92-1 | 8.6                 | 0.094 | MG/KG                |               | J                    | E                         |
| MAGNESIUM        | 7439-95-4 | 1700                | 9.4   | MG/KG                |               |                      |                           |
| MANGANESE        | 7439-96-5 | 490                 | 0.47  | MG/KG                | Q             | J                    | E                         |
| NICKEL           | 7440-02-0 | 15                  | 0.094 | MG/KG                |               | J-                   | Q                         |
| POTASSIUM        | 7440-09-7 | 690                 | 9.4   | MG/KG                |               |                      |                           |
| SELENIUM         | 7782-49-2 | 0.21                | 0.47  | MG/KG                | J             | J-                   | Q                         |
| SILVER           | 7440-22-4 | 0.02                | 0.094 | MG/KG                | J             | J                    |                           |
| SODIUM           | 7440-23-5 | 32                  | 9.4   | MG/KG                |               | J                    | E                         |
| THALLIUM         | 7440-28-0 | 0.12                | 0.094 | MG/KG                |               | J                    | E                         |
| VANADIUM         | 7440-62-2 | 9.8                 | 0.094 | MG/KG                |               |                      |                           |
| ZINC             | 7440-66-6 | 46                  | 0.47  | MG/KG                | Q             | J-                   | Q, A                      |

| Sample Name      |           | 079SB-0234M-0001-SO |     | AnalysisType: N      |               |                      |                           |
|------------------|-----------|---------------------|-----|----------------------|---------------|----------------------|---------------------------|
| Lab Sample Name: |           | 240-22381-25        |     | Validation Level: IV |               |                      |                           |
| Analyte          | CAS No    | Result Value        | LOQ | Result               | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| ALUMINUM         | 7429-90-5 | 12000               | 3   | MG/KG                |               |                      |                           |
| ANTIMONY         | 7440-36-0 | 0.099               | 0.2 | MG/KG                | U             | R                    | Q                         |

## Sample Delivery Group: 240-22381-1

|           |           |       |       |       |   |    |      |
|-----------|-----------|-------|-------|-------|---|----|------|
| ARSENIC   | 7440-38-2 | 9.9   | 0.099 | MG/KG |   | J- | Q    |
| BARIUM    | 7440-39-3 | 81    | 0.99  | MG/KG | Q | J- | E, Q |
| BERYLLIUM | 7440-41-7 | 0.65  | 0.099 | MG/KG |   |    |      |
| CADMIUM   | 7440-43-9 | 0.15  | 0.099 | MG/KG | Q |    |      |
| CALCIUM   | 7440-70-2 | 750   | 9.9   | MG/KG |   |    |      |
| CHROMIUM  | 7440-47-3 | 19    | 0.2   | MG/KG |   |    |      |
| COBALT    | 7440-48-4 | 13    | 0.05  | MG/KG | Q |    |      |
| COPPER    | 7440-50-8 | 17    | 0.2   | MG/KG | Q | J- | Q    |
| IRON      | 7439-89-6 | 24000 | 5     | MG/KG |   |    |      |
| LEAD      | 7439-92-1 | 14    | 0.099 | MG/KG |   | J  | E    |
| MAGNESIUM | 7439-95-4 | 3800  | 9.9   | MG/KG |   |    |      |
| MANGANESE | 7439-96-5 | 490   | 0.5   | MG/KG | Q | J  | E    |
| NICKEL    | 7440-02-0 | 28    | 0.099 | MG/KG |   | J- | Q    |
| POTASSIUM | 7440-09-7 | 1100  | 9.9   | MG/KG |   |    |      |
| SELENIUM  | 7782-49-2 | 0.23  | 0.5   | MG/KG | J | J- | Q    |
| SILVER    | 7440-22-4 | 0.023 | 0.099 | MG/KG | J | J  |      |
| SODIUM    | 7440-23-5 | 120   | 9.9   | MG/KG |   | J  | E    |
| THALLIUM  | 7440-28-0 | 0.15  | 0.099 | MG/KG |   | J  | E    |
| VANADIUM  | 7440-62-2 | 18    | 0.099 | MG/KG |   |    |      |
| ZINC      | 7440-66-6 | 53    | 0.5   | MG/KG | Q | J- | Q, A |

**Sample Name** 079SB-0236M-0001-SO

**AnalysisType:** N

**Lab Sample Name:** 240-22381-27

**Validation Level:** IV

| Analyte   | CAS No    | Result Value | LOQ  | Result | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
|-----------|-----------|--------------|------|--------|---------------|----------------------|---------------------------|
| ALUMINUM  | 7429-90-5 | 4000         | 3    | MG/KG  |               |                      |                           |
| ANTIMONY  | 7440-36-0 | 0.1          | 0.2  | MG/KG  | U             | R                    | Q                         |
| ARSENIC   | 7440-38-2 | 11           | 0.1  | MG/KG  |               | J-                   | Q                         |
| BARIUM    | 7440-39-3 | 100          | 1    | MG/KG  | Q             | J-                   | E, Q                      |
| BERYLLIUM | 7440-41-7 | 0.25         | 0.1  | MG/KG  |               |                      |                           |
| CADMIUM   | 7440-43-9 | 0.059        | 0.1  | MG/KG  | J Q           | J                    |                           |
| CALCIUM   | 7440-70-2 | 310          | 10   | MG/KG  |               |                      |                           |
| CHROMIUM  | 7440-47-3 | 17           | 0.2  | MG/KG  |               |                      |                           |
| COBALT    | 7440-48-4 | 5.2          | 0.05 | MG/KG  | Q             |                      |                           |

## Sample Delivery Group: 240-22381-1

|           |           |       |     |       |     |    |      |
|-----------|-----------|-------|-----|-------|-----|----|------|
| COPPER    | 7440-50-8 | 7.2   | 0.2 | MG/KG | Q   | J- | Q    |
| IRON      | 7439-89-6 | 12000 | 5   | MG/KG |     |    |      |
| LEAD      | 7439-92-1 | 6.4   | 0.1 | MG/KG |     | J  | E    |
| MAGNESIUM | 7439-95-4 | 1200  | 10  | MG/KG |     |    |      |
| MANGANESE | 7439-96-5 | 2500  | 5   | MG/KG | D Q | J  | E    |
| NICKEL    | 7440-02-0 | 14    | 0.1 | MG/KG |     | J- | Q    |
| POTASSIUM | 7440-09-7 | 620   | 10  | MG/KG |     |    |      |
| SELENIUM  | 7782-49-2 | 0.12  | 0.5 | MG/KG | J   | J- | Q    |
| SILVER    | 7440-22-4 | 0.014 | 0.1 | MG/KG | J   | J  |      |
| SODIUM    | 7440-23-5 | 48    | 10  | MG/KG |     | J  | E    |
| THALLIUM  | 7440-28-0 | 0.18  | 0.1 | MG/KG |     | J  | E    |
| VANADIUM  | 7440-62-2 | 7.6   | 0.1 | MG/KG |     |    |      |
| ZINC      | 7440-66-6 | 24    | 0.5 | MG/KG | Q   | J- | Q, A |

## Analysis Method SW7471A

|                         |               |                     |            |                             |                      |                             |                                  |
|-------------------------|---------------|---------------------|------------|-----------------------------|----------------------|-----------------------------|----------------------------------|
| <b>Sample Name</b>      |               | 079SB-0217M-0001-SO |            | <b>AnalysisType:</b> N      |                      |                             |                                  |
| <b>Lab Sample Name:</b> |               | 240-22381-19        |            | <b>Validation Level:</b> IV |                      |                             |                                  |
| <b>Analyte</b>          | <b>CAS No</b> | <b>Result Value</b> | <b>LOQ</b> | <b>Result</b>               | <b>Lab Qualifier</b> | <b>Validation Qualifier</b> | <b>Validation Qualifier Code</b> |
| MERCURY                 | 7439-97-6     | 0.034               | 0.12       | MG/KG                       | J                    | J                           |                                  |
| <b>Sample Name</b>      |               | 079SB-0234M-0001-SO |            | <b>AnalysisType:</b> N      |                      |                             |                                  |
| <b>Lab Sample Name:</b> |               | 240-22381-25        |            | <b>Validation Level:</b> IV |                      |                             |                                  |
| <b>Analyte</b>          | <b>CAS No</b> | <b>Result Value</b> | <b>LOQ</b> | <b>Result</b>               | <b>Lab Qualifier</b> | <b>Validation Qualifier</b> | <b>Validation Qualifier Code</b> |
| MERCURY                 | 7439-97-6     | 0.025               | 0.09       | MG/KG                       | J                    | J                           |                                  |
| <b>Sample Name</b>      |               | 079SB-0236M-0001-SO |            | <b>AnalysisType:</b> N      |                      |                             |                                  |
| <b>Lab Sample Name:</b> |               | 240-22381-27        |            | <b>Validation Level:</b> IV |                      |                             |                                  |
| <b>Analyte</b>          | <b>CAS No</b> | <b>Result Value</b> | <b>LOQ</b> | <b>Result</b>               | <b>Lab Qualifier</b> | <b>Validation Qualifier</b> | <b>Validation Qualifier Code</b> |
| MERCURY                 | 7439-97-6     | 0.038               | 0.12       | MG/KG                       | U                    | U                           |                                  |

Sample Delivery Group: 240-22662-1

Analysis Method E353.2

|                  |           |                    |     |                      |               |                      |                           |
|------------------|-----------|--------------------|-----|----------------------|---------------|----------------------|---------------------------|
| Sample Name      |           | 079SW-0311-0001-SW |     | AnalysisType: N      |               |                      |                           |
| Lab Sample Name: |           | 240-22662-1        |     | Validation Level: IV |               |                      |                           |
| Analyte          | CAS No    | Result Value       | LOQ | Result               | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| NITROCELLULOSE   | 9004-70-0 | 1                  | 2   | MG/L                 | U             | U                    |                           |

Analysis Method SW6020

|                  |           |                    |     |                      |               |                      |                           |
|------------------|-----------|--------------------|-----|----------------------|---------------|----------------------|---------------------------|
| Sample Name      |           | 079SW-0311-0001-SW |     | AnalysisType: N      |               |                      |                           |
| Lab Sample Name: |           | 240-22662-1        |     | Validation Level: IV |               |                      |                           |
| Analyte          | CAS No    | Result Value       | LOQ | Result               | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| ALUMINUM         | 7429-90-5 | 40                 | 30  | UG/L                 |               |                      |                           |
| ANTIMONY         | 7440-36-0 | 0.9                | 2   | UG/L                 | U             | U                    |                           |
| ARSENIC          | 7440-38-2 | 15                 | 1   | UG/L                 |               |                      |                           |
| BARIUM           | 7440-39-3 | 12                 | 10  | UG/L                 | Q             |                      |                           |
| BERYLLIUM        | 7440-41-7 | 0.09               | 1   | UG/L                 | U             | U                    |                           |
| CADMIUM          | 7440-43-9 | 0.3                | 1   | UG/L                 | U             | U                    |                           |
| CALCIUM          | 7440-70-2 | 14000              | 100 | UG/L                 |               |                      |                           |
| CHROMIUM         | 7440-47-3 | 1.6                | 2   | UG/L                 | J             | J                    |                           |
| COBALT           | 7440-48-4 | 0.044              | 0.5 | UG/L                 | J Q           | J                    |                           |
| COPPER           | 7440-50-8 | 1.4                | 2   | UG/L                 | J Q           | J                    |                           |
| IRON             | 7439-89-6 | 220                | 50  | UG/L                 |               |                      |                           |
| LEAD             | 7439-92-1 | 0.3                | 1   | UG/L                 | J Q           | U                    | B                         |
| MAGNESIUM        | 7439-95-4 | 3000               | 100 | UG/L                 |               |                      |                           |
| MANGANESE        | 7439-96-5 | 12                 | 5   | UG/L                 | Q             |                      |                           |
| NICKEL           | 7440-02-0 | 0.57               | 1   | UG/L                 | J             | J                    |                           |
| POTASSIUM        | 7440-09-7 | 5000               | 100 | UG/L                 |               |                      |                           |
| SELENIUM         | 7782-49-2 | 1                  | 5   | UG/L                 | U             | U                    |                           |
| SILVER           | 7440-22-4 | 0.2                | 1   | UG/L                 | U             | U                    |                           |
| SODIUM           | 7440-23-5 | 2900               | 100 | UG/L                 |               |                      |                           |
| THALLIUM         | 7440-28-0 | 0.2                | 1   | UG/L                 | U             | U                    |                           |
| VANADIUM         | 7440-62-2 | 0.6                | 1   | UG/L                 | U             | U                    |                           |
| ZINC             | 7440-66-6 | 1.8                | 5   | UG/L                 | J Q           | J                    |                           |

Sample Delivery Group: 240-22662-1

Analysis Method SW7470A

| Sample Name      |           | 079SW-0311-0001-SW |     | AnalysisType: N      |               |                      |                           |
|------------------|-----------|--------------------|-----|----------------------|---------------|----------------------|---------------------------|
| Lab Sample Name: |           | 240-22662-1        |     | Validation Level: IV |               |                      |                           |
| Analyte          | CAS No    | Result Value       | LOQ | Result               | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| MERCURY          | 7439-97-6 | 0.2                | 0.2 | UG/L                 | U             | U                    |                           |

Analysis Method SW8081

| Sample Name         |            | 079SW-0311-0001-SW |       | AnalysisType: N      |               |                      |                           |
|---------------------|------------|--------------------|-------|----------------------|---------------|----------------------|---------------------------|
| Lab Sample Name:    |            | 240-22662-1        |       | Validation Level: IV |               |                      |                           |
| Analyte             | CAS No     | Result Value       | LOQ   | Result               | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| ALDRIN              | 309-00-2   | 0.011              | 0.053 | UG/L                 | U             | U                    |                           |
| ALPHA BHC           | 319-84-6   | 0.011              | 0.053 | UG/L                 | U             | U                    |                           |
| ALPHA ENDOSULFAN    | 959-98-8   | 0.014              | 0.053 | UG/L                 | U             | U                    |                           |
| ALPHA-CHLORDANE     | 5103-71-9  | 0.015              | 0.053 | UG/L                 | U             | U                    |                           |
| BETA BHC            | 319-85-7   | 0.011              | 0.053 | UG/L                 | U             | U                    |                           |
| BETA ENDOSULFAN     | 33213-65-9 | 0.013              | 0.053 | UG/L                 | U             | U                    |                           |
| DELTA BHC           | 319-86-8   | 0.011              | 0.053 | UG/L                 | U             | U                    |                           |
| DIELDRIN            | 60-57-1    | 0.011              | 0.053 | UG/L                 | U             | U                    |                           |
| ENDOSULFAN SULFATE  | 1031-07-8  | 0.012              | 0.053 | UG/L                 | U             | U                    |                           |
| ENDRIN              | 72-20-8    | 0.012              | 0.053 | UG/L                 | U             | U                    |                           |
| ENDRIN ALDEHYDE     | 7421-93-4  | 0.012              | 0.053 | UG/L                 | U             | U                    |                           |
| ENDRIN KETONE       | 53494-70-5 | 0.011              | 0.053 | UG/L                 | U             | U                    |                           |
| GAMMA BHC (LINDANE) | 58-89-9    | 0.011              | 0.053 | UG/L                 | U             | U                    |                           |
| GAMMA-CHLORDANE     | 5566-34-7  | 0.013              | 0.053 | UG/L                 | U             | U                    |                           |
| HEPTACHLOR          | 76-44-8    | 0.011              | 0.053 | UG/L                 | U             | U                    |                           |
| HEPTACHLOR EPOXIDE  | 1024-57-3  | 0.011              | 0.053 | UG/L                 | U             | U                    |                           |
| METHOXYCHLOR        | 72-43-5    | 0.034              | 0.11  | UG/L                 | U             | U                    |                           |
| P,P'-DDD            | 72-54-8    | 0.011              | 0.053 | UG/L                 | U             | U                    |                           |
| P,P'-DDE            | 72-55-9    | 0.011              | 0.053 | UG/L                 | U             | U                    |                           |
| P,P'-DDT            | 50-29-3    | 0.032              | 0.053 | UG/L                 | U             | U                    |                           |
| TOXAPHENE           | 8001-35-2  | 0.53               | 2.1   | UG/L                 | U             | UJ                   | C                         |



*Sample Delivery Group: 240-22662-1*

*Analysis Method SW8082*

|                         |               |                     |            |                             |                      |                             |                                  |
|-------------------------|---------------|---------------------|------------|-----------------------------|----------------------|-----------------------------|----------------------------------|
| <b>Sample Name</b>      |               | 079SW-0311-0001-SW  |            | <b>AnalysisType:</b> N      |                      |                             |                                  |
| <b>Lab Sample Name:</b> |               | 240-22662-1         |            | <b>Validation Level:</b> IV |                      |                             |                                  |
| <b>Analyte</b>          | <b>CAS No</b> | <b>Result Value</b> | <b>LOQ</b> | <b>Result</b>               | <b>Lab Qualifier</b> | <b>Validation Qualifier</b> | <b>Validation Qualifier Code</b> |
| PCB-1016                | 12674-11-2    | 0.21                | 0.53       | UG/L                        | U                    | U                           |                                  |
| PCB-1221                | 11104-28-2    | 0.21                | 0.53       | UG/L                        | U                    | UJ                          | C                                |
| PCB-1232                | 11141-16-5    | 0.21                | 0.53       | UG/L                        | U                    | U                           |                                  |
| PCB-1242                | 53469-21-9    | 0.42                | 0.53       | UG/L                        | U                    | U                           |                                  |
| PCB-1248                | 12672-29-6    | 0.21                | 0.53       | UG/L                        | U                    | U                           |                                  |
| PCB-1254                | 11097-69-1    | 0.21                | 0.53       | UG/L                        | U                    | U                           |                                  |
| PCB-1260                | 11096-82-5    | 0.21                | 0.53       | UG/L                        | U                    | U                           |                                  |

Sample Delivery Group: 240-22662-1

Analysis Method SW8260B

| Sample Name               |            | 079SW-0311-0001-SW |     | AnalysisType: N      |               |                      |                           |
|---------------------------|------------|--------------------|-----|----------------------|---------------|----------------------|---------------------------|
| Lab Sample Name:          |            | 240-22662-1        |     | Validation Level: IV |               |                      |                           |
| Analyte                   | CAS No     | Result Value       | LOQ | Result               | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| 1,1,1-TRICHLOROETHANE     | 71-55-6    | 0.25               | 1   | UG/L                 | U             | U                    |                           |
| 1,1,2,2-TETRACHLOROETHANE | 79-34-5    | 0.25               | 1   | UG/L                 | U             | U                    |                           |
| 1,1,2-TRICHLOROETHANE     | 79-00-5    | 0.5                | 1   | UG/L                 | U             | U                    |                           |
| 1,1-DICHLOROETHANE        | 75-34-3    | 0.25               | 1   | UG/L                 | U             | U                    |                           |
| 1,1-DICHLOROETHENE        | 75-35-4    | 0.25               | 1   | UG/L                 | U             | U                    |                           |
| 1,2-DIBROMOETHANE         | 106-93-4   | 0.25               | 1   | UG/L                 | U             | U                    |                           |
| 1,2-DICHLOROETHANE        | 107-06-2   | 0.25               | 1   | UG/L                 | U             | U                    |                           |
| 1,2-DICHLOROPROPANE       | 78-87-5    | 0.25               | 1   | UG/L                 | U             | U                    |                           |
| 2-HEXANONE                | 591-78-6   | 0.5                | 10  | UG/L                 | U             | U                    |                           |
| ACETONE                   | 67-64-1    | 1.2                | 10  | UG/L                 | J             | J                    | C                         |
| BENZENE                   | 71-43-2    | 0.25               | 1   | UG/L                 | U             | U                    |                           |
| BROMOCHLOROMETHANE        | 74-97-5    | 0.5                | 1   | UG/L                 | U             | U                    |                           |
| BROMODICHLOROMETHANE      | 75-27-4    | 0.25               | 1   | UG/L                 | U             | U                    |                           |
| BROMOFORM                 | 75-25-2    | 0.64               | 1   | UG/L                 | U             | U                    |                           |
| BROMOMETHANE              | 74-83-9    | 0.5                | 1   | UG/L                 | U             | U                    |                           |
| CARBON DISULFIDE          | 75-15-0    | 0.25               | 1   | UG/L                 | U             | U                    |                           |
| CARBON TETRACHLORIDE      | 56-23-5    | 0.25               | 1   | UG/L                 | U             | U                    |                           |
| CHLOROBENZENE             | 108-90-7   | 0.25               | 1   | UG/L                 | U             | U                    |                           |
| CHLOROETHANE              | 75-00-3    | 0.5                | 1   | UG/L                 | U             | U                    |                           |
| CHLOROFORM                | 67-66-3    | 0.25               | 1   | UG/L                 | U             | U                    |                           |
| CHLOROMETHANE             | 74-87-3    | 0.5                | 1   | UG/L                 | U             | U                    |                           |
| CIS-1,3-DICHLOROPROPENE   | 10061-01-5 | 0.25               | 1   | UG/L                 | U             | U                    |                           |
| DIBROMOCHLOROMETHANE      | 124-48-1   | 0.25               | 1   | UG/L                 | U             | U                    |                           |
| ETHYLBENZENE              | 100-41-4   | 0.25               | 1   | UG/L                 | U             | U                    |                           |
| METHYL ETHYL KETONE       | 78-93-3    | 0.57               | 10  | UG/L                 | U             | U                    |                           |
| METHYL ISOBUTYL KETONE    | 108-10-1   | 0.5                | 10  | UG/L                 | U             | U                    |                           |
| METHYLENE CHLORIDE        | 75-09-2    | 0.5                | 1   | UG/L                 | U             | U                    |                           |
| STYRENE                   | 100-42-5   | 0.25               | 1   | UG/L                 | U             | U                    |                           |

*Sample Delivery Group: 240-22662-1*

|                           |            |      |   |      |   |   |
|---------------------------|------------|------|---|------|---|---|
| TERT-BUTYL METHYL ETHER   | 1634-04-4  | 0.25 | 1 | UG/L | U | U |
| TETRACHLOROETHYLENE       | 127-18-4   | 0.5  | 1 | UG/L | U | U |
| TOLUENE                   | 108-88-3   | 0.25 | 1 | UG/L | U | U |
| TOTAL 1,2-DICHLOROETHENE  | 540-59-0   | 0.5  | 2 | UG/L | U | U |
| TRANS-1,3-DICHLOROPROPENE | 10061-02-6 | 0.25 | 1 | UG/L | U | U |
| TRICHLOROETHYLENE         | 79-01-6    | 0.25 | 1 | UG/L | U | U |
| VINYL CHLORIDE            | 75-01-4    | 0.25 | 1 | UG/L | U | U |
| XYLENES, TOTAL            |            | 0.75 | 2 | UG/L | U | U |

Sample Delivery Group: 240-22662-1

Analysis Method SW8270C

| Sample Name                |           | 079SW-0311-0001-SW |      | AnalysisType: N      |               |                      |                           |
|----------------------------|-----------|--------------------|------|----------------------|---------------|----------------------|---------------------------|
| Lab Sample Name:           |           | 240-22662-1        |      | Validation Level: IV |               |                      |                           |
| Analyte                    | CAS No    | Result Value       | LOQ  | Result               | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
| 1,2,4-TRICHLOROBENZENE     | 120-82-1  | 0.85               | 1.1  | UG/L                 | U             | U                    |                           |
| 1,2-DICHLOROBENZENE        | 95-50-1   | 0.85               | 1.1  | UG/L                 | U             | U                    |                           |
| 1,3-DICHLOROBENZENE        | 541-73-1  | 0.85               | 1.1  | UG/L                 | U             | U                    |                           |
| 1,4-DICHLOROBENZENE        | 106-46-7  | 0.85               | 1.1  | UG/L                 | U             | U                    |                           |
| 2,4,5-TRICHLOROPHENOL      | 95-95-4   | 0.85               | 5.3  | UG/L                 | U             | U                    |                           |
| 2,4,6-TRICHLOROPHENOL      | 88-06-2   | 0.85               | 5.3  | UG/L                 | U             | U                    |                           |
| 2,4-DICHLOROPHENOL         | 120-83-2  | 0.85               | 2.1  | UG/L                 | U             | U                    |                           |
| 2,4-DIMETHYLPHENOL         | 105-67-9  | 0.85               | 2.1  | UG/L                 | U             | U                    |                           |
| 2,4-DINITROPHENOL          | 51-28-5   | 2.6                | 5.3  | UG/L                 | U             | U                    |                           |
| 2,4-DINITROTOLUENE         | 121-14-2  | 0.85               | 5.3  | UG/L                 | U             | R                    | D                         |
| 2,6-DINITROTOLUENE         | 606-20-2  | 0.85               | 5.3  | UG/L                 | U             | R                    | D                         |
| 2-CHLORONAPHTHALENE        | 91-58-7   | 0.11               | 1.1  | UG/L                 | U             | U                    |                           |
| 2-CHLOROPHENOL             | 95-57-8   | 0.85               | 1.1  | UG/L                 | U             | U                    |                           |
| 2-METHYLNAPHTHALENE        | 91-57-6   | 0.11               | 0.21 | UG/L                 | U             | U                    |                           |
| 2-METHYLPHENOL (O-CRESOL)  | 95-48-7   | 0.85               | 1.1  | UG/L                 | U             | U                    |                           |
| 2-NITROANILINE             | 88-74-4   | 0.85               | 2.1  | UG/L                 | U             | U                    |                           |
| 2-NITROPHENOL              | 88-75-5   | 0.85               | 2.1  | UG/L                 | U             | U                    |                           |
| 3,3'-DICHLOROBENZIDINE     | 91-94-1   | 0.85               | 5.3  | UG/L                 | U             | U                    |                           |
| 3-NITROANILINE             | 99-09-2   | 0.85               | 2.1  | UG/L                 | U             | U                    |                           |
| 4,6-DINITRO-2-METHYLPHENOL | 534-52-1  | 2.6                | 5.3  | UG/L                 | U             | U                    |                           |
| 4-BROMOPHENYL PHENYL ETHE  | 101-55-3  | 0.85               | 2.1  | UG/L                 | U             | U                    |                           |
| 4-CHLORO-3-METHYLPHENOL    | 59-50-7   | 0.85               | 2.1  | UG/L                 | U             | U                    |                           |
| 4-CHLOROANILINE            | 106-47-8  | 0.85               | 2.1  | UG/L                 | U             | U                    |                           |
| 4-CHLOROPHENYL PHENYL ETH  | 7005-72-3 | 0.85               | 2.1  | UG/L                 | U             | U                    |                           |
| 4-NITROANILINE             | 100-01-6  | 0.85               | 2.1  | UG/L                 | U             | U                    |                           |
| 4-NITROPHENOL              | 100-02-7  | 2.6                | 5.3  | UG/L                 | U             | U                    |                           |
| ACENAPHTHENE               | 83-32-9   | 0.11               | 0.21 | UG/L                 | U             | U                    |                           |
| ACENAPHTHYLENE             | 208-96-8  | 0.11               | 0.21 | UG/L                 | U             | U                    |                           |

## Sample Delivery Group: 240-22662-1

|                             |          |      |      |      |     |   |
|-----------------------------|----------|------|------|------|-----|---|
| ANTHRACENE                  | 120-12-7 | 0.11 | 0.21 | UG/L | U   | U |
| BENZO(A)ANTHRACENE          | 56-55-3  | 0.11 | 0.21 | UG/L | U   | U |
| BENZO(A)PYRENE              | 50-32-8  | 0.11 | 0.21 | UG/L | U   | U |
| BENZO(B)FLUORANTHENE        | 205-99-2 | 0.11 | 0.21 | UG/L | U   | U |
| BENZO(G,H,I)PERYLENE        | 191-24-2 | 0.11 | 0.21 | UG/L | U   | U |
| BENZO(K)FLUORANTHENE        | 207-08-9 | 0.11 | 0.21 | UG/L | U   | U |
| BENZOIC ACID                | 65-85-0  | 11   | 27   | UG/L | U   | U |
| BENZYL ALCOHOL              | 100-51-6 | 0.85 | 5.3  | UG/L | U   | U |
| BENZYL BUTYL PHTHALATE      | 85-68-7  | 0.85 | 1.1  | UG/L | U   | U |
| BIS(2-CHLOROETHOXY) METHA   | 111-91-1 | 0.85 | 1.1  | UG/L | U   | U |
| BIS(2-CHLOROETHYL) ETHER    | 111-44-4 | 0.11 | 1.1  | UG/L | U   | U |
| BIS(2-CHLOROISOPROPYL) ETHE | 108-60-1 | 0.85 | 1.1  | UG/L | U   | U |
| BIS(2-ETHYLHEXYL) PHTHALAT  | 117-81-7 | 0.85 | 2.1  | UG/L | U   | U |
| CARBAZOLE                   | 86-74-8  | 0.85 | 1.1  | UG/L | U   | U |
| CHRYSENE                    | 218-01-9 | 0.11 | 0.21 | UG/L | U   | U |
| CRESOLS, M & P              |          | 0.85 | 2.1  | UG/L | U   | U |
| DIBENZ(A,H)ANTHRACENE       | 53-70-3  | 0.11 | 0.21 | UG/L | U   | U |
| DIBENZOFURAN                | 132-64-9 | 0.11 | 1.1  | UG/L | U   | U |
| DIETHYL PHTHALATE           | 84-66-2  | 0.85 | 1.1  | UG/L | U   | U |
| DIMETHYL PHTHALATE          | 131-11-3 | 0.85 | 1.1  | UG/L | U   | U |
| DI-N-BUTYL PHTHALATE        | 84-74-2  | 0.85 | 1.1  | UG/L | U   | U |
| DI-N-OCTYLPHTHALATE         | 117-84-0 | 0.85 | 1.1  | UG/L | U   | U |
| FLUORANTHENE                | 206-44-0 | 0.11 | 0.21 | UG/L | U   | U |
| FLUORENE                    | 86-73-7  | 0.11 | 0.21 | UG/L | U   | U |
| HEXACHLOROBENZENE           | 118-74-1 | 0.11 | 0.21 | UG/L | U   | U |
| HEXACHLOROBUTADIENE         | 87-68-3  | 0.85 | 1.1  | UG/L | U   | U |
| HEXACHLOROCYCLOPENTADIE     | 77-47-4  | 0.85 | 11   | UG/L | U Q | U |
| HEXACHLOROETHANE            | 67-72-1  | 0.85 | 1.1  | UG/L | U   | U |
| INDENO(1,2,3-C,D)PYRENE     | 193-39-5 | 0.11 | 0.21 | UG/L | U   | U |
| ISOPHORONE                  | 78-59-1  | 0.85 | 1.1  | UG/L | U   | U |
| NAPHTHALENE                 | 91-20-3  | 0.11 | 0.21 | UG/L | U   | U |
| NITROBENZENE                | 98-95-3  | 0.11 | 1.1  | UG/L | U   | U |
| N-NITROSODI-N-PROPYLAMINE   | 621-64-7 | 0.85 | 1.1  | UG/L | U   | U |

## Sample Delivery Group: 240-22662-1

|                        |          |      |      |      |   |   |
|------------------------|----------|------|------|------|---|---|
| N-NITROSODIPHENYLAMINE | 86-30-6  | 0.85 | 1.1  | UG/L | U | U |
| PENTACHLOROPHENOL      | 87-86-5  | 2.6  | 5.3  | UG/L | U | U |
| PHENANTHRENE           | 85-01-8  | 0.11 | 0.21 | UG/L | U | U |
| PHENOL                 | 108-95-2 | 0.85 | 1.1  | UG/L | U | U |
| PYRENE                 | 129-00-0 | 0.11 | 0.21 | UG/L | U | U |

## Analysis Method SW8330B

**Sample Name** 079SW-0311-0001-SW

**AnalysisType:** N

**Lab Sample Name:** 240-22662-1

**Validation Level:** IV

| Analyte                    | CAS No     | Result Value | LOQ  | Result | Lab Qualifier | Validation Qualifier | Validation Qualifier Code |
|----------------------------|------------|--------------|------|--------|---------------|----------------------|---------------------------|
| 1,3,5-TRINITROBENZENE      | 99-35-4    | 2.2          | 2.2  | UG/L   | U             | U                    | \$                        |
| 1,3-DINITROBENZENE         | 99-65-0    | 1.1          | 1.1  | UG/L   | U             | U                    | \$                        |
| 2,4,6-TRINITROTOLUENE      | 118-96-7   | 1.1          | 1.1  | UG/L   | U             | U                    | \$                        |
| 2,4-DINITROTOLUENE         | 121-14-2   | 0.11         | 0.11 | UG/L   | U             | U                    |                           |
| 2,6-DINITROTOLUENE         | 606-20-2   | 0.11         | 0.11 | UG/L   | U             | U                    |                           |
| 2-AMINO-4,6-DINITROTOLUENE | 35572-78-2 | 1.1          | 1.1  | UG/L   | U             | U                    | \$                        |
| 2-NITROTOLUENE             | 88-72-2    | 0.11         | 0.56 | UG/L   | U             | U                    |                           |
| 3-NITROTOLUENE             | 99-08-1    | 0.11         | 0.56 | UG/L   | U             | U                    |                           |
| 4-AMINO-2,6-DINITROTOLUENE | 19406-51-0 | 1.1          | 1.1  | UG/L   | U             | U                    | \$                        |
| 4-NITROTOLUENE             | 99-99-0    | 0.11         | 0.56 | UG/L   | U             | U                    |                           |
| HMX                        | 2691-41-0  | 1.1          | 1.1  | UG/L   | U             | U                    | \$                        |
| NITROBENZENE               | 98-95-3    | 2.2          | 2.2  | UG/L   | U             | R                    | D, \$                     |
| NITROGLYCERIN              | 55-63-0    | 4.4          | 4.4  | UG/L   | U             | U                    | \$                        |
| NITROGUANIDINE             | 556-88-7   | 6            | 20   | UG/L   | U             | U                    |                           |
| PETN                       | 78-11-5    | 0.56         | 0.73 | UG/L   | U             | U                    |                           |
| RDX                        | 121-82-4   | 2.2          | 2.2  | UG/L   | U             | U                    | \$                        |
| TETRYL                     | 479-45-8   | 1.1          | 1.1  | UG/L   | U             | U                    | \$                        |

## **APPENDIX B**

### **Sample Qualification Summary**

| Sample              | Analyte                     | Result | Units | DL     | LOQ   | LOD    | Qual | Code    |
|---------------------|-----------------------------|--------|-------|--------|-------|--------|------|---------|
| 068SB-0053M-0001-SO | ALUMINUM                    | 8700   | MG/KG | 0.26   | 2.7   | 0.55   | J    | E       |
| 068SB-0053M-0001-SO | ANTIMONY                    | 0.046  | MG/KG | 0.042  | 0.18  | 0.091  | J-   | Q       |
| 068SB-0053M-0001-SO | ARSENIC                     | 11     | MG/KG | 0.016  | 0.091 | 0.045  | J-   | E, Q    |
| 068SB-0053M-0001-SO | BARIUM                      | 53     | MG/KG | 0.0097 | 0.91  | 0.018  | J    | M, E    |
| 068SB-0053M-0001-SO | CALCIUM                     | 3400   | MG/KG | 1.2    | 9.1   | 2.3    | J    | E, Q    |
| 068SB-0053M-0001-SO | CHROMIUM                    | 12     | MG/KG | 0.02   | 0.18  | 0.036  | J    | E       |
| 068SB-0053M-0001-SO | COBALT                      | 8.6    | MG/KG | 0.0022 | 0.045 | 0.0091 | J    | E       |
| 068SB-0053M-0001-SO | COPPER                      | 16     | MG/KG | 0.03   | 0.18  | 0.055  | J    | E       |
| 068SB-0053M-0001-SO | IRON                        | 21000  | MG/KG | 0.98   | 4.5   | 1.8    | J    | E       |
| 068SB-0053M-0001-SO | LEAD                        | 13     | MG/KG | 0.014  | 0.091 | 0.027  | J    | E       |
| 068SB-0053M-0001-SO | MAGNESIUM                   | 2400   | MG/KG | 0.98   | 9.1   | 1.8    | J    | E       |
| 068SB-0053M-0001-SO | MANGANESE                   | 370    | MG/KG | 0.014  | 0.45  | 0.027  | J    | E       |
| 068SB-0053M-0001-SO | NICKEL                      | 18     | MG/KG | 0.01   | 0.091 | 0.027  | J    | E       |
| 068SB-0053M-0001-SO | POTASSIUM                   | 770    | MG/KG | 2.9    | 9.1   | 5.5    | J    | E       |
| 068SB-0053M-0001-SO | SELENIUM                    | 0.29   | MG/KG | 0.046  | 0.45  | 0.091  | J-   | Q       |
| 068SB-0053M-0001-SO | SODIUM                      | 44     | MG/KG | 2.4    | 9.1   | 4.5    | J    | E       |
| 068SB-0053M-0001-SO | VANADIUM                    | 15     | MG/KG | 0.027  | 0.091 | 0.055  | J    | E       |
| 068SB-0053M-0001-SO | ZINC                        | 40     | MG/KG | 0.059  | 0.45  | 0.18   | J-   | E, Q, A |
| 068SB-0053M-0001-SO | PCB-1221                    | 25     | UG/KG | 16     | 50    | 25     | UJ   | C       |
| 068SB-0053M-0001-SO | 2,4-DINITROPHENOL           | 80     | UG/KG | 80     | 330   | 80     | UJ   | C       |
| 068SB-0053M-0001-SO | BIS(2-ETHYLHEXYL) PHTHALATE | 74     | UG/KG | 19     | 74    | 27     | U    | B       |
| 068SD-0009-0001-SO  | ANTIMONY                    | 0.13   | MG/KG | 0.06   | 0.19  | 0.14   | J-   | Q       |
| 068SD-0009-0001-SO  | ARSENIC                     | 16     | MG/KG | 0.05   | 0.48  | 0.14   | J-   | Q       |
| 068SD-0009-0001-SO  | CALCIUM                     | 1500   | MG/KG | 39     | 190   | 96     | J-   | Q       |
| 068SD-0009-0001-SO  | LEAD                        | 23     | MG/KG | 0.068  | 0.29  | 0.19   | J-   | Q       |
| 068SD-0009-0001-SO  | MANGANESE                   | 1200   | MG/KG | 3.1    | 9.6   | 7.7    | J    | E       |
| 068SD-0009-0001-SO  | SELENIUM                    | 0.8    | MG/KG | 0.02   | 0.48  | 0.058  | J-   | M, Q    |
| 068SD-0009-0001-SO  | THALLIUM                    | 0.22   | MG/KG | 0.054  | 0.19  | 0.14   | J+   | C       |
| 068SD-0009-0001-SO  | MERCURY                     | 0.031  | MG/KG | 0.013  | 0.095 | 0.031  | U    | B       |
| 068SD-0009-0001-SO  | 2,4-DINITROPHENOL           | 79     | UG/KG | 79     | 330   | 79     | UJ   | C       |
| 068SD-0009-0001-SO  | 3,3'-DICHLOROBENZIDINE      | 79     | UG/KG | 18     | 99    | 79     | R    | Q       |
| 068SD-0009-0001-SO  | 3-NITROANILINE              | 79     | UG/KG | 16     | 200   | 79     | UJ   | Q       |
| 068SD-0009-0001-SO  | 4-CHLOROANILINE             | 27     | UG/KG | 17     | 150   | 27     | UJ   | Q       |
| 068SD-0009-0001-SO  | 4-NITROANILINE              | 27     | UG/KG | 26     | 200   | 27     | UJ   | Q       |
| 068SD-0009-0001-SO  | BENZO(G,H,I)PERYLENE        | 16     | UG/KG | 3.3    | 6.6   | 3.3    | J    | C       |
| 068SD-0009-0001-SO  | BIS(2-ETHYLHEXYL) PHTHALATE | 38     | UG/KG | 19     | 49    | 27     | U    | B       |
| 068SD-0009-0001-SO  | DIBENZ(A,H)ANTHRACENE       | 3.3    | UG/KG | 3.3    | 6.6   | 3.3    | UJ   | C       |
| 068SD-0009-0001-SO  | HEXACHLOROCYCLOPENTADIENE   | 27     | UG/KG | 27     | 330   | 27     | R    | C       |
| 068SD-0009-0001-SO  | INDENO(1,2,3-C,D)PYRENE     | 17     | UG/KG | 3.3    | 6.6   | 3.3    | J    | C       |
| 068SS-0003M-0001-SO | NITROCELLULOSE              | 0.88   | MG/KG | 0.75   | 4.8   | 1.8    | J    | Q       |
| 068SS-0003M-0001-SO | ANTIMONY                    | 2.16   | MG/KG | 0.26   | 0.85  | 0.64   | J-   | Q       |
| 068SS-0003M-0001-SO | MANGANESE                   | 386    | MG/KG | 0.68   | 2.1   | 1.7    | J    | E       |
| 068SS-0003M-0001-SO | SELENIUM                    | 0.57   | MG/KG | 0.018  | 0.43  | 0.051  | J    | M       |
| 068SS-0003M-0001-SO | SODIUM                      | 52     | MG/KG | 12     | 85    | 34     | U    | F       |
| 068SS-0003M-0001-SO | MERCURY                     | 0.046  | MG/KG | 0.014  | 0.098 | 0.032  | U    | B       |
| 068SS-0003M-0001-SO | CHLOROBENZENE               | 0.4    | UG/KG | 0.26   | 4     | 0.4    | UJ   | Q       |
| 068SS-0003M-0001-SO | ETHYLBENZENE                | 0.4    | UG/KG | 0.21   | 4     | 0.4    | UJ   | Q       |
| 068SS-0003M-0001-SO | STYRENE                     | 0.4    | UG/KG | 0.12   | 4     | 0.4    | UJ   | Q       |
| 068SS-0003M-0001-SO | XYLENES, TOTAL              | 1.2    | UG/KG | 0.54   | 8     | 1.2    | UJ   | Q       |



| Sample              | Analyte                      | Result | Units | DL     | LOQ  | LOD   | Qual | Code |
|---------------------|------------------------------|--------|-------|--------|------|-------|------|------|
| 068SS-0003M-0001-SO | 2,4-DINITROPHENOL            | 80     | UG/KG | 80     | 330  | 80    | UJ   | C    |
| 068SS-0003M-0001-SO | 3,3'-DICHLOROBENZIDINE       | 80     | UG/KG | 18     | 100  | 80    | UJ   | Q    |
| 068SS-0003M-0001-SO | 4,6-DINITRO-2-METHYLPHENOL   | 80     | UG/KG | 80     | 150  | 80    | UJ   | C    |
| 068SS-0003M-0001-SO | BENZOIC ACID                 | 330    | UG/KG | 330    | 660  | 330   | UJ   | Q    |
| 068SS-0003M-0001-SO | BIS(2-ETHYLHEXYL) PHTHALATE  | 34     | UG/KG | 19     | 50   | 27    | U    | B    |
| 068SS-0003M-0001-SO | DIBENZ(A,H)ANTHRACENE        | 57     | UG/KG | 3.3    | 6.7  | 3.3   | J    | C    |
| 068SS-0003M-0001-SO | HEXACHLOROETHANE             | 27     | UG/KG | 9      | 50   | 27    | UJ   | C    |
| 068SS-0003M-0001-SO | N-NITROSODIPHENYLAMINE       | 27     | UG/KG | 21     | 50   | 27    | R    | C    |
| 068SS-0003M-0001-SO | 2,4-DINITROTOLUENE           | 0.05   | MG/KG | 0.0053 | 0.25 | 0.05  | R    | D    |
| 068SS-0003M-0001-SO | 2,6-DINITROTOLUENE           | 0.05   | MG/KG | 0.0073 | 0.25 | 0.05  | R    | D    |
| 068SS-0003M-0001-SO | 2-NITROTOLUENE               | 0.05   | MG/KG | 0.013  | 0.25 | 0.05  | UJ   | C    |
| 068SS-0003M-0001-SO | NITROBENZENE                 | 0.05   | MG/KG | 0.018  | 0.25 | 0.05  | R    | D    |
| 068SS-0003M-0001-SO | RDX                          | 0.05   | MG/KG | 0.012  | 0.25 | 0.05  | UJ   | C    |
| 068SS-0003M-0001-SO | TETRYL                       | 0.05   | MG/KG | 0.01   | 0.25 | 0.05  | U    | B    |
| 068SW-0016-0001-SW  | BARIUM                       | 34     | UG/L  | 1.6    | 5    | 4     | J    | M    |
| 068SW-0016-0001-SW  | IRON                         | 1300   | UG/L  | 44     | 150  | 100   | J+   | C    |
| 068SW-0016-0001-SW  | SELENIUM                     | 0.5    | UG/L  | 0.2    | 5    | 0.5   | UJ   | M    |
| 068SW-0016-0001-SW  | THALLIUM                     | 1      | UG/L  | 0.32   | 2    | 1     | U    | B    |
| 068SW-0016-0001-SW  | ZINC                         | 20     | UG/L  | 8.8    | 40   | 20    | U    | B    |
| 068SW-0016-0001-SW  | MERCURY                      | 0.2    | UG/L  | 0.12   | 0.2  | 0.2   | UJ   | C    |
| 068SW-0016-0001-SW  | 1,2,4-TRICHLOROBENZENE       | 0.76   | UG/L  | 0.27   | 0.95 | 0.76  | UJ   | Q    |
| 068SW-0016-0001-SW  | 1,2-DICHLOROBENZENE          | 0.76   | UG/L  | 0.28   | 0.95 | 0.76  | UJ   | Q    |
| 068SW-0016-0001-SW  | 1,3-DICHLOROBENZENE          | 0.76   | UG/L  | 0.76   | 0.95 | 0.76  | UJ   | Q    |
| 068SW-0016-0001-SW  | 1,4-DICHLOROBENZENE          | 0.76   | UG/L  | 0.32   | 0.95 | 0.76  | UJ   | Q    |
| 068SW-0016-0001-SW  | BENZO(G,H,I)PERYLENE         | 0.095  | UG/L  | 0.095  | 0.19 | 0.095 | UJ   | Q    |
| 068SW-0016-0001-SW  | BIS(2-CHLOROETHYL) ETHER     | 0.095  | UG/L  | 0.095  | 0.95 | 0.095 | UJ   | Q    |
| 068SW-0016-0001-SW  | BIS(2-CHLOROISOPROPYL) ETHER | 0.76   | UG/L  | 0.38   | 0.95 | 0.76  | UJ   | Q    |
| 068SW-0016-0001-SW  | DIBENZ(A,H)ANTHRACENE        | 0.095  | UG/L  | 0.095  | 0.19 | 0.095 | UJ   | Q    |
| 068SW-0016-0001-SW  | DI-N-OCTYLPHTHALATE          | 0.76   | UG/L  | 0.76   | 0.95 | 0.76  | UJ   | Q    |
| 068SW-0016-0001-SW  | HEXACHLOROBUTADIENE          | 0.76   | UG/L  | 0.26   | 0.95 | 0.76  | UJ   | Q    |
| 068SW-0016-0001-SW  | HEXACHLOROETHANE             | 0.76   | UG/L  | 0.76   | 0.95 | 0.76  | UJ   | Q    |
| 068SW-0016-0001-SW  | INDENO(1,2,3-C,D)PYRENE      | 0.095  | UG/L  | 0.095  | 0.19 | 0.095 | UJ   | Q    |

| Sample              | Analyte                     | Result | Units | DL     | LOQ   | LOD   | Qual | Code |
|---------------------|-----------------------------|--------|-------|--------|-------|-------|------|------|
| 069SB-0013M-0001-SO | ANTIMONY                    | 0.052  | MG/KG | 0.042  | 0.18  | 0.091 | J    | I, Q |
| 069SB-0013M-0001-SO | BARIUM                      | 39.0   | MG/KG | 0.0097 | 0.91  | 0.018 | J    | M    |
| 069SB-0013M-0001-SO | CADMIUM                     | 0.17   | MG/KG | 0.012  | 0.091 | 0.027 | J+   | I    |
| 069SB-0013M-0001-SO | CALCIUM                     | 10000  | MG/KG | 1.2    | 9.1   | 2.3   | J-   | Q    |
| 069SB-0013M-0001-SO | SELENIUM                    | 0.47   | MG/KG | 0.046  | 0.45  | 0.091 | J-   | Q    |
| 069SB-0013M-0001-SO | SILVER                      | 0.028  | MG/KG | 0.010  | 0.091 | 0.027 | J+   | I    |
| 069SB-0013M-0001-SO | CARBON DISULFIDE            | 0.51   | UG/KG | 0.45   | 5.1   | 0.51  | UJ   | C    |
| 069SB-0013M-0001-SO | 3,3'-DICHLOROBENZIDINE      | 79     | UG/KG | 18     | 98    | 79    | UJ   | C    |
| 069SB-0013M-0001-SO | BIS(2-ETHYLHEXYL) PHTHALATE | 130.0  | UG/KG | 19     | 49    | 27    | U    | B    |
| 069SB-0013M-0001-SO | N-NITROSODIPHENYLAMINE      | 27     | UG/KG | 21     | 49    | 27    | R    | C    |
| 069SS-0001M-0001-SO | ANTIMONY                    | 0.14   | MG/KG | 0.041  | 0.18  | 0.089 | J    | I, Q |
| 069SS-0001M-0001-SO | ARSENIC                     | 10.0   | MG/KG | 0.016  | 0.089 | 0.045 | J-   | Q    |
| 069SS-0001M-0001-SO | BARIUM                      | 76.0   | MG/KG | 0.0096 | 0.89  | 0.018 | J    | M    |
| 069SS-0001M-0001-SO | CADMIUM                     | 0.29   | MG/KG | 0.012  | 0.089 | 0.027 | J-   | Q    |
| 069SS-0001M-0001-SO | CALCIUM                     | 5300   | MG/KG | 1.2    | 8.9   | 2.2   | J    | A, E |
| 069SS-0001M-0001-SO | COPPER                      | 19.0   | MG/KG | 0.029  | 0.18  | 0.054 | J-   | Q    |
| 069SS-0001M-0001-SO | SELENIUM                    | 0.78   | MG/KG | 0.045  | 0.45  | 0.089 | J-   | Q    |
| 069SS-0001M-0001-SO | SILVER                      | 0.034  | MG/KG | 0.010  | 0.089 | 0.027 | J+   | I    |
| 069SS-0001M-0001-SO | SODIUM                      | 53.0   | MG/KG | 2.4    | 8.9   | 4.5   | U    | F    |
| 069SS-0001M-0001-SO | THALLIUM                    | 0.23   | MG/KG | 0.0091 | 0.089 | 0.018 | U    | F    |
| 069SS-0001M-0001-SO | CARBON DISULFIDE            | 0.51   | UG/KG | 0.45   | 5.1   | 0.51  | UJ   | C    |
| 069SS-0001M-0001-SO | 2,4-DINITROTOLUENE          | 140    | UG/KG | 140    | 1000  | 140   | R    | D    |
| 069SS-0001M-0001-SO | 2,6-DINITROTOLUENE          | 140    | UG/KG | 110    | 1000  | 140   | R    | D    |
| 069SS-0001M-0001-SO | 3,3'-DICHLOROBENZIDINE      | 400    | UG/KG | 91     | 500   | 400   | R    | Q    |
| 069SS-0001M-0001-SO | 4,6-DINITRO-2-METHYLPHENOL  | 400    | UG/KG | 400    | 750   | 400   | UJ   | Q    |
| 069SS-0001M-0001-SO | 4-NITROPHENOL               | 400    | UG/KG | 400    | 1700  | 400   | UJ   | Q    |
| 069SS-0001M-0001-SO | BENZOIC ACID                | 1700   | UG/KG | 1700   | 3300  | 1700  | R    | Q    |
| 069SS-0001M-0001-SO | N-NITROSODIPHENYLAMINE      | 140    | UG/KG | 110    | 250   | 140   | R    | C    |
| 069SS-0001M-0001-SO | 2-NITROTOLUENE              | 0.05   | MG/KG | 0.013  | 0.25  | 0.05  | UJ   | C    |
| 069SS-0001M-0001-SO | NITROBENZENE                | 0.05   | MG/KG | 0.018  | 0.25  | 0.05  | R    | D    |
| 069SS-0001M-0001-SO | RDX                         | 0.05   | MG/KG | 0.012  | 0.25  | 0.05  | UJ   | C    |

| Sample              | Analyte                     | Result | Units | DL     | LOQ   | LOD   | Qualifier | Code |
|---------------------|-----------------------------|--------|-------|--------|-------|-------|-----------|------|
| 073SB-0009M-0001-SO | ANTIMONY                    | 0.065  | MG/KG | 0.044  | 0.19  | 0.095 | J-        | Q    |
| 073SB-0009M-0001-SO | ARSENIC                     | 7.8    | MG/KG | 0.017  | 0.095 | 0.048 | J-        | Q    |
| 073SB-0009M-0001-SO | CADMIUM                     | 0.18   | MG/KG | 0.013  | 0.095 | 0.029 | J+        | I    |
| 073SB-0009M-0001-SO | CALCIUM                     | 6500.0 | MG/KG | 1.3    | 9.5   | 2.4   | J-        | Q    |
| 073SB-0009M-0001-SO | CHROMIUM                    | 14.0   | MG/KG | 0.021  | 0.19  | 0.038 | J+        | Q    |
| 073SB-0009M-0001-SO | COPPER                      | 14.0   | MG/KG | 0.031  | 0.19  | 0.057 | J-        | Q    |
| 073SB-0009M-0001-SO | POTASSIUM                   | 1100.0 | MG/KG | 3.0    | 9.5   | 5.7   | J+        | Q    |
| 073SB-0009M-0001-SO | SELENIUM                    | 0.71   | MG/KG | 0.048  | 0.48  | 0.095 | J-        | Q    |
| 073SB-0009M-0001-SO | THALLIUM                    | 0.13   | MG/KG | 0.0097 | 0.095 | 0.019 | J-        | Q    |
| 073SB-0009M-0001-SO | VANADIUM                    | 13.0   | MG/KG | 0.028  | 0.095 | 0.057 | J+        | Q    |
| 073SB-0009M-0001-SO | ZINC                        | 45.0   | MG/KG | 0.062  | 0.48  | 0.19  | J-        | P    |
| 073SB-0009M-0001-SO | 3,3'-DICHLOROBENZIDINE      | 390    | UG/KG | 89     | 490   | 390   | UJ        | C    |
| 073SB-0016M-0001-SO | ANTIMONY                    | 0.047  | MG/KG | 0.046  | 0.2   | 0.1   | J-        | Q    |
| 073SB-0016M-0001-SO | ARSENIC                     | 7.3    | MG/KG | 0.018  | 0.1   | 0.05  | J-        | Q    |
| 073SB-0016M-0001-SO | BERYLLIUM                   | 0.38   | MG/KG | 0.0075 | 0.1   | 0.01  | J-        | Q, A |
| 073SB-0016M-0001-SO | CADMIUM                     | 0.2    | MG/KG | 0.013  | 0.1   | 0.03  | J+        | I    |
| 073SB-0016M-0001-SO | CALCIUM                     | 5500   | MG/KG | 1.3    | 10    | 2.5   | J-        | Q, E |
| 073SB-0016M-0001-SO | COPPER                      | 12     | MG/KG | 0.033  | 0.2   | 0.06  | J-        | Q    |
| 073SB-0016M-0001-SO | SELENIUM                    | 0.25   | MG/KG | 0.051  | 0.5   | 0.1   | J-        | Q    |
| 073SB-0016M-0001-SO | THALLIUM                    | 0.091  | MG/KG | 0.01   | 0.1   | 0.02  | J+        | I    |
| 073SB-0016M-0001-SO | ZINC                        | 43     | MG/KG | 0.065  | 0.5   | 0.2   | J-        | Q, A |
| 073SB-0016M-0001-SO | BIS(2-ETHYLHEXYL) PHTHALATE | 89     | UG/KG | 19     | 50    | 27    | U         | B    |
| 073SB-0016M-0001-SO | DI-N-BUTYL PHTHALATE        | 27     | UG/KG | 15     | 50    | 27    | U         | B    |
| 073SB-0016M-0001-SO | HEXACHLOROETHANE            | 27     | UG/KG | 9      | 50    | 27    | UJ        | C    |
| 073SB-0038M-0001-SO | ANTIMONY                    | 0.067  | MG/KG | 0.043  | 0.19  | 0.093 | J-        | Q    |
| 073SB-0038M-0001-SO | ARSENIC                     | 19     | MG/KG | 0.017  | 0.093 | 0.046 | J-        | Q    |
| 073SB-0038M-0001-SO | SELENIUM                    | 0.28   | MG/KG | 0.047  | 0.46  | 0.093 | J-        | Q    |
| 073SB-0038M-0001-SO | ZINC                        | 64     | MG/KG | 0.06   | 0.46  | 0.19  | J-        | Q    |
| 073SB-0038M-0001-SO | 1,2,4-TRICHLOROBENZENE      | 270    | UG/KG | 270    | 500   | 270   | UJ        | H    |
| 073SB-0038M-0001-SO | 1,2-DICHLOROBENZENE         | 270    | UG/KG | 98     | 500   | 270   | UJ        | H    |
| 073SB-0038M-0001-SO | 1,3-DICHLOROBENZENE         | 270    | UG/KG | 110    | 500   | 270   | UJ        | H    |
| 073SB-0038M-0001-SO | 1,4-DICHLOROBENZENE         | 270    | UG/KG | 200    | 500   | 270   | UJ        | H    |
| 073SB-0038M-0001-SO | 2,4,5-TRICHLOROPHENOL       | 270    | UG/KG | 250    | 1500  | 270   | UJ        | H    |
| 073SB-0038M-0001-SO | 2,4,6-TRICHLOROPHENOL       | 810    | UG/KG | 810    | 1500  | 810   | UJ        | H    |
| 073SB-0038M-0001-SO | 2,4-DICHLOROPHENOL          | 270    | UG/KG | 200    | 1500  | 270   | UJ        | H    |
| 073SB-0038M-0001-SO | 2,4-DIMETHYLPHENOL          | 810    | UG/KG | 200    | 1500  | 810   | UJ        | H    |
| 073SB-0038M-0001-SO | 2,4-DINITROPHENOL           | 810    | UG/KG | 810    | 3300  | 810   | UJ        | H, C |
| 073SB-0038M-0001-SO | 2,4-DINITROTOLUENE          | 270    | UG/KG | 270    | 2000  | 270   | UJ        | H    |
| 073SB-0038M-0001-SO | 2,6-DINITROTOLUENE          | 270    | UG/KG | 210    | 2000  | 270   | UJ        | H    |
| 073SB-0038M-0001-SO | 2-CHLORONAPHTHALENE         | 33     | UG/KG | 33     | 500   | 33    | UJ        | H    |
| 073SB-0038M-0001-SO | 2-CHLOROPHENOL              | 270    | UG/KG | 270    | 500   | 270   | UJ        | H    |
| 073SB-0038M-0001-SO | 2-METHYLNAPHTHALENE         | 33     | UG/KG | 33     | 67    | 33    | UJ        | H    |
| 073SB-0038M-0001-SO | 2-METHYLPHENOL (O-CRESOL)   | 810    | UG/KG | 810    | 2000  | 810   | UJ        | H    |
| 073SB-0038M-0001-SO | 2-NITROANILINE              | 270    | UG/KG | 92     | 2000  | 270   | UJ        | H    |
| 073SB-0038M-0001-SO | 2-NITROPHENOL               | 270    | UG/KG | 270    | 500   | 270   | UJ        | H    |
| 073SB-0038M-0001-SO | 3,3'-DICHLOROBENZIDINE      | 810    | UG/KG | 180    | 1000  | 810   | UJ        | H    |
| 073SB-0038M-0001-SO | 3-NITROANILINE              | 810    | UG/KG | 160    | 2000  | 810   | UJ        | H    |
| 073SB-0038M-0001-SO | 4,6-DINITRO-2-METHYLPHENOL  | 810    | UG/KG | 810    | 1500  | 810   | UJ        | H, C |
| 073SB-0038M-0001-SO | 4-BROMOPHENYL PHENYL ETHER  | 270    | UG/KG | 130    | 500   | 270   | UJ        | H    |

| Sample              | Analyte                      | Result | Units | DL    | LOQ  | LOD  | Qualifier | Code |
|---------------------|------------------------------|--------|-------|-------|------|------|-----------|------|
| 073SB-0038M-0001-SO | 4-CHLORO-3-METHYLPHENOL      | 270    | UG/KG | 210   | 1500 | 270  | UJ        | H    |
| 073SB-0038M-0001-SO | 4-CHLOROANILINE              | 270    | UG/KG | 170   | 1500 | 270  | UJ        | H    |
| 073SB-0038M-0001-SO | 4-CHLOROPHENYL PHENYL ETHER  | 270    | UG/KG | 130   | 500  | 270  | UJ        | H    |
| 073SB-0038M-0001-SO | 4-NITROANILINE               | 270    | UG/KG | 260   | 2000 | 270  | UJ        | H    |
| 073SB-0038M-0001-SO | 4-NITROPHENOL                | 810    | UG/KG | 810   | 3300 | 810  | UJ        | H    |
| 073SB-0038M-0001-SO | ACENAPHTHENE                 | 33     | UG/KG | 33    | 67   | 33   | UJ        | H    |
| 073SB-0038M-0001-SO | ACENAPHTHYLENE               | 33     | UG/KG | 33    | 67   | 33   | UJ        | H    |
| 073SB-0038M-0001-SO | ANTHRACENE                   | 33     | UG/KG | 33    | 67   | 33   | UJ        | H    |
| 073SB-0038M-0001-SO | BENZO(A)ANTHRACENE           | 33     | UG/KG | 33    | 67   | 33   | UJ        | H    |
| 073SB-0038M-0001-SO | BENZO(A)PYRENE               | 33     | UG/KG | 33    | 67   | 33   | UJ        | H    |
| 073SB-0038M-0001-SO | BENZO(B)FLUORANTHENE         | 33     | UG/KG | 33    | 67   | 33   | UJ        | H    |
| 073SB-0038M-0001-SO | BENZO(G,H,I)PERYLENE         | 33     | UG/KG | 33    | 67   | 33   | UJ        | H    |
| 073SB-0038M-0001-SO | BENZO(K)FLUORANTHENE         | 33     | UG/KG | 33    | 67   | 33   | UJ        | H    |
| 073SB-0038M-0001-SO | BENZOIC ACID                 | 3400   | UG/KG | 3400  | 6700 | 3400 | R         | L    |
| 073SB-0038M-0001-SO | BENZYL ALCOHOL               | 270    | UG/KG | 210   | 3300 | 270  | UJ        | H    |
| 073SB-0038M-0001-SO | BENZYL BUTYL PHTHALATE       | 270    | UG/KG | 100   | 710  | 270  | UJ        | H    |
| 073SB-0038M-0001-SO | BIS(2-CHLOROETHOXY) METHANE  | 270    | UG/KG | 220   | 1000 | 270  | UJ        | H    |
| 073SB-0038M-0001-SO | BIS(2-CHLOROETHYL) ETHER     | 33     | UG/KG | 20    | 1000 | 33   | UJ        | H    |
| 073SB-0038M-0001-SO | BIS(2-CHLOROISOPROPYL) ETHER | 270    | UG/KG | 96    | 1000 | 270  | UJ        | H    |
| 073SB-0038M-0001-SO | BIS(2-ETHYLHEXYL) PHTHALATE  | 270    | UG/KG | 190   | 710  | 270  | UJ        | H    |
| 073SB-0038M-0001-SO | CARBAZOLE                    | 270    | UG/KG | 270   | 500  | 270  | UJ        | H    |
| 073SB-0038M-0001-SO | CHRYSENE                     | 33     | UG/KG | 11    | 67   | 33   | UJ        | H    |
| 073SB-0038M-0001-SO | CRESOLS, M & P               | 810    | UG/KG | 200   | 4000 | 810  | UJ        | H    |
| 073SB-0038M-0001-SO | DIBENZ(A,H)ANTHRACENE        | 33     | UG/KG | 33    | 67   | 33   | UJ        | H    |
| 073SB-0038M-0001-SO | DIBENZOFURAN                 | 33     | UG/KG | 33    | 500  | 33   | UJ        | H    |
| 073SB-0038M-0001-SO | DIETHYL PHTHALATE            | 270    | UG/KG | 160   | 710  | 270  | UJ        | H    |
| 073SB-0038M-0001-SO | DIMETHYL PHTHALATE           | 270    | UG/KG | 170   | 710  | 270  | UJ        | H    |
| 073SB-0038M-0001-SO | DI-N-BUTYL PHTHALATE         | 270    | UG/KG | 150   | 710  | 270  | UJ        | H    |
| 073SB-0038M-0001-SO | DI-N-OCTYLPHTHALATE          | 270    | UG/KG | 270   | 710  | 270  | UJ        | H    |
| 073SB-0038M-0001-SO | FLUORANTHENE                 | 33     | UG/KG | 33    | 67   | 33   | UJ        | H    |
| 073SB-0038M-0001-SO | FLUORENE                     | 33     | UG/KG | 33    | 67   | 33   | UJ        | H    |
| 073SB-0038M-0001-SO | HEXACHLOROBENZENE            | 33     | UG/KG | 21    | 67   | 33   | UJ        | H    |
| 073SB-0038M-0001-SO | HEXACHLOROBUTADIENE          | 270    | UG/KG | 270   | 500  | 270  | UJ        | H    |
| 073SB-0038M-0001-SO | HEXACHLOROCYCLOPENTADIENE    | 270    | UG/KG | 270   | 3300 | 270  | UJ        | H    |
| 073SB-0038M-0001-SO | HEXACHLOROETHANE             | 270    | UG/KG | 91    | 500  | 270  | UJ        | H    |
| 073SB-0038M-0001-SO | INDENO(1,2,3-C,D)PYRENE      | 33     | UG/KG | 33    | 67   | 33   | UJ        | H    |
| 073SB-0038M-0001-SO | ISOPHORONE                   | 270    | UG/KG | 130   | 500  | 270  | UJ        | H    |
| 073SB-0038M-0001-SO | NAPHTHALENE                  | 33     | UG/KG | 33    | 67   | 33   | UJ        | H    |
| 073SB-0038M-0001-SO | NITROBENZENE                 | 33     | UG/KG | 22    | 1000 | 33   | UJ        | H    |
| 073SB-0038M-0001-SO | N-NITROSODI-N-PROPYLAMINE    | 270    | UG/KG | 270   | 500  | 270  | UJ        | H    |
| 073SB-0038M-0001-SO | N-NITROSODIPHENYLAMINE       | 270    | UG/KG | 210   | 500  | 270  | UJ        | H    |
| 073SB-0038M-0001-SO | PENTACHLOROPHENOL            | 810    | UG/KG | 810   | 1500 | 810  | UJ        | H    |
| 073SB-0038M-0001-SO | PHENANTHRENE                 | 33     | UG/KG | 33    | 67   | 33   | UJ        | H    |
| 073SB-0038M-0001-SO | PHENOL                       | 270    | UG/KG | 270   | 500  | 270  | UJ        | H    |
| 073SB-0038M-0001-SO | PYRENE                       | 33     | UG/KG | 33    | 67   | 33   | UJ        | H    |
| 073SD-0047-0001-SD  | BIS(2-ETHYLHEXYL) PHTHALATE  | 160    | UG/KG | 29    | 75   | 41   | U         | B    |
| 073SD-0047-0001-SD  | HEXACHLOROETHANE             | 41     | UG/KG | 14    | 75   | 41   | UJ        | C    |
| 073SS-0002M-0001-SO | ANTIMONY                     | 0.13   | MG/KG | 0.052 | 0.17 | 0.13 | R         | B, Q |
| 073SS-0002M-0001-SO | ARSENIC                      | 9.4    | MG/KG | 0.044 | 0.42 | 0.13 | J-        | Q    |

| Sample              | Analyte                   | Result | Units | DL     | LOQ   | LOD   | Qualifier | Code |
|---------------------|---------------------------|--------|-------|--------|-------|-------|-----------|------|
| 073SS-0002M-0001-SO | SELENIUM                  | 0.47   | MG/KG | 0.017  | 0.42  | 0.05  | J-        | M, Q |
| 073SS-0002M-0001-SO | THALLIUM                  | 0.13   | MG/KG | 0.047  | 0.17  | 0.13  | U         | B    |
| 073SS-0002M-0001-SO | MERCURY                   | 0.051  | MG/KG | 0.013  | 0.095 | 0.031 | U         | B    |
| 073SS-0002M-0001-SO | TOXAPHENE                 | 410    | UG/KG | 390    | 1400  | 410   | UJ        | C    |
| 073SS-0002M-0001-SO | 1,1,2,2-TETRACHLOROETHANE | 0.67   | UG/KG | 0.45   | 6.7   | 0.67  | UJ        | I    |
| 073SS-0002M-0001-SO | TOLUENE                   | 0.67   | UG/KG | 0.36   | 6.7   | 0.67  | U         | F    |
| 073SS-0002M-0001-SO | 2,4-DINITROPHENOL         | 320    | UG/KG | 320    | 1300  | 320   | UJ        | C    |
| 073SS-0002M-0001-SO | 2,4-DINITROTOLUENE        | 110    | UG/KG | 110    | 810   | 110   | R         | D    |
| 073SS-0002M-0001-SO | 2,6-DINITROTOLUENE        | 110    | UG/KG | 85     | 810   | 110   | R         | D    |
| 073SS-0002M-0001-SO | 3,3'-DICHLOROBENZIDINE    | 320    | UG/KG | 73     | 400   | 320   | UJ        | C    |
| 073SS-0002M-0001-SO | BENZO(G,H,I)PERYLENE      | 29     | UG/KG | 13     | 27    | 13    | J         | C    |
| 073SS-0002M-0001-SO | DIBENZ(A,H)ANTHRACENE     | 13     | UG/KG | 13     | 27    | 13    | UJ        | C    |
| 073SS-0002M-0001-SO | INDENO(1,2,3-C,D)PYRENE   | 54     | UG/KG | 13     | 27    | 13    | J         | C    |
| 073SS-0002M-0001-SO | 2-NITROTOLUENE            | 0.049  | MG/KG | 0.013  | 0.25  | 0.049 | UJ        | C    |
| 073SS-0002M-0001-SO | NITROBENZENE              | 0.049  | MG/KG | 0.017  | 0.25  | 0.049 | R         | D    |
| 073SS-0002M-0001-SO | RDX                       | 0.049  | MG/KG | 0.012  | 0.25  | 0.049 | UJ        | C    |
| 073SS-0002M-0001-SO | TETRYL                    | 0.049  | MG/KG | 0.0098 | 0.25  | 0.049 | U         | B    |

| Sample             | Analyte                     | Result | Units | DL    | LOQ  | LOD   | Qualifier | Code |
|--------------------|-----------------------------|--------|-------|-------|------|-------|-----------|------|
| 074SB-0002-0001-SO | 2,4-DINITROPHENOL           | 94     | UG/KG | 94    | 390  | 94    | UJ        | C    |
| 074SB-0002-0001-SO | 4,6-DINITRO-2-METHYLPHENOL  | 94     | UG/KG | 94    | 180  | 94    | UJ        | C    |
| 074SB-0002-0001-SO | BIS(2-ETHYLHEXYL) PHTHALATE | 32     | UG/KG | 22    | 82   | 32    | U         | B    |
| 074SB-0010-0001-SO | CADMIUM                     | 0.2    | MG/KG | 0.016 | 0.12 | 0.035 | J+        | I    |
| 074SB-0010-0001-SO | SELENIUM                    | 0.26   | MG/KG | 0.06  | 0.59 | 0.12  | J+        | I    |
| 074SB-0010-0001-SO | SILVER                      | 0.037  | MG/KG | 0.013 | 0.12 | 0.035 | J+        | I    |
| 074SB-0010-0001-SO | MERCURY                     | 0.039  | MG/KG | 0.017 | 0.12 | 0.039 | UJ        | C    |
| 074SB-0010-0001-SO | 2-HEXANONE                  | 0.93   | UG/KG | 0.58  | 19   | 0.93  | UJ        | S    |
| 074SB-0010-0001-SO | METHYL ETHYL KETONE         | 1.9    | UG/KG | 1.3   | 19   | 1.9   | UJ        | S    |
| 074SB-0010-0001-SO | METHYL ISOBUTYL KETONE      | 0.93   | UG/KG | 0.5   | 19   | 0.93  | UJ        | S    |
| 074SB-0010-0001-SO | 1,2,4-TRICHLOROBENZENE      | 32     | UG/KG | 32    | 58   | 32    | UJ        | H    |
| 074SB-0010-0001-SO | 1,2-DICHLOROBENZENE         | 32     | UG/KG | 11    | 58   | 32    | UJ        | H    |
| 074SB-0010-0001-SO | 1,3-DICHLOROBENZENE         | 32     | UG/KG | 13    | 58   | 32    | UJ        | H    |
| 074SB-0010-0001-SO | 1,4-DICHLOROBENZENE         | 32     | UG/KG | 23    | 58   | 32    | UJ        | H    |
| 074SB-0010-0001-SO | 2,4,5-TRICHLOROPHENOL       | 32     | UG/KG | 29    | 180  | 32    | UJ        | H    |
| 074SB-0010-0001-SO | 2,4,6-TRICHLOROPHENOL       | 93     | UG/KG | 93    | 180  | 93    | UJ        | H    |
| 074SB-0010-0001-SO | 2,4-DICHLOROPHENOL          | 32     | UG/KG | 23    | 180  | 32    | UJ        | H    |
| 074SB-0010-0001-SO | 2,4-DIMETHYLPHENOL          | 93     | UG/KG | 23    | 180  | 93    | UJ        | H    |
| 074SB-0010-0001-SO | 2,4-DINITROPHENOL           | 93     | UG/KG | 93    | 390  | 93    | UJ        | H, C |
| 074SB-0010-0001-SO | 2,4-DINITROTOLUENE          | 32     | UG/KG | 32    | 230  | 32    | UJ        | H    |
| 074SB-0010-0001-SO | 2,6-DINITROTOLUENE          | 32     | UG/KG | 25    | 230  | 32    | UJ        | H    |
| 074SB-0010-0001-SO | 2-CHLORONAPHTHALENE         | 3.9    | UG/KG | 3.9   | 58   | 3.9   | UJ        | H    |
| 074SB-0010-0001-SO | 2-CHLOROPHENOL              | 32     | UG/KG | 32    | 58   | 32    | UJ        | H    |
| 074SB-0010-0001-SO | 2-METHYLNAPHTHALENE         | 3.9    | UG/KG | 3.9   | 7.8  | 3.9   | UJ        | H    |
| 074SB-0010-0001-SO | 2-METHYLPHENOL (O-CRESOL)   | 93     | UG/KG | 93    | 230  | 93    | UJ        | H    |
| 074SB-0010-0001-SO | 2-NITROANILINE              | 32     | UG/KG | 11    | 230  | 32    | UJ        | H    |
| 074SB-0010-0001-SO | 2-NITROPHENOL               | 32     | UG/KG | 32    | 58   | 32    | UJ        | H    |
| 074SB-0010-0001-SO | 3,3'-DICHLOROBENZIDINE      | 93     | UG/KG | 21    | 120  | 93    | UJ        | H    |
| 074SB-0010-0001-SO | 3-NITROANILINE              | 93     | UG/KG | 19    | 230  | 93    | UJ        | H    |
| 074SB-0010-0001-SO | 4,6-DINITRO-2-METHYLPHENOL  | 93     | UG/KG | 93    | 180  | 93    | UJ        | H    |
| 074SB-0010-0001-SO | 4-BROMOPHENYL PHENYL ETHER  | 32     | UG/KG | 15    | 58   | 32    | UJ        | H    |
| 074SB-0010-0001-SO | 4-CHLORO-3-METHYLPHENOL     | 32     | UG/KG | 25    | 180  | 32    | UJ        | H    |
| 074SB-0010-0001-SO | 4-CHLOROANILINE             | 32     | UG/KG | 20    | 180  | 32    | UJ        | H    |
| 074SB-0010-0001-SO | 4-CHLOROPHENYL PHENYL ETHER | 32     | UG/KG | 15    | 58   | 32    | UJ        | H    |
| 074SB-0010-0001-SO | 4-NITROANILINE              | 32     | UG/KG | 30    | 230  | 32    | UJ        | H    |
| 074SB-0010-0001-SO | 4-NITROPHENOL               | 93     | UG/KG | 93    | 390  | 93    | UJ        | H    |
| 074SB-0010-0001-SO | ACENAPHTHENE                | 3.9    | UG/KG | 3.9   | 7.8  | 3.9   | UJ        | H    |
| 074SB-0010-0001-SO | ACENAPHTHYLENE              | 3.9    | UG/KG | 3.9   | 7.8  | 3.9   | UJ        | H    |
| 074SB-0010-0001-SO | ANTHRACENE                  | 3.9    | UG/KG | 3.9   | 7.8  | 3.9   | UJ        | H    |
| 074SB-0010-0001-SO | BENZO(A)ANTHRACENE          | 3.9    | UG/KG | 3.9   | 7.8  | 3.9   | UJ        | H    |
| 074SB-0010-0001-SO | BENZO(A)PYRENE              | 3.9    | UG/KG | 3.9   | 7.8  | 3.9   | UJ        | H    |
| 074SB-0010-0001-SO | BENZO(B)FLUORANTHENE        | 3.9    | UG/KG | 3.9   | 7.8  | 3.9   | UJ        | H    |
| 074SB-0010-0001-SO | BENZO(G,H,I)PERYLENE        | 3.9    | UG/KG | 3.9   | 7.8  | 3.9   | UJ        | H    |
| 074SB-0010-0001-SO | BENZO(K)FLUORANTHENE        | 3.9    | UG/KG | 3.9   | 7.8  | 3.9   | UJ        | H    |
| 074SB-0010-0001-SO | BENZOIC ACID                | 390    | UG/KG | 390   | 770  | 390   | R         | L    |
| 074SB-0010-0001-SO | BENZYL ALCOHOL              | 32     | UG/KG | 25    | 390  | 32    | UJ        | H    |
| 074SB-0010-0001-SO | BENZYL BUTYL PHTHALATE      | 32     | UG/KG | 12    | 82   | 32    | UJ        | H    |
| 074SB-0010-0001-SO | BIS(2-CHLOROETHOXY) METHANE | 32     | UG/KG | 26    | 120  | 32    | UJ        | H    |
| 074SB-0010-0001-SO | BIS(2-CHLOROETHYL) ETHER    | 3.9    | UG/KG | 2.3   | 120  | 3.9   | UJ        | H    |

| Sample             | Analyte                      | Result | Units | DL     | LOQ  | LOD  | Qualifier | Code |
|--------------------|------------------------------|--------|-------|--------|------|------|-----------|------|
| 074SB-0010-0001-SO | BIS(2-CHLOROISOPROPYL) ETHER | 32     | UG/KG | 11     | 120  | 32   | UJ        | H    |
| 074SB-0010-0001-SO | BIS(2-ETHYLHEXYL) PHTHALATE  | 120    | UG/KG | 22     | 82   | 32   | J         | H    |
| 074SB-0010-0001-SO | CARBAZOLE                    | 32     | UG/KG | 32     | 58   | 32   | UJ        | H    |
| 074SB-0010-0001-SO | CHRYSENE                     | 3.9    | UG/KG | 1.3    | 7.8  | 3.9  | UJ        | H    |
| 074SB-0010-0001-SO | CRESOLS, M & P               | 93     | UG/KG | 23     | 470  | 93   | UJ        | H    |
| 074SB-0010-0001-SO | DIBENZ(A,H)ANTHRACENE        | 3.9    | UG/KG | 3.9    | 7.8  | 3.9  | UJ        | H    |
| 074SB-0010-0001-SO | DIBENZOFURAN                 | 3.9    | UG/KG | 3.9    | 58   | 3.9  | UJ        | H    |
| 074SB-0010-0001-SO | DIETHYL PHTHALATE            | 32     | UG/KG | 19     | 82   | 32   | UJ        | H    |
| 074SB-0010-0001-SO | DIMETHYL PHTHALATE           | 32     | UG/KG | 20     | 82   | 32   | UJ        | H    |
| 074SB-0010-0001-SO | DI-N-BUTYL PHTHALATE         | 32     | UG/KG | 18     | 82   | 32   | UJ        | H    |
| 074SB-0010-0001-SO | DI-N-OCTYLPHTHALATE          | 32     | UG/KG | 32     | 82   | 32   | UJ        | H    |
| 074SB-0010-0001-SO | FLUORANTHENE                 | 3.9    | UG/KG | 3.9    | 7.8  | 3.9  | UJ        | H    |
| 074SB-0010-0001-SO | FLUORENE                     | 3.9    | UG/KG | 3.9    | 7.8  | 3.9  | UJ        | H    |
| 074SB-0010-0001-SO | HEXACHLOROBENZENE            | 3.9    | UG/KG | 2.5    | 7.8  | 3.9  | UJ        | H    |
| 074SB-0010-0001-SO | HEXACHLOROBUTADIENE          | 32     | UG/KG | 32     | 58   | 32   | UJ        | H    |
| 074SB-0010-0001-SO | HEXACHLOROCYCLOPENTADIENE    | 32     | UG/KG | 32     | 390  | 32   | UJ        | H    |
| 074SB-0010-0001-SO | HEXACHLOROETHANE             | 32     | UG/KG | 11     | 58   | 32   | UJ        | H    |
| 074SB-0010-0001-SO | INDENO(1,2,3-C,D)PYRENE      | 3.9    | UG/KG | 3.9    | 7.8  | 3.9  | UJ        | H    |
| 074SB-0010-0001-SO | ISOPHORONE                   | 32     | UG/KG | 15     | 58   | 32   | UJ        | H    |
| 074SB-0010-0001-SO | NAPHTHALENE                  | 3.9    | UG/KG | 3.9    | 7.8  | 3.9  | UJ        | H    |
| 074SB-0010-0001-SO | NITROBENZENE                 | 3.9    | UG/KG | 2.6    | 120  | 3.9  | UJ        | H    |
| 074SB-0010-0001-SO | N-NITROSODI-N-PROPYLAMINE    | 32     | UG/KG | 32     | 58   | 32   | UJ        | H    |
| 074SB-0010-0001-SO | N-NITROSODIPHENYLAMINE       | 32     | UG/KG | 25     | 58   | 32   | UJ        | H    |
| 074SB-0010-0001-SO | PENTACHLOROPHENOL            | 93     | UG/KG | 93     | 180  | 93   | UJ        | H    |
| 074SB-0010-0001-SO | PHENANTHRENE                 | 3.9    | UG/KG | 3.9    | 7.8  | 3.9  | UJ        | H    |
| 074SB-0010-0001-SO | PHENOL                       | 32     | UG/KG | 32     | 58   | 32   | UJ        | H    |
| 074SB-0010-0001-SO | PYRENE                       | 3.9    | UG/KG | 3.9    | 7.8  | 3.9  | UJ        | H    |
| 074SB-0010-0001-SO | 2,4-DINITROTOLUENE           | 0.05   | MG/KG | 0.0053 | 0.25 | 0.05 | R         | D    |
| 074SB-0010-0001-SO | 2,6-DINITROTOLUENE           | 0.05   | MG/KG | 0.0072 | 0.25 | 0.05 | R         | D    |
| 074SB-0010-0001-SO | NITROBENZENE                 | 0.05   | MG/KG | 0.017  | 0.25 | 0.05 | R         | D    |
| 074SB-0027-0001-SO | DI-N-BUTYL PHTHALATE         | 33     | UG/KG | 18     | 82   | 32   | U         | B    |

| Sample             | Analyte                   | Result | Units | LOQ   | LOD    | Qual | Code |
|--------------------|---------------------------|--------|-------|-------|--------|------|------|
| 076SB-0094-0001-SO | ANTIMONY                  | 0.23   | MG/KG | 0.18  | 0.089  | J-   | Q    |
| 076SB-0094-0001-SO | ARSENIC                   | 17.0   | MG/KG | 0.089 | 0.045  | J-   | Q    |
| 076SB-0094-0001-SO | BARIUM                    | 47.0   | MG/KG | 0.89  | 0.018  | J    | M    |
| 076SB-0094-0001-SO | BERYLLIUM                 | 0.51   | MG/KG | 0.089 | 0.0089 | J-   | Q    |
| 076SB-0094-0001-SO | CADMIUM                   | 0.13   | MG/KG | 0.089 | 0.027  | J-   | Q    |
| 076SB-0094-0001-SO | CALCIUM                   | 970.0  | MG/KG | 8.9   | 2.2    | J+   | Q    |
| 076SB-0094-0001-SO | CHROMIUM                  | 17.0   | MG/KG | 0.18  | 0.036  | J-   | Q    |
| 076SB-0094-0001-SO | COBALT                    | 9.7    | MG/KG | 0.045 | 0.0089 | J-   | Q    |
| 076SB-0094-0001-SO | COPPER                    | 17.0   | MG/KG | 0.18  | 0.054  | J-   | Q    |
| 076SB-0094-0001-SO | LEAD                      | 24.0   | MG/KG | 0.089 | 0.027  | J    | E    |
| 076SB-0094-0001-SO | MANGANESE                 | 380.0  | MG/KG | 0.45  | 0.027  | J    | E    |
| 076SB-0094-0001-SO | NICKEL                    | 21.0   | MG/KG | 0.089 | 0.027  | J-   | Q    |
| 076SB-0094-0001-SO | POTASSIUM                 | 790.0  | MG/KG | 8.9   | 5.4    | J-   | Q    |
| 076SB-0094-0001-SO | SELENIUM                  | 0.47   | MG/KG | 0.45  | 0.089  | J-   | Q    |
| 076SB-0094-0001-SO | SILVER                    | 0.025  | MG/KG | 0.089 | 0.027  | J-   | Q    |
| 076SB-0094-0001-SO | ZINC                      | 63.0   | MG/KG | 0.45  | 0.18   | J    | A    |
| 076SB-0094-0001-SO | 1,1,1-TRICHLOROETHANE     | 0      | UG/KG | 5.7   | 1.1    | UJ   | S    |
| 076SB-0094-0001-SO | 1,1,2,2-TETRACHLOROETHANE | 0      | UG/KG | 5.7   | 0.57   | UJ   | S    |
| 076SB-0094-0001-SO | 1,1,2-TRICHLOROETHANE     | 0      | UG/KG | 5.7   | 0.57   | UJ   | S    |
| 076SB-0094-0001-SO | 1,1-DICHLOROETHANE        | 0      | UG/KG | 5.7   | 0.57   | UJ   | S    |
| 076SB-0094-0001-SO | 1,1-DICHLOROETHENE        | 0      | UG/KG | 5.7   | 1.1    | UJ   | S    |
| 076SB-0094-0001-SO | 1,2-DIBROMOETHANE         | 0      | UG/KG | 5.7   | 1.1    | UJ   | S    |
| 076SB-0094-0001-SO | 1,2-DICHLOROETHANE        | 0      | UG/KG | 5.7   | 0.57   | UJ   | S    |
| 076SB-0094-0001-SO | 1,2-DICHLOROPROPANE       | 0      | UG/KG | 5.7   | 1.1    | UJ   | S    |
| 076SB-0094-0001-SO | 2-HEXANONE                | 0      | UG/KG | 23    | 1.1    | UJ   | C, S |
| 076SB-0094-0001-SO | ACETONE                   | 0      | UG/KG | 23    | 7.2    | UJ   | S    |
| 076SB-0094-0001-SO | BENZENE                   | 0      | UG/KG | 5.7   | 0.57   | UJ   | S    |
| 076SB-0094-0001-SO | BROMOCHLOROMETHANE        | 0      | UG/KG | 5.7   | 1.1    | UJ   | S    |
| 076SB-0094-0001-SO | BROMODICHLOROMETHANE      | 0      | UG/KG | 5.7   | 0.57   | UJ   | S    |
| 076SB-0094-0001-SO | BROMOFORM                 | 0      | UG/KG | 5.7   | 0.57   | UJ   | S    |
| 076SB-0094-0001-SO | BROMOMETHANE              | 0      | UG/KG | 5.7   | 1.1    | UJ   | S    |
| 076SB-0094-0001-SO | CARBON DISULFIDE          | 0      | UG/KG | 5.7   | 0.57   | UJ   | S    |
| 076SB-0094-0001-SO | CARBON TETRACHLORIDE      | 0      | UG/KG | 5.7   | 0.57   | UJ   | S    |
| 076SB-0094-0001-SO | CHLOROBENZENE             | 0      | UG/KG | 5.7   | 0.57   | UJ   | S    |
| 076SB-0094-0001-SO | CHLOROETHANE              | 0      | UG/KG | 5.7   | 1.1    | UJ   | S    |
| 076SB-0094-0001-SO | CHLOROFORM                | 0      | UG/KG | 5.7   | 0.57   | UJ   | S    |
| 076SB-0094-0001-SO | CHLOROMETHANE             | 0      | UG/KG | 5.7   | 0.57   | UJ   | S    |
| 076SB-0094-0001-SO | CIS-1,3-DICHLOROPROPENE   | 0      | UG/KG | 5.7   | 0.57   | UJ   | S    |
| 076SB-0094-0001-SO | DIBROMOCHLOROMETHANE      | 0      | UG/KG | 5.7   | 1.1    | UJ   | S    |
| 076SB-0094-0001-SO | ETHYLBENZENE              | 0      | UG/KG | 5.7   | 0.57   | UJ   | S    |
| 076SB-0094-0001-SO | METHYL ETHYL KETONE       | 0      | UG/KG | 23    | 2.3    | UJ   | S    |
| 076SB-0094-0001-SO | METHYL ISOBUTYL KETONE    | 0      | UG/KG | 23    | 1.1    | UJ   | C, S |
| 076SB-0094-0001-SO | METHYLENE CHLORIDE        | 0      | UG/KG | 5.7   | 1.1    | UJ   | S    |
| 076SB-0094-0001-SO | STYRENE                   | 0      | UG/KG | 5.7   | 0.57   | UJ   | S    |
| 076SB-0094-0001-SO | TETRACHLOROETHYLENE       | 0      | UG/KG | 5.7   | 1.1    | UJ   | S    |
| 076SB-0094-0001-SO | TOLUENE                   | 1.0    | UG/KG | 5.7   | 0.57   | J    | S    |



| Sample              | Analyte                     | Result | Units | LOQ   | LOD    | Qual | Code |
|---------------------|-----------------------------|--------|-------|-------|--------|------|------|
| 076SB-0094-0001-SO  | TOTAL 1,2-DICHLOROETHENE    | 0      | UG/KG | 11    | 1.1    | UJ   | S    |
| 076SB-0094-0001-SO  | TRANS-1,3-DICHLOROPROPENE   | 0      | UG/KG | 5.7   | 1.1    | UJ   | S    |
| 076SB-0094-0001-SO  | TRICHLOROETHYLENE           | 0      | UG/KG | 5.7   | 0.57   | UJ   | S    |
| 076SB-0094-0001-SO  | VINYL CHLORIDE              | 0      | UG/KG | 5.7   | 0.57   | UJ   | S    |
| 076SB-0094-0001-SO  | XYLENES, TOTAL              | 0      | UG/KG | 11    | 1.7    | UJ   | S    |
| 076SB-0094-0001-SO  | BIS(2-ETHYLHEXYL) PHTHALATE | 27.0   | UG/KG | 50    | 27     | U    | B    |
| 076SB-0096-0001-SO  | ANTIMONY                    | 0.11   | MG/KG | 0.14  | 0.070  | J-   | Q    |
| 076SB-0096-0001-SO  | ARSENIC                     | 13.0   | MG/KG | 0.070 | 0.035  | J-   | Q    |
| 076SB-0096-0001-SO  | BARIUM                      | 29.0   | MG/KG | 0.70  | 0.014  | J    | M    |
| 076SB-0096-0001-SO  | BERYLLIUM                   | 0.42   | MG/KG | 0.070 | 0.0070 | J-   | Q    |
| 076SB-0096-0001-SO  | CADMIUM                     | 0.19   | MG/KG | 0.070 | 0.021  | J-   | Q    |
| 076SB-0096-0001-SO  | CALCIUM                     | 700.0  | MG/KG | 7.0   | 1.8    | J+   | Q    |
| 076SB-0096-0001-SO  | CHROMIUM                    | 14.0   | MG/KG | 0.14  | 0.028  | J-   | Q    |
| 076SB-0096-0001-SO  | COBALT                      | 8.3    | MG/KG | 0.035 | 0.0070 | J-   | Q    |
| 076SB-0096-0001-SO  | COPPER                      | 17.0   | MG/KG | 0.14  | 0.042  | J-   | Q    |
| 076SB-0096-0001-SO  | LEAD                        | 14.0   | MG/KG | 0.070 | 0.021  | J    | E    |
| 076SB-0096-0001-SO  | MANGANESE                   | 510.0  | MG/KG | 0.35  | 0.021  | J    | E    |
| 076SB-0096-0001-SO  | NICKEL                      | 21.0   | MG/KG | 0.070 | 0.021  | J-   | Q    |
| 076SB-0096-0001-SO  | POTASSIUM                   | 810.0  | MG/KG | 7.0   | 4.2    | J-   | Q    |
| 076SB-0096-0001-SO  | SELENIUM                    | 0.32   | MG/KG | 0.35  | 0.070  | J-   | Q    |
| 076SB-0096-0001-SO  | SILVER                      | 0.019  | MG/KG | 0.070 | 0.021  | J-   | Q    |
| 076SB-0096-0001-SO  | ZINC                        | 62.0   | MG/KG | 0.35  | 0.14   | J    | A    |
| 076SB-0096-0001-SO  | BIS(2-ETHYLHEXYL) PHTHALATE | 27.0   | UG/KG | 50    | 27     | U    | B    |
| 076SB-0102M-0001-SO | ANTIMONY                    | 0.12   | MG/KG | 0.15  | 0.076  | J-   | Q    |
| 076SB-0102M-0001-SO | ARSENIC                     | 15.0   | MG/KG | 0.076 | 0.038  | J-   | Q    |
| 076SB-0102M-0001-SO | BARIUM                      | 34.0   | MG/KG | 0.76  | 0.015  | J    | M    |
| 076SB-0102M-0001-SO | BERYLLIUM                   | 0.53   | MG/KG | 0.076 | 0.0076 | J-   | Q    |
| 076SB-0102M-0001-SO | CADMIUM                     | 0.19   | MG/KG | 0.076 | 0.023  | J-   | Q    |
| 076SB-0102M-0001-SO | CALCIUM                     | 680.0  | MG/KG | 7.6   | 1.9    | J+   | Q    |
| 076SB-0102M-0001-SO | CHROMIUM                    | 22.0   | MG/KG | 0.15  | 0.030  | J-   | Q    |
| 076SB-0102M-0001-SO | COBALT                      | 9.2    | MG/KG | 0.038 | 0.0076 | J-   | Q    |
| 076SB-0102M-0001-SO | COPPER                      | 16.0   | MG/KG | 0.15  | 0.045  | J-   | Q    |
| 076SB-0102M-0001-SO | LEAD                        | 15.0   | MG/KG | 0.076 | 0.023  | J    | E    |
| 076SB-0102M-0001-SO | MANGANESE                   | 430.0  | MG/KG | 0.38  | 0.023  | J    | E    |
| 076SB-0102M-0001-SO | NICKEL                      | 23.0   | MG/KG | 0.076 | 0.023  | J-   | Q    |
| 076SB-0102M-0001-SO | POTASSIUM                   | 840.0  | MG/KG | 7.6   | 4.5    | J-   | Q    |
| 076SB-0102M-0001-SO | SELENIUM                    | 0.29   | MG/KG | 0.38  | 0.076  | J-   | Q    |
| 076SB-0102M-0001-SO | SILVER                      | 0.02   | MG/KG | 0.076 | 0.023  | J-   | Q    |
| 076SB-0102M-0001-SO | ZINC                        | 75.0   | MG/KG | 0.38  | 0.15   | J    | A    |
| 076SB-0102M-0001-SO | 2-HEXANONE                  | 0      | UG/KG | 22    | 1.1    | UJ   | C    |
| 076SB-0102M-0001-SO | METHYL ISOBUTYL KETONE      | 0      | UG/KG | 22    | 1.1    | UJ   | C    |
| 076SB-0102M-0001-SO | BIS(2-ETHYLHEXYL) PHTHALATE | 27.0   | UG/KG | 50    | 27     | U    | B    |
| 076SB-0102M-0001-SO | N-NITROSODIPHENYLAMINE      | 0      | UG/KG | 50    | 27     | R    | C    |
| 076SB-0102M-0001-SO | 2,4-DINITROTOLUENE          | 0      | MG/KG | 0.25  | 0.050  | R    | D    |
| 076SB-0102M-0001-SO | 2,6-DINITROTOLUENE          | 0      | MG/KG | 0.25  | 0.050  | R    | D    |
| 076SB-0102M-0001-SO | 2-NITROTOLUENE              | 0      | MG/KG | 0.25  | 0.050  | UJ   | C    |

| Sample              | Analyte                     | Result | Units | LOQ   | LOD    | Qual | Code |
|---------------------|-----------------------------|--------|-------|-------|--------|------|------|
| 076SB-0102M-0001-SO | NITROBENZENE                | 0      | MG/KG | 0.25  | 0.050  | R    | D    |
| 076SB-0102M-0001-SO | RDX                         | 0      | MG/KG | 0.25  | 0.050  | UJ   | C    |
| 076SB-0114M-0001-SO | ANTIMONY                    | 0.088  | MG/KG | 0.18  | 0.091  | J-   | Q    |
| 076SB-0114M-0001-SO | ARSENIC                     | 13.0   | MG/KG | 0.091 | 0.045  | J-   | Q    |
| 076SB-0114M-0001-SO | BARIUM                      | 36.0   | MG/KG | 0.91  | 0.018  | J    | M    |
| 076SB-0114M-0001-SO | BERYLLIUM                   | 0.35   | MG/KG | 0.091 | 0.0091 | J-   | Q    |
| 076SB-0114M-0001-SO | CADMIUM                     | 0.15   | MG/KG | 0.091 | 0.027  | J-   | Q    |
| 076SB-0114M-0001-SO | CALCIUM                     | 530.0  | MG/KG | 9.1   | 2.3    | J+   | Q    |
| 076SB-0114M-0001-SO | CHROMIUM                    | 12.0   | MG/KG | 0.18  | 0.036  | J-   | Q    |
| 076SB-0114M-0001-SO | COBALT                      | 8.0    | MG/KG | 0.045 | 0.0091 | J-   | Q    |
| 076SB-0114M-0001-SO | COPPER                      | 16.0   | MG/KG | 0.18  | 0.055  | J-   | Q    |
| 076SB-0114M-0001-SO | LEAD                        | 11.0   | MG/KG | 0.091 | 0.027  | J    | E    |
| 076SB-0114M-0001-SO | MANGANESE                   | 420.0  | MG/KG | 0.45  | 0.027  | J    | E    |
| 076SB-0114M-0001-SO | NICKEL                      | 17.0   | MG/KG | 0.091 | 0.027  | J-   | Q    |
| 076SB-0114M-0001-SO | POTASSIUM                   | 550.0  | MG/KG | 9.1   | 5.5    | J-   | Q    |
| 076SB-0114M-0001-SO | SELENIUM                    | 0.51   | MG/KG | 0.45  | 0.091  | J-   | Q    |
| 076SB-0114M-0001-SO | SILVER                      | 0.019  | MG/KG | 0.091 | 0.027  | J-   | Q    |
| 076SB-0114M-0001-SO | ZINC                        | 54.0   | MG/KG | 0.45  | 0.18   | J    | A    |
| 076SB-0114M-0001-SO | BIS(2-ETHYLHEXYL) PHTHALATE | 27.0   | UG/KG | 50    | 27     | U    | B    |
| 076SB-0114M-0001-SO | N-NITROSODIPHENYLAMINE      | 0      | UG/KG | 50    | 27     | R    | C    |
| 076SB-0114M-0001-SO | 2,4-DINITROTOLUENE          | 0      | MG/KG | 0.25  | 0.050  | R    | D    |
| 076SB-0114M-0001-SO | 2,6-DINITROTOLUENE          | 0      | MG/KG | 0.25  | 0.050  | R    | D    |
| 076SB-0114M-0001-SO | 2-NITROTOLUENE              | 0      | MG/KG | 0.25  | 0.050  | UJ   | C    |
| 076SB-0114M-0001-SO | NITROBENZENE                | 0      | MG/KG | 0.25  | 0.050  | R    | D    |
| 076SB-0114M-0001-SO | RDX                         | 0      | MG/KG | 0.25  | 0.050  | UJ   | C    |
| 076SD-0009-0001-SO  | ANTIMONY                    | 0      | MG/KG | 0.96  | 0.72   | R    | Q    |
| 076SD-0009-0001-SO  | CALCIUM                     | 1800.0 | MG/KG | 190   | 96     | J+   | Q    |
| 076SD-0009-0001-SO  | CHROMIUM                    | 44.0   | MG/KG | 0.48  | 0.43   | J    | E    |
| 076SD-0009-0001-SO  | NICKEL                      | 30.0   | MG/KG | 0.48  | 0.24   | J    | Q    |
| 076SD-0009-0001-SO  | POTASSIUM                   | 590.0  | MG/KG | 96    | 9.6    | J+   | Q    |
| 076SD-0009-0001-SO  | SELENIUM                    | 0.52   | MG/KG | 0.48  | 0.058  | J    | M    |
| 076SD-0009-0001-SO  | VANADIUM                    | 14.0   | MG/KG | 0.48  | 0.096  | J+   | Q    |
| 076SD-0009-0001-SO  | MERCURY                     | 0.053  | MG/KG | 0.095 | 0.031  | U    | B    |
| 076SD-0009-0001-SO  | 2,4-DINITROPHENOL           | 0      | UG/KG | 330   | 81     | UJ   | C    |
| 076SD-0009-0001-SO  | 3,3'-DICHLOROBENZIDINE      | 0      | UG/KG | 100   | 81     | R    | Q    |
| 076SD-0009-0001-SO  | 3-NITROANILINE              | 0      | UG/KG | 200   | 81     | R    | Q    |
| 076SD-0009-0001-SO  | 4-BROMOPHENYL PHENYL ETHER  | 0      | UG/KG | 51    | 27     | UJ   | C    |
| 076SD-0009-0001-SO  | 4-CHLOROANILINE             | 0      | UG/KG | 150   | 27     | UJ   | Q    |
| 076SD-0009-0001-SO  | 4-NITROANILINE              | 0      | UG/KG | 200   | 27     | R    | Q    |
| 076SD-0009-0001-SO  | BENZO(G,H,I)PERYLENE        | 39.0   | UG/KG | 6.8   | 3.3    | J    | Q    |
| 076SD-0009-0001-SO  | BENZOIC ACID                | 0      | UG/KG | 670   | 340    | UJ   | C    |
| 076SD-0009-0001-SO  | HEXACHLOROETHANE            | 0      | UG/KG | 51    | 27     | UJ   | C, Q |
| 076SD-0009-0001-SO  | PENTACHLOROPHENOL           | 0      | UG/KG | 150   | 81     | UJ   | C    |
| 076SS-0020M-0001-SO | ANTIMONY                    | 0.17   | MG/KG | 0.19  | 0.14   | J-   | Q    |
| 076SS-0020M-0001-SO | ARSENIC                     | 11.0   | MG/KG | 0.46  | 0.14   | J-   | Q    |
| 076SS-0020M-0001-SO | SELENIUM                    | 0.6    | MG/KG | 0.46  | 0.056  | J-   | M, Q |

| Sample              | Analyte                     | Result | Units | LOQ  | LOD   | Qual | Code |
|---------------------|-----------------------------|--------|-------|------|-------|------|------|
| 076SS-0020M-0001-SO | SODIUM                      | 37     | MG/KG | 93   | 37    | U    | F    |
| 076SS-0020M-0001-SO | THALLIUM                    | 0.21   | MG/KG | 0.19 | 0.14  | UJ   | C, F |
| 076SS-0020M-0001-SO | MERCURY                     | 0.077  | MG/KG | 0.10 | 0.033 | U    | B    |
| 076SS-0020M-0001-SO | TOXAPHENE                   | 0      | UG/KG | 340  | 100   | UJ   | C    |
| 076SS-0020M-0001-SO | ACETONE                     | 26.0   | UG/KG | 23   | 7.3   | U    | B    |
| 076SS-0020M-0001-SO | 3,3'-DICHLOROBENZIDINE      | 0      | UG/KG | 98   | 79    | R    | Q    |
| 076SS-0020M-0001-SO | 3-NITROANILINE              | 0      | UG/KG | 200  | 79    | R    | Q    |
| 076SS-0020M-0001-SO | 4-CHLOROANILINE             | 0      | UG/KG | 150  | 27    | UJ   | Q    |
| 076SS-0020M-0001-SO | 4-NITROANILINE              | 0      | UG/KG | 200  | 27    | UJ   | Q    |
| 076SS-0020M-0001-SO | BIS(2-ETHYLHEXYL) PHTHALATE | 36.0   | UG/KG | 49   | 27    | U    | B    |
| 076SS-0020M-0001-SO | DIETHYL PHTHALATE           | 21.0   | UG/KG | 49   | 27    | U    | B    |
| 076SS-0020M-0001-SO | 2,4-DINITROTOLUENE          | 0      | MG/KG | 0.25 | 0.050 | R    | D    |
| 076SS-0020M-0001-SO | 2,6-DINITROTOLUENE          | 0      | MG/KG | 0.25 | 0.050 | R    | D    |
| 076SS-0020M-0001-SO | 2-NITROTOLUENE              | 0      | MG/KG | 0.25 | 0.050 | UJ   | C    |
| 076SS-0020M-0001-SO | NITROBENZENE                | 0      | MG/KG | 0.25 | 0.050 | R    | D    |
| 076SS-0020M-0001-SO | RDX                         | 0      | MG/KG | 0.25 | 0.050 | UJ   | C    |
| 076SS-0020M-0001-SO | TETRYL                      | 0.041  | MG/KG | 0.25 | 0.050 | NJ   | *III |

| Sample              | Analyte                    | Result | Units | DL    | LOQ  | LOD   | Qualifier | Code |
|---------------------|----------------------------|--------|-------|-------|------|-------|-----------|------|
| 078SB-0008M-0001-SO | ANTIMONY                   | 0.097  | MG/KG | 0.046 | 0.2  | 0.1   | J-        | Q    |
| 078SB-0008M-0001-SO | ARSENIC                    | 4.7    | MG/KG | 0.018 | 0.1  | 0.05  | J-        | Q    |
| 078SB-0008M-0001-SO | MANGANESE                  | 280    | MG/KG | 0.016 | 0.5  | 0.03  | J+        | Q    |
| 078SB-0008M-0001-SO | SELENIUM                   | 0.12   | MG/KG | 0.051 | 0.5  | 0.1   | J-        | Q    |
| 078SB-0008M-0001-SO | PCB-1221                   | 25     | UG/KG | 16    | 50   | 25    | UJ        | C    |
| 078SB-0008M-0001-SO | 1,1,1-TRICHLOROETHANE      | 1.1    | UG/KG | 0.62  | 5.5  | 1.1   | UJ        | S    |
| 078SB-0008M-0001-SO | 1,1,2,2-TETRACHLOROETHANE  | 0.55   | UG/KG | 0.38  | 5.5  | 0.55  | UJ        | S    |
| 078SB-0008M-0001-SO | 1,1,2-TRICHLOROETHANE      | 0.55   | UG/KG | 0.43  | 5.5  | 0.55  | UJ        | S    |
| 078SB-0008M-0001-SO | 1,1-DICHLOROETHANE         | 0.55   | UG/KG | 0.4   | 5.5  | 0.55  | UJ        | S    |
| 078SB-0008M-0001-SO | 1,1-DICHLOROETHENE         | 1.1    | UG/KG | 0.57  | 5.5  | 1.1   | UJ        | S    |
| 078SB-0008M-0001-SO | 1,2-DIBROMOETHANE          | 1.1    | UG/KG | 0.55  | 5.5  | 1.1   | UJ        | S    |
| 078SB-0008M-0001-SO | 1,2-DICHLOROETHANE         | 0.55   | UG/KG | 0.38  | 5.5  | 0.55  | UJ        | S    |
| 078SB-0008M-0001-SO | 1,2-DICHLOROPROPANE        | 1.1    | UG/KG | 0.76  | 5.5  | 1.1   | UJ        | S    |
| 078SB-0008M-0001-SO | 2-HEXANONE                 | 1.1    | UG/KG | 0.7   | 22   | 1.1   | UJ        | S    |
| 078SB-0008M-0001-SO | ACETONE                    | 7      | UG/KG | 7     | 22   | 7     | UJ        | S    |
| 078SB-0008M-0001-SO | BENZENE                    | 0.55   | UG/KG | 0.25  | 5.5  | 0.55  | UJ        | S    |
| 078SB-0008M-0001-SO | BROMOCHLOROMETHANE         | 1.1    | UG/KG | 0.78  | 5.5  | 1.1   | UJ        | S    |
| 078SB-0008M-0001-SO | BROMODICHLOROMETHANE       | 0.55   | UG/KG | 0.31  | 5.5  | 0.55  | UJ        | S    |
| 078SB-0008M-0001-SO | BROMOFORM                  | 0.55   | UG/KG | 0.36  | 5.5  | 0.55  | UJ        | S    |
| 078SB-0008M-0001-SO | BROMOMETHANE               | 1.1    | UG/KG | 0.6   | 5.5  | 1.1   | UJ        | S    |
| 078SB-0008M-0001-SO | CARBON DISULFIDE           | 0.55   | UG/KG | 0.49  | 5.5  | 0.55  | UJ        | S    |
| 078SB-0008M-0001-SO | CARBON TETRACHLORIDE       | 0.55   | UG/KG | 0.41  | 5.5  | 0.55  | UJ        | S    |
| 078SB-0008M-0001-SO | CHLOROBENZENE              | 0.55   | UG/KG | 0.36  | 5.5  | 0.55  | UJ        | S    |
| 078SB-0008M-0001-SO | CHLOROETHANE               | 1.1    | UG/KG | 0.95  | 5.5  | 1.1   | UJ        | S    |
| 078SB-0008M-0001-SO | CHLOROFORM                 | 0.55   | UG/KG | 0.32  | 5.5  | 0.55  | UJ        | S    |
| 078SB-0008M-0001-SO | CHLOROMETHANE              | 0.55   | UG/KG | 0.45  | 5.5  | 0.55  | UJ        | S    |
| 078SB-0008M-0001-SO | CIS-1,3-DICHLOROPROPENE    | 0.55   | UG/KG | 0.38  | 5.5  | 0.55  | UJ        | S    |
| 078SB-0008M-0001-SO | DIBROMOCHLOROMETHANE       | 1.1    | UG/KG | 0.61  | 5.5  | 1.1   | UJ        | S    |
| 078SB-0008M-0001-SO | ETHYLBENZENE               | 0.55   | UG/KG | 0.29  | 5.5  | 0.55  | UJ        | S    |
| 078SB-0008M-0001-SO | METHYL ETHYL KETONE        | 2.2    | UG/KG | 1.5   | 22   | 2.2   | UJ        | S    |
| 078SB-0008M-0001-SO | METHYL ISOBUTYL KETONE     | 1.1    | UG/KG | 0.6   | 22   | 1.1   | UJ        | S    |
| 078SB-0008M-0001-SO | METHYLENE CHLORIDE         | 2.0    | UG/KG | 0.74  | 5.5  | 1.1   | UJ        | B, S |
| 078SB-0008M-0001-SO | STYRENE                    | 0.55   | UG/KG | 0.17  | 5.5  | 0.55  | UJ        | S    |
| 078SB-0008M-0001-SO | TETRACHLOROETHYLENE        | 1.1    | UG/KG | 0.57  | 5.5  | 1.1   | UJ        | S    |
| 078SB-0008M-0001-SO | TOLUENE                    | 0.3    | UG/KG | 0.3   | 5.5  | 0.55  | J         | S    |
| 078SB-0008M-0001-SO | TOTAL 1,2-DICHLOROETHENE   | 1.1    | UG/KG | 0.85  | 11   | 1.1   | UJ        | S    |
| 078SB-0008M-0001-SO | TRANS-1,3-DICHLOROPROPENE  | 1.1    | UG/KG | 0.6   | 5.5  | 1.1   | UJ        | S    |
| 078SB-0008M-0001-SO | TRICHLOROETHYLENE          | 0.55   | UG/KG | 0.46  | 5.5  | 0.55  | UJ        | S    |
| 078SB-0008M-0001-SO | VINYL CHLORIDE             | 0.55   | UG/KG | 0.43  | 5.5  | 0.55  | UJ        | S    |
| 078SB-0008M-0001-SO | XYLENES, TOTAL             | 1.7    | UG/KG | 0.74  | 11   | 1.7   | UJ        | S    |
| 078SB-0008M-0001-SO | 2,4-DINITROPHENOL          | 79     | UG/KG | 79    | 330  | 79    | UJ        | C    |
| 078SB-0008M-0001-SO | 4,6-DINITRO-2-METHYLPHENOL | 79     | UG/KG | 79    | 150  | 79    | UJ        | C    |
| 078SB-0008M-0001-SO | BENZO(G,H,I)PERYLENE       | 3.3    | UG/KG | 3.3   | 6.6  | 3.3   | UJ        | C    |
| 078SB-0008M-0001-SO | HEXACHLOROETHANE           | 27     | UG/KG | 8.9   | 50   | 27    | UJ        | C    |
| 078SB-0016M-0001-SO | ANTIMONY                   | 0.31   | MG/KG | 0.041 | 0.18 | 0.09  | J-        | Q    |
| 078SB-0016M-0001-SO | ARSENIC                    | 0.94   | MG/KG | 0.016 | 0.09 | 0.045 | J-        | Q    |
| 078SB-0016M-0001-SO | MANGANESE                  | 160    | MG/KG | 0.014 | 0.45 | 0.027 | J+        | Q    |
| 078SB-0016M-0001-SO | SELENIUM                   | 0.09   | MG/KG | 0.046 | 0.45 | 0.09  | UJ        | Q    |
| 078SB-0016M-0001-SO | 4,4'-DDD                   | 0.67   | UG/KG | 0.62  | 2    | 0.67  | UJ        | C    |

| Sample              | Analyte                    | Result | Units | DL     | LOQ  | LOD  | Qualifier | Code |
|---------------------|----------------------------|--------|-------|--------|------|------|-----------|------|
| 078SB-0016M-0001-SO | TOXAPHENE                  | 20     | UG/KG | 19     | 67   | 20   | UJ        | C    |
| 078SB-0016M-0001-SO | METHYLENE CHLORIDE         | 1.4    | UG/KG | 0.64   | 4.8  | 0.95 | U         | B    |
| 078SB-0016M-0001-SO | 2,4-DINITROPHENOL          | 80     | UG/KG | 80     | 330  | 80   | UJ        | C    |
| 078SB-0016M-0001-SO | 4,6-DINITRO-2-METHYLPHENOL | 80     | UG/KG | 80     | 150  | 80   | UJ        | C    |
| 078SB-0016M-0001-SO | BENZO(G,H,I)PERYLENE       | 7.6    | UG/KG | 3.3    | 6.6  | 3.3  | J         | C    |
| 078SB-0016M-0001-SO | HEXACHLOROETHANE           | 27     | UG/KG | 9      | 50   | 27   | UJ        | C    |
| 078SB-0016M-0001-SO | 2,4-DINITROTOLUENE         | 0.05   | MG/KG | 0.0053 | 0.25 | 0.05 | R         | D    |
| 078SB-0016M-0001-SO | 2,6-DINITROTOLUENE         | 0.05   | MG/KG | 0.0073 | 0.25 | 0.05 | R         | D    |
| 078SB-0016M-0001-SO | NITROBENZENE               | 0.05   | MG/KG | 0.018  | 0.25 | 0.05 | R         | D    |

| Sample              | Analyte   | Result | Units | DL     | LOQ   | LOD   | Qualifier | Code |
|---------------------|-----------|--------|-------|--------|-------|-------|-----------|------|
| 079SB-0217M-0001-SO | ANTIMONY  | 0.053  | MG/KG | 0.043  | 0.19  | 0.094 | J-        | Q    |
| 079SB-0217M-0001-SO | ARSENIC   | 6.6    | MG/KG | 0.017  | 0.094 | 0.047 | J-        | Q    |
| 079SB-0217M-0001-SO | BARIUM    | 36     | MG/KG | 0.01   | 0.94  | 0.019 | J-        | E, Q |
| 079SB-0217M-0001-SO | COPPER    | 11     | MG/KG | 0.031  | 0.19  | 0.057 | J-        | Q    |
| 079SB-0217M-0001-SO | LEAD      | 8.6    | MG/KG | 0.015  | 0.094 | 0.028 | J         | E    |
| 079SB-0217M-0001-SO | MANGANESE | 490    | MG/KG | 0.015  | 0.47  | 0.028 | J         | E    |
| 079SB-0217M-0001-SO | NICKEL    | 15     | MG/KG | 0.011  | 0.094 | 0.028 | J-        | Q    |
| 079SB-0217M-0001-SO | SELENIUM  | 0.21   | MG/KG | 0.048  | 0.47  | 0.094 | J-        | Q    |
| 079SB-0217M-0001-SO | SODIUM    | 32     | MG/KG | 2.5    | 9.4   | 4.7   | J         | E    |
| 079SB-0217M-0001-SO | THALLIUM  | 0.12   | MG/KG | 0.0096 | 0.094 | 0.019 | J         | E    |
| 079SB-0217M-0001-SO | ZINC      | 46     | MG/KG | 0.061  | 0.47  | 0.19  | J-        | Q, A |
| 079SB-0234M-0001-SO | ANTIMONY  | 0.099  | MG/KG | 0.045  | 0.2   | 0.099 | R         | Q    |
| 079SB-0234M-0001-SO | ARSENIC   | 9.9    | MG/KG | 0.018  | 0.099 | 0.05  | J-        | Q    |
| 079SB-0234M-0001-SO | BARIUM    | 81     | MG/KG | 0.011  | 0.99  | 0.02  | J-        | E, Q |
| 079SB-0234M-0001-SO | COPPER    | 17     | MG/KG | 0.033  | 0.2   | 0.059 | J-        | Q    |
| 079SB-0234M-0001-SO | LEAD      | 14     | MG/KG | 0.015  | 0.099 | 0.03  | J         | E    |
| 079SB-0234M-0001-SO | MANGANESE | 490    | MG/KG | 0.016  | 0.5   | 0.03  | J         | E    |
| 079SB-0234M-0001-SO | NICKEL    | 28     | MG/KG | 0.011  | 0.099 | 0.03  | J-        | Q    |
| 079SB-0234M-0001-SO | SELENIUM  | 0.23   | MG/KG | 0.05   | 0.5   | 0.099 | J-        | Q    |
| 079SB-0234M-0001-SO | SODIUM    | 120    | MG/KG | 2.6    | 9.9   | 5     | J         | E    |
| 079SB-0234M-0001-SO | THALLIUM  | 0.15   | MG/KG | 0.01   | 0.099 | 0.02  | J         | E    |
| 079SB-0234M-0001-SO | ZINC      | 53     | MG/KG | 0.064  | 0.5   | 0.2   | J-        | Q, A |
| 079SB-0236M-0001-SO | ANTIMONY  | 0.1    | MG/KG | 0.046  | 0.2   | 0.1   | R         | Q    |
| 079SB-0236M-0001-SO | ARSENIC   | 11     | MG/KG | 0.018  | 0.1   | 0.05  | J-        | Q    |
| 079SB-0236M-0001-SO | BARIUM    | 100    | MG/KG | 0.011  | 1     | 0.02  | J-        | E, Q |
| 079SB-0236M-0001-SO | COPPER    | 7.2    | MG/KG | 0.033  | 0.2   | 0.06  | J-        | Q    |
| 079SB-0236M-0001-SO | LEAD      | 6.4    | MG/KG | 0.015  | 0.1   | 0.03  | J         | E    |
| 079SB-0236M-0001-SO | MANGANESE | 2500   | MG/KG | 0.16   | 5     | 0.3   | J         | E    |
| 079SB-0236M-0001-SO | NICKEL    | 14     | MG/KG | 0.011  | 0.1   | 0.03  | J-        | Q    |
| 079SB-0236M-0001-SO | SELENIUM  | 0.12   | MG/KG | 0.051  | 0.5   | 0.1   | J-        | Q    |
| 079SB-0236M-0001-SO | SODIUM    | 48     | MG/KG | 2.7    | 10    | 5     | J         | E    |
| 079SB-0236M-0001-SO | THALLIUM  | 0.18   | MG/KG | 0.01   | 0.1   | 0.02  | J         | E    |
| 079SB-0236M-0001-SO | ZINC      | 24     | MG/KG | 0.065  | 0.5   | 0.2   | J-        | Q, A |
| 079SB-0245M-0001-SO | ANTIMONY  | 0.097  | MG/KG | 0.045  | 0.19  | 0.097 | UJ        | Q    |
| 079SB-0245M-0001-SO | ARSENIC   | 5      | MG/KG | 0.018  | 0.097 | 0.049 | J-        | Q, A |
| 079SB-0245M-0001-SO | SELENIUM  | 0.067  | MG/KG | 0.049  | 0.49  | 0.097 | J-        | B, Q |
| 079SB-0245M-0001-SO | ZINC      | 19     | MG/KG | 0.063  | 0.49  | 0.19  | J-        | Q, A |
| 079SB-0247M-0001-SO | ANTIMONY  | 0.19   | MG/KG | 0.045  | 0.2   | 0.098 | J-        | Q    |
| 079SB-0247M-0001-SO | ARSENIC   | 4.7    | MG/KG | 0.018  | 0.098 | 0.049 | J-        | Q, A |
| 079SB-0247M-0001-SO | SELENIUM  | 0.098  | MG/KG | 0.05   | 0.49  | 0.098 | UJ        | B, Q |
| 079SB-0247M-0001-SO | ZINC      | 21     | MG/KG | 0.064  | 0.49  | 0.2   | J-        | Q, A |
| 079SB-0252M-0001-SO | ANTIMONY  | 0.097  | MG/KG | 0.045  | 0.19  | 0.097 | UJ        | Q    |
| 079SB-0252M-0001-SO | ARSENIC   | 12     | MG/KG | 0.018  | 0.097 | 0.049 | J-        | Q, A |
| 079SB-0252M-0001-SO | SELENIUM  | 0.07   | MG/KG | 0.049  | 0.49  | 0.097 | J-        | B, Q |
| 079SB-0252M-0001-SO | SODIUM    | 23     | MG/KG | 2.6    | 9.7   | 4.9   | U         | B    |
| 079SB-0252M-0001-SO | ZINC      | 22     | MG/KG | 0.063  | 0.49  | 0.19  | J-        | Q, A |
| 079SB-0267M-0001-SO | ANTIMONY  | 0.099  | MG/KG | 0.045  | 0.2   | 0.099 | UJ        | Q    |
| 079SB-0267M-0001-SO | ARSENIC   | 51     | MG/KG | 0.018  | 0.099 | 0.05  | J-        | Q, A |
| 079SB-0267M-0001-SO | SELENIUM  | 0.22   | MG/KG | 0.05   | 0.5   | 0.099 | J-        | B, Q |

| Sample              | Analyte                    | Result | Units | DL    | LOQ   | LOD   | Qualifier | Code  |
|---------------------|----------------------------|--------|-------|-------|-------|-------|-----------|-------|
| 079SB-0267M-0001-SO | ZINC                       | 36     | MG/KG | 0.064 | 0.5   | 0.2   | J-        | Q, A  |
| 079SB-0269M-0001-SO | ANTIMONY                   | 0.099  | MG/KG | 0.045 | 0.2   | 0.099 | UJ        | Q     |
| 079SB-0269M-0001-SO | ARSENIC                    | 27     | MG/KG | 0.018 | 0.099 | 0.05  | J-        | Q, A  |
| 079SB-0269M-0001-SO | SELENIUM                   | 0.099  | MG/KG | 0.05  | 0.5   | 0.099 | UJ        | B, Q  |
| 079SB-0269M-0001-SO | ZINC                       | 17     | MG/KG | 0.064 | 0.5   | 0.2   | J-        | Q, A  |
| 079SB-0272M-0001-SO | ANTIMONY                   | 0.18   | MG/KG | 0.046 | 0.2   | 0.1   | J-        | Q     |
| 079SB-0272M-0001-SO | ARSENIC                    | 8.8    | MG/KG | 0.018 | 0.1   | 0.05  | J-        | Q, A  |
| 079SB-0272M-0001-SO | SELENIUM                   | 0.1    | MG/KG | 0.051 | 0.5   | 0.1   | UJ        | B, Q  |
| 079SB-0272M-0001-SO | ZINC                       | 56     | MG/KG | 0.065 | 0.5   | 0.2   | J-        | Q, A  |
| 079SD-0305-0001-SD  | ANTIMONY                   | 0.14   | MG/KG | 0.076 | 0.33  | 0.17  | J-        | Q     |
| 079SD-0305-0001-SD  | BARIUM                     | 71     | MG/KG | 0.018 | 1.7   | 0.033 | J         | M     |
| 079SD-0305-0001-SD  | CALCIUM                    | 2400   | MG/KG | 2.2   | 17    | 4.1   | J         | E     |
| 079SD-0305-0001-SD  | SELENIUM                   | 0.61   | MG/KG | 0.084 | 0.83  | 0.17  | J-        | B     |
| 079SW-0311-0001-SW  | LEAD                       | 0.3    | UG/L  | 0.15  | 1     | 0.3   | U         | B     |
| 079SW-0311-0001-SW  | TOXAPHENE                  | 0.53   | UG/L  | 0.34  | 2.1   | 0.53  | UJ        | C     |
| 079SW-0311-0001-SW  | PCB-1221                   | 0.21   | UG/L  | 0.14  | 0.53  | 0.21  | UJ        | C     |
| 079SW-0311-0001-SW  | ACETONE                    | 1.2    | UG/L  | 1.1   | 10    | 1.1   | J         | C     |
| 079SW-0311-0001-SW  | 2,4-DINITROTOLUENE         | 0.85   | UG/L  | 0.29  | 5.3   | 0.85  | R         | D     |
| 079SW-0311-0001-SW  | 2,6-DINITROTOLUENE         | 0.85   | UG/L  | 0.85  | 5.3   | 0.85  | R         | D     |
| 079SW-0311-0001-SW  | 1,3,5-TRINITROBENZENE      | 2.2    | UG/L  | 2.2   | 2.2   | 2.2   | U         | \$    |
| 079SW-0311-0001-SW  | 1,3-DINITROBENZENE         | 1.1    | UG/L  | 1.1   | 1.1   | 1.1   | U         | \$    |
| 079SW-0311-0001-SW  | 2,4,6-TRINITROTOLUENE      | 1.1    | UG/L  | 1.1   | 1.1   | 1.1   | U         | \$    |
| 079SW-0311-0001-SW  | 2-AMINO-4,6-DINITROTOLUENE | 1.1    | UG/L  | 1.1   | 1.1   | 1.1   | U         | \$    |
| 079SW-0311-0001-SW  | 4-AMINO-2,6-DINITROTOLUENE | 1.1    | UG/L  | 1.1   | 1.1   | 1.1   | U         | \$    |
| 079SW-0311-0001-SW  | HMX                        | 1.1    | UG/L  | 1.1   | 1.1   | 1.1   | U         | \$    |
| 079SW-0311-0001-SW  | NITROBENZENE               | 2.2    | UG/L  | 2.2   | 2.2   | 2.2   | R         | D, \$ |
| 079SW-0311-0001-SW  | NITROGLYCERIN              | 4.4    | UG/L  | 4.4   | 4.4   | 4.4   | U         | \$    |
| 079SW-0311-0001-SW  | RDX                        | 2.2    | UG/L  | 2.2   | 2.2   | 2.2   | U         | \$    |
| 079SW-0311-0001-SW  | TETRYL                     | 1.1    | UG/L  | 1.1   | 1.1   | 1.1   | U         | \$    |

## **APPENDIX C**

### **Primary/Field Duplicate Sample Comparisons**



| Sample              | Analyte        | Result | Units | LOQ   | LOD    | Qual | Sample              | Result | LOQ   | LOD    | Qual | RPD | W/In LOQ |
|---------------------|----------------|--------|-------|-------|--------|------|---------------------|--------|-------|--------|------|-----|----------|
| 068SS-0003M-0001-SO | NITROCELLULOSE | 0.88   | MG/KG | 4.8   | 1.8    | J    | 068SS-0004M-0001-SO | 1.8    | 5     | 1.8    | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | ALUMINUM       | 11000  | MG/KG | 3     | 0.59   |      | 068SB-0022M-0001-SO | 11000  | 2.9   | 0.58   |      | 0   | N/A      |
| 068SB-0019M-0001-SO | ANTIMONY       | 0.099  | MG/KG | 0.2   | 0.099  | U    | 068SB-0022M-0001-SO | 0.097  | 0.19  | 0.097  | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | ARSENIC        | 11     | MG/KG | 0.099 | 0.05   |      | 068SB-0022M-0001-SO | 11     | 0.097 | 0.049  |      | 0   | N/A      |
| 068SB-0019M-0001-SO | BARIUM         | 74     | MG/KG | 0.99  | 0.02   |      | 068SB-0022M-0001-SO | 61     | 0.97  | 0.019  |      | 19  | N/A      |
| 068SB-0019M-0001-SO | BERYLLIUM      | 0.57   | MG/KG | 0.099 | 0.0099 |      | 068SB-0022M-0001-SO | 0.56   | 0.097 | 0.0097 |      | 2   | N/A      |
| 068SB-0019M-0001-SO | CADMIUM        | 0.23   | MG/KG | 0.099 | 0.03   |      | 068SB-0022M-0001-SO | 0.19   | 0.097 | 0.029  |      | N/A | Yes      |
| 068SB-0019M-0001-SO | CALCIUM        | 25000  | MG/KG | 9.9   | 2.5    |      | 068SB-0022M-0001-SO | 26000  | 9.7   | 2.4    |      | 4   | N/A      |
| 068SB-0019M-0001-SO | CHROMIUM       | 18     | MG/KG | 0.2   | 0.04   |      | 068SB-0022M-0001-SO | 17     | 0.19  | 0.039  |      | 6   | N/A      |
| 068SB-0019M-0001-SO | COBALT         | 12     | MG/KG | 0.05  | 0.0099 |      | 068SB-0022M-0001-SO | 13     | 0.049 | 0.0097 |      | 8   | N/A      |
| 068SB-0019M-0001-SO | COPPER         | 20     | MG/KG | 0.2   | 0.059  |      | 068SB-0022M-0001-SO | 19     | 0.19  | 0.058  |      | 5   | N/A      |
| 068SB-0019M-0001-SO | IRON           | 26000  | MG/KG | 5     | 2      |      | 068SB-0022M-0001-SO | 25000  | 4.9   | 1.9    |      | 4   | N/A      |
| 068SB-0019M-0001-SO | LEAD           | 12     | MG/KG | 0.099 | 0.03   |      | 068SB-0022M-0001-SO | 11     | 0.097 | 0.029  |      | 9   | N/A      |
| 068SB-0019M-0001-SO | MAGNESIUM      | 7400   | MG/KG | 9.9   | 2      |      | 068SB-0022M-0001-SO | 7400   | 9.7   | 1.9    |      | 0   | N/A      |
| 068SB-0019M-0001-SO | MANGANESE      | 360    | MG/KG | 0.5   | 0.03   |      | 068SB-0022M-0001-SO | 380    | 0.49  | 0.029  |      | 5   | N/A      |
| 068SB-0019M-0001-SO | NICKEL         | 29     | MG/KG | 0.099 | 0.03   |      | 068SB-0022M-0001-SO | 29     | 0.097 | 0.029  |      | 0   | N/A      |
| 068SB-0019M-0001-SO | POTASSIUM      | 1500   | MG/KG | 9.9   | 5.9    |      | 068SB-0022M-0001-SO | 1400   | 9.7   | 5.8    |      | 7   | N/A      |
| 068SB-0019M-0001-SO | SELENIUM       | 0.31   | MG/KG | 0.5   | 0.099  | J    | 068SB-0022M-0001-SO | 0.28   | 0.49  | 0.097  | J    | N/A | Yes      |
| 068SB-0019M-0001-SO | SILVER         | 0.04   | MG/KG | 0.099 | 0.03   | J    | 068SB-0022M-0001-SO | 0.037  | 0.097 | 0.029  | J    | N/A | Yes      |
| 068SB-0019M-0001-SO | SODIUM         | 120    | MG/KG | 9.9   | 5      |      | 068SB-0022M-0001-SO | 120    | 9.7   | 4.9    |      | 0   | N/A      |
| 068SB-0019M-0001-SO | THALLIUM       | 0.16   | MG/KG | 0.099 | 0.02   |      | 068SB-0022M-0001-SO | 0.16   | 0.097 | 0.019  |      | N/A | Yes      |
| 068SB-0019M-0001-SO | VANADIUM       | 18     | MG/KG | 0.099 | 0.059  |      | 068SB-0022M-0001-SO | 18     | 0.097 | 0.058  |      | 0   | N/A      |
| 068SB-0019M-0001-SO | ZINC           | 49     | MG/KG | 0.5   | 0.2    |      | 068SB-0022M-0001-SO | 48     | 0.49  | 0.19   |      | 2   | N/A      |
| 068SB-0035M-0001-SO | ALUMINUM       | 12000  | MG/KG | 2.7   | 0.54   |      | 068SB-0036M-0001-SO | 11000  | 2.9   | 0.58   |      | 9   | N/A      |
| 068SB-0035M-0001-SO | ANTIMONY       | 0.09   | MG/KG | 0.18  | 0.09   | U    | 068SB-0036M-0001-SO | 0.096  | 0.19  | 0.096  | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | ARSENIC        | 11     | MG/KG | 0.09  | 0.045  |      | 068SB-0036M-0001-SO | 9.4    | 0.096 | 0.048  |      | 16  | N/A      |
| 068SB-0035M-0001-SO | BARIUM         | 64     | MG/KG | 0.9   | 0.018  |      | 068SB-0036M-0001-SO | 63     | 0.96  | 0.019  |      | 2   | N/A      |
| 068SB-0035M-0001-SO | BERYLLIUM      | 0.56   | MG/KG | 0.09  | 0.009  |      | 068SB-0036M-0001-SO | 0.55   | 0.096 | 0.0096 |      | 2   | N/A      |
| 068SB-0035M-0001-SO | CADMIUM        | 0.14   | MG/KG | 0.09  | 0.027  |      | 068SB-0036M-0001-SO | 0.16   | 0.096 | 0.029  |      | N/A | Yes      |
| 068SB-0035M-0001-SO | CALCIUM        | 2300   | MG/KG | 9     | 2.3    |      | 068SB-0036M-0001-SO | 1900   | 9.6   | 2.4    |      | 19  | N/A      |
| 068SB-0035M-0001-SO | CHROMIUM       | 16     | MG/KG | 0.18  | 0.036  |      | 068SB-0036M-0001-SO | 15     | 0.19  | 0.038  |      | 6   | N/A      |
| 068SB-0035M-0001-SO | COBALT         | 10     | MG/KG | 0.045 | 0.009  |      | 068SB-0036M-0001-SO | 16     | 0.048 | 0.0096 |      | 46  | N/A      |
| 068SB-0035M-0001-SO | COPPER         | 19     | MG/KG | 0.18  | 0.054  |      | 068SB-0036M-0001-SO | 16     | 0.19  | 0.058  |      | 17  | N/A      |
| 068SB-0035M-0001-SO | IRON           | 26000  | MG/KG | 4.5   | 1.8    |      | 068SB-0036M-0001-SO | 24000  | 4.8   | 1.9    |      | 8   | N/A      |
| 068SB-0035M-0001-SO | LEAD           | 13     | MG/KG | 0.09  | 0.027  |      | 068SB-0036M-0001-SO | 15     | 0.096 | 0.029  |      | 14  | N/A      |
| 068SB-0035M-0001-SO | MAGNESIUM      | 3300   | MG/KG | 9     | 1.8    |      | 068SB-0036M-0001-SO | 2900   | 9.6   | 1.9    |      | 13  | N/A      |

| Sample              | Analyte   | Result | Units | LOQ   | LOD    | Qual | Sample              | Result | LOQ   | LOD    | Qual | RPD | W/In LOQ |
|---------------------|-----------|--------|-------|-------|--------|------|---------------------|--------|-------|--------|------|-----|----------|
| 068SB-0035M-0001-SO | MANGANESE | 360    | MG/KG | 0.45  | 0.027  |      | 068SB-0036M-0001-SO | 620    | 0.48  | 0.029  |      | 53  | N/A      |
| 068SB-0035M-0001-SO | NICKEL    | 24     | MG/KG | 0.09  | 0.027  |      | 068SB-0036M-0001-SO | 22     | 0.096 | 0.029  |      | 9   | N/A      |
| 068SB-0035M-0001-SO | POTASSIUM | 1200   | MG/KG | 9     | 5.4    |      | 068SB-0036M-0001-SO | 1100   | 9.6   | 5.8    |      | 9   | N/A      |
| 068SB-0035M-0001-SO | SELENIUM  | 0.29   | MG/KG | 0.45  | 0.09   | J    | 068SB-0036M-0001-SO | 0.35   | 0.48  | 0.096  | J    | N/A | Yes      |
| 068SB-0035M-0001-SO | SILVER    | 0.031  | MG/KG | 0.09  | 0.027  | J    | 068SB-0036M-0001-SO | 0.028  | 0.096 | 0.029  | J    | N/A | Yes      |
| 068SB-0035M-0001-SO | SODIUM    | 41     | MG/KG | 9     | 4.5    |      | 068SB-0036M-0001-SO | 38     | 9.6   | 4.8    |      | N/A | Yes      |
| 068SB-0035M-0001-SO | THALLIUM  | 0.16   | MG/KG | 0.09  | 0.018  |      | 068SB-0036M-0001-SO | 0.15   | 0.096 | 0.019  |      | N/A | Yes      |
| 068SB-0035M-0001-SO | VANADIUM  | 18     | MG/KG | 0.09  | 0.054  |      | 068SB-0036M-0001-SO | 19     | 0.096 | 0.058  |      | 5   | N/A      |
| 068SB-0035M-0001-SO | ZINC      | 53     | MG/KG | 0.45  | 0.18   |      | 068SB-0036M-0001-SO | 55     | 0.48  | 0.19   |      | 4   | N/A      |
| 068SB-0054M-0001-SO | ALUMINUM  | 8400   | MG/KG | 2.9   | 0.58   |      | 068SB-0053M-0001-SO | 8700   | 2.7   | 0.55   |      | 4   | N/A      |
| 068SB-0054M-0001-SO | ANTIMONY  | 0.054  | MG/KG | 0.19  | 0.097  | J    | 068SB-0053M-0001-SO | 0.046  | 0.18  | 0.091  | J    | N/A | Yes      |
| 068SB-0054M-0001-SO | ARSENIC   | 12     | MG/KG | 0.097 | 0.049  |      | 068SB-0053M-0001-SO | 11     | 0.091 | 0.045  |      | 9   | N/A      |
| 068SB-0054M-0001-SO | BARIUM    | 58     | MG/KG | 0.97  | 0.019  |      | 068SB-0053M-0001-SO | 53     | 0.91  | 0.018  |      | 9   | N/A      |
| 068SB-0054M-0001-SO | BERYLLIUM | 0.47   | MG/KG | 0.097 | 0.0097 |      | 068SB-0053M-0001-SO | 0.5    | 0.091 | 0.0091 |      | N/A | Yes      |
| 068SB-0054M-0001-SO | CADMIUM   | 0.13   | MG/KG | 0.097 | 0.029  |      | 068SB-0053M-0001-SO | 0.12   | 0.091 | 0.027  |      | N/A | Yes      |
| 068SB-0054M-0001-SO | CALCIUM   | 910    | MG/KG | 9.7   | 2.4    |      | 068SB-0053M-0001-SO | 3400   | 9.1   | 2.3    |      | 116 | N/A      |
| 068SB-0054M-0001-SO | CHROMIUM  | 12     | MG/KG | 0.19  | 0.039  |      | 068SB-0053M-0001-SO | 12     | 0.18  | 0.036  |      | 0   | N/A      |
| 068SB-0054M-0001-SO | COBALT    | 9.1    | MG/KG | 0.049 | 0.0097 |      | 068SB-0053M-0001-SO | 8.6    | 0.045 | 0.0091 |      | 6   | N/A      |
| 068SB-0054M-0001-SO | COPPER    | 18     | MG/KG | 0.19  | 0.058  |      | 068SB-0053M-0001-SO | 16     | 0.18  | 0.055  |      | 12  | N/A      |
| 068SB-0054M-0001-SO | IRON      | 21000  | MG/KG | 4.9   | 1.9    |      | 068SB-0053M-0001-SO | 21000  | 4.5   | 1.8    |      | 0   | N/A      |
| 068SB-0054M-0001-SO | LEAD      | 15     | MG/KG | 0.097 | 0.029  |      | 068SB-0053M-0001-SO | 13     | 0.091 | 0.027  |      | 14  | N/A      |
| 068SB-0054M-0001-SO | MAGNESIUM | 2300   | MG/KG | 9.7   | 1.9    |      | 068SB-0053M-0001-SO | 2400   | 9.1   | 1.8    |      | 4   | N/A      |
| 068SB-0054M-0001-SO | MANGANESE | 310    | MG/KG | 0.49  | 0.029  |      | 068SB-0053M-0001-SO | 370    | 0.45  | 0.027  |      | 18  | N/A      |
| 068SB-0054M-0001-SO | NICKEL    | 20     | MG/KG | 0.097 | 0.029  |      | 068SB-0053M-0001-SO | 18     | 0.091 | 0.027  |      | 11  | N/A      |
| 068SB-0054M-0001-SO | POTASSIUM | 870    | MG/KG | 9.7   | 5.8    |      | 068SB-0053M-0001-SO | 770    | 9.1   | 5.5    |      | 12  | N/A      |
| 068SB-0054M-0001-SO | SELENIUM  | 0.29   | MG/KG | 0.49  | 0.097  | J    | 068SB-0053M-0001-SO | 0.29   | 0.45  | 0.091  | J    | N/A | Yes      |
| 068SB-0054M-0001-SO | SILVER    | 0.028  | MG/KG | 0.097 | 0.029  | J    | 068SB-0053M-0001-SO | 0.028  | 0.091 | 0.027  | J    | N/A | Yes      |
| 068SB-0054M-0001-SO | SODIUM    | 37     | MG/KG | 9.7   | 4.9    |      | 068SB-0053M-0001-SO | 44     | 9.1   | 4.5    |      | N/A | Yes      |
| 068SB-0054M-0001-SO | THALLIUM  | 0.13   | MG/KG | 0.097 | 0.019  |      | 068SB-0053M-0001-SO | 0.12   | 0.091 | 0.018  |      | N/A | Yes      |
| 068SB-0054M-0001-SO | VANADIUM  | 14     | MG/KG | 0.097 | 0.058  |      | 068SB-0053M-0001-SO | 15     | 0.091 | 0.055  |      | 7   | N/A      |
| 068SB-0054M-0001-SO | ZINC      | 42     | MG/KG | 0.49  | 0.19   |      | 068SB-0053M-0001-SO | 40     | 0.45  | 0.18   |      | 5   | N/A      |
| 068SD-0009-0001-SO  | ALUMINUM  | 12000  | MG/KG | 9.6   | 3.8    | J    | 068SD-00010-0001-SO | 13000  | 8.2   | 3.3    |      | 8   | N/A      |
| 068SD-0009-0001-SO  | ANTIMONY  | 0.13   | MG/KG | 0.19  | 0.14   | J    | 068SD-00010-0001-SO | 0.13   | 0.16  | 0.12   | J    | N/A | Yes      |
| 068SD-0009-0001-SO  | ARSENIC   | 16     | MG/KG | 0.48  | 0.14   |      | 068SD-00010-0001-SO | 16     | 0.41  | 0.12   |      | 0   | N/A      |
| 068SD-0009-0001-SO  | BARIUM    | 78     | MG/KG | 0.48  | 0.29   |      | 068SD-00010-0001-SO | 75     | 0.41  | 0.25   |      | 4   | N/A      |
| 068SD-0009-0001-SO  | BERYLLIUM | 0.76   | MG/KG | 0.096 | 0.0096 |      | 068SD-00010-0001-SO | 0.74   | 0.082 | 0.0082 |      | 3   | N/A      |

| Sample              | Analyte   | Result | Units | LOQ   | LOD    | Qual | Sample              | Result | LOQ   | LOD    | Qual | RPD | W/In LOQ |
|---------------------|-----------|--------|-------|-------|--------|------|---------------------|--------|-------|--------|------|-----|----------|
| 068SD-0009-0001-SO  | CADMIUM   | 0.61   | MG/KG | 0.19  | 0.0096 |      | 068SD-00010-0001-SO | 0.49   | 0.16  | 0.0082 |      | N/A | Yes      |
| 068SD-0009-0001-SO  | CALCIUM   | 1500   | MG/KG | 190   | 96     |      | 068SD-00010-0001-SO | 1200   | 160   | 82     |      | 22  | N/A      |
| 068SD-0009-0001-SO  | CHROMIUM  | 21     | MG/KG | 0.48  | 0.43   |      | 068SD-00010-0001-SO | 22     | 0.41  | 0.37   |      | 5   | N/A      |
| 068SD-0009-0001-SO  | COBALT    | 12     | MG/KG | 0.096 | 0.014  |      | 068SD-00010-0001-SO | 12     | 0.082 | 0.012  |      | 0   | N/A      |
| 068SD-0009-0001-SO  | COPPER    | 30     | MG/KG | 0.38  | 0.29   |      | 068SD-00010-0001-SO | 27     | 0.33  | 0.25   |      | 11  | N/A      |
| 068SD-0009-0001-SO  | IRON      | 26000  | MG/KG | 48    | 29     | J    | 068SD-00010-0001-SO | 30000  | 200   | 120    |      | 14  | N/A      |
| 068SD-0009-0001-SO  | LEAD      | 23     | MG/KG | 0.29  | 0.19   |      | 068SD-00010-0001-SO | 21     | 0.25  | 0.16   |      | 9   | N/A      |
| 068SD-0009-0001-SO  | MAGNESIUM | 2400   | MG/KG | 96    | 24     |      | 068SD-00010-0001-SO | 2400   | 82    | 20     |      | 0   | N/A      |
| 068SD-0009-0001-SO  | MANGANESE | 891    | MG/KG | 4.8   | 3.8    |      | 068SD-00010-0001-SO | 770    | 0.41  | 0.33   |      | 15  | N/A      |
| 068SD-0009-0001-SO  | NICKEL    | 24     | MG/KG | 0.48  | 0.24   |      | 068SD-00010-0001-SO | 25     | 0.41  | 0.2    |      | 4   | N/A      |
| 068SD-0009-0001-SO  | POTASSIUM | 790    | MG/KG | 96    | 9.6    |      | 068SD-00010-0001-SO | 790    | 82    | 8.2    |      | 0   | N/A      |
| 068SD-0009-0001-SO  | SELENIUM  | 0.8    | MG/KG | 0.48  | 0.058  |      | 068SD-00010-0001-SO | 0.78   | 0.41  | 0.049  |      | N/A | Yes      |
| 068SD-0009-0001-SO  | SILVER    | 0.056  | MG/KG | 0.096 | 0.048  | J    | 068SD-00010-0001-SO | 0.05   | 0.082 | 0.041  | J    | N/A | Yes      |
| 068SD-0009-0001-SO  | SODIUM    | 47     | MG/KG | 96    | 38     | J    | 068SD-00010-0001-SO | 43     | 82    | 33     |      | N/A | Yes      |
| 068SD-0009-0001-SO  | THALLIUM  | 0.22   | MG/KG | 0.19  | 0.14   |      | 068SD-00010-0001-SO | 0.23   | 0.16  | 0.12   |      | N/A | Yes      |
| 068SD-0009-0001-SO  | VANADIUM  | 19     | MG/KG | 0.48  | 0.096  |      | 068SD-00010-0001-SO | 19     | 0.41  | 0.082  |      | 0   | N/A      |
| 068SD-0009-0001-SO  | ZINC      | 160    | MG/KG | 3.8   | 1.9    |      | 068SD-00010-0001-SO | 130    | 3.3   | 1.6    |      | 21  | N/A      |
| 068SB-0019M-0001-SO | MERCURY   | 0.021  | MG/KG | 0.1   | 0.033  | J    | 068SB-0022M-0001-SO | 0.019  | 0.1   | 0.034  | J    | N/A | Yes      |
| 068SB-0035M-0001-SO | MERCURY   | 0.015  | MG/KG | 0.11  | 0.036  | J    | 068SB-0036M-0001-SO | 0.019  | 0.1   | 0.034  | J    | N/A | Yes      |
| 068SB-0054M-0001-SO | MERCURY   | 0.014  | MG/KG | 0.086 | 0.028  | J    | 068SB-0053M-0001-SO | 0.015  | 0.1   | 0.034  | J    | N/A | Yes      |
| 068SD-0009-0001-SO  | MERCURY   | 0.031  | MG/KG | 0.095 | 0.031  | J    | 068SD-00010-0001-SO | 0.032  | 0.098 | 0.032  | J    | N/A | Yes      |
| 068SB-0019M-0001-SO | PCB-1016  | 25     | UG/KG | 66    | 25     | U    | 068SB-0022M-0001-SO | 24     | 64    | 24     | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | PCB-1221  | 25     | UG/KG | 51    | 25     | U    | 068SB-0022M-0001-SO | 24     | 49    | 24     | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | PCB-1232  | 25     | UG/KG | 46    | 25     | U    | 068SB-0022M-0001-SO | 24     | 44    | 24     | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | PCB-1242  | 25     | UG/KG | 41    | 25     | U    | 068SB-0022M-0001-SO | 24     | 40    | 24     | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | PCB-1248  | 25     | UG/KG | 56    | 25     | U    | 068SB-0022M-0001-SO | 24     | 54    | 24     | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | PCB-1254  | 25     | UG/KG | 56    | 25     | U    | 068SB-0022M-0001-SO | 24     | 54    | 24     | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | PCB-1260  | 25     | UG/KG | 56    | 25     | U    | 068SB-0022M-0001-SO | 24     | 54    | 24     | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | PCB-1016  | 24     | UG/KG | 64    | 24     | U    | 068SB-0036M-0001-SO | 25     | 66    | 25     | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | PCB-1221  | 24     | UG/KG | 49    | 24     | U    | 068SB-0036M-0001-SO | 25     | 51    | 25     | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | PCB-1232  | 24     | UG/KG | 44    | 24     | U    | 068SB-0036M-0001-SO | 25     | 46    | 25     | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | PCB-1242  | 24     | UG/KG | 39    | 24     | U    | 068SB-0036M-0001-SO | 25     | 41    | 25     | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | PCB-1248  | 24     | UG/KG | 54    | 24     | U    | 068SB-0036M-0001-SO | 25     | 56    | 25     | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | PCB-1254  | 24     | UG/KG | 54    | 24     | U    | 068SB-0036M-0001-SO | 25     | 56    | 25     | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | PCB-1260  | 24     | UG/KG | 54    | 24     | U    | 068SB-0036M-0001-SO | 25     | 56    | 25     | U    | N/A | Yes      |
| 068SB-0054M-0001-SO | PCB-1016  | 25     | UG/KG | 66    | 25     | U    | 068SB-0053M-0001-SO | 25     | 65    | 25     | U    | N/A | Yes      |

| Sample              | Analyte                    | Result | Units | LOQ  | LOD | Qual | Sample              | Result | LOQ  | LOD | Qual | RPD | W/In LOQ |
|---------------------|----------------------------|--------|-------|------|-----|------|---------------------|--------|------|-----|------|-----|----------|
| 068SB-0054M-0001-SO | PCB-1221                   | 25     | UG/KG | 50   | 25  | U    | 068SB-0053M-0001-SO | 25     | 50   | 25  | U    | N/A | Yes      |
| 068SB-0054M-0001-SO | PCB-1232                   | 25     | UG/KG | 45   | 25  | U    | 068SB-0053M-0001-SO | 25     | 45   | 25  | U    | N/A | Yes      |
| 068SB-0054M-0001-SO | PCB-1242                   | 25     | UG/KG | 40   | 25  | U    | 068SB-0053M-0001-SO | 25     | 40   | 25  | U    | N/A | Yes      |
| 068SB-0054M-0001-SO | PCB-1248                   | 25     | UG/KG | 55   | 25  | U    | 068SB-0053M-0001-SO | 25     | 55   | 25  | U    | N/A | Yes      |
| 068SB-0054M-0001-SO | PCB-1254                   | 25     | UG/KG | 55   | 25  | U    | 068SB-0053M-0001-SO | 25     | 55   | 25  | U    | N/A | Yes      |
| 068SB-0054M-0001-SO | PCB-1260                   | 25     | UG/KG | 55   | 25  | U    | 068SB-0053M-0001-SO | 25     | 55   | 25  | U    | N/A | Yes      |
| 068SD-0009-0001-SO  | PCB-1016                   | 24     | UG/KG | 64   | 24  | U    | 068SD-00010-0001-SO | 25     | 65   | 25  | U    | N/A | Yes      |
| 068SD-0009-0001-SO  | PCB-1221                   | 24     | UG/KG | 49   | 24  | U    | 068SD-00010-0001-SO | 25     | 50   | 25  | U    | N/A | Yes      |
| 068SD-0009-0001-SO  | PCB-1232                   | 24     | UG/KG | 44   | 24  | U    | 068SD-00010-0001-SO | 25     | 45   | 25  | U    | N/A | Yes      |
| 068SD-0009-0001-SO  | PCB-1242                   | 24     | UG/KG | 39   | 24  | U    | 068SD-00010-0001-SO | 25     | 40   | 25  | U    | N/A | Yes      |
| 068SD-0009-0001-SO  | PCB-1248                   | 24     | UG/KG | 54   | 24  | U    | 068SD-00010-0001-SO | 25     | 55   | 25  | U    | N/A | Yes      |
| 068SD-0009-0001-SO  | PCB-1254                   | 24     | UG/KG | 54   | 24  | U    | 068SD-00010-0001-SO | 25     | 55   | 25  | U    | N/A | Yes      |
| 068SD-0009-0001-SO  | PCB-1260                   | 24     | UG/KG | 54   | 24  | U    | 068SD-00010-0001-SO | 25     | 55   | 25  | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | 1,2,4-TRICHLOROBENZENE     | 130    | UG/KG | 250  | 130 | U    | 068SB-0022M-0001-SO | 140    | 250  | 140 | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | 1,2-DICHLOROBENZENE        | 130    | UG/KG | 250  | 130 | U    | 068SB-0022M-0001-SO | 140    | 250  | 140 | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | 1,3-DICHLOROBENZENE        | 130    | UG/KG | 250  | 130 | U    | 068SB-0022M-0001-SO | 140    | 250  | 140 | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | 1,4-DICHLOROBENZENE        | 130    | UG/KG | 250  | 130 | U    | 068SB-0022M-0001-SO | 140    | 250  | 140 | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | 2,4,5-TRICHLOROPHENOL      | 130    | UG/KG | 740  | 130 | U    | 068SB-0022M-0001-SO | 140    | 760  | 140 | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | 2,4,6-TRICHLOROPHENOL      | 390    | UG/KG | 740  | 390 | U    | 068SB-0022M-0001-SO | 410    | 760  | 410 | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | 2,4-DICHLOROPHENOL         | 130    | UG/KG | 740  | 130 | U    | 068SB-0022M-0001-SO | 140    | 760  | 140 | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | 2,4-DIMETHYLPHENOL         | 390    | UG/KG | 740  | 390 | U    | 068SB-0022M-0001-SO | 410    | 760  | 410 | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | 2,4-DINITROPHENOL          | 390    | UG/KG | 1600 | 390 | U    | 068SB-0022M-0001-SO | 410    | 1700 | 410 | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | 2,4-DINITROTOLUENE         | 130    | UG/KG | 990  | 130 | U    | 068SB-0022M-0001-SO | 140    | 1000 | 140 | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | 2,6-DINITROTOLUENE         | 130    | UG/KG | 990  | 130 | U    | 068SB-0022M-0001-SO | 140    | 1000 | 140 | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | 2-CHLORONAPHTHALENE        | 16     | UG/KG | 250  | 16  | U    | 068SB-0022M-0001-SO | 17     | 250  | 17  | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | 2-CHLOROPHENOL             | 130    | UG/KG | 250  | 130 | U    | 068SB-0022M-0001-SO | 140    | 250  | 140 | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | 2-METHYLNAPHTHALENE        | 16     | UG/KG | 33   | 16  | U    | 068SB-0022M-0001-SO | 17     | 34   | 17  | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | 2-METHYLPHENOL (O-CRESOL)  | 390    | UG/KG | 990  | 390 | U    | 068SB-0022M-0001-SO | 410    | 1000 | 410 | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | 2-NITROANILINE             | 130    | UG/KG | 990  | 130 | U    | 068SB-0022M-0001-SO | 140    | 1000 | 140 | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | 2-NITROPHENOL              | 130    | UG/KG | 250  | 130 | U    | 068SB-0022M-0001-SO | 140    | 250  | 140 | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | 3,3'-DICHLOROBENZIDINE     | 390    | UG/KG | 490  | 390 | U    | 068SB-0022M-0001-SO | 410    | 510  | 410 | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | 3-NITROANILINE             | 390    | UG/KG | 990  | 390 | U    | 068SB-0022M-0001-SO | 410    | 1000 | 410 | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | 4,6-DINITRO-2-METHYLPHENOL | 390    | UG/KG | 740  | 390 | U    | 068SB-0022M-0001-SO | 410    | 760  | 410 | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | 4-BROMOPHENYL PHENYL ETHER | 130    | UG/KG | 250  | 130 | U    | 068SB-0022M-0001-SO | 140    | 250  | 140 | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | 4-CHLORO-3-METHYLPHENOL    | 130    | UG/KG | 740  | 130 | U    | 068SB-0022M-0001-SO | 140    | 760  | 140 | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | 4-CHLOROANILINE            | 130    | UG/KG | 740  | 130 | U    | 068SB-0022M-0001-SO | 140    | 760  | 140 | U    | N/A | Yes      |

| Sample              | Analyte                      | Result | Units | LOQ  | LOD  | Qual | Sample              | Result | LOQ  | LOD  | Qual | RPD | W/In LOQ |
|---------------------|------------------------------|--------|-------|------|------|------|---------------------|--------|------|------|------|-----|----------|
| 068SB-0019M-0001-SO | 4-CHLOROPHENYL PHENYL ETHER  | 130    | UG/KG | 250  | 130  | U    | 068SB-0022M-0001-SO | 140    | 250  | 140  | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | 4-NITROANILINE               | 130    | UG/KG | 990  | 130  | U    | 068SB-0022M-0001-SO | 140    | 1000 | 140  | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | 4-NITROPHENOL                | 390    | UG/KG | 1600 | 390  | U    | 068SB-0022M-0001-SO | 410    | 1700 | 410  | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | ACENAPHTHENE                 | 16     | UG/KG | 33   | 16   | U    | 068SB-0022M-0001-SO | 17     | 34   | 17   | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | ACENAPHTHYLENE               | 16     | UG/KG | 33   | 16   | U    | 068SB-0022M-0001-SO | 17     | 34   | 17   | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | ANTHRACENE                   | 16     | UG/KG | 33   | 16   | U    | 068SB-0022M-0001-SO | 17     | 34   | 17   | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | BENZO(A)ANTHRACENE           | 16     | UG/KG | 33   | 16   | U    | 068SB-0022M-0001-SO | 17     | 34   | 17   | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | BENZO(A)PYRENE               | 16     | UG/KG | 33   | 16   | U    | 068SB-0022M-0001-SO | 17     | 34   | 17   | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | BENZO(B)FLUORANTHENE         | 16     | UG/KG | 33   | 16   | U    | 068SB-0022M-0001-SO | 17     | 34   | 17   | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | BENZO(G,H,I)PERYLENE         | 16     | UG/KG | 33   | 16   | U    | 068SB-0022M-0001-SO | 17     | 34   | 17   | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | BENZO(K)FLUORANTHENE         | 16     | UG/KG | 33   | 16   | U    | 068SB-0022M-0001-SO | 17     | 34   | 17   | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | BENZOIC ACID                 | 1600   | UG/KG | 3300 | 1600 | U    | 068SB-0022M-0001-SO | 1700   | 3400 | 1700 | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | BENZYL ALCOHOL               | 130    | UG/KG | 1600 | 130  | U    | 068SB-0022M-0001-SO | 140    | 1700 | 140  | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | BENZYL BUTYL PHTHALATE       | 130    | UG/KG | 340  | 130  | U    | 068SB-0022M-0001-SO | 140    | 360  | 140  | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | BIS(2-CHLOROETHOXY) METHANE  | 130    | UG/KG | 490  | 130  | U    | 068SB-0022M-0001-SO | 140    | 510  | 140  | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | BIS(2-CHLOROETHYL) ETHER     | 16     | UG/KG | 490  | 16   | U    | 068SB-0022M-0001-SO | 17     | 510  | 17   | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | BIS(2-CHLOROISOPROPYL) ETHER | 130    | UG/KG | 490  | 130  | U    | 068SB-0022M-0001-SO | 140    | 510  | 140  | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | BIS(2-ETHYLHEXYL) PHTHALATE  | 130    | UG/KG | 340  | 130  | U    | 068SB-0022M-0001-SO | 140    | 360  | 140  | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | CARBAZOLE                    | 130    | UG/KG | 250  | 130  | U    | 068SB-0022M-0001-SO | 140    | 250  | 140  | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | CHRYSENE                     | 16     | UG/KG | 33   | 16   | U    | 068SB-0022M-0001-SO | 17     | 34   | 17   | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | CRESOLS, M & P               | 390    | UG/KG | 2000 | 390  | U    | 068SB-0022M-0001-SO | 410    | 2000 | 410  | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | DIBENZ(A,H)ANTHRACENE        | 16     | UG/KG | 33   | 16   | U    | 068SB-0022M-0001-SO | 17     | 34   | 17   | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | DIBENZOFURAN                 | 16     | UG/KG | 250  | 16   | U    | 068SB-0022M-0001-SO | 17     | 250  | 17   | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | DIETHYL PHTHALATE            | 130    | UG/KG | 340  | 130  | U    | 068SB-0022M-0001-SO | 140    | 360  | 140  | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | DIMETHYL PHTHALATE           | 130    | UG/KG | 340  | 130  | U    | 068SB-0022M-0001-SO | 140    | 360  | 140  | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | DI-N-BUTYL PHTHALATE         | 130    | UG/KG | 340  | 130  | U    | 068SB-0022M-0001-SO | 140    | 360  | 140  | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | DI-N-OCTYLPHTHALATE          | 130    | UG/KG | 340  | 130  | U    | 068SB-0022M-0001-SO | 140    | 360  | 140  | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | FLUORANTHENE                 | 16     | UG/KG | 33   | 16   | U    | 068SB-0022M-0001-SO | 17     | 34   | 17   | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | FLUORENE                     | 16     | UG/KG | 33   | 16   | U    | 068SB-0022M-0001-SO | 17     | 34   | 17   | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | HEXACHLOROBENZENE            | 16     | UG/KG | 33   | 16   | U    | 068SB-0022M-0001-SO | 17     | 34   | 17   | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | HEXACHLOROBUTADIENE          | 130    | UG/KG | 250  | 130  | U    | 068SB-0022M-0001-SO | 140    | 250  | 140  | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | HEXACHLOROCYCLOPENTADIENE    | 130    | UG/KG | 1600 | 130  | U    | 068SB-0022M-0001-SO | 140    | 1700 | 140  | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | HEXACHLOROETHANE             | 130    | UG/KG | 250  | 130  | U    | 068SB-0022M-0001-SO | 140    | 250  | 140  | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | INDENO(1,2,3-C,D)PYRENE      | 16     | UG/KG | 33   | 16   | U    | 068SB-0022M-0001-SO | 17     | 34   | 17   | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | ISOPHORONE                   | 130    | UG/KG | 250  | 130  | U    | 068SB-0022M-0001-SO | 140    | 250  | 140  | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | NAPHTHALENE                  | 16     | UG/KG | 33   | 16   | U    | 068SB-0022M-0001-SO | 17     | 34   | 17   | U    | N/A | Yes      |

| Sample              | Analyte                     | Result | Units | LOQ | LOD | Qual | Sample              | Result | LOQ | LOD | Qual | RPD | W/In LOQ |
|---------------------|-----------------------------|--------|-------|-----|-----|------|---------------------|--------|-----|-----|------|-----|----------|
| 068SB-0019M-0001-SO | NITROBENZENE                | 16     | UG/KG | 490 | 16  | U    | 068SB-0022M-0001-SO | 17     | 510 | 17  | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | N-NITROSODI-N-PROPYLAMINE   | 130    | UG/KG | 250 | 130 | U    | 068SB-0022M-0001-SO | 140    | 250 | 140 | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | N-NITROSODIPHENYLAMINE      | 130    | UG/KG | 250 | 130 | U    | 068SB-0022M-0001-SO | 140    | 250 | 140 | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | PENTACHLOROPHENOL           | 390    | UG/KG | 740 | 390 | U    | 068SB-0022M-0001-SO | 410    | 760 | 410 | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | PHENANTHRENE                | 16     | UG/KG | 33  | 16  | U    | 068SB-0022M-0001-SO | 17     | 34  | 17  | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | PHENOL                      | 130    | UG/KG | 250 | 130 | U    | 068SB-0022M-0001-SO | 140    | 250 | 140 | U    | N/A | Yes      |
| 068SB-0019M-0001-SO | PYRENE                      | 16     | UG/KG | 33  | 16  | U    | 068SB-0022M-0001-SO | 17     | 34  | 17  | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | 1,2,4-TRICHLOROBENZENE      | 27     | UG/KG | 50  | 27  | U    | 068SB-0036M-0001-SO | 27     | 50  | 27  | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | 1,2-DICHLOROBENZENE         | 27     | UG/KG | 50  | 27  | U    | 068SB-0036M-0001-SO | 27     | 50  | 27  | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | 1,3-DICHLOROBENZENE         | 27     | UG/KG | 50  | 27  | U    | 068SB-0036M-0001-SO | 27     | 50  | 27  | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | 1,4-DICHLOROBENZENE         | 27     | UG/KG | 50  | 27  | U    | 068SB-0036M-0001-SO | 27     | 50  | 27  | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | 2,4,5-TRICHLOROPHENOL       | 27     | UG/KG | 150 | 27  | U    | 068SB-0036M-0001-SO | 27     | 150 | 27  | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | 2,4,6-TRICHLOROPHENOL       | 79     | UG/KG | 150 | 79  | U    | 068SB-0036M-0001-SO | 80     | 150 | 80  | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | 2,4-DICHLOROPHENOL          | 27     | UG/KG | 150 | 27  | U    | 068SB-0036M-0001-SO | 27     | 150 | 27  | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | 2,4-DIMETHYLPHENOL          | 79     | UG/KG | 150 | 79  | U    | 068SB-0036M-0001-SO | 80     | 150 | 80  | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | 2,4-DINITROPHENOL           | 79     | UG/KG | 330 | 79  | U    | 068SB-0036M-0001-SO | 80     | 330 | 80  | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | 2,4-DINITROTOLUENE          | 27     | UG/KG | 200 | 27  | U    | 068SB-0036M-0001-SO | 27     | 200 | 27  | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | 2,6-DINITROTOLUENE          | 27     | UG/KG | 200 | 27  | U    | 068SB-0036M-0001-SO | 27     | 200 | 27  | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | 2-CHLORONAPHTHALENE         | 3.3    | UG/KG | 50  | 3.3 | U    | 068SB-0036M-0001-SO | 3.3    | 50  | 3.3 | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | 2-CHLOROPHENOL              | 27     | UG/KG | 50  | 27  | U    | 068SB-0036M-0001-SO | 27     | 50  | 27  | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | 2-METHYLNAPHTHALENE         | 7.8    | UG/KG | 6.6 | 3.3 |      | 068SB-0036M-0001-SO | 6.5    | 6.7 | 3.3 | J    | N/A | Yes      |
| 068SB-0035M-0001-SO | 2-METHYLPHENOL (O-CRESOL)   | 79     | UG/KG | 200 | 79  | U    | 068SB-0036M-0001-SO | 80     | 200 | 80  | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | 2-NITROANILINE              | 27     | UG/KG | 200 | 27  | U    | 068SB-0036M-0001-SO | 27     | 200 | 27  | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | 2-NITROPHENOL               | 27     | UG/KG | 50  | 27  | U    | 068SB-0036M-0001-SO | 27     | 50  | 27  | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | 3,3'-DICHLOROBENZIDINE      | 79     | UG/KG | 99  | 79  | U    | 068SB-0036M-0001-SO | 80     | 100 | 80  | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | 3-NITROANILINE              | 79     | UG/KG | 200 | 79  | U    | 068SB-0036M-0001-SO | 80     | 200 | 80  | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | 4,6-DINITRO-2-METHYLPHENOL  | 79     | UG/KG | 150 | 79  | U    | 068SB-0036M-0001-SO | 80     | 150 | 80  | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | 4-BROMOPHENYL PHENYL ETHER  | 27     | UG/KG | 50  | 27  | U    | 068SB-0036M-0001-SO | 27     | 50  | 27  | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | 4-CHLORO-3-METHYLPHENOL     | 27     | UG/KG | 150 | 27  | U    | 068SB-0036M-0001-SO | 27     | 150 | 27  | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | 4-CHLOROANILINE             | 27     | UG/KG | 150 | 27  | U    | 068SB-0036M-0001-SO | 27     | 150 | 27  | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | 4-CHLOROPHENYL PHENYL ETHER | 27     | UG/KG | 50  | 27  | U    | 068SB-0036M-0001-SO | 27     | 50  | 27  | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | 4-NITROANILINE              | 27     | UG/KG | 200 | 27  | U    | 068SB-0036M-0001-SO | 27     | 200 | 27  | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | 4-NITROPHENOL               | 79     | UG/KG | 330 | 79  | U    | 068SB-0036M-0001-SO | 80     | 330 | 80  | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | ACENAPHTHENE                | 3.3    | UG/KG | 6.6 | 3.3 | U    | 068SB-0036M-0001-SO | 3.3    | 6.7 | 3.3 | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | ACENAPHTHYLENE              | 3.3    | UG/KG | 6.6 | 3.3 | U    | 068SB-0036M-0001-SO | 3.3    | 6.7 | 3.3 | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | ANTHRACENE                  | 3.3    | UG/KG | 6.6 | 3.3 | U    | 068SB-0036M-0001-SO | 3.3    | 6.7 | 3.3 | U    | N/A | Yes      |

| Sample              | Analyte                      | Result | Units | LOQ | LOD | Qual | Sample              | Result | LOQ | LOD | Qual | RPD | W/In LOQ |
|---------------------|------------------------------|--------|-------|-----|-----|------|---------------------|--------|-----|-----|------|-----|----------|
| 068SB-0035M-0001-SO | BENZO(A)ANTHRACENE           | 3.3    | UG/KG | 6.6 | 3.3 | U    | 068SB-0036M-0001-SO | 3.3    | 6.7 | 3.3 | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | BENZO(A)PYRENE               | 3.3    | UG/KG | 6.6 | 3.3 | U    | 068SB-0036M-0001-SO | 3.3    | 6.7 | 3.3 | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | BENZO(B)FLUORANTHENE         | 3.3    | UG/KG | 6.6 | 3.3 | U    | 068SB-0036M-0001-SO | 3.3    | 6.7 | 3.3 | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | BENZO(G,H,I)PERYLENE         | 3.3    | UG/KG | 6.6 | 3.3 | U    | 068SB-0036M-0001-SO | 3.3    | 6.7 | 3.3 | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | BENZO(K)FLUORANTHENE         | 3.3    | UG/KG | 6.6 | 3.3 | U    | 068SB-0036M-0001-SO | 3.3    | 6.7 | 3.3 | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | BENZOIC ACID                 | 330    | UG/KG | 650 | 330 | U    | 068SB-0036M-0001-SO | 330    | 660 | 330 | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | BENZYL ALCOHOL               | 27     | UG/KG | 330 | 27  | U    | 068SB-0036M-0001-SO | 27     | 330 | 27  | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | BENZYL BUTYL PHTHALATE       | 27     | UG/KG | 69  | 27  | U    | 068SB-0036M-0001-SO | 27     | 70  | 27  | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | BIS(2-CHLOROETHOXY) METHANE  | 27     | UG/KG | 99  | 27  | U    | 068SB-0036M-0001-SO | 27     | 100 | 27  | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | BIS(2-CHLOROETHYL) ETHER     | 3.3    | UG/KG | 99  | 3.3 | U    | 068SB-0036M-0001-SO | 3.3    | 100 | 3.3 | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | BIS(2-CHLOROISOPROPYL) ETHER | 27     | UG/KG | 99  | 27  | U    | 068SB-0036M-0001-SO | 27     | 100 | 27  | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | BIS(2-ETHYLHEXYL) PHTHALATE  | 27     | UG/KG | 73  | 27  | J    | 068SB-0036M-0001-SO | 27     | 70  | 27  | J    | N/A | Yes      |
| 068SB-0035M-0001-SO | CARBAZOLE                    | 27     | UG/KG | 50  | 27  | U    | 068SB-0036M-0001-SO | 27     | 50  | 27  | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | CHRYSENE                     | 3.3    | UG/KG | 6.6 | 3.3 | U    | 068SB-0036M-0001-SO | 3.3    | 6.7 | 3.3 | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | CRESOLS, M & P               | 79     | UG/KG | 400 | 79  | U    | 068SB-0036M-0001-SO | 80     | 400 | 80  | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | DIBENZ(A,H)ANTHRACENE        | 3.3    | UG/KG | 6.6 | 3.3 | U    | 068SB-0036M-0001-SO | 3.3    | 6.7 | 3.3 | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | DIBENZOFURAN                 | 3.3    | UG/KG | 50  | 3.3 | U    | 068SB-0036M-0001-SO | 3.3    | 50  | 3.3 | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | DIETHYL PHTHALATE            | 27     | UG/KG | 69  | 27  | U    | 068SB-0036M-0001-SO | 27     | 70  | 27  | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | DIMETHYL PHTHALATE           | 27     | UG/KG | 69  | 27  | U    | 068SB-0036M-0001-SO | 27     | 70  | 27  | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | DI-N-BUTYL PHTHALATE         | 27     | UG/KG | 69  | 27  | U    | 068SB-0036M-0001-SO | 27     | 70  | 27  | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | DI-N-OCTYLPHTHALATE          | 27     | UG/KG | 69  | 27  | U    | 068SB-0036M-0001-SO | 27     | 70  | 27  | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | FLUORANTHENE                 | 3.3    | UG/KG | 6.6 | 3.3 | U    | 068SB-0036M-0001-SO | 3.3    | 6.7 | 3.3 | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | FLUORENE                     | 3.3    | UG/KG | 6.6 | 3.3 | U    | 068SB-0036M-0001-SO | 3.3    | 6.7 | 3.3 | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | HEXACHLOROBENZENE            | 3.3    | UG/KG | 6.6 | 3.3 | U    | 068SB-0036M-0001-SO | 3.3    | 6.7 | 3.3 | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | HEXACHLOROBUTADIENE          | 27     | UG/KG | 50  | 27  | U    | 068SB-0036M-0001-SO | 27     | 50  | 27  | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | HEXACHLOROCYCLOPENTADIENE    | 27     | UG/KG | 330 | 27  | U    | 068SB-0036M-0001-SO | 27     | 330 | 27  | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | HEXACHLOROETHANE             | 27     | UG/KG | 50  | 27  | U    | 068SB-0036M-0001-SO | 27     | 50  | 27  | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | INDENO(1,2,3-C,D)PYRENE      | 3.3    | UG/KG | 6.6 | 3.3 | U    | 068SB-0036M-0001-SO | 3.3    | 6.7 | 3.3 | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | ISOPHORONE                   | 27     | UG/KG | 50  | 27  | U    | 068SB-0036M-0001-SO | 27     | 50  | 27  | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | NAPHTHALENE                  | 10     | UG/KG | 6.6 | 3.3 |      | 068SB-0036M-0001-SO | 8.3    | 6.7 | 3.3 |      | N/A | Yes      |
| 068SB-0035M-0001-SO | NITROBENZENE                 | 3.3    | UG/KG | 99  | 3.3 | U    | 068SB-0036M-0001-SO | 3.3    | 100 | 3.3 | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | N-NITROSODI-N-PROPYLAMINE    | 27     | UG/KG | 50  | 27  | U    | 068SB-0036M-0001-SO | 27     | 50  | 27  | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | N-NITROSODIPHENYLAMINE       | 27     | UG/KG | 50  | 27  | U    | 068SB-0036M-0001-SO | 27     | 50  | 27  | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | PENTACHLOROPHENOL            | 79     | UG/KG | 150 | 79  | U    | 068SB-0036M-0001-SO | 80     | 150 | 80  | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | PHENANTHRENE                 | 4.6    | UG/KG | 6.6 | 3.3 | J    | 068SB-0036M-0001-SO | 3.3    | 6.7 | 3.3 | U    | N/A | Yes      |
| 068SB-0035M-0001-SO | PHENOL                       | 27     | UG/KG | 50  | 27  | U    | 068SB-0036M-0001-SO | 27     | 50  | 27  | U    | N/A | Yes      |

| Sample              | Analyte                     | Result | Units | LOQ | LOD | Qual | Sample              | Result | LOQ | LOD | Qual | RPD | W/In LOQ |
|---------------------|-----------------------------|--------|-------|-----|-----|------|---------------------|--------|-----|-----|------|-----|----------|
| 068SB-0035M-0001-SO | PYRENE                      | 3.3    | UG/KG | 6.6 | 3.3 | U    | 068SB-0036M-0001-SO | 3.3    | 6.7 | 3.3 | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | 1,2,4-TRICHLOROBENZENE      | 27     | UG/KG | 50  | 27  | U    | 068SB-0054M-0001-SO | 27     | 50  | 27  | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | 1,2-DICHLOROBENZENE         | 27     | UG/KG | 50  | 27  | U    | 068SB-0054M-0001-SO | 27     | 50  | 27  | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | 1,3-DICHLOROBENZENE         | 27     | UG/KG | 50  | 27  | U    | 068SB-0054M-0001-SO | 27     | 50  | 27  | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | 1,4-DICHLOROBENZENE         | 27     | UG/KG | 50  | 27  | U    | 068SB-0054M-0001-SO | 27     | 50  | 27  | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | 2,4,5-TRICHLOROPHENOL       | 27     | UG/KG | 150 | 27  | U    | 068SB-0054M-0001-SO | 27     | 150 | 27  | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | 2,4,6-TRICHLOROPHENOL       | 80     | UG/KG | 150 | 80  | U    | 068SB-0054M-0001-SO | 80     | 150 | 80  | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | 2,4-DICHLOROPHENOL          | 27     | UG/KG | 150 | 27  | U    | 068SB-0054M-0001-SO | 27     | 150 | 27  | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | 2,4-DIMETHYLPHENOL          | 80     | UG/KG | 150 | 80  | U    | 068SB-0054M-0001-SO | 80     | 150 | 80  | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | 2,4-DINITROPHENOL           | 80     | UG/KG | 330 | 80  | UJ   | 068SB-0054M-0001-SO | 80     | 330 | 80  | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | 2,4-DINITROTOLUENE          | 27     | UG/KG | 200 | 27  | U    | 068SB-0054M-0001-SO | 27     | 200 | 27  | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | 2,6-DINITROTOLUENE          | 27     | UG/KG | 200 | 27  | U    | 068SB-0054M-0001-SO | 27     | 200 | 27  | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | 2-CHLORONAPHTHALENE         | 3.3    | UG/KG | 50  | 3.3 | U    | 068SB-0054M-0001-SO | 3.3    | 50  | 3.3 | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | 2-CHLOROPHENOL              | 27     | UG/KG | 50  | 27  | U    | 068SB-0054M-0001-SO | 27     | 50  | 27  | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | 2-METHYLNAPHTHALENE         | 4.4    | UG/KG | 6.6 | 3.3 | J    | 068SB-0054M-0001-SO | 9.6    | 6.6 | 3.3 |      | N/A | Yes      |
| 068SB-0053M-0001-SO | 2-METHYLPHENOL (O-CRESOL)   | 80     | UG/KG | 200 | 80  | U    | 068SB-0054M-0001-SO | 80     | 200 | 80  | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | 2-NITROANILINE              | 27     | UG/KG | 200 | 27  | U    | 068SB-0054M-0001-SO | 27     | 200 | 27  | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | 2-NITROPHENOL               | 27     | UG/KG | 50  | 27  | U    | 068SB-0054M-0001-SO | 27     | 50  | 27  | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | 3,3'-DICHLOROBENZIDINE      | 80     | UG/KG | 100 | 80  | U    | 068SB-0054M-0001-SO | 80     | 100 | 80  | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | 3-NITROANILINE              | 80     | UG/KG | 200 | 80  | U    | 068SB-0054M-0001-SO | 80     | 200 | 80  | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | 4,6-DINITRO-2-METHYLPHENOL  | 80     | UG/KG | 150 | 80  | U    | 068SB-0054M-0001-SO | 80     | 150 | 80  | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | 4-BROMOPHENYL PHENYL ETHER  | 27     | UG/KG | 50  | 27  | U    | 068SB-0054M-0001-SO | 27     | 50  | 27  | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | 4-CHLORO-3-METHYLPHENOL     | 27     | UG/KG | 150 | 27  | U    | 068SB-0054M-0001-SO | 27     | 150 | 27  | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | 4-CHLOROANILINE             | 27     | UG/KG | 150 | 27  | U    | 068SB-0054M-0001-SO | 27     | 150 | 27  | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | 4-CHLOROPHENYL PHENYL ETHER | 27     | UG/KG | 50  | 27  | U    | 068SB-0054M-0001-SO | 27     | 50  | 27  | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | 4-NITROANILINE              | 27     | UG/KG | 200 | 27  | U    | 068SB-0054M-0001-SO | 27     | 200 | 27  | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | 4-NITROPHENOL               | 80     | UG/KG | 330 | 80  | U    | 068SB-0054M-0001-SO | 80     | 330 | 80  | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | ACENAPHTHENE                | 3.3    | UG/KG | 6.6 | 3.3 | U    | 068SB-0054M-0001-SO | 3.3    | 6.6 | 3.3 | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | ACENAPHTHYLENE              | 3.3    | UG/KG | 6.6 | 3.3 | U    | 068SB-0054M-0001-SO | 3.3    | 6.6 | 3.3 | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | ANTHRACENE                  | 3.3    | UG/KG | 6.6 | 3.3 | U    | 068SB-0054M-0001-SO | 3.3    | 6.6 | 3.3 | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | BENZO(A)ANTHRACENE          | 3.3    | UG/KG | 6.6 | 3.3 | U    | 068SB-0054M-0001-SO | 3.3    | 6.6 | 3.3 | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | BENZO(A)PYRENE              | 3.3    | UG/KG | 6.6 | 3.3 | U    | 068SB-0054M-0001-SO | 3.3    | 6.6 | 3.3 | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | BENZO(B)FLUORANTHENE        | 3.3    | UG/KG | 6.6 | 3.3 | U    | 068SB-0054M-0001-SO | 3.3    | 6.6 | 3.3 | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | BENZO(G,H,I)PERYLENE        | 3.3    | UG/KG | 6.6 | 3.3 | U    | 068SB-0054M-0001-SO | 3.3    | 6.6 | 3.3 | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | BENZO(K)FLUORANTHENE        | 3.3    | UG/KG | 6.6 | 3.3 | U    | 068SB-0054M-0001-SO | 3.3    | 6.6 | 3.3 | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | BENZOIC ACID                | 330    | UG/KG | 660 | 330 | U    | 068SB-0054M-0001-SO | 330    | 660 | 330 | U    | N/A | Yes      |



| Sample              | Analyte                      | Result | Units | LOQ | LOD | Qual | Sample              | Result | LOQ | LOD | Qual | RPD | W/In LOQ |
|---------------------|------------------------------|--------|-------|-----|-----|------|---------------------|--------|-----|-----|------|-----|----------|
| 068SB-0053M-0001-SO | BENZYL ALCOHOL               | 27     | UG/KG | 330 | 27  | U    | 068SB-0054M-0001-SO | 27     | 330 | 27  | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | BENZYL BUTYL PHTHALATE       | 27     | UG/KG | 70  | 27  | U    | 068SB-0054M-0001-SO | 27     | 70  | 27  | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | BIS(2-CHLOROETHOXY) METHANE  | 27     | UG/KG | 100 | 27  | U    | 068SB-0054M-0001-SO | 27     | 100 | 27  | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | BIS(2-CHLOROETHYL) ETHER     | 3.3    | UG/KG | 100 | 3.3 | U    | 068SB-0054M-0001-SO | 3.3    | 100 | 3.3 | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | BIS(2-CHLOROISOPROPYL) ETHER | 27     | UG/KG | 100 | 27  | U    | 068SB-0054M-0001-SO | 27     | 100 | 27  | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | BIS(2-ETHYLHEXYL) PHTHALATE  | 74     | UG/KG | 74  | 27  | U    | 068SB-0054M-0001-SO | 27     | 70  | 27  | J    | N/A | Yes      |
| 068SB-0053M-0001-SO | CARBAZOLE                    | 27     | UG/KG | 50  | 27  | U    | 068SB-0054M-0001-SO | 27     | 50  | 27  | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | CHRYSENE                     | 3.3    | UG/KG | 6.6 | 3.3 | U    | 068SB-0054M-0001-SO | 3.3    | 6.6 | 3.3 | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | CRESOLS, M & P               | 80     | UG/KG | 400 | 80  | U    | 068SB-0054M-0001-SO | 80     | 400 | 80  | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | DIBENZ(A,H)ANTHRACENE        | 3.3    | UG/KG | 6.6 | 3.3 | U    | 068SB-0054M-0001-SO | 3.3    | 6.6 | 3.3 | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | DIBENZOFURAN                 | 3.3    | UG/KG | 50  | 3.3 | U    | 068SB-0054M-0001-SO | 3.3    | 50  | 3.3 | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | DIETHYL PHTHALATE            | 27     | UG/KG | 70  | 27  | U    | 068SB-0054M-0001-SO | 27     | 70  | 27  | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | DIMETHYL PHTHALATE           | 27     | UG/KG | 70  | 27  | U    | 068SB-0054M-0001-SO | 27     | 70  | 27  | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | DI-N-BUTYL PHTHALATE         | 27     | UG/KG | 70  | 27  | U    | 068SB-0054M-0001-SO | 27     | 70  | 27  | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | DI-N-OCTYLPHTHALATE          | 27     | UG/KG | 70  | 27  | U    | 068SB-0054M-0001-SO | 27     | 70  | 27  | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | FLUORANTHENE                 | 3.3    | UG/KG | 6.6 | 3.3 | U    | 068SB-0054M-0001-SO | 3.3    | 6.6 | 3.3 | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | FLUORENE                     | 3.3    | UG/KG | 6.6 | 3.3 | U    | 068SB-0054M-0001-SO | 3.3    | 6.6 | 3.3 | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | HEXACHLOROBENZENE            | 3.3    | UG/KG | 6.6 | 3.3 | U    | 068SB-0054M-0001-SO | 3.3    | 6.6 | 3.3 | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | HEXACHLOROBUTADIENE          | 27     | UG/KG | 50  | 27  | U    | 068SB-0054M-0001-SO | 27     | 50  | 27  | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | HEXACHLOROCYCLOPENTADIENE    | 27     | UG/KG | 330 | 27  | U    | 068SB-0054M-0001-SO | 27     | 330 | 27  | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | HEXACHLOROETHANE             | 27     | UG/KG | 50  | 27  | U    | 068SB-0054M-0001-SO | 27     | 50  | 27  | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | INDENO(1,2,3-C,D)PYRENE      | 3.3    | UG/KG | 6.6 | 3.3 | U    | 068SB-0054M-0001-SO | 3.3    | 6.6 | 3.3 | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | ISOPHORONE                   | 27     | UG/KG | 50  | 27  | U    | 068SB-0054M-0001-SO | 27     | 50  | 27  | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | NAPHTHALENE                  | 3.3    | UG/KG | 6.6 | 3.3 | U    | 068SB-0054M-0001-SO | 3.3    | 6.6 | 3.3 | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | NITROBENZENE                 | 3.3    | UG/KG | 100 | 3.3 | U    | 068SB-0054M-0001-SO | 3.3    | 100 | 3.3 | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | N-NITROSODI-N-PROPYLAMINE    | 27     | UG/KG | 50  | 27  | U    | 068SB-0054M-0001-SO | 27     | 50  | 27  | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | N-NITROSODIPHENYLAMINE       | 27     | UG/KG | 50  | 27  | U    | 068SB-0054M-0001-SO | 27     | 50  | 27  | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | PENTACHLOROPHENOL            | 80     | UG/KG | 150 | 80  | U    | 068SB-0054M-0001-SO | 80     | 150 | 80  | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | PHENANTHRENE                 | 3.3    | UG/KG | 6.6 | 3.3 | U    | 068SB-0054M-0001-SO | 5.4    | 6.6 | 3.3 | J    | N/A | Yes      |
| 068SB-0053M-0001-SO | PHENOL                       | 27     | UG/KG | 50  | 27  | U    | 068SB-0054M-0001-SO | 27     | 50  | 27  | U    | N/A | Yes      |
| 068SB-0053M-0001-SO | PYRENE                       | 3.3    | UG/KG | 6.6 | 3.3 | U    | 068SB-0054M-0001-SO | 3.3    | 6.6 | 3.3 | U    | N/A | Yes      |
| 068SD-00010-0001-SO | 1,2,4-TRICHLOROBENZENE       | 27     | UG/KG | 50  | 27  | U    | 068SD-0009-0001-SO  | 27     | 49  | 27  | U    | N/A | Yes      |
| 068SD-00010-0001-SO | 1,2-DICHLOROBENZENE          | 27     | UG/KG | 50  | 27  | U    | 068SD-0009-0001-SO  | 27     | 49  | 27  | U    | N/A | Yes      |
| 068SD-00010-0001-SO | 1,3-DICHLOROBENZENE          | 27     | UG/KG | 50  | 27  | U    | 068SD-0009-0001-SO  | 27     | 49  | 27  | U    | N/A | Yes      |
| 068SD-00010-0001-SO | 1,4-DICHLOROBENZENE          | 20     | UG/KG | 50  | 27  | J    | 068SD-0009-0001-SO  | 27     | 49  | 27  | U    | N/A | Yes      |
| 068SD-00010-0001-SO | 2,4,5-TRICHLOROPHENOL        | 27     | UG/KG | 150 | 27  | U    | 068SD-0009-0001-SO  | 27     | 150 | 27  | U    | N/A | Yes      |

| Sample              | Analyte                      | Result | Units | LOQ | LOD | Qual | Sample             | Result | LOQ | LOD | Qual | RPD | W/In LOQ |
|---------------------|------------------------------|--------|-------|-----|-----|------|--------------------|--------|-----|-----|------|-----|----------|
| 068SD-00010-0001-SO | 2,4,6-TRICHLOROPHENOL        | 81     | UG/KG | 150 | 81  | U    | 068SD-0009-0001-SO | 79     | 150 | 79  | U    | N/A | Yes      |
| 068SD-00010-0001-SO | 2,4-DICHLOROPHENOL           | 27     | UG/KG | 150 | 27  | U    | 068SD-0009-0001-SO | 27     | 150 | 27  | U    | N/A | Yes      |
| 068SD-00010-0001-SO | 2,4-DIMETHYLPHENOL           | 81     | UG/KG | 150 | 81  | U    | 068SD-0009-0001-SO | 79     | 150 | 79  | U    | N/A | Yes      |
| 068SD-00010-0001-SO | 2,4-DINITROPHENOL            | 81     | UG/KG | 330 | 81  | U    | 068SD-0009-0001-SO | 79     | 330 | 79  | U    | N/A | Yes      |
| 068SD-00010-0001-SO | 2,4-DINITROTOLUENE           | 27     | UG/KG | 200 | 27  | U    | 068SD-0009-0001-SO | 27     | 200 | 27  | U    | N/A | Yes      |
| 068SD-00010-0001-SO | 2,6-DINITROTOLUENE           | 27     | UG/KG | 200 | 27  | U    | 068SD-0009-0001-SO | 27     | 200 | 27  | U    | N/A | Yes      |
| 068SD-00010-0001-SO | 2-CHLORONAPHTHALENE          | 3.3    | UG/KG | 50  | 3.3 | U    | 068SD-0009-0001-SO | 3.3    | 49  | 3.3 | U    | N/A | Yes      |
| 068SD-00010-0001-SO | 2-CHLOROPHENOL               | 27     | UG/KG | 50  | 27  | U    | 068SD-0009-0001-SO | 27     | 49  | 27  | U    | N/A | Yes      |
| 068SD-00010-0001-SO | 2-METHYLNAPHTHALENE          | 14     | UG/KG | 6.7 | 3.3 |      | 068SD-0009-0001-SO | 13     | 6.6 | 3.3 |      | N/A | Yes      |
| 068SD-00010-0001-SO | 2-METHYLPHENOL (O-CRESOL)    | 81     | UG/KG | 200 | 81  | U    | 068SD-0009-0001-SO | 79     | 200 | 79  | U    | N/A | Yes      |
| 068SD-00010-0001-SO | 2-NITROANILINE               | 27     | UG/KG | 200 | 27  | U    | 068SD-0009-0001-SO | 27     | 200 | 27  | U    | N/A | Yes      |
| 068SD-00010-0001-SO | 2-NITROPHENOL                | 27     | UG/KG | 50  | 27  | U    | 068SD-0009-0001-SO | 27     | 49  | 27  | U    | N/A | Yes      |
| 068SD-00010-0001-SO | 3,3'-DICHLOROBENZIDINE       | 81     | UG/KG | 100 | 81  | U    | 068SD-0009-0001-SO | 79     | 99  | 79  | U    | N/A | Yes      |
| 068SD-00010-0001-SO | 3-NITROANILINE               | 81     | UG/KG | 200 | 81  | U    | 068SD-0009-0001-SO | 79     | 200 | 79  | U    | N/A | Yes      |
| 068SD-00010-0001-SO | 4,6-DINITRO-2-METHYLPHENOL   | 81     | UG/KG | 150 | 81  | U    | 068SD-0009-0001-SO | 79     | 150 | 79  | U    | N/A | Yes      |
| 068SD-00010-0001-SO | 4-BROMOPHENYL PHENYL ETHER   | 27     | UG/KG | 50  | 27  | U    | 068SD-0009-0001-SO | 27     | 49  | 27  | U    | N/A | Yes      |
| 068SD-00010-0001-SO | 4-CHLORO-3-METHYLPHENOL      | 27     | UG/KG | 150 | 27  | U    | 068SD-0009-0001-SO | 27     | 150 | 27  | U    | N/A | Yes      |
| 068SD-00010-0001-SO | 4-CHLOROANILINE              | 27     | UG/KG | 150 | 27  | U    | 068SD-0009-0001-SO | 27     | 150 | 27  | U    | N/A | Yes      |
| 068SD-00010-0001-SO | 4-CHLOROPHENYL PHENYL ETHER  | 27     | UG/KG | 50  | 27  | U    | 068SD-0009-0001-SO | 27     | 49  | 27  | U    | N/A | Yes      |
| 068SD-00010-0001-SO | 4-NITROANILINE               | 27     | UG/KG | 200 | 27  | U    | 068SD-0009-0001-SO | 27     | 200 | 27  | U    | N/A | Yes      |
| 068SD-00010-0001-SO | 4-NITROPHENOL                | 81     | UG/KG | 330 | 81  | U    | 068SD-0009-0001-SO | 79     | 330 | 79  | U    | N/A | Yes      |
| 068SD-00010-0001-SO | ACENAPHTHENE                 | 3.3    | UG/KG | 6.7 | 3.3 | J    | 068SD-0009-0001-SO | 3.3    | 6.6 | 3.3 | U    | N/A | Yes      |
| 068SD-00010-0001-SO | ACENAPHTHYLENE               | 3.3    | UG/KG | 6.7 | 3.3 | U    | 068SD-0009-0001-SO | 3.3    | 6.6 | 3.3 | U    | N/A | Yes      |
| 068SD-00010-0001-SO | ANTHRACENE                   | 3.4    | UG/KG | 6.7 | 3.3 | J    | 068SD-0009-0001-SO | 3.3    | 6.6 | 3.3 | J    | N/A | Yes      |
| 068SD-00010-0001-SO | BENZO(A)ANTHRACENE           | 18     | UG/KG | 6.7 | 3.3 |      | 068SD-0009-0001-SO | 16     | 6.6 | 3.3 |      | N/A | Yes      |
| 068SD-00010-0001-SO | BENZO(A)PYRENE               | 27     | UG/KG | 6.7 | 3.3 |      | 068SD-0009-0001-SO | 26     | 6.6 | 3.3 |      | N/A | Yes      |
| 068SD-00010-0001-SO | BENZO(B)FLUORANTHENE         | 51     | UG/KG | 6.7 | 3.3 |      | 068SD-0009-0001-SO | 46     | 6.6 | 3.3 |      | 10  | N/A      |
| 068SD-00010-0001-SO | BENZO(G,H,I)PERYLENE         | 16     | UG/KG | 6.7 | 3.3 |      | 068SD-0009-0001-SO | 16     | 6.6 | 3.3 |      | N/A | Yes      |
| 068SD-00010-0001-SO | BENZO(K)FLUORANTHENE         | 11     | UG/KG | 6.7 | 3.3 |      | 068SD-0009-0001-SO | 12     | 6.6 | 3.3 |      | N/A | Yes      |
| 068SD-00010-0001-SO | BENZOIC ACID                 | 340    | UG/KG | 660 | 340 | U    | 068SD-0009-0001-SO | 330    | 650 | 330 | U    | N/A | Yes      |
| 068SD-00010-0001-SO | BENZYL ALCOHOL               | 27     | UG/KG | 330 | 27  | U    | 068SD-0009-0001-SO | 27     | 330 | 27  | U    | N/A | Yes      |
| 068SD-00010-0001-SO | BENZYL BUTYL PHTHALATE       | 27     | UG/KG | 50  | 27  | U    | 068SD-0009-0001-SO | 27     | 49  | 27  | U    | N/A | Yes      |
| 068SD-00010-0001-SO | BIS(2-CHLOROETHOXY) METHANE  | 27     | UG/KG | 100 | 27  | U    | 068SD-0009-0001-SO | 27     | 99  | 27  | U    | N/A | Yes      |
| 068SD-00010-0001-SO | BIS(2-CHLOROETHYL) ETHER     | 3.3    | UG/KG | 100 | 3.3 | U    | 068SD-0009-0001-SO | 3.3    | 99  | 3.3 | U    | N/A | Yes      |
| 068SD-00010-0001-SO | BIS(2-CHLOROISOPROPYL) ETHER | 27     | UG/KG | 100 | 27  | U    | 068SD-0009-0001-SO | 27     | 99  | 27  | U    | N/A | Yes      |
| 068SD-00010-0001-SO | BIS(2-ETHYLHEXYL) PHTHALATE  | 27     | UG/KG | 50  | 27  | U    | 068SD-0009-0001-SO | 27     | 49  | 27  | J    | N/A | Yes      |

| Sample              | Analyte                   | Result | Units | LOQ | LOD | Qual | Sample              | Result | LOQ  | LOD | Qual | RPD | W/In LOQ |
|---------------------|---------------------------|--------|-------|-----|-----|------|---------------------|--------|------|-----|------|-----|----------|
| 068SD-00010-0001-SO | CARBAZOLE                 | 27     | UG/KG | 50  | 27  | U    | 068SD-0009-0001-SO  | 27     | 49   | 27  | U    | N/A | Yes      |
| 068SD-00010-0001-SO | CHRYSENE                  | 36     | UG/KG | 6.7 | 3.3 |      | 068SD-0009-0001-SO  | 28     | 6.6  | 3.3 |      | N/A | No       |
| 068SD-00010-0001-SO | CRESOLS, M & P            | 81     | UG/KG | 400 | 81  | U    | 068SD-0009-0001-SO  | 79     | 400  | 79  | U    | N/A | Yes      |
| 068SD-00010-0001-SO | DIBENZ(A,H)ANTHRACENE     | 3.3    | UG/KG | 6.7 | 3.3 | U    | 068SD-0009-0001-SO  | 3.3    | 6.6  | 3.3 | U    | N/A | Yes      |
| 068SD-00010-0001-SO | DIBENZOFURAN              | 4.7    | UG/KG | 50  | 3.3 |      | 068SD-0009-0001-SO  | 3.3    | 49   | 3.3 | U    | N/A | Yes      |
| 068SD-00010-0001-SO | DIETHYL PHTHALATE         | 27     | UG/KG | 50  | 27  | U    | 068SD-0009-0001-SO  | 27     | 49   | 27  | U    | N/A | Yes      |
| 068SD-00010-0001-SO | DIMETHYL PHTHALATE        | 27     | UG/KG | 50  | 27  | U    | 068SD-0009-0001-SO  | 27     | 49   | 27  | U    | N/A | Yes      |
| 068SD-00010-0001-SO | DI-N-BUTYL PHTHALATE      | 27     | UG/KG | 50  | 27  | U    | 068SD-0009-0001-SO  | 27     | 49   | 27  | U    | N/A | Yes      |
| 068SD-00010-0001-SO | DI-N-OCTYLPHTHALATE       | 27     | UG/KG | 50  | 27  | U    | 068SD-0009-0001-SO  | 27     | 49   | 27  | U    | N/A | Yes      |
| 068SD-00010-0001-SO | FLUORANTHENE              | 50     | UG/KG | 6.7 | 3.3 |      | 068SD-0009-0001-SO  | 38     | 6.6  | 3.3 |      | 27  | N/A      |
| 068SD-00010-0001-SO | FLUORENE                  | 3.8    | UG/KG | 6.7 | 3.3 |      | 068SD-0009-0001-SO  | 3.3    | 6.6  | 3.3 | U    | N/A | Yes      |
| 068SD-00010-0001-SO | HEXACHLORO BENZENE        | 3.3    | UG/KG | 6.7 | 3.3 | U    | 068SD-0009-0001-SO  | 3.3    | 6.6  | 3.3 | U    | N/A | Yes      |
| 068SD-00010-0001-SO | HEXACHLOROBUTADIENE       | 27     | UG/KG | 50  | 27  | U    | 068SD-0009-0001-SO  | 27     | 49   | 27  | U    | N/A | Yes      |
| 068SD-00010-0001-SO | HEXACHLOROCYCLOPENTADIENE | 27     | UG/KG | 330 | 27  | U    | 068SD-0009-0001-SO  | 27     | 330  | 27  | U    | N/A | Yes      |
| 068SD-00010-0001-SO | HEXACHLOROETHANE          | 27     | UG/KG | 50  | 27  | U    | 068SD-0009-0001-SO  | 27     | 49   | 27  | U    | N/A | Yes      |
| 068SD-00010-0001-SO | INDENO(1,2,3-C,D)PYRENE   | 20     | UG/KG | 6.7 | 3.3 |      | 068SD-0009-0001-SO  | 17     | 6.6  | 3.3 |      | N/A | Yes      |
| 068SD-00010-0001-SO | ISOPHORONE                | 14     | UG/KG | 50  | 27  |      | 068SD-0009-0001-SO  | 27     | 49   | 27  | U    | N/A | Yes      |
| 068SD-00010-0001-SO | NAPHTHALENE               | 15     | UG/KG | 6.7 | 3.3 |      | 068SD-0009-0001-SO  | 11     | 6.7  | 3.3 |      | N/A | Yes      |
| 068SD-00010-0001-SO | NITROBENZENE              | 3.3    | UG/KG | 100 | 3.3 | U    | 068SD-0009-0001-SO  | 3.3    | 99   | 3.3 | U    | N/A | Yes      |
| 068SD-00010-0001-SO | N-NITROSODI-N-PROPYLAMINE | 27     | UG/KG | 50  | 27  | U    | 068SD-0009-0001-SO  | 27     | 49   | 27  | U    | N/A | Yes      |
| 068SD-00010-0001-SO | N-NITROSODIPHENYLAMINE    | 27     | UG/KG | 50  | 27  | U    | 068SD-0009-0001-SO  | 27     | 49   | 27  | U    | N/A | Yes      |
| 068SD-00010-0001-SO | PENTACHLOROPHENOL         | 81     | UG/KG | 150 | 81  | U    | 068SD-0009-0001-SO  | 79     | 150  | 79  | U    | N/A | Yes      |
| 068SD-00010-0001-SO | PHENANTHRENE              | 25     | UG/KG | 6.7 | 3.3 |      | 068SD-0009-0001-SO  | 22     | 6.6  | 3.3 |      | N/A | Yes      |
| 068SD-00010-0001-SO | PHENOL                    | 27     | UG/KG | 50  | 27  | U    | 068SD-0009-0001-SO  | 27     | 49   | 27  | U    | N/A | Yes      |
| 068SD-00010-0001-SO | PYRENE                    | 35     | UG/KG | 6.7 | 3.3 |      | 068SD-0009-0001-SO  | 28     | 6.6  | 3.3 |      | N/A | No       |
| 068SS-0003M-0001-SO | 1,2,4-TRICHLORO BENZENE   | 27     | UG/KG | 50  | 27  | U    | 068SS-0004M-0001-SO | 130    | 250  | 130 | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | 1,2-DICHLORO BENZENE      | 27     | UG/KG | 50  | 27  | U    | 068SS-0004M-0001-SO | 130    | 250  | 130 | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | 1,3-DICHLORO BENZENE      | 27     | UG/KG | 50  | 27  | U    | 068SS-0004M-0001-SO | 130    | 250  | 130 | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | 1,4-DICHLORO BENZENE      | 27     | UG/KG | 50  | 27  | U    | 068SS-0004M-0001-SO | 130    | 250  | 130 | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | 2,4,5-TRICHLOROPHENOL     | 27     | UG/KG | 150 | 27  | U    | 068SS-0004M-0001-SO | 130    | 740  | 130 | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | 2,4,6-TRICHLOROPHENOL     | 80     | UG/KG | 150 | 80  | U    | 068SS-0004M-0001-SO | 400    | 740  | 400 | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | 2,4-DICHLOROPHENOL        | 27     | UG/KG | 150 | 27  | U    | 068SS-0004M-0001-SO | 130    | 740  | 130 | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | 2,4-DIMETHYLPHENOL        | 80     | UG/KG | 150 | 80  | U    | 068SS-0004M-0001-SO | 400    | 740  | 400 | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | 2,4-DINITROPHENOL         | 80     | UG/KG | 330 | 80  | UJ   | 068SS-0004M-0001-SO | 400    | 1600 | 400 | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | 2,4-DINITROTOLUENE        | 27     | UG/KG | 200 | 27  | U    | 068SS-0004M-0001-SO | 130    | 990  | 130 | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | 2,6-DINITROTOLUENE        | 27     | UG/KG | 200 | 27  | U    | 068SS-0004M-0001-SO | 130    | 990  | 130 | U    | N/A | Yes      |

| Sample              | Analyte                      | Result | Units | LOQ | LOD | Qual | Sample              | Result | LOQ  | LOD  | Qual | RPD | W/In LOQ |
|---------------------|------------------------------|--------|-------|-----|-----|------|---------------------|--------|------|------|------|-----|----------|
| 068SS-0003M-0001-SO | 2-CHLORONAPHTHALENE          | 3.3    | UG/KG | 50  | 3.3 | U    | 068SS-0004M-0001-SO | 16     | 250  | 16   | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | 2-CHLOROPHENOL               | 27     | UG/KG | 50  | 27  | U    | 068SS-0004M-0001-SO | 130    | 250  | 130  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | 2-METHYLNAPHTHALENE          | 30     | UG/KG | 6.7 | 3.3 |      | 068SS-0004M-0001-SO | 23     | 33   | 16   |      | N/A | Yes      |
| 068SS-0003M-0001-SO | 2-METHYLPHENOL (O-CRESOL)    | 80     | UG/KG | 200 | 80  | U    | 068SS-0004M-0001-SO | 400    | 990  | 400  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | 2-NITROANILINE               | 27     | UG/KG | 200 | 27  | U    | 068SS-0004M-0001-SO | 130    | 990  | 130  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | 2-NITROPHENOL                | 27     | UG/KG | 50  | 27  | U    | 068SS-0004M-0001-SO | 130    | 250  | 130  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | 3,3'-DICHLOROBENZIDINE       | 80     | UG/KG | 100 | 80  | UJ   | 068SS-0004M-0001-SO | 400    | 500  | 400  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | 3-NITROANILINE               | 80     | UG/KG | 200 | 80  | U    | 068SS-0004M-0001-SO | 400    | 990  | 400  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | 4,6-DINITRO-2-METHYLPHENOL   | 80     | UG/KG | 150 | 80  | UJ   | 068SS-0004M-0001-SO | 400    | 740  | 400  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | 4-BROMOPHENYL PHENYL ETHER   | 27     | UG/KG | 50  | 27  | U    | 068SS-0004M-0001-SO | 130    | 250  | 130  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | 4-CHLORO-3-METHYLPHENOL      | 27     | UG/KG | 150 | 27  | U    | 068SS-0004M-0001-SO | 130    | 740  | 130  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | 4-CHLOROANILINE              | 27     | UG/KG | 150 | 27  | U    | 068SS-0004M-0001-SO | 130    | 740  | 130  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | 4-CHLOROPHENYL PHENYL ETHER  | 27     | UG/KG | 50  | 27  | U    | 068SS-0004M-0001-SO | 130    | 250  | 130  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | 4-NITROANILINE               | 27     | UG/KG | 200 | 27  | U    | 068SS-0004M-0001-SO | 130    | 990  | 130  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | 4-NITROPHENOL                | 80     | UG/KG | 330 | 80  | U    | 068SS-0004M-0001-SO | 400    | 1600 | 400  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | ACENAPHTHENE                 | 17     | UG/KG | 6.7 | 3.3 |      | 068SS-0004M-0001-SO | 16     | 33   | 16   | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | ACENAPHTHYLENE               | 9.2    | UG/KG | 6.7 | 3.3 |      | 068SS-0004M-0001-SO | 16     | 33   | 16   | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | ANTHRACENE                   | 48     | UG/KG | 6.7 | 3.3 |      | 068SS-0004M-0001-SO | 28     | 33   | 16   |      | N/A | Yes      |
| 068SS-0003M-0001-SO | BENZO(A)ANTHRACENE           | 270    | UG/KG | 6.7 | 3.3 |      | 068SS-0004M-0001-SO | 190    | 33   | 16   |      | 35  | N/A      |
| 068SS-0003M-0001-SO | BENZO(A)PYRENE               | 330    | UG/KG | 6.7 | 3.3 |      | 068SS-0004M-0001-SO | 250    | 33   | 16   |      | 28  | N/A      |
| 068SS-0003M-0001-SO | BENZO(B)FLUORANTHENE         | 520    | UG/KG | 6.7 | 3.3 |      | 068SS-0004M-0001-SO | 390    | 33   | 16   |      | 29  | N/A      |
| 068SS-0003M-0001-SO | BENZO(G,H,I)PERYLENE         | 260    | UG/KG | 6.7 | 3.3 |      | 068SS-0004M-0001-SO | 130    | 33   | 16   |      | N/A | No       |
| 068SS-0003M-0001-SO | BENZO(K)FLUORANTHENE         | 180    | UG/KG | 6.7 | 3.3 |      | 068SS-0004M-0001-SO | 100    | 33   | 16   |      | N/A | No       |
| 068SS-0003M-0001-SO | BENZOIC ACID                 | 330    | UG/KG | 660 | 330 | UJ   | 068SS-0004M-0001-SO | 1700   | 3300 | 1700 | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | BENZYL ALCOHOL               | 448    | UG/KG | 330 | 27  |      | 068SS-0004M-0001-SO | 130    | 1600 | 130  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | BENZYL BUTYL PHTHALATE       | 27     | UG/KG | 50  | 27  | U    | 068SS-0004M-0001-SO | 130    | 250  | 130  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | BIS(2-CHLOROETHOXY) METHANE  | 27     | UG/KG | 100 | 27  | U    | 068SS-0004M-0001-SO | 130    | 500  | 130  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | BIS(2-CHLOROETHYL) ETHER     | 3.3    | UG/KG | 100 | 3.3 | U    | 068SS-0004M-0001-SO | 16     | 500  | 16   | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | BIS(2-CHLOROISOPROPYL) ETHER | 27     | UG/KG | 100 | 27  | U    | 068SS-0004M-0001-SO | 130    | 500  | 130  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | BIS(2-ETHYLHEXYL) PHTHALATE  | 34     | UG/KG | 50  | 27  | U    | 068SS-0004M-0001-SO | 130    | 250  | 130  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | CARBAZOLE                    | 44     | UG/KG | 50  | 27  |      | 068SS-0004M-0001-SO | 130    | 250  | 130  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | CHRYSENE                     | 340    | UG/KG | 6.7 | 3.3 |      | 068SS-0004M-0001-SO | 230    | 33   | 16   |      | 39  | N/A      |
| 068SS-0003M-0001-SO | CRESOLS, M & P               | 80     | UG/KG | 400 | 80  | U    | 068SS-0004M-0001-SO | 400    | 2000 | 400  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | DIBENZ(A,H)ANTHRACENE        | 57     | UG/KG | 6.7 | 3.3 | J    | 068SS-0004M-0001-SO | 16     | 33   | 16   | U    | N/A | No       |
| 068SS-0003M-0001-SO | DIBENZOFURAN                 | 15     | UG/KG | 50  | 3.3 |      | 068SS-0004M-0001-SO | 16     | 250  | 16   | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | DIETHYL PHTHALATE            | 22     | UG/KG | 50  | 27  | J    | 068SS-0004M-0001-SO | 130    | 250  | 130  | U    | N/A | Yes      |

| Sample              | Analyte                   | Result | Units | LOQ  | LOD   | Qual | Sample              | Result | LOQ  | LOD   | Qual | RPD | W/In LOQ |
|---------------------|---------------------------|--------|-------|------|-------|------|---------------------|--------|------|-------|------|-----|----------|
| 068SS-0003M-0001-SO | DIMETHYL PHTHALATE        | 27     | UG/KG | 50   | 27    | U    | 068SS-0004M-0001-SO | 130    | 250  | 130   | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | DI-N-BUTYL PHTHALATE      | 19     | UG/KG | 50   | 27    | J    | 068SS-0004M-0001-SO | 130    | 250  | 130   | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | DI-N-OCTYLPHTHALATE       | 27     | UG/KG | 50   | 27    | U    | 068SS-0004M-0001-SO | 130    | 250  | 130   | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | FLUORANTHENE              | 650    | UG/KG | 6.7  | 3.3   |      | 068SS-0004M-0001-SO | 410    | 33   | 16    |      | 45  | N/A      |
| 068SS-0003M-0001-SO | FLUORENE                  | 16     | UG/KG | 6.7  | 3.3   |      | 068SS-0004M-0001-SO | 16     | 33   | 16    | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | HEXACHLOROBENZENE         | 3.3    | UG/KG | 6.7  | 3.3   | U    | 068SS-0004M-0001-SO | 16     | 33   | 16    | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | HEXACHLOROBUTADIENE       | 27     | UG/KG | 50   | 27    | U    | 068SS-0004M-0001-SO | 130    | 250  | 130   | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | HEXACHLOROCYCLOPENTADIENE | 27     | UG/KG | 330  | 27    | U    | 068SS-0004M-0001-SO | 130    | 1600 | 130   | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | HEXACHLOROETHANE          | 27     | UG/KG | 50   | 27    | UJ   | 068SS-0004M-0001-SO | 130    | 250  | 130   | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | INDENO(1,2,3-C,D)PYRENE   | 220    | UG/KG | 6.7  | 3.3   |      | 068SS-0004M-0001-SO | 140    | 33   | 16    |      | N/A | No       |
| 068SS-0003M-0001-SO | ISOPHORONE                | 16     | UG/KG | 50   | 27    |      | 068SS-0004M-0001-SO | 130    | 250  | 130   | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | NAPHTHALENE               | 24     | UG/KG | 6.7  | 3.3   |      | 068SS-0004M-0001-SO | 16     | 33   | 16    | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | NITROBENZENE              | 3.3    | UG/KG | 100  | 3.3   | U    | 068SS-0004M-0001-SO | 16     | 500  | 16    | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | N-NITROSODI-N-PROPYLAMINE | 27     | UG/KG | 50   | 27    | U    | 068SS-0004M-0001-SO | 130    | 250  | 130   | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | N-NITROSODIPHENYLAMINE    | 27     | UG/KG | 50   | 27    | R    | 068SS-0004M-0001-SO | 130    | 250  | 130   | U    | N/A | N/A      |
| 068SS-0003M-0001-SO | PENTACHLOROPHENOL         | 80     | UG/KG | 150  | 80    | U    | 068SS-0004M-0001-SO | 400    | 740  | 400   | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | PHENANTHRENE              | 250    | UG/KG | 6.7  | 3.3   |      | 068SS-0004M-0001-SO | 150    | 33   | 16    |      | N/A | No       |
| 068SS-0003M-0001-SO | PHENOL                    | 27     | UG/KG | 50   | 27    | U    | 068SS-0004M-0001-SO | 130    | 250  | 130   | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | PYRENE                    | 480    | UG/KG | 6.7  | 3.3   |      | 068SS-0004M-0001-SO | 310    | 33   | 16    |      | 43  | N/A      |
| 068SW-0013-0001-SW  | 1,2,4-TRICHLOROBENZENE    | 0.76   | UG/L  | 0.95 | 0.76  | U    | 068SW-0014-0001-SW  | 0.76   | 0.95 | 0.76  | U    | N/A | Yes      |
| 068SW-0013-0001-SW  | 1,2-DICHLOROBENZENE       | 0.76   | UG/L  | 0.95 | 0.76  | U    | 068SW-0014-0001-SW  | 0.76   | 0.95 | 0.76  | U    | N/A | Yes      |
| 068SW-0013-0001-SW  | 1,3-DICHLOROBENZENE       | 0.76   | UG/L  | 0.95 | 0.76  | U    | 068SW-0014-0001-SW  | 0.76   | 0.95 | 0.76  | U    | N/A | Yes      |
| 068SW-0013-0001-SW  | 1,4-DICHLOROBENZENE       | 0.76   | UG/L  | 0.95 | 0.76  | U    | 068SW-0014-0001-SW  | 0.76   | 0.95 | 0.76  | U    | N/A | Yes      |
| 068SW-0013-0001-SW  | 2,4,5-TRICHLOROPHENOL     | 0.76   | UG/L  | 4.8  | 0.76  | U    | 068SW-0014-0001-SW  | 0.76   | 4.8  | 0.76  | U    | N/A | Yes      |
| 068SW-0013-0001-SW  | 2,4,6-TRICHLOROPHENOL     | 0.76   | UG/L  | 4.8  | 0.76  | U    | 068SW-0014-0001-SW  | 0.76   | 4.8  | 0.76  | U    | N/A | Yes      |
| 068SW-0013-0001-SW  | 2,4-DICHLOROPHENOL        | 0.76   | UG/L  | 1.9  | 0.76  | U    | 068SW-0014-0001-SW  | 0.76   | 1.9  | 0.76  | U    | N/A | Yes      |
| 068SW-0013-0001-SW  | 2,4-DIMETHYLPHENOL        | 0.76   | UG/L  | 1.9  | 0.76  | U    | 068SW-0014-0001-SW  | 0.76   | 1.9  | 0.76  | U    | N/A | Yes      |
| 068SW-0013-0001-SW  | 2,4-DINITROPHENOL         | 2.3    | UG/L  | 4.8  | 2.3   | U    | 068SW-0014-0001-SW  | 2.3    | 4.8  | 2.3   | U    | N/A | Yes      |
| 068SW-0013-0001-SW  | 2,4-DINITROTOLUENE        | 0.76   | UG/L  | 4.8  | 0.76  | U    | 068SW-0014-0001-SW  | 0.76   | 4.8  | 0.76  | U    | N/A | Yes      |
| 068SW-0013-0001-SW  | 2,6-DINITROTOLUENE        | 0.76   | UG/L  | 4.8  | 0.76  | U    | 068SW-0014-0001-SW  | 0.76   | 4.8  | 0.76  | U    | N/A | Yes      |
| 068SW-0013-0001-SW  | 2-CHLORONAPHTHALENE       | 0.095  | UG/L  | 0.95 | 0.095 | U    | 068SW-0014-0001-SW  | 0.095  | 0.95 | 0.095 | U    | N/A | Yes      |
| 068SW-0013-0001-SW  | 2-CHLOROPHENOL            | 0.76   | UG/L  | 0.95 | 0.76  | U    | 068SW-0014-0001-SW  | 0.76   | 0.95 | 0.76  | U    | N/A | Yes      |
| 068SW-0013-0001-SW  | 2-METHYLNAPHTHALENE       | 0.095  | UG/L  | 0.19 | 0.095 | U    | 068SW-0014-0001-SW  | 0.095  | 0.19 | 0.095 | U    | N/A | Yes      |
| 068SW-0013-0001-SW  | 2-METHYLPHENOL (O-CRESOL) | 0.76   | UG/L  | 0.95 | 0.76  | U    | 068SW-0014-0001-SW  | 0.76   | 0.95 | 0.76  | U    | N/A | Yes      |
| 068SW-0013-0001-SW  | 2-NITROANILINE            | 0.76   | UG/L  | 1.9  | 0.76  | U    | 068SW-0014-0001-SW  | 0.76   | 1.9  | 0.76  | U    | N/A | Yes      |
| 068SW-0013-0001-SW  | 2-NITROPHENOL             | 0.76   | UG/L  | 1.9  | 0.76  | U    | 068SW-0014-0001-SW  | 0.76   | 1.9  | 0.76  | U    | N/A | Yes      |

| Sample             | Analyte                      | Result | Units | LOQ  | LOD   | Qual | Sample             | Result | LOQ  | LOD   | Qual | RPD | W/In LOQ |
|--------------------|------------------------------|--------|-------|------|-------|------|--------------------|--------|------|-------|------|-----|----------|
| 068SW-0013-0001-SW | 3,3'-DICHLOROBENZIDINE       | 0.76   | UG/L  | 4.8  | 0.76  | U    | 068SW-0014-0001-SW | 0.76   | 4.8  | 0.76  | U    | N/A | Yes      |
| 068SW-0013-0001-SW | 3-NITROANILINE               | 0.76   | UG/L  | 1.9  | 0.76  | U    | 068SW-0014-0001-SW | 0.76   | 1.9  | 0.76  | U    | N/A | Yes      |
| 068SW-0013-0001-SW | 4,6-DINITRO-2-METHYLPHENOL   | 2.3    | UG/L  | 4.8  | 2.3   | U    | 068SW-0014-0001-SW | 2.3    | 4.8  | 2.3   | U    | N/A | Yes      |
| 068SW-0013-0001-SW | 4-BROMOPHENYL PHENYL ETHER   | 0.76   | UG/L  | 1.9  | 0.76  | U    | 068SW-0014-0001-SW | 0.76   | 1.9  | 0.76  | U    | N/A | Yes      |
| 068SW-0013-0001-SW | 4-CHLORO-3-METHYLPHENOL      | 0.76   | UG/L  | 1.9  | 0.76  | U    | 068SW-0014-0001-SW | 0.76   | 1.9  | 0.76  | U    | N/A | Yes      |
| 068SW-0013-0001-SW | 4-CHLOROANILINE              | 0.76   | UG/L  | 1.9  | 0.76  | U    | 068SW-0014-0001-SW | 0.76   | 1.9  | 0.76  | U    | N/A | Yes      |
| 068SW-0013-0001-SW | 4-CHLOROPHENYL PHENYL ETHER  | 0.76   | UG/L  | 1.9  | 0.76  | U    | 068SW-0014-0001-SW | 0.76   | 1.9  | 0.76  | U    | N/A | Yes      |
| 068SW-0013-0001-SW | 4-NITROANILINE               | 0.76   | UG/L  | 1.9  | 0.76  | U    | 068SW-0014-0001-SW | 0.76   | 1.9  | 0.76  | U    | N/A | Yes      |
| 068SW-0013-0001-SW | 4-NITROPHENOL                | 2.3    | UG/L  | 4.8  | 2.3   | U    | 068SW-0014-0001-SW | 2.3    | 4.8  | 2.3   | U    | N/A | Yes      |
| 068SW-0013-0001-SW | ACENAPHTHENE                 | 0.095  | UG/L  | 0.19 | 0.095 | U    | 068SW-0014-0001-SW | 0.095  | 0.19 | 0.095 | U    | N/A | Yes      |
| 068SW-0013-0001-SW | ACENAPHTHYLENE               | 0.095  | UG/L  | 0.19 | 0.095 | U    | 068SW-0014-0001-SW | 0.095  | 0.19 | 0.095 | U    | N/A | Yes      |
| 068SW-0013-0001-SW | ANTHRACENE                   | 0.095  | UG/L  | 0.19 | 0.095 | U    | 068SW-0014-0001-SW | 0.095  | 0.19 | 0.095 | U    | N/A | Yes      |
| 068SW-0013-0001-SW | BENZO(A)ANTHRACENE           | 0.095  | UG/L  | 0.19 | 0.095 | U    | 068SW-0014-0001-SW | 0.095  | 0.19 | 0.095 | U    | N/A | Yes      |
| 068SW-0013-0001-SW | BENZO(A)PYRENE               | 0.095  | UG/L  | 0.19 | 0.095 | U    | 068SW-0014-0001-SW | 0.095  | 0.19 | 0.095 | U    | N/A | Yes      |
| 068SW-0013-0001-SW | BENZO(B)FLUORANTHENE         | 0.095  | UG/L  | 0.19 | 0.095 | U    | 068SW-0014-0001-SW | 0.095  | 0.19 | 0.095 | U    | N/A | Yes      |
| 068SW-0013-0001-SW | BENZO(G,H,I)PERYLENE         | 0.095  | UG/L  | 0.19 | 0.095 | U    | 068SW-0014-0001-SW | 0.095  | 0.19 | 0.095 | U    | N/A | Yes      |
| 068SW-0013-0001-SW | BENZO(K)FLUORANTHENE         | 0.095  | UG/L  | 0.19 | 0.095 | U    | 068SW-0014-0001-SW | 0.095  | 0.19 | 0.095 | U    | N/A | Yes      |
| 068SW-0013-0001-SW | BENZOIC ACID                 | 9.5    | UG/L  | 24   | 9.5   | U    | 068SW-0014-0001-SW | 9.5    | 24   | 9.5   | U    | N/A | Yes      |
| 068SW-0013-0001-SW | BENZYL ALCOHOL               | 0.76   | UG/L  | 4.8  | 0.76  | U    | 068SW-0014-0001-SW | 0.76   | 4.8  | 0.76  | U    | N/A | Yes      |
| 068SW-0013-0001-SW | BENZYL BUTYL PHTHALATE       | 0.76   | UG/L  | 0.95 | 0.76  | U    | 068SW-0014-0001-SW | 0.76   | 0.95 | 0.76  | U    | N/A | Yes      |
| 068SW-0013-0001-SW | BIS(2-CHLOROETHOXY) METHANE  | 0.76   | UG/L  | 0.95 | 0.76  | U    | 068SW-0014-0001-SW | 0.76   | 0.95 | 0.76  | U    | N/A | Yes      |
| 068SW-0013-0001-SW | BIS(2-CHLOROETHYL) ETHER     | 0.095  | UG/L  | 0.95 | 0.095 | U    | 068SW-0014-0001-SW | 0.095  | 0.95 | 0.095 | U    | N/A | Yes      |
| 068SW-0013-0001-SW | BIS(2-CHLOROISOPROPYL) ETHER | 0.76   | UG/L  | 0.95 | 0.76  | U    | 068SW-0014-0001-SW | 0.76   | 0.95 | 0.76  | U    | N/A | Yes      |
| 068SW-0013-0001-SW | BIS(2-ETHYLHEXYL) PHTHALATE  | 23     | UG/L  | 1.9  | 0.76  |      | 068SW-0014-0001-SW | 2.8    | 1.9  | 0.76  |      | N/A | No       |
| 068SW-0013-0001-SW | CARBAZOLE                    | 0.76   | UG/L  | 0.95 | 0.76  | U    | 068SW-0014-0001-SW | 0.76   | 0.95 | 0.76  | U    | N/A | Yes      |
| 068SW-0013-0001-SW | CHRYSENE                     | 0.095  | UG/L  | 0.19 | 0.095 | U    | 068SW-0014-0001-SW | 0.095  | 0.19 | 0.095 | U    | N/A | Yes      |
| 068SW-0013-0001-SW | CRESOLS, M & P               | 0.76   | UG/L  | 1.9  | 0.76  | U    | 068SW-0014-0001-SW | 0.76   | 1.9  | 0.76  | U    | N/A | Yes      |
| 068SW-0013-0001-SW | DIBENZ(A,H)ANTHRACENE        | 0.095  | UG/L  | 0.19 | 0.095 | U    | 068SW-0014-0001-SW | 0.095  | 0.19 | 0.095 | U    | N/A | Yes      |
| 068SW-0013-0001-SW | DIBENZOFURAN                 | 0.095  | UG/L  | 0.95 | 0.095 | U    | 068SW-0014-0001-SW | 0.095  | 0.95 | 0.095 | U    | N/A | Yes      |
| 068SW-0013-0001-SW | DIETHYL PHTHALATE            | 0.76   | UG/L  | 0.95 | 0.76  | U    | 068SW-0014-0001-SW | 0.76   | 0.95 | 0.76  | U    | N/A | Yes      |
| 068SW-0013-0001-SW | DIMETHYL PHTHALATE           | 0.76   | UG/L  | 0.95 | 0.76  | U    | 068SW-0014-0001-SW | 0.76   | 0.95 | 0.76  | U    | N/A | Yes      |
| 068SW-0013-0001-SW | DI-N-BUTYL PHTHALATE         | 0.76   | UG/L  | 0.95 | 0.76  | U    | 068SW-0014-0001-SW | 0.76   | 0.95 | 0.76  | U    | N/A | Yes      |
| 068SW-0013-0001-SW | DI-N-OCTYLPHTHALATE          | 0.76   | UG/L  | 0.95 | 0.76  | U    | 068SW-0014-0001-SW | 0.76   | 0.95 | 0.76  | U    | N/A | Yes      |
| 068SW-0013-0001-SW | FLUORANTHENE                 | 0.095  | UG/L  | 0.19 | 0.095 | U    | 068SW-0014-0001-SW | 0.095  | 0.19 | 0.095 | U    | N/A | Yes      |
| 068SW-0013-0001-SW | FLUORENE                     | 0.095  | UG/L  | 0.19 | 0.095 | U    | 068SW-0014-0001-SW | 0.095  | 0.19 | 0.095 | U    | N/A | Yes      |
| 068SW-0013-0001-SW | HEXACHLOROBENZENE            | 0.095  | UG/L  | 0.19 | 0.095 | U    | 068SW-0014-0001-SW | 0.095  | 0.19 | 0.095 | U    | N/A | Yes      |

| Sample              | Analyte                    | Result | Units | LOQ  | LOD   | Qual | Sample              | Result | LOQ  | LOD   | Qual | RPD | W/In LOQ |
|---------------------|----------------------------|--------|-------|------|-------|------|---------------------|--------|------|-------|------|-----|----------|
| 068SW-0013-0001-SW  | HEXACHLOROBUTADIENE        | 0.76   | UG/L  | 0.95 | 0.76  | U    | 068SW-0014-0001-SW  | 0.76   | 0.95 | 0.76  | U    | N/A | Yes      |
| 068SW-0013-0001-SW  | HEXACHLOROCYCLOPENTADIENE  | 0.76   | UG/L  | 9.5  | 0.76  | U    | 068SW-0014-0001-SW  | 0.76   | 9.5  | 0.76  | U    | N/A | Yes      |
| 068SW-0013-0001-SW  | HEXACHLOROETHANE           | 0.76   | UG/L  | 0.95 | 0.76  | U    | 068SW-0014-0001-SW  | 0.76   | 0.95 | 0.76  | U    | N/A | Yes      |
| 068SW-0013-0001-SW  | INDENO(1,2,3-C,D)PYRENE    | 0.095  | UG/L  | 0.19 | 0.095 | U    | 068SW-0014-0001-SW  | 0.095  | 0.19 | 0.095 | U    | N/A | Yes      |
| 068SW-0013-0001-SW  | ISOPHORONE                 | 0.76   | UG/L  | 0.95 | 0.76  | U    | 068SW-0014-0001-SW  | 0.76   | 0.95 | 0.76  | U    | N/A | Yes      |
| 068SW-0013-0001-SW  | NAPHTHALENE                | 0.095  | UG/L  | 0.19 | 0.095 | U    | 068SW-0014-0001-SW  | 0.095  | 0.19 | 0.095 | U    | N/A | Yes      |
| 068SW-0013-0001-SW  | NITROBENZENE               | 0.095  | UG/L  | 0.95 | 0.095 | U    | 068SW-0014-0001-SW  | 0.095  | 0.95 | 0.095 | U    | N/A | Yes      |
| 068SW-0013-0001-SW  | N-NITROSODI-N-PROPYLAMINE  | 0.76   | UG/L  | 0.95 | 0.76  | U    | 068SW-0014-0001-SW  | 0.76   | 0.95 | 0.76  | U    | N/A | Yes      |
| 068SW-0013-0001-SW  | N-NITROSODIPHENYLAMINE     | 0.76   | UG/L  | 0.95 | 0.76  | U    | 068SW-0014-0001-SW  | 0.76   | 0.95 | 0.76  | U    | N/A | Yes      |
| 068SW-0013-0001-SW  | PENTACHLOROPHENOL          | 2.3    | UG/L  | 4.8  | 2.3   | U    | 068SW-0014-0001-SW  | 2.3    | 4.8  | 2.3   | U    | N/A | Yes      |
| 068SW-0013-0001-SW  | PHENANTHRENE               | 0.095  | UG/L  | 0.19 | 0.095 | U    | 068SW-0014-0001-SW  | 0.095  | 0.19 | 0.095 | U    | N/A | Yes      |
| 068SW-0013-0001-SW  | PHENOL                     | 0.76   | UG/L  | 0.95 | 0.76  | U    | 068SW-0014-0001-SW  | 0.76   | 0.95 | 0.76  | U    | N/A | Yes      |
| 068SW-0013-0001-SW  | PYRENE                     | 0.095  | UG/L  | 0.19 | 0.095 | U    | 068SW-0014-0001-SW  | 0.095  | 0.19 | 0.095 | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | 1,3,5-TRINITROBENZENE      | 0.05   | MG/KG | 0.25 | 0.05  | U    | 068SS-0004M-0001-SO | 0.05   | 0.25 | 0.05  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | 1,3-DINITROBENZENE         | 0.05   | MG/KG | 0.25 | 0.05  | U    | 068SS-0004M-0001-SO | 0.05   | 0.25 | 0.05  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | 2,4,6-TRINITROTOLUENE      | 0.05   | MG/KG | 0.25 | 0.05  | U    | 068SS-0004M-0001-SO | 0.05   | 0.25 | 0.05  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | 2,4-DINITROTOLUENE         | 0.05   | MG/KG | 0.25 | 0.05  | R    | 068SS-0004M-0001-SO | 0.05   | 0.25 | 0.05  | U    | N/A | N/A      |
| 068SS-0003M-0001-SO | 2,6-DINITROTOLUENE         | 0.05   | MG/KG | 0.25 | 0.05  | R    | 068SS-0004M-0001-SO | 0.05   | 0.25 | 0.05  | U    | N/A | N/A      |
| 068SS-0003M-0001-SO | 2-AMINO-4,6-DINITROTOLUENE | 0.05   | MG/KG | 0.25 | 0.05  | U    | 068SS-0004M-0001-SO | 0.05   | 0.25 | 0.05  | J    | N/A | Yes      |
| 068SS-0003M-0001-SO | 2-NITROTOLUENE             | 0.05   | MG/KG | 0.25 | 0.05  | UJ   | 068SS-0004M-0001-SO | 0.05   | 0.25 | 0.05  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | 3-NITROTOLUENE             | 0.05   | MG/KG | 0.25 | 0.05  | U    | 068SS-0004M-0001-SO | 0.05   | 0.25 | 0.05  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | 4-AMINO-2,6-DINITROTOLUENE | 0.05   | MG/KG | 0.25 | 0.05  | U    | 068SS-0004M-0001-SO | 0.05   | 0.25 | 0.05  | J+   | N/A | Yes      |
| 068SS-0003M-0001-SO | 4-NITROTOLUENE             | 0.05   | MG/KG | 0.25 | 0.05  | U    | 068SS-0004M-0001-SO | 0.05   | 0.25 | 0.05  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | HMX                        | 0.05   | MG/KG | 0.25 | 0.05  | U    | 068SS-0004M-0001-SO | 0.05   | 0.25 | 0.05  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | NITROBENZENE               | 0.05   | MG/KG | 0.25 | 0.05  | R    | 068SS-0004M-0001-SO | 0.05   | 0.25 | 0.05  | U    | N/A | N/A      |
| 068SS-0003M-0001-SO | NITROGLYCERIN              | 0.25   | MG/KG | 0.5  | 0.25  | U    | 068SS-0004M-0001-SO | 0.25   | 0.5  | 0.25  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | PETN                       | 0.25   | MG/KG | 0.5  | 0.25  | U    | 068SS-0004M-0001-SO | 0.25   | 0.5  | 0.25  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | RDX                        | 0.05   | MG/KG | 0.25 | 0.05  | UJ   | 068SS-0004M-0001-SO | 0.05   | 0.25 | 0.05  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | TETRYL                     | 0.05   | MG/KG | 0.25 | 0.05  | U    | 068SS-0004M-0001-SO | 0.039  | 0.25 | 0.05  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | 1,1,1-TRICHLOROETHANE      | 0.8    | UG/KG | 4    | 0.8   | U    | 068SS-0004M-0001-SO | 0.73   | 0.41 | 3.7   | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | 1,1,2,2-TETRACHLOROETHANE  | 0.4    | UG/KG | 4    | 0.4   | U    | 068SS-0004M-0001-SO | 0.37   | 0.25 | 3.7   | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | 1,1,2-TRICHLOROETHANE      | 0.4    | UG/KG | 4    | 0.4   | U    | 068SS-0004M-0001-SO | 0.37   | 0.29 | 3.7   | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | 1,1-DICHLOROETHANE         | 0.4    | UG/KG | 4    | 0.4   | U    | 068SS-0004M-0001-SO | 0.37   | 0.26 | 3.7   | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | 1,1-DICHLOROETHENE         | 0.8    | UG/KG | 4    | 0.8   | U    | 068SS-0004M-0001-SO | 0.73   | 0.38 | 3.7   | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | 1,2-DIBROMOETHANE          | 0.8    | UG/KG | 4    | 0.8   | U    | 068SS-0004M-0001-SO | 0.73   | 0.37 | 3.7   | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | 1,2-DICHLOROETHANE         | 0.4    | UG/KG | 4    | 0.4   | U    | 068SS-0004M-0001-SO | 0.37   | 0.25 | 3.7   | U    | N/A | Yes      |

| Sample              | Analyte                   | Result | Units | LOQ  | LOD  | Qual | Sample              | Result | LOQ  | LOD  | Qual | RPD | W/In LOQ |
|---------------------|---------------------------|--------|-------|------|------|------|---------------------|--------|------|------|------|-----|----------|
| 068SS-0003M-0001-SO | 1,2-DICHLOROPROPANE       | 0.8    | UG/KG | 4    | 0.8  | U    | 068SS-0004M-0001-SO | 0.73   | 0.51 | 3.7  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | 2-HEXANONE                | 0.8    | UG/KG | 16   | 0.8  | U    | 068SS-0004M-0001-SO | 0.73   | 0.46 | 15   | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | ACETONE                   | 5      | UG/KG | 16   | 5    | U    | 068SS-0004M-0001-SO | 4.6    | 4.6  | 15   | J    | N/A | Yes      |
| 068SS-0003M-0001-SO | BENZENE                   | 0.4    | UG/KG | 4    | 0.4  | U    | 068SS-0004M-0001-SO | 0.37   | 0.17 | 3.7  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | BROMOCHLOROMETHANE        | 0.8    | UG/KG | 4    | 0.8  | U    | 068SS-0004M-0001-SO | 0.73   | 0.52 | 3.7  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | BROMODICHLOROMETHANE      | 0.4    | UG/KG | 4    | 0.4  | U    | 068SS-0004M-0001-SO | 0.37   | 0.21 | 3.7  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | BROMOFORM                 | 0.4    | UG/KG | 4    | 0.4  | U    | 068SS-0004M-0001-SO | 0.37   | 0.24 | 3.7  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | BROMOMETHANE              | 0.8    | UG/KG | 4    | 0.8  | U    | 068SS-0004M-0001-SO | 0.73   | 0.4  | 3.7  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | CARBON DISULFIDE          | 0.69   | UG/KG | 4    | 0.4  |      | 068SS-0004M-0001-SO | 0.66   | 0.32 | 3.7  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | CARBON TETRACHLORIDE      | 0.4    | UG/KG | 4    | 0.4  | U    | 068SS-0004M-0001-SO | 0.37   | 0.27 | 3.7  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | CHLOROBENZENE             | 0.4    | UG/KG | 4    | 0.4  | UJ   | 068SS-0004M-0001-SO | 0.37   | 0.24 | 3.7  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | CHLOROETHANE              | 0.8    | UG/KG | 4    | 0.8  | U    | 068SS-0004M-0001-SO | 0.73   | 0.63 | 3.7  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | CHLOROFORM                | 0.4    | UG/KG | 4    | 0.4  | U    | 068SS-0004M-0001-SO | 0.37   | 0.21 | 3.7  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | CHLOROMETHANE             | 0.4    | UG/KG | 4    | 0.4  | U    | 068SS-0004M-0001-SO | 0.37   | 0.3  | 3.7  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | CIS-1,3-DICHLOROPROPENE   | 0.4    | UG/KG | 4    | 0.4  | U    | 068SS-0004M-0001-SO | 0.37   | 0.25 | 3.7  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | DIBROMOCHLOROMETHANE      | 0.8    | UG/KG | 4    | 0.8  | U    | 068SS-0004M-0001-SO | 0.73   | 0.4  | 3.7  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | ETHYLBENZENE              | 0.4    | UG/KG | 4    | 0.4  | UJ   | 068SS-0004M-0001-SO | 0.37   | 0.19 | 3.7  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | METHYL ETHYL KETONE       | 1.6    | UG/KG | 16   | 1.6  | U    | 068SS-0004M-0001-SO | 1.5    | 1    | 15   | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | METHYL ISOBUTYL KETONE    | 0.8    | UG/KG | 16   | 0.8  | U    | 068SS-0004M-0001-SO | 0.73   | 0.4  | 15   | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | METHYLENE CHLORIDE        | 0.8    | UG/KG | 4    | 0.8  | U    | 068SS-0004M-0001-SO | 0.73   | 0.49 | 3.7  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | STYRENE                   | 0.4    | UG/KG | 4    | 0.4  | UJ   | 068SS-0004M-0001-SO | 0.14   | 0.11 | 3.7  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | TETRACHLOROETHYLENE       | 0.8    | UG/KG | 4    | 0.8  | U    | 068SS-0004M-0001-SO | 0.73   | 0.38 | 3.7  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | TOLUENE                   | 0.4    | UG/KG | 4    | 0.4  | U    | 068SS-0004M-0001-SO | 0.37   | 0.2  | 3.7  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | TOTAL 1,2-DICHLOROETHENE  | 0.8    | UG/KG | 8    | 0.8  | U    | 068SS-0004M-0001-SO | 0.73   | 0.57 | 7.3  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | TRANS-1,3-DICHLOROPROPENE | 0.8    | UG/KG | 4    | 0.8  | U    | 068SS-0004M-0001-SO | 0.73   | 0.4  | 3.7  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | TRICHLOROETHYLENE         | 0.4    | UG/KG | 4    | 0.4  | U    | 068SS-0004M-0001-SO | 0.37   | 0.31 | 3.7  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | VINYL CHLORIDE            | 0.4    | UG/KG | 4    | 0.4  | U    | 068SS-0004M-0001-SO | 0.37   | 0.29 | 3.7  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | XYLENES, TOTAL            | 1.2    | UG/KG | 8    | 1.2  | UJ   | 068SS-0004M-0001-SO | 1.1    | 0.49 | 7.3  | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | Nitroguanidine            | 0.04   | mg/Kg | 0.25 | 0.02 | U    | 068SS-0004M-0001-SO | 0.04   | 0.02 | 0.25 | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | ALDRIN                    | 13     | UG/KG | 40   | 13   | U    | 068SS-0004M-0001-SO | 13     | 40   | 13   |      | N/A | Yes      |
| 068SS-0003M-0001-SO | ALPHA BHC                 | 13     | UG/KG | 25   | 13   | U    | 068SS-0004M-0001-SO | 13     | 25   | 13   |      | N/A | Yes      |
| 068SS-0003M-0001-SO | ALPHA ENDOSULFAN          | 6.7    | UG/KG | 17   | 6.7  | U    | 068SS-0004M-0001-SO | 6.7    | 17   | 6.7  |      | N/A | Yes      |
| 068SS-0003M-0001-SO | ALPHA-CHLORDANE           | 13     | UG/KG | 30   | 13   | U    | 068SS-0004M-0001-SO | 13     | 30   | 13   |      | N/A | Yes      |
| 068SS-0003M-0001-SO | BETA BHC                  | 13     | UG/KG | 35   | 13   | U    | 068SS-0004M-0001-SO | 13     | 35   | 13   |      | N/A | Yes      |
| 068SS-0003M-0001-SO | BETA ENDOSULFAN           | 13     | UG/KG | 25   | 13   | J    | 068SS-0004M-0001-SO | 13     | 25   | 13   |      | N/A | Yes      |
| 068SS-0003M-0001-SO | DELTA BHC                 | 13     | UG/KG | 40   | 13   | U    | 068SS-0004M-0001-SO | 13     | 40   | 13   |      | N/A | Yes      |



| Sample              | Analyte             | Result | Units | LOQ   | LOD    | Qual | Sample              | Result | LOQ   | LOD    | Qual | RPD | W/In LOQ |
|---------------------|---------------------|--------|-------|-------|--------|------|---------------------|--------|-------|--------|------|-----|----------|
| 068SS-0003M-0001-SO | DIELDRIN            | 6.7    | UG/KG | 17    | 6.7    | U    | 068SS-0004M-0001-SO | 6.7    | 17    | 6.7    |      | N/A | Yes      |
| 068SS-0003M-0001-SO | ENDOSULFAN SULFATE  | 13     | UG/KG | 30    | 13     | U    | 068SS-0004M-0001-SO | 13     | 30    | 13     |      | N/A | Yes      |
| 068SS-0003M-0001-SO | ENDRIN              | 6.7    | UG/KG | 17    | 6.7    | U    | 068SS-0004M-0001-SO | 6.7    | 17    | 6.7    |      | N/A | Yes      |
| 068SS-0003M-0001-SO | ENDRIN ALDEHYDE     | 13     | UG/KG | 30    | 13     | U    | 068SS-0004M-0001-SO | 13     | 30    | 13     |      | N/A | Yes      |
| 068SS-0003M-0001-SO | ENDRIN KETONE       | 6.7    | UG/KG | 20    | 6.7    | U    | 068SS-0004M-0001-SO | 6.7    | 20    | 6.7    |      | N/A | Yes      |
| 068SS-0003M-0001-SO | GAMMA BHC (LINDANE) | 13     | UG/KG | 25    | 13     | U    | 068SS-0004M-0001-SO | 13     | 25    | 13     |      | N/A | Yes      |
| 068SS-0003M-0001-SO | GAMMA-CHLORDANE     | 6.7    | UG/KG | 17    | 6.7    | U    | 068SS-0004M-0001-SO | 6.7    | 17    | 6.7    |      | N/A | Yes      |
| 068SS-0003M-0001-SO | HEPTACHLOR          | 13     | UG/KG | 35    | 13     | U    | 068SS-0004M-0001-SO | 13     | 35    | 13     |      | N/A | Yes      |
| 068SS-0003M-0001-SO | HEPTACHLOR EPOXIDE  | 13     | UG/KG | 25    | 13     |      | 068SS-0004M-0001-SO | 13     | 25    | 13     |      | N/A | Yes      |
| 068SS-0003M-0001-SO | METHOXYCHLOR        | 33     | UG/KG | 50    | 33     | U    | 068SS-0004M-0001-SO | 33     | 50    | 33     |      | N/A | Yes      |
| 068SS-0003M-0001-SO | P,P'-DDD            | 6.7    | UG/KG | 20    | 6.7    |      | 068SS-0004M-0001-SO | 6.7    | 20    | 6.7    |      | N/A | Yes      |
| 068SS-0003M-0001-SO | P,P'-DDE            | 6.7    | UG/KG | 17    | 6.7    | U    | 068SS-0004M-0001-SO | 6.7    | 17    | 6.7    |      | N/A | Yes      |
| 068SS-0003M-0001-SO | P,P'-DDT            | 6.7    | UG/KG | 20    | 6.7    | U    | 068SS-0004M-0001-SO | 6.7    | 20    | 6.7    |      | N/A | Yes      |
| 068SS-0003M-0001-SO | TOXAPHENE           | 200    | UG/KG | 670   | 200    | U    | 068SS-0004M-0001-SO | 200    | 670   | 200    |      | N/A | Yes      |
| 068SS-0003M-0001-SO | ALUMINUM            | 13000  | MG/KG | 8.5   | 3.4    |      | 068SS-0004M-0001-SO | 16000  | 40    | 16     |      | 21  | N/A      |
| 068SS-0003M-0001-SO | ANTIMONY            | 2.16   | MG/KG | 0.85  | 0.64   | J-   | 068SS-0004M-0001-SO | 0.6    | 0.79  | 0.6    | U    | N/A | No       |
| 068SS-0003M-0001-SO | ARSENIC             | 12     | MG/KG | 0.43  | 0.13   |      | 068SS-0004M-0001-SO | 11     | 0.4   | 0.12   |      | 9   | N/A      |
| 068SS-0003M-0001-SO | BARIUM              | 90.5   | MG/KG | 2.1   | 1.3    |      | 068SS-0004M-0001-SO | 83     | 2     | 1.2    |      | 9   | N/A      |
| 068SS-0003M-0001-SO | BERYLLIUM           | 0.87   | MG/KG | 0.085 | 0.0085 |      | 068SS-0004M-0001-SO | 0.83   | 0.079 | 0.0079 |      | 5   | N/A      |
| 068SS-0003M-0001-SO | CADMIUM             | 0.12   | MG/KG | 0.17  | 0.0085 | J    | 068SS-0004M-0001-SO | 0.1    | 0.16  | 0.0079 | J    | N/A | Yes      |
| 068SS-0003M-0001-SO | CALCIUM             | 3900   | MG/KG | 170   | 85     |      | 068SS-0004M-0001-SO | 3900   | 160   | 79     |      | 0   | N/A      |
| 068SS-0003M-0001-SO | CHROMIUM            | 22     | MG/KG | 0.43  | 0.38   |      | 068SS-0004M-0001-SO | 24     | 2     | 1.8    |      | 9   | N/A      |
| 068SS-0003M-0001-SO | COBALT              | 13     | MG/KG | 0.085 | 0.013  |      | 068SS-0004M-0001-SO | 11     | 0.4   | 0.06   |      | 17  | N/A      |
| 068SS-0003M-0001-SO | COPPER              | 18     | MG/KG | 0.34  | 0.26   |      | 068SS-0004M-0001-SO | 22     | 1.6   | 1.2    |      | 20  | N/A      |
| 068SS-0003M-0001-SO | IRON                | 29800  | MG/KG | 210   | 130    |      | 068SS-0004M-0001-SO | 29000  | 200   | 120    |      | 3   | N/A      |
| 068SS-0003M-0001-SO | LEAD                | 26.3   | MG/KG | 1.3   | 0.85   |      | 068SS-0004M-0001-SO | 16     | 1.2   | 0.79   |      | 49  | N/A      |
| 068SS-0003M-0001-SO | MAGNESIUM           | 3700   | MG/KG | 85    | 21     |      | 068SS-0004M-0001-SO | 4500   | 400   | 99     |      | 20  | N/A      |
| 068SS-0003M-0001-SO | MANGANESE           | 386    | MG/KG | 2.1   | 1.7    | J    | 068SS-0004M-0001-SO | 280    | 0.4   | 0.32   |      | 32  | N/A      |
| 068SS-0003M-0001-SO | NICKEL              | 28     | MG/KG | 0.43  | 0.21   |      | 068SS-0004M-0001-SO | 33     | 2     | 0.99   |      | 16  | N/A      |
| 068SS-0003M-0001-SO | POTASSIUM           | 1200   | MG/KG | 85    | 8.5    |      | 068SS-0004M-0001-SO | 1600   | 79    | 7.9    |      | 29  | N/A      |
| 068SS-0003M-0001-SO | SELENIUM            | 0.57   | MG/KG | 0.43  | 0.051  | J    | 068SS-0004M-0001-SO | 0.56   | 0.4   | 0.048  |      | N/A | Yes      |
| 068SS-0003M-0001-SO | SILVER              | 0.029  | MG/KG | 0.085 | 0.043  | J    | 068SS-0004M-0001-SO | 0.03   | 0.079 | 0.04   | J    | N/A | Yes      |
| 068SS-0003M-0001-SO | SODIUM              | 52     | MG/KG | 85    | 34     | U    | 068SS-0004M-0001-SO | 72     | 400   | 160    | J    | N/A | Yes      |
| 068SS-0003M-0001-SO | THALLIUM            | 7.97   | MG/KG | 0.85  | 0.64   |      | 068SS-0004M-0001-SO | 0.26   | 0.79  | 0.6    | J    | N/A | No       |
| 068SS-0003M-0001-SO | VANADIUM            | 21     | MG/KG | 0.43  | 0.085  |      | 068SS-0004M-0001-SO | 24     | 2     | 0.4    |      | 13  | N/A      |
| 068SS-0003M-0001-SO | ZINC                | 63     | MG/KG | 3.4   | 1.7    |      | 068SS-0004M-0001-SO | 74     | 16    | 7.9    |      | N/A | Yes      |

| Sample              | Analyte   | Result | Units | LOQ   | LOD   | Qual | Sample              | Result | LOQ  | LOD   | Qual | RPD | W/In LOQ |
|---------------------|-----------|--------|-------|-------|-------|------|---------------------|--------|------|-------|------|-----|----------|
| 068SS-0003M-0001-SO | MERCURY   | 0.046  | MG/KG | 0.098 | 0.032 | U    | 068SS-0004M-0001-SO | 0.037  | 0.11 | 0.037 | J    | N/A | Yes      |
| 068SS-0003M-0001-SO | PCB-1016  | 25     | UG/KG | 65    | 25    | U    | 068SS-0004M-0001-SO | 25     | 65   | 25    | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | PCB-1221  | 25     | UG/KG | 50    | 25    | U    | 068SS-0004M-0001-SO | 25     | 50   | 25    | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | PCB-1232  | 25     | UG/KG | 45    | 25    | U    | 068SS-0004M-0001-SO | 25     | 45   | 25    | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | PCB-1242  | 25     | UG/KG | 40    | 25    | U    | 068SS-0004M-0001-SO | 25     | 40   | 25    | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | PCB-1248  | 25     | UG/KG | 55    | 25    | U    | 068SS-0004M-0001-SO | 25     | 55   | 25    | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | PCB-1254  | 25     | UG/KG | 55    | 25    | U    | 068SS-0004M-0001-SO | 25     | 55   | 25    | U    | N/A | Yes      |
| 068SS-0003M-0001-SO | PCB-1260  | 25     | UG/KG | 55    | 25    | U    | 068SS-0004M-0001-SO | 25     | 55   | 25    | U    | N/A | Yes      |
| 068SW-0016-0001-SW  | ALUMINUM  | 320    | UG/L  | 60    | 60    |      | 068SW-0014-0001-SW  | 250    | 60   | 60    |      | N/A | No       |
| 068SW-0016-0001-SW  | ANTIMONY  | 1      | UG/L  | 2     | 0.5   |      | 068SW-0014-0001-SW  | 0.5    | 2    | 0.5   | U    | N/A | Yes      |
| 068SW-0016-0001-SW  | ARSENIC   | 0.78   | UG/L  | 5     | 1     |      | 068SW-0014-0001-SW  | 0.7    | 5    | 1     | J    | N/A | Yes      |
| 068SW-0016-0001-SW  | BARIUM    | 34     | UG/L  | 5     | 4     | J    | 068SW-0014-0001-SW  | 32     | 5    | 4     |      | 6   | N/A      |
| 068SW-0016-0001-SW  | BERYLLIUM | 0.5    | UG/L  | 1     | 0.5   | U    | 068SW-0014-0001-SW  | 0.5    | 1    | 0.5   | U    | N/A | Yes      |
| 068SW-0016-0001-SW  | CADMIUM   | 0.4    | UG/L  | 2     | 0.4   | U    | 068SW-0014-0001-SW  | 0.4    | 2    | 0.4   | U    | N/A | Yes      |
| 068SW-0016-0001-SW  | CALCIUM   | 31000  | UG/L  | 2000  | 1000  |      | 068SW-0014-0001-SW  | 33000  | 2000 | 1000  |      | 6   | N/A      |
| 068SW-0016-0001-SW  | CHROMIUM  | 1.5    | UG/L  | 2     | 1.5   | U    | 068SW-0014-0001-SW  | 1.5    | 2    | 1.5   | U    | N/A | Yes      |
| 068SW-0016-0001-SW  | COBALT    | 0.31   | UG/L  | 1     | 0.2   | J    | 068SW-0014-0001-SW  | 0.2    | 1    | 0.2   | U    | N/A | Yes      |
| 068SW-0016-0001-SW  | COPPER    | 1.6    | UG/L  | 4     | 4     |      | 068SW-0014-0001-SW  | 4      | 4    | 4     | U    | N/A | Yes      |
| 068SW-0016-0001-SW  | IRON      | 1300   | UG/L  | 150   | 100   | J+   | 068SW-0014-0001-SW  | 1000   | 150  | 100   |      | 26  | N/A      |
| 068SW-0016-0001-SW  | LEAD      | 0.59   | UG/L  | 1     | 0.5   | J    | 068SW-0014-0001-SW  | 0.5    | 1    | 0.5   | J    | N/A | Yes      |
| 068SW-0016-0001-SW  | MAGNESIUM | 8300   | UG/L  | 1000  | 300   |      | 068SW-0014-0001-SW  | 9000   | 1000 | 300   |      | 8   | N/A      |
| 068SW-0016-0001-SW  | MANGANESE | 330    | UG/L  | 5     | 3     |      | 068SW-0014-0001-SW  | 240    | 5    | 3     |      | 32  | N/A      |
| 068SW-0016-0001-SW  | NICKEL    | 0.9    | UG/L  | 5     | 1.5   |      | 068SW-0014-0001-SW  | 0.74   | 5    | 1.5   | J    | N/A | Yes      |
| 068SW-0016-0001-SW  | POTASSIUM | 1900   | UG/L  | 1000  | 50    |      | 068SW-0014-0001-SW  | 2000   | 1000 | 50    |      | N/A | Yes      |
| 068SW-0016-0001-SW  | SELENIUM  | 0.5    | UG/L  | 5     | 0.5   | UJ   | 068SW-0014-0001-SW  | 0.5    | 5    | 0.5   | U    | N/A | Yes      |
| 068SW-0016-0001-SW  | SILVER    | 0.93   | UG/L  | 1     | 0.25  | J    | 068SW-0014-0001-SW  | 0.25   | 1    | 0.25  | U    | N/A | Yes      |
| 068SW-0016-0001-SW  | SODIUM    | 3900   | UG/L  | 1000  | 400   |      | 068SW-0014-0001-SW  | 4100   | 1000 | 400   |      | N/A | Yes      |
| 068SW-0016-0001-SW  | THALLIUM  | 1      | UG/L  | 2     | 1     | U    | 068SW-0014-0001-SW  | 1      | 2    | 1     | U    | N/A | Yes      |
| 068SW-0016-0001-SW  | VANADIUM  | 0.72   | UG/L  | 5     | 1.5   |      | 068SW-0014-0001-SW  | 0.55   | 5    | 1.5   | J    | N/A | Yes      |
| 068SW-0016-0001-SW  | ZINC      | 20     | UG/L  | 40    | 20    | U    | 068SW-0014-0001-SW  | 20     | 40   | 20    | U    | N/A | Yes      |
| 068SW-0016-0001-SW  | MERCURY   | 0.2    | UG/L  | 0.2   | 0.2   |      | 068SW-0014-0001-SW  | 0.2    | 0.2  | 0.2   | U    | N/A | Yes      |
| 068SW-0016-0001-SW  | PCB-1016  | 0.19   | UG/L  | 0.48  | 0.19  | U    | 068SW-0014-0001-SW  | 0.19   | 0.48 | 0.19  | U    | N/A | Yes      |
| 068SW-0016-0001-SW  | PCB-1221  | 0.19   | UG/L  | 0.48  | 0.19  | U    | 068SW-0014-0001-SW  | 0.19   | 0.48 | 0.19  | U    | N/A | Yes      |
| 068SW-0016-0001-SW  | PCB-1232  | 0.19   | UG/L  | 0.48  | 0.19  | U    | 068SW-0014-0001-SW  | 0.19   | 0.48 | 0.19  | U    | N/A | Yes      |
| 068SW-0016-0001-SW  | PCB-1242  | 0.38   | UG/L  | 0.48  | 0.38  | U    | 068SW-0014-0001-SW  | 0.38   | 0.48 | 0.38  | U    | N/A | Yes      |
| 068SW-0016-0001-SW  | PCB-1248  | 0.19   | UG/L  | 0.48  | 0.19  | U    | 068SW-0014-0001-SW  | 0.19   | 0.48 | 0.19  | U    | N/A | Yes      |

| Sample             | Analyte                     | Result | Units | LOQ  | LOD   | Qual | Sample             | Result | LOQ  | LOD   | Qual | RPD | W/In LOQ |
|--------------------|-----------------------------|--------|-------|------|-------|------|--------------------|--------|------|-------|------|-----|----------|
| 068SW-0016-0001-SW | PCB-1254                    | 0.19   | UG/L  | 0.48 | 0.19  | U    | 068SW-0014-0001-SW | 0.19   | 0.48 | 0.19  | U    | N/A | Yes      |
| 068SW-0016-0001-SW | PCB-1260                    | 0.19   | UG/L  | 0.48 | 0.19  | U    | 068SW-0014-0001-SW | 0.19   | 0.48 | 0.19  | U    | N/A | Yes      |
| 068SW-0016-0001-SW | 1,2,4-TRICHLOROBENZENE      | 0.76   | UG/L  | 0.95 | 0.76  | UJ   | 068SW-0014-0001-SW | 0.76   | 0.95 | 0.76  | U    | N/A | Yes      |
| 068SW-0016-0001-SW | 1,2-DICHLOROBENZENE         | 0.76   | UG/L  | 0.95 | 0.76  | UJ   | 068SW-0014-0001-SW | 0.76   | 0.95 | 0.76  | U    | N/A | Yes      |
| 068SW-0016-0001-SW | 1,3-DICHLOROBENZENE         | 0.76   | UG/L  | 0.95 | 0.76  | UJ   | 068SW-0014-0001-SW | 0.76   | 0.95 | 0.76  | U    | N/A | Yes      |
| 068SW-0016-0001-SW | 1,4-DICHLOROBENZENE         | 0.76   | UG/L  | 0.95 | 0.76  | UJ   | 068SW-0014-0001-SW | 0.76   | 0.95 | 0.76  | U    | N/A | Yes      |
| 068SW-0016-0001-SW | 2,4,5-TRICHLOROPHENOL       | 0.76   | UG/L  | 4.8  | 0.76  | U    | 068SW-0014-0001-SW | 0.76   | 4.8  | 0.76  | U    | N/A | Yes      |
| 068SW-0016-0001-SW | 2,4,6-TRICHLOROPHENOL       | 0.76   | UG/L  | 4.8  | 0.76  | U    | 068SW-0014-0001-SW | 0.76   | 4.8  | 0.76  | U    | N/A | Yes      |
| 068SW-0016-0001-SW | 2,4-DICHLOROPHENOL          | 0.76   | UG/L  | 1.9  | 0.76  | U    | 068SW-0014-0001-SW | 0.76   | 1.9  | 0.76  | U    | N/A | Yes      |
| 068SW-0016-0001-SW | 2,4-DIMETHYLPHENOL          | 0.76   | UG/L  | 1.9  | 0.76  | U    | 068SW-0014-0001-SW | 0.76   | 1.9  | 0.76  | U    | N/A | Yes      |
| 068SW-0016-0001-SW | 2,4-DINITROPHENOL           | 2.3    | UG/L  | 4.8  | 2.3   | U    | 068SW-0014-0001-SW | 2.3    | 4.8  | 2.3   | U    | N/A | Yes      |
| 068SW-0016-0001-SW | 2,4-DINITROTOLUENE          | 0.76   | UG/L  | 4.8  | 0.76  | U    | 068SW-0014-0001-SW | 0.76   | 4.8  | 0.76  | U    | N/A | Yes      |
| 068SW-0016-0001-SW | 2,6-DINITROTOLUENE          | 0.76   | UG/L  | 4.8  | 0.76  | U    | 068SW-0014-0001-SW | 0.76   | 4.8  | 0.76  | U    | N/A | Yes      |
| 068SW-0016-0001-SW | 2-CHLORONAPHTHALENE         | 0.095  | UG/L  | 0.95 | 0.095 | U    | 068SW-0014-0001-SW | 0.095  | 0.95 | 0.095 | U    | N/A | Yes      |
| 068SW-0016-0001-SW | 2-CHLOROPHENOL              | 0.76   | UG/L  | 0.95 | 0.76  | U    | 068SW-0014-0001-SW | 0.76   | 0.95 | 0.76  | U    | N/A | Yes      |
| 068SW-0016-0001-SW | 2-METHYLNAPHTHALENE         | 0.095  | UG/L  | 0.19 | 0.095 | U    | 068SW-0014-0001-SW | 0.095  | 0.19 | 0.095 | U    | N/A | Yes      |
| 068SW-0016-0001-SW | 2-METHYLPHENOL (O-CRESOL)   | 0.76   | UG/L  | 0.95 | 0.76  | U    | 068SW-0014-0001-SW | 0.76   | 0.95 | 0.76  | U    | N/A | Yes      |
| 068SW-0016-0001-SW | 2-NITROANILINE              | 0.76   | UG/L  | 1.9  | 0.76  | U    | 068SW-0014-0001-SW | 0.76   | 1.9  | 0.76  | U    | N/A | Yes      |
| 068SW-0016-0001-SW | 2-NITROPHENOL               | 0.76   | UG/L  | 1.9  | 0.76  | U    | 068SW-0014-0001-SW | 0.76   | 1.9  | 0.76  | U    | N/A | Yes      |
| 068SW-0016-0001-SW | 3,3'-DICHLOROBENZIDINE      | 0.76   | UG/L  | 4.8  | 0.76  | U    | 068SW-0014-0001-SW | 0.76   | 4.8  | 0.76  | U    | N/A | Yes      |
| 068SW-0016-0001-SW | 3-NITROANILINE              | 0.76   | UG/L  | 1.9  | 0.76  | U    | 068SW-0014-0001-SW | 0.76   | 1.9  | 0.76  | U    | N/A | Yes      |
| 068SW-0016-0001-SW | 4,6-DINITRO-2-METHYLPHENOL  | 2.3    | UG/L  | 4.8  | 2.3   | U    | 068SW-0014-0001-SW | 2.3    | 4.8  | 2.3   | U    | N/A | Yes      |
| 068SW-0016-0001-SW | 4-BROMOPHENYL PHENYL ETHER  | 0.76   | UG/L  | 1.9  | 0.76  | U    | 068SW-0014-0001-SW | 0.76   | 1.9  | 0.76  | U    | N/A | Yes      |
| 068SW-0016-0001-SW | 4-CHLORO-3-METHYLPHENOL     | 0.76   | UG/L  | 1.9  | 0.76  | U    | 068SW-0014-0001-SW | 0.76   | 1.9  | 0.76  | U    | N/A | Yes      |
| 068SW-0016-0001-SW | 4-CHLOROANILINE             | 0.76   | UG/L  | 1.9  | 0.76  | U    | 068SW-0014-0001-SW | 0.76   | 1.9  | 0.76  | U    | N/A | Yes      |
| 068SW-0016-0001-SW | 4-CHLOROPHENYL PHENYL ETHER | 0.76   | UG/L  | 1.9  | 0.76  | U    | 068SW-0014-0001-SW | 0.76   | 1.9  | 0.76  | U    | N/A | Yes      |
| 068SW-0016-0001-SW | 4-NITROANILINE              | 0.76   | UG/L  | 1.9  | 0.76  | U    | 068SW-0014-0001-SW | 0.76   | 1.9  | 0.76  | U    | N/A | Yes      |
| 068SW-0016-0001-SW | 4-NITROPHENOL               | 2.3    | UG/L  | 4.8  | 2.3   | U    | 068SW-0014-0001-SW | 2.3    | 4.8  | 2.3   | U    | N/A | Yes      |
| 068SW-0016-0001-SW | ACENAPHTHENE                | 0.095  | UG/L  | 0.19 | 0.095 | U    | 068SW-0014-0001-SW | 0.095  | 0.19 | 0.095 | U    | N/A | Yes      |
| 068SW-0016-0001-SW | ACENAPHTHYLENE              | 0.095  | UG/L  | 0.19 | 0.095 | U    | 068SW-0014-0001-SW | 0.095  | 0.19 | 0.095 | U    | N/A | Yes      |
| 068SW-0016-0001-SW | ANTHRACENE                  | 0.095  | UG/L  | 0.19 | 0.095 | U    | 068SW-0014-0001-SW | 0.095  | 0.19 | 0.095 | U    | N/A | Yes      |
| 068SW-0016-0001-SW | BENZO(A)ANTHRACENE          | 0.095  | UG/L  | 0.19 | 0.095 | U    | 068SW-0014-0001-SW | 0.095  | 0.19 | 0.095 | U    | N/A | Yes      |
| 068SW-0016-0001-SW | BENZO(A)PYRENE              | 0.095  | UG/L  | 0.19 | 0.095 | U    | 068SW-0014-0001-SW | 0.095  | 0.19 | 0.095 | U    | N/A | Yes      |
| 068SW-0016-0001-SW | BENZO(B)FLUORANTHENE        | 0.095  | UG/L  | 0.19 | 0.095 | U    | 068SW-0014-0001-SW | 0.095  | 0.19 | 0.095 | U    | N/A | Yes      |
| 068SW-0016-0001-SW | BENZO(G,H,I)PERYLENE        | 0.095  | UG/L  | 0.19 | 0.095 | UJ   | 068SW-0014-0001-SW | 0.095  | 0.19 | 0.095 | U    | N/A | Yes      |
| 068SW-0016-0001-SW | BENZO(K)FLUORANTHENE        | 0.095  | UG/L  | 0.19 | 0.095 | U    | 068SW-0014-0001-SW | 0.095  | 0.19 | 0.095 | U    | N/A | Yes      |

| Sample             | Analyte                      | Result | Units | LOQ  | LOD   | Qual | Sample             | Result | LOQ  | LOD   | Qual | RPD | W/In LOQ |
|--------------------|------------------------------|--------|-------|------|-------|------|--------------------|--------|------|-------|------|-----|----------|
| 068SW-0016-0001-SW | BENZOIC ACID                 | 9.5    | UG/L  | 24   | 9.5   | U    | 068SW-0014-0001-SW | 9.5    | 24   | 9.5   | U    | N/A | Yes      |
| 068SW-0016-0001-SW | BENZYL ALCOHOL               | 0.76   | UG/L  | 4.8  | 0.76  | U    | 068SW-0014-0001-SW | 0.76   | 4.8  | 0.76  | U    | N/A | Yes      |
| 068SW-0016-0001-SW | BENZYL BUTYL PHTHALATE       | 0.76   | UG/L  | 0.95 | 0.76  | U    | 068SW-0014-0001-SW | 0.76   | 0.95 | 0.76  | U    | N/A | Yes      |
| 068SW-0016-0001-SW | BIS(2-CHLOROETHOXY) METHANE  | 0.76   | UG/L  | 0.95 | 0.76  | U    | 068SW-0014-0001-SW | 0.76   | 0.95 | 0.76  | U    | N/A | Yes      |
| 068SW-0016-0001-SW | BIS(2-CHLOROETHYL) ETHER     | 0.095  | UG/L  | 0.95 | 0.095 | UJ   | 068SW-0014-0001-SW | 0.095  | 0.95 | 0.095 | U    | N/A | Yes      |
| 068SW-0016-0001-SW | BIS(2-CHLOROISOPROPYL) ETHER | 0.76   | UG/L  | 0.95 | 0.76  | UJ   | 068SW-0014-0001-SW | 0.76   | 0.95 | 0.76  | U    | N/A | Yes      |
| 068SW-0016-0001-SW | BIS(2-ETHYLHEXYL) PHTHALATE  | 0.76   | UG/L  | 1.9  | 0.76  | U    | 068SW-0014-0001-SW | 2.8    | 1.9  | 0.76  |      | N/A | No       |
| 068SW-0016-0001-SW | CARBAZOLE                    | 0.76   | UG/L  | 0.95 | 0.76  | U    | 068SW-0014-0001-SW | 0.76   | 0.95 | 0.76  | U    | N/A | Yes      |
| 068SW-0016-0001-SW | CHRYSENE                     | 0.095  | UG/L  | 0.19 | 0.095 | U    | 068SW-0014-0001-SW | 0.095  | 0.19 | 0.095 | U    | N/A | Yes      |
| 068SW-0016-0001-SW | CRESOLS, M & P               | 0.76   | UG/L  | 1.9  | 0.76  | U    | 068SW-0014-0001-SW | 0.76   | 1.9  | 0.76  | U    | N/A | Yes      |
| 068SW-0016-0001-SW | DIBENZ(A,H)ANTHRACENE        | 0.095  | UG/L  | 0.19 | 0.095 | UJ   | 068SW-0014-0001-SW | 0.095  | 0.19 | 0.095 | U    | N/A | Yes      |
| 068SW-0016-0001-SW | DIBENZOFURAN                 | 0.095  | UG/L  | 0.95 | 0.095 | U    | 068SW-0014-0001-SW | 0.095  | 0.95 | 0.095 | U    | N/A | Yes      |
| 068SW-0016-0001-SW | DIETHYL PHTHALATE            | 0.76   | UG/L  | 0.95 | 0.76  | U    | 068SW-0014-0001-SW | 0.76   | 0.95 | 0.76  | U    | N/A | Yes      |
| 068SW-0016-0001-SW | DIMETHYL PHTHALATE           | 0.76   | UG/L  | 0.95 | 0.76  | U    | 068SW-0014-0001-SW | 0.76   | 0.95 | 0.76  | U    | N/A | Yes      |
| 068SW-0016-0001-SW | DI-N-BUTYL PHTHALATE         | 0.76   | UG/L  | 0.95 | 0.76  | U    | 068SW-0014-0001-SW | 0.76   | 0.95 | 0.76  | U    | N/A | Yes      |
| 068SW-0016-0001-SW | DI-N-OCTYLPHTHALATE          | 0.76   | UG/L  | 0.95 | 0.76  | UJ   | 068SW-0014-0001-SW | 0.76   | 0.95 | 0.76  | U    | N/A | Yes      |
| 068SW-0016-0001-SW | FLUORANTHENE                 | 0.095  | UG/L  | 0.19 | 0.095 | U    | 068SW-0014-0001-SW | 0.095  | 0.19 | 0.095 | U    | N/A | Yes      |
| 068SW-0016-0001-SW | FLUORENE                     | 0.095  | UG/L  | 0.19 | 0.095 | U    | 068SW-0014-0001-SW | 0.095  | 0.19 | 0.095 | U    | N/A | Yes      |
| 068SW-0016-0001-SW | HEXACHLOROBENZENE            | 0.095  | UG/L  | 0.19 | 0.095 | U    | 068SW-0014-0001-SW | 0.095  | 0.19 | 0.095 | U    | N/A | Yes      |
| 068SW-0016-0001-SW | HEXACHLOROBUTADIENE          | 0.76   | UG/L  | 0.95 | 0.76  | UJ   | 068SW-0014-0001-SW | 0.76   | 0.95 | 0.76  | U    | N/A | Yes      |
| 068SW-0016-0001-SW | HEXACHLOROCYCLOPENTADIENE    | 0.76   | UG/L  | 9.5  | 0.76  | U    | 068SW-0014-0001-SW | 0.76   | 9.5  | 0.76  | U    | N/A | Yes      |
| 068SW-0016-0001-SW | HEXACHLOROETHANE             | 0.76   | UG/L  | 0.95 | 0.76  | UJ   | 068SW-0014-0001-SW | 0.76   | 0.95 | 0.76  | U    | N/A | Yes      |
| 068SW-0016-0001-SW | INDENO(1,2,3-C,D)PYRENE      | 0.095  | UG/L  | 0.19 | 0.095 | UJ   | 068SW-0014-0001-SW | 0.095  | 0.19 | 0.095 | U    | N/A | Yes      |
| 068SW-0016-0001-SW | ISOPHORONE                   | 0.76   | UG/L  | 0.95 | 0.76  | U    | 068SW-0014-0001-SW | 0.76   | 0.95 | 0.76  | U    | N/A | Yes      |
| 068SW-0016-0001-SW | NAPHTHALENE                  | 0.095  | UG/L  | 0.19 | 0.095 | U    | 068SW-0014-0001-SW | 0.095  | 0.19 | 0.095 | U    | N/A | Yes      |
| 068SW-0016-0001-SW | NITROBENZENE                 | 0.095  | UG/L  | 0.95 | 0.095 | U    | 068SW-0014-0001-SW | 0.095  | 0.95 | 0.095 | U    | N/A | Yes      |
| 068SW-0016-0001-SW | N-NITROSODI-N-PROPYLAMINE    | 0.76   | UG/L  | 0.95 | 0.76  | U    | 068SW-0014-0001-SW | 0.76   | 0.95 | 0.76  | U    | N/A | Yes      |
| 068SW-0016-0001-SW | N-NITROSODIPHENYLAMINE       | 0.76   | UG/L  | 0.95 | 0.76  | U    | 068SW-0014-0001-SW | 0.76   | 0.95 | 0.76  | U    | N/A | Yes      |
| 068SW-0016-0001-SW | PENTACHLOROPHENOL            | 2.3    | UG/L  | 4.8  | 2.3   | U    | 068SW-0014-0001-SW | 2.3    | 4.8  | 2.3   | U    | N/A | Yes      |
| 068SW-0016-0001-SW | PHENANTHRENE                 | 0.095  | UG/L  | 0.19 | 0.095 | U    | 068SW-0014-0001-SW | 0.095  | 0.19 | 0.095 | U    | N/A | Yes      |
| 068SW-0016-0001-SW | PHENOL                       | 0.76   | UG/L  | 0.95 | 0.76  | U    | 068SW-0014-0001-SW | 0.76   | 0.95 | 0.76  | U    | N/A | Yes      |
| 068SW-0016-0001-SW | PYRENE                       | 0.095  | UG/L  | 0.19 | 0.095 | U    | 068SW-0014-0001-SW | 0.095  | 0.19 | 0.095 | U    | N/A | Yes      |

| Sample              | Analyte            | Result | Units | LOQ   | LOD    | Qual | Sample              | Result | LOQ   | LOD    | Qual | RPD | W/In LOQ |
|---------------------|--------------------|--------|-------|-------|--------|------|---------------------|--------|-------|--------|------|-----|----------|
| 069SS-0001M-0001-SO | NITROCELLULOSE     | 17     | MG/KG | 47    | 17     | U    | 069SS-0002M-0001-SO | 17     | 47    | 17     | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | ALUMINUM           | 14000  | MG/KG | 2.7   | 0.54   | J    | 069SS-0002M-0001-SO | 13000  | 2.8   | 0.57   |      | 7   | N/A      |
| 069SS-0001M-0001-SO | ANTIMONY           | 0.14   | MG/KG | 0.18  | 0.089  | J    | 069SS-0002M-0001-SO | 0.16   | 0.19  | 0.094  |      | N/A | Yes      |
| 069SS-0001M-0001-SO | ARSENIC            | 10     | MG/KG | 0.089 | 0.045  | J-   | 069SS-0002M-0001-SO | 10     | 0.094 | 0.047  |      | 0   | N/A      |
| 069SS-0001M-0001-SO | BARIUM             | 76     | MG/KG | 0.89  | 0.018  | J    | 069SS-0002M-0001-SO | 74     | 0.94  | 0.019  |      | 3   | N/A      |
| 069SS-0001M-0001-SO | BERYLLIUM          | 0.82   | MG/KG | 0.089 | 0.0089 |      | 069SS-0002M-0001-SO | 0.75   | 0.094 | 0.0094 |      | 9   | N/A      |
| 069SS-0001M-0001-SO | CADMIUM            | 0.29   | MG/KG | 0.089 | 0.027  | J-   | 069SS-0002M-0001-SO | 0.27   | 0.094 | 0.028  |      | N/A | Yes      |
| 069SS-0001M-0001-SO | CALCIUM            | 5300   | MG/KG | 8.9   | 2.2    | J    | 069SS-0002M-0001-SO | 5000   | 9.4   | 2.4    |      | 6   | N/A      |
| 069SS-0001M-0001-SO | CHROMIUM           | 24     | MG/KG | 0.18  | 0.036  |      | 069SS-0002M-0001-SO | 19     | 0.19  | 0.038  |      | 23  | N/A      |
| 069SS-0001M-0001-SO | COBALT             | 11     | MG/KG | 0.045 | 0.0089 |      | 069SS-0002M-0001-SO | 11     | 0.047 | 0.0094 |      | 0   | N/A      |
| 069SS-0001M-0001-SO | COPPER             | 19     | MG/KG | 0.18  | 0.054  | J-   | 069SS-0002M-0001-SO | 30     | 0.19  | 0.057  |      | 45  | N/A      |
| 069SS-0001M-0001-SO | IRON               | 24000  | MG/KG | 4.5   | 1.8    |      | 069SS-0002M-0001-SO | 24000  | 4.7   | 1.9    |      | 0   | N/A      |
| 069SS-0001M-0001-SO | LEAD               | 19     | MG/KG | 0.089 | 0.027  |      | 069SS-0002M-0001-SO | 19     | 0.094 | 0.028  |      | 0   | N/A      |
| 069SS-0001M-0001-SO | MAGNESIUM          | 3900   | MG/KG | 8.9   | 1.8    |      | 069SS-0002M-0001-SO | 3800   | 9.4   | 1.9    |      | 3   | N/A      |
| 069SS-0001M-0001-SO | MANGANESE          | 430    | MG/KG | 0.45  | 0.027  | J    | 069SS-0002M-0001-SO | 480    | 0.47  | 0.028  |      | 11  | N/A      |
| 069SS-0001M-0001-SO | NICKEL             | 27     | MG/KG | 0.089 | 0.027  |      | 069SS-0002M-0001-SO | 24     | 0.094 | 0.028  |      | 12  | N/A      |
| 069SS-0001M-0001-SO | POTASSIUM          | 1500   | MG/KG | 8.9   | 5.4    |      | 069SS-0002M-0001-SO | 1200   | 9.4   | 5.7    |      | 22  | N/A      |
| 069SS-0001M-0001-SO | SELENIUM           | 0.78   | MG/KG | 0.45  | 0.089  | J-   | 069SS-0002M-0001-SO | 0.71   | 0.47  | 0.094  |      | N/A | Yes      |
| 069SS-0001M-0001-SO | SILVER             | 0.034  | MG/KG | 0.089 | 0.027  | J+   | 069SS-0002M-0001-SO | 0.035  | 0.094 | 0.028  |      | N/A | Yes      |
| 069SS-0001M-0001-SO | SODIUM             | 53     | MG/KG | 8.9   | 4.5    | U    | 069SS-0002M-0001-SO | 52     | 9.4   | 4.7    |      | 2   | N/A      |
| 069SS-0001M-0001-SO | THALLIUM           | 0.23   | MG/KG | 0.089 | 0.018  | U    | 069SS-0002M-0001-SO | 0.18   | 0.094 | 0.019  |      | N/A | Yes      |
| 069SS-0001M-0001-SO | VANADIUM           | 21     | MG/KG | 0.089 | 0.054  |      | 069SS-0002M-0001-SO | 20     | 0.094 | 0.057  |      | 5   | N/A      |
| 069SS-0001M-0001-SO | ZINC               | 79     | MG/KG | 0.45  | 0.18   |      | 069SS-0002M-0001-SO | 78     | 0.47  | 0.19   |      | 1   | N/A      |
| 069SS-0001M-0001-SO | MERCURY            | 0.206  | MG/KG | 0.11  | 0.035  |      | 069SS-0002M-0001-SO | 0.12   | 0.11  | 0.036  |      | N/A | Yes      |
| 069SS-0001M-0001-SO | ALDRIN             | 26     | UG/KG | 79    | 26     | U    | 069SS-0002M-0001-SO | 13     | 40    | 13     | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | ALPHA BHC          | 26     | UG/KG | 49    | 26     | U    | 069SS-0002M-0001-SO | 13     | 25    | 13     | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | ALPHA ENDOSULFAN   | 13     | UG/KG | 34    | 13     | U    | 069SS-0002M-0001-SO | 6.8    | 17    | 6.8    | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | ALPHA-CHLORDANE    | 26     | UG/KG | 59    | 26     | U    | 069SS-0002M-0001-SO | 13     | 30    | 13     | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | BETA BHC           | 26     | UG/KG | 69    | 26     | U    | 069SS-0002M-0001-SO | 13     | 35    | 13     | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | BETA ENDOSULFAN    | 26     | UG/KG | 49    | 26     | J    | 069SS-0002M-0001-SO | 13     | 25    | 13     | J    | N/A | Yes      |
| 069SS-0001M-0001-SO | DELTA BHC          | 26     | UG/KG | 79    | 26     | U    | 069SS-0002M-0001-SO | 13     | 40    | 13     | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | DIELDIN            | 13     | UG/KG | 34    | 13     | U    | 069SS-0002M-0001-SO | 6.8    | 17    | 6.8    | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | ENDOSULFAN SULFATE | 26     | UG/KG | 59    | 26     | U    | 069SS-0002M-0001-SO | 13     | 30    | 13     | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | ENDRIN             | 13     | UG/KG | 34    | 13     | U    | 069SS-0002M-0001-SO | 6.8    | 17    | 6.8    | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | ENDRIN ALDEHYDE    | 26     | UG/KG | 59    | 26     | U    | 069SS-0002M-0001-SO | 13     | 30    | 13     | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | ENDRIN KETONE      | 13     | UG/KG | 40    | 13     | U    | 069SS-0002M-0001-SO | 6.8    | 20    | 6.8    | U    | N/A | Yes      |

| Sample              | Analyte                   | Result | Units | LOQ  | LOD  | Qual | Sample              | Result | LOQ | LOD  | Qual | RPD | W/In LOQ |
|---------------------|---------------------------|--------|-------|------|------|------|---------------------|--------|-----|------|------|-----|----------|
| 069SS-0001M-0001-SO | GAMMA BHC (LINDANE)       | 26     | UG/KG | 49   | 26   | U    | 069SS-0002M-0001-SO | 13     | 25  | 13   | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | GAMMA-CHLORDANE           | 13     | UG/KG | 34   | 13   | U    | 069SS-0002M-0001-SO | 6.8    | 17  | 6.8  | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | HEPTACHLOR                | 26     | UG/KG | 69   | 26   | U    | 069SS-0002M-0001-SO | 13     | 35  | 13   | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | HEPTACHLOR EPOXIDE        | 26     | UG/KG | 49   | 26   | U    | 069SS-0002M-0001-SO | 13     | 25  | 13   | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | METHOXYCHLOR              | 65     | UG/KG | 99   | 65   | U    | 069SS-0002M-0001-SO | 33     | 50  | 33   | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | P,P'-DDD                  | 13     | UG/KG | 40   | 13   | U    | 069SS-0002M-0001-SO | 6.8    | 20  | 6.8  | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | P,P'-DDE                  | 13     | UG/KG | 34   | 13   | U    | 069SS-0002M-0001-SO | 6.8    | 17  | 6.8  | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | P,P'-DDT                  | 13     | UG/KG | 40   | 13   | U    | 069SS-0002M-0001-SO | 6.8    | 20  | 6.8  | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | TOXAPHENE                 | 400    | UG/KG | 1300 | 400  | U    | 069SS-0002M-0001-SO | 200    | 680 | 200  | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | PCB-1016                  | 24     | UG/KG | 64   | 24   | U    | 069SS-0002M-0001-SO | 25     | 66  | 25   | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | PCB-1221                  | 24     | UG/KG | 49   | 24   | U    | 069SS-0002M-0001-SO | 25     | 50  | 25   | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | PCB-1232                  | 24     | UG/KG | 44   | 24   | U    | 069SS-0002M-0001-SO | 25     | 45  | 25   | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | PCB-1242                  | 24     | UG/KG | 40   | 24   | U    | 069SS-0002M-0001-SO | 25     | 40  | 25   | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | PCB-1248                  | 24     | UG/KG | 54   | 24   | U    | 069SS-0002M-0001-SO | 25     | 55  | 25   | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | PCB-1254                  | 24     | UG/KG | 54   | 24   | U    | 069SS-0002M-0001-SO | 25     | 55  | 25   | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | PCB-1260                  | 41     | UG/KG | 54   | 24   | J    | 069SS-0002M-0001-SO | 25     | 55  | 25   | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | 1,1,1-TRICHLOROETHANE     | 0.97   | UG/KG | 4.9  | 0.97 | U    | 069SS-0002M-0001-SO | 1      | 5   | 1    | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | 1,1,2,2-TETRACHLOROETHANE | 0.51   | UG/KG | 5.1  | 0.51 | U    | 069SS-0002M-0001-SO | 0.45   | 4.5 | 0.45 | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | 1,1,2-TRICHLOROETHANE     | 0.51   | UG/KG | 5.1  | 0.51 | U    | 069SS-0002M-0001-SO | 0.45   | 4.5 | 0.45 | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | 1,1-DICHLOROETHANE        | 0.51   | UG/KG | 5.1  | 0.51 | U    | 069SS-0002M-0001-SO | 0.45   | 4.5 | 0.45 | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | 1,1-DICHLOROETHENE        | 1      | UG/KG | 5.1  | 1    | U    | 069SS-0002M-0001-SO | 0.91   | 4.5 | 0.91 | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | 1,2-DIBROMOETHANE         | 1      | UG/KG | 5.1  | 1    | U    | 069SS-0002M-0001-SO | 0.91   | 4.5 | 0.91 | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | 1,2-DICHLOROETHANE        | 0.51   | UG/KG | 5.1  | 0.51 | U    | 069SS-0002M-0001-SO | 0.45   | 4.5 | 0.45 | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | 1,2-DICHLOROPROPANE       | 1      | UG/KG | 5.1  | 1    | U    | 069SS-0002M-0001-SO | 0.91   | 4.5 | 0.91 | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | 2-HEXANONE                | 1      | UG/KG | 20   | 1    | U    | 069SS-0002M-0001-SO | 1.4    | 18  | 0.91 | J    | N/A | Yes      |
| 069SS-0001M-0001-SO | ACETONE                   | 6.1    | UG/KG | 19   | 6.1  | U    | 069SS-0002M-0001-SO | 6.3    | 20  | 6.3  | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | BENZENE                   | 0.51   | UG/KG | 5.1  | 0.51 | U    | 069SS-0002M-0001-SO | 0.45   | 4.5 | 0.45 | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | BROMOCHLOROMETHANE        | 1      | UG/KG | 5.1  | 1    | U    | 069SS-0002M-0001-SO | 0.91   | 4.5 | 0.91 | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | BROMODICHLOROMETHANE      | 0.51   | UG/KG | 5.1  | 0.51 | U    | 069SS-0002M-0001-SO | 0.45   | 4.5 | 0.45 | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | BROMOFORM                 | 0.51   | UG/KG | 5.1  | 0.51 | U    | 069SS-0002M-0001-SO | 0.45   | 4.5 | 0.45 | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | BROMOMETHANE              | 1      | UG/KG | 5.1  | 1    | U    | 069SS-0002M-0001-SO | 0.91   | 4.5 | 0.91 | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | CARBON DISULFIDE          | 0.51   | UG/KG | 5.1  | 0.51 | UJ   | 069SS-0002M-0001-SO | 0.45   | 4.5 | 0.45 | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | CARBON TETRACHLORIDE      | 0.49   | UG/KG | 4.9  | 0.49 | U    | 069SS-0002M-0001-SO | 0.5    | 5   | 0.5  | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | CHLOROBENZENE             | 0.51   | UG/KG | 5.1  | 0.51 | U    | 069SS-0002M-0001-SO | 0.45   | 4.5 | 0.45 | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | CHLOROETHANE              | 1      | UG/KG | 5.1  | 1    | U    | 069SS-0002M-0001-SO | 0.91   | 4.5 | 0.91 | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | CHLOROFORM                | 0.51   | UG/KG | 5.1  | 0.51 | U    | 069SS-0002M-0001-SO | 0.45   | 4.5 | 0.45 | U    | N/A | Yes      |

| Sample              | Analyte                    | Result | Units | LOQ  | LOD  | Qual | Sample              | Result | LOQ  | LOD  | Qual | RPD | W/In LOQ |
|---------------------|----------------------------|--------|-------|------|------|------|---------------------|--------|------|------|------|-----|----------|
| 069SS-0001M-0001-SO | CHLOROMETHANE              | 0.51   | UG/KG | 5.1  | 0.51 | U    | 069SS-0002M-0001-SO | 0.45   | 4.5  | 0.45 | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | CIS-1,3-DICHLOROPROPENE    | 0.51   | UG/KG | 5.1  | 0.51 | U    | 069SS-0002M-0001-SO | 0.45   | 4.5  | 0.45 | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | DIBROMOCHLOROMETHANE       | 1      | UG/KG | 5.1  | 1    | U    | 069SS-0002M-0001-SO | 0.91   | 4.5  | 0.91 | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | ETHYLBENZENE               | 0.51   | UG/KG | 5.1  | 0.51 | U    | 069SS-0002M-0001-SO | 0.45   | 4.5  | 0.45 | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | METHYL ETHYL KETONE        | 2      | UG/KG | 20   | 2    | U    | 069SS-0002M-0001-SO | 1.8    | 18   | 1.8  | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | METHYL ISOBUTYL KETONE     | 1      | UG/KG | 20   | 1    | U    | 069SS-0002M-0001-SO | 0.93   | 18   | 0.91 | J    | N/A | Yes      |
| 069SS-0001M-0001-SO | METHYLENE CHLORIDE         | 1      | UG/KG | 5.1  | 1    | U    | 069SS-0002M-0001-SO | 0.91   | 4.5  | 0.91 | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | STYRENE                    | 0.51   | UG/KG | 5.1  | 0.51 | U    | 069SS-0002M-0001-SO | 0.45   | 4.5  | 0.45 | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | TERT-BUTYL METHYL ETHER    | 0.51   | UG/KG | 5.1  | 0.51 | U    | 069SS-0002M-0001-SO | 0.45   | 4.5  | 0.45 | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | TETRACHLOROETHYLENE        | 1      | UG/KG | 5.1  | 1    | U    | 069SS-0002M-0001-SO | 0.91   | 4.5  | 0.91 | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | TOLUENE                    | 0.51   | UG/KG | 5.1  | 0.51 | U    | 069SS-0002M-0001-SO | 0.45   | 4.5  | 0.45 | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | TOTAL 1,2-DICHLOROETHENE   | 1      | UG/KG | 10   | 1    | U    | 069SS-0002M-0001-SO | 0.91   | 9.1  | 0.91 | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | TRANS-1,3-DICHLOROPROPENE  | 1      | UG/KG | 5.1  | 1    | U    | 069SS-0002M-0001-SO | 0.91   | 4.5  | 0.91 | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | TRICHLOROETHYLENE          | 0.51   | UG/KG | 5.1  | 0.51 | U    | 069SS-0002M-0001-SO | 0.45   | 4.5  | 0.45 | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | VINYL CHLORIDE             | 0.51   | UG/KG | 5.1  | 0.51 | U    | 069SS-0002M-0001-SO | 0.45   | 4.5  | 0.45 | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | XYLENES, TOTAL             | 1.5    | UG/KG | 10   | 1.5  | U    | 069SS-0002M-0001-SO | 1.4    | 9.1  | 1.4  | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | 1,2,4-TRICHLOROBENZENE     | 140    | UG/KG | 250  | 140  | U    | 069SS-0002M-0001-SO | 110    | 200  | 110  | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | 1,2-DICHLOROBENZENE        | 140    | UG/KG | 250  | 140  | U    | 069SS-0002M-0001-SO | 110    | 200  | 110  | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | 1,3-DICHLOROBENZENE        | 140    | UG/KG | 250  | 140  | U    | 069SS-0002M-0001-SO | 110    | 200  | 110  | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | 1,4-DICHLOROBENZENE        | 140    | UG/KG | 250  | 140  | U    | 069SS-0002M-0001-SO | 110    | 200  | 110  | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | 2,4,5-TRICHLOROPHENOL      | 140    | UG/KG | 750  | 140  | U    | 069SS-0002M-0001-SO | 110    | 600  | 110  | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | 2,4,6-TRICHLOROPHENOL      | 400    | UG/KG | 750  | 400  | U    | 069SS-0002M-0001-SO | 320    | 600  | 320  | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | 2,4-DICHLOROPHENOL         | 140    | UG/KG | 750  | 140  | U    | 069SS-0002M-0001-SO | 110    | 600  | 110  | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | 2,4-DIMETHYLPHENOL         | 400    | UG/KG | 750  | 400  | U    | 069SS-0002M-0001-SO | 320    | 600  | 320  | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | 2,4-DINITROPHENOL          | 400    | UG/KG | 1700 | 400  | J    | 069SS-0002M-0001-SO | 320    | 1300 | 320  | J    | N/A | Yes      |
| 069SS-0001M-0001-SO | 2,4-DINITROTOLUENE         | 140    | UG/KG | 1000 | 140  | R    | 069SS-0002M-0001-SO | 110    | 800  | 110  | U    | N/A | N/A      |
| 069SS-0001M-0001-SO | 2,6-DINITROTOLUENE         | 140    | UG/KG | 1000 | 140  | R    | 069SS-0002M-0001-SO | 110    | 800  | 110  | U    | N/A | N/A      |
| 069SS-0001M-0001-SO | 2-CHLORONAPHTHALENE        | 17     | UG/KG | 250  | 17   | U    | 069SS-0002M-0001-SO | 13     | 200  | 13   | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | 2-CHLOROPHENOL             | 140    | UG/KG | 250  | 140  | U    | 069SS-0002M-0001-SO | 110    | 200  | 110  | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | 2-METHYLNAPHTHALENE        | 20     | UG/KG | 34   | 17   | J    | 069SS-0002M-0001-SO | 21     | 27   | 13   | J    | N/A | Yes      |
| 069SS-0001M-0001-SO | 2-METHYLPHENOL             | 400    | UG/KG | 1000 | 400  | U    | 069SS-0002M-0001-SO | 320    | 800  | 320  | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | 2-NITROANILINE             | 140    | UG/KG | 1000 | 140  | U    | 069SS-0002M-0001-SO | 110    | 800  | 110  | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | 2-NITROPHENOL              | 140    | UG/KG | 250  | 140  | U    | 069SS-0002M-0001-SO | 110    | 200  | 110  | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | 3,3'-DICHLOROBENZIDINE     | 400    | UG/KG | 500  | 400  | R    | 069SS-0002M-0001-SO | 320    | 400  | 320  | U    | N/A | N/A      |
| 069SS-0001M-0001-SO | 3-NITROANILINE             | 400    | UG/KG | 1000 | 400  | U    | 069SS-0002M-0001-SO | 320    | 800  | 320  | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | 4,6-DINITRO-2-METHYLPHENOL | 400    | UG/KG | 750  | 400  | UJ   | 069SS-0002M-0001-SO | 320    | 600  | 320  | J    | N/A | Yes      |

| Sample              | Analyte                      | Result | Units | LOQ  | LOD  | Qual | Sample              | Result | LOQ  | LOD  | Qual | RPD | W/In LOQ |
|---------------------|------------------------------|--------|-------|------|------|------|---------------------|--------|------|------|------|-----|----------|
| 069SS-0001M-0001-SO | 4-BROMOPHENYL PHENYL ETHER   | 140    | UG/KG | 250  | 140  | U    | 069SS-0002M-0001-SO | 110    | 200  | 110  | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | 4-CHLORO-3-METHYLPHENOL      | 140    | UG/KG | 750  | 140  | U    | 069SS-0002M-0001-SO | 110    | 600  | 110  | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | 4-CHLOROANILINE              | 140    | UG/KG | 750  | 140  | U    | 069SS-0002M-0001-SO | 110    | 600  | 110  | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | 4-CHLOROPHENYL PHENYL ETHER  | 140    | UG/KG | 250  | 140  | U    | 069SS-0002M-0001-SO | 110    | 200  | 110  | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | 4-NITROANILINE               | 140    | UG/KG | 1000 | 140  | U    | 069SS-0002M-0001-SO | 110    | 800  | 110  | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | 4-NITROPHENOL                | 400    | UG/KG | 1700 | 400  | UJ   | 069SS-0002M-0001-SO | 320    | 1300 | 320  | J    | N/A | Yes      |
| 069SS-0001M-0001-SO | ACENAPHTHENE                 | 17     | UG/KG | 34   | 17   | U    | 069SS-0002M-0001-SO | 13     | 27   | 13   | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | ACENAPHTHYLENE               | 17     | UG/KG | 34   | 17   | U    | 069SS-0002M-0001-SO | 16     | 27   | 13   | J    | N/A | Yes      |
| 069SS-0001M-0001-SO | ANTHRACENE                   | 17     | UG/KG | 34   | 17   | U    | 069SS-0002M-0001-SO | 18     | 27   | 13   | J    | N/A | Yes      |
| 069SS-0001M-0001-SO | BENZO(A)ANTHRACENE           | 54     | UG/KG | 34   | 17   |      | 069SS-0002M-0001-SO | 120    | 27   | 13   |      | N/A | No       |
| 069SS-0001M-0001-SO | BENZO(A)PYRENE               | 93     | UG/KG | 34   | 17   |      | 069SS-0002M-0001-SO | 120    | 27   | 13   |      | N/A | Yes      |
| 069SS-0001M-0001-SO | BENZO(B)FLUORANTHENE         | 90     | UG/KG | 34   | 17   |      | 069SS-0002M-0001-SO | 150    | 27   | 13   |      | N/A | No       |
| 069SS-0001M-0001-SO | BENZO(G,H,I)PERYLENE         | 52     | UG/KG | 34   | 17   |      | 069SS-0002M-0001-SO | 63     | 27   | 13   |      | N/A | Yes      |
| 069SS-0001M-0001-SO | BENZO(K)FLUORANTHENE         | 28     | UG/KG | 34   | 17   | J    | 069SS-0002M-0001-SO | 45     | 27   | 13   |      | N/A | Yes      |
| 069SS-0001M-0001-SO | BENZOIC ACID                 | 1700   | UG/KG | 3300 | 1700 | R    | 069SS-0002M-0001-SO | 1300   | 2600 | 1300 | U    | N/A | N/A      |
| 069SS-0001M-0001-SO | BENZYL ALCOHOL               | 140    | UG/KG | 1700 | 140  | U    | 069SS-0002M-0001-SO | 110    | 1300 | 110  | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | BENZYL BUTYL PHTHALATE       | 140    | UG/KG | 250  | 140  | U    | 069SS-0002M-0001-SO | 110    | 200  | 110  | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | BIS(2-CHLOROETHOXY) METHANE  | 140    | UG/KG | 500  | 140  | U    | 069SS-0002M-0001-SO | 110    | 400  | 110  | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | BIS(2-CHLOROETHYL) ETHER     | 17     | UG/KG | 500  | 17   | U    | 069SS-0002M-0001-SO | 13     | 400  | 13   | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | BIS(2-CHLOROISOPROPYL) ETHER | 140    | UG/KG | 500  | 140  | U    | 069SS-0002M-0001-SO | 110    | 400  | 110  | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | BIS(2-ETHYLHEXYL) PHTHALATE  | 140    | UG/KG | 250  | 140  | U    | 069SS-0002M-0001-SO | 110    | 200  | 110  | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | CARBAZOLE                    | 140    | UG/KG | 250  | 140  | U    | 069SS-0002M-0001-SO | 110    | 200  | 110  | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | CHRYSENE                     | 72     | UG/KG | 34   | 17   |      | 069SS-0002M-0001-SO | 130    | 27   | 13   |      | N/A | No       |
| 069SS-0001M-0001-SO | CRESOLS, M & P               | 400    | UG/KG | 2000 | 400  | U    | 069SS-0002M-0001-SO | 320    | 1600 | 320  | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | DIBENZ(A,H)ANTHRACENE        | 17     | UG/KG | 34   | 17   | U    | 069SS-0002M-0001-SO | 13     | 27   | 13   | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | DIBENZOFURAN                 | 17     | UG/KG | 250  | 17   | U    | 069SS-0002M-0001-SO | 13     | 200  | 13   | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | DIETHYL PHTHALATE            | 140    | UG/KG | 250  | 140  | U    | 069SS-0002M-0001-SO | 110    | 200  | 110  | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | DIMETHYL PHTHALATE           | 140    | UG/KG | 250  | 140  | U    | 069SS-0002M-0001-SO | 110    | 200  | 110  | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | DI-N-BUTYL PHTHALATE         | 140    | UG/KG | 250  | 140  | U    | 069SS-0002M-0001-SO | 110    | 200  | 110  | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | DI-N-OCTYLPHTHALATE          | 140    | UG/KG | 250  | 140  | U    | 069SS-0002M-0001-SO | 110    | 200  | 110  | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | FLUORANTHENE                 | 120    | UG/KG | 34   | 17   |      | 069SS-0002M-0001-SO | 190    | 27   | 13   |      | N/A | No       |
| 069SS-0001M-0001-SO | FLUORENE                     | 17     | UG/KG | 34   | 17   | U    | 069SS-0002M-0001-SO | 13     | 27   | 13   | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | HEXACHLOROBENZENE            | 17     | UG/KG | 34   | 17   | U    | 069SS-0002M-0001-SO | 13     | 27   | 13   | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | HEXACHLOROBUTADIENE          | 140    | UG/KG | 250  | 140  | U    | 069SS-0002M-0001-SO | 110    | 200  | 110  | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | HEXACHLOROCYCLOPENTADIENE    | 140    | UG/KG | 1700 | 140  | U    | 069SS-0002M-0001-SO | 110    | 1300 | 110  | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | HEXACHLOROETHANE             | 140    | UG/KG | 250  | 140  | U    | 069SS-0002M-0001-SO | 110    | 200  | 110  | U    | N/A | Yes      |



| Sample              | Analyte                    | Result | Units | LOQ  | LOD   | Qual | Sample              | Result | LOQ  | LOD   | Qual | RPD | W/In LOQ |
|---------------------|----------------------------|--------|-------|------|-------|------|---------------------|--------|------|-------|------|-----|----------|
| 069SS-0001M-0001-SO | INDENO(1,2,3-C,D)PYRENE    | 69     | UG/KG | 34   | 17    |      | 069SS-0002M-0001-SO | 82     | 27   | 13    |      | N/A | Yes      |
| 069SS-0001M-0001-SO | ISOPHORONE                 | 140    | UG/KG | 250  | 140   | U    | 069SS-0002M-0001-SO | 110    | 200  | 110   | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | NAPHTHALENE                | 18     | UG/KG | 34   | 17    | J    | 069SS-0002M-0001-SO | 13     | 27   | 13    | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | NITROBENZENE               | 17     | UG/KG | 500  | 17    | U    | 069SS-0002M-0001-SO | 13     | 400  | 13    | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | N-NITROSODI-N-PROPYLAMINE  | 140    | UG/KG | 250  | 140   | U    | 069SS-0002M-0001-SO | 110    | 200  | 110   | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | N-NITROSODIPHENYLAMINE     | 140    | UG/KG | 250  | 140   | R    | 069SS-0002M-0001-SO | 110    | 200  | 110   | U    | N/A | N/A      |
| 069SS-0001M-0001-SO | PENTACHLOROPHENOL          | 400    | UG/KG | 750  | 400   | U    | 069SS-0002M-0001-SO | 320    | 600  | 320   | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | PHENANTHRENE               | 53     | UG/KG | 34   | 17    |      | 069SS-0002M-0001-SO | 65     | 27   | 13    |      | N/A | Yes      |
| 069SS-0001M-0001-SO | PHENOL                     | 140    | UG/KG | 250  | 140   | U    | 069SS-0002M-0001-SO | 110    | 200  | 110   | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | PYRENE                     | 86     | UG/KG | 34   | 17    |      | 069SS-0002M-0001-SO | 170    | 27   | 13    |      | N/A | No       |
| 069SS-0001M-0001-SO | 1,3,5-TRINITROBENZENE      | 0.05   | MG/KG | 0.25 | 0.05  | U    | 069SS-0002M-0001-SO | 0.049  | 0.25 | 0.049 | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | 1,3-DINITROBENZENE         | 0.05   | MG/KG | 0.25 | 0.05  | U    | 069SS-0002M-0001-SO | 0.049  | 0.25 | 0.049 | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | 2,4,6-TRINITROTOLUENE      | 0.05   | MG/KG | 0.25 | 0.05  | U    | 069SS-0002M-0001-SO | 0.049  | 0.25 | 0.049 | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | 2,4-DINITROTOLUENE         | 0.05   | MG/KG | 0.25 | 0.05  | U    | 069SS-0002M-0001-SO | 0.049  | 0.25 | 0.049 | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | 2,6-DINITROTOLUENE         | 0.05   | MG/KG | 0.25 | 0.05  | U    | 069SS-0002M-0001-SO | 0.049  | 0.25 | 0.049 | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | 2-AMINO-4,6-DINITROTOLUENE | 0.05   | MG/KG | 0.25 | 0.05  | U    | 069SS-0002M-0001-SO | 0.049  | 0.25 | 0.049 | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | 2-NITROTOLUENE             | 0.05   | MG/KG | 0.25 | 0.05  | UJ   | 069SS-0002M-0001-SO | 0.049  | 0.25 | 0.049 | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | 3-NITROTOLUENE             | 0.05   | MG/KG | 0.25 | 0.05  | U    | 069SS-0002M-0001-SO | 0.049  | 0.25 | 0.049 | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | 4-AMINO-2,6-DINITROTOLUENE | 0.05   | MG/KG | 0.25 | 0.05  | U    | 069SS-0002M-0001-SO | 0.049  | 0.25 | 0.049 | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | 4-NITROTOLUENE             | 0.05   | MG/KG | 0.25 | 0.05  | U    | 069SS-0002M-0001-SO | 0.049  | 0.25 | 0.049 | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | HMX                        | 0.05   | MG/KG | 0.25 | 0.05  | U    | 069SS-0002M-0001-SO | 0.049  | 0.25 | 0.049 | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | NITROBENZENE               | 0.05   | MG/KG | 0.25 | 0.05  | R    | 069SS-0002M-0001-SO | 0.049  | 0.25 | 0.049 | U    | N/A | N/A      |
| 069SS-0001M-0001-SO | NITROGLYCERIN              | 0.25   | MG/KG | 0.5  | 0.25  | U    | 069SS-0002M-0001-SO | 0.25   | 0.49 | 0.25  | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | NITROGUANIDINE             | 0.039  | MG/KG | 0.24 | 0.039 | U    | 069SS-0002M-0001-SO | 0.34   | 0.24 | 0.038 |      | N/A | No       |
| 069SS-0001M-0001-SO | PETN                       | 0.25   | MG/KG | 0.5  | 0.25  | U    | 069SS-0002M-0001-SO | 0.25   | 0.49 | 0.25  | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | RDX                        | 0.05   | MG/KG | 0.25 | 0.05  | UJ   | 069SS-0002M-0001-SO | 0.049  | 0.25 | 0.049 | U    | N/A | Yes      |
| 069SS-0001M-0001-SO | TETRYL                     | 0.05   | MG/KG | 0.25 | 0.05  | U    | 069SS-0002M-0001-SO | 0.073  | 0.25 | 0.049 | J    | N/A | Yes      |

| Sample              | Analyte                        | Result | Units | LOQ   | LOD    | Qual | Sample              | Result | LOQ   | LOD    | Qual | RPD | W/In LOQ |
|---------------------|--------------------------------|--------|-------|-------|--------|------|---------------------|--------|-------|--------|------|-----|----------|
| 073SB-0009M-0001-SO | ALUMINUM                       | 7500   | MG/KG | 2.9   | 0.57   |      | 073SB-0010M-0001-SO | 11000  | 2.4   | 0.49   |      | 38  | N/A      |
| 073SB-0009M-0001-SO | ANTIMONY                       | 0.065  | MG/KG | 0.19  | 0.095  | J-   | 073SB-0010M-0001-SO | 0.058  | 0.16  | 0.081  | J    | N/A | Yes      |
| 073SB-0009M-0001-SO | ARSENIC                        | 7.8    | MG/KG | 0.095 | 0.048  | J-   | 073SB-0010M-0001-SO | 13     | 0.081 | 0.041  |      | 50  | N/A      |
| 073SB-0009M-0001-SO | BARIUM                         | 44     | MG/KG | 0.95  | 0.019  |      | 073SB-0010M-0001-SO | 52     | 0.81  | 0.016  |      | 17  | N/A      |
| 073SB-0009M-0001-SO | BERYLLIUM                      | 0.43   | MG/KG | 0.095 | 0.0095 |      | 073SB-0010M-0001-SO | 0.62   | 0.081 | 0.0081 |      | N/A | No       |
| 073SB-0009M-0001-SO | CADMIUM                        | 0.18   | MG/KG | 0.095 | 0.029  | J+   | 073SB-0010M-0001-SO | 0.15   | 0.081 | 0.024  |      | N/A | Yes      |
| 073SB-0009M-0001-SO | CALCIUM                        | 6500   | MG/KG | 9.5   | 2.4    | J-   | 073SB-0010M-0001-SO | 4500   | 8.1   | 2      |      | 36  | N/A      |
| 073SB-0009M-0001-SO | CHROMIUM                       | 14     | MG/KG | 0.19  | 0.038  | J+   | 073SB-0010M-0001-SO | 17     | 0.16  | 0.033  |      | 19  | N/A      |
| 073SB-0009M-0001-SO | COBALT                         | 7.7    | MG/KG | 0.048 | 0.0095 |      | 073SB-0010M-0001-SO | 9.9    | 0.041 | 0.0081 |      | 25  | N/A      |
| 073SB-0009M-0001-SO | COPPER                         | 14     | MG/KG | 0.19  | 0.057  | J-   | 073SB-0010M-0001-SO | 19     | 0.16  | 0.049  |      | 30  | N/A      |
| 073SB-0009M-0001-SO | IRON                           | 18000  | MG/KG | 4.8   | 1.9    |      | 073SB-0010M-0001-SO | 24000  | 4.1   | 1.6    |      | 29  | N/A      |
| 073SB-0009M-0001-SO | LEAD                           | 10     | MG/KG | 0.095 | 0.029  |      | 073SB-0010M-0001-SO | 11     | 0.081 | 0.024  |      | 10  | N/A      |
| 073SB-0009M-0001-SO | MAGNESIUM                      | 2900   | MG/KG | 9.5   | 1.9    |      | 073SB-0010M-0001-SO | 3400   | 8.1   | 1.6    |      | 16  | N/A      |
| 073SB-0009M-0001-SO | MANGANESE                      | 280    | MG/KG | 0.48  | 0.029  |      | 073SB-0010M-0001-SO | 300    | 0.41  | 0.024  |      | 7   | N/A      |
| 073SB-0009M-0001-SO | NICKEL                         | 19     | MG/KG | 0.095 | 0.029  |      | 073SB-0010M-0001-SO | 24     | 0.081 | 0.024  |      | 23  | N/A      |
| 073SB-0009M-0001-SO | POTASSIUM                      | 1100   | MG/KG | 9.5   | 5.7    | J+   | 073SB-0010M-0001-SO | 1600   | 8.1   | 4.9    |      | 37  | N/A      |
| 073SB-0009M-0001-SO | SELENIUM                       | 0.71   | MG/KG | 0.48  | 0.095  | J-   | 073SB-0010M-0001-SO | 0.7    | 0.41  | 0.081  |      | N/A | Yes      |
| 073SB-0009M-0001-SO | SILVER                         | 0.024  | MG/KG | 0.095 | 0.029  |      | 073SB-0010M-0001-SO | 0.019  | 0.081 | 0.024  | J    | N/A | Yes      |
| 073SB-0009M-0001-SO | SODIUM                         | 78     | MG/KG | 9.5   | 4.8    |      | 073SB-0010M-0001-SO | 58     | 8.1   | 4.1    |      | 29  | N/A      |
| 073SB-0009M-0001-SO | THALLIUM                       | 0.13   | MG/KG | 0.095 | 0.019  | J-   | 073SB-0010M-0001-SO | 0.16   | 0.081 | 0.016  |      | N/A | Yes      |
| 073SB-0009M-0001-SO | VANADIUM                       | 13     | MG/KG | 0.095 | 0.057  | J+   | 073SB-0010M-0001-SO | 16     | 0.081 | 0.049  |      | 21  | N/A      |
| 073SB-0009M-0001-SO | ZINC                           | 45     | MG/KG | 0.48  | 0.19   | J-   | 073SB-0010M-0001-SO | 58     | 0.41  | 0.16   |      | 25  | N/A      |
| 073SB-0009M-0001-SO | MERCURY                        | 0.026  | MG/KG | 0.092 | 0.03   |      | 073SB-0010M-0001-SO | 0.019  | 0.087 | 0.029  | J    | N/A | Yes      |
| 073SB-0009M-0001-SO | 1,2,4-TRICHLOROBENZENE         | 130    | UG/KG | 250   | 130    | U    | 073SB-0010M-0001-SO | 140    | 250   | 140    | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | 1,2-DICHLOROBENZENE            | 130    | UG/KG | 250   | 130    | U    | 073SB-0010M-0001-SO | 140    | 250   | 140    | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | 1,3-DICHLOROBENZENE            | 130    | UG/KG | 250   | 130    | U    | 073SB-0010M-0001-SO | 140    | 250   | 140    | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | 1,4-DICHLOROBENZENE            | 130    | UG/KG | 250   | 130    | U    | 073SB-0010M-0001-SO | 140    | 250   | 140    | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | 2,2'-DICHLORODIISOPROPYL ETHER | 16     | UG/KG | 490   | 16     | U    | 073SB-0010M-0001-SO | 17     | 500   | 17     | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | 2,4,5-TRICHLOROPHENOL          | 130    | UG/KG | 740   | 130    | U    | 073SB-0010M-0001-SO | 140    | 760   | 140    | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | 2,4,6-TRICHLOROPHENOL          | 390    | UG/KG | 740   | 390    | U    | 073SB-0010M-0001-SO | 400    | 760   | 400    | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | 2,4-DICHLOROPHENOL             | 130    | UG/KG | 740   | 130    | U    | 073SB-0010M-0001-SO | 140    | 760   | 140    | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | 2,4-DIMETHYLPHENOL             | 390    | UG/KG | 740   | 390    | U    | 073SB-0010M-0001-SO | 400    | 760   | 400    | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | 2,4-DINITROPHENOL              | 390    | UG/KG | 1600  | 390    | U    | 073SB-0010M-0001-SO | 400    | 1700  | 400    | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | 2,4-DINITROTOLUENE             | 130    | UG/KG | 990   | 130    | R    | 073SB-0010M-0001-SO | 140    | 1000  | 140    | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | 2,6-DINITROTOLUENE             | 130    | UG/KG | 990   | 130    | R    | 073SB-0010M-0001-SO | 140    | 1000  | 140    | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | 2-CHLORONAPHTHALENE            | 16     | UG/KG | 250   | 16     | U    | 073SB-0010M-0001-SO | 17     | 250   | 17     | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | 2-CHLOROPHENOL                 | 130    | UG/KG | 250   | 130    | U    | 073SB-0010M-0001-SO | 140    | 250   | 140    | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | 2-METHYLNAPHTHALENE            | 23     | UG/KG | 33    | 16     |      | 073SB-0010M-0001-SO | 17     | 34    | 17     | U    | N/A | Yes      |

| Sample              | Analyte                      | Result | Units | LOQ  | LOD  | Qual | Sample              | Result | LOQ  | LOD  | Qual | RPD | W/In LOQ |
|---------------------|------------------------------|--------|-------|------|------|------|---------------------|--------|------|------|------|-----|----------|
| 073SB-0009M-0001-SO | 2-METHYLPHENOL (O-CRESOL)    | 390    | UG/KG | 990  | 390  | U    | 073SB-0010M-0001-SO | 400    | 1000 | 400  | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | 2-NITROANILINE               | 130    | UG/KG | 990  | 130  | U    | 073SB-0010M-0001-SO | 140    | 1000 | 140  | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | 2-NITROPHENOL                | 130    | UG/KG | 250  | 130  | U    | 073SB-0010M-0001-SO | 140    | 250  | 140  | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | 3,3'-DICHLOROBENZIDINE       | 390    | UG/KG | 490  | 390  | UJ   | 073SB-0010M-0001-SO | 400    | 500  | 400  | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | 3-NITROANILINE               | 390    | UG/KG | 990  | 390  | U    | 073SB-0010M-0001-SO | 400    | 1000 | 400  | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | 4,6-DINITRO-2-METHYLPHENOL   | 390    | UG/KG | 740  | 390  | U    | 073SB-0010M-0001-SO | 400    | 760  | 400  | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | 4-BROMOPHENYL PHENYL ETHER   | 130    | UG/KG | 250  | 130  | U    | 073SB-0010M-0001-SO | 140    | 250  | 140  | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | 4-CHLORO-3-METHYLPHENOL      | 130    | UG/KG | 740  | 130  | U    | 073SB-0010M-0001-SO | 140    | 760  | 140  | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | 4-CHLOROANILINE              | 130    | UG/KG | 740  | 130  | U    | 073SB-0010M-0001-SO | 140    | 760  | 140  | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | 4-CHLOROPHENYL PHENYL ETHER  | 130    | UG/KG | 250  | 130  | U    | 073SB-0010M-0001-SO | 140    | 250  | 140  | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | 4-NITROANILINE               | 130    | UG/KG | 990  | 130  | U    | 073SB-0010M-0001-SO | 140    | 1000 | 140  | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | 4-NITROPHENOL                | 390    | UG/KG | 1600 | 390  | U    | 073SB-0010M-0001-SO | 400    | 1700 | 400  | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | ACENAPHTHENE                 | 16     | UG/KG | 33   | 16   | U    | 073SB-0010M-0001-SO | 17     | 34   | 17   | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | ACENAPHTHYLENE               | 16     | UG/KG | 33   | 16   | U    | 073SB-0010M-0001-SO | 17     | 34   | 17   | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | ANTHRACENE                   | 16     | UG/KG | 33   | 16   | U    | 073SB-0010M-0001-SO | 17     | 34   | 17   | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | BENZO(A)ANTHRACENE           | 16     | UG/KG | 33   | 16   | U    | 073SB-0010M-0001-SO | 17     | 34   | 17   | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | BENZO(A)PYRENE               | 16     | UG/KG | 33   | 16   | U    | 073SB-0010M-0001-SO | 17     | 34   | 17   | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | BENZO(B)FLUORANTHENE         | 16     | UG/KG | 33   | 16   | U    | 073SB-0010M-0001-SO | 17     | 34   | 17   | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | BENZO(G,H,I)PERYLENE         | 16     | UG/KG | 33   | 16   | U    | 073SB-0010M-0001-SO | 17     | 34   | 17   | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | BENZO(K)FLUORANTHENE         | 16     | UG/KG | 33   | 16   | U    | 073SB-0010M-0001-SO | 17     | 34   | 17   | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | BENZOIC ACID                 | 1600   | UG/KG | 3300 | 1600 | U    | 073SB-0010M-0001-SO | 1700   | 3300 | 1700 | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | BENZYL ALCOHOL               | 130    | UG/KG | 1600 | 130  | U    | 073SB-0010M-0001-SO | 140    | 1700 | 140  | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | BENZYL BUTYL PHTHALATE       | 130    | UG/KG | 250  | 130  | U    | 073SB-0010M-0001-SO | 140    | 250  | 140  | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | BIS(2-CHLOROETHOXY) METHANE  | 130    | UG/KG | 490  | 130  | U    | 073SB-0010M-0001-SO | 140    | 500  | 140  | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | BIS(2-CHLOROISOPROPYL) ETHER | 130    | UG/KG | 490  | 130  | U    | 073SB-0010M-0001-SO | 140    | 500  | 140  | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | BIS(2-ETHYLHEXYL) PHTHALATE  | 130    | UG/KG | 250  | 130  | U    | 073SB-0010M-0001-SO | 140    | 250  | 140  | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | CARBAZOLE                    | 130    | UG/KG | 250  | 130  | U    | 073SB-0010M-0001-SO | 140    | 250  | 140  | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | CHRYSENE                     | 16     | UG/KG | 33   | 16   | U    | 073SB-0010M-0001-SO | 17     | 34   | 17   | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | CRESOLS, M & P               | 390    | UG/KG | 2000 | 390  | U    | 073SB-0010M-0001-SO | 400    | 2000 | 400  | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | DIBENZ(A,H)ANTHRACENE        | 16     | UG/KG | 33   | 16   | U    | 073SB-0010M-0001-SO | 17     | 34   | 17   | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | DIBENZOFURAN                 | 16     | UG/KG | 250  | 16   | U    | 073SB-0010M-0001-SO | 17     | 250  | 17   | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | DIETHYL PHTHALATE            | 130    | UG/KG | 250  | 130  | U    | 073SB-0010M-0001-SO | 140    | 250  | 140  | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | DIMETHYL PHTHALATE           | 130    | UG/KG | 250  | 130  | U    | 073SB-0010M-0001-SO | 140    | 250  | 140  | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | DI-N-BUTYL PHTHALATE         | 130    | UG/KG | 250  | 130  | U    | 073SB-0010M-0001-SO | 140    | 250  | 140  | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | DI-N-OCTYLPHTHALATE          | 130    | UG/KG | 250  | 130  | U    | 073SB-0010M-0001-SO | 140    | 250  | 140  | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | FLUORANTHENE                 | 16     | UG/KG | 33   | 16   | U    | 073SB-0010M-0001-SO | 17     | 34   | 17   | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | FLUORENE                     | 16     | UG/KG | 33   | 16   | U    | 073SB-0010M-0001-SO | 17     | 34   | 17   | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | HEXACHLOROBENZENE            | 16     | UG/KG | 33   | 16   | U    | 073SB-0010M-0001-SO | 17     | 34   | 17   | U    | N/A | Yes      |

| Sample              | Analyte                   | Result | Units | LOQ  | LOD   | Qual | Sample              | Result | LOQ   | LOD    | Qual | RPD | W/In LOQ |
|---------------------|---------------------------|--------|-------|------|-------|------|---------------------|--------|-------|--------|------|-----|----------|
| 073SB-0009M-0001-SO | HEXACHLOROBUTADIENE       | 130    | UG/KG | 250  | 130   | U    | 073SB-0010M-0001-SO | 140    | 250   | 140    | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | HEXACHLOROCYCLOPENTADIENE | 130    | UG/KG | 1600 | 130   | U    | 073SB-0010M-0001-SO | 140    | 1700  | 140    | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | HEXACHLOROETHANE          | 130    | UG/KG | 250  | 130   | U    | 073SB-0010M-0001-SO | 140    | 250   | 140    | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | INDENO(1,2,3-C,D)PYRENE   | 16     | UG/KG | 33   | 16    | U    | 073SB-0010M-0001-SO | 17     | 34    | 17     | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | ISOPHORONE                | 130    | UG/KG | 250  | 130   | U    | 073SB-0010M-0001-SO | 140    | 250   | 140    | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | NAPHTHALENE               | 16     | UG/KG | 33   | 16    | U    | 073SB-0010M-0001-SO | 17     | 34    | 17     | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | NITROBENZENE              | 16     | UG/KG | 490  | 16    | U    | 073SB-0010M-0001-SO | 17     | 500   | 17     | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | N-NITROSODI-N-PROPYLAMINE | 130    | UG/KG | 250  | 130   | U    | 073SB-0010M-0001-SO | 140    | 250   | 140    | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | N-NITROSODIPHENYLAMINE    | 130    | UG/KG | 250  | 130   | U    | 073SB-0010M-0001-SO | 140    | 250   | 140    | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | PENTACHLOROPHENOL         | 390    | UG/KG | 740  | 390   | U    | 073SB-0010M-0001-SO | 400    | 760   | 400    | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | PHENANTHRENE              | 27     | UG/KG | 33   | 16    |      | 073SB-0010M-0001-SO | 17     | 34    | 17     | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | PHENOL                    | 130    | UG/KG | 250  | 130   | U    | 073SB-0010M-0001-SO | 140    | 250   | 140    | U    | N/A | Yes      |
| 073SB-0009M-0001-SO | PYRENE                    | 17     | UG/KG | 33   | 16    |      | 073SB-0010M-0001-SO | 17     | 34    | 17     | U    | N/A | Yes      |
| 073SB-0016M-0001-SO | ALUMINUM                  | 5500   | MG/KG | 3    | 0.6   |      | 073SB-0017M-0001-SO | 5300   | 3     | 0.59   |      | 4   | N/A      |
| 073SB-0016M-0001-SO | ANTIMONY                  | 0.047  | MG/KG | 0.2  | 0.1   | J-   | 073SB-0017M-0001-SO | 0.099  | 0.2   | 0.099  | U    | N/A | Yes      |
| 073SB-0016M-0001-SO | ARSENIC                   | 7.3    | MG/KG | 0.1  | 0.05  | J-   | 073SB-0017M-0001-SO | 6.6    | 0.099 | 0.05   |      | 10  | N/A      |
| 073SB-0016M-0001-SO | BARIUM                    | 50     | MG/KG | 1    | 0.02  |      | 073SB-0017M-0001-SO | 48     | 0.99  | 0.02   |      | 4   | N/A      |
| 073SB-0016M-0001-SO | BERYLLIUM                 | 0.38   | MG/KG | 0.1  | 0.01  | J-   | 073SB-0017M-0001-SO | 0.36   | 0.099 | 0.0099 |      | N/A | Yes      |
| 073SB-0016M-0001-SO | CADMIUM                   | 0.2    | MG/KG | 0.1  | 0.03  | J+   | 073SB-0017M-0001-SO | 0.19   | 0.099 | 0.03   |      | N/A | Yes      |
| 073SB-0016M-0001-SO | CALCIUM                   | 5500   | MG/KG | 10   | 2.5   | J-   | 073SB-0017M-0001-SO | 2000   | 9.9   | 2.5    |      | 93  | N/A      |
| 073SB-0016M-0001-SO | CHROMIUM                  | 9.6    | MG/KG | 0.2  | 0.04  |      | 073SB-0017M-0001-SO | 8.8    | 0.2   | 0.04   |      | 9   | N/A      |
| 073SB-0016M-0001-SO | COBALT                    | 6.6    | MG/KG | 0.05 | 0.01  |      | 073SB-0017M-0001-SO | 6.3    | 0.05  | 0.0099 |      | 5   | N/A      |
| 073SB-0016M-0001-SO | COPPER                    | 12     | MG/KG | 0.2  | 0.06  | J-   | 073SB-0017M-0001-SO | 11     | 0.2   | 0.059  |      | 9   | N/A      |
| 073SB-0016M-0001-SO | IRON                      | 14000  | MG/KG | 5    | 2     |      | 073SB-0017M-0001-SO | 14000  | 5     | 2      |      | 0   | N/A      |
| 073SB-0016M-0001-SO | LEAD                      | 11     | MG/KG | 0.1  | 0.03  |      | 073SB-0017M-0001-SO | 10     | 0.099 | 0.03   |      | 10  | N/A      |
| 073SB-0016M-0001-SO | MAGNESIUM                 | 1800   | MG/KG | 10   | 2     |      | 073SB-0017M-0001-SO | 1600   | 9.9   | 2      |      | 12  | N/A      |
| 073SB-0016M-0001-SO | MANGANESE                 | 360    | MG/KG | 0.5  | 0.03  |      | 073SB-0017M-0001-SO | 400    | 0.5   | 0.03   |      | 11  | N/A      |
| 073SB-0016M-0001-SO | NICKEL                    | 15     | MG/KG | 0.1  | 0.03  |      | 073SB-0017M-0001-SO | 14     | 0.099 | 0.03   |      | 7   | N/A      |
| 073SB-0016M-0001-SO | POTASSIUM                 | 560    | MG/KG | 10   | 6     |      | 073SB-0017M-0001-SO | 540    | 9.9   | 5.9    |      | 4   | N/A      |
| 073SB-0016M-0001-SO | SELENIUM                  | 0.25   | MG/KG | 0.5  | 0.1   | J-   | 073SB-0017M-0001-SO | 0.26   | 0.5   | 0.099  | J    | N/A | Yes      |
| 073SB-0016M-0001-SO | SILVER                    | 0.24   | MG/KG | 0.1  | 0.03  |      | 073SB-0017M-0001-SO | 0.23   | 0.099 | 0.03   |      | N/A | Yes      |
| 073SB-0016M-0001-SO | SODIUM                    | 32     | MG/KG | 10   | 5     |      | 073SB-0017M-0001-SO | 33     | 9.9   | 5      |      | N/A | Yes      |
| 073SB-0016M-0001-SO | THALLIUM                  | 0.091  | MG/KG | 0.1  | 0.02  | J+   | 073SB-0017M-0001-SO | 0.084  | 0.099 | 0.02   | J    | N/A | Yes      |
| 073SB-0016M-0001-SO | VANADIUM                  | 9.8    | MG/KG | 0.1  | 0.06  |      | 073SB-0017M-0001-SO | 9.3    | 0.099 | 0.059  |      | 5   | N/A      |
| 073SB-0016M-0001-SO | ZINC                      | 43     | MG/KG | 0.5  | 0.2   | J-   | 073SB-0017M-0001-SO | 42     | 0.5   | 0.2    |      | 2   | N/A      |
| 073SB-0016M-0001-SO | MERCURY                   | 0.03   | MG/KG | 0.11 | 0.036 | J    | 073SB-0017M-0001-SO | 0.028  | 0.11  | 0.037  | J    | N/A | Yes      |
| 073SB-0016M-0001-SO | 1,2,4-TRICHLOROBENZENE    | 27     | UG/KG | 50   | 27    | U    | 073SB-0017M-0001-SO | 27     | 49    | 27     | U    | N/A | Yes      |
| 073SB-0016M-0001-SO | 1,2-DICHLOROBENZENE       | 27     | UG/KG | 50   | 27    | U    | 073SB-0017M-0001-SO | 27     | 49    | 27     | U    | N/A | Yes      |

| Sample              | Analyte                      | Result | Units | LOQ | LOD | Qual | Sample              | Result | LOQ | LOD | Qual | RPD | W/In LOQ |
|---------------------|------------------------------|--------|-------|-----|-----|------|---------------------|--------|-----|-----|------|-----|----------|
| 073SB-0016M-0001-SO | 1,3-DICHLOROBENZENE          | 27     | UG/KG | 50  | 27  | U    | 073SB-0017M-0001-SO | 27     | 49  | 27  | U    | N/A | Yes      |
| 073SB-0016M-0001-SO | 1,4-DICHLOROBENZENE          | 28     | UG/KG | 50  | 27  | J    | 073SB-0017M-0001-SO | 24     | 49  | 27  | J    | N/A | Yes      |
| 073SB-0016M-0001-SO | 2,4,5-TRICHLOROPHENOL        | 27     | UG/KG | 150 | 27  | U    | 073SB-0017M-0001-SO | 27     | 150 | 27  | U    | N/A | Yes      |
| 073SB-0016M-0001-SO | 2,4,6-TRICHLOROPHENOL        | 80     | UG/KG | 150 | 80  | U    | 073SB-0017M-0001-SO | 79     | 150 | 79  | U    | N/A | Yes      |
| 073SB-0016M-0001-SO | 2,4-DICHLOROPHENOL           | 27     | UG/KG | 150 | 27  | U    | 073SB-0017M-0001-SO | 27     | 150 | 27  | U    | N/A | Yes      |
| 073SB-0016M-0001-SO | 2,4-DIMETHYLPHENOL           | 80     | UG/KG | 150 | 80  | U    | 073SB-0017M-0001-SO | 79     | 150 | 79  | U    | N/A | Yes      |
| 073SB-0016M-0001-SO | 2,4-DINITROPHENOL            | 80     | UG/KG | 330 | 80  | U    | 073SB-0017M-0001-SO | 79     | 330 | 79  | U    | N/A | Yes      |
| 073SB-0016M-0001-SO | 2,4-DINITROTOLUENE           | 27     | UG/KG | 200 | 27  | U    | 073SB-0017M-0001-SO | 27     | 200 | 27  | U    | N/A | Yes      |
| 073SB-0016M-0001-SO | 2,6-DINITROTOLUENE           | 27     | UG/KG | 200 | 27  | U    | 073SB-0017M-0001-SO | 27     | 200 | 27  | U    | N/A | Yes      |
| 073SB-0016M-0001-SO | 2-CHLORONAPHTHALENE          | 3.3    | UG/KG | 50  | 3.3 | U    | 073SB-0017M-0001-SO | 3.3    | 49  | 3.3 | U    | N/A | Yes      |
| 073SB-0016M-0001-SO | 2-CHLOROPHENOL               | 27     | UG/KG | 50  | 27  | U    | 073SB-0017M-0001-SO | 27     | 49  | 27  | U    | N/A | Yes      |
| 073SB-0016M-0001-SO | 2-METHYLNAPHTHALENE          | 60     | UG/KG | 6.6 | 3.3 |      | 073SB-0017M-0001-SO | 36     | 6.6 | 3.3 |      | 50  | N/A      |
| 073SB-0016M-0001-SO | 2-METHYLPHENOL (O-CRESOL)    | 80     | UG/KG | 200 | 80  | U    | 073SB-0017M-0001-SO | 79     | 200 | 79  | U    | N/A | Yes      |
| 073SB-0016M-0001-SO | 2-NITROANILINE               | 27     | UG/KG | 200 | 27  | U    | 073SB-0017M-0001-SO | 27     | 200 | 27  | U    | N/A | Yes      |
| 073SB-0016M-0001-SO | 2-NITROPHENOL                | 27     | UG/KG | 50  | 27  | U    | 073SB-0017M-0001-SO | 27     | 49  | 27  | U    | N/A | Yes      |
| 073SB-0016M-0001-SO | 3,3'-DICHLOROBENZIDINE       | 80     | UG/KG | 100 | 80  | U    | 073SB-0017M-0001-SO | 79     | 99  | 79  | U    | N/A | Yes      |
| 073SB-0016M-0001-SO | 3-NITROANILINE               | 80     | UG/KG | 200 | 80  | U    | 073SB-0017M-0001-SO | 79     | 200 | 79  | U    | N/A | Yes      |
| 073SB-0016M-0001-SO | 4,6-DINITRO-2-METHYLPHENOL   | 80     | UG/KG | 150 | 80  | U    | 073SB-0017M-0001-SO | 79     | 150 | 79  | U    | N/A | Yes      |
| 073SB-0016M-0001-SO | 4-BROMOPHENYL PHENYL ETHER   | 27     | UG/KG | 50  | 27  | U    | 073SB-0017M-0001-SO | 27     | 49  | 27  | U    | N/A | Yes      |
| 073SB-0016M-0001-SO | 4-CHLORO-3-METHYLPHENOL      | 27     | UG/KG | 150 | 27  | U    | 073SB-0017M-0001-SO | 27     | 150 | 27  | U    | N/A | Yes      |
| 073SB-0016M-0001-SO | 4-CHLOROANILINE              | 27     | UG/KG | 150 | 27  | U    | 073SB-0017M-0001-SO | 27     | 150 | 27  | U    | N/A | Yes      |
| 073SB-0016M-0001-SO | 4-CHLOROPHENYL PHENYL ETHER  | 27     | UG/KG | 50  | 27  | U    | 073SB-0017M-0001-SO | 27     | 49  | 27  | U    | N/A | Yes      |
| 073SB-0016M-0001-SO | 4-NITROANILINE               | 27     | UG/KG | 200 | 27  | U    | 073SB-0017M-0001-SO | 27     | 200 | 27  | U    | N/A | Yes      |
| 073SB-0016M-0001-SO | 4-NITROPHENOL                | 80     | UG/KG | 330 | 80  | U    | 073SB-0017M-0001-SO | 79     | 330 | 79  | U    | N/A | Yes      |
| 073SB-0016M-0001-SO | ACENAPHTHENE                 | 3.3    | UG/KG | 6.6 | 3.3 | U    | 073SB-0017M-0001-SO | 3.3    | 6.6 | 3.3 | U    | N/A | Yes      |
| 073SB-0016M-0001-SO | ACENAPHTHYLENE               | 9.4    | UG/KG | 6.6 | 3.3 |      | 073SB-0017M-0001-SO | 4.8    | 6.6 | 3.3 | J    | N/A | Yes      |
| 073SB-0016M-0001-SO | ANTHRACENE                   | 16     | UG/KG | 6.6 | 3.3 |      | 073SB-0017M-0001-SO | 25     | 6.6 | 3.3 |      | N/A | No       |
| 073SB-0016M-0001-SO | BENZO(A)ANTHRACENE           | 77     | UG/KG | 6.6 | 3.3 |      | 073SB-0017M-0001-SO | 70     | 6.6 | 3.3 |      | 10  | N/A      |
| 073SB-0016M-0001-SO | BENZO(A)PYRENE               | 62     | UG/KG | 6.6 | 3.3 |      | 073SB-0017M-0001-SO | 58     | 6.6 | 3.3 |      | 7   | N/A      |
| 073SB-0016M-0001-SO | BENZO(B)FLUORANTHENE         | 110    | UG/KG | 6.6 | 3.3 |      | 073SB-0017M-0001-SO | 85     | 6.6 | 3.3 |      | 26  | N/A      |
| 073SB-0016M-0001-SO | BENZO(G,H,I)PERYLENE         | 38     | UG/KG | 6.6 | 3.3 |      | 073SB-0017M-0001-SO | 32     | 6.6 | 3.3 |      | N/A | Yes      |
| 073SB-0016M-0001-SO | BENZO(K)FLUORANTHENE         | 27     | UG/KG | 6.6 | 3.3 |      | 073SB-0017M-0001-SO | 31     | 6.6 | 3.3 |      | N/A | Yes      |
| 073SB-0016M-0001-SO | BENZOIC ACID                 | 330    | UG/KG | 660 | 330 | U    | 073SB-0017M-0001-SO | 330    | 650 | 330 | U    | N/A | Yes      |
| 073SB-0016M-0001-SO | BENZYL ALCOHOL               | 27     | UG/KG | 330 | 27  | U    | 073SB-0017M-0001-SO | 37     | 330 | 27  | J    | N/A | Yes      |
| 073SB-0016M-0001-SO | BENZYL BUTYL PHTHALATE       | 27     | UG/KG | 50  | 27  | U    | 073SB-0017M-0001-SO | 27     | 49  | 27  | U    | N/A | Yes      |
| 073SB-0016M-0001-SO | BIS(2-CHLOROETHOXY) METHANE  | 27     | UG/KG | 100 | 27  | U    | 073SB-0017M-0001-SO | 27     | 99  | 27  | U    | N/A | Yes      |
| 073SB-0016M-0001-SO | BIS(2-CHLOROETHYL) ETHER     | 3.3    | UG/KG | 100 | 3.3 | U    | 073SB-0017M-0001-SO | 3.3    | 99  | 3.3 | U    | N/A | Yes      |
| 073SB-0016M-0001-SO | BIS(2-CHLOROISOPROPYL) ETHER | 27     | UG/KG | 100 | 27  | U    | 073SB-0017M-0001-SO | 27     | 99  | 27  | U    | N/A | Yes      |

| Sample              | Analyte                     | Result | Units | LOQ   | LOD    | Qual | Sample              | Result | LOQ   | LOD    | Qual | RPD | W/In LOQ |
|---------------------|-----------------------------|--------|-------|-------|--------|------|---------------------|--------|-------|--------|------|-----|----------|
| 073SB-0016M-0001-SO | BIS(2-ETHYLHEXYL) PHTHALATE | 89     | UG/KG | 50    | 27     | U    | 073SB-0017M-0001-SO | 27     | 68    | 27     |      | N/A | Yes      |
| 073SB-0016M-0001-SO | CARBAZOLE                   | 27     | UG/KG | 50    | 27     | U    | 073SB-0017M-0001-SO | 27     | 49    | 27     | U    | N/A | Yes      |
| 073SB-0016M-0001-SO | CHRYSENE                    | 77     | UG/KG | 6.6   | 3.3    |      | 073SB-0017M-0001-SO | 67     | 6.6   | 3.3    |      | 14  | N/A      |
| 073SB-0016M-0001-SO | CRESOLS, M & P              | 80     | UG/KG | 400   | 80     | U    | 073SB-0017M-0001-SO | 79     | 390   | 79     | U    | N/A | Yes      |
| 073SB-0016M-0001-SO | DIBENZ(A,H)ANTHRACENE       | 3.3    | UG/KG | 6.6   | 3.3    | U    | 073SB-0017M-0001-SO | 3.3    | 6.6   | 3.3    | U    | N/A | Yes      |
| 073SB-0016M-0001-SO | DIBENZOFURAN                | 14     | UG/KG | 50    | 3.3    | J    | 073SB-0017M-0001-SO | 11     | 49    | 3.3    | J    | N/A | Yes      |
| 073SB-0016M-0001-SO | DIETHYL PHTHALATE           | 27     | UG/KG | 50    | 27     | U    | 073SB-0017M-0001-SO | 27     | 49    | 27     | U    | N/A | Yes      |
| 073SB-0016M-0001-SO | DIMETHYL PHTHALATE          | 27     | UG/KG | 50    | 27     | U    | 073SB-0017M-0001-SO | 27     | 49    | 27     | U    | N/A | Yes      |
| 073SB-0016M-0001-SO | DI-N-BUTYL PHTHALATE        | 27     | UG/KG | 50    | 27     | U    | 073SB-0017M-0001-SO | 27     | 49    | 27     | J    | N/A | Yes      |
| 073SB-0016M-0001-SO | DI-N-OCTYLPHTHALATE         | 27     | UG/KG | 50    | 27     | U    | 073SB-0017M-0001-SO | 27     | 49    | 27     | U    | N/A | Yes      |
| 073SB-0016M-0001-SO | FLUORANTHENE                | 130    | UG/KG | 6.6   | 3.3    |      | 073SB-0017M-0001-SO | 150    | 6.6   | 3.3    |      | 14  | N/A      |
| 073SB-0016M-0001-SO | FLUORENE                    | 5.9    | UG/KG | 6.6   | 3.3    | J    | 073SB-0017M-0001-SO | 9.6    | 6.6   | 3.3    |      | N/A | Yes      |
| 073SB-0016M-0001-SO | HEXACHLOROBENZENE           | 3.3    | UG/KG | 6.6   | 3.3    | U    | 073SB-0017M-0001-SO | 3.3    | 6.6   | 3.3    | U    | N/A | Yes      |
| 073SB-0016M-0001-SO | HEXACHLOROBUTADIENE         | 27     | UG/KG | 50    | 27     | U    | 073SB-0017M-0001-SO | 27     | 49    | 27     | U    | N/A | Yes      |
| 073SB-0016M-0001-SO | HEXACHLOROCYCLOPENTADIENE   | 27     | UG/KG | 330   | 27     | U    | 073SB-0017M-0001-SO | 27     | 330   | 27     | U    | N/A | Yes      |
| 073SB-0016M-0001-SO | HEXACHLOROETHANE            | 27     | UG/KG | 50    | 27     | UJ   | 073SB-0017M-0001-SO | 27     | 49    | 27     | U    | N/A | Yes      |
| 073SB-0016M-0001-SO | INDENO(1,2,3-C,D)PYRENE     | 33     | UG/KG | 6.6   | 3.3    |      | 073SB-0017M-0001-SO | 31     | 6.6   | 3.3    |      | N/A | Yes      |
| 073SB-0016M-0001-SO | ISOPHORONE                  | 18     | UG/KG | 50    | 27     | J    | 073SB-0017M-0001-SO | 23     | 49    | 27     | J    | N/A | Yes      |
| 073SB-0016M-0001-SO | NAPHTHALENE                 | 51     | UG/KG | 6.6   | 3.3    |      | 073SB-0017M-0001-SO | 34     | 6.6   | 3.3    |      | 40  | N/A      |
| 073SB-0016M-0001-SO | NITROBENZENE                | 3.3    | UG/KG | 100   | 3.3    | U    | 073SB-0017M-0001-SO | 3.3    | 99    | 3.3    | U    | N/A | Yes      |
| 073SB-0016M-0001-SO | N-NITROSODI-N-PROPYLAMINE   | 27     | UG/KG | 50    | 27     | U    | 073SB-0017M-0001-SO | 27     | 49    | 27     | U    | N/A | Yes      |
| 073SB-0016M-0001-SO | N-NITROSODIPHENYLAMINE      | 27     | UG/KG | 50    | 27     | U    | 073SB-0017M-0001-SO | 27     | 49    | 27     | U    | N/A | Yes      |
| 073SB-0016M-0001-SO | PENTACHLOROPHENOL           | 80     | UG/KG | 150   | 80     | U    | 073SB-0017M-0001-SO | 79     | 150   | 79     | U    | N/A | Yes      |
| 073SB-0016M-0001-SO | PHENANTHRENE                | 62     | UG/KG | 6.6   | 3.3    |      | 073SB-0017M-0001-SO | 87     | 6.6   | 3.3    |      | 34  | N/A      |
| 073SB-0016M-0001-SO | PHENOL                      | 27     | UG/KG | 50    | 27     | U    | 073SB-0017M-0001-SO | 27     | 49    | 27     | U    | N/A | Yes      |
| 073SB-0016M-0001-SO | PYRENE                      | 100    | UG/KG | 6.6   | 3.3    |      | 073SB-0017M-0001-SO | 120    | 6.6   | 3.3    |      | 18  | N/A      |
| 073SB-0027M-0001-SO | ALUMINUM                    | 8500   | MG/KG | 3     | 0.59   |      | 073SB-0028M-0001-SO | 8300   | 2.9   | 0.58   |      | 2   | N/A      |
| 073SB-0027M-0001-SO | ANTIMONY                    | 0      | MG/KG | 0.2   | 0.099  |      | 073SB-0028M-0001-SO | 0.096  | 0.19  | 0.096  | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | ARSENIC                     | 4.1    | MG/KG | 0.099 | 0.05   |      | 073SB-0028M-0001-SO | 5.3    | 0.096 | 0.048  |      | 26  | N/A      |
| 073SB-0027M-0001-SO | BARIUM                      | 80     | MG/KG | 0.99  | 0.02   |      | 073SB-0028M-0001-SO | 74     | 0.96  | 0.019  |      | 8   | N/A      |
| 073SB-0027M-0001-SO | BERYLLIUM                   | 0.97   | MG/KG | 0.099 | 0.0099 |      | 073SB-0028M-0001-SO | 0.84   | 0.096 | 0.0096 |      | 14  | N/A      |
| 073SB-0027M-0001-SO | CADMIUM                     | 0.25   | MG/KG | 0.099 | 0.03   |      | 073SB-0028M-0001-SO | 0.25   | 0.096 | 0.029  |      | N/A | Yes      |
| 073SB-0027M-0001-SO | CALCIUM                     | 24000  | MG/KG | 9.9   | 2.5    |      | 073SB-0028M-0001-SO | 21000  | 9.6   | 2.4    |      | 13  | N/A      |
| 073SB-0027M-0001-SO | CHROMIUM                    | 7.2    | MG/KG | 0.2   | 0.04   |      | 073SB-0028M-0001-SO | 8.4    | 0.19  | 0.038  |      | 15  | N/A      |
| 073SB-0027M-0001-SO | COBALT                      | 5.1    | MG/KG | 0.05  | 0.0099 |      | 073SB-0028M-0001-SO | 6.1    | 0.048 | 0.0096 |      | 18  | N/A      |
| 073SB-0027M-0001-SO | COPPER                      | 9      | MG/KG | 0.2   | 0.059  |      | 073SB-0028M-0001-SO | 11     | 0.19  | 0.058  |      | 20  | N/A      |
| 073SB-0027M-0001-SO | IRON                        | 10000  | MG/KG | 5     | 2      |      | 073SB-0028M-0001-SO | 12000  | 4.8   | 1.9    |      | 18  | N/A      |
| 073SB-0027M-0001-SO | LEAD                        | 9.4    | MG/KG | 0.099 | 0.03   |      | 073SB-0028M-0001-SO | 11     | 0.096 | 0.029  |      | 16  | N/A      |

| Sample              | Analyte                     | Result | Units | LOQ   | LOD   | Qual | Sample              | Result | LOQ   | LOD   | Qual | RPD | W/In LOQ |
|---------------------|-----------------------------|--------|-------|-------|-------|------|---------------------|--------|-------|-------|------|-----|----------|
| 073SB-0027M-0001-SO | MAGNESIUM                   | 3900   | MG/KG | 9.9   | 2     |      | 073SB-0028M-0001-SO | 3400   | 9.6   | 1.9   |      | 14  | N/A      |
| 073SB-0027M-0001-SO | MANGANESE                   | 840    | MG/KG | 0.5   | 0.03  |      | 073SB-0028M-0001-SO | 780    | 0.48  | 0.029 |      | 7   | N/A      |
| 073SB-0027M-0001-SO | NICKEL                      | 11     | MG/KG | 0.099 | 0.03  |      | 073SB-0028M-0001-SO | 13     | 0.096 | 0.029 |      | 17  | N/A      |
| 073SB-0027M-0001-SO | POTASSIUM                   | 730    | MG/KG | 9.9   | 5.9   |      | 073SB-0028M-0001-SO | 690    | 9.6   | 5.8   |      | 6   | N/A      |
| 073SB-0027M-0001-SO | SELENIUM                    | 0.62   | MG/KG | 0.5   | 0.099 |      | 073SB-0028M-0001-SO | 0.69   | 0.48  | 0.096 |      | N/A | Yes      |
| 073SB-0027M-0001-SO | SILVER                      | 0.035  | MG/KG | 0.099 | 0.03  |      | 073SB-0028M-0001-SO | 0.038  | 0.096 | 0.029 | J    | N/A | Yes      |
| 073SB-0027M-0001-SO | SODIUM                      | 160    | MG/KG | 9.9   | 5     |      | 073SB-0028M-0001-SO | 110    | 9.6   | 4.8   |      | 37  | N/A      |
| 073SB-0027M-0001-SO | THALLIUM                    | 0.077  | MG/KG | 0.099 | 0.02  |      | 073SB-0028M-0001-SO | 0.086  | 0.096 | 0.019 | J    | N/A | Yes      |
| 073SB-0027M-0001-SO | VANADIUM                    | 8.7    | MG/KG | 0.099 | 0.059 |      | 073SB-0028M-0001-SO | 9.9    | 0.096 | 0.058 |      | 13  | N/A      |
| 073SB-0027M-0001-SO | ZINC                        | 28     | MG/KG | 0.5   | 0.2   |      | 073SB-0028M-0001-SO | 33     | 0.48  | 0.19  |      | 16  | N/A      |
| 073SB-0027M-0001-SO | MERCURY                     | 0      | MG/KG | 0.11  | 0.037 |      | 073SB-0028M-0001-SO | 0.034  | 0.1   | 0.034 | J    | N/A | Yes      |
| 073SB-0027M-0001-SO | 1,2,4-TRICHLOROBENZENE      | 0      | UG/KG | 250   | 130   |      | 073SB-0028M-0001-SO | 140    | 250   | 140   | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | 1,2-DICHLOROBENZENE         | 0      | UG/KG | 250   | 130   |      | 073SB-0028M-0001-SO | 140    | 250   | 140   | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | 1,3-DICHLOROBENZENE         | 0      | UG/KG | 250   | 130   |      | 073SB-0028M-0001-SO | 140    | 250   | 140   | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | 1,4-DICHLOROBENZENE         | 0      | UG/KG | 250   | 130   |      | 073SB-0028M-0001-SO | 140    | 250   | 140   | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | 2,4,5-TRICHLOROPHENOL       | 0      | UG/KG | 750   | 130   |      | 073SB-0028M-0001-SO | 140    | 760   | 140   | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | 2,4,6-TRICHLOROPHENOL       | 0      | UG/KG | 750   | 400   |      | 073SB-0028M-0001-SO | 400    | 760   | 400   | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | 2,4-DICHLOROPHENOL          | 0      | UG/KG | 750   | 130   |      | 073SB-0028M-0001-SO | 140    | 760   | 140   | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | 2,4-DIMETHYLPHENOL          | 0      | UG/KG | 750   | 400   |      | 073SB-0028M-0001-SO | 400    | 760   | 400   | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | 2,4-DINITROPHENOL           | 0      | UG/KG | 1600  | 400   |      | 073SB-0028M-0001-SO | 400    | 1700  | 400   | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | 2,4-DINITROTOLUENE          | 0      | UG/KG | 1000  | 130   |      | 073SB-0028M-0001-SO | 140    | 1000  | 140   | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | 2,6-DINITROTOLUENE          | 0      | UG/KG | 1000  | 130   |      | 073SB-0028M-0001-SO | 140    | 1000  | 140   | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | 2-CHLORONAPHTHALENE         | 0      | UG/KG | 250   | 16    |      | 073SB-0028M-0001-SO | 17     | 250   | 17    | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | 2-CHLOROPHENOL              | 0      | UG/KG | 250   | 130   |      | 073SB-0028M-0001-SO | 140    | 250   | 140   | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | 2-METHYLNAPHTHALENE         | 68     | UG/KG | 33    | 16    |      | 073SB-0028M-0001-SO | 67     | 34    | 17    |      | N/A | Yes      |
| 073SB-0027M-0001-SO | 2-METHYLPHENOL (O-CRESOL)   | 0      | UG/KG | 1000  | 400   |      | 073SB-0028M-0001-SO | 400    | 1000  | 400   | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | 2-NITROANILINE              | 0      | UG/KG | 1000  | 130   |      | 073SB-0028M-0001-SO | 140    | 1000  | 140   | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | 2-NITROPHENOL               | 0      | UG/KG | 250   | 130   |      | 073SB-0028M-0001-SO | 140    | 250   | 140   | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | 3,3'-DICHLOROBENZIDINE      | 0      | UG/KG | 500   | 400   |      | 073SB-0028M-0001-SO | 400    | 510   | 400   | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | 3-NITROANILINE              | 0      | UG/KG | 1000  | 400   |      | 073SB-0028M-0001-SO | 400    | 1000  | 400   | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | 4,6-DINITRO-2-METHYLPHENOL  | 0      | UG/KG | 750   | 400   |      | 073SB-0028M-0001-SO | 400    | 760   | 400   | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | 4-BROMOPHENYL PHENYL ETHER  | 0      | UG/KG | 250   | 130   |      | 073SB-0028M-0001-SO | 140    | 250   | 140   | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | 4-CHLORO-3-METHYLPHENOL     | 0      | UG/KG | 750   | 130   |      | 073SB-0028M-0001-SO | 140    | 760   | 140   | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | 4-CHLOROANILINE             | 0      | UG/KG | 750   | 130   |      | 073SB-0028M-0001-SO | 140    | 760   | 140   | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | 4-CHLOROPHENYL PHENYL ETHER | 0      | UG/KG | 250   | 130   |      | 073SB-0028M-0001-SO | 140    | 250   | 140   | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | 4-NITROANILINE              | 0      | UG/KG | 1000  | 130   |      | 073SB-0028M-0001-SO | 140    | 1000  | 140   | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | 4-NITROPHENOL               | 0      | UG/KG | 1600  | 400   |      | 073SB-0028M-0001-SO | 400    | 1700  | 400   | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | ACENAPHTHENE                | 0      | UG/KG | 33    | 16    |      | 073SB-0028M-0001-SO | 17     | 34    | 17    | U    | N/A | Yes      |

| Sample              | Analyte                      | Result | Units | LOQ  | LOD  | Qual | Sample              | Result | LOQ  | LOD  | Qual | RPD | W/In LOQ |
|---------------------|------------------------------|--------|-------|------|------|------|---------------------|--------|------|------|------|-----|----------|
| 073SB-0027M-0001-SO | ACENAPHTHYLENE               | 0      | UG/KG | 33   | 16   |      | 073SB-0028M-0001-SO | 17     | 34   | 17   | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | ANTHRACENE                   | 0      | UG/KG | 33   | 16   |      | 073SB-0028M-0001-SO | 17     | 34   | 17   | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | BENZO(A)ANTHRACENE           | 48     | UG/KG | 33   | 16   |      | 073SB-0028M-0001-SO | 27     | 34   | 17   | J    | N/A | Yes      |
| 073SB-0027M-0001-SO | BENZO(A)PYRENE               | 49     | UG/KG | 33   | 16   |      | 073SB-0028M-0001-SO | 33     | 34   | 17   | J    | N/A | Yes      |
| 073SB-0027M-0001-SO | BENZO(B)FLUORANTHENE         | 110    | UG/KG | 33   | 16   |      | 073SB-0028M-0001-SO | 72     | 34   | 17   |      | N/A | No       |
| 073SB-0027M-0001-SO | BENZO(G,H,I)PERYLENE         | 41     | UG/KG | 33   | 16   |      | 073SB-0028M-0001-SO | 32     | 34   | 17   | J    | N/A | Yes      |
| 073SB-0027M-0001-SO | BENZO(K)FLUORANTHENE         | 30     | UG/KG | 33   | 16   |      | 073SB-0028M-0001-SO | 20     | 34   | 17   | J    | N/A | Yes      |
| 073SB-0027M-0001-SO | BENZOIC ACID                 | 0      | UG/KG | 3300 | 1700 |      | 073SB-0028M-0001-SO | 1700   | 3300 | 1700 | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | BENZYL ALCOHOL               | 0      | UG/KG | 1600 | 130  |      | 073SB-0028M-0001-SO | 140    | 1700 | 140  | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | BENZYL BUTYL PHTHALATE       | 0      | UG/KG | 250  | 130  |      | 073SB-0028M-0001-SO | 140    | 250  | 140  | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | BIS(2-CHLOROETHOXY) METHANE  | 0      | UG/KG | 500  | 130  |      | 073SB-0028M-0001-SO | 140    | 510  | 140  | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | BIS(2-CHLOROETHYL) ETHER     | 0      | UG/KG | 500  | 16   |      | 073SB-0028M-0001-SO | 17     | 510  | 17   | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | BIS(2-CHLOROISOPROPYL) ETHER | 0      | UG/KG | 500  | 130  |      | 073SB-0028M-0001-SO | 140    | 510  | 140  | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | BIS(2-ETHYLHEXYL) PHTHALATE  | 0      | UG/KG | 250  | 130  |      | 073SB-0028M-0001-SO | 140    | 250  | 140  | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | CARBAZOLE                    | 0      | UG/KG | 250  | 130  |      | 073SB-0028M-0001-SO | 140    | 250  | 140  | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | CHRYSENE                     | 88     | UG/KG | 33   | 16   |      | 073SB-0028M-0001-SO | 60     | 34   | 17   |      | N/A | Yes      |
| 073SB-0027M-0001-SO | CRESOLS, M & P               | 0      | UG/KG | 2000 | 400  |      | 073SB-0028M-0001-SO | 400    | 2000 | 400  | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | DIBENZ(A,H)ANTHRACENE        | 0      | UG/KG | 33   | 16   |      | 073SB-0028M-0001-SO | 17     | 34   | 17   | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | DIBENZOFURAN                 | 22     | UG/KG | 250  | 16   |      | 073SB-0028M-0001-SO | 22     | 250  | 17   | J    | N/A | Yes      |
| 073SB-0027M-0001-SO | DIETHYL PHTHALATE            | 0      | UG/KG | 250  | 130  |      | 073SB-0028M-0001-SO | 140    | 250  | 140  | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | DIMETHYL PHTHALATE           | 0      | UG/KG | 250  | 130  |      | 073SB-0028M-0001-SO | 140    | 250  | 140  | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | DI-N-BUTYL PHTHALATE         | 0      | UG/KG | 250  | 130  |      | 073SB-0028M-0001-SO | 140    | 250  | 140  | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | DI-N-OCTYLPHTHALATE          | 0      | UG/KG | 250  | 130  |      | 073SB-0028M-0001-SO | 140    | 250  | 140  | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | FLUORANTHENE                 | 98     | UG/KG | 33   | 16   |      | 073SB-0028M-0001-SO | 66     | 34   | 17   |      | N/A | Yes      |
| 073SB-0027M-0001-SO | FLUORENE                     | 0      | UG/KG | 33   | 16   |      | 073SB-0028M-0001-SO | 17     | 34   | 17   | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | HEXACHLOROBENZENE            | 0      | UG/KG | 33   | 16   |      | 073SB-0028M-0001-SO | 17     | 34   | 17   | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | HEXACHLOROBUTADIENE          | 0      | UG/KG | 250  | 130  |      | 073SB-0028M-0001-SO | 140    | 250  | 140  | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | HEXACHLOROCYCLOPENTADIENE    | 0      | UG/KG | 1600 | 130  |      | 073SB-0028M-0001-SO | 140    | 1700 | 140  | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | HEXACHLOROETHANE             | 0      | UG/KG | 250  | 130  |      | 073SB-0028M-0001-SO | 140    | 250  | 140  | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | INDENO(1,2,3-C,D)PYRENE      | 33     | UG/KG | 33   | 16   |      | 073SB-0028M-0001-SO | 23     | 34   | 17   | J    | N/A | Yes      |
| 073SB-0027M-0001-SO | ISOPHORONE                   | 0      | UG/KG | 250  | 130  |      | 073SB-0028M-0001-SO | 140    | 250  | 140  | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | NAPHTHALENE                  | 55     | UG/KG | 33   | 16   |      | 073SB-0028M-0001-SO | 54     | 34   | 17   |      | N/A | Yes      |
| 073SB-0027M-0001-SO | NITROBENZENE                 | 0      | UG/KG | 500  | 16   |      | 073SB-0028M-0001-SO | 17     | 510  | 17   | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | N-NITROSODI-N-PROPYLAMINE    | 0      | UG/KG | 250  | 130  |      | 073SB-0028M-0001-SO | 140    | 250  | 140  | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | N-NITROSODIPHENYLAMINE       | 0      | UG/KG | 250  | 130  |      | 073SB-0028M-0001-SO | 140    | 250  | 140  | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | PENTACHLOROPHENOL            | 0      | UG/KG | 750  | 400  |      | 073SB-0028M-0001-SO | 400    | 760  | 400  | U    | N/A | Yes      |
| 073SB-0027M-0001-SO | PHENANTHRENE                 | 64     | UG/KG | 33   | 16   |      | 073SB-0028M-0001-SO | 64     | 34   | 17   |      | N/A | Yes      |
| 073SB-0027M-0001-SO | PHENOL                       | 0      | UG/KG | 250  | 130  |      | 073SB-0028M-0001-SO | 140    | 250  | 140  | U    | N/A | Yes      |



| Sample              | Analyte                | Result | Units | LOQ   | LOD    | Qual | Sample              | Result | LOQ   | LOD    | Qual | RPD | W/In LOQ |
|---------------------|------------------------|--------|-------|-------|--------|------|---------------------|--------|-------|--------|------|-----|----------|
| 073SB-0027M-0001-SO | PYRENE                 | 80     | UG/KG | 33    | 16     |      | 073SB-0028M-0001-SO | 55     | 34    | 17     |      | N/A | Yes      |
| 073SB-0038M-0001-SO | ALUMINUM               | 6800   | MG/KG | 2.8   | 0.56   |      | 073SB-0039M-0001-SO | 7000   | 2.4   | 0.48   |      | 3   | N/A      |
| 073SB-0038M-0001-SO | ANTIMONY               | 0.067  | MG/KG | 0.19  | 0.093  | J-   | 073SB-0039M-0001-SO | 0.055  | 0.16  | 0.081  | J    | N/A | Yes      |
| 073SB-0038M-0001-SO | ARSENIC                | 19     | MG/KG | 0.093 | 0.046  | J-   | 073SB-0039M-0001-SO | 15     | 0.081 | 0.04   |      | 24  | N/A      |
| 073SB-0038M-0001-SO | BARIUM                 | 32     | MG/KG | 0.93  | 0.019  |      | 073SB-0039M-0001-SO | 34     | 0.81  | 0.016  |      | 6   | N/A      |
| 073SB-0038M-0001-SO | BERYLLIUM              | 0.35   | MG/KG | 0.093 | 0.0093 |      | 073SB-0039M-0001-SO | 0.4    | 0.081 | 0.0081 |      | N/A | Yes      |
| 073SB-0038M-0001-SO | CADMIUM                | 0.19   | MG/KG | 0.093 | 0.028  |      | 073SB-0039M-0001-SO | 0.19   | 0.081 | 0.024  |      | N/A | Yes      |
| 073SB-0038M-0001-SO | CALCIUM                | 640    | MG/KG | 9.3   | 2.3    |      | 073SB-0039M-0001-SO | 710    | 8.1   | 2      |      | 10  | N/A      |
| 073SB-0038M-0001-SO | CHROMIUM               | 10     | MG/KG | 0.19  | 0.037  |      | 073SB-0039M-0001-SO | 10     | 0.16  | 0.032  |      | 0   | N/A      |
| 073SB-0038M-0001-SO | COBALT                 | 8.7    | MG/KG | 0.046 | 0.0093 |      | 073SB-0039M-0001-SO | 8.7    | 0.04  | 0.0081 |      | 0   | N/A      |
| 073SB-0038M-0001-SO | COPPER                 | 20     | MG/KG | 0.19  | 0.056  |      | 073SB-0039M-0001-SO | 19     | 0.16  | 0.048  |      | 5   | N/A      |
| 073SB-0038M-0001-SO | IRON                   | 22000  | MG/KG | 4.6   | 1.9    |      | 073SB-0039M-0001-SO | 24000  | 4     | 1.6    |      | 9   | N/A      |
| 073SB-0038M-0001-SO | LEAD                   | 17     | MG/KG | 0.093 | 0.028  |      | 073SB-0039M-0001-SO | 16     | 0.081 | 0.024  |      | 6   | N/A      |
| 073SB-0038M-0001-SO | MAGNESIUM              | 2100   | MG/KG | 9.3   | 1.9    |      | 073SB-0039M-0001-SO | 2200   | 8.1   | 1.6    |      | 5   | N/A      |
| 073SB-0038M-0001-SO | MANGANESE              | 460    | MG/KG | 0.46  | 0.028  |      | 073SB-0039M-0001-SO | 460    | 0.4   | 0.024  |      | 0   | N/A      |
| 073SB-0038M-0001-SO | NICKEL                 | 21     | MG/KG | 0.093 | 0.028  |      | 073SB-0039M-0001-SO | 21     | 0.081 | 0.024  |      | 0   | N/A      |
| 073SB-0038M-0001-SO | POTASSIUM              | 1000   | MG/KG | 9.3   | 5.6    |      | 073SB-0039M-0001-SO | 970    | 8.1   | 4.8    |      | 3   | N/A      |
| 073SB-0038M-0001-SO | SELENIUM               | 0.28   | MG/KG | 0.46  | 0.093  | J-   | 073SB-0039M-0001-SO | 0.26   | 0.4   | 0.081  | J    | N/A | Yes      |
| 073SB-0038M-0001-SO | SILVER                 | 0.022  | MG/KG | 0.093 | 0.028  | J    | 073SB-0039M-0001-SO | 0.021  | 0.081 | 0.024  | J    | N/A | Yes      |
| 073SB-0038M-0001-SO | SODIUM                 | 40     | MG/KG | 9.3   | 4.6    |      | 073SB-0039M-0001-SO | 35     | 8.1   | 4      |      | N/A | Yes      |
| 073SB-0038M-0001-SO | THALLIUM               | 0.15   | MG/KG | 0.093 | 0.019  |      | 073SB-0039M-0001-SO | 0.14   | 0.081 | 0.016  |      | N/A | Yes      |
| 073SB-0038M-0001-SO | VANADIUM               | 11     | MG/KG | 0.093 | 0.056  |      | 073SB-0039M-0001-SO | 12     | 0.081 | 0.048  |      | 9   | N/A      |
| 073SB-0038M-0001-SO | ZINC                   | 64     | MG/KG | 0.46  | 0.19   | J-   | 073SB-0039M-0001-SO | 62     | 0.4   | 0.16   |      | 3   | N/A      |
| 073SB-0038M-0001-SO | MERCURY                | 0.018  | MG/KG | 0.11  | 0.035  | J    | 073SB-0039M-0001-SO | 0.02   | 0.098 | 0.032  | J    | N/A | Yes      |
| 073SB-0038M-0001-SO | 1,2,4-TRICHLOROBENZENE | 270    | UG/KG | 500   | 270    | UJ   | 073SB-0039M-0001-SO | 270    | 500   | 270    | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | 1,2-DICHLOROBENZENE    | 270    | UG/KG | 500   | 270    | UJ   | 073SB-0039M-0001-SO | 270    | 500   | 270    | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | 1,3-DICHLOROBENZENE    | 270    | UG/KG | 500   | 270    | UJ   | 073SB-0039M-0001-SO | 270    | 500   | 270    | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | 1,4-DICHLOROBENZENE    | 270    | UG/KG | 500   | 270    | UJ   | 073SB-0039M-0001-SO | 270    | 500   | 270    | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | 2,4,5-TRICHLOROPHENOL  | 270    | UG/KG | 1500  | 270    | UJ   | 073SB-0039M-0001-SO | 270    | 1500  | 270    | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | 2,4,6-TRICHLOROPHENOL  | 810    | UG/KG | 1500  | 810    | UJ   | 073SB-0039M-0001-SO | 800    | 1500  | 800    | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | 2,4-DICHLOROPHENOL     | 270    | UG/KG | 1500  | 270    | UJ   | 073SB-0039M-0001-SO | 270    | 1500  | 270    | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | 2,4-DIMETHYLPHENOL     | 810    | UG/KG | 1500  | 810    | UJ   | 073SB-0039M-0001-SO | 800    | 1500  | 800    | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | 2,4-DINITROPHENOL      | 810    | UG/KG | 3300  | 810    | UJ   | 073SB-0039M-0001-SO | 800    | 3300  | 800    | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | 2,4-DINITROTOLUENE     | 270    | UG/KG | 2000  | 270    | UJ   | 073SB-0039M-0001-SO | 270    | 2000  | 270    | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | 2,6-DINITROTOLUENE     | 270    | UG/KG | 2000  | 270    | UJ   | 073SB-0039M-0001-SO | 270    | 2000  | 270    | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | 2-CHLORONAPHTHALENE    | 33     | UG/KG | 500   | 33     | UJ   | 073SB-0039M-0001-SO | 33     | 500   | 33     | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | 2-CHLOROPHENOL         | 270    | UG/KG | 500   | 270    | UJ   | 073SB-0039M-0001-SO | 270    | 500   | 270    | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | 2-METHYLNAPHTHALENE    | 33     | UG/KG | 67    | 33     | UJ   | 073SB-0039M-0001-SO | 33     | 67    | 33     | U    | N/A | Yes      |

| Sample              | Analyte                      | Result | Units | LOQ  | LOD  | Qual | Sample              | Result | LOQ  | LOD  | Qual | RPD | W/In LOQ |
|---------------------|------------------------------|--------|-------|------|------|------|---------------------|--------|------|------|------|-----|----------|
| 073SB-0038M-0001-SO | 2-METHYLPHENOL (O-CRESOL)    | 810    | UG/KG | 2000 | 810  | UJ   | 073SB-0039M-0001-SO | 800    | 2000 | 800  | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | 2-NITROANILINE               | 270    | UG/KG | 2000 | 270  | UJ   | 073SB-0039M-0001-SO | 270    | 2000 | 270  | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | 2-NITROPHENOL                | 270    | UG/KG | 500  | 270  | UJ   | 073SB-0039M-0001-SO | 270    | 500  | 270  | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | 3,3'-DICHLOROBENZIDINE       | 810    | UG/KG | 1000 | 810  | UJ   | 073SB-0039M-0001-SO | 800    | 1000 | 800  | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | 3-NITROANILINE               | 810    | UG/KG | 2000 | 810  | UJ   | 073SB-0039M-0001-SO | 800    | 2000 | 800  | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | 4,6-DINITRO-2-METHYLPHENOL   | 810    | UG/KG | 1500 | 810  | UJ   | 073SB-0039M-0001-SO | 800    | 1500 | 800  | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | 4-BROMOPHENYL PHENYL ETHER   | 270    | UG/KG | 500  | 270  | UJ   | 073SB-0039M-0001-SO | 270    | 500  | 270  | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | 4-CHLORO-3-METHYLPHENOL      | 270    | UG/KG | 1500 | 270  | UJ   | 073SB-0039M-0001-SO | 270    | 1500 | 270  | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | 4-CHLOROANILINE              | 270    | UG/KG | 1500 | 270  | UJ   | 073SB-0039M-0001-SO | 270    | 1500 | 270  | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | 4-CHLOROPHENYL PHENYL ETHER  | 270    | UG/KG | 500  | 270  | UJ   | 073SB-0039M-0001-SO | 270    | 500  | 270  | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | 4-NITROANILINE               | 270    | UG/KG | 2000 | 270  | UJ   | 073SB-0039M-0001-SO | 270    | 2000 | 270  | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | 4-NITROPHENOL                | 810    | UG/KG | 3300 | 810  | UJ   | 073SB-0039M-0001-SO | 800    | 3300 | 800  | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | ACENAPHTHENE                 | 33     | UG/KG | 67   | 33   | UJ   | 073SB-0039M-0001-SO | 33     | 67   | 33   | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | ACENAPHTHYLENE               | 33     | UG/KG | 67   | 33   | UJ   | 073SB-0039M-0001-SO | 33     | 67   | 33   | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | ANTHRACENE                   | 33     | UG/KG | 67   | 33   | UJ   | 073SB-0039M-0001-SO | 33     | 67   | 33   | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | BENZO(A)ANTHRACENE           | 33     | UG/KG | 67   | 33   | UJ   | 073SB-0039M-0001-SO | 33     | 67   | 33   | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | BENZO(A)PYRENE               | 33     | UG/KG | 67   | 33   | UJ   | 073SB-0039M-0001-SO | 33     | 67   | 33   | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | BENZO(B)FLUORANTHENE         | 33     | UG/KG | 67   | 33   | UJ   | 073SB-0039M-0001-SO | 33     | 67   | 33   | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | BENZO(G,H,I)PERYLENE         | 33     | UG/KG | 67   | 33   | UJ   | 073SB-0039M-0001-SO | 33     | 67   | 33   | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | BENZO(K)FLUORANTHENE         | 33     | UG/KG | 67   | 33   | UJ   | 073SB-0039M-0001-SO | 33     | 67   | 33   | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | BENZOIC ACID                 | 3400   | UG/KG | 6700 | 3400 | R    | 073SB-0039M-0001-SO | 3300   | 6600 | 3300 | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | BENZYL ALCOHOL               | 270    | UG/KG | 3300 | 270  | UJ   | 073SB-0039M-0001-SO | 270    | 3300 | 270  | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | BENZYL BUTYL PHTHALATE       | 270    | UG/KG | 710  | 270  | UJ   | 073SB-0039M-0001-SO | 270    | 700  | 270  | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | BIS(2-CHLOROETHOXY) METHANE  | 270    | UG/KG | 1000 | 270  | UJ   | 073SB-0039M-0001-SO | 270    | 1000 | 270  | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | BIS(2-CHLOROETHYL) ETHER     | 33     | UG/KG | 1000 | 33   | UJ   | 073SB-0039M-0001-SO | 33     | 1000 | 33   | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | BIS(2-CHLOROISOPROPYL) ETHER | 270    | UG/KG | 1000 | 270  | UJ   | 073SB-0039M-0001-SO | 270    | 1000 | 270  | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | BIS(2-ETHYLHEXYL) PHTHALATE  | 270    | UG/KG | 710  | 270  | UJ   | 073SB-0039M-0001-SO | 270    | 700  | 270  | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | CARBAZOLE                    | 270    | UG/KG | 500  | 270  | UJ   | 073SB-0039M-0001-SO | 270    | 500  | 270  | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | CHRYSENE                     | 33     | UG/KG | 67   | 33   | UJ   | 073SB-0039M-0001-SO | 33     | 67   | 33   | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | CRESOLS, M & P               | 810    | UG/KG | 4000 | 810  | UJ   | 073SB-0039M-0001-SO | 800    | 4000 | 800  | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | DIBENZ(A,H)ANTHRACENE        | 33     | UG/KG | 67   | 33   | UJ   | 073SB-0039M-0001-SO | 33     | 67   | 33   | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | DIBENZOFURAN                 | 33     | UG/KG | 500  | 33   | UJ   | 073SB-0039M-0001-SO | 33     | 500  | 33   | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | DIETHYL PHTHALATE            | 270    | UG/KG | 710  | 270  | UJ   | 073SB-0039M-0001-SO | 270    | 700  | 270  | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | DIMETHYL PHTHALATE           | 270    | UG/KG | 710  | 270  | UJ   | 073SB-0039M-0001-SO | 270    | 700  | 270  | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | DI-N-BUTYL PHTHALATE         | 270    | UG/KG | 710  | 270  | UJ   | 073SB-0039M-0001-SO | 270    | 700  | 270  | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | DI-N-OCTYLPHTHALATE          | 270    | UG/KG | 710  | 270  | UJ   | 073SB-0039M-0001-SO | 270    | 700  | 270  | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | FLUORANTHENE                 | 33     | UG/KG | 67   | 33   | UJ   | 073SB-0039M-0001-SO | 33     | 67   | 33   | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | FLUORENE                     | 33     | UG/KG | 67   | 33   | UJ   | 073SB-0039M-0001-SO | 33     | 67   | 33   | U    | N/A | Yes      |

| Sample              | Analyte                     | Result | Units | LOQ  | LOD | Qual | Sample              | Result | LOQ  | LOD | Qual | RPD | W/In LOQ |
|---------------------|-----------------------------|--------|-------|------|-----|------|---------------------|--------|------|-----|------|-----|----------|
| 073SB-0038M-0001-SO | HEXACHLOROBENZENE           | 33     | UG/KG | 67   | 33  | UJ   | 073SB-0039M-0001-SO | 33     | 67   | 33  | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | HEXACHLOROBUTADIENE         | 270    | UG/KG | 500  | 270 | UJ   | 073SB-0039M-0001-SO | 270    | 500  | 270 | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | HEXACHLOROCYCLOPENTADIENE   | 270    | UG/KG | 3300 | 270 | UJ   | 073SB-0039M-0001-SO | 270    | 3300 | 270 | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | HEXACHLOROETHANE            | 270    | UG/KG | 500  | 270 | UJ   | 073SB-0039M-0001-SO | 270    | 500  | 270 | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | INDENO(1,2,3-C,D)PYRENE     | 33     | UG/KG | 67   | 33  | UJ   | 073SB-0039M-0001-SO | 33     | 67   | 33  | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | ISOPHORONE                  | 270    | UG/KG | 500  | 270 | UJ   | 073SB-0039M-0001-SO | 270    | 500  | 270 | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | NAPHTHALENE                 | 33     | UG/KG | 67   | 33  | UJ   | 073SB-0039M-0001-SO | 33     | 67   | 33  | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | NITROBENZENE                | 33     | UG/KG | 1000 | 33  | UJ   | 073SB-0039M-0001-SO | 33     | 1000 | 33  | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | N-NITROSODI-N-PROPYLAMINE   | 270    | UG/KG | 500  | 270 | UJ   | 073SB-0039M-0001-SO | 270    | 500  | 270 | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | N-NITROSODIPHENYLAMINE      | 270    | UG/KG | 500  | 270 | UJ   | 073SB-0039M-0001-SO | 270    | 500  | 270 | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | PENTACHLOROPHENOL           | 810    | UG/KG | 1500 | 810 | UJ   | 073SB-0039M-0001-SO | 800    | 1500 | 800 | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | PHENANTHRENE                | 33     | UG/KG | 67   | 33  | UJ   | 073SB-0039M-0001-SO | 33     | 67   | 33  | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | PHENOL                      | 270    | UG/KG | 500  | 270 | UJ   | 073SB-0039M-0001-SO | 270    | 500  | 270 | U    | N/A | Yes      |
| 073SB-0038M-0001-SO | PYRENE                      | 33     | UG/KG | 67   | 33  | UJ   | 073SB-0039M-0001-SO | 33     | 67   | 33  | U    | N/A | Yes      |
| 073SD-0047-0001-SD  | 1,2,4-TRICHLOROBENZENE      | 41     | UG/KG | 75   | 41  | U    | 073SD-0048-0001-SD  | 41     | 77   | 41  | U    | N/A | Yes      |
| 073SD-0047-0001-SD  | 1,2-DICHLOROBENZENE         | 41     | UG/KG | 75   | 41  | U    | 073SD-0048-0001-SD  | 41     | 77   | 41  | U    | N/A | Yes      |
| 073SD-0047-0001-SD  | 1,3-DICHLOROBENZENE         | 41     | UG/KG | 75   | 41  | U    | 073SD-0048-0001-SD  | 41     | 77   | 41  | U    | N/A | Yes      |
| 073SD-0047-0001-SD  | 1,4-DICHLOROBENZENE         | 41     | UG/KG | 75   | 41  | U    | 073SD-0048-0001-SD  | 41     | 77   | 41  | U    | N/A | Yes      |
| 073SD-0047-0001-SD  | 2,4,5-TRICHLOROPHENOL       | 41     | UG/KG | 230  | 41  | U    | 073SD-0048-0001-SD  | 41     | 230  | 41  | U    | N/A | Yes      |
| 073SD-0047-0001-SD  | 2,4,6-TRICHLOROPHENOL       | 120    | UG/KG | 230  | 120 | U    | 073SD-0048-0001-SD  | 120    | 230  | 120 | U    | N/A | Yes      |
| 073SD-0047-0001-SD  | 2,4-DICHLOROPHENOL          | 41     | UG/KG | 230  | 41  | U    | 073SD-0048-0001-SD  | 41     | 230  | 41  | U    | N/A | Yes      |
| 073SD-0047-0001-SD  | 2,4-DIMETHYLPHENOL          | 120    | UG/KG | 230  | 120 | U    | 073SD-0048-0001-SD  | 120    | 230  | 120 | U    | N/A | Yes      |
| 073SD-0047-0001-SD  | 2,4-DINITROPHENOL           | 120    | UG/KG | 500  | 120 | U    | 073SD-0048-0001-SD  | 120    | 510  | 120 | U    | N/A | Yes      |
| 073SD-0047-0001-SD  | 2,4-DINITROTOLUENE          | 41     | UG/KG | 300  | 41  | U    | 073SD-0048-0001-SD  | 41     | 310  | 41  | U    | N/A | Yes      |
| 073SD-0047-0001-SD  | 2,6-DINITROTOLUENE          | 41     | UG/KG | 300  | 41  | U    | 073SD-0048-0001-SD  | 41     | 310  | 41  | U    | N/A | Yes      |
| 073SD-0047-0001-SD  | 2-CHLORONAPHTHALENE         | 5      | UG/KG | 75   | 5   | U    | 073SD-0048-0001-SD  | 5.1    | 77   | 5.1 | U    | N/A | Yes      |
| 073SD-0047-0001-SD  | 2-CHLOROPHENOL              | 41     | UG/KG | 75   | 41  | U    | 073SD-0048-0001-SD  | 41     | 77   | 41  | U    | N/A | Yes      |
| 073SD-0047-0001-SD  | 2-METHYLNAPHTHALENE         | 5      | UG/KG | 10   | 5   | U    | 073SD-0048-0001-SD  | 7.4    | 10   | 5.1 | J    | N/A | Yes      |
| 073SD-0047-0001-SD  | 2-METHYLPHENOL (O-CRESOL)   | 120    | UG/KG | 300  | 120 | U    | 073SD-0048-0001-SD  | 120    | 310  | 120 | U    | N/A | Yes      |
| 073SD-0047-0001-SD  | 2-NITROANILINE              | 41     | UG/KG | 300  | 41  | U    | 073SD-0048-0001-SD  | 41     | 310  | 41  | U    | N/A | Yes      |
| 073SD-0047-0001-SD  | 2-NITROPHENOL               | 41     | UG/KG | 75   | 41  | U    | 073SD-0048-0001-SD  | 41     | 77   | 41  | U    | N/A | Yes      |
| 073SD-0047-0001-SD  | 3,3'-DICHLOROBENZIDINE      | 120    | UG/KG | 150  | 120 | U    | 073SD-0048-0001-SD  | 120    | 150  | 120 | U    | N/A | Yes      |
| 073SD-0047-0001-SD  | 3-NITROANILINE              | 120    | UG/KG | 300  | 120 | U    | 073SD-0048-0001-SD  | 120    | 310  | 120 | U    | N/A | Yes      |
| 073SD-0047-0001-SD  | 4,6-DINITRO-2-METHYLPHENOL  | 120    | UG/KG | 230  | 120 | U    | 073SD-0048-0001-SD  | 120    | 230  | 120 | U    | N/A | Yes      |
| 073SD-0047-0001-SD  | 4-BROMOPHENYL PHENYL ETHER  | 41     | UG/KG | 75   | 41  | U    | 073SD-0048-0001-SD  | 41     | 77   | 41  | U    | N/A | Yes      |
| 073SD-0047-0001-SD  | 4-CHLORO-3-METHYLPHENOL     | 41     | UG/KG | 230  | 41  | U    | 073SD-0048-0001-SD  | 41     | 230  | 41  | U    | N/A | Yes      |
| 073SD-0047-0001-SD  | 4-CHLOROANILINE             | 41     | UG/KG | 230  | 41  | U    | 073SD-0048-0001-SD  | 41     | 230  | 41  | U    | N/A | Yes      |
| 073SD-0047-0001-SD  | 4-CHLOROPHENYL PHENYL ETHER | 41     | UG/KG | 75   | 41  | U    | 073SD-0048-0001-SD  | 41     | 77   | 41  | U    | N/A | Yes      |

| Sample             | Analyte                      | Result | Units | LOQ | LOD | Qual | Sample             | Result | LOQ  | LOD | Qual | RPD | W/In LOQ |
|--------------------|------------------------------|--------|-------|-----|-----|------|--------------------|--------|------|-----|------|-----|----------|
| 073SD-0047-0001-SD | 4-NITROANILINE               | 41     | UG/KG | 300 | 41  | U    | 073SD-0048-0001-SD | 41     | 310  | 41  | U    | N/A | Yes      |
| 073SD-0047-0001-SD | 4-NITROPHENOL                | 120    | UG/KG | 500 | 120 | U    | 073SD-0048-0001-SD | 120    | 510  | 120 | U    | N/A | Yes      |
| 073SD-0047-0001-SD | ACENAPHTHENE                 | 5      | UG/KG | 10  | 5   | U    | 073SD-0048-0001-SD | 5.1    | 10   | 5.1 | U    | N/A | Yes      |
| 073SD-0047-0001-SD | ACENAPHTHYLENE               | 5      | UG/KG | 10  | 5   | U    | 073SD-0048-0001-SD | 5.1    | 10   | 5.1 | U    | N/A | Yes      |
| 073SD-0047-0001-SD | ANTHRACENE                   | 5      | UG/KG | 10  | 5   | U    | 073SD-0048-0001-SD | 5.1    | 10   | 5.1 | U    | N/A | Yes      |
| 073SD-0047-0001-SD | BENZO(A)ANTHRACENE           | 7.6    | UG/KG | 10  | 5   | J    | 073SD-0048-0001-SD | 5.1    | 10   | 5.1 | U    | N/A | Yes      |
| 073SD-0047-0001-SD | BENZO(A)PYRENE               | 5      | UG/KG | 10  | 5   | U    | 073SD-0048-0001-SD | 5.1    | 10   | 5.1 | U    | N/A | Yes      |
| 073SD-0047-0001-SD | BENZO(B)FLUORANTHENE         | 8.2    | UG/KG | 10  | 5   | J    | 073SD-0048-0001-SD | 10     | 10   | 5.1 |      | N/A | Yes      |
| 073SD-0047-0001-SD | BENZO(G,H,I)PERYLENE         | 5      | UG/KG | 10  | 5   | U    | 073SD-0048-0001-SD | 5.1    | 10   | 5.1 | U    | N/A | Yes      |
| 073SD-0047-0001-SD | BENZO(K)FLUORANTHENE         | 5      | UG/KG | 10  | 5   | U    | 073SD-0048-0001-SD | 5.1    | 10   | 5.1 | U    | N/A | Yes      |
| 073SD-0047-0001-SD | BENZOIC ACID                 | 500    | UG/KG | 990 | 500 | U    | 073SD-0048-0001-SD | 510    | 1000 | 510 | U    | N/A | Yes      |
| 073SD-0047-0001-SD | BENZYL ALCOHOL               | 59     | UG/KG | 500 | 41  | J    | 073SD-0048-0001-SD | 150    | 510  | 41  | J    | N/A | Yes      |
| 073SD-0047-0001-SD | BENZYL BUTYL PHTHALATE       | 41     | UG/KG | 75  | 41  | U    | 073SD-0048-0001-SD | 41     | 77   | 41  | U    | N/A | Yes      |
| 073SD-0047-0001-SD | BIS(2-CHLOROETHOXY) METHANE  | 41     | UG/KG | 150 | 41  | U    | 073SD-0048-0001-SD | 41     | 150  | 41  | U    | N/A | Yes      |
| 073SD-0047-0001-SD | BIS(2-CHLOROETHYL) ETHER     | 5      | UG/KG | 150 | 5   | U    | 073SD-0048-0001-SD | 5.1    | 150  | 5.1 | U    | N/A | Yes      |
| 073SD-0047-0001-SD | BIS(2-CHLOROISOPROPYL) ETHER | 41     | UG/KG | 150 | 41  | U    | 073SD-0048-0001-SD | 41     | 150  | 41  | U    | N/A | Yes      |
| 073SD-0047-0001-SD | BIS(2-ETHYLHEXYL) PHTHALATE  | 160    | UG/KG | 75  | 41  | U    | 073SD-0048-0001-SD | 41     | 77   | 41  | J    | N/A | No       |
| 073SD-0047-0001-SD | CARBAZOLE                    | 41     | UG/KG | 75  | 41  | U    | 073SD-0048-0001-SD | 41     | 77   | 41  | U    | N/A | Yes      |
| 073SD-0047-0001-SD | CHRYSENE                     | 5.4    | UG/KG | 10  | 5   | J    | 073SD-0048-0001-SD | 5.1    | 10   | 5.1 | U    | N/A | Yes      |
| 073SD-0047-0001-SD | CRESOLS, M & P               | 120    | UG/KG | 600 | 120 | U    | 073SD-0048-0001-SD | 120    | 610  | 120 | U    | N/A | Yes      |
| 073SD-0047-0001-SD | DIBENZ(A,H)ANTHRACENE        | 5      | UG/KG | 10  | 5   | U    | 073SD-0048-0001-SD | 5.1    | 10   | 5.1 | U    | N/A | Yes      |
| 073SD-0047-0001-SD | DIBENZOFURAN                 | 5      | UG/KG | 75  | 5   | U    | 073SD-0048-0001-SD | 5.1    | 77   | 5.1 | U    | N/A | Yes      |
| 073SD-0047-0001-SD | DIETHYL PHTHALATE            | 41     | UG/KG | 75  | 41  | U    | 073SD-0048-0001-SD | 41     | 77   | 41  | U    | N/A | Yes      |
| 073SD-0047-0001-SD | DIMETHYL PHTHALATE           | 41     | UG/KG | 75  | 41  | U    | 073SD-0048-0001-SD | 41     | 77   | 41  | U    | N/A | Yes      |
| 073SD-0047-0001-SD | DI-N-BUTYL PHTHALATE         | 41     | UG/KG | 75  | 41  | U    | 073SD-0048-0001-SD | 41     | 77   | 41  | J    | N/A | Yes      |
| 073SD-0047-0001-SD | DI-N-OCTYLPHTHALATE          | 41     | UG/KG | 75  | 41  | U    | 073SD-0048-0001-SD | 41     | 77   | 41  | U    | N/A | Yes      |
| 073SD-0047-0001-SD | FLUORANTHENE                 | 11     | UG/KG | 10  | 5   |      | 073SD-0048-0001-SD | 5.1    | 10   | 5.1 | U    | N/A | Yes      |
| 073SD-0047-0001-SD | FLUORENE                     | 5      | UG/KG | 10  | 5   | U    | 073SD-0048-0001-SD | 5.1    | 10   | 5.1 | U    | N/A | Yes      |
| 073SD-0047-0001-SD | HEXACHLOROBENZENE            | 5      | UG/KG | 10  | 5   | U    | 073SD-0048-0001-SD | 5.1    | 10   | 5.1 | U    | N/A | Yes      |
| 073SD-0047-0001-SD | HEXACHLOROBUTADIENE          | 41     | UG/KG | 75  | 41  | U    | 073SD-0048-0001-SD | 41     | 77   | 41  | U    | N/A | Yes      |
| 073SD-0047-0001-SD | HEXACHLOROCYCLOPENTADIENE    | 41     | UG/KG | 500 | 41  | U    | 073SD-0048-0001-SD | 41     | 510  | 41  | U    | N/A | Yes      |
| 073SD-0047-0001-SD | HEXACHLOROETHANE             | 41     | UG/KG | 75  | 41  | UJ   | 073SD-0048-0001-SD | 41     | 77   | 41  | U    | N/A | Yes      |
| 073SD-0047-0001-SD | INDENO(1,2,3-C,D)PYRENE      | 5      | UG/KG | 10  | 5   | U    | 073SD-0048-0001-SD | 5.1    | 10   | 5.1 | U    | N/A | Yes      |
| 073SD-0047-0001-SD | ISOPHORONE                   | 41     | UG/KG | 75  | 41  | U    | 073SD-0048-0001-SD | 41     | 77   | 41  | U    | N/A | Yes      |
| 073SD-0047-0001-SD | NAPHTHALENE                  | 5      | UG/KG | 10  | 5   | U    | 073SD-0048-0001-SD | 5.1    | 10   | 5.1 | U    | N/A | Yes      |
| 073SD-0047-0001-SD | NITROBENZENE                 | 5      | UG/KG | 150 | 5   | U    | 073SD-0048-0001-SD | 5.1    | 150  | 5.1 | U    | N/A | Yes      |
| 073SD-0047-0001-SD | N-NITROSODI-N-PROPYLAMINE    | 41     | UG/KG | 75  | 41  | U    | 073SD-0048-0001-SD | 41     | 77   | 41  | U    | N/A | Yes      |
| 073SD-0047-0001-SD | N-NITROSODIPHENYLAMINE       | 41     | UG/KG | 75  | 41  | U    | 073SD-0048-0001-SD | 41     | 77   | 41  | U    | N/A | Yes      |

| Sample              | Analyte           | Result | Units | LOQ   | LOD    | Qual | Sample              | Result | LOQ   | LOD    | Qual | RPD | W/In LOQ |
|---------------------|-------------------|--------|-------|-------|--------|------|---------------------|--------|-------|--------|------|-----|----------|
| 073SD-0047-0001-SD  | PENTACHLOROPHENOL | 120    | UG/KG | 230   | 120    | U    | 073SD-0048-0001-SD  | 120    | 230   | 120    | U    | N/A | Yes      |
| 073SD-0047-0001-SD  | PHENANTHRENE      | 5      | UG/KG | 10    | 5      | U    | 073SD-0048-0001-SD  | 5.1    | 10    | 5.1    | U    | N/A | Yes      |
| 073SD-0047-0001-SD  | PHENOL            | 41     | UG/KG | 75    | 41     | U    | 073SD-0048-0001-SD  | 41     | 77    | 41     | U    | N/A | Yes      |
| 073SD-0047-0001-SD  | PYRENE            | 8.3    | UG/KG | 10    | 5      | J    | 073SD-0048-0001-SD  | 8.2    | 10    | 5.1    | J    | N/A | Yes      |
| 073SD-0047-0001-SD  | ALUMINUM          | 9600   | MG/KG | 4.5   | 0.91   |      | 073SD-0048-0001-SD  | 8800   | 4.6   | 0.92   |      | 9   | N/A      |
| 073SD-0047-0001-SD  | ANTIMONY          | 0.18   | MG/KG | 0.3   |        | J    | 073SD-0048-0001-SD  | 0.072  | 0.31  | 0.15   |      | N/A | Yes      |
| 073SD-0047-0001-SD  | ARSENIC           | 7.6    | MG/KG | 0.15  | 0.076  |      | 073SD-0048-0001-SD  | 10     | 0.15  | 0.077  |      | 27  | N/A      |
| 073SD-0047-0001-SD  | BARIUM            | 180    | MG/KG | 1.5   | 0.03   |      | 073SD-0048-0001-SD  | 180    | 1.5   | 0.031  |      | 0   | N/A      |
| 073SD-0047-0001-SD  | BERYLLIUM         | 0.93   | MG/KG | 0.15  | 0.015  |      | 073SD-0048-0001-SD  | 0.94   | 0.15  | 0.015  |      | 1   | N/A      |
| 073SD-0047-0001-SD  | CADMIUM           | 0.89   | MG/KG | 0.15  | 0.045  |      | 073SD-0048-0001-SD  | 0.79   | 0.15  | 0.046  |      | 12  | N/A      |
| 073SD-0047-0001-SD  | CALCIUM           | 12000  | MG/KG | 15    | 3.8    |      | 073SD-0048-0001-SD  | 9800   | 15    | 3.8    |      | 20  | N/A      |
| 073SD-0047-0001-SD  | CHROMIUM          | 9.4    | MG/KG | 0.3   | 0.061  |      | 073SD-0048-0001-SD  | 8.2    | 0.31  | 0.061  |      | 14  | N/A      |
| 073SD-0047-0001-SD  | COBALT            | 11     | MG/KG | 0.076 | 0.015  |      | 073SD-0048-0001-SD  | 13     | 0.077 | 0.015  |      | 17  | N/A      |
| 073SD-0047-0001-SD  | COPPER            | 9.2    | MG/KG | 0.3   | 0.091  |      | 073SD-0048-0001-SD  | 9.7    | 0.31  | 0.092  |      | 5   | N/A      |
| 073SD-0047-0001-SD  | IRON              | 17000  | MG/KG | 15    | 3      |      | 073SD-0048-0001-SD  | 16000  | 7.7   | 3.1    |      | 6   | N/A      |
| 073SD-0047-0001-SD  | LEAD              | 0.18   | MG/KG | 0.15  | 0.045  |      | 073SD-0048-0001-SD  | 13     | 0.15  | 0.046  |      | N/A | No       |
| 073SD-0047-0001-SD  | MAGNESIUM         | 2800   | MG/KG | 15    | 3      |      | 073SD-0048-0001-SD  | 2400   | 15    | 3.1    |      | 15  | N/A      |
| 073SD-0047-0001-SD  | MANGANESE         | 2300   | MG/KG | 0.76  | 0.045  |      | 073SD-0048-0001-SD  | 2900   | 0.77  | 0.046  |      | 23  | N/A      |
| 073SD-0047-0001-SD  | NICKEL            | 21     | MG/KG | 0.15  | 0.045  |      | 073SD-0048-0001-SD  | 21     | 0.15  | 0.046  |      | 0   | N/A      |
| 073SD-0047-0001-SD  | POTASSIUM         | 490    | MG/KG | 15    | 9.1    |      | 073SD-0048-0001-SD  | 500    | 15    | 9.2    |      | 2   | N/A      |
| 073SD-0047-0001-SD  | SELENIUM          | 0.71   | MG/KG | 0.76  | 0.15   | J    | 073SD-0048-0001-SD  | 0.78   | 0.77  | 0.15   |      | N/A | Yes      |
| 073SD-0047-0001-SD  | SILVER            | 0.043  | MG/KG | 0.15  | 0.045  | J    | 073SD-0048-0001-SD  | 0.039  | 0.15  | 0.046  |      | N/A | Yes      |
| 073SD-0047-0001-SD  | SODIUM            | 80     | MG/KG | 15    |        |      | 073SD-0048-0001-SD  | 93     | 15    | 7.7    |      | 15  | N/A      |
| 073SD-0047-0001-SD  | THALLIUM          | 0.11   | MG/KG | 0.15  |        | J    | 073SD-0048-0001-SD  | 0.13   | 0.15  | 0.031  |      | N/A | Yes      |
| 073SD-0047-0001-SD  | VANADIUM          | 17     | MG/KG | 0.15  |        |      | 073SD-0048-0001-SD  | 17     | 0.15  | 0.092  |      | 0   | N/A      |
| 073SD-0047-0001-SD  | ZINC              | 49     | MG/KG | 0.76  |        |      | 073SD-0048-0001-SD  | 54     | 0.77  | 0.31   |      | 10  | N/A      |
| 073SD-0047-0001-SD  | MERCURY           | 0.035  | MG/KG | 0.14  | 0.048  | J    | 073SD-0048-0001-SD  | 0.032  | 0.16  | 0.054  |      | N/A | Yes      |
| 073SS-0002M-0001-SO | ALUMINUM          | 6900   | MG/KG | 8.4   | 3.4    |      | 073SS-0003M-0001-SO | 6600   | 9.4   | 3.8    |      | 4   | N/A      |
| 073SS-0002M-0001-SO | ANTIMONY          | 0.13   | MG/KG | 0.17  | 0.13   | R    | 073SS-0003M-0001-SO | 0.098  | 0.19  | 0.14   | J    | N/A | N/A      |
| 073SS-0002M-0001-SO | ARSENIC           | 9.4    | MG/KG | 0.42  | 0.13   | J-   | 073SS-0003M-0001-SO | 9.7    | 0.47  | 0.14   |      | 3   | N/A      |
| 073SS-0002M-0001-SO | BARIUM            | 48     | MG/KG | 0.42  | 0.25   |      | 073SS-0003M-0001-SO | 49     | 0.47  | 0.28   |      | 2   | N/A      |
| 073SS-0002M-0001-SO | BERYLLIUM         | 0.49   | MG/KG | 0.084 | 0.0084 |      | 073SS-0003M-0001-SO | 0.47   | 0.094 | 0.0094 |      | N/A | Yes      |
| 073SS-0002M-0001-SO | CADMIUM           | 0.22   | MG/KG | 0.17  | 0.0084 |      | 073SS-0003M-0001-SO | 0.21   | 0.19  | 0.0094 |      | N/A | Yes      |
| 073SS-0002M-0001-SO | CALCIUM           | 4400   | MG/KG | 170   | 84     |      | 073SS-0003M-0001-SO | 4700   | 190   | 94     |      | 7   | N/A      |
| 073SS-0002M-0001-SO | CHROMIUM          | 19     | MG/KG | 0.42  | 0.38   |      | 073SS-0003M-0001-SO | 17     | 0.47  | 0.42   |      | 11  | N/A      |
| 073SS-0002M-0001-SO | COBALT            | 6.8    | MG/KG | 0.084 | 0.013  |      | 073SS-0003M-0001-SO | 7.1    | 0.094 | 0.014  |      | 4   | N/A      |
| 073SS-0002M-0001-SO | COPPER            | 13     | MG/KG | 0.34  | 0.25   |      | 073SS-0003M-0001-SO | 14     | 0.38  | 0.28   |      | 7   | N/A      |
| 073SS-0002M-0001-SO | IRON              | 17000  | MG/KG | 42    | 25     |      | 073SS-0003M-0001-SO | 18000  | 47    | 28     |      | 6   | N/A      |

| Sample              | Analyte             | Result | Units | LOQ   | LOD   | Qual | Sample              | Result | LOQ   | LOD   | Qual | RPD | W/In LOQ |
|---------------------|---------------------|--------|-------|-------|-------|------|---------------------|--------|-------|-------|------|-----|----------|
| 073SS-0002M-0001-SO | LEAD                | 14     | MG/KG | 0.25  | 0.17  |      | 073SS-0003M-0001-SO | 15     | 0.28  | 0.19  |      | 7   | N/A      |
| 073SS-0002M-0001-SO | MAGNESIUM           | 2300   | MG/KG | 84    | 21    |      | 073SS-0003M-0001-SO | 2300   | 94    | 24    |      | 0   | N/A      |
| 073SS-0002M-0001-SO | MANGANESE           | 380    | MG/KG | 0.42  | 0.34  |      | 073SS-0003M-0001-SO | 410    | 0.47  | 0.38  |      | 8   | N/A      |
| 073SS-0002M-0001-SO | NICKEL              | 22     | MG/KG | 0.42  | 0.21  |      | 073SS-0003M-0001-SO | 22     | 0.47  | 0.24  |      | 0   | N/A      |
| 073SS-0002M-0001-SO | POTASSIUM           | 950    | MG/KG | 84    | 8.4   |      | 073SS-0003M-0001-SO | 840    | 94    | 9.4   |      | 12  | N/A      |
| 073SS-0002M-0001-SO | SELENIUM            | 0.47   | MG/KG | 0.42  | 0.05  | J-   | 073SS-0003M-0001-SO | 0.44   | 0.47  | 0.057 | J    | N/A | Yes      |
| 073SS-0002M-0001-SO | SILVER              | 0.38   | MG/KG | 0.084 | 0.042 |      | 073SS-0003M-0001-SO | 0.44   | 0.094 | 0.047 |      | N/A | Yes      |
| 073SS-0002M-0001-SO | SODIUM              | 42     | MG/KG | 84    | 34    | J    | 073SS-0003M-0001-SO | 40     | 94    | 38    | J    | N/A | Yes      |
| 073SS-0002M-0001-SO | THALLIUM            | 0.13   | MG/KG | 0.17  | 0.13  | U    | 073SS-0003M-0001-SO | 0.11   | 0.19  | 0.14  | J    | N/A | Yes      |
| 073SS-0002M-0001-SO | VANADIUM            | 11     | MG/KG | 0.42  | 0.084 |      | 073SS-0003M-0001-SO | 11     | 0.47  | 0.094 |      | 0   | N/A      |
| 073SS-0002M-0001-SO | ZINC                | 64     | MG/KG | 3.4   | 1.7   |      | 073SS-0003M-0001-SO | 64     | 3.8   | 1.9   |      | 0   | N/A      |
| 073SS-0002M-0001-SO | MERCURY             | 0.051  | MG/KG | 0.095 | 0.031 | U    | 073SS-0003M-0001-SO | 0.031  | 0.095 | 0.031 | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | ALDRIN              | 27     | UG/KG | 81    | 27    | U    | 073SS-0003M-0001-SO | 27     | 81    | 27    | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | ALPHA BHC           | 27     | UG/KG | 51    | 27    | U    | 073SS-0003M-0001-SO | 27     | 51    | 27    | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | ALPHA ENDOSULFAN    | 14     | UG/KG | 35    | 14    | U    | 073SS-0003M-0001-SO | 14     | 34    | 14    | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | ALPHA-CHLORDANE     | 27     | UG/KG | 61    | 27    | U    | 073SS-0003M-0001-SO | 27     | 61    | 27    | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | BETA BHC            | 27     | UG/KG | 71    | 27    | U    | 073SS-0003M-0001-SO | 27     | 71    | 27    | J    | N/A | Yes      |
| 073SS-0002M-0001-SO | BETA ENDOSULFAN     | 27     | UG/KG | 51    | 27    | U    | 073SS-0003M-0001-SO | 26     | 50    | 26    | J    | N/A | Yes      |
| 073SS-0002M-0001-SO | DELTA BHC           | 27     | UG/KG | 81    | 27    | U    | 073SS-0003M-0001-SO | 27     | 81    | 27    | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | DIELDRIN            | 14     | UG/KG | 35    | 14    | U    | 073SS-0003M-0001-SO | 14     | 34    | 14    | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | ENDOSULFAN SULFATE  | 27     | UG/KG | 61    | 27    | U    | 073SS-0003M-0001-SO | 27     | 61    | 27    | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | ENDRIN              | 14     | UG/KG | 35    | 14    | U    | 073SS-0003M-0001-SO | 14     | 34    | 14    | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | ENDRIN ALDEHYDE     | 27     | UG/KG | 61    | 27    | U    | 073SS-0003M-0001-SO | 27     | 61    | 27    | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | ENDRIN KETONE       | 14     | UG/KG | 41    | 14    | U    | 073SS-0003M-0001-SO | 14     | 40    | 14    | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | GAMMA BHC (LINDANE) | 27     | UG/KG | 51    | 27    | U    | 073SS-0003M-0001-SO | 27     | 51    | 27    | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | GAMMA-CHLORDANE     | 14     | UG/KG | 35    | 14    | U    | 073SS-0003M-0001-SO | 14     | 34    | 14    | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | HEPTACHLOR          | 27     | UG/KG | 71    | 27    | U    | 073SS-0003M-0001-SO | 27     | 71    | 27    | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | HEPTACHLOR EPOXIDE  | 27     | UG/KG | 51    | 27    | U    | 073SS-0003M-0001-SO | 26     | 50    | 26    | J    | N/A | Yes      |
| 073SS-0002M-0001-SO | METHOXYCHLOR        | 67     | UG/KG | 100   | 67    | U    | 073SS-0003M-0001-SO | 67     | 100   | 67    | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | P,P'-DDD            | 14     | UG/KG | 41    | 14    | U    | 073SS-0003M-0001-SO | 13     | 40    | 13    | J    | N/A | Yes      |
| 073SS-0002M-0001-SO | P,P'-DDE            | 14     | UG/KG | 35    | 14    | U    | 073SS-0003M-0001-SO | 14     | 34    | 14    | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | P,P'-DDT            | 14     | UG/KG | 41    | 14    | U    | 073SS-0003M-0001-SO | 14     | 40    | 14    | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | TOXAPHENE           | 410    | UG/KG | 1400  | 410   | UJ   | 073SS-0003M-0001-SO | 400    | 1400  | 400   | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | PCB-1016            | 25     | UG/KG | 66    | 25    | U    | 073SS-0003M-0001-SO | 25     | 66    | 25    | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | PCB-1221            | 25     | UG/KG | 51    | 25    | U    | 073SS-0003M-0001-SO | 25     | 51    | 25    | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | PCB-1232            | 25     | UG/KG | 46    | 25    | U    | 073SS-0003M-0001-SO | 25     | 46    | 25    | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | PCB-1242            | 25     | UG/KG | 41    | 25    | U    | 073SS-0003M-0001-SO | 25     | 40    | 25    | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | PCB-1248            | 25     | UG/KG | 56    | 25    | U    | 073SS-0003M-0001-SO | 25     | 56    | 25    | U    | N/A | Yes      |

| Sample              | Analyte                   | Result | Units | LOQ | LOD  | Qual | Sample              | Result | LOQ | LOD  | Qual | RPD | W/In LOQ |
|---------------------|---------------------------|--------|-------|-----|------|------|---------------------|--------|-----|------|------|-----|----------|
| 073SS-0002M-0001-SO | PCB-1254                  | 25     | UG/KG | 56  | 25   | U    | 073SS-0003M-0001-SO | 25     | 56  | 25   | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | PCB-1260                  | 25     | UG/KG | 56  | 25   | U    | 073SS-0003M-0001-SO | 25     | 56  | 25   | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | 1,1,1-TRICHLOROETHANE     | 1.3    | UG/KG | 6.7 | 1.3  | U    | 073SS-0003M-0001-SO | 1.5    | 7.5 | 1.5  | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | 1,1,2,2-TETRACHLOROETHANE | 0.67   | UG/KG | 6.7 | 0.67 | UJ   | 073SS-0003M-0001-SO | 0.75   | 7.5 | 0.75 | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | 1,1,2-TRICHLOROETHANE     | 0.67   | UG/KG | 6.7 | 0.67 | U    | 073SS-0003M-0001-SO | 0.75   | 7.5 | 0.75 | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | 1,1-DICHLOROETHANE        | 0.67   | UG/KG | 6.7 | 0.67 | U    | 073SS-0003M-0001-SO | 0.75   | 7.5 | 0.75 | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | 1,1-DICHLOROETHENE        | 1.3    | UG/KG | 6.7 | 1.3  | U    | 073SS-0003M-0001-SO | 1.5    | 7.5 | 1.5  | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | 1,2-DIBROMOETHANE         | 1.3    | UG/KG | 6.7 | 1.3  | U    | 073SS-0003M-0001-SO | 1.5    | 7.5 | 1.5  | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | 1,2-DICHLOROETHANE        | 0.67   | UG/KG | 6.7 | 0.67 | U    | 073SS-0003M-0001-SO | 0.75   | 7.5 | 0.75 | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | 1,2-DICHLOROPROPANE       | 1.3    | UG/KG | 6.7 | 1.3  | U    | 073SS-0003M-0001-SO | 1.5    | 7.5 | 1.5  | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | 2-HEXANONE                | 1.3    | UG/KG | 27  | 1.3  | U    | 073SS-0003M-0001-SO | 1.5    | 30  | 1.5  | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | ACETONE                   | 8.4    | UG/KG | 27  | 8.4  | U    | 073SS-0003M-0001-SO | 9.5    | 30  | 9.5  | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | BENZENE                   | 0.67   | UG/KG | 6.7 | 0.67 | U    | 073SS-0003M-0001-SO | 0.75   | 7.5 | 0.75 | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | BROMOCHLOROMETHANE        | 1.3    | UG/KG | 6.7 | 1.3  | U    | 073SS-0003M-0001-SO | 1.5    | 7.5 | 1.5  | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | BROMODICHLOROMETHANE      | 0.67   | UG/KG | 6.7 | 0.67 | U    | 073SS-0003M-0001-SO | 0.75   | 7.5 | 0.75 | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | BROMOFORM                 | 0.67   | UG/KG | 6.7 | 0.67 | U    | 073SS-0003M-0001-SO | 0.75   | 7.5 | 0.75 | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | BROMOMETHANE              | 1.3    | UG/KG | 6.7 | 1.3  | U    | 073SS-0003M-0001-SO | 1.5    | 7.5 | 1.5  | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | CARBON DISULFIDE          | 0.67   | UG/KG | 6.7 | 0.67 | U    | 073SS-0003M-0001-SO | 1.3    | 7.5 | 0.75 | J    | N/A | Yes      |
| 073SS-0002M-0001-SO | CARBON TETRACHLORIDE      | 0.67   | UG/KG | 6.7 | 0.67 | U    | 073SS-0003M-0001-SO | 0.75   | 7.5 | 0.75 | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | CHLOROBENZENE             | 0.67   | UG/KG | 6.7 | 0.67 | U    | 073SS-0003M-0001-SO | 0.75   | 7.5 | 0.75 | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | CHLOROETHANE              | 1.3    | UG/KG | 6.7 | 1.3  | U    | 073SS-0003M-0001-SO | 1.5    | 7.5 | 1.5  | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | CHLOROFORM                | 0.67   | UG/KG | 6.7 | 0.67 | U    | 073SS-0003M-0001-SO | 0.75   | 7.5 | 0.75 | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | CHLOROMETHANE             | 0.67   | UG/KG | 6.7 | 0.67 | U    | 073SS-0003M-0001-SO | 0.75   | 7.5 | 0.75 | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | CIS-1,3-DICHLOROPROPENE   | 0.67   | UG/KG | 6.7 | 0.67 | U    | 073SS-0003M-0001-SO | 0.75   | 7.5 | 0.75 | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | DIBROMOCHLOROMETHANE      | 1.3    | UG/KG | 6.7 | 1.3  | U    | 073SS-0003M-0001-SO | 1.5    | 7.5 | 1.5  | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | ETHYLBENZENE              | 0.67   | UG/KG | 6.7 | 0.67 | U    | 073SS-0003M-0001-SO | 0.75   | 7.5 | 0.75 | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | METHYL ETHYL KETONE       | 2.7    | UG/KG | 27  | 2.7  | U    | 073SS-0003M-0001-SO | 3      | 30  | 3    | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | METHYL ISOBUTYL KETONE    | 1.3    | UG/KG | 27  | 1.3  | U    | 073SS-0003M-0001-SO | 1.5    | 30  | 1.5  | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | METHYLENE CHLORIDE        | 1.3    | UG/KG | 6.7 | 1.3  | U    | 073SS-0003M-0001-SO | 1.5    | 7.5 | 1.5  | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | STYRENE                   | 0.67   | UG/KG | 6.7 | 0.67 | U    | 073SS-0003M-0001-SO | 0.75   | 7.5 | 0.75 | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | TERT-BUTYL METHYL ETHER   | 0.67   | UG/KG | 6.7 | 0.67 | U    | 073SS-0003M-0001-SO | 0.75   | 7.5 | 0.75 | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | TETRACHLOROETHYLENE       | 1.3    | UG/KG | 6.7 | 1.3  | U    | 073SS-0003M-0001-SO | 1.5    | 7.5 | 1.5  | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | TOLUENE                   | 0.67   | UG/KG | 6.7 | 0.67 | U    | 073SS-0003M-0001-SO | 0.75   | 7.5 | 0.75 | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | TOTAL 1,2-DICHLOROETHENE  | 1.3    | UG/KG | 13  | 1.3  | U    | 073SS-0003M-0001-SO | 1.5    | 15  | 1.5  | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | TRANS-1,3-DICHLOROPROPENE | 1.3    | UG/KG | 6.7 | 1.3  | U    | 073SS-0003M-0001-SO | 1.5    | 7.5 | 1.5  | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | TRICHLOROETHYLENE         | 0.67   | UG/KG | 6.7 | 0.67 | U    | 073SS-0003M-0001-SO | 0.75   | 7.5 | 0.75 | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | VINYL CHLORIDE            | 0.67   | UG/KG | 6.7 | 0.67 | U    | 073SS-0003M-0001-SO | 0.75   | 7.5 | 0.75 | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | XYLENES, TOTAL            | 2      | UG/KG | 13  | 2    | U    | 073SS-0003M-0001-SO | 2.3    | 15  | 2.3  | U    | N/A | Yes      |

| Sample              | Analyte                     | Result | Units | LOQ  | LOD  | Qual | Sample              | Result | LOQ | LOD | Qual | RPD | W/In LOQ |
|---------------------|-----------------------------|--------|-------|------|------|------|---------------------|--------|-----|-----|------|-----|----------|
| 073SS-0002M-0001-SO | 1,2,4-TRICHLOROBENZENE      | 110    | UG/KG | 200  | 110  | U    | 073SS-0003M-0001-SO | 27     | 51  | 27  | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | 1,2-DICHLOROBENZENE         | 110    | UG/KG | 200  | 110  | U    | 073SS-0003M-0001-SO | 27     | 51  | 27  | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | 1,3-DICHLOROBENZENE         | 110    | UG/KG | 200  | 110  | U    | 073SS-0003M-0001-SO | 27     | 51  | 27  | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | 1,4-DICHLOROBENZENE         | 110    | UG/KG | 200  | 110  | U    | 073SS-0003M-0001-SO | 27     | 51  | 27  | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | 2,4,5-TRICHLOROPHENOL       | 110    | UG/KG | 610  | 110  | U    | 073SS-0003M-0001-SO | 27     | 150 | 27  | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | 2,4,6-TRICHLOROPHENOL       | 320    | UG/KG | 610  | 320  | U    | 073SS-0003M-0001-SO | 81     | 150 | 81  | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | 2,4-DICHLOROPHENOL          | 110    | UG/KG | 610  | 110  | U    | 073SS-0003M-0001-SO | 27     | 150 | 27  | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | 2,4-DIMETHYLPHENOL          | 320    | UG/KG | 610  | 320  | U    | 073SS-0003M-0001-SO | 81     | 150 | 81  | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | 2,4-DINITROPHENOL           | 320    | UG/KG | 1300 | 320  | UJ   | 073SS-0003M-0001-SO | 81     | 330 | 81  | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | 2,4-DINITROTOLUENE          | 110    | UG/KG | 810  | 110  | R    | 073SS-0003M-0001-SO | 27     | 200 | 27  | U    | N/A | N/A      |
| 073SS-0002M-0001-SO | 2,6-DINITROTOLUENE          | 110    | UG/KG | 810  | 110  | R    | 073SS-0003M-0001-SO | 27     | 200 | 27  | U    | N/A | N/A      |
| 073SS-0002M-0001-SO | 2-CHLORONAPHTHALENE         | 13     | UG/KG | 200  | 13   | U    | 073SS-0003M-0001-SO | 3.3    | 51  | 3.3 | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | 2-CHLOROPHENOL              | 110    | UG/KG | 200  | 110  | U    | 073SS-0003M-0001-SO | 27     | 51  | 27  | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | 2-METHYLNAPHTHALENE         | 90     | UG/KG | 27   | 13   |      | 073SS-0003M-0001-SO | 62     | 6.8 | 3.3 |      | N/A | No       |
| 073SS-0002M-0001-SO | 2-METHYLPHENOL (O-CRESOL)   | 320    | UG/KG | 810  | 320  | U    | 073SS-0003M-0001-SO | 81     | 200 | 81  | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | 2-NITROANILINE              | 110    | UG/KG | 810  | 110  | U    | 073SS-0003M-0001-SO | 27     | 200 | 27  | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | 2-NITROPHENOL               | 110    | UG/KG | 200  | 110  | U    | 073SS-0003M-0001-SO | 27     | 51  | 27  | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | 3,3'-DICHLOROBENZIDINE      | 320    | UG/KG | 400  | 320  | UJ   | 073SS-0003M-0001-SO | 81     | 100 | 81  | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | 3-NITROANILINE              | 320    | UG/KG | 810  | 320  | U    | 073SS-0003M-0001-SO | 81     | 200 | 81  | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | 4,6-DINITRO-2-METHYLPHENOL  | 320    | UG/KG | 610  | 320  | U    | 073SS-0003M-0001-SO | 81     | 150 | 81  | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | 4-BROMOPHENYL PHENYL ETHER  | 110    | UG/KG | 200  | 110  | U    | 073SS-0003M-0001-SO | 27     | 51  | 27  | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | 4-CHLORO-3-METHYLPHENOL     | 110    | UG/KG | 610  | 110  | U    | 073SS-0003M-0001-SO | 27     | 150 | 27  | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | 4-CHLOROANILINE             | 110    | UG/KG | 610  | 110  | U    | 073SS-0003M-0001-SO | 27     | 150 | 27  | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | 4-CHLOROPHENYL PHENYL ETHER | 110    | UG/KG | 200  | 110  | U    | 073SS-0003M-0001-SO | 27     | 51  | 27  | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | 4-NITROANILINE              | 110    | UG/KG | 810  | 110  | U    | 073SS-0003M-0001-SO | 27     | 200 | 27  | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | 4-NITROPHENOL               | 320    | UG/KG | 1300 | 320  | U    | 073SS-0003M-0001-SO | 81     | 330 | 81  | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | ACENAPHTHENE                | 13     | UG/KG | 27   | 13   | U    | 073SS-0003M-0001-SO | 3.3    | 6.8 | 3.3 | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | ACENAPHTHYLENE              | 13     | UG/KG | 27   | 13   | U    | 073SS-0003M-0001-SO | 6.6    | 6.8 | 3.3 | J    | N/A | Yes      |
| 073SS-0002M-0001-SO | ANTHRACENE                  | 13     | UG/KG | 27   | 13   | U    | 073SS-0003M-0001-SO | 16     | 6.8 | 3.3 |      | N/A | Yes      |
| 073SS-0002M-0001-SO | BENZO(A)ANTHRACENE          | 52     | UG/KG | 27   | 13   |      | 073SS-0003M-0001-SO | 57     | 6.8 | 3.3 |      | N/A | Yes      |
| 073SS-0002M-0001-SO | BENZO(A)PYRENE              | 87     | UG/KG | 27   | 13   |      | 073SS-0003M-0001-SO | 65     | 6.8 | 3.3 |      | N/A | Yes      |
| 073SS-0002M-0001-SO | BENZO(B)FLUORANTHENE        | 120    | UG/KG | 27   | 13   |      | 073SS-0003M-0001-SO | 110    | 6.8 | 3.3 |      | N/A | Yes      |
| 073SS-0002M-0001-SO | BENZO(G,H,I)PERYLENE        | 29     | UG/KG | 27   | 13   | J    | 073SS-0003M-0001-SO | 47     | 6.8 | 3.3 |      | N/A | Yes      |
| 073SS-0002M-0001-SO | BENZO(K)FLUORANTHENE        | 26     | UG/KG | 27   | 13   | J    | 073SS-0003M-0001-SO | 29     | 6.8 | 3.3 |      | N/A | Yes      |
| 073SS-0002M-0001-SO | BENZOIC ACID                | 1300   | UG/KG | 2700 | 1300 | U    | 073SS-0003M-0001-SO | 340    | 670 | 340 | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | BENZYL ALCOHOL              | 110    | UG/KG | 1300 | 110  | U    | 073SS-0003M-0001-SO | 27     | 330 | 27  | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | BENZYL BUTYL PHTHALATE      | 110    | UG/KG | 200  | 110  | U    | 073SS-0003M-0001-SO | 27     | 51  | 27  | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | BIS(2-CHLOROETHOXY) METHANE | 110    | UG/KG | 400  | 110  | U    | 073SS-0003M-0001-SO | 27     | 100 | 27  | U    | N/A | Yes      |



| Sample              | Analyte                      | Result | Units | LOQ  | LOD   | Qual | Sample              | Result | LOQ  | LOD  | Qual | RPD | W/In LOQ |
|---------------------|------------------------------|--------|-------|------|-------|------|---------------------|--------|------|------|------|-----|----------|
| 073SS-0002M-0001-SO | BIS(2-CHLOROETHYL) ETHER     | 13     | UG/KG | 400  | 13    | U    | 073SS-0003M-0001-SO | 3.3    | 100  | 3.3  | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | BIS(2-CHLOROISOPROPYL) ETHER | 110    | UG/KG | 400  | 110   | U    | 073SS-0003M-0001-SO | 27     | 100  | 27   | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | BIS(2-ETHYLHEXYL) PHTHALATE  | 110    | UG/KG | 200  | 110   | U    | 073SS-0003M-0001-SO | 27     | 51   | 27   | J    | N/A | Yes      |
| 073SS-0002M-0001-SO | CARBAZOLE                    | 110    | UG/KG | 200  | 110   | U    | 073SS-0003M-0001-SO | 27     | 51   | 27   | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | CHRYSENE                     | 80     | UG/KG | 27   | 13    |      | 073SS-0003M-0001-SO | 71     | 6.8  | 3.3  |      | N/A | Yes      |
| 073SS-0002M-0001-SO | CRESOLS, M & P               | 320    | UG/KG | 1600 | 320   | U    | 073SS-0003M-0001-SO | 81     | 410  | 81   | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | DIBENZ(A,H)ANTHRACENE        | 13     | UG/KG | 27   | 13    | UJ   | 073SS-0003M-0001-SO | 3.3    | 6.8  | 3.3  | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | DIBENZOFURAN                 | 23     | UG/KG | 200  | 13    | J    | 073SS-0003M-0001-SO | 15     | 51   | 3.3  | J    | N/A | Yes      |
| 073SS-0002M-0001-SO | DIETHYL PHTHALATE            | 110    | UG/KG | 200  | 110   | U    | 073SS-0003M-0001-SO | 27     | 51   | 27   | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | DIMETHYL PHTHALATE           | 110    | UG/KG | 200  | 110   | U    | 073SS-0003M-0001-SO | 27     | 51   | 27   | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | DI-N-BUTYL PHTHALATE         | 110    | UG/KG | 200  | 110   | U    | 073SS-0003M-0001-SO | 27     | 51   | 27   | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | DI-N-OCTYLPHTHALATE          | 110    | UG/KG | 200  | 110   | U    | 073SS-0003M-0001-SO | 27     | 51   | 27   | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | FLUORANTHENE                 | 99     | UG/KG | 27   | 13    |      | 073SS-0003M-0001-SO | 120    | 6.8  | 3.3  |      | N/A | Yes      |
| 073SS-0002M-0001-SO | FLUORENE                     | 13     | UG/KG | 27   | 13    | U    | 073SS-0003M-0001-SO | 8.5    | 6.8  | 3.3  |      | N/A | Yes      |
| 073SS-0002M-0001-SO | HEXACHLOROBENZENE            | 13     | UG/KG | 27   | 13    | U    | 073SS-0003M-0001-SO | 3.3    | 6.8  | 3.3  | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | HEXACHLOROBUTADIENE          | 110    | UG/KG | 200  | 110   | U    | 073SS-0003M-0001-SO | 27     | 51   | 27   | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | HEXACHLOROCYCLOPENTADIENE    | 110    | UG/KG | 1300 | 110   | U    | 073SS-0003M-0001-SO | 27     | 330  | 27   | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | HEXACHLOROETHANE             | 110    | UG/KG | 200  | 110   | U    | 073SS-0003M-0001-SO | 27     | 51   | 27   | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | INDENO(1,2,3-C,D)PYRENE      | 54     | UG/KG | 27   | 13    | J    | 073SS-0003M-0001-SO | 46     | 6.8  | 3.3  |      | N/A | Yes      |
| 073SS-0002M-0001-SO | ISOPHORONE                   | 110    | UG/KG | 200  | 110   | U    | 073SS-0003M-0001-SO | 27     | 51   | 27   | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | NAPHTHALENE                  | 63     | UG/KG | 27   | 13    |      | 073SS-0003M-0001-SO | 49     | 6.6  | 3.2  |      | N/A | Yes      |
| 073SS-0002M-0001-SO | NITROBENZENE                 | 13     | UG/KG | 400  | 13    | U    | 073SS-0003M-0001-SO | 3.3    | 100  | 3.3  | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | N-NITROSODI-N-PROPYLAMINE    | 110    | UG/KG | 200  | 110   | U    | 073SS-0003M-0001-SO | 27     | 51   | 27   | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | N-NITROSODIPHENYLAMINE       | 110    | UG/KG | 200  | 110   | U    | 073SS-0003M-0001-SO | 27     | 51   | 27   | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | PENTACHLOROPHENOL            | 320    | UG/KG | 610  | 320   | U    | 073SS-0003M-0001-SO | 81     | 150  | 81   | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | PHENANTHRENE                 | 61     | UG/KG | 27   | 13    |      | 073SS-0003M-0001-SO | 71     | 6.8  | 3.3  |      | N/A | Yes      |
| 073SS-0002M-0001-SO | PHENOL                       | 110    | UG/KG | 200  | 110   | U    | 073SS-0003M-0001-SO | 27     | 51   | 27   | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | PYRENE                       | 78     | UG/KG | 27   | 13    |      | 073SS-0003M-0001-SO | 88     | 6.6  | 3.2  |      | N/A | Yes      |
| 073SS-0002M-0001-SO | 1,3,5-TRINITROBENZENE        | 0.049  | MG/KG | 0.25 | 0.049 | U    | 073SS-0003M-0001-SO | 0.05   | 0.25 | 0.05 | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | 1,3-DINITROBENZENE           | 0.049  | MG/KG | 0.25 | 0.049 | U    | 073SS-0003M-0001-SO | 0.05   | 0.25 | 0.05 | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | 2,4,6-TRINITROTOLUENE        | 0.049  | MG/KG | 0.25 | 0.049 | U    | 073SS-0003M-0001-SO | 0.05   | 0.25 | 0.05 | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | 2,4-DINITROTOLUENE           | 0.049  | MG/KG | 0.25 | 0.049 | U    | 073SS-0003M-0001-SO | 0.05   | 0.25 | 0.05 | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | 2,6-DINITROTOLUENE           | 0.049  | MG/KG | 0.25 | 0.049 | U    | 073SS-0003M-0001-SO | 0.05   | 0.25 | 0.05 | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | 2-AMINO-4,6-DINITROTOLUENE   | 0.049  | MG/KG | 0.25 | 0.049 | U    | 073SS-0003M-0001-SO | 0.05   | 0.25 | 0.05 | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | 2-NITROTOLUENE               | 0.049  | MG/KG | 0.25 | 0.049 | UJ   | 073SS-0003M-0001-SO | 0.05   | 0.25 | 0.05 | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | 3-NITROTOLUENE               | 0.049  | MG/KG | 0.25 | 0.049 | U    | 073SS-0003M-0001-SO | 0.05   | 0.25 | 0.05 | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | 4-AMINO-2,6-DINITROTOLUENE   | 0.049  | MG/KG | 0.25 | 0.049 | U    | 073SS-0003M-0001-SO | 0.05   | 0.25 | 0.05 | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | 4-NITROTOLUENE               | 0.049  | MG/KG | 0.25 | 0.049 | U    | 073SS-0003M-0001-SO | 0.05   | 0.25 | 0.05 | U    | N/A | Yes      |

| Sample              | Analyte                | Result | Units | LOQ  | LOD   | Qual | Sample              | Result | LOQ  | LOD   | Qual | RPD | W/In LOQ |
|---------------------|------------------------|--------|-------|------|-------|------|---------------------|--------|------|-------|------|-----|----------|
| 073SS-0002M-0001-SO | HMX                    | 0.049  | MG/KG | 0.25 | 0.049 | U    | 073SS-0003M-0001-SO | 0.05   | 0.25 | 0.05  | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | NITROBENZENE           | 0.049  | MG/KG | 0.25 | 0.049 | R    | 073SS-0003M-0001-SO | 0.05   | 0.25 | 0.05  | U    | N/A | N/A      |
| 073SS-0002M-0001-SO | NITROGLYCERIN          | 0.25   | MG/KG | 0.49 | 0.25  | U    | 073SS-0003M-0001-SO | 0.25   | 0.5  | 0.25  | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | PETN                   | 0.25   | MG/KG | 0.49 | 0.25  | U    | 073SS-0003M-0001-SO | 0.25   | 0.5  | 0.25  | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | RDX                    | 0.049  | MG/KG | 0.25 | 0.049 | UJ   | 073SS-0003M-0001-SO | 0.05   | 0.25 | 0.05  | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | TETRYL                 | 0.049  | MG/KG | 0.25 | 0.049 | U    | 073SS-0003M-0001-SO | 0.024  | 0.25 | 0.05  | J    | N/A | Yes      |
| 073SS-0002M-0001-SO | Nitroguanidine         | 0.039  | MG/KG | 0.25 | 0.039 | U    | 073SS-0003M-0001-SO | 0.039  | 0.24 | 0.039 | U    | N/A | Yes      |
| 073SS-0002M-0001-SO | NITROCELLULOSE         | 17     | MG/KG | 47   | 17    | U    | 073SS-0003M-0001-SO | 17     | 48   | 17    | U    | N/A | Yes      |
| 073SW-0058-0001-SW  | ALUMINUM               | 130    | UG/L  | 30   | 5     |      | 073SW-0059-0001-SW  | 140    | 30   | 5     |      | N/A | Yes      |
| 073SW-0058-0001-SW  | ANTIMONY               | 0.9    | UG/L  | 2    | 0.9   | J    | 073SW-0059-0001-SW  | 0.9    | 2    | 0.9   | U    | N/A | Yes      |
| 073SW-0058-0001-SW  | ARSENIC                | 0.5    | UG/L  | 1    | 0.5   | U    | 073SW-0059-0001-SW  | 0.66   | 1    | 0.5   | J    | N/A | Yes      |
| 073SW-0058-0001-SW  | BARIUM                 | 18     | UG/L  | 10   | 0.15  |      | 073SW-0059-0001-SW  | 20     | 10   | 0.15  |      | N/A | Yes      |
| 073SW-0058-0001-SW  | BERYLLIUM              | 0.09   | UG/L  | 1    | 0.09  | U    | 073SW-0059-0001-SW  | 0.057  | 1    | 0.09  | J    | N/A | Yes      |
| 073SW-0058-0001-SW  | CADMIUM                | 0.3    | UG/L  | 1    | 0.3   | U    | 073SW-0059-0001-SW  | 0.3    | 1    | 0.3   | U    | N/A | Yes      |
| 073SW-0058-0001-SW  | CALCIUM                | 28000  | UG/L  | 100  | 20    |      | 073SW-0059-0001-SW  | 28000  | 100  | 20    |      | N/A | Yes      |
| 073SW-0058-0001-SW  | CHROMIUM               | 1.8    | UG/L  | 2    | 1     | J    | 073SW-0059-0001-SW  | 1.4    | 2    | 1     | J    | N/A | Yes      |
| 073SW-0058-0001-SW  | COBALT                 | 0.05   | UG/L  | 0.5  | 0.05  | J    | 073SW-0059-0001-SW  | 0.05   | 0.5  | 0.05  | J    | N/A | Yes      |
| 073SW-0058-0001-SW  | COPPER                 | 2.3    | UG/L  | 2    | 0.5   |      | 073SW-0059-0001-SW  | 2      | 2    | 0.5   |      | N/A | Yes      |
| 073SW-0058-0001-SW  | IRON                   | 650    | UG/L  | 50   | 20    |      | 073SW-0059-0001-SW  | 840    | 50   | 20    |      | 26  | N/A      |
| 073SW-0058-0001-SW  | LEAD                   | 0.3    | UG/L  | 1    | 0.3   | U    | 073SW-0059-0001-SW  | 0.3    | 1    | 0.3   | U    | N/A | Yes      |
| 073SW-0058-0001-SW  | MAGNESIUM              | 6200   | UG/L  | 100  | 22    |      | 073SW-0059-0001-SW  | 6200   | 100  | 22    |      | 0   | N/A      |
| 073SW-0058-0001-SW  | MANGANESE              | 160    | UG/L  | 5    | 0.3   |      | 073SW-0059-0001-SW  | 200    | 5    | 0.3   |      | 22  | N/A      |
| 073SW-0058-0001-SW  | NICKEL                 | 0.32   | UG/L  | 1    | 0.35  | J    | 073SW-0059-0001-SW  | 0.33   | 1    | 0.35  | J    | N/A | Yes      |
| 073SW-0058-0001-SW  | POTASSIUM              | 1300   | UG/L  | 100  | 60    |      | 073SW-0059-0001-SW  | 1300   | 100  | 60    |      | 0   | N/A      |
| 073SW-0058-0001-SW  | SELENIUM               | 1      | UG/L  | 5    | 1     | U    | 073SW-0059-0001-SW  | 1      | 5    | 1     | U    | N/A | Yes      |
| 073SW-0058-0001-SW  | SILVER                 | 0.2    | UG/L  | 1    | 0.2   | U    | 073SW-0059-0001-SW  | 0.2    | 1    | 0.2   | U    | N/A | Yes      |
| 073SW-0058-0001-SW  | SODIUM                 | 18000  | UG/L  | 100  | 55    |      | 073SW-0059-0001-SW  | 18000  | 100  | 55    |      | 0   | N/A      |
| 073SW-0058-0001-SW  | THALLIUM               | 0.2    | UG/L  | 1    | 0.2   | U    | 073SW-0059-0001-SW  | 0.2    | 1    | 0.2   | U    | N/A | Yes      |
| 073SW-0058-0001-SW  | VANADIUM               | 0.6    | UG/L  | 1    | 0.6   | U    | 073SW-0059-0001-SW  | 0.6    | 1    | 0.6   | U    | N/A | Yes      |
| 073SW-0058-0001-SW  | ZINC                   | 3.2    | UG/L  | 5    | 2     | J    | 073SW-0059-0001-SW  | 3.1    | 5    | 2     | J    | N/A | Yes      |
| 073SW-0058-0001-SW  | MERCURY                | 0.2    | UG/L  | 0.2  | 0.2   | U    | 073SW-0059-0001-SW  | 0.2    | 0.2  | 0.2   | U    | N/A | Yes      |
| 073SW-0058-0001-SW  | 1,2,4-TRICHLOROBENZENE | 0.83   | UG/L  | 1    | 0.83  | U    | 073SW-0059-0001-SW  | 0.86   | 1.1  | 0.86  | U    | N/A | Yes      |
| 073SW-0058-0001-SW  | 1,2-DICHLOROBENZENE    | 0.83   | UG/L  | 1    | 0.83  | U    | 073SW-0059-0001-SW  | 0.86   | 1.1  | 0.86  | U    | N/A | Yes      |
| 073SW-0058-0001-SW  | 1,3-DICHLOROBENZENE    | 0.83   | UG/L  | 1    | 0.83  | U    | 073SW-0059-0001-SW  | 0.86   | 1.1  | 0.86  | U    | N/A | Yes      |
| 073SW-0058-0001-SW  | 1,4-DICHLOROBENZENE    | 0.83   | UG/L  | 1    | 0.83  | U    | 073SW-0059-0001-SW  | 0.86   | 1.1  | 0.86  | U    | N/A | Yes      |
| 073SW-0058-0001-SW  | 2,4,5-TRICHLOROPHENOL  | 0.83   | UG/L  | 5.2  | 0.83  | U    | 073SW-0059-0001-SW  | 0.86   | 5.4  | 0.86  | U    | N/A | Yes      |
| 073SW-0058-0001-SW  | 2,4,6-TRICHLOROPHENOL  | 0.83   | UG/L  | 5.2  | 0.83  | U    | 073SW-0059-0001-SW  | 0.86   | 5.4  | 0.86  | U    | N/A | Yes      |
| 073SW-0058-0001-SW  | 2,4-DICHLOROPHENOL     | 0.83   | UG/L  | 2.1  | 0.83  | U    | 073SW-0059-0001-SW  | 0.86   | 2.2  | 0.86  | U    | N/A | Yes      |

| Sample             | Analyte                          | Result | Units | LOQ  | LOD  | Qual | Sample             | Result | LOQ  | LOD  | Qual | RPD | W/In LOQ |
|--------------------|----------------------------------|--------|-------|------|------|------|--------------------|--------|------|------|------|-----|----------|
| 073SW-0058-0001-SW | 2,4-DIMETHYLPHENOL               | 0.83   | UG/L  | 2.1  | 0.83 | U    | 073SW-0059-0001-SW | 0.86   | 2.2  | 0.86 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | 2,4-DINITROPHENOL                | 2.5    | UG/L  | 5.2  | 2.5  | U    | 073SW-0059-0001-SW | 2.6    | 5.4  | 2.6  | U    | N/A | Yes      |
| 073SW-0058-0001-SW | 2,4-DINITROTOLUENE               | 0.83   | UG/L  | 5.2  | 0.83 | U    | 073SW-0059-0001-SW | 0.86   | 5.4  | 0.86 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | 2,6-DINITROTOLUENE               | 0.83   | UG/L  | 5.2  | 0.83 | U    | 073SW-0059-0001-SW | 0.86   | 5.4  | 0.86 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | 2-CHLORONAPHTHALENE              | 0.1    | UG/L  | 1    | 0.1  | U    | 073SW-0059-0001-SW | 0.11   | 1.1  | 0.11 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | 2-CHLOROPHENOL                   | 0.83   | UG/L  | 1    | 0.83 | U    | 073SW-0059-0001-SW | 0.86   | 1.1  | 0.86 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | 2-METHYLNAPHTHALENE              | 0.1    | UG/L  | 0.21 | 0.1  | U    | 073SW-0059-0001-SW | 0.11   | 0.22 | 0.11 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | 2-METHYLPHENOL (O-CRESOL)        | 0.83   | UG/L  | 1    | 0.83 | U    | 073SW-0059-0001-SW | 0.86   | 1.1  | 0.86 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | 2-NITROANILINE                   | 0.83   | UG/L  | 2.1  | 0.83 | U    | 073SW-0059-0001-SW | 0.86   | 2.2  | 0.86 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | 2-NITROPHENOL                    | 0.83   | UG/L  | 2.1  | 0.83 | U    | 073SW-0059-0001-SW | 0.86   | 2.2  | 0.86 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | 3,3'-DICHLOROBENZIDINE           | 0.83   | UG/L  | 5.2  | 0.83 | U    | 073SW-0059-0001-SW | 0.86   | 5.4  | 0.86 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | 3-NITROANILINE                   | 0.83   | UG/L  | 2.1  | 0.83 | U    | 073SW-0059-0001-SW | 0.86   | 2.2  | 0.86 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | 4,6-DINITRO-2-METHYLPHENOL       | 2.5    | UG/L  | 5.2  | 2.5  | U    | 073SW-0059-0001-SW | 2.6    | 5.4  | 2.6  | U    | N/A | Yes      |
| 073SW-0058-0001-SW | 4-BROMOPHENYL PHENYL ETHER       | 0.83   | UG/L  | 2.1  | 0.83 | U    | 073SW-0059-0001-SW | 0.86   | 2.2  | 0.86 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | 4-CHLORO-3-METHYLPHENOL          | 0.83   | UG/L  | 2.1  | 0.83 | U    | 073SW-0059-0001-SW | 0.86   | 2.2  | 0.86 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | 4-CHLOROANILINE                  | 0.83   | UG/L  | 2.1  | 0.83 | U    | 073SW-0059-0001-SW | 0.86   | 2.2  | 0.86 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | 4-CHLOROPHENYL PHENYL ETHER      | 0.83   | UG/L  | 2.1  | 0.83 | U    | 073SW-0059-0001-SW | 0.86   | 2.2  | 0.86 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | 4-NITROANILINE                   | 0.83   | UG/L  | 2.1  | 0.83 | U    | 073SW-0059-0001-SW | 0.86   | 2.2  | 0.86 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | 4-NITROPHENOL                    | 2.5    | UG/L  | 5.2  | 2.5  | U    | 073SW-0059-0001-SW | 2.6    | 5.4  | 2.6  | U    | N/A | Yes      |
| 073SW-0058-0001-SW | ACENAPHTHENE                     | 0.1    | UG/L  | 0.21 | 0.1  | U    | 073SW-0059-0001-SW | 0.11   | 0.22 | 0.11 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | ACENAPHTHYLENE                   | 0.1    | UG/L  | 0.21 | 0.1  | U    | 073SW-0059-0001-SW | 0.11   | 0.22 | 0.11 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | ANTHRACENE                       | 0.1    | UG/L  | 0.21 | 0.1  | U    | 073SW-0059-0001-SW | 0.11   | 0.22 | 0.11 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | BENZO(A)ANTHRACENE               | 0.1    | UG/L  | 0.21 | 0.1  | U    | 073SW-0059-0001-SW | 0.11   | 0.22 | 0.11 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | BENZO(A)PYRENE                   | 0.1    | UG/L  | 0.21 | 0.1  | U    | 073SW-0059-0001-SW | 0.11   | 0.22 | 0.11 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | BENZO(B)FLUORANTHENE             | 0.1    | UG/L  | 0.21 | 0.1  | U    | 073SW-0059-0001-SW | 0.11   | 0.22 | 0.11 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | BENZO(G,H,I)PERYLENE             | 0.1    | UG/L  | 0.21 | 0.1  | U    | 073SW-0059-0001-SW | 0.11   | 0.22 | 0.11 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | BENZO(K)FLUORANTHENE             | 0.1    | UG/L  | 0.21 | 0.1  | U    | 073SW-0059-0001-SW | 0.11   | 0.22 | 0.11 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | BENZOIC ACID                     | 10     | UG/L  | 26   | 10   | U    | 073SW-0059-0001-SW | 11     | 27   | 11   | U    | N/A | Yes      |
| 073SW-0058-0001-SW | BENZYL ALCOHOL                   | 0.83   | UG/L  | 5.2  | 0.83 | U    | 073SW-0059-0001-SW | 0.86   | 5.4  | 0.86 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | BENZYL BUTYL PHTHALATE           | 0.83   | UG/L  | 1    | 0.83 | U    | 073SW-0059-0001-SW | 0.86   | 1.1  | 0.86 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | BIS(2-CHLOROETHOXY) METHANE      | 0.83   | UG/L  | 1    | 0.83 | U    | 073SW-0059-0001-SW | 0.86   | 1.1  | 0.86 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | BIS(2-CHLOROETHYL) ETHER (2-CHLO | 0.1    | UG/L  | 1    | 0.1  | U    | 073SW-0059-0001-SW | 0.11   | 1.1  | 0.11 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | BIS(2-CHLOROISOPROPYL) ETHER     | 0.83   | UG/L  | 1    | 0.83 | U    | 073SW-0059-0001-SW | 0.86   | 1.1  | 0.86 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | BIS(2-ETHYLHEXYL) PHTHALATE      | 1.4    | UG/L  | 2.1  | 0.83 | J    | 073SW-0059-0001-SW | 0.86   | 2.2  | 0.86 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | CARBAZOLE                        | 0.83   | UG/L  | 1    | 0.83 | U    | 073SW-0059-0001-SW | 0.86   | 1.1  | 0.86 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | CHRYSENE                         | 0.1    | UG/L  | 0.21 | 0.1  | U    | 073SW-0059-0001-SW | 0.11   | 0.22 | 0.11 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | CRESOLS, M & P                   | 0.83   | UG/L  | 2.1  | 0.83 | U    | 073SW-0059-0001-SW | 0.86   | 2.2  | 0.86 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | DIBENZ(A,H)ANTHRACENE            | 0.1    | UG/L  | 0.21 | 0.1  | U    | 073SW-0059-0001-SW | 0.11   | 0.22 | 0.11 | U    | N/A | Yes      |

| Sample             | Analyte                   | Result | Units | LOQ  | LOD  | Qual | Sample             | Result | LOQ  | LOD  | Qual | RPD | W/In LOQ |
|--------------------|---------------------------|--------|-------|------|------|------|--------------------|--------|------|------|------|-----|----------|
| 073SW-0058-0001-SW | DIBENZOFURAN              | 0.1    | UG/L  | 1    | 0.1  | U    | 073SW-0059-0001-SW | 0.11   | 1.1  | 0.11 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | DIETHYL PHTHALATE         | 0.83   | UG/L  | 1    | 0.83 | U    | 073SW-0059-0001-SW | 0.86   | 1.1  | 0.86 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | DIMETHYL PHTHALATE        | 0.83   | UG/L  | 1    | 0.83 | U    | 073SW-0059-0001-SW | 0.86   | 1.1  | 0.86 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | DI-N-BUTYL PHTHALATE      | 0.83   | UG/L  | 1    | 0.83 | U    | 073SW-0059-0001-SW | 0.86   | 1.1  | 0.86 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | DI-N-OCTYLPHTHALATE       | 0.83   | UG/L  | 1    | 0.83 | U    | 073SW-0059-0001-SW | 0.86   | 1.1  | 0.86 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | FLUORANTHENE              | 0.1    | UG/L  | 0.21 | 0.1  | U    | 073SW-0059-0001-SW | 0.11   | 0.22 | 0.11 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | FLUORENE                  | 0.1    | UG/L  | 0.21 | 0.1  | U    | 073SW-0059-0001-SW | 0.11   | 0.22 | 0.11 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | HEXACHLOROBENZENE         | 0.1    | UG/L  | 0.21 | 0.1  | U    | 073SW-0059-0001-SW | 0.11   | 0.22 | 0.11 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | HEXACHLOROBUTADIENE       | 0.83   | UG/L  | 1    | 0.83 | U    | 073SW-0059-0001-SW | 0.86   | 1.1  | 0.86 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | HEXACHLOROCYCLOPENTADIENE | 0.83   | UG/L  | 10   | 0.83 | U    | 073SW-0059-0001-SW | 0.86   | 1.1  | 0.86 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | HEXACHLOROETHANE          | 0.83   | UG/L  | 1    | 0.83 | U    | 073SW-0059-0001-SW | 0.86   | 1.1  | 0.86 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | INDENO(1,2,3-C,D)PYRENE   | 0.1    | UG/L  | 0.21 | 0.1  | U    | 073SW-0059-0001-SW | 0.11   | 0.22 | 0.11 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | ISOPHORONE                | 0.83   | UG/L  | 1    | 0.83 | U    | 073SW-0059-0001-SW | 0.86   | 1.1  | 0.86 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | NAPHTHALENE               | 0.1    | UG/L  | 0.21 | 0.1  | U    | 073SW-0059-0001-SW | 0.11   | 0.22 | 0.11 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | NITROBENZENE              | 0.1    | UG/L  | 1    | 0.1  | U    | 073SW-0059-0001-SW | 0.11   | 1.1  | 0.11 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | N-NITROSODI-N-PROPYLAMINE | 0.83   | UG/L  | 1    | 0.83 | U    | 073SW-0059-0001-SW | 0.86   | 1.1  | 0.86 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | N-NITROSODIPHENYLAMINE    | 0.83   | UG/L  | 1    | 0.83 | U    | 073SW-0059-0001-SW | 0.86   | 1.1  | 0.86 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | PENTACHLOROPHENOL         | 2.5    | UG/L  | 5.2  | 2.5  | U    | 073SW-0059-0001-SW | 2.6    | 5.4  | 2.6  | U    | N/A | Yes      |
| 073SW-0058-0001-SW | PHENANTHRENE              | 0.1    | UG/L  | 0.21 | 0.1  | U    | 073SW-0059-0001-SW | 0.11   | 0.22 | 0.11 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | PHENOL                    | 0.83   | UG/L  | 1    | 0.83 | U    | 073SW-0059-0001-SW | 0.86   | 1.1  | 0.86 | U    | N/A | Yes      |
| 073SW-0058-0001-SW | PYRENE                    | 0.1    | UG/L  | 0.21 | 0.1  | U    | 073SW-0059-0001-SW | 0.11   | 0.22 | 0.11 | U    | N/A | Yes      |

| Sample             | Analyte                     | Result | Units | DL  | LOQ | LOD | Qual | Sample             | Result | DL  | LOQ | LOD | Qual | RPD | W/In LOQ |
|--------------------|-----------------------------|--------|-------|-----|-----|-----|------|--------------------|--------|-----|-----|-----|------|-----|----------|
| 074SB-0002-0001-SO | C10-C20                     | 11     | MG/KG | 11  | 19  | 11  | U    | 074SB-0003-0001-SO | 11     | 11  | 20  | 11  | U    | N/A | Yes      |
| 074SB-0002-0001-SO | C20-C34                     | 11     | MG/KG | 11  | 19  | 11  | U    | 074SB-0003-0001-SO | 11     | 11  | 20  | 11  | U    | N/A | Yes      |
| 074SB-0002-0001-SO | 1,2,4-TRICHLOROBENZENE      | 32     | UG/KG | 32  | 59  | 32  | U    | 074SB-0003-0001-SO | 32     | 32  | 59  | 32  | U    | N/A | Yes      |
| 074SB-0002-0001-SO | 1,2-DICHLOROBENZENE         | 32     | UG/KG | 11  | 59  | 32  | U    | 074SB-0003-0001-SO | 32     | 11  | 59  | 32  | U    | N/A | Yes      |
| 074SB-0002-0001-SO | 1,3-DICHLOROBENZENE         | 32     | UG/KG | 13  | 59  | 32  | U    | 074SB-0003-0001-SO | 32     | 13  | 59  | 32  | U    | N/A | Yes      |
| 074SB-0002-0001-SO | 1,4-DICHLOROBENZENE         | 32     | UG/KG | 23  | 59  | 32  | U    | 074SB-0003-0001-SO | 32     | 24  | 59  | 32  | U    | N/A | Yes      |
| 074SB-0002-0001-SO | 2,4,5-TRICHLOROPHENOL       | 32     | UG/KG | 29  | 180 | 32  | U    | 074SB-0003-0001-SO | 32     | 29  | 180 | 32  | U    | N/A | Yes      |
| 074SB-0002-0001-SO | 2,4,6-TRICHLOROPHENOL       | 94     | UG/KG | 94  | 180 | 94  | U    | 074SB-0003-0001-SO | 94     | 94  | 180 | 94  | U    | N/A | Yes      |
| 074SB-0002-0001-SO | 2,4-DICHLOROPHENOL          | 32     | UG/KG | 23  | 180 | 32  | U    | 074SB-0003-0001-SO | 32     | 24  | 180 | 32  | U    | N/A | Yes      |
| 074SB-0002-0001-SO | 2,4-DIMETHYLPHENOL          | 94     | UG/KG | 23  | 180 | 94  | U    | 074SB-0003-0001-SO | 94     | 24  | 180 | 94  | U    | N/A | Yes      |
| 074SB-0002-0001-SO | 2,4-DINITROPHENOL           | 94     | UG/KG | 94  | 390 | 94  | UJ   | 074SB-0003-0001-SO | 94     | 94  | 390 | 94  | U    | N/A | Yes      |
| 074SB-0002-0001-SO | 2,4-DINITROTOLUENE          | 32     | UG/KG | 32  | 230 | 32  | U    | 074SB-0003-0001-SO | 32     | 32  | 240 | 32  | U    | N/A | Yes      |
| 074SB-0002-0001-SO | 2,6-DINITROTOLUENE          | 32     | UG/KG | 25  | 230 | 32  | U    | 074SB-0003-0001-SO | 32     | 25  | 240 | 32  | U    | N/A | Yes      |
| 074SB-0002-0001-SO | 2-CHLORONAPHTHALENE         | 3.9    | UG/KG | 3.9 | 59  | 3.9 | U    | 074SB-0003-0001-SO | 3.9    | 3.9 | 59  | 3.9 | U    | N/A | Yes      |
| 074SB-0002-0001-SO | 2-CHLOROPHENOL              | 32     | UG/KG | 32  | 59  | 32  | U    | 074SB-0003-0001-SO | 32     | 32  | 59  | 32  | U    | N/A | Yes      |
| 074SB-0002-0001-SO | 2-METHYLNAPHTHALENE         | 3.9    | UG/KG | 3.9 | 7.8 | 3.9 | U    | 074SB-0003-0001-SO | 3.9    | 3.9 | 7.9 | 3.9 | U    | N/A | Yes      |
| 074SB-0002-0001-SO | 2-METHYLPHENOL              | 94     | UG/KG | 94  | 230 | 94  | U    | 074SB-0003-0001-SO | 94     | 94  | 240 | 94  | U    | N/A | Yes      |
| 074SB-0002-0001-SO | 2-NITROANILINE              | 32     | UG/KG | 11  | 230 | 32  | U    | 074SB-0003-0001-SO | 32     | 11  | 240 | 32  | U    | N/A | Yes      |
| 074SB-0002-0001-SO | 2-NITROPHENOL               | 32     | UG/KG | 32  | 59  | 32  | U    | 074SB-0003-0001-SO | 32     | 32  | 59  | 32  | U    | N/A | Yes      |
| 074SB-0002-0001-SO | 3,3'-DICHLOROBENZIDINE      | 94     | UG/KG | 21  | 120 | 94  | U    | 074SB-0003-0001-SO | 94     | 21  | 120 | 94  | U    | N/A | Yes      |
| 074SB-0002-0001-SO | 3-NITROANILINE              | 94     | UG/KG | 19  | 230 | 94  | U    | 074SB-0003-0001-SO | 94     | 19  | 240 | 94  | U    | N/A | Yes      |
| 074SB-0002-0001-SO | 4,6-DINITRO-2-METHYLPHENOL  | 94     | UG/KG | 94  | 180 | 94  | UJ   | 074SB-0003-0001-SO | 94     | 94  | 180 | 94  | U    | N/A | Yes      |
| 074SB-0002-0001-SO | 4-BROMOPHENYL PHENYL ETHER  | 32     | UG/KG | 15  | 59  | 32  | U    | 074SB-0003-0001-SO | 32     | 15  | 59  | 32  | U    | N/A | Yes      |
| 074SB-0002-0001-SO | 4-CHLORO-3-METHYLPHENOL     | 32     | UG/KG | 25  | 180 | 32  | U    | 074SB-0003-0001-SO | 32     | 25  | 180 | 32  | U    | N/A | Yes      |
| 074SB-0002-0001-SO | 4-CHLOROANILINE             | 32     | UG/KG | 20  | 180 | 32  | U    | 074SB-0003-0001-SO | 32     | 20  | 180 | 32  | U    | N/A | Yes      |
| 074SB-0002-0001-SO | 4-CHLOROPHENYL PHENYL ETHER | 32     | UG/KG | 15  | 59  | 32  | U    | 074SB-0003-0001-SO | 32     | 15  | 59  | 32  | U    | N/A | Yes      |
| 074SB-0002-0001-SO | 4-NITROANILINE              | 32     | UG/KG | 30  | 230 | 32  | U    | 074SB-0003-0001-SO | 32     | 31  | 240 | 32  | U    | N/A | Yes      |
| 074SB-0002-0001-SO | 4-NITROPHENOL               | 94     | UG/KG | 94  | 390 | 94  | U    | 074SB-0003-0001-SO | 94     | 94  | 390 | 94  | U    | N/A | Yes      |
| 074SB-0002-0001-SO | ACENAPHTHENE                | 3.9    | UG/KG | 3.9 | 7.8 | 3.9 | U    | 074SB-0003-0001-SO | 3.9    | 3.9 | 7.9 | 3.9 | U    | N/A | Yes      |
| 074SB-0002-0001-SO | ACENAPHTHYLENE              | 3.9    | UG/KG | 3.9 | 7.8 | 3.9 | U    | 074SB-0003-0001-SO | 3.9    | 3.9 | 7.9 | 3.9 | U    | N/A | Yes      |
| 074SB-0002-0001-SO | ANTHRACENE                  | 3.9    | UG/KG | 3.9 | 7.8 | 3.9 | U    | 074SB-0003-0001-SO | 3.9    | 3.9 | 7.9 | 3.9 | U    | N/A | Yes      |
| 074SB-0002-0001-SO | BENZO(A)ANTHRACENE          | 3.9    | UG/KG | 3.9 | 7.8 | 3.9 | U    | 074SB-0003-0001-SO | 3.9    | 3.9 | 7.9 | 3.9 | U    | N/A | Yes      |
| 074SB-0002-0001-SO | BENZO(A)PYRENE              | 3.9    | UG/KG | 3.9 | 7.8 | 3.9 | U    | 074SB-0003-0001-SO | 3.9    | 3.9 | 7.9 | 3.9 | U    | N/A | Yes      |
| 074SB-0002-0001-SO | BENZO(B)FLUORANTHENE        | 3.9    | UG/KG | 3.9 | 7.8 | 3.9 | U    | 074SB-0003-0001-SO | 3.9    | 3.9 | 7.9 | 3.9 | U    | N/A | Yes      |
| 074SB-0002-0001-SO | BENZO(G,H,I)PERYLENE        | 3.9    | UG/KG | 3.9 | 7.8 | 3.9 | U    | 074SB-0003-0001-SO | 3.9    | 3.9 | 7.9 | 3.9 | U    | N/A | Yes      |
| 074SB-0002-0001-SO | BENZO(K)FLUORANTHENE        | 3.9    | UG/KG | 3.9 | 7.8 | 3.9 | U    | 074SB-0003-0001-SO | 3.9    | 3.9 | 7.9 | 3.9 | U    | N/A | Yes      |

| Sample             | Analyte                      | Result | Units | DL  | LOQ | LOD | Qual | Sample             | Result | DL  | LOQ | LOD | Qual | RPD | W/In LOQ |
|--------------------|------------------------------|--------|-------|-----|-----|-----|------|--------------------|--------|-----|-----|-----|------|-----|----------|
| 074SB-0002-0001-SO | BENZOIC ACID                 | 390    | UG/KG | 390 | 770 | 390 | U    | 074SB-0003-0001-SO | 390    | 390 | 780 | 390 | U    | N/A | Yes      |
| 074SB-0002-0001-SO | BENZYL ALCOHOL               | 32     | UG/KG | 25  | 390 | 32  | U    | 074SB-0003-0001-SO | 32     | 25  | 390 | 32  | U    | N/A | Yes      |
| 074SB-0002-0001-SO | BENZYL BUTYL PHTHALATE       | 32     | UG/KG | 12  | 82  | 32  | U    | 074SB-0003-0001-SO | 32     | 12  | 82  | 32  | U    | N/A | Yes      |
| 074SB-0002-0001-SO | BIS(2-CHLOROETHOXY) METHANE  | 32     | UG/KG | 26  | 120 | 32  | U    | 074SB-0003-0001-SO | 32     | 26  | 120 | 32  | U    | N/A | Yes      |
| 074SB-0002-0001-SO | BIS(2-CHLOROETHYL) ETHER     | 3.9    | UG/KG | 2.3 | 120 | 3.9 | U    | 074SB-0003-0001-SO | 3.9    | 2.4 | 120 | 3.9 | U    | N/A | Yes      |
| 074SB-0002-0001-SO | BIS(2-CHLOROISOPROPYL) ETHER | 32     | UG/KG | 11  | 120 | 32  | U    | 074SB-0003-0001-SO | 32     | 11  | 120 | 32  | U    | N/A | Yes      |
| 074SB-0002-0001-SO | BIS(2-ETHYLHEXYL) PHTHALATE  | 32     | UG/KG | 22  | 82  | 32  | U    | 074SB-0003-0001-SO | 32     | 22  | 82  | 32  | J    | N/A | Yes      |
| 074SB-0002-0001-SO | CARBAZOLE                    | 32     | UG/KG | 32  | 59  | 32  | U    | 074SB-0003-0001-SO | 32     | 32  | 59  | 32  | U    | N/A | Yes      |
| 074SB-0002-0001-SO | CHRYSENE                     | 3.9    | UG/KG | 1.3 | 7.8 | 3.9 | U    | 074SB-0003-0001-SO | 3.9    | 1.3 | 7.9 | 3.9 | U    | N/A | Yes      |
| 074SB-0002-0001-SO | CRESOLS, M & P               | 94     | UG/KG | 23  | 470 | 94  | U    | 074SB-0003-0001-SO | 94     | 24  | 470 | 94  | U    | N/A | Yes      |
| 074SB-0002-0001-SO | DIBENZ(A,H)ANTHRACENE        | 3.9    | UG/KG | 3.9 | 7.8 | 3.9 | U    | 074SB-0003-0001-SO | 3.9    | 3.9 | 7.9 | 3.9 | U    | N/A | Yes      |
| 074SB-0002-0001-SO | DIBENZOFURAN                 | 3.9    | UG/KG | 3.9 | 59  | 3.9 | U    | 074SB-0003-0001-SO | 3.9    | 3.9 | 59  | 3.9 | U    | N/A | Yes      |
| 074SB-0002-0001-SO | DIETHYL PHTHALATE            | 32     | UG/KG | 19  | 82  | 32  | U    | 074SB-0003-0001-SO | 32     | 19  | 82  | 32  | U    | N/A | Yes      |
| 074SB-0002-0001-SO | DIMETHYL PHTHALATE           | 32     | UG/KG | 20  | 82  | 32  | U    | 074SB-0003-0001-SO | 32     | 20  | 82  | 32  | U    | N/A | Yes      |
| 074SB-0002-0001-SO | DI-N-BUTYL PHTHALATE         | 32     | UG/KG | 18  | 82  | 32  | U    | 074SB-0003-0001-SO | 32     | 18  | 82  | 32  | J    | N/A | Yes      |
| 074SB-0002-0001-SO | DI-N-OCTYLPHTHALATE          | 32     | UG/KG | 32  | 82  | 32  | U    | 074SB-0003-0001-SO | 32     | 32  | 82  | 32  | U    | N/A | Yes      |
| 074SB-0002-0001-SO | FLUORANTHENE                 | 3.9    | UG/KG | 3.9 | 7.8 | 3.9 | U    | 074SB-0003-0001-SO | 3.9    | 3.9 | 7.9 | 3.9 | U    | N/A | Yes      |
| 074SB-0002-0001-SO | FLUORENE                     | 3.9    | UG/KG | 3.9 | 7.8 | 3.9 | U    | 074SB-0003-0001-SO | 3.9    | 3.9 | 7.9 | 3.9 | U    | N/A | Yes      |
| 074SB-0002-0001-SO | HEXACHLOROBENZENE            | 3.9    | UG/KG | 2.5 | 7.8 | 3.9 | U    | 074SB-0003-0001-SO | 3.9    | 2.5 | 7.9 | 3.9 | U    | N/A | Yes      |
| 074SB-0002-0001-SO | HEXACHLOROBUTADIENE          | 32     | UG/KG | 32  | 59  | 32  | U    | 074SB-0003-0001-SO | 32     | 32  | 59  | 32  | U    | N/A | Yes      |
| 074SB-0002-0001-SO | HEXACHLOROCYCLOPENTADIENE    | 32     | UG/KG | 32  | 390 | 32  | U    | 074SB-0003-0001-SO | 32     | 32  | 390 | 32  | U    | N/A | Yes      |
| 074SB-0002-0001-SO | HEXACHLOROETHANE             | 32     | UG/KG | 11  | 59  | 32  | U    | 074SB-0003-0001-SO | 32     | 11  | 59  | 32  | U    | N/A | Yes      |
| 074SB-0002-0001-SO | INDENO(1,2,3-C,D)PYRENE      | 3.9    | UG/KG | 3.9 | 7.8 | 3.9 | U    | 074SB-0003-0001-SO | 3.9    | 3.9 | 7.9 | 3.9 | U    | N/A | Yes      |
| 074SB-0002-0001-SO | ISOPHORONE                   | 32     | UG/KG | 15  | 59  | 32  | U    | 074SB-0003-0001-SO | 32     | 15  | 59  | 32  | U    | N/A | Yes      |
| 074SB-0002-0001-SO | NAPHTHALENE                  | 3.9    | UG/KG | 3.9 | 7.8 | 3.9 | U    | 074SB-0003-0001-SO | 3.9    | 3.9 | 7.9 | 3.9 | U    | N/A | Yes      |
| 074SB-0002-0001-SO | NITROBENZENE                 | 3.9    | UG/KG | 2.6 | 120 | 3.9 | U    | 074SB-0003-0001-SO | 3.9    | 2.6 | 120 | 3.9 | U    | N/A | Yes      |
| 074SB-0002-0001-SO | N-NITROSODI-N-PROPYLAMINE    | 32     | UG/KG | 32  | 59  | 32  | U    | 074SB-0003-0001-SO | 32     | 32  | 59  | 32  | U    | N/A | Yes      |
| 074SB-0002-0001-SO | N-NITROSODIPHENYLAMINE       | 32     | UG/KG | 25  | 59  | 32  | U    | 074SB-0003-0001-SO | 32     | 25  | 59  | 32  | U    | N/A | Yes      |
| 074SB-0002-0001-SO | PENTACHLOROPHENOL            | 94     | UG/KG | 94  | 180 | 94  | U    | 074SB-0003-0001-SO | 94     | 94  | 180 | 94  | U    | N/A | Yes      |
| 074SB-0002-0001-SO | PHENANTHRENE                 | 3.9    | UG/KG | 3.9 | 7.8 | 3.9 | U    | 074SB-0003-0001-SO | 3.9    | 3.9 | 7.9 | 3.9 | U    | N/A | Yes      |
| 074SB-0002-0001-SO | PHENOL                       | 32     | UG/KG | 32  | 59  | 32  | U    | 074SB-0003-0001-SO | 32     | 32  | 59  | 32  | U    | N/A | Yes      |
| 074SB-0002-0001-SO | PYRENE                       | 3.9    | UG/KG | 3.9 | 7.8 | 3.9 | U    | 074SB-0003-0001-SO | 3.9    | 3.9 | 7.9 | 3.9 | U    | N/A | Yes      |

| Sample             | Analyte                   | Result | Units | LOQ   | LOD    | Qual | Sample             | Result | LOQ   | LOD    | Qual | RPD | W/In LOQ |
|--------------------|---------------------------|--------|-------|-------|--------|------|--------------------|--------|-------|--------|------|-----|----------|
| 076SB-0092-0001-SO | ALUMINUM                  | 8000   | MG/KG | 2.2   | 0.45   |      | 076SB-0093-0001-SO | 8000   | 2.3   | 0.46   |      | 0   | N/A      |
| 076SB-0092-0001-SO | ANTIMONY                  | 0.16   | MG/KG | 0.15  | 0.075  |      | 076SB-0093-0001-SO | 0.12   | 0.15  | 0.077  | J    | N/A | Yes      |
| 076SB-0092-0001-SO | ARSENIC                   | 13     | MG/KG | 0.075 | 0.037  |      | 076SB-0093-0001-SO | 12     | 0.077 | 0.038  |      | 8   | N/A      |
| 076SB-0092-0001-SO | BARIUM                    | 42     | MG/KG | 0.75  | 0.015  |      | 076SB-0093-0001-SO | 39     | 0.77  | 0.015  |      | 7   | N/A      |
| 076SB-0092-0001-SO | BERYLLIUM                 | 0.43   | MG/KG | 0.075 | 0.0075 |      | 076SB-0093-0001-SO | 0.43   | 0.077 | 0.0077 |      | 0   | N/A      |
| 076SB-0092-0001-SO | CADMIUM                   | 0.11   | MG/KG | 0.075 | 0.022  |      | 076SB-0093-0001-SO | 0.12   | 0.077 | 0.023  |      | N/A | Yes      |
| 076SB-0092-0001-SO | CALCIUM                   | 3400   | MG/KG | 7.5   | 1.9    |      | 076SB-0093-0001-SO | 3300   | 7.7   | 1.9    |      | 3   | N/A      |
| 076SB-0092-0001-SO | CHROMIUM                  | 16     | MG/KG | 0.15  | 0.03   |      | 076SB-0093-0001-SO | 16     | 0.15  | 0.031  |      | 0   | N/A      |
| 076SB-0092-0001-SO | COBALT                    | 10     | MG/KG | 0.037 | 0.0075 |      | 076SB-0093-0001-SO | 9.1    | 0.038 | 0.0077 |      | 9   | N/A      |
| 076SB-0092-0001-SO | COPPER                    | 16     | MG/KG | 0.15  | 0.045  |      | 076SB-0093-0001-SO | 17     | 0.15  | 0.046  |      | 6   | N/A      |
| 076SB-0092-0001-SO | IRON                      | 22000  | MG/KG | 3.7   | 1.5    |      | 076SB-0093-0001-SO | 25000  | 3.8   | 1.5    |      | 13  | N/A      |
| 076SB-0092-0001-SO | LEAD                      | 17     | MG/KG | 0.075 | 0.022  |      | 076SB-0093-0001-SO | 20     | 0.077 | 0.023  |      | 16  | N/A      |
| 076SB-0092-0001-SO | MAGNESIUM                 | 2500   | MG/KG | 7.5   | 1.5    |      | 076SB-0093-0001-SO | 2600   | 7.7   | 1.5    |      | 4   | N/A      |
| 076SB-0092-0001-SO | MANGANESE                 | 490    | MG/KG | 0.37  | 0.022  |      | 076SB-0093-0001-SO | 460    | 0.38  | 0.023  |      | 6   | N/A      |
| 076SB-0092-0001-SO | NICKEL                    | 19     | MG/KG | 0.075 | 0.022  |      | 076SB-0093-0001-SO | 19     | 0.077 | 0.023  |      | 0   | N/A      |
| 076SB-0092-0001-SO | POTASSIUM                 | 720    | MG/KG | 7.5   | 4.5    |      | 076SB-0093-0001-SO | 810    | 7.7   | 4.6    |      | 12  | N/A      |
| 076SB-0092-0001-SO | SELENIUM                  | 0.44   | MG/KG | 0.37  | 0.075  |      | 076SB-0093-0001-SO | 0.37   | 0.38  | 0.077  | J    | N/A | Yes      |
| 076SB-0092-0001-SO | SILVER                    | 0.028  | MG/KG | 0.075 | 0.022  | J    | 076SB-0093-0001-SO | 0.026  | 0.077 | 0.023  | J    | N/A | Yes      |
| 076SB-0092-0001-SO | SODIUM                    | 39     | MG/KG | 7.5   | 3.7    |      | 076SB-0093-0001-SO | 41     | 7.7   | 3.8    |      | 5   | N/A      |
| 076SB-0092-0001-SO | THALLIUM                  | 0.13   | MG/KG | 0.075 | 0.015  |      | 076SB-0093-0001-SO | 0.13   | 0.077 | 0.015  |      | N/A | Yes      |
| 076SB-0092-0001-SO | VANADIUM                  | 15     | MG/KG | 0.075 | 0.045  |      | 076SB-0093-0001-SO | 17     | 0.077 | 0.046  |      | 13  | N/A      |
| 076SB-0092-0001-SO | ZINC                      | 53     | MG/KG | 0.37  | 0.15   |      | 076SB-0093-0001-SO | 57     | 0.38  | 0.15   |      | 7   | N/A      |
| 076SB-0092-0001-SO | MERCURY                   | 0.038  | MG/KG | 0.12  | 0.039  | J    | 076SB-0093-0001-SO | 0.039  | 0.1   | 0.034  | J    | N/A | Yes      |
| 076SB-0092-0001-SO | 1,1,1-TRICHLOROETHANE     | 0.98   | UG/KG | 4.9   | 0.98   |      | 076SB-0093-0001-SO | 1.2    | 6     | 1.2    |      | N/A | Yes      |
| 076SB-0092-0001-SO | 1,1,2,2-TETRACHLOROETHANE | 0.49   | UG/KG | 4.9   | 0.49   |      | 076SB-0093-0001-SO | 0.6    | 6     | 0.6    |      | N/A | Yes      |
| 076SB-0092-0001-SO | 1,1,2-TRICHLOROETHANE     | 0.49   | UG/KG | 4.9   | 0.49   |      | 076SB-0093-0001-SO | 0.6    | 6     | 0.6    |      | N/A | Yes      |
| 076SB-0092-0001-SO | 1,1-DICHLOROETHANE        | 0.49   | UG/KG | 4.9   | 0.49   |      | 076SB-0093-0001-SO | 0.6    | 6     | 0.6    |      | N/A | Yes      |
| 076SB-0092-0001-SO | 1,1-DICHLOROETHENE        | 0.98   | UG/KG | 4.9   | 0.98   |      | 076SB-0093-0001-SO | 1.2    | 6     | 1.2    |      | N/A | Yes      |
| 076SB-0092-0001-SO | 1,2-DIBROMOETHANE         | 0.98   | UG/KG | 4.9   | 0.98   |      | 076SB-0093-0001-SO | 1.2    | 6     | 1.2    |      | N/A | Yes      |
| 076SB-0092-0001-SO | 1,2-DICHLOROETHANE        | 0.49   | UG/KG | 4.9   | 0.49   |      | 076SB-0093-0001-SO | 0.6    | 6     | 0.6    |      | N/A | Yes      |
| 076SB-0092-0001-SO | 1,2-DICHLOROPROPANE       | 0.98   | UG/KG | 4.9   | 0.98   |      | 076SB-0093-0001-SO | 1.2    | 6     | 1.2    |      | N/A | Yes      |
| 076SB-0092-0001-SO | 2-HEXANONE                | 1.5    | UG/KG | 20    | 0.98   | J    | 076SB-0093-0001-SO | 1.2    | 24    | 1.2    |      | N/A | Yes      |
| 076SB-0092-0001-SO | ACETONE                   | 6.2    | UG/KG | 20    | 6.2    |      | 076SB-0093-0001-SO | 7.6    | 24    | 7.6    |      | N/A | Yes      |
| 076SB-0092-0001-SO | BENZENE                   | 0.49   | UG/KG | 4.9   | 0.49   |      | 076SB-0093-0001-SO | 0.6    | 6     | 0.6    |      | N/A | Yes      |
| 076SB-0092-0001-SO | BROMOCHLOROMETHANE        | 0.98   | UG/KG | 4.9   | 0.98   |      | 076SB-0093-0001-SO | 1.2    | 6     | 1.2    |      | N/A | Yes      |
| 076SB-0092-0001-SO | BROMODICHLOROMETHANE      | 0.49   | UG/KG | 4.9   | 0.49   |      | 076SB-0093-0001-SO | 0.6    | 6     | 0.6    |      | N/A | Yes      |

| Sample             | Analyte                   | Result | Units | LOQ | LOD  | Qual | Sample             | Result | LOQ | LOD | Qual | RPD | W/In LOQ |
|--------------------|---------------------------|--------|-------|-----|------|------|--------------------|--------|-----|-----|------|-----|----------|
| 076SB-0092-0001-SO | BROMOFORM                 | 0.49   | UG/KG | 4.9 | 0.49 |      | 076SB-0093-0001-SO | 0.6    | 6   | 0.6 |      | N/A | Yes      |
| 076SB-0092-0001-SO | BROMOMETHANE              | 0.98   | UG/KG | 4.9 | 0.98 |      | 076SB-0093-0001-SO | 1.2    | 6   | 1.2 |      | N/A | Yes      |
| 076SB-0092-0001-SO | CARBON DISULFIDE          | 0.49   | UG/KG | 4.9 | 0.49 |      | 076SB-0093-0001-SO | 0.6    | 6   | 0.6 |      | N/A | Yes      |
| 076SB-0092-0001-SO | CARBON TETRACHLORIDE      | 0.49   | UG/KG | 4.9 | 0.49 |      | 076SB-0093-0001-SO | 0.6    | 6   | 0.6 |      | N/A | Yes      |
| 076SB-0092-0001-SO | CHLOROBENZENE             | 0.49   | UG/KG | 4.9 | 0.49 |      | 076SB-0093-0001-SO | 0.6    | 6   | 0.6 |      | N/A | Yes      |
| 076SB-0092-0001-SO | CHLOROETHANE              | 0.98   | UG/KG | 4.9 | 0.98 |      | 076SB-0093-0001-SO | 1.2    | 6   | 1.2 |      | N/A | Yes      |
| 076SB-0092-0001-SO | CHLOROFORM                | 0.49   | UG/KG | 4.9 | 0.49 |      | 076SB-0093-0001-SO | 0.6    | 6   | 0.6 |      | N/A | Yes      |
| 076SB-0092-0001-SO | CHLOROMETHANE             | 0.49   | UG/KG | 4.9 | 0.49 |      | 076SB-0093-0001-SO | 0.6    | 6   | 0.6 |      | N/A | Yes      |
| 076SB-0092-0001-SO | CIS-1,3-DICHLOROPROPENE   | 0.49   | UG/KG | 4.9 | 0.49 |      | 076SB-0093-0001-SO | 0.6    | 6   | 0.6 |      | N/A | Yes      |
| 076SB-0092-0001-SO | DIBROMOCHLOROMETHANE      | 0.98   | UG/KG | 4.9 | 0.98 |      | 076SB-0093-0001-SO | 1.2    | 6   | 1.2 |      | N/A | Yes      |
| 076SB-0092-0001-SO | ETHYLBENZENE              | 0.49   | UG/KG | 4.9 | 0.49 |      | 076SB-0093-0001-SO | 0.6    | 6   | 0.6 |      | N/A | Yes      |
| 076SB-0092-0001-SO | METHYL ETHYL KETONE       | 2      | UG/KG | 20  | 2    |      | 076SB-0093-0001-SO | 2.4    | 24  | 2.4 |      | N/A | Yes      |
| 076SB-0092-0001-SO | METHYL ISOBUTYL KETONE    | 1      | UG/KG | 20  | 0.98 | J    | 076SB-0093-0001-SO | 1.2    | 24  | 1.2 |      | N/A | Yes      |
| 076SB-0092-0001-SO | METHYLENE CHLORIDE        | 0.98   | UG/KG | 4.9 | 0.98 |      | 076SB-0093-0001-SO | 1.2    | 6   | 1.2 |      | N/A | Yes      |
| 076SB-0092-0001-SO | STYRENE                   | 0.49   | UG/KG | 4.9 | 0.49 |      | 076SB-0093-0001-SO | 0.6    | 6   | 0.6 |      | N/A | Yes      |
| 076SB-0092-0001-SO | TETRACHLOROETHYLENE       | 0.98   | UG/KG | 4.9 | 0.98 |      | 076SB-0093-0001-SO | 1.2    | 6   | 1.2 |      | N/A | Yes      |
| 076SB-0092-0001-SO | TOLUENE                   | 0.84   | UG/KG | 4.9 | 0.49 | J    | 076SB-0093-0001-SO | 1.1    | 6   | 0.6 | J    | N/A | Yes      |
| 076SB-0092-0001-SO | TOTAL 1,2-DICHLOROETHENE  | 0.98   | UG/KG | 9.8 | 0.98 |      | 076SB-0093-0001-SO | 1.2    | 12  | 1.2 |      | N/A | Yes      |
| 076SB-0092-0001-SO | TRANS-1,3-DICHLOROPROPENE | 0.98   | UG/KG | 4.9 | 0.98 |      | 076SB-0093-0001-SO | 1.2    | 6   | 1.2 |      | N/A | Yes      |
| 076SB-0092-0001-SO | TRICHLOROETHYLENE         | 0.49   | UG/KG | 4.9 | 0.49 |      | 076SB-0093-0001-SO | 0.6    | 6   | 0.6 |      | N/A | Yes      |
| 076SB-0092-0001-SO | VINYL CHLORIDE            | 0.49   | UG/KG | 4.9 | 0.49 |      | 076SB-0093-0001-SO | 0.6    | 6   | 0.6 |      | N/A | Yes      |
| 076SB-0092-0001-SO | XYLENES, TOTAL            | 1.5    | UG/KG | 9.8 | 1.5  |      | 076SB-0093-0001-SO | 1.8    | 12  | 1.8 |      | N/A | Yes      |
| 076SB-0092-0001-SO | 1,2,4-TRICHLOROBENZENE    | 27     | UG/KG | 49  | 27   |      | 076SB-0093-0001-SO | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0092-0001-SO | 1,2-DICHLOROBENZENE       | 27     | UG/KG | 49  | 27   |      | 076SB-0093-0001-SO | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0092-0001-SO | 1,3-DICHLOROBENZENE       | 27     | UG/KG | 49  | 27   |      | 076SB-0093-0001-SO | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0092-0001-SO | 1,4-DICHLOROBENZENE       | 27     | UG/KG | 49  | 27   |      | 076SB-0093-0001-SO | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0092-0001-SO | 2,4,5-TRICHLOROPHENOL     | 27     | UG/KG | 150 | 27   |      | 076SB-0093-0001-SO | 27     | 150 | 27  |      | N/A | Yes      |
| 076SB-0092-0001-SO | 2,4,6-TRICHLOROPHENOL     | 79     | UG/KG | 150 | 79   |      | 076SB-0093-0001-SO | 80     | 150 | 80  |      | N/A | Yes      |
| 076SB-0092-0001-SO | 2,4-DICHLOROPHENOL        | 27     | UG/KG | 150 | 27   |      | 076SB-0093-0001-SO | 27     | 150 | 27  |      | N/A | Yes      |
| 076SB-0092-0001-SO | 2,4-DIMETHYLPHENOL        | 79     | UG/KG | 150 | 79   |      | 076SB-0093-0001-SO | 80     | 150 | 80  |      | N/A | Yes      |
| 076SB-0092-0001-SO | 2,4-DINITROPHENOL         | 79     | UG/KG | 330 | 79   |      | 076SB-0093-0001-SO | 80     | 330 | 80  |      | N/A | Yes      |
| 076SB-0092-0001-SO | 2,4-DINITROTOLUENE        | 27     | UG/KG | 200 | 27   |      | 076SB-0093-0001-SO | 27     | 200 | 27  |      | N/A | Yes      |
| 076SB-0092-0001-SO | 2,6-DINITROTOLUENE        | 27     | UG/KG | 200 | 27   |      | 076SB-0093-0001-SO | 27     | 200 | 27  |      | N/A | Yes      |
| 076SB-0092-0001-SO | 2-CHLORONAPHTHALENE       | 3.3    | UG/KG | 49  | 3.3  |      | 076SB-0093-0001-SO | 3.3    | 50  | 3.3 |      | N/A | Yes      |
| 076SB-0092-0001-SO | 2-CHLOROPHENOL            | 27     | UG/KG | 49  | 27   |      | 076SB-0093-0001-SO | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0092-0001-SO | 2-METHYLNAPHTHALENE       | 3.3    | UG/KG | 6.6 | 3.3  | J    | 076SB-0093-0001-SO | 3.3    | 6.7 | 3.3 |      | N/A | Yes      |



| Sample             | Analyte                      | Result | Units | LOQ | LOD | Qual | Sample             | Result | LOQ | LOD | Qual | RPD | W/In LOQ |
|--------------------|------------------------------|--------|-------|-----|-----|------|--------------------|--------|-----|-----|------|-----|----------|
| 076SB-0092-0001-SO | 2-METHYLPHENOL               | 79     | UG/KG | 200 | 79  |      | 076SB-0093-0001-SO | 80     | 200 | 80  |      | N/A | Yes      |
| 076SB-0092-0001-SO | 2-NITROANILINE               | 27     | UG/KG | 200 | 27  |      | 076SB-0093-0001-SO | 27     | 200 | 27  |      | N/A | Yes      |
| 076SB-0092-0001-SO | 2-NITROPHENOL                | 27     | UG/KG | 49  | 27  |      | 076SB-0093-0001-SO | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0092-0001-SO | 3,3'-DICHLOROBENZIDINE       | 79     | UG/KG | 99  | 79  |      | 076SB-0093-0001-SO | 80     | 100 | 80  |      | N/A | Yes      |
| 076SB-0092-0001-SO | 3-NITROANILINE               | 79     | UG/KG | 200 | 79  |      | 076SB-0093-0001-SO | 80     | 200 | 80  |      | N/A | Yes      |
| 076SB-0092-0001-SO | 4,6-DINITRO-2-METHYLPHENOL   | 79     | UG/KG | 150 | 79  |      | 076SB-0093-0001-SO | 80     | 150 | 80  |      | N/A | Yes      |
| 076SB-0092-0001-SO | 4-BROMOPHENYL PHENYL ETHER   | 27     | UG/KG | 49  | 27  |      | 076SB-0093-0001-SO | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0092-0001-SO | 4-CHLORO-3-METHYLPHENOL      | 27     | UG/KG | 150 | 27  |      | 076SB-0093-0001-SO | 27     | 150 | 27  |      | N/A | Yes      |
| 076SB-0092-0001-SO | 4-CHLOROANILINE              | 27     | UG/KG | 150 | 27  |      | 076SB-0093-0001-SO | 27     | 150 | 27  |      | N/A | Yes      |
| 076SB-0092-0001-SO | 4-CHLOROPHENYL PHENYL ETHER  | 27     | UG/KG | 49  | 27  |      | 076SB-0093-0001-SO | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0092-0001-SO | 4-NITROANILINE               | 27     | UG/KG | 200 | 27  |      | 076SB-0093-0001-SO | 27     | 200 | 27  |      | N/A | Yes      |
| 076SB-0092-0001-SO | 4-NITROPHENOL                | 79     | UG/KG | 330 | 79  |      | 076SB-0093-0001-SO | 80     | 330 | 80  |      | N/A | Yes      |
| 076SB-0092-0001-SO | ACENAPHTHENE                 | 3.3    | UG/KG | 6.6 | 3.3 |      | 076SB-0093-0001-SO | 3.3    | 6.7 | 3.3 |      | N/A | Yes      |
| 076SB-0092-0001-SO | ACENAPHTHYLENE               | 3.3    | UG/KG | 6.6 | 3.3 |      | 076SB-0093-0001-SO | 3.3    | 6.7 | 3.3 |      | N/A | Yes      |
| 076SB-0092-0001-SO | ANTHRACENE                   | 3.3    | UG/KG | 6.6 | 3.3 |      | 076SB-0093-0001-SO | 3.3    | 6.7 | 3.3 |      | N/A | Yes      |
| 076SB-0092-0001-SO | BENZO(A)ANTHRACENE           | 3.3    | UG/KG | 6.6 | 3.3 |      | 076SB-0093-0001-SO | 3.3    | 6.7 | 3.3 |      | N/A | Yes      |
| 076SB-0092-0001-SO | BENZO(A)PYRENE               | 3.3    | UG/KG | 6.6 | 3.3 |      | 076SB-0093-0001-SO | 3.3    | 6.7 | 3.3 |      | N/A | Yes      |
| 076SB-0092-0001-SO | BENZO(B)FLUORANTHENE         | 3.3    | UG/KG | 6.6 | 3.3 |      | 076SB-0093-0001-SO | 3.3    | 6.7 | 3.3 |      | N/A | Yes      |
| 076SB-0092-0001-SO | BENZO(G,H,I)PERYLENE         | 3.3    | UG/KG | 6.6 | 3.3 |      | 076SB-0093-0001-SO | 3.3    | 6.7 | 3.3 |      | N/A | Yes      |
| 076SB-0092-0001-SO | BENZO(K)FLUORANTHENE         | 3.3    | UG/KG | 6.6 | 3.3 |      | 076SB-0093-0001-SO | 3.3    | 6.7 | 3.3 |      | N/A | Yes      |
| 076SB-0092-0001-SO | BENZOIC ACID                 | 330    | UG/KG | 650 | 330 |      | 076SB-0093-0001-SO | 330    | 660 | 330 |      | N/A | Yes      |
| 076SB-0092-0001-SO | BENZYL ALCOHOL               | 27     | UG/KG | 330 | 27  |      | 076SB-0093-0001-SO | 27     | 330 | 27  |      | N/A | Yes      |
| 076SB-0092-0001-SO | BENZYL BUTYL PHTHALATE       | 27     | UG/KG | 49  | 27  |      | 076SB-0093-0001-SO | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0092-0001-SO | BIS(2-CHLOROETHOXY) METHANE  | 27     | UG/KG | 99  | 27  |      | 076SB-0093-0001-SO | 27     | 100 | 27  |      | N/A | Yes      |
| 076SB-0092-0001-SO | BIS(2-CHLOROETHYL) ETHER     | 3.3    | UG/KG | 99  | 3.3 |      | 076SB-0093-0001-SO | 3.3    | 100 | 3.3 |      | N/A | Yes      |
| 076SB-0092-0001-SO | BIS(2-CHLOROISOPROPYL) ETHER | 27     | UG/KG | 99  | 27  |      | 076SB-0093-0001-SO | 27     | 100 | 27  |      | N/A | Yes      |
| 076SB-0092-0001-SO | BIS(2-ETHYLHEXYL) PHTHALATE  | 30     | UG/KG | 49  | 27  | J    | 076SB-0093-0001-SO | 34     | 50  | 27  | J    | N/A | Yes      |
| 076SB-0092-0001-SO | CARBAZOLE                    | 27     | UG/KG | 49  | 27  |      | 076SB-0093-0001-SO | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0092-0001-SO | CHRYSENE                     | 3.3    | UG/KG | 6.6 | 3.3 |      | 076SB-0093-0001-SO | 3.3    | 6.7 | 3.3 |      | N/A | Yes      |
| 076SB-0092-0001-SO | CRESOLS, M & P               | 79     | UG/KG | 390 | 79  |      | 076SB-0093-0001-SO | 80     | 400 | 80  |      | N/A | Yes      |
| 076SB-0092-0001-SO | DIBENZ(A,H)ANTHRACENE        | 3.3    | UG/KG | 6.6 | 3.3 |      | 076SB-0093-0001-SO | 3.3    | 6.7 | 3.3 |      | N/A | Yes      |
| 076SB-0092-0001-SO | DIBENZOFURAN                 | 3.3    | UG/KG | 49  | 3.3 |      | 076SB-0093-0001-SO | 3.3    | 50  | 3.3 |      | N/A | Yes      |
| 076SB-0092-0001-SO | DIETHYL PHTHALATE            | 27     | UG/KG | 49  | 27  |      | 076SB-0093-0001-SO | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0092-0001-SO | DIMETHYL PHTHALATE           | 27     | UG/KG | 49  | 27  |      | 076SB-0093-0001-SO | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0092-0001-SO | DI-N-BUTYL PHTHALATE         | 27     | UG/KG | 49  | 27  |      | 076SB-0093-0001-SO | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0092-0001-SO | DI-N-OCTYLPHTHALATE          | 27     | UG/KG | 49  | 27  |      | 076SB-0093-0001-SO | 27     | 50  | 27  |      | N/A | Yes      |

| Sample             | Analyte                   | Result | Units | LOQ   | LOD    | Qual | Sample             | Result | LOQ   | LOD    | Qual | RPD | W/In LOQ |
|--------------------|---------------------------|--------|-------|-------|--------|------|--------------------|--------|-------|--------|------|-----|----------|
| 076SB-0092-0001-SO | FLUORANTHENE              | 3.3    | UG/KG | 6.6   | 3.3    |      | 076SB-0093-0001-SO | 3.3    | 6.7   | 3.3    |      | N/A | Yes      |
| 076SB-0092-0001-SO | FLUORENE                  | 3.3    | UG/KG | 6.6   | 3.3    |      | 076SB-0093-0001-SO | 3.3    | 6.7   | 3.3    |      | N/A | Yes      |
| 076SB-0092-0001-SO | HEXACHLOROBENZENE         | 3.3    | UG/KG | 6.6   | 3.3    |      | 076SB-0093-0001-SO | 3.3    | 6.7   | 3.3    |      | N/A | Yes      |
| 076SB-0092-0001-SO | HEXACHLOROBUTADIENE       | 27     | UG/KG | 49    | 27     |      | 076SB-0093-0001-SO | 27     | 50    | 27     |      | N/A | Yes      |
| 076SB-0092-0001-SO | HEXACHLOROCYCLOPENTADIENE | 27     | UG/KG | 330   | 27     |      | 076SB-0093-0001-SO | 27     | 330   | 27     |      | N/A | Yes      |
| 076SB-0092-0001-SO | HEXACHLOROETHANE          | 27     | UG/KG | 49    | 27     |      | 076SB-0093-0001-SO | 27     | 50    | 27     |      | N/A | Yes      |
| 076SB-0092-0001-SO | INDENO(1,2,3-C,D)PYRENE   | 3.3    | UG/KG | 6.6   | 3.3    |      | 076SB-0093-0001-SO | 3.3    | 6.7   | 3.3    |      | N/A | Yes      |
| 076SB-0092-0001-SO | ISOPHORONE                | 27     | UG/KG | 49    | 27     |      | 076SB-0093-0001-SO | 27     | 50    | 27     |      | N/A | Yes      |
| 076SB-0092-0001-SO | NAPHTHALENE               | 3.3    | UG/KG | 6.6   | 3.3    |      | 076SB-0093-0001-SO | 3.3    | 6.7   | 3.3    |      | N/A | Yes      |
| 076SB-0092-0001-SO | NITROBENZENE              | 3.3    | UG/KG | 99    | 3.3    |      | 076SB-0093-0001-SO | 3.3    | 100   | 3.3    |      | N/A | Yes      |
| 076SB-0092-0001-SO | N-NITROSODI-N-PROPYLAMINE | 27     | UG/KG | 49    | 27     |      | 076SB-0093-0001-SO | 27     | 50    | 27     |      | N/A | Yes      |
| 076SB-0092-0001-SO | N-NITROSODIPHENYLAMINE    | 27     | UG/KG | 49    | 27     |      | 076SB-0093-0001-SO | 27     | 50    | 27     |      | N/A | Yes      |
| 076SB-0092-0001-SO | PENTACHLOROPHENOL         | 79     | UG/KG | 150   | 79     |      | 076SB-0093-0001-SO | 80     | 150   | 80     |      | N/A | Yes      |
| 076SB-0092-0001-SO | PHENANTHRENE              | 5.1    | UG/KG | 6.6   | 3.3    | J    | 076SB-0093-0001-SO | 3.5    | 6.7   | 3.3    | J    | N/A | Yes      |
| 076SB-0092-0001-SO | PHENOL                    | 27     | UG/KG | 49    | 27     |      | 076SB-0093-0001-SO | 27     | 50    | 27     |      | N/A | Yes      |
| 076SB-0092-0001-SO | PYRENE                    | 3.3    | UG/KG | 6.6   | 3.3    |      | 076SB-0093-0001-SO | 3.3    | 6.7   | 3.3    |      | N/A | Yes      |
| 076SB-0094-0001-SO | ALUMINUM                  | 9500   | MG/KG | 2.7   | 0.54   |      | 076SB-0095-0001-SO | 11000  | 2.1   | 0.42   |      | 15  | N/A      |
| 076SB-0094-0001-SO | ANTIMONY                  | 0.23   | MG/KG | 0.18  | 0.089  | J-   | 076SB-0095-0001-SO | 0.11   | 0.14  | 0.069  | J    | N/A | Yes      |
| 076SB-0094-0001-SO | ARSENIC                   | 17     | MG/KG | 0.089 | 0.045  | J-   | 076SB-0095-0001-SO | 13     | 0.069 | 0.035  |      | 27  | N/A      |
| 076SB-0094-0001-SO | BARIUM                    | 47     | MG/KG | 0.89  | 0.018  | J    | 076SB-0095-0001-SO | 49     | 0.69  | 0.014  |      | 4   | N/A      |
| 076SB-0094-0001-SO | BERYLLIUM                 | 0.51   | MG/KG | 0.089 | 0.0089 | J-   | 076SB-0095-0001-SO | 0.5    | 0.069 | 0.0069 |      | 2   | N/A      |
| 076SB-0094-0001-SO | CADMIUM                   | 0.13   | MG/KG | 0.089 | 0.027  | J-   | 076SB-0095-0001-SO | 0.13   | 0.069 | 0.021  |      | N/A | Yes      |
| 076SB-0094-0001-SO | CALCIUM                   | 970    | MG/KG | 8.9   | 2.2    | J+   | 076SB-0095-0001-SO | 1000   | 6.9   | 1.7    |      | 3   | N/A      |
| 076SB-0094-0001-SO | CHROMIUM                  | 17     | MG/KG | 0.18  | 0.036  | J-   | 076SB-0095-0001-SO | 18     | 0.14  | 0.028  |      | 6   | N/A      |
| 076SB-0094-0001-SO | COBALT                    | 9.7    | MG/KG | 0.045 | 0.0089 | J-   | 076SB-0095-0001-SO | 8.6    | 0.035 | 0.0069 |      | 12  | N/A      |
| 076SB-0094-0001-SO | COPPER                    | 17     | MG/KG | 0.18  | 0.054  | J-   | 076SB-0095-0001-SO | 17     | 0.14  | 0.042  |      | 0   | N/A      |
| 076SB-0094-0001-SO | IRON                      | 29000  | MG/KG | 4.5   | 1.8    |      | 076SB-0095-0001-SO | 25000  | 3.5   | 1.4    |      | 15  | N/A      |
| 076SB-0094-0001-SO | LEAD                      | 24     | MG/KG | 0.089 | 0.027  | J    | 076SB-0095-0001-SO | 20     | 0.069 | 0.021  |      | 18  | N/A      |
| 076SB-0094-0001-SO | MAGNESIUM                 | 2100   | MG/KG | 8.9   | 1.8    |      | 076SB-0095-0001-SO | 2300   | 6.9   | 1.4    |      | 9   | N/A      |
| 076SB-0094-0001-SO | MANGANESE                 | 380    | MG/KG | 0.45  | 0.027  | J    | 076SB-0095-0001-SO | 310    | 0.35  | 0.021  |      | 20  | N/A      |
| 076SB-0094-0001-SO | NICKEL                    | 21     | MG/KG | 0.089 | 0.027  | J-   | 076SB-0095-0001-SO | 20     | 0.069 | 0.021  |      | 5   | N/A      |
| 076SB-0094-0001-SO | POTASSIUM                 | 790    | MG/KG | 8.9   | 5.4    | J-   | 076SB-0095-0001-SO | 820    | 6.9   | 4.2    |      | 4   | N/A      |
| 076SB-0094-0001-SO | SELENIUM                  | 0.47   | MG/KG | 0.45  | 0.089  | J-   | 076SB-0095-0001-SO | 0.39   | 0.35  | 0.069  |      | N/A | Yes      |
| 076SB-0094-0001-SO | SILVER                    | 0.025  | MG/KG | 0.089 | 0.027  | J-   | 076SB-0095-0001-SO | 0.024  | 0.069 | 0.021  | J    | N/A | Yes      |
| 076SB-0094-0001-SO | SODIUM                    | 39     | MG/KG | 8.9   | 4.5    |      | 076SB-0095-0001-SO | 40     | 6.9   | 3.5    |      | 3   | N/A      |
| 076SB-0094-0001-SO | THALLIUM                  | 0.14   | MG/KG | 0.089 | 0.018  |      | 076SB-0095-0001-SO | 0.15   | 0.069 | 0.014  |      | N/A | Yes      |

| Sample             | Analyte                   | Result | Units | LOQ   | LOD   | Qual | Sample             | Result | LOQ   | LOD   | Qual | RPD | W/In LOQ |
|--------------------|---------------------------|--------|-------|-------|-------|------|--------------------|--------|-------|-------|------|-----|----------|
| 076SB-0094-0001-SO | VANADIUM                  | 18     | MG/KG | 0.089 | 0.054 |      | 076SB-0095-0001-SO | 19     | 0.069 | 0.042 |      | 5   | N/A      |
| 076SB-0094-0001-SO | ZINC                      | 63     | MG/KG | 0.45  | 0.18  | J    | 076SB-0095-0001-SO | 59     | 0.35  | 0.14  |      | 7   | N/A      |
| 076SB-0094-0001-SO | MERCURY                   | 0.042  | MG/KG | 0.1   | 0.034 | J    | 076SB-0095-0001-SO | 0.038  | 0.097 | 0.032 | J    | N/A | Yes      |
| 076SB-0094-0001-SO | 1,1,1-TRICHLOROETHANE     | 1.1    | UG/KG | 5.7   | 1.1   | UJ   | 076SB-0095-0001-SO | 1.2    | 5.8   | 1.2   |      | N/A | Yes      |
| 076SB-0094-0001-SO | 1,1,2,2-TETRACHLOROETHANE | 0.57   | UG/KG | 5.7   | 0.57  | UJ   | 076SB-0095-0001-SO | 0.58   | 5.8   | 0.58  |      | N/A | Yes      |
| 076SB-0094-0001-SO | 1,1,2-TRICHLOROETHANE     | 0.57   | UG/KG | 5.7   | 0.57  | UJ   | 076SB-0095-0001-SO | 0.58   | 5.8   | 0.58  |      | N/A | Yes      |
| 076SB-0094-0001-SO | 1,1-DICHLOROETHANE        | 0.57   | UG/KG | 5.7   | 0.57  | UJ   | 076SB-0095-0001-SO | 0.58   | 5.8   | 0.58  |      | N/A | Yes      |
| 076SB-0094-0001-SO | 1,1-DICHLOROETHENE        | 1.1    | UG/KG | 5.7   | 1.1   | UJ   | 076SB-0095-0001-SO | 1.2    | 5.8   | 1.2   |      | N/A | Yes      |
| 076SB-0094-0001-SO | 1,2-DIBROMOETHANE         | 1.1    | UG/KG | 5.7   | 1.1   | UJ   | 076SB-0095-0001-SO | 1.2    | 5.8   | 1.2   |      | N/A | Yes      |
| 076SB-0094-0001-SO | 1,2-DICHLOROETHANE        | 0.57   | UG/KG | 5.7   | 0.57  | UJ   | 076SB-0095-0001-SO | 0.58   | 5.8   | 0.58  |      | N/A | Yes      |
| 076SB-0094-0001-SO | 1,2-DICHLOROPROPANE       | 1.1    | UG/KG | 5.7   | 1.1   | UJ   | 076SB-0095-0001-SO | 1.2    | 5.8   | 1.2   |      | N/A | Yes      |
| 076SB-0094-0001-SO | 2-HEXANONE                | 1.1    | UG/KG | 23    | 1.1   | UJ   | 076SB-0095-0001-SO | 1.2    | 23    | 1.2   |      | N/A | Yes      |
| 076SB-0094-0001-SO | ACETONE                   | 7.2    | UG/KG | 23    | 7.2   | UJ   | 076SB-0095-0001-SO | 7.3    | 23    | 7.3   |      | N/A | Yes      |
| 076SB-0094-0001-SO | BENZENE                   | 0.57   | UG/KG | 5.7   | 0.57  | UJ   | 076SB-0095-0001-SO | 0.58   | 5.8   | 0.58  |      | N/A | Yes      |
| 076SB-0094-0001-SO | BROMOCHLOROMETHANE        | 1.1    | UG/KG | 5.7   | 1.1   | UJ   | 076SB-0095-0001-SO | 1.2    | 5.8   | 1.2   |      | N/A | Yes      |
| 076SB-0094-0001-SO | BROMODICHLOROMETHANE      | 0.57   | UG/KG | 5.7   | 0.57  | UJ   | 076SB-0095-0001-SO | 0.58   | 5.8   | 0.58  |      | N/A | Yes      |
| 076SB-0094-0001-SO | BROMOFORM                 | 0.57   | UG/KG | 5.7   | 0.57  | UJ   | 076SB-0095-0001-SO | 0.58   | 5.8   | 0.58  |      | N/A | Yes      |
| 076SB-0094-0001-SO | BROMOMETHANE              | 1.1    | UG/KG | 5.7   | 1.1   | UJ   | 076SB-0095-0001-SO | 1.2    | 5.8   | 1.2   |      | N/A | Yes      |
| 076SB-0094-0001-SO | CARBON DISULFIDE          | 0.57   | UG/KG | 5.7   | 0.57  | UJ   | 076SB-0095-0001-SO | 0.58   | 5.8   | 0.58  |      | N/A | Yes      |
| 076SB-0094-0001-SO | CARBON TETRACHLORIDE      | 0.57   | UG/KG | 5.7   | 0.57  | UJ   | 076SB-0095-0001-SO | 0.58   | 5.8   | 0.58  |      | N/A | Yes      |
| 076SB-0094-0001-SO | CHLOROBENZENE             | 0.57   | UG/KG | 5.7   | 0.57  | UJ   | 076SB-0095-0001-SO | 0.58   | 5.8   | 0.58  |      | N/A | Yes      |
| 076SB-0094-0001-SO | CHLOROETHANE              | 1.1    | UG/KG | 5.7   | 1.1   | UJ   | 076SB-0095-0001-SO | 1.2    | 5.8   | 1.2   |      | N/A | Yes      |
| 076SB-0094-0001-SO | CHLOROFORM                | 0.57   | UG/KG | 5.7   | 0.57  | UJ   | 076SB-0095-0001-SO | 0.58   | 5.8   | 0.58  |      | N/A | Yes      |
| 076SB-0094-0001-SO | CHLOROMETHANE             | 0.57   | UG/KG | 5.7   | 0.57  | UJ   | 076SB-0095-0001-SO | 0.58   | 5.8   | 0.58  |      | N/A | Yes      |
| 076SB-0094-0001-SO | CIS-1,3-DICHLOROPROPENE   | 0.57   | UG/KG | 5.7   | 0.57  | UJ   | 076SB-0095-0001-SO | 0.58   | 5.8   | 0.58  |      | N/A | Yes      |
| 076SB-0094-0001-SO | DIBROMOCHLOROMETHANE      | 1.1    | UG/KG | 5.7   | 1.1   | UJ   | 076SB-0095-0001-SO | 1.2    | 5.8   | 1.2   |      | N/A | Yes      |
| 076SB-0094-0001-SO | ETHYLBENZENE              | 0.57   | UG/KG | 5.7   | 0.57  | UJ   | 076SB-0095-0001-SO | 0.58   | 5.8   | 0.58  |      | N/A | Yes      |
| 076SB-0094-0001-SO | METHYL ETHYL KETONE       | 2.3    | UG/KG | 23    | 2.3   | UJ   | 076SB-0095-0001-SO | 2.3    | 23    | 2.3   |      | N/A | Yes      |
| 076SB-0094-0001-SO | METHYL ISOBUTYL KETONE    | 1.1    | UG/KG | 23    | 1.1   | UJ   | 076SB-0095-0001-SO | 1.2    | 23    | 1.2   |      | N/A | Yes      |
| 076SB-0094-0001-SO | METHYLENE CHLORIDE        | 1.1    | UG/KG | 5.7   | 1.1   | UJ   | 076SB-0095-0001-SO | 1.4    | 5.8   | 1.2   | J    | N/A | Yes      |
| 076SB-0094-0001-SO | STYRENE                   | 0.57   | UG/KG | 5.7   | 0.57  | UJ   | 076SB-0095-0001-SO | 0.58   | 5.8   | 0.58  |      | N/A | Yes      |
| 076SB-0094-0001-SO | TETRACHLOROETHYLENE       | 1.1    | UG/KG | 5.7   | 1.1   | UJ   | 076SB-0095-0001-SO | 1.2    | 5.8   | 1.2   |      | N/A | Yes      |
| 076SB-0094-0001-SO | TOLUENE                   | 1      | UG/KG | 5.7   | 0.57  | J    | 076SB-0095-0001-SO | 2.7    | 5.8   | 0.58  | J    | N/A | Yes      |
| 076SB-0094-0001-SO | TOTAL 1,2-DICHLOROETHENE  | 1.1    | UG/KG | 11    | 1.1   | UJ   | 076SB-0095-0001-SO | 1.2    | 12    | 1.2   |      | N/A | Yes      |
| 076SB-0094-0001-SO | TRANS-1,3-DICHLOROPROPENE | 1.1    | UG/KG | 5.7   | 1.1   | UJ   | 076SB-0095-0001-SO | 1.2    | 5.8   | 1.2   |      | N/A | Yes      |
| 076SB-0094-0001-SO | TRICHLOROETHYLENE         | 0.57   | UG/KG | 5.7   | 0.57  | UJ   | 076SB-0095-0001-SO | 0.58   | 5.8   | 0.58  |      | N/A | Yes      |

| Sample             | Analyte                     | Result | Units | LOQ | LOD  | Qual | Sample             | Result | LOQ | LOD  | Qual | RPD | W/In LOQ |
|--------------------|-----------------------------|--------|-------|-----|------|------|--------------------|--------|-----|------|------|-----|----------|
| 076SB-0094-0001-SO | VINYL CHLORIDE              | 0.57   | UG/KG | 5.7 | 0.57 | UJ   | 076SB-0095-0001-SO | 0.58   | 5.8 | 0.58 |      | N/A | Yes      |
| 076SB-0094-0001-SO | XYLENES, TOTAL              | 1.7    | UG/KG | 11  | 1.7  | UJ   | 076SB-0095-0001-SO | 1.7    | 12  | 1.7  |      | N/A | Yes      |
| 076SB-0094-0001-SO | 1,2,4-TRICHLOROBENZENE      | 27     | UG/KG | 50  | 27   | U    | 076SB-0095-0001-SO | 27     | 50  | 27   |      | N/A | Yes      |
| 076SB-0094-0001-SO | 1,2-DICHLOROBENZENE         | 27     | UG/KG | 50  | 27   | U    | 076SB-0095-0001-SO | 27     | 50  | 27   |      | N/A | Yes      |
| 076SB-0094-0001-SO | 1,3-DICHLOROBENZENE         | 27     | UG/KG | 50  | 27   | U    | 076SB-0095-0001-SO | 27     | 50  | 27   |      | N/A | Yes      |
| 076SB-0094-0001-SO | 1,4-DICHLOROBENZENE         | 27     | UG/KG | 50  | 27   | U    | 076SB-0095-0001-SO | 27     | 50  | 27   |      | N/A | Yes      |
| 076SB-0094-0001-SO | 2,4,5-TRICHLOROPHENOL       | 27     | UG/KG | 150 | 27   | U    | 076SB-0095-0001-SO | 27     | 150 | 27   |      | N/A | Yes      |
| 076SB-0094-0001-SO | 2,4,6-TRICHLOROPHENOL       | 79     | UG/KG | 150 | 79   | U    | 076SB-0095-0001-SO | 80     | 150 | 80   |      | N/A | Yes      |
| 076SB-0094-0001-SO | 2,4-DICHLOROPHENOL          | 27     | UG/KG | 150 | 27   | U    | 076SB-0095-0001-SO | 27     | 150 | 27   |      | N/A | Yes      |
| 076SB-0094-0001-SO | 2,4-DIMETHYLPHENOL          | 79     | UG/KG | 150 | 79   | U    | 076SB-0095-0001-SO | 80     | 150 | 80   |      | N/A | Yes      |
| 076SB-0094-0001-SO | 2,4-DINITROPHENOL           | 79     | UG/KG | 330 | 79   | U    | 076SB-0095-0001-SO | 80     | 330 | 80   |      | N/A | Yes      |
| 076SB-0094-0001-SO | 2,4-DINITROTOLUENE          | 27     | UG/KG | 200 | 27   | U    | 076SB-0095-0001-SO | 27     | 200 | 27   |      | N/A | Yes      |
| 076SB-0094-0001-SO | 2,6-DINITROTOLUENE          | 27     | UG/KG | 200 | 27   | U    | 076SB-0095-0001-SO | 27     | 200 | 27   |      | N/A | Yes      |
| 076SB-0094-0001-SO | 2-CHLORONAPHTHALENE         | 3.3    | UG/KG | 50  | 3.3  | U    | 076SB-0095-0001-SO | 3.3    | 50  | 3.3  |      | N/A | Yes      |
| 076SB-0094-0001-SO | 2-CHLOROPHENOL              | 27     | UG/KG | 50  | 27   | U    | 076SB-0095-0001-SO | 27     | 50  | 27   |      | N/A | Yes      |
| 076SB-0094-0001-SO | 2-METHYLNAPHTHALENE         | 3.3    | UG/KG | 6.6 | 3.3  | U    | 076SB-0095-0001-SO | 3.3    | 6.7 | 3.3  |      | N/A | Yes      |
| 076SB-0094-0001-SO | 2-METHYLPHENOL              | 79     | UG/KG | 200 | 79   | U    | 076SB-0095-0001-SO | 80     | 200 | 80   |      | N/A | Yes      |
| 076SB-0094-0001-SO | 2-NITROANILINE              | 27     | UG/KG | 200 | 27   | U    | 076SB-0095-0001-SO | 27     | 200 | 27   |      | N/A | Yes      |
| 076SB-0094-0001-SO | 2-NITROPHENOL               | 27     | UG/KG | 50  | 27   | U    | 076SB-0095-0001-SO | 27     | 50  | 27   |      | N/A | Yes      |
| 076SB-0094-0001-SO | 3,3'-DICHLOROBENZIDINE      | 79     | UG/KG | 99  | 79   | U    | 076SB-0095-0001-SO | 80     | 100 | 80   |      | N/A | Yes      |
| 076SB-0094-0001-SO | 3-NITROANILINE              | 79     | UG/KG | 200 | 79   | U    | 076SB-0095-0001-SO | 80     | 200 | 80   |      | N/A | Yes      |
| 076SB-0094-0001-SO | 4,6-DINITRO-2-METHYLPHENOL  | 79     | UG/KG | 150 | 79   | U    | 076SB-0095-0001-SO | 80     | 150 | 80   |      | N/A | Yes      |
| 076SB-0094-0001-SO | 4-BROMOPHENYL PHENYL ETHER  | 27     | UG/KG | 50  | 27   | U    | 076SB-0095-0001-SO | 27     | 50  | 27   |      | N/A | Yes      |
| 076SB-0094-0001-SO | 4-CHLORO-3-METHYLPHENOL     | 27     | UG/KG | 150 | 27   | U    | 076SB-0095-0001-SO | 27     | 150 | 27   |      | N/A | Yes      |
| 076SB-0094-0001-SO | 4-CHLOROANILINE             | 27     | UG/KG | 150 | 27   | U    | 076SB-0095-0001-SO | 27     | 150 | 27   |      | N/A | Yes      |
| 076SB-0094-0001-SO | 4-CHLOROPHENYL PHENYL ETHER | 27     | UG/KG | 50  | 27   | U    | 076SB-0095-0001-SO | 27     | 50  | 27   |      | N/A | Yes      |
| 076SB-0094-0001-SO | 4-NITROANILINE              | 27     | UG/KG | 200 | 27   | U    | 076SB-0095-0001-SO | 27     | 200 | 27   |      | N/A | Yes      |
| 076SB-0094-0001-SO | 4-NITROPHENOL               | 79     | UG/KG | 330 | 79   | U    | 076SB-0095-0001-SO | 80     | 330 | 80   |      | N/A | Yes      |
| 076SB-0094-0001-SO | ACENAPHTHENE                | 3.3    | UG/KG | 6.6 | 3.3  | U    | 076SB-0095-0001-SO | 3.3    | 6.7 | 3.3  |      | N/A | Yes      |
| 076SB-0094-0001-SO | ACENAPHTHYLENE              | 3.3    | UG/KG | 6.6 | 3.3  | U    | 076SB-0095-0001-SO | 3.3    | 6.7 | 3.3  |      | N/A | Yes      |
| 076SB-0094-0001-SO | ANTHRACENE                  | 3.3    | UG/KG | 6.6 | 3.3  | U    | 076SB-0095-0001-SO | 3.3    | 6.7 | 3.3  |      | N/A | Yes      |
| 076SB-0094-0001-SO | BENZO(A)ANTHRACENE          | 3.3    | UG/KG | 6.6 | 3.3  | U    | 076SB-0095-0001-SO | 3.3    | 6.7 | 3.3  |      | N/A | Yes      |
| 076SB-0094-0001-SO | BENZO(A)PYRENE              | 3.3    | UG/KG | 6.6 | 3.3  | U    | 076SB-0095-0001-SO | 3.3    | 6.7 | 3.3  |      | N/A | Yes      |
| 076SB-0094-0001-SO | BENZO(B)FLUORANTHENE        | 3.3    | UG/KG | 6.6 | 3.3  | U    | 076SB-0095-0001-SO | 3.3    | 6.7 | 3.3  |      | N/A | Yes      |
| 076SB-0094-0001-SO | BENZO(G,H,I)PERYLENE        | 3.3    | UG/KG | 6.6 | 3.3  | U    | 076SB-0095-0001-SO | 3.3    | 6.7 | 3.3  |      | N/A | Yes      |
| 076SB-0094-0001-SO | BENZO(K)FLUORANTHENE        | 3.3    | UG/KG | 6.6 | 3.3  | U    | 076SB-0095-0001-SO | 3.3    | 6.7 | 3.3  |      | N/A | Yes      |

| Sample             | Analyte                      | Result | Units | LOQ  | LOD   | Qual | Sample             | Result | LOQ   | LOD   | Qual | RPD | W/In LOQ |
|--------------------|------------------------------|--------|-------|------|-------|------|--------------------|--------|-------|-------|------|-----|----------|
| 076SB-0094-0001-SO | BENZOIC ACID                 | 330    | UG/KG | 650  | 330   | U    | 076SB-0095-0001-SO | 330    | 660   | 330   |      | N/A | Yes      |
| 076SB-0094-0001-SO | BENZYL ALCOHOL               | 27     | UG/KG | 330  | 27    | U    | 076SB-0095-0001-SO | 27     | 330   | 27    |      | N/A | Yes      |
| 076SB-0094-0001-SO | BENZYL BUTYL PHTHALATE       | 27     | UG/KG | 50   | 27    | U    | 076SB-0095-0001-SO | 27     | 50    | 27    |      | N/A | Yes      |
| 076SB-0094-0001-SO | BIS(2-CHLOROETHOXY) METHANE  | 27     | UG/KG | 99   | 27    | U    | 076SB-0095-0001-SO | 27     | 100   | 27    |      | N/A | Yes      |
| 076SB-0094-0001-SO | BIS(2-CHLOROETHYL) ETHER     | 3.3    | UG/KG | 99   | 3.3   | U    | 076SB-0095-0001-SO | 3.3    | 100   | 3.3   |      | N/A | Yes      |
| 076SB-0094-0001-SO | BIS(2-CHLOROISOPROPYL) ETHER | 27     | UG/KG | 99   | 27    | U    | 076SB-0095-0001-SO | 27     | 100   | 27    |      | N/A | Yes      |
| 076SB-0094-0001-SO | BIS(2-ETHYLHEXYL) PHTHALATE  | 27     | UG/KG | 50   | 27    | U    | 076SB-0095-0001-SO | 33     | 50    | 27    | J    | N/A | Yes      |
| 076SB-0094-0001-SO | CARBAZOLE                    | 27     | UG/KG | 50   | 27    | U    | 076SB-0095-0001-SO | 27     | 50    | 27    |      | N/A | Yes      |
| 076SB-0094-0001-SO | CHRYSENE                     | 3.3    | UG/KG | 6.6  | 3.3   | U    | 076SB-0095-0001-SO | 3.3    | 6.7   | 3.3   |      | N/A | Yes      |
| 076SB-0094-0001-SO | CRESOLS, M & P               | 79     | UG/KG | 400  | 79    | U    | 076SB-0095-0001-SO | 80     | 400   | 80    |      | N/A | Yes      |
| 076SB-0094-0001-SO | DIBENZ(A,H)ANTHRACENE        | 3.3    | UG/KG | 6.6  | 3.3   | U    | 076SB-0095-0001-SO | 3.3    | 6.7   | 3.3   |      | N/A | Yes      |
| 076SB-0094-0001-SO | DIBENZOFURAN                 | 3.3    | UG/KG | 50   | 3.3   | U    | 076SB-0095-0001-SO | 3.3    | 50    | 3.3   |      | N/A | Yes      |
| 076SB-0094-0001-SO | DIETHYL PHTHALATE            | 27     | UG/KG | 50   | 27    | U    | 076SB-0095-0001-SO | 27     | 50    | 27    |      | N/A | Yes      |
| 076SB-0094-0001-SO | DIMETHYL PHTHALATE           | 27     | UG/KG | 50   | 27    | U    | 076SB-0095-0001-SO | 27     | 50    | 27    |      | N/A | Yes      |
| 076SB-0094-0001-SO | DI-N-BUTYL PHTHALATE         | 27     | UG/KG | 50   | 27    | U    | 076SB-0095-0001-SO | 27     | 50    | 27    |      | N/A | Yes      |
| 076SB-0094-0001-SO | DI-N-OCTYLPHTHALATE          | 27     | UG/KG | 50   | 27    | U    | 076SB-0095-0001-SO | 27     | 50    | 27    |      | N/A | Yes      |
| 076SB-0094-0001-SO | FLUORANTHENE                 | 3.3    | UG/KG | 6.6  | 3.3   | U    | 076SB-0095-0001-SO | 3.3    | 6.7   | 3.3   |      | N/A | Yes      |
| 076SB-0094-0001-SO | FLUORENE                     | 3.3    | UG/KG | 6.6  | 3.3   | U    | 076SB-0095-0001-SO | 3.3    | 6.7   | 3.3   |      | N/A | Yes      |
| 076SB-0094-0001-SO | HEXACHLOROBENZENE            | 3.3    | UG/KG | 6.6  | 3.3   | U    | 076SB-0095-0001-SO | 3.3    | 6.7   | 3.3   |      | N/A | Yes      |
| 076SB-0094-0001-SO | HEXACHLOROBUTADIENE          | 27     | UG/KG | 50   | 27    | U    | 076SB-0095-0001-SO | 27     | 50    | 27    |      | N/A | Yes      |
| 076SB-0094-0001-SO | HEXACHLOROCYCLOPENTADIENE    | 27     | UG/KG | 330  | 27    | U    | 076SB-0095-0001-SO | 27     | 330   | 27    |      | N/A | Yes      |
| 076SB-0094-0001-SO | HEXACHLOROETHANE             | 27     | UG/KG | 50   | 27    | U    | 076SB-0095-0001-SO | 27     | 50    | 27    |      | N/A | Yes      |
| 076SB-0094-0001-SO | INDENO(1,2,3-C,D)PYRENE      | 3.3    | UG/KG | 6.6  | 3.3   | U    | 076SB-0095-0001-SO | 3.3    | 6.7   | 3.3   |      | N/A | Yes      |
| 076SB-0094-0001-SO | ISOPHORONE                   | 27     | UG/KG | 50   | 27    | U    | 076SB-0095-0001-SO | 27     | 50    | 27    |      | N/A | Yes      |
| 076SB-0094-0001-SO | NAPHTHALENE                  | 3.3    | UG/KG | 6.6  | 3.3   | U    | 076SB-0095-0001-SO | 3.3    | 6.7   | 3.3   |      | N/A | Yes      |
| 076SB-0094-0001-SO | NITROBENZENE                 | 3.3    | UG/KG | 99   | 3.3   | U    | 076SB-0095-0001-SO | 3.3    | 100   | 3.3   |      | N/A | Yes      |
| 076SB-0094-0001-SO | N-NITROSODI-N-PROPYLAMINE    | 27     | UG/KG | 50   | 27    | U    | 076SB-0095-0001-SO | 27     | 50    | 27    |      | N/A | Yes      |
| 076SB-0094-0001-SO | N-NITROSODIPHENYLAMINE       | 27     | UG/KG | 50   | 27    | U    | 076SB-0095-0001-SO | 27     | 50    | 27    |      | N/A | Yes      |
| 076SB-0094-0001-SO | PENTACHLOROPHENOL            | 79     | UG/KG | 150  | 79    | U    | 076SB-0095-0001-SO | 80     | 150   | 80    |      | N/A | Yes      |
| 076SB-0094-0001-SO | PHENANTHRENE                 | 3.3    | UG/KG | 6.6  | 3.3   | U    | 076SB-0095-0001-SO | 3.6    | 6.7   | 3.3   | J    | N/A | Yes      |
| 076SB-0094-0001-SO | PHENOL                       | 27     | UG/KG | 50   | 27    | U    | 076SB-0095-0001-SO | 27     | 50    | 27    |      | N/A | Yes      |
| 076SB-0094-0001-SO | PYRENE                       | 3.3    | UG/KG | 6.6  | 3.3   | U    | 076SB-0095-0001-SO | 3.3    | 6.7   | 3.3   |      | N/A | Yes      |
| 076SB-0096-0001-SO | ALUMINUM                     | 6600   | MG/KG | 2.1  | 0.42  |      | 076SB-0097-0001-SO | 6600   | 2.4   | 0.48  |      | 0   | N/A      |
| 076SB-0096-0001-SO | ANTIMONY                     | 0.11   | MG/KG | 0.14 | 0.07  | J-   | 076SB-0097-0001-SO | 0.12   | 0.16  | 0.081 | J    | N/A | Yes      |
| 076SB-0096-0001-SO | ARSENIC                      | 13     | MG/KG | 0.07 | 0.035 | J-   | 076SB-0097-0001-SO | 16     | 0.081 | 0.04  |      | 21  | N/A      |
| 076SB-0096-0001-SO | BARIUM                       | 29     | MG/KG | 0.7  | 0.014 | J    | 076SB-0097-0001-SO | 30     | 0.81  | 0.016 |      | 3   | N/A      |

| Sample             | Analyte                   | Result | Units | LOQ   | LOD   | Qual | Sample             | Result | LOQ   | LOD    | Qual | RPD | W/In LOQ |
|--------------------|---------------------------|--------|-------|-------|-------|------|--------------------|--------|-------|--------|------|-----|----------|
| 076SB-0096-0001-SO | BERYLLIUM                 | 0.42   | MG/KG | 0.07  | 0.007 | J-   | 076SB-0097-0001-SO | 0.47   | 0.081 | 0.0081 |      | 11  | N/A      |
| 076SB-0096-0001-SO | CADMIUM                   | 0.19   | MG/KG | 0.07  | 0.021 | J-   | 076SB-0097-0001-SO | 0.2    | 0.081 | 0.024  |      | N/A | Yes      |
| 076SB-0096-0001-SO | CALCIUM                   | 700    | MG/KG | 7     | 1.8   | J+   | 076SB-0097-0001-SO | 640    | 8.1   | 2      |      | 9   | N/A      |
| 076SB-0096-0001-SO | CHROMIUM                  | 14     | MG/KG | 0.14  | 0.028 | J-   | 076SB-0097-0001-SO | 15     | 0.16  | 0.032  |      | 7   | N/A      |
| 076SB-0096-0001-SO | COBALT                    | 8.3    | MG/KG | 0.035 | 0.007 | J-   | 076SB-0097-0001-SO | 8.6    | 0.04  | 0.0081 |      | 4   | N/A      |
| 076SB-0096-0001-SO | COPPER                    | 17     | MG/KG | 0.14  | 0.042 | J-   | 076SB-0097-0001-SO | 18     | 0.16  | 0.048  |      | 6   | N/A      |
| 076SB-0096-0001-SO | IRON                      | 26000  | MG/KG | 3.5   | 1.4   |      | 076SB-0097-0001-SO | 26000  | 4     | 1.6    |      | 0   | N/A      |
| 076SB-0096-0001-SO | LEAD                      | 14     | MG/KG | 0.07  | 0.021 | J    | 076SB-0097-0001-SO | 14     | 0.081 | 0.024  |      | 0   | N/A      |
| 076SB-0096-0001-SO | MAGNESIUM                 | 1900   | MG/KG | 7     | 1.4   |      | 076SB-0097-0001-SO | 1800   | 8.1   | 1.6    |      | 5   | N/A      |
| 076SB-0096-0001-SO | MANGANESE                 | 510    | MG/KG | 0.35  | 0.021 | J    | 076SB-0097-0001-SO | 480    | 0.4   | 0.024  |      | 6   | N/A      |
| 076SB-0096-0001-SO | NICKEL                    | 21     | MG/KG | 0.07  | 0.021 | J-   | 076SB-0097-0001-SO | 22     | 0.081 | 0.024  |      | 5   | N/A      |
| 076SB-0096-0001-SO | POTASSIUM                 | 810    | MG/KG | 7     | 4.2   | J-   | 076SB-0097-0001-SO | 870    | 8.1   | 4.8    |      | 7   | N/A      |
| 076SB-0096-0001-SO | SELENIUM                  | 0.32   | MG/KG | 0.35  | 0.07  | J-   | 076SB-0097-0001-SO | 0.29   | 0.4   | 0.081  | J    | N/A | Yes      |
| 076SB-0096-0001-SO | SILVER                    | 0.019  | MG/KG | 0.07  | 0.021 | J-   | 076SB-0097-0001-SO | 0.019  | 0.081 | 0.024  | J    | N/A | Yes      |
| 076SB-0096-0001-SO | SODIUM                    | 20     | MG/KG | 7     | 3.5   |      | 076SB-0097-0001-SO | 22     | 8.1   | 4      |      | N/A | Yes      |
| 076SB-0096-0001-SO | THALLIUM                  | 0.13   | MG/KG | 0.07  | 0.014 |      | 076SB-0097-0001-SO | 0.13   | 0.081 | 0.016  |      | N/A | Yes      |
| 076SB-0096-0001-SO | VANADIUM                  | 13     | MG/KG | 0.07  | 0.042 |      | 076SB-0097-0001-SO | 13     | 0.081 | 0.048  |      | 0   | N/A      |
| 076SB-0096-0001-SO | ZINC                      | 62     | MG/KG | 0.35  | 0.14  | J    | 076SB-0097-0001-SO | 70     | 0.4   | 0.16   |      | 12  | N/A      |
| 076SB-0096-0001-SO | MERCURY                   | 0.031  | MG/KG | 0.098 | 0.032 | J    | 076SB-0097-0001-SO | 0.026  | 0.09  | 0.03   | J    | N/A | Yes      |
| 076SB-0096-0001-SO | 1,1,1-TRICHLOROETHANE     | 0.93   | UG/KG | 4.7   | 0.93  |      | 076SB-0097-0001-SO | 0.89   | 4.4   | 0.89   |      | N/A | Yes      |
| 076SB-0096-0001-SO | 1,1,2,2-TETRACHLOROETHANE | 0.47   | UG/KG | 4.7   | 0.47  |      | 076SB-0097-0001-SO | 0.44   | 4.4   | 0.44   |      | N/A | Yes      |
| 076SB-0096-0001-SO | 1,1,2-TRICHLOROETHANE     | 0.47   | UG/KG | 4.7   | 0.47  |      | 076SB-0097-0001-SO | 0.44   | 4.4   | 0.44   |      | N/A | Yes      |
| 076SB-0096-0001-SO | 1,1-DICHLOROETHANE        | 0.47   | UG/KG | 4.7   | 0.47  |      | 076SB-0097-0001-SO | 0.44   | 4.4   | 0.44   |      | N/A | Yes      |
| 076SB-0096-0001-SO | 1,1-DICHLOROETHENE        | 0.93   | UG/KG | 4.7   | 0.93  |      | 076SB-0097-0001-SO | 0.89   | 4.4   | 0.89   |      | N/A | Yes      |
| 076SB-0096-0001-SO | 1,2-DIBROMOETHANE         | 0.93   | UG/KG | 4.7   | 0.93  |      | 076SB-0097-0001-SO | 0.89   | 4.4   | 0.89   |      | N/A | Yes      |
| 076SB-0096-0001-SO | 1,2-DICHLOROETHANE        | 0.47   | UG/KG | 4.7   | 0.47  |      | 076SB-0097-0001-SO | 0.44   | 4.4   | 0.44   |      | N/A | Yes      |
| 076SB-0096-0001-SO | 1,2-DICHLOROPROPANE       | 0.93   | UG/KG | 4.7   | 0.93  |      | 076SB-0097-0001-SO | 0.89   | 4.4   | 0.89   |      | N/A | Yes      |
| 076SB-0096-0001-SO | 2-HEXANONE                | 0.93   | UG/KG | 19    | 0.93  |      | 076SB-0097-0001-SO | 0.89   | 18    | 0.89   |      | N/A | Yes      |
| 076SB-0096-0001-SO | ACETONE                   | 5.9    | UG/KG | 19    | 5.9   |      | 076SB-0097-0001-SO | 5.6    | 18    | 5.6    |      | N/A | Yes      |
| 076SB-0096-0001-SO | BENZENE                   | 0.47   | UG/KG | 4.7   | 0.47  |      | 076SB-0097-0001-SO | 0.44   | 4.4   | 0.44   |      | N/A | Yes      |
| 076SB-0096-0001-SO | BROMOCHLOROMETHANE        | 0.93   | UG/KG | 4.7   | 0.93  |      | 076SB-0097-0001-SO | 0.89   | 4.4   | 0.89   |      | N/A | Yes      |
| 076SB-0096-0001-SO | BROMODICHLOROMETHANE      | 0.47   | UG/KG | 4.7   | 0.47  |      | 076SB-0097-0001-SO | 0.44   | 4.4   | 0.44   |      | N/A | Yes      |
| 076SB-0096-0001-SO | BROMOFORM                 | 0.47   | UG/KG | 4.7   | 0.47  |      | 076SB-0097-0001-SO | 0.44   | 4.4   | 0.44   |      | N/A | Yes      |
| 076SB-0096-0001-SO | BROMOMETHANE              | 0.93   | UG/KG | 4.7   | 0.93  |      | 076SB-0097-0001-SO | 0.89   | 4.4   | 0.89   |      | N/A | Yes      |
| 076SB-0096-0001-SO | CARBON DISULFIDE          | 0.47   | UG/KG | 4.7   | 0.47  |      | 076SB-0097-0001-SO | 0.44   | 4.4   | 0.44   |      | N/A | Yes      |
| 076SB-0096-0001-SO | CARBON TETRACHLORIDE      | 0.47   | UG/KG | 4.7   | 0.47  |      | 076SB-0097-0001-SO | 0.44   | 4.4   | 0.44   |      | N/A | Yes      |

| Sample             | Analyte                   | Result | Units | LOQ | LOD  | Qual | Sample             | Result | LOQ | LOD  | Qual | RPD | W/In LOQ |
|--------------------|---------------------------|--------|-------|-----|------|------|--------------------|--------|-----|------|------|-----|----------|
| 076SB-0096-0001-SO | CHLOROBENZENE             | 0.47   | UG/KG | 4.7 | 0.47 |      | 076SB-0097-0001-SO | 0.44   | 4.4 | 0.44 |      | N/A | Yes      |
| 076SB-0096-0001-SO | CHLOROETHANE              | 0.93   | UG/KG | 4.7 | 0.93 |      | 076SB-0097-0001-SO | 0.89   | 4.4 | 0.89 |      | N/A | Yes      |
| 076SB-0096-0001-SO | CHLOROFORM                | 0.47   | UG/KG | 4.7 | 0.47 |      | 076SB-0097-0001-SO | 0.44   | 4.4 | 0.44 |      | N/A | Yes      |
| 076SB-0096-0001-SO | CHLOROMETHANE             | 0.47   | UG/KG | 4.7 | 0.47 |      | 076SB-0097-0001-SO | 0.44   | 4.4 | 0.44 |      | N/A | Yes      |
| 076SB-0096-0001-SO | CIS-1,3-DICHLOROPROPENE   | 0.47   | UG/KG | 4.7 | 0.47 |      | 076SB-0097-0001-SO | 0.44   | 4.4 | 0.44 |      | N/A | Yes      |
| 076SB-0096-0001-SO | DIBROMOCHLOROMETHANE      | 0.93   | UG/KG | 4.7 | 0.93 |      | 076SB-0097-0001-SO | 0.89   | 4.4 | 0.89 |      | N/A | Yes      |
| 076SB-0096-0001-SO | ETHYLBENZENE              | 0.47   | UG/KG | 4.7 | 0.47 |      | 076SB-0097-0001-SO | 0.44   | 4.4 | 0.44 |      | N/A | Yes      |
| 076SB-0096-0001-SO | METHYL ETHYL KETONE       | 1.9    | UG/KG | 19  | 1.9  |      | 076SB-0097-0001-SO | 1.8    | 18  | 1.8  |      | N/A | Yes      |
| 076SB-0096-0001-SO | METHYL ISOBUTYL KETONE    | 0.93   | UG/KG | 19  | 0.93 |      | 076SB-0097-0001-SO | 0.89   | 18  | 0.89 |      | N/A | Yes      |
| 076SB-0096-0001-SO | METHYLENE CHLORIDE        | 0.93   | UG/KG | 4.7 | 0.93 |      | 076SB-0097-0001-SO | 0.89   | 4.4 | 0.89 |      | N/A | Yes      |
| 076SB-0096-0001-SO | STYRENE                   | 0.47   | UG/KG | 4.7 | 0.47 |      | 076SB-0097-0001-SO | 0.44   | 4.4 | 0.44 |      | N/A | Yes      |
| 076SB-0096-0001-SO | TETRACHLOROETHYLENE       | 0.93   | UG/KG | 4.7 | 0.93 |      | 076SB-0097-0001-SO | 0.89   | 4.4 | 0.89 |      | N/A | Yes      |
| 076SB-0096-0001-SO | TOLUENE                   | 0.94   | UG/KG | 4.7 | 0.47 | J    | 076SB-0097-0001-SO | 0.73   | 4.4 | 0.44 | J    | N/A | Yes      |
| 076SB-0096-0001-SO | TOTAL 1,2-DICHLOROETHENE  | 0.93   | UG/KG | 9.3 | 0.93 |      | 076SB-0097-0001-SO | 0.89   | 8.9 | 0.89 |      | N/A | Yes      |
| 076SB-0096-0001-SO | TRANS-1,3-DICHLOROPROPENE | 0.93   | UG/KG | 4.7 | 0.93 |      | 076SB-0097-0001-SO | 0.89   | 4.4 | 0.89 |      | N/A | Yes      |
| 076SB-0096-0001-SO | TRICHLOROETHYLENE         | 0.47   | UG/KG | 4.7 | 0.47 |      | 076SB-0097-0001-SO | 0.44   | 4.4 | 0.44 |      | N/A | Yes      |
| 076SB-0096-0001-SO | VINYL CHLORIDE            | 0.47   | UG/KG | 4.7 | 0.47 |      | 076SB-0097-0001-SO | 0.44   | 4.4 | 0.44 |      | N/A | Yes      |
| 076SB-0096-0001-SO | XYLENES, TOTAL            | 1.4    | UG/KG | 9.3 | 1.4  |      | 076SB-0097-0001-SO | 1.3    | 8.9 | 1.3  |      | N/A | Yes      |
| 076SB-0096-0001-SO | 1,2,4-TRICHLOROBENZENE    | 27     | UG/KG | 50  | 27   | U    | 076SB-0097-0001-SO | 27     | 50  | 27   |      | N/A | Yes      |
| 076SB-0096-0001-SO | 1,2-DICHLOROBENZENE       | 27     | UG/KG | 50  | 27   | U    | 076SB-0097-0001-SO | 27     | 50  | 27   |      | N/A | Yes      |
| 076SB-0096-0001-SO | 1,3-DICHLOROBENZENE       | 27     | UG/KG | 50  | 27   | U    | 076SB-0097-0001-SO | 27     | 50  | 27   |      | N/A | Yes      |
| 076SB-0096-0001-SO | 1,4-DICHLOROBENZENE       | 27     | UG/KG | 50  | 27   | U    | 076SB-0097-0001-SO | 27     | 50  | 27   |      | N/A | Yes      |
| 076SB-0096-0001-SO | 2,4,5-TRICHLOROPHENOL     | 27     | UG/KG | 150 | 27   | U    | 076SB-0097-0001-SO | 27     | 150 | 27   |      | N/A | Yes      |
| 076SB-0096-0001-SO | 2,4,6-TRICHLOROPHENOL     | 80     | UG/KG | 150 | 80   | U    | 076SB-0097-0001-SO | 80     | 150 | 80   |      | N/A | Yes      |
| 076SB-0096-0001-SO | 2,4-DICHLOROPHENOL        | 27     | UG/KG | 150 | 27   | U    | 076SB-0097-0001-SO | 27     | 150 | 27   |      | N/A | Yes      |
| 076SB-0096-0001-SO | 2,4-DIMETHYLPHENOL        | 80     | UG/KG | 150 | 80   | U    | 076SB-0097-0001-SO | 80     | 150 | 80   |      | N/A | Yes      |
| 076SB-0096-0001-SO | 2,4-DINITROPHENOL         | 80     | UG/KG | 330 | 80   | U    | 076SB-0097-0001-SO | 80     | 330 | 80   |      | N/A | Yes      |
| 076SB-0096-0001-SO | 2,4-DINITROTOLUENE        | 27     | UG/KG | 200 | 27   | U    | 076SB-0097-0001-SO | 27     | 200 | 27   |      | N/A | Yes      |
| 076SB-0096-0001-SO | 2,6-DINITROTOLUENE        | 27     | UG/KG | 200 | 27   | U    | 076SB-0097-0001-SO | 27     | 200 | 27   |      | N/A | Yes      |
| 076SB-0096-0001-SO | 2-CHLORONAPHTHALENE       | 3.3    | UG/KG | 50  | 3.3  | U    | 076SB-0097-0001-SO | 3.3    | 50  | 3.3  |      | N/A | Yes      |
| 076SB-0096-0001-SO | 2-CHLOROPHENOL            | 27     | UG/KG | 50  | 27   | U    | 076SB-0097-0001-SO | 27     | 50  | 27   |      | N/A | Yes      |
| 076SB-0096-0001-SO | 2-METHYLNAPHTHALENE       | 3.3    | UG/KG | 6.7 | 3.3  | U    | 076SB-0097-0001-SO | 3.3    | 6.6 | 3.3  |      | N/A | Yes      |
| 076SB-0096-0001-SO | 2-METHYLPHENOL            | 80     | UG/KG | 200 | 80   | U    | 076SB-0097-0001-SO | 80     | 200 | 80   |      | N/A | Yes      |
| 076SB-0096-0001-SO | 2-NITROANILINE            | 27     | UG/KG | 200 | 27   | U    | 076SB-0097-0001-SO | 27     | 200 | 27   |      | N/A | Yes      |
| 076SB-0096-0001-SO | 2-NITROPHENOL             | 27     | UG/KG | 50  | 27   | U    | 076SB-0097-0001-SO | 27     | 50  | 27   |      | N/A | Yes      |
| 076SB-0096-0001-SO | 3,3'-DICHLOROBENZIDINE    | 80     | UG/KG | 100 | 80   | U    | 076SB-0097-0001-SO | 80     | 99  | 80   |      | N/A | Yes      |

| Sample             | Analyte                      | Result | Units | LOQ | LOD | Qual | Sample             | Result | LOQ | LOD | Qual | RPD | W/In LOQ |
|--------------------|------------------------------|--------|-------|-----|-----|------|--------------------|--------|-----|-----|------|-----|----------|
| 076SB-0096-0001-SO | 3-NITROANILINE               | 80     | UG/KG | 200 | 80  | U    | 076SB-0097-0001-SO | 80     | 200 | 80  |      | N/A | Yes      |
| 076SB-0096-0001-SO | 4,6-DINITRO-2-METHYLPHENOL   | 80     | UG/KG | 150 | 80  | U    | 076SB-0097-0001-SO | 80     | 150 | 80  |      | N/A | Yes      |
| 076SB-0096-0001-SO | 4-BROMOPHENYL PHENYL ETHER   | 27     | UG/KG | 50  | 27  | U    | 076SB-0097-0001-SO | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0096-0001-SO | 4-CHLORO-3-METHYLPHENOL      | 27     | UG/KG | 150 | 27  | U    | 076SB-0097-0001-SO | 27     | 150 | 27  |      | N/A | Yes      |
| 076SB-0096-0001-SO | 4-CHLOROANILINE              | 27     | UG/KG | 150 | 27  | U    | 076SB-0097-0001-SO | 27     | 150 | 27  |      | N/A | Yes      |
| 076SB-0096-0001-SO | 4-CHLOROPHENYL PHENYL ETHER  | 27     | UG/KG | 50  | 27  | U    | 076SB-0097-0001-SO | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0096-0001-SO | 4-NITROANILINE               | 27     | UG/KG | 200 | 27  | U    | 076SB-0097-0001-SO | 27     | 200 | 27  |      | N/A | Yes      |
| 076SB-0096-0001-SO | 4-NITROPHENOL                | 80     | UG/KG | 330 | 80  | U    | 076SB-0097-0001-SO | 80     | 330 | 80  |      | N/A | Yes      |
| 076SB-0096-0001-SO | ACENAPHTHENE                 | 3.3    | UG/KG | 6.7 | 3.3 | U    | 076SB-0097-0001-SO | 3.3    | 6.6 | 3.3 |      | N/A | Yes      |
| 076SB-0096-0001-SO | ACENAPHTHYLENE               | 3.3    | UG/KG | 6.7 | 3.3 | U    | 076SB-0097-0001-SO | 3.3    | 6.6 | 3.3 |      | N/A | Yes      |
| 076SB-0096-0001-SO | ANTHRACENE                   | 3.3    | UG/KG | 6.7 | 3.3 | U    | 076SB-0097-0001-SO | 3.3    | 6.6 | 3.3 |      | N/A | Yes      |
| 076SB-0096-0001-SO | BENZO(A)ANTHRACENE           | 3.3    | UG/KG | 6.7 | 3.3 | U    | 076SB-0097-0001-SO | 3.3    | 6.6 | 3.3 |      | N/A | Yes      |
| 076SB-0096-0001-SO | BENZO(A)PYRENE               | 3.3    | UG/KG | 6.7 | 3.3 | U    | 076SB-0097-0001-SO | 3.3    | 6.6 | 3.3 |      | N/A | Yes      |
| 076SB-0096-0001-SO | BENZO(B)FLUORANTHENE         | 3.3    | UG/KG | 6.7 | 3.3 | U    | 076SB-0097-0001-SO | 3.3    | 6.6 | 3.3 |      | N/A | Yes      |
| 076SB-0096-0001-SO | BENZO(G,H,I)PERYLENE         | 3.3    | UG/KG | 6.7 | 3.3 | U    | 076SB-0097-0001-SO | 3.3    | 6.6 | 3.3 |      | N/A | Yes      |
| 076SB-0096-0001-SO | BENZO(K)FLUORANTHENE         | 3.3    | UG/KG | 6.7 | 3.3 | U    | 076SB-0097-0001-SO | 3.3    | 6.6 | 3.3 |      | N/A | Yes      |
| 076SB-0096-0001-SO | BENZOIC ACID                 | 330    | UG/KG | 660 | 330 | U    | 076SB-0097-0001-SO | 330    | 660 | 330 |      | N/A | Yes      |
| 076SB-0096-0001-SO | BENZYL ALCOHOL               | 27     | UG/KG | 330 | 27  | U    | 076SB-0097-0001-SO | 27     | 330 | 27  |      | N/A | Yes      |
| 076SB-0096-0001-SO | BENZYL BUTYL PHTHALATE       | 27     | UG/KG | 50  | 27  | U    | 076SB-0097-0001-SO | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0096-0001-SO | BIS(2-CHLOROETHOXY) METHANE  | 27     | UG/KG | 100 | 27  | U    | 076SB-0097-0001-SO | 27     | 99  | 27  |      | N/A | Yes      |
| 076SB-0096-0001-SO | BIS(2-CHLOROETHYL) ETHER     | 3.3    | UG/KG | 100 | 3.3 | U    | 076SB-0097-0001-SO | 3.3    | 99  | 3.3 |      | N/A | Yes      |
| 076SB-0096-0001-SO | BIS(2-CHLOROISOPROPYL) ETHER | 27     | UG/KG | 100 | 27  | U    | 076SB-0097-0001-SO | 27     | 99  | 27  |      | N/A | Yes      |
| 076SB-0096-0001-SO | BIS(2-ETHYLHEXYL) PHTHALATE  | 27     | UG/KG | 50  | 27  | U    | 076SB-0097-0001-SO | 26     | 50  | 27  | J    | N/A | Yes      |
| 076SB-0096-0001-SO | CARBAZOLE                    | 27     | UG/KG | 50  | 27  | U    | 076SB-0097-0001-SO | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0096-0001-SO | CHRYSENE                     | 3.3    | UG/KG | 6.7 | 3.3 | U    | 076SB-0097-0001-SO | 3.3    | 6.6 | 3.3 |      | N/A | Yes      |
| 076SB-0096-0001-SO | CRESOLS, M & P               | 80     | UG/KG | 400 | 80  | U    | 076SB-0097-0001-SO | 80     | 400 | 80  |      | N/A | Yes      |
| 076SB-0096-0001-SO | DIBENZ(A,H)ANTHRACENE        | 3.3    | UG/KG | 6.7 | 3.3 | U    | 076SB-0097-0001-SO | 3.3    | 6.6 | 3.3 |      | N/A | Yes      |
| 076SB-0096-0001-SO | DIBENZOFURAN                 | 3.3    | UG/KG | 50  | 3.3 | U    | 076SB-0097-0001-SO | 3.3    | 50  | 3.3 |      | N/A | Yes      |
| 076SB-0096-0001-SO | DIETHYL PHTHALATE            | 27     | UG/KG | 50  | 27  | U    | 076SB-0097-0001-SO | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0096-0001-SO | DIMETHYL PHTHALATE           | 27     | UG/KG | 50  | 27  | U    | 076SB-0097-0001-SO | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0096-0001-SO | DI-N-BUTYL PHTHALATE         | 27     | UG/KG | 50  | 27  | U    | 076SB-0097-0001-SO | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0096-0001-SO | DI-N-OCTYLPHTHALATE          | 27     | UG/KG | 50  | 27  | U    | 076SB-0097-0001-SO | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0096-0001-SO | FLUORANTHENE                 | 3.3    | UG/KG | 6.7 | 3.3 | U    | 076SB-0097-0001-SO | 3.3    | 6.6 | 3.3 |      | N/A | Yes      |
| 076SB-0096-0001-SO | FLUORENE                     | 3.3    | UG/KG | 6.7 | 3.3 | U    | 076SB-0097-0001-SO | 3.3    | 6.6 | 3.3 |      | N/A | Yes      |
| 076SB-0096-0001-SO | HEXACHLOROBENZENE            | 3.3    | UG/KG | 6.7 | 3.3 | U    | 076SB-0097-0001-SO | 3.3    | 6.6 | 3.3 |      | N/A | Yes      |
| 076SB-0096-0001-SO | HEXACHLOROBUTADIENE          | 27     | UG/KG | 50  | 27  | U    | 076SB-0097-0001-SO | 27     | 50  | 27  |      | N/A | Yes      |



| Sample              | Analyte                   | Result | Units | LOQ   | LOD    | Qual | Sample              | Result | LOQ   | LOD    | Qual | RPD | W/In LOQ |
|---------------------|---------------------------|--------|-------|-------|--------|------|---------------------|--------|-------|--------|------|-----|----------|
| 076SB-0096-0001-SO  | HEXACHLOROCYCLOPENTADIENE | 27     | UG/KG | 330   | 27     | U    | 076SB-0097-0001-SO  | 27     | 330   | 27     |      | N/A | Yes      |
| 076SB-0096-0001-SO  | HEXACHLOROETHANE          | 27     | UG/KG | 50    | 27     | U    | 076SB-0097-0001-SO  | 27     | 50    | 27     |      | N/A | Yes      |
| 076SB-0096-0001-SO  | INDENO(1,2,3-C,D)PYRENE   | 3.3    | UG/KG | 6.7   | 3.3    | U    | 076SB-0097-0001-SO  | 3.3    | 6.6   | 3.3    |      | N/A | Yes      |
| 076SB-0096-0001-SO  | ISOPHORONE                | 27     | UG/KG | 50    | 27     | U    | 076SB-0097-0001-SO  | 27     | 50    | 27     |      | N/A | Yes      |
| 076SB-0096-0001-SO  | NAPHTHALENE               | 3.3    | UG/KG | 6.7   | 3.3    | U    | 076SB-0097-0001-SO  | 3.3    | 6.6   | 3.3    |      | N/A | Yes      |
| 076SB-0096-0001-SO  | NITROBENZENE              | 3.3    | UG/KG | 100   | 3.3    | U    | 076SB-0097-0001-SO  | 3.3    | 99    | 3.3    |      | N/A | Yes      |
| 076SB-0096-0001-SO  | N-NITROSODI-N-PROPYLAMINE | 27     | UG/KG | 50    | 27     | U    | 076SB-0097-0001-SO  | 27     | 50    | 27     |      | N/A | Yes      |
| 076SB-0096-0001-SO  | N-NITROSODIPHENYLAMINE    | 27     | UG/KG | 50    | 27     | U    | 076SB-0097-0001-SO  | 27     | 50    | 27     |      | N/A | Yes      |
| 076SB-0096-0001-SO  | PENTACHLOROPHENOL         | 80     | UG/KG | 150   | 80     | U    | 076SB-0097-0001-SO  | 80     | 150   | 80     |      | N/A | Yes      |
| 076SB-0096-0001-SO  | PHENANTHRENE              | 3.3    | UG/KG | 6.7   | 3.3    | U    | 076SB-0097-0001-SO  | 3.3    | 6.6   | 3.3    |      | N/A | Yes      |
| 076SB-0096-0001-SO  | PHENOL                    | 27     | UG/KG | 50    | 27     | U    | 076SB-0097-0001-SO  | 27     | 50    | 27     |      | N/A | Yes      |
| 076SB-0096-0001-SO  | PYRENE                    | 3.3    | UG/KG | 6.7   | 3.3    | U    | 076SB-0097-0001-SO  | 3.3    | 6.6   | 3.3    |      | N/A | Yes      |
| 076SB-0102M-0001-SO | NITROCELLULOSE            | 9.3    | MG/KG | 46    | 17     | J    | 076SB-0103M-0001-SC | 9.5    | 49    | 18     | J    | N/A | Yes      |
| 076SB-0102M-0001-SO | ALUMINUM                  | 7900   | MG/KG | 2.3   | 0.45   |      | 076SB-0103M-0001-SC | 7800   | 2     | 0.41   |      | 1   | N/A      |
| 076SB-0102M-0001-SO | ANTIMONY                  | 0.12   | MG/KG | 0.15  | 0.076  | J-   | 076SB-0103M-0001-SC | 0.1    | 0.14  | 0.068  | J    | N/A | Yes      |
| 076SB-0102M-0001-SO | ARSENIC                   | 15     | MG/KG | 0.076 | 0.038  | J-   | 076SB-0103M-0001-SC | 14     | 0.068 | 0.034  |      | 7   | N/A      |
| 076SB-0102M-0001-SO | BARIUM                    | 34     | MG/KG | 0.76  | 0.015  | J    | 076SB-0103M-0001-SC | 32     | 0.68  | 0.014  |      | 6   | N/A      |
| 076SB-0102M-0001-SO | BERYLLIUM                 | 0.53   | MG/KG | 0.076 | 0.0076 | J-   | 076SB-0103M-0001-SC | 0.46   | 0.068 | 0.0068 |      | 14  | N/A      |
| 076SB-0102M-0001-SO | CADMIUM                   | 0.19   | MG/KG | 0.076 | 0.023  | J-   | 076SB-0103M-0001-SC | 0.16   | 0.068 | 0.02   |      | N/A | Yes      |
| 076SB-0102M-0001-SO | CALCIUM                   | 680    | MG/KG | 7.6   | 1.9    | J+   | 076SB-0103M-0001-SC | 640    | 6.8   | 1.7    |      | 6   | N/A      |
| 076SB-0102M-0001-SO | CHROMIUM                  | 22     | MG/KG | 0.15  | 0.03   | J-   | 076SB-0103M-0001-SC | 16     | 0.14  | 0.027  |      | 32  | N/A      |
| 076SB-0102M-0001-SO | COBALT                    | 9.2    | MG/KG | 0.038 | 0.0076 | J-   | 076SB-0103M-0001-SC | 9      | 0.034 | 0.0068 |      | 2   | N/A      |
| 076SB-0102M-0001-SO | COPPER                    | 16     | MG/KG | 0.15  | 0.045  | J-   | 076SB-0103M-0001-SC | 15     | 0.14  | 0.041  |      | 6   | N/A      |
| 076SB-0102M-0001-SO | IRON                      | 27000  | MG/KG | 3.8   | 1.5    |      | 076SB-0103M-0001-SC | 22000  | 3.4   | 1.4    |      | 20  | N/A      |
| 076SB-0102M-0001-SO | LEAD                      | 15     | MG/KG | 0.076 | 0.023  | J    | 076SB-0103M-0001-SC | 13     | 0.068 | 0.02   |      | 14  | N/A      |
| 076SB-0102M-0001-SO | MAGNESIUM                 | 2000   | MG/KG | 7.6   | 1.5    |      | 076SB-0103M-0001-SC | 2000   | 6.8   | 1.4    |      | 0   | N/A      |
| 076SB-0102M-0001-SO | MANGANESE                 | 430    | MG/KG | 0.38  | 0.023  | J    | 076SB-0103M-0001-SC | 350    | 0.34  | 0.02   |      | 21  | N/A      |
| 076SB-0102M-0001-SO | NICKEL                    | 23     | MG/KG | 0.076 | 0.023  | J-   | 076SB-0103M-0001-SC | 19     | 0.068 | 0.02   |      | 19  | N/A      |
| 076SB-0102M-0001-SO | POTASSIUM                 | 840    | MG/KG | 7.6   | 4.5    | J-   | 076SB-0103M-0001-SC | 850    | 6.8   | 4.1    |      | 1   | N/A      |
| 076SB-0102M-0001-SO | SELENIUM                  | 0.29   | MG/KG | 0.38  | 0.076  | J-   | 076SB-0103M-0001-SC | 0.24   | 0.34  | 0.068  | J    | N/A | Yes      |
| 076SB-0102M-0001-SO | SILVER                    | 0.02   | MG/KG | 0.076 | 0.023  | J-   | 076SB-0103M-0001-SC | 0.021  | 0.068 | 0.02   | J    | N/A | Yes      |
| 076SB-0102M-0001-SO | SODIUM                    | 28     | MG/KG | 7.6   | 3.8    |      | 076SB-0103M-0001-SC | 26     | 6.8   | 3.4    |      | N/A | Yes      |
| 076SB-0102M-0001-SO | THALLIUM                  | 0.13   | MG/KG | 0.076 | 0.015  |      | 076SB-0103M-0001-SC | 0.12   | 0.068 | 0.014  |      | N/A | Yes      |
| 076SB-0102M-0001-SO | VANADIUM                  | 15     | MG/KG | 0.076 | 0.045  |      | 076SB-0103M-0001-SC | 13     | 0.068 | 0.041  |      | 14  | N/A      |
| 076SB-0102M-0001-SO | ZINC                      | 75     | MG/KG | 0.38  | 0.15   | J    | 076SB-0103M-0001-SC | 59     | 0.34  | 0.14   |      | 24  | N/A      |
| 076SB-0102M-0001-SO | MERCURY                   | 0.03   | MG/KG | 0.092 | 0.03   | J    | 076SB-0103M-0001-SC | 0.031  | 0.1   | 0.034  | J    | N/A | Yes      |

| Sample              | Analyte                   | Result | Units | LOQ | LOD  | Qual | Sample              | Result | LOQ | LOD  | Qual | RPD | W/In LOQ |
|---------------------|---------------------------|--------|-------|-----|------|------|---------------------|--------|-----|------|------|-----|----------|
| 076SB-0102M-0001-SO | AROCLOR 1016              | 25     | UG/KG | 65  | 25   | U    | 076SB-0103M-0001-SC | 25     | 65  | 25   |      | N/A | Yes      |
| 076SB-0102M-0001-SO | AROCLOR 1221              | 25     | UG/KG | 50  | 25   | U    | 076SB-0103M-0001-SC | 25     | 50  | 25   |      | N/A | Yes      |
| 076SB-0102M-0001-SO | AROCLOR 1232              | 25     | UG/KG | 45  | 25   | U    | 076SB-0103M-0001-SC | 25     | 45  | 25   |      | N/A | Yes      |
| 076SB-0102M-0001-SO | AROCLOR 1242              | 25     | UG/KG | 40  | 25   | U    | 076SB-0103M-0001-SC | 25     | 40  | 25   |      | N/A | Yes      |
| 076SB-0102M-0001-SO | AROCLOR 1248              | 25     | UG/KG | 55  | 25   | U    | 076SB-0103M-0001-SC | 25     | 55  | 25   |      | N/A | Yes      |
| 076SB-0102M-0001-SO | AROCLOR 1254              | 25     | UG/KG | 55  | 25   | U    | 076SB-0103M-0001-SC | 25     | 55  | 25   |      | N/A | Yes      |
| 076SB-0102M-0001-SO | AROCLOR 1260              | 25     | UG/KG | 55  | 25   | U    | 076SB-0103M-0001-SC | 25     | 55  | 25   |      | N/A | Yes      |
| 076SB-0102M-0001-SO | 1,1,1-TRICHLOROETHANE     | 1.1    | UG/KG | 5.6 | 1.1  | U    | 076SB-0103M-0001-SC | 1.1    | 5.4 | 1.1  |      | N/A | Yes      |
| 076SB-0102M-0001-SO | 1,1,2,2-TETRACHLOROETHANE | 0.56   | UG/KG | 5.6 | 0.56 | U    | 076SB-0103M-0001-SC | 0.54   | 5.4 | 0.54 |      | N/A | Yes      |
| 076SB-0102M-0001-SO | 1,1,2-TRICHLOROETHANE     | 0.56   | UG/KG | 5.6 | 0.56 | U    | 076SB-0103M-0001-SC | 0.54   | 5.4 | 0.54 |      | N/A | Yes      |
| 076SB-0102M-0001-SO | 1,1-DICHLOROETHANE        | 0.56   | UG/KG | 5.6 | 0.56 | U    | 076SB-0103M-0001-SC | 0.54   | 5.4 | 0.54 |      | N/A | Yes      |
| 076SB-0102M-0001-SO | 1,1-DICHLOROETHENE        | 1.1    | UG/KG | 5.6 | 1.1  | U    | 076SB-0103M-0001-SC | 1.1    | 5.4 | 1.1  |      | N/A | Yes      |
| 076SB-0102M-0001-SO | 1,2-DIBROMOETHANE         | 1.1    | UG/KG | 5.6 | 1.1  | U    | 076SB-0103M-0001-SC | 1.1    | 5.4 | 1.1  |      | N/A | Yes      |
| 076SB-0102M-0001-SO | 1,2-DICHLOROETHANE        | 0.56   | UG/KG | 5.6 | 0.56 | U    | 076SB-0103M-0001-SC | 0.54   | 5.4 | 0.54 |      | N/A | Yes      |
| 076SB-0102M-0001-SO | 1,2-DICHLOROPROPANE       | 1.1    | UG/KG | 5.6 | 1.1  | U    | 076SB-0103M-0001-SC | 1.1    | 5.4 | 1.1  |      | N/A | Yes      |
| 076SB-0102M-0001-SO | 2-HEXANONE                | 1.1    | UG/KG | 22  | 1.1  | UJ   | 076SB-0103M-0001-SC | 1.9    | 22  | 1.1  | J    | N/A | Yes      |
| 076SB-0102M-0001-SO | ACETONE                   | 7      | UG/KG | 22  | 7    | U    | 076SB-0103M-0001-SC | 6.8    | 22  | 6.8  |      | N/A | Yes      |
| 076SB-0102M-0001-SO | BENZENE                   | 0.56   | UG/KG | 5.6 | 0.56 | U    | 076SB-0103M-0001-SC | 0.54   | 5.4 | 0.54 |      | N/A | Yes      |
| 076SB-0102M-0001-SO | BROMOCHLOROMETHANE        | 1.1    | UG/KG | 5.6 | 1.1  | U    | 076SB-0103M-0001-SC | 1.1    | 5.4 | 1.1  |      | N/A | Yes      |
| 076SB-0102M-0001-SO | BROMODICHLOROMETHANE      | 0.56   | UG/KG | 5.6 | 0.56 | U    | 076SB-0103M-0001-SC | 0.54   | 5.4 | 0.54 |      | N/A | Yes      |
| 076SB-0102M-0001-SO | BROMOFORM                 | 0.56   | UG/KG | 5.6 | 0.56 | U    | 076SB-0103M-0001-SC | 0.54   | 5.4 | 0.54 |      | N/A | Yes      |
| 076SB-0102M-0001-SO | BROMOMETHANE              | 1.1    | UG/KG | 5.6 | 1.1  | U    | 076SB-0103M-0001-SC | 1.1    | 5.4 | 1.1  |      | N/A | Yes      |
| 076SB-0102M-0001-SO | CARBON DISULFIDE          | 0.56   | UG/KG | 5.6 | 0.56 | U    | 076SB-0103M-0001-SC | 0.54   | 5.4 | 0.54 |      | N/A | Yes      |
| 076SB-0102M-0001-SO | CARBON TETRACHLORIDE      | 0.56   | UG/KG | 5.6 | 0.56 | U    | 076SB-0103M-0001-SC | 0.54   | 5.4 | 0.54 |      | N/A | Yes      |
| 076SB-0102M-0001-SO | CHLOROBENZENE             | 0.56   | UG/KG | 5.6 | 0.56 | U    | 076SB-0103M-0001-SC | 0.54   | 5.4 | 0.54 |      | N/A | Yes      |
| 076SB-0102M-0001-SO | CHLOROETHANE              | 1.1    | UG/KG | 5.6 | 1.1  | U    | 076SB-0103M-0001-SC | 1.1    | 5.4 | 1.1  |      | N/A | Yes      |
| 076SB-0102M-0001-SO | CHLOROFORM                | 0.56   | UG/KG | 5.6 | 0.56 | U    | 076SB-0103M-0001-SC | 0.54   | 5.4 | 0.54 |      | N/A | Yes      |
| 076SB-0102M-0001-SO | CHLOROMETHANE             | 0.56   | UG/KG | 5.6 | 0.56 | U    | 076SB-0103M-0001-SC | 0.54   | 5.4 | 0.54 |      | N/A | Yes      |
| 076SB-0102M-0001-SO | CIS-1,3-DICHLOROPROPENE   | 0.56   | UG/KG | 5.6 | 0.56 | U    | 076SB-0103M-0001-SC | 0.54   | 5.4 | 0.54 |      | N/A | Yes      |
| 076SB-0102M-0001-SO | DIBROMOCHLOROMETHANE      | 1.1    | UG/KG | 5.6 | 1.1  | U    | 076SB-0103M-0001-SC | 1.1    | 5.4 | 1.1  |      | N/A | Yes      |
| 076SB-0102M-0001-SO | ETHYLBENZENE              | 0.56   | UG/KG | 5.6 | 0.56 | U    | 076SB-0103M-0001-SC | 0.54   | 5.4 | 0.54 |      | N/A | Yes      |
| 076SB-0102M-0001-SO | METHYL ETHYL KETONE       | 2.2    | UG/KG | 22  | 2.2  | U    | 076SB-0103M-0001-SC | 2.2    | 22  | 2.2  |      | N/A | Yes      |
| 076SB-0102M-0001-SO | METHYL ISOBUTYL KETONE    | 1.1    | UG/KG | 22  | 1.1  | UJ   | 076SB-0103M-0001-SC | 1.3    | 22  | 1.1  | J    | N/A | Yes      |
| 076SB-0102M-0001-SO | METHYLENE CHLORIDE        | 1.1    | UG/KG | 5.6 | 1.1  | U    | 076SB-0103M-0001-SC | 1.1    | 5.4 | 1.1  |      | N/A | Yes      |
| 076SB-0102M-0001-SO | STYRENE                   | 0.56   | UG/KG | 5.6 | 0.56 | U    | 076SB-0103M-0001-SC | 0.54   | 5.4 | 0.54 |      | N/A | Yes      |
| 076SB-0102M-0001-SO | TETRACHLOROETHYLENE       | 1.1    | UG/KG | 5.6 | 1.1  | U    | 076SB-0103M-0001-SC | 1.1    | 5.4 | 1.1  |      | N/A | Yes      |

| Sample              | Analyte                     | Result | Units | LOQ | LOD  | Qual | Sample              | Result | LOQ | LOD  | Qual | RPD | W/In LOQ |
|---------------------|-----------------------------|--------|-------|-----|------|------|---------------------|--------|-----|------|------|-----|----------|
| 076SB-0102M-0001-SO | TOLUENE                     | 1.7    | UG/KG | 5.6 | 0.56 | J    | 076SB-0103M-0001-SC | 1.5    | 5.4 | 0.54 | J    | N/A | Yes      |
| 076SB-0102M-0001-SO | TOTAL 1,2-DICHLOROETHENE    | 1.1    | UG/KG | 11  | 1.1  | U    | 076SB-0103M-0001-SC | 1.1    | 11  | 1.1  |      | N/A | Yes      |
| 076SB-0102M-0001-SO | TRANS-1,3-DICHLOROPROPENE   | 1.1    | UG/KG | 5.6 | 1.1  | U    | 076SB-0103M-0001-SC | 1.1    | 5.4 | 1.1  |      | N/A | Yes      |
| 076SB-0102M-0001-SO | TRICHLOROETHYLENE           | 0.56   | UG/KG | 5.6 | 0.56 | U    | 076SB-0103M-0001-SC | 0.54   | 5.4 | 0.54 |      | N/A | Yes      |
| 076SB-0102M-0001-SO | VINYL CHLORIDE              | 0.56   | UG/KG | 5.6 | 0.56 | U    | 076SB-0103M-0001-SC | 0.54   | 5.4 | 0.54 |      | N/A | Yes      |
| 076SB-0102M-0001-SO | XYLENES, TOTAL              | 1.7    | UG/KG | 11  | 1.7  | U    | 076SB-0103M-0001-SC | 1.6    | 11  | 1.6  |      | N/A | Yes      |
| 076SB-0102M-0001-SO | 1,2,4-TRICHLOROBENZENE      | 27     | UG/KG | 50  | 27   | U    | 076SB-0103M-0001-SC | 27     | 50  | 27   |      | N/A | Yes      |
| 076SB-0102M-0001-SO | 1,2-DICHLOROBENZENE         | 27     | UG/KG | 50  | 27   | U    | 076SB-0103M-0001-SC | 27     | 50  | 27   |      | N/A | Yes      |
| 076SB-0102M-0001-SO | 1,3-DICHLOROBENZENE         | 27     | UG/KG | 50  | 27   | U    | 076SB-0103M-0001-SC | 27     | 50  | 27   |      | N/A | Yes      |
| 076SB-0102M-0001-SO | 1,4-DICHLOROBENZENE         | 27     | UG/KG | 50  | 27   | U    | 076SB-0103M-0001-SC | 27     | 50  | 27   |      | N/A | Yes      |
| 076SB-0102M-0001-SO | 2,4,5-TRICHLOROPHENOL       | 27     | UG/KG | 150 | 27   | U    | 076SB-0103M-0001-SC | 27     | 150 | 27   |      | N/A | Yes      |
| 076SB-0102M-0001-SO | 2,4,6-TRICHLOROPHENOL       | 81     | UG/KG | 150 | 81   | U    | 076SB-0103M-0001-SC | 80     | 150 | 80   |      | N/A | Yes      |
| 076SB-0102M-0001-SO | 2,4-DICHLOROPHENOL          | 27     | UG/KG | 150 | 27   | U    | 076SB-0103M-0001-SC | 27     | 150 | 27   |      | N/A | Yes      |
| 076SB-0102M-0001-SO | 2,4-DIMETHYLPHENOL          | 81     | UG/KG | 150 | 81   | U    | 076SB-0103M-0001-SC | 80     | 150 | 80   |      | N/A | Yes      |
| 076SB-0102M-0001-SO | 2,4-DINITROPHENOL           | 81     | UG/KG | 330 | 81   | U    | 076SB-0103M-0001-SC | 80     | 330 | 80   |      | N/A | Yes      |
| 076SB-0102M-0001-SO | 2,4-DINITROTOLUENE          | 27     | UG/KG | 200 | 27   | U    | 076SB-0103M-0001-SC | 27     | 200 | 27   |      | N/A | Yes      |
| 076SB-0102M-0001-SO | 2,6-DINITROTOLUENE          | 27     | UG/KG | 200 | 27   | U    | 076SB-0103M-0001-SC | 27     | 200 | 27   |      | N/A | Yes      |
| 076SB-0102M-0001-SO | 2-CHLORONAPHTHALENE         | 3.3    | UG/KG | 50  | 3.3  | U    | 076SB-0103M-0001-SC | 3.3    | 50  | 3.3  |      | N/A | Yes      |
| 076SB-0102M-0001-SO | 2-CHLOROPHENOL              | 27     | UG/KG | 50  | 27   | U    | 076SB-0103M-0001-SC | 27     | 50  | 27   |      | N/A | Yes      |
| 076SB-0102M-0001-SO | 2-METHYLNAPHTHALENE         | 4.9    | UG/KG | 6.7 | 3.3  | J    | 076SB-0103M-0001-SC | 3.7    | 6.6 | 3.3  | J    | N/A | Yes      |
| 076SB-0102M-0001-SO | 2-METHYLPHENOL              | 81     | UG/KG | 200 | 81   | U    | 076SB-0103M-0001-SC | 80     | 200 | 80   |      | N/A | Yes      |
| 076SB-0102M-0001-SO | 2-NITROANILINE              | 27     | UG/KG | 200 | 27   | U    | 076SB-0103M-0001-SC | 27     | 200 | 27   |      | N/A | Yes      |
| 076SB-0102M-0001-SO | 2-NITROPHENOL               | 27     | UG/KG | 50  | 27   | U    | 076SB-0103M-0001-SC | 27     | 50  | 27   |      | N/A | Yes      |
| 076SB-0102M-0001-SO | 3,3'-DICHLOROBENZIDINE      | 81     | UG/KG | 100 | 81   | U    | 076SB-0103M-0001-SC | 80     | 100 | 80   |      | N/A | Yes      |
| 076SB-0102M-0001-SO | 3-NITROANILINE              | 81     | UG/KG | 200 | 81   | U    | 076SB-0103M-0001-SC | 80     | 200 | 80   |      | N/A | Yes      |
| 076SB-0102M-0001-SO | 4,6-DINITRO-2-METHYLPHENOL  | 81     | UG/KG | 150 | 81   | U    | 076SB-0103M-0001-SC | 80     | 150 | 80   |      | N/A | Yes      |
| 076SB-0102M-0001-SO | 4-BROMOPHENYL PHENYL ETHER  | 27     | UG/KG | 50  | 27   | U    | 076SB-0103M-0001-SC | 27     | 50  | 27   |      | N/A | Yes      |
| 076SB-0102M-0001-SO | 4-CHLORO-3-METHYLPHENOL     | 27     | UG/KG | 150 | 27   | U    | 076SB-0103M-0001-SC | 27     | 150 | 27   |      | N/A | Yes      |
| 076SB-0102M-0001-SO | 4-CHLOROANILINE             | 27     | UG/KG | 150 | 27   | U    | 076SB-0103M-0001-SC | 27     | 150 | 27   |      | N/A | Yes      |
| 076SB-0102M-0001-SO | 4-CHLOROPHENYL PHENYL ETHER | 27     | UG/KG | 50  | 27   | U    | 076SB-0103M-0001-SC | 27     | 50  | 27   |      | N/A | Yes      |
| 076SB-0102M-0001-SO | 4-NITROANILINE              | 27     | UG/KG | 200 | 27   | U    | 076SB-0103M-0001-SC | 27     | 200 | 27   |      | N/A | Yes      |
| 076SB-0102M-0001-SO | 4-NITROPHENOL               | 81     | UG/KG | 330 | 81   | U    | 076SB-0103M-0001-SC | 80     | 330 | 80   |      | N/A | Yes      |
| 076SB-0102M-0001-SO | ACENAPHTHENE                | 3.3    | UG/KG | 6.7 | 3.3  | U    | 076SB-0103M-0001-SC | 3.3    | 6.6 | 3.3  |      | N/A | Yes      |
| 076SB-0102M-0001-SO | ACENAPHTHYLENE              | 3.3    | UG/KG | 6.7 | 3.3  | U    | 076SB-0103M-0001-SC | 3.3    | 6.6 | 3.3  |      | N/A | Yes      |
| 076SB-0102M-0001-SO | ANTHRACENE                  | 3.3    | UG/KG | 6.7 | 3.3  | U    | 076SB-0103M-0001-SC | 3.3    | 6.6 | 3.3  |      | N/A | Yes      |
| 076SB-0102M-0001-SO | BENZO(A)ANTHRACENE          | 3.3    | UG/KG | 6.7 | 3.3  | U    | 076SB-0103M-0001-SC | 3.3    | 6.6 | 3.3  |      | N/A | Yes      |

| Sample              | Analyte                      | Result | Units | LOQ | LOD | Qual | Sample              | Result | LOQ | LOD | Qual | RPD | W/In LOQ |
|---------------------|------------------------------|--------|-------|-----|-----|------|---------------------|--------|-----|-----|------|-----|----------|
| 076SB-0102M-0001-SO | BENZO(A)PYRENE               | 3.3    | UG/KG | 6.7 | 3.3 | U    | 076SB-0103M-0001-SC | 3.3    | 6.6 | 3.3 |      | N/A | Yes      |
| 076SB-0102M-0001-SO | BENZO(B)FLUORANTHENE         | 3.3    | UG/KG | 6.7 | 3.3 | U    | 076SB-0103M-0001-SC | 3.3    | 6.6 | 3.3 |      | N/A | Yes      |
| 076SB-0102M-0001-SO | BENZO(G,H,I)PERYLENE         | 3.3    | UG/KG | 6.7 | 3.3 | U    | 076SB-0103M-0001-SC | 3.3    | 6.6 | 3.3 |      | N/A | Yes      |
| 076SB-0102M-0001-SO | BENZO(K)FLUORANTHENE         | 3.3    | UG/KG | 6.7 | 3.3 | U    | 076SB-0103M-0001-SC | 3.3    | 6.6 | 3.3 |      | N/A | Yes      |
| 076SB-0102M-0001-SO | BENZOIC ACID                 | 340    | UG/KG | 670 | 340 | U    | 076SB-0103M-0001-SC | 330    | 660 | 330 |      | N/A | Yes      |
| 076SB-0102M-0001-SO | BENZYL ALCOHOL               | 27     | UG/KG | 330 | 27  | U    | 076SB-0103M-0001-SC | 27     | 330 | 27  |      | N/A | Yes      |
| 076SB-0102M-0001-SO | BENZYL BUTYL PHTHALATE       | 27     | UG/KG | 50  | 27  | U    | 076SB-0103M-0001-SC | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0102M-0001-SO | BIS(2-CHLOROETHOXY) METHANE  | 27     | UG/KG | 100 | 27  | U    | 076SB-0103M-0001-SC | 27     | 100 | 27  |      | N/A | Yes      |
| 076SB-0102M-0001-SO | BIS(2-CHLOROETHYL) ETHER     | 3.3    | UG/KG | 100 | 3.3 | U    | 076SB-0103M-0001-SC | 3.3    | 100 | 3.3 |      | N/A | Yes      |
| 076SB-0102M-0001-SO | BIS(2-CHLOROISOPROPYL) ETHER | 27     | UG/KG | 100 | 27  | U    | 076SB-0103M-0001-SC | 27     | 100 | 27  |      | N/A | Yes      |
| 076SB-0102M-0001-SO | BIS(2-ETHYLHEXYL) PHTHALATE  | 27     | UG/KG | 50  | 27  | U    | 076SB-0103M-0001-SC | 20     | 50  | 27  | J    | N/A | Yes      |
| 076SB-0102M-0001-SO | CARBAZOLE                    | 27     | UG/KG | 50  | 27  | U    | 076SB-0103M-0001-SC | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0102M-0001-SO | CHRYSENE                     | 3.3    | UG/KG | 6.7 | 3.3 | U    | 076SB-0103M-0001-SC | 3.3    | 6.6 | 3.3 |      | N/A | Yes      |
| 076SB-0102M-0001-SO | CRESOLS, M & P               | 81     | UG/KG | 400 | 81  | U    | 076SB-0103M-0001-SC | 80     | 400 | 80  |      | N/A | Yes      |
| 076SB-0102M-0001-SO | DIBENZ(A,H)ANTHRACENE        | 3.3    | UG/KG | 6.7 | 3.3 | U    | 076SB-0103M-0001-SC | 3.3    | 6.6 | 3.3 |      | N/A | Yes      |
| 076SB-0102M-0001-SO | DIBENZOFURAN                 | 3.3    | UG/KG | 50  | 3.3 | U    | 076SB-0103M-0001-SC | 3.3    | 50  | 3.3 |      | N/A | Yes      |
| 076SB-0102M-0001-SO | DIETHYL PHTHALATE            | 27     | UG/KG | 50  | 27  | U    | 076SB-0103M-0001-SC | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0102M-0001-SO | DIMETHYL PHTHALATE           | 27     | UG/KG | 50  | 27  | U    | 076SB-0103M-0001-SC | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0102M-0001-SO | DI-N-BUTYL PHTHALATE         | 27     | UG/KG | 50  | 27  | U    | 076SB-0103M-0001-SC | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0102M-0001-SO | DI-N-OCTYLPHTHALATE          | 27     | UG/KG | 50  | 27  | U    | 076SB-0103M-0001-SC | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0102M-0001-SO | FLUORANTHENE                 | 3.3    | UG/KG | 6.7 | 3.3 | U    | 076SB-0103M-0001-SC | 3.3    | 6.6 | 3.3 |      | N/A | Yes      |
| 076SB-0102M-0001-SO | FLUORENE                     | 3.3    | UG/KG | 6.7 | 3.3 | U    | 076SB-0103M-0001-SC | 3.3    | 6.6 | 3.3 |      | N/A | Yes      |
| 076SB-0102M-0001-SO | HEXACHLOROBENZENE            | 3.3    | UG/KG | 6.7 | 3.3 | U    | 076SB-0103M-0001-SC | 3.3    | 6.6 | 3.3 |      | N/A | Yes      |
| 076SB-0102M-0001-SO | HEXACHLOROBUTADIENE          | 27     | UG/KG | 50  | 27  | U    | 076SB-0103M-0001-SC | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0102M-0001-SO | HEXACHLOROCYCLOPENTADIENE    | 27     | UG/KG | 330 | 27  | U    | 076SB-0103M-0001-SC | 27     | 330 | 27  |      | N/A | Yes      |
| 076SB-0102M-0001-SO | HEXACHLOROETHANE             | 27     | UG/KG | 50  | 27  | U    | 076SB-0103M-0001-SC | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0102M-0001-SO | INDENO(1,2,3-C,D)PYRENE      | 3.3    | UG/KG | 6.7 | 3.3 | U    | 076SB-0103M-0001-SC | 3.3    | 6.6 | 3.3 |      | N/A | Yes      |
| 076SB-0102M-0001-SO | ISOPHORONE                   | 27     | UG/KG | 50  | 27  | U    | 076SB-0103M-0001-SC | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0102M-0001-SO | NAPHTHALENE                  | 4.8    | UG/KG | 6.7 | 3.3 | J    | 076SB-0103M-0001-SC | 4.7    | 6.6 | 3.3 | J    | N/A | Yes      |
| 076SB-0102M-0001-SO | NITROBENZENE                 | 3.3    | UG/KG | 100 | 3.3 | U    | 076SB-0103M-0001-SC | 3.3    | 100 | 3.3 |      | N/A | Yes      |
| 076SB-0102M-0001-SO | N-NITROSODI-N-PROPYLAMINE    | 27     | UG/KG | 50  | 27  | U    | 076SB-0103M-0001-SC | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0102M-0001-SO | N-NITROSODIPHENYLAMINE       | 27     | UG/KG | 50  | 27  | R    | 076SB-0103M-0001-SC | 27     | 50  | 27  |      | N/A | N/A      |
| 076SB-0102M-0001-SO | PENTACHLOROPHENOL            | 81     | UG/KG | 150 | 81  | U    | 076SB-0103M-0001-SC | 80     | 150 | 80  |      | N/A | Yes      |
| 076SB-0102M-0001-SO | PHENANTHRENE                 | 3.3    | UG/KG | 6.7 | 3.3 | U    | 076SB-0103M-0001-SC | 3.7    | 6.6 | 3.3 | J    | N/A | Yes      |
| 076SB-0102M-0001-SO | PHENOL                       | 27     | UG/KG | 50  | 27  | U    | 076SB-0103M-0001-SC | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0102M-0001-SO | PYRENE                       | 3.3    | UG/KG | 6.7 | 3.3 | U    | 076SB-0103M-0001-SC | 3.3    | 6.6 | 3.3 |      | N/A | Yes      |

| Sample              | Analyte                    | Result | Units | LOQ   | LOD    | Qual | Sample              | Result | LOQ   | LOD    | Qual | RPD | W/In LOQ |
|---------------------|----------------------------|--------|-------|-------|--------|------|---------------------|--------|-------|--------|------|-----|----------|
| 076SB-0102M-0001-SO | 1,3,5-TRINITROBENZENE      | 0.05   | MG/KG | 0.25  | 0.05   | U    | 076SB-0103M-0001-SC | 0.05   | 0.25  | 0.05   |      | N/A | Yes      |
| 076SB-0102M-0001-SO | 1,3-DINITROBENZENE         | 0.05   | MG/KG | 0.25  | 0.05   | U    | 076SB-0103M-0001-SC | 0.05   | 0.25  | 0.05   |      | N/A | Yes      |
| 076SB-0102M-0001-SO | 2,4,6-TRINITROTOLUENE      | 0.05   | MG/KG | 0.25  | 0.05   | U    | 076SB-0103M-0001-SC | 0.05   | 0.25  | 0.05   |      | N/A | Yes      |
| 076SB-0102M-0001-SO | 2,4-DINITROTOLUENE         | 0.05   | MG/KG | 0.25  | 0.05   | R    | 076SB-0103M-0001-SC | 0.05   | 0.25  | 0.05   |      | N/A | N/A      |
| 076SB-0102M-0001-SO | 2,6-DINITROTOLUENE         | 0.05   | MG/KG | 0.25  | 0.05   | R    | 076SB-0103M-0001-SC | 0.05   | 0.25  | 0.05   |      | N/A | N/A      |
| 076SB-0102M-0001-SO | 2-AMINO-4,6-DINITROTOLUENE | 0.05   | MG/KG | 0.25  | 0.05   | U    | 076SB-0103M-0001-SC | 0.05   | 0.25  | 0.05   |      | N/A | Yes      |
| 076SB-0102M-0001-SO | 2-NITROTOLUENE             | 0.05   | MG/KG | 0.25  | 0.05   | UJ   | 076SB-0103M-0001-SC | 0.05   | 0.25  | 0.05   |      | N/A | Yes      |
| 076SB-0102M-0001-SO | 3-NITROTOLUENE             | 0.05   | MG/KG | 0.25  | 0.05   | U    | 076SB-0103M-0001-SC | 0.05   | 0.25  | 0.05   |      | N/A | Yes      |
| 076SB-0102M-0001-SO | 4-AMINO-2,6-DINITROTOLUENE | 0.05   | MG/KG | 0.25  | 0.05   | U    | 076SB-0103M-0001-SC | 0.05   | 0.25  | 0.05   |      | N/A | Yes      |
| 076SB-0102M-0001-SO | 4-NITROTOLUENE             | 0.05   | MG/KG | 0.25  | 0.05   | U    | 076SB-0103M-0001-SC | 0.05   | 0.25  | 0.05   |      | N/A | Yes      |
| 076SB-0102M-0001-SO | HMX                        | 0.05   | MG/KG | 0.25  | 0.05   | U    | 076SB-0103M-0001-SC | 0.05   | 0.25  | 0.05   |      | N/A | Yes      |
| 076SB-0102M-0001-SO | NITROBENZENE               | 0.05   | MG/KG | 0.25  | 0.05   | R    | 076SB-0103M-0001-SC | 0.05   | 0.25  | 0.05   |      | N/A | N/A      |
| 076SB-0102M-0001-SO | NITROGLYCERIN              | 0.25   | MG/KG | 0.5   | 0.25   | U    | 076SB-0103M-0001-SC | 0.25   | 0.5   | 0.25   |      | N/A | Yes      |
| 076SB-0102M-0001-SO | NITROGUANIDINE             | 0.039  | MG/KG | 0.24  | 0.039  | U    | 076SB-0103M-0001-SC | 0.04   | 0.25  | 0.04   |      | N/A | Yes      |
| 076SB-0102M-0001-SO | PETN                       | 0.25   | MG/KG | 0.5   | 0.25   | U    | 076SB-0103M-0001-SC | 0.25   | 0.5   | 0.25   |      | N/A | Yes      |
| 076SB-0102M-0001-SO | RDX                        | 0.05   | MG/KG | 0.25  | 0.05   | UJ   | 076SB-0103M-0001-SC | 0.05   | 0.25  | 0.05   |      | N/A | Yes      |
| 076SB-0102M-0001-SO | TETRYL                     | 0.05   | MG/KG | 0.25  | 0.05   | U    | 076SB-0103M-0001-SC | 0.05   | 0.25  | 0.05   |      | N/A | Yes      |
| 076SB-0104M-0001-SO | NITROCELLULOSE             | 9.2    | MG/KG | 49    | 18     | J    | 076SB-0105M-0001-SC | 9      | 50    | 18     | J    | N/A | Yes      |
| 076SB-0104M-0001-SO | ALUMINUM                   | 11000  | MG/KG | 2.5   | 0.51   |      | 076SB-0105M-0001-SC | 11000  | 2.3   | 0.46   |      | 0   | N/A      |
| 076SB-0104M-0001-SO | ANTIMONY                   | 0.085  | MG/KG | 0.17  | 0.085  | J    | 076SB-0105M-0001-SC | 0.086  | 0.15  | 0.077  | J    | N/A | Yes      |
| 076SB-0104M-0001-SO | ARSENIC                    | 14     | MG/KG | 0.085 | 0.042  |      | 076SB-0105M-0001-SC | 14     | 0.077 | 0.038  |      | 0   | N/A      |
| 076SB-0104M-0001-SO | BARIUM                     | 52     | MG/KG | 0.85  | 0.017  |      | 076SB-0105M-0001-SC | 50     | 0.77  | 0.015  |      | 4   | N/A      |
| 076SB-0104M-0001-SO | BERYLLIUM                  | 0.63   | MG/KG | 0.085 | 0.0085 |      | 076SB-0105M-0001-SC | 0.65   | 0.077 | 0.0077 |      | 3   | N/A      |
| 076SB-0104M-0001-SO | CADMIUM                    | 0.17   | MG/KG | 0.085 | 0.025  |      | 076SB-0105M-0001-SC | 0.17   | 0.077 | 0.023  |      | N/A | Yes      |
| 076SB-0104M-0001-SO | CALCIUM                    | 1100   | MG/KG | 8.5   | 2.1    |      | 076SB-0105M-0001-SC | 1000   | 7.7   | 1.9    |      | 10  | N/A      |
| 076SB-0104M-0001-SO | CHROMIUM                   | 16     | MG/KG | 0.17  | 0.034  |      | 076SB-0105M-0001-SC | 17     | 0.15  | 0.031  |      | 6   | N/A      |
| 076SB-0104M-0001-SO | COBALT                     | 9.5    | MG/KG | 0.042 | 0.0085 |      | 076SB-0105M-0001-SC | 10     | 0.038 | 0.0077 |      | 5   | N/A      |
| 076SB-0104M-0001-SO | COPPER                     | 15     | MG/KG | 0.17  | 0.051  |      | 076SB-0105M-0001-SC | 15     | 0.15  | 0.046  |      | 0   | N/A      |
| 076SB-0104M-0001-SO | IRON                       | 27000  | MG/KG | 4.2   | 1.7    |      | 076SB-0105M-0001-SC | 27000  | 3.8   | 1.5    |      | 0   | N/A      |
| 076SB-0104M-0001-SO | LEAD                       | 11     | MG/KG | 0.085 | 0.025  |      | 076SB-0105M-0001-SC | 11     | 0.077 | 0.023  |      | 0   | N/A      |
| 076SB-0104M-0001-SO | MAGNESIUM                  | 3300   | MG/KG | 8.5   | 1.7    |      | 076SB-0105M-0001-SC | 3300   | 7.7   | 1.5    |      | 0   | N/A      |
| 076SB-0104M-0001-SO | MANGANESE                  | 280    | MG/KG | 0.42  | 0.025  |      | 076SB-0105M-0001-SC | 320    | 0.38  | 0.023  |      | 13  | N/A      |
| 076SB-0104M-0001-SO | NICKEL                     | 24     | MG/KG | 0.085 | 0.025  |      | 076SB-0105M-0001-SC | 24     | 0.077 | 0.023  |      | 0   | N/A      |
| 076SB-0104M-0001-SO | POTASSIUM                  | 1000   | MG/KG | 8.5   | 5.1    |      | 076SB-0105M-0001-SC | 1100   | 7.7   | 4.6    |      | 10  | N/A      |
| 076SB-0104M-0001-SO | SELENIUM                   | 0.34   | MG/KG | 0.42  | 0.085  | J    | 076SB-0105M-0001-SC | 0.32   | 0.38  | 0.077  | J    | N/A | Yes      |
| 076SB-0104M-0001-SO | SILVER                     | 0.027  | MG/KG | 0.085 | 0.025  | J    | 076SB-0105M-0001-SC | 0.025  | 0.077 | 0.023  | J    | N/A | Yes      |

| Sample              | Analyte                   | Result | Units | LOQ   | LOD   | Qual | Sample              | Result | LOQ   | LOD   | Qual | RPD | W/In LOQ |
|---------------------|---------------------------|--------|-------|-------|-------|------|---------------------|--------|-------|-------|------|-----|----------|
| 076SB-0104M-0001-SO | SODIUM                    | 44     | MG/KG | 8.5   | 4.2   |      | 076SB-0105M-0001-SC | 47     | 7.7   | 3.8   |      | 7   | N/A      |
| 076SB-0104M-0001-SO | THALLIUM                  | 0.14   | MG/KG | 0.085 | 0.017 |      | 076SB-0105M-0001-SC | 0.14   | 0.077 | 0.015 |      | N/A | Yes      |
| 076SB-0104M-0001-SO | VANADIUM                  | 17     | MG/KG | 0.085 | 0.051 |      | 076SB-0105M-0001-SC | 18     | 0.077 | 0.046 |      | 6   | N/A      |
| 076SB-0104M-0001-SO | ZINC                      | 54     | MG/KG | 0.42  | 0.17  |      | 076SB-0105M-0001-SC | 55     | 0.38  | 0.15  |      | 2   | N/A      |
| 076SB-0104M-0001-SO | MERCURY                   | 0.03   | MG/KG | 0.097 | 0.032 | J    | 076SB-0105M-0001-SC | 0.03   | 0.09  | 0.03  | J    | N/A | Yes      |
| 076SB-0104M-0001-SO | AROCLOR 1016              | 25     | UG/KG | 66    | 25    |      | 076SB-0105M-0001-SC | 25     | 66    | 25    |      | N/A | Yes      |
| 076SB-0104M-0001-SO | AROCLOR 1221              | 25     | UG/KG | 51    | 25    |      | 076SB-0105M-0001-SC | 25     | 51    | 25    |      | N/A | Yes      |
| 076SB-0104M-0001-SO | AROCLOR 1232              | 25     | UG/KG | 46    | 25    |      | 076SB-0105M-0001-SC | 25     | 46    | 25    |      | N/A | Yes      |
| 076SB-0104M-0001-SO | AROCLOR 1242              | 25     | UG/KG | 40    | 25    |      | 076SB-0105M-0001-SC | 25     | 40    | 25    |      | N/A | Yes      |
| 076SB-0104M-0001-SO | AROCLOR 1248              | 25     | UG/KG | 56    | 25    |      | 076SB-0105M-0001-SC | 25     | 56    | 25    |      | N/A | Yes      |
| 076SB-0104M-0001-SO | AROCLOR 1254              | 25     | UG/KG | 56    | 25    |      | 076SB-0105M-0001-SC | 25     | 56    | 25    |      | N/A | Yes      |
| 076SB-0104M-0001-SO | AROCLOR 1260              | 25     | UG/KG | 56    | 25    |      | 076SB-0105M-0001-SC | 25     | 56    | 25    |      | N/A | Yes      |
| 076SB-0104M-0001-SO | 1,1,1-TRICHLOROETHANE     | 0.95   | UG/KG | 4.7   | 0.95  |      | 076SB-0105M-0001-SC | 1.2    | 5.8   | 1.2   |      | N/A | Yes      |
| 076SB-0104M-0001-SO | 1,1,2,2-TETRACHLOROETHANE | 0.47   | UG/KG | 4.7   | 0.47  |      | 076SB-0105M-0001-SC | 0.58   | 5.8   | 0.58  |      | N/A | Yes      |
| 076SB-0104M-0001-SO | 1,1,2-TRICHLOROETHANE     | 0.47   | UG/KG | 4.7   | 0.47  |      | 076SB-0105M-0001-SC | 0.58   | 5.8   | 0.58  |      | N/A | Yes      |
| 076SB-0104M-0001-SO | 1,1-DICHLOROETHANE        | 0.47   | UG/KG | 4.7   | 0.47  |      | 076SB-0105M-0001-SC | 0.58   | 5.8   | 0.58  |      | N/A | Yes      |
| 076SB-0104M-0001-SO | 1,1-DICHLOROETHENE        | 0.95   | UG/KG | 4.7   | 0.95  |      | 076SB-0105M-0001-SC | 1.2    | 5.8   | 1.2   |      | N/A | Yes      |
| 076SB-0104M-0001-SO | 1,2-DIBROMOETHANE         | 0.95   | UG/KG | 4.7   | 0.95  |      | 076SB-0105M-0001-SC | 1.2    | 5.8   | 1.2   |      | N/A | Yes      |
| 076SB-0104M-0001-SO | 1,2-DICHLOROETHANE        | 0.47   | UG/KG | 4.7   | 0.47  |      | 076SB-0105M-0001-SC | 0.58   | 5.8   | 0.58  |      | N/A | Yes      |
| 076SB-0104M-0001-SO | 1,2-DICHLOROPROPANE       | 0.95   | UG/KG | 4.7   | 0.95  |      | 076SB-0105M-0001-SC | 1.2    | 5.8   | 1.2   |      | N/A | Yes      |
| 076SB-0104M-0001-SO | 2-HEXANONE                | 0.95   | UG/KG | 19    | 0.95  |      | 076SB-0105M-0001-SC | 1.2    | 23    | 1.2   |      | N/A | Yes      |
| 076SB-0104M-0001-SO | ACETONE                   | 6      | UG/KG | 19    | 6     |      | 076SB-0105M-0001-SC | 7.2    | 23    | 7.2   |      | N/A | Yes      |
| 076SB-0104M-0001-SO | BENZENE                   | 0.47   | UG/KG | 4.7   | 0.47  |      | 076SB-0105M-0001-SC | 0.58   | 5.8   | 0.58  |      | N/A | Yes      |
| 076SB-0104M-0001-SO | BROMOCHLOROMETHANE        | 0.95   | UG/KG | 4.7   | 0.95  |      | 076SB-0105M-0001-SC | 1.2    | 5.8   | 1.2   |      | N/A | Yes      |
| 076SB-0104M-0001-SO | BROMODICHLOROMETHANE      | 0.47   | UG/KG | 4.7   | 0.47  |      | 076SB-0105M-0001-SC | 0.58   | 5.8   | 0.58  |      | N/A | Yes      |
| 076SB-0104M-0001-SO | BROMOFORM                 | 0.47   | UG/KG | 4.7   | 0.47  |      | 076SB-0105M-0001-SC | 0.58   | 5.8   | 0.58  |      | N/A | Yes      |
| 076SB-0104M-0001-SO | BROMOMETHANE              | 0.95   | UG/KG | 4.7   | 0.95  |      | 076SB-0105M-0001-SC | 1.2    | 5.8   | 1.2   |      | N/A | Yes      |
| 076SB-0104M-0001-SO | CARBON DISULFIDE          | 0.47   | UG/KG | 4.7   | 0.47  |      | 076SB-0105M-0001-SC | 0.58   | 5.8   | 0.58  |      | N/A | Yes      |
| 076SB-0104M-0001-SO | CARBON TETRACHLORIDE      | 0.47   | UG/KG | 4.7   | 0.47  |      | 076SB-0105M-0001-SC | 0.58   | 5.8   | 0.58  |      | N/A | Yes      |
| 076SB-0104M-0001-SO | CHLOROBENZENE             | 0.47   | UG/KG | 4.7   | 0.47  |      | 076SB-0105M-0001-SC | 0.58   | 5.8   | 0.58  |      | N/A | Yes      |
| 076SB-0104M-0001-SO | CHLOROETHANE              | 0.95   | UG/KG | 4.7   | 0.95  |      | 076SB-0105M-0001-SC | 1.2    | 5.8   | 1.2   |      | N/A | Yes      |
| 076SB-0104M-0001-SO | CHLOROFORM                | 0.47   | UG/KG | 4.7   | 0.47  |      | 076SB-0105M-0001-SC | 0.58   | 5.8   | 0.58  |      | N/A | Yes      |
| 076SB-0104M-0001-SO | CHLOROMETHANE             | 0.47   | UG/KG | 4.7   | 0.47  |      | 076SB-0105M-0001-SC | 0.58   | 5.8   | 0.58  |      | N/A | Yes      |
| 076SB-0104M-0001-SO | CIS-1,3-DICHLOROPROPENE   | 0.47   | UG/KG | 4.7   | 0.47  |      | 076SB-0105M-0001-SC | 0.58   | 5.8   | 0.58  |      | N/A | Yes      |
| 076SB-0104M-0001-SO | DIBROMOCHLOROMETHANE      | 0.95   | UG/KG | 4.7   | 0.95  |      | 076SB-0105M-0001-SC | 1.2    | 5.8   | 1.2   |      | N/A | Yes      |
| 076SB-0104M-0001-SO | ETHYLBENZENE              | 0.47   | UG/KG | 4.7   | 0.47  |      | 076SB-0105M-0001-SC | 0.58   | 5.8   | 0.58  |      | N/A | Yes      |

| Sample              | Analyte                     | Result | Units | LOQ | LOD  | Qual | Sample              | Result | LOQ | LOD  | Qual | RPD | W/In LOQ |
|---------------------|-----------------------------|--------|-------|-----|------|------|---------------------|--------|-----|------|------|-----|----------|
| 076SB-0104M-0001-SO | METHYL ETHYL KETONE         | 1.9    | UG/KG | 19  | 1.9  |      | 076SB-0105M-0001-SC | 2.3    | 23  | 2.3  |      | N/A | Yes      |
| 076SB-0104M-0001-SO | METHYL ISOBUTYL KETONE      | 0.95   | UG/KG | 19  | 0.95 |      | 076SB-0105M-0001-SC | 1.2    | 23  | 1.2  |      | N/A | Yes      |
| 076SB-0104M-0001-SO | METHYLENE CHLORIDE          | 0.95   | UG/KG | 4.7 | 0.95 |      | 076SB-0105M-0001-SC | 2.5    | 5.8 | 1.2  | J    | N/A | Yes      |
| 076SB-0104M-0001-SO | STYRENE                     | 0.47   | UG/KG | 4.7 | 0.47 |      | 076SB-0105M-0001-SC | 0.58   | 5.8 | 0.58 |      | N/A | Yes      |
| 076SB-0104M-0001-SO | TETRACHLOROETHYLENE         | 0.95   | UG/KG | 4.7 | 0.95 |      | 076SB-0105M-0001-SC | 1.2    | 5.8 | 1.2  |      | N/A | Yes      |
| 076SB-0104M-0001-SO | TOLUENE                     | 1.4    | UG/KG | 4.7 | 0.47 | J    | 076SB-0105M-0001-SC | 1.5    | 5.8 | 0.58 | J    | N/A | Yes      |
| 076SB-0104M-0001-SO | TOTAL 1,2-DICHLOROETHENE    | 0.95   | UG/KG | 9.5 | 0.95 |      | 076SB-0105M-0001-SC | 1.2    | 12  | 1.2  |      | N/A | Yes      |
| 076SB-0104M-0001-SO | TRANS-1,3-DICHLOROPROPENE   | 0.95   | UG/KG | 4.7 | 0.95 |      | 076SB-0105M-0001-SC | 1.2    | 5.8 | 1.2  |      | N/A | Yes      |
| 076SB-0104M-0001-SO | TRICHLOROETHYLENE           | 0.47   | UG/KG | 4.7 | 0.47 |      | 076SB-0105M-0001-SC | 0.58   | 5.8 | 0.58 |      | N/A | Yes      |
| 076SB-0104M-0001-SO | VINYL CHLORIDE              | 0.47   | UG/KG | 4.7 | 0.47 |      | 076SB-0105M-0001-SC | 0.58   | 5.8 | 0.58 |      | N/A | Yes      |
| 076SB-0104M-0001-SO | XYLENES, TOTAL              | 1.4    | UG/KG | 9.5 | 1.4  |      | 076SB-0105M-0001-SC | 1.7    | 12  | 1.7  |      | N/A | Yes      |
| 076SB-0104M-0001-SO | 1,2,4-TRICHLOROBENZENE      | 27     | UG/KG | 50  | 27   |      | 076SB-0105M-0001-SC | 27     | 50  | 27   |      | N/A | Yes      |
| 076SB-0104M-0001-SO | 1,2-DICHLOROBENZENE         | 27     | UG/KG | 50  | 27   |      | 076SB-0105M-0001-SC | 27     | 50  | 27   |      | N/A | Yes      |
| 076SB-0104M-0001-SO | 1,3-DICHLOROBENZENE         | 27     | UG/KG | 50  | 27   |      | 076SB-0105M-0001-SC | 27     | 50  | 27   |      | N/A | Yes      |
| 076SB-0104M-0001-SO | 1,4-DICHLOROBENZENE         | 27     | UG/KG | 50  | 27   |      | 076SB-0105M-0001-SC | 27     | 50  | 27   |      | N/A | Yes      |
| 076SB-0104M-0001-SO | 2,4,5-TRICHLOROPHENOL       | 27     | UG/KG | 150 | 27   |      | 076SB-0105M-0001-SC | 27     | 150 | 27   |      | N/A | Yes      |
| 076SB-0104M-0001-SO | 2,4,6-TRICHLOROPHENOL       | 80     | UG/KG | 150 | 80   |      | 076SB-0105M-0001-SC | 79     | 150 | 79   |      | N/A | Yes      |
| 076SB-0104M-0001-SO | 2,4-DICHLOROPHENOL          | 27     | UG/KG | 150 | 27   |      | 076SB-0105M-0001-SC | 27     | 150 | 27   |      | N/A | Yes      |
| 076SB-0104M-0001-SO | 2,4-DIMETHYLPHENOL          | 80     | UG/KG | 150 | 80   |      | 076SB-0105M-0001-SC | 79     | 150 | 79   |      | N/A | Yes      |
| 076SB-0104M-0001-SO | 2,4-DINITROPHENOL           | 80     | UG/KG | 330 | 80   |      | 076SB-0105M-0001-SC | 79     | 330 | 79   |      | N/A | Yes      |
| 076SB-0104M-0001-SO | 2,4-DINITROTOLUENE          | 27     | UG/KG | 200 | 27   |      | 076SB-0105M-0001-SC | 27     | 200 | 27   |      | N/A | Yes      |
| 076SB-0104M-0001-SO | 2,6-DINITROTOLUENE          | 27     | UG/KG | 200 | 27   |      | 076SB-0105M-0001-SC | 27     | 200 | 27   |      | N/A | Yes      |
| 076SB-0104M-0001-SO | 2-CHLORONAPHTHALENE         | 3.3    | UG/KG | 50  | 3.3  |      | 076SB-0105M-0001-SC | 3.3    | 50  | 3.3  |      | N/A | Yes      |
| 076SB-0104M-0001-SO | 2-CHLOROPHENOL              | 27     | UG/KG | 50  | 27   |      | 076SB-0105M-0001-SC | 27     | 50  | 27   |      | N/A | Yes      |
| 076SB-0104M-0001-SO | 2-METHYLNAPHTHALENE         | 4.2    | UG/KG | 6.7 | 3.3  | J    | 076SB-0105M-0001-SC | 4.7    | 6.6 | 3.3  | J    | N/A | Yes      |
| 076SB-0104M-0001-SO | 2-METHYLPHENOL              | 80     | UG/KG | 200 | 80   |      | 076SB-0105M-0001-SC | 79     | 200 | 79   |      | N/A | Yes      |
| 076SB-0104M-0001-SO | 2-NITROANILINE              | 27     | UG/KG | 200 | 27   |      | 076SB-0105M-0001-SC | 27     | 200 | 27   |      | N/A | Yes      |
| 076SB-0104M-0001-SO | 2-NITROPHENOL               | 27     | UG/KG | 50  | 27   |      | 076SB-0105M-0001-SC | 27     | 50  | 27   |      | N/A | Yes      |
| 076SB-0104M-0001-SO | 3,3'-DICHLOROBENZIDINE      | 80     | UG/KG | 100 | 80   |      | 076SB-0105M-0001-SC | 79     | 99  | 79   |      | N/A | Yes      |
| 076SB-0104M-0001-SO | 3-NITROANILINE              | 80     | UG/KG | 200 | 80   |      | 076SB-0105M-0001-SC | 79     | 200 | 79   |      | N/A | Yes      |
| 076SB-0104M-0001-SO | 4,6-DINITRO-2-METHYLPHENOL  | 80     | UG/KG | 150 | 80   |      | 076SB-0105M-0001-SC | 79     | 150 | 79   |      | N/A | Yes      |
| 076SB-0104M-0001-SO | 4-BROMOPHENYL PHENYL ETHER  | 27     | UG/KG | 50  | 27   |      | 076SB-0105M-0001-SC | 27     | 50  | 27   |      | N/A | Yes      |
| 076SB-0104M-0001-SO | 4-CHLORO-3-METHYLPHENOL     | 27     | UG/KG | 150 | 27   |      | 076SB-0105M-0001-SC | 27     | 150 | 27   |      | N/A | Yes      |
| 076SB-0104M-0001-SO | 4-CHLOROANILINE             | 27     | UG/KG | 150 | 27   |      | 076SB-0105M-0001-SC | 27     | 150 | 27   |      | N/A | Yes      |
| 076SB-0104M-0001-SO | 4-CHLOROPHENYL PHENYL ETHER | 27     | UG/KG | 50  | 27   |      | 076SB-0105M-0001-SC | 27     | 50  | 27   |      | N/A | Yes      |
| 076SB-0104M-0001-SO | 4-NITROANILINE              | 27     | UG/KG | 200 | 27   |      | 076SB-0105M-0001-SC | 27     | 200 | 27   |      | N/A | Yes      |

| Sample              | Analyte                      | Result | Units | LOQ | LOD | Qual | Sample              | Result | LOQ | LOD | Qual | RPD | W/In LOQ |
|---------------------|------------------------------|--------|-------|-----|-----|------|---------------------|--------|-----|-----|------|-----|----------|
| 076SB-0104M-0001-SO | 4-NITROPHENOL                | 80     | UG/KG | 330 | 80  |      | 076SB-0105M-0001-SC | 79     | 330 | 79  |      | N/A | Yes      |
| 076SB-0104M-0001-SO | ACENAPHTHENE                 | 3.3    | UG/KG | 6.7 | 3.3 |      | 076SB-0105M-0001-SC | 3.3    | 6.6 | 3.3 |      | N/A | Yes      |
| 076SB-0104M-0001-SO | ACENAPHTHYLENE               | 3.3    | UG/KG | 6.7 | 3.3 |      | 076SB-0105M-0001-SC | 3.3    | 6.6 | 3.3 |      | N/A | Yes      |
| 076SB-0104M-0001-SO | ANTHRACENE                   | 3.3    | UG/KG | 6.7 | 3.3 |      | 076SB-0105M-0001-SC | 3.3    | 6.6 | 3.3 |      | N/A | Yes      |
| 076SB-0104M-0001-SO | BENZO(A)ANTHRACENE           | 3.3    | UG/KG | 6.7 | 3.3 |      | 076SB-0105M-0001-SC | 3.3    | 6.6 | 3.3 |      | N/A | Yes      |
| 076SB-0104M-0001-SO | BENZO(A)PYRENE               | 3.3    | UG/KG | 6.7 | 3.3 |      | 076SB-0105M-0001-SC | 3.3    | 6.6 | 3.3 |      | N/A | Yes      |
| 076SB-0104M-0001-SO | BENZO(B)FLUORANTHENE         | 3.3    | UG/KG | 6.7 | 3.3 |      | 076SB-0105M-0001-SC | 3.3    | 6.6 | 3.3 |      | N/A | Yes      |
| 076SB-0104M-0001-SO | BENZO(G,H,I)PERYLENE         | 3.3    | UG/KG | 6.7 | 3.3 |      | 076SB-0105M-0001-SC | 3.3    | 6.6 | 3.3 |      | N/A | Yes      |
| 076SB-0104M-0001-SO | BENZO(K)FLUORANTHENE         | 3.3    | UG/KG | 6.7 | 3.3 |      | 076SB-0105M-0001-SC | 3.3    | 6.6 | 3.3 |      | N/A | Yes      |
| 076SB-0104M-0001-SO | BENZOIC ACID                 | 330    | UG/KG | 660 | 330 |      | 076SB-0105M-0001-SC | 330    | 650 | 330 |      | N/A | Yes      |
| 076SB-0104M-0001-SO | BENZYL ALCOHOL               | 27     | UG/KG | 330 | 27  |      | 076SB-0105M-0001-SC | 27     | 330 | 27  |      | N/A | Yes      |
| 076SB-0104M-0001-SO | BENZYL BUTYL PHTHALATE       | 27     | UG/KG | 50  | 27  |      | 076SB-0105M-0001-SC | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0104M-0001-SO | BIS(2-CHLOROETHOXY) METHANE  | 27     | UG/KG | 100 | 27  |      | 076SB-0105M-0001-SC | 27     | 99  | 27  |      | N/A | Yes      |
| 076SB-0104M-0001-SO | BIS(2-CHLOROETHYL) ETHER     | 3.3    | UG/KG | 100 | 3.3 |      | 076SB-0105M-0001-SC | 3.3    | 99  | 3.3 |      | N/A | Yes      |
| 076SB-0104M-0001-SO | BIS(2-CHLOROISOPROPYL) ETHER | 27     | UG/KG | 100 | 27  |      | 076SB-0105M-0001-SC | 27     | 99  | 27  |      | N/A | Yes      |
| 076SB-0104M-0001-SO | BIS(2-ETHYLHEXYL) PHTHALATE  | 22     | UG/KG | 50  | 27  | J    | 076SB-0105M-0001-SC | 26     | 50  | 27  | J    | N/A | Yes      |
| 076SB-0104M-0001-SO | CARBAZOLE                    | 27     | UG/KG | 50  | 27  |      | 076SB-0105M-0001-SC | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0104M-0001-SO | CHRYSENE                     | 3.3    | UG/KG | 6.7 | 3.3 |      | 076SB-0105M-0001-SC | 3.3    | 6.6 | 3.3 |      | N/A | Yes      |
| 076SB-0104M-0001-SO | CRESOLS, M & P               | 80     | UG/KG | 400 | 80  |      | 076SB-0105M-0001-SC | 79     | 400 | 79  |      | N/A | Yes      |
| 076SB-0104M-0001-SO | DIBENZ(A,H)ANTHRACENE        | 3.3    | UG/KG | 6.7 | 3.3 |      | 076SB-0105M-0001-SC | 3.3    | 6.6 | 3.3 |      | N/A | Yes      |
| 076SB-0104M-0001-SO | DIBENZOFURAN                 | 3.3    | UG/KG | 50  | 3.3 |      | 076SB-0105M-0001-SC | 3.3    | 50  | 3.3 |      | N/A | Yes      |
| 076SB-0104M-0001-SO | DIETHYL PHTHALATE            | 27     | UG/KG | 50  | 27  |      | 076SB-0105M-0001-SC | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0104M-0001-SO | DIMETHYL PHTHALATE           | 27     | UG/KG | 50  | 27  |      | 076SB-0105M-0001-SC | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0104M-0001-SO | DI-N-BUTYL PHTHALATE         | 27     | UG/KG | 50  | 27  |      | 076SB-0105M-0001-SC | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0104M-0001-SO | DI-N-OCTYLPHTHALATE          | 27     | UG/KG | 50  | 27  |      | 076SB-0105M-0001-SC | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0104M-0001-SO | FLUORANTHENE                 | 3.3    | UG/KG | 6.7 | 3.3 |      | 076SB-0105M-0001-SC | 3.3    | 6.6 | 3.3 |      | N/A | Yes      |
| 076SB-0104M-0001-SO | FLUORENE                     | 3.3    | UG/KG | 6.7 | 3.3 |      | 076SB-0105M-0001-SC | 3.3    | 6.6 | 3.3 |      | N/A | Yes      |
| 076SB-0104M-0001-SO | HEXACHLOROBENZENE            | 3.3    | UG/KG | 6.7 | 3.3 |      | 076SB-0105M-0001-SC | 3.3    | 6.6 | 3.3 |      | N/A | Yes      |
| 076SB-0104M-0001-SO | HEXACHLOROBUTADIENE          | 27     | UG/KG | 50  | 27  |      | 076SB-0105M-0001-SC | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0104M-0001-SO | HEXACHLOROCYCLOPENTADIENE    | 27     | UG/KG | 330 | 27  |      | 076SB-0105M-0001-SC | 27     | 330 | 27  |      | N/A | Yes      |
| 076SB-0104M-0001-SO | HEXACHLOROETHANE             | 27     | UG/KG | 50  | 27  |      | 076SB-0105M-0001-SC | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0104M-0001-SO | INDENO(1,2,3-C,D)PYRENE      | 3.3    | UG/KG | 6.7 | 3.3 |      | 076SB-0105M-0001-SC | 3.3    | 6.6 | 3.3 |      | N/A | Yes      |
| 076SB-0104M-0001-SO | ISOPHORONE                   | 27     | UG/KG | 50  | 27  |      | 076SB-0105M-0001-SC | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0104M-0001-SO | NAPHTHALENE                  | 3.3    | UG/KG | 6.7 | 3.3 |      | 076SB-0105M-0001-SC | 6.3    | 6.6 | 3.3 | J    | N/A | Yes      |
| 076SB-0104M-0001-SO | NITROBENZENE                 | 3.3    | UG/KG | 100 | 3.3 |      | 076SB-0105M-0001-SC | 3.3    | 99  | 3.3 |      | N/A | Yes      |
| 076SB-0104M-0001-SO | N-NITROSODI-N-PROPYLAMINE    | 27     | UG/KG | 50  | 27  |      | 076SB-0105M-0001-SC | 27     | 50  | 27  |      | N/A | Yes      |



| Sample              | Analyte                    | Result | Units | LOQ   | LOD    | Qual | Sample              | Result | LOQ   | LOD    | Qual | RPD | W/In LOQ |
|---------------------|----------------------------|--------|-------|-------|--------|------|---------------------|--------|-------|--------|------|-----|----------|
| 076SB-0104M-0001-SO | N-NITROSODIPHENYLAMINE     | 27     | UG/KG | 50    | 27     |      | 076SB-0105M-0001-SC | 27     | 50    | 27     |      | N/A | Yes      |
| 076SB-0104M-0001-SO | PENTACHLOROPHENOL          | 80     | UG/KG | 150   | 80     |      | 076SB-0105M-0001-SC | 79     | 150   | 79     |      | N/A | Yes      |
| 076SB-0104M-0001-SO | PHENANTHRENE               | 4.1    | UG/KG | 6.7   | 3.3    | J    | 076SB-0105M-0001-SC | 3.3    | 6.6   | 3.3    |      | N/A | Yes      |
| 076SB-0104M-0001-SO | PHENOL                     | 27     | UG/KG | 50    | 27     |      | 076SB-0105M-0001-SC | 27     | 50    | 27     |      | N/A | Yes      |
| 076SB-0104M-0001-SO | PYRENE                     | 3.3    | UG/KG | 6.7   | 3.3    |      | 076SB-0105M-0001-SC | 3.3    | 6.6   | 3.3    |      | N/A | Yes      |
| 076SB-0104M-0001-SO | 1,3,5-TRINITROBENZENE      | 0.05   | MG/KG | 0.25  | 0.05   |      | 076SB-0105M-0001-SC | 0.05   | 0.25  | 0.05   |      | N/A | Yes      |
| 076SB-0104M-0001-SO | 1,3-DINITROBENZENE         | 0.05   | MG/KG | 0.25  | 0.05   |      | 076SB-0105M-0001-SC | 0.05   | 0.25  | 0.05   |      | N/A | Yes      |
| 076SB-0104M-0001-SO | 2,4,6-TRINITROTOLUENE      | 0.05   | MG/KG | 0.25  | 0.05   |      | 076SB-0105M-0001-SC | 0.05   | 0.25  | 0.05   |      | N/A | Yes      |
| 076SB-0104M-0001-SO | 2,4-DINITROTOLUENE         | 0.05   | MG/KG | 0.25  | 0.05   |      | 076SB-0105M-0001-SC | 0.05   | 0.25  | 0.05   |      | N/A | Yes      |
| 076SB-0104M-0001-SO | 2,6-DINITROTOLUENE         | 0.05   | MG/KG | 0.25  | 0.05   |      | 076SB-0105M-0001-SC | 0.05   | 0.25  | 0.05   |      | N/A | Yes      |
| 076SB-0104M-0001-SO | 2-AMINO-4,6-DINITROTOLUENE | 0.05   | MG/KG | 0.25  | 0.05   |      | 076SB-0105M-0001-SC | 0.05   | 0.25  | 0.05   |      | N/A | Yes      |
| 076SB-0104M-0001-SO | 2-NITROTOLUENE             | 0.05   | MG/KG | 0.25  | 0.05   |      | 076SB-0105M-0001-SC | 0.05   | 0.25  | 0.05   |      | N/A | Yes      |
| 076SB-0104M-0001-SO | 3-NITROTOLUENE             | 0.05   | MG/KG | 0.25  | 0.05   |      | 076SB-0105M-0001-SC | 0.05   | 0.25  | 0.05   |      | N/A | Yes      |
| 076SB-0104M-0001-SO | 4-AMINO-2,6-DINITROTOLUENE | 0.05   | MG/KG | 0.25  | 0.05   |      | 076SB-0105M-0001-SC | 0.05   | 0.25  | 0.05   |      | N/A | Yes      |
| 076SB-0104M-0001-SO | 4-NITROTOLUENE             | 0.05   | MG/KG | 0.25  | 0.05   |      | 076SB-0105M-0001-SC | 0.05   | 0.25  | 0.05   |      | N/A | Yes      |
| 076SB-0104M-0001-SO | HMX                        | 0.05   | MG/KG | 0.25  | 0.05   |      | 076SB-0105M-0001-SC | 0.05   | 0.25  | 0.05   |      | N/A | Yes      |
| 076SB-0104M-0001-SO | NITROBENZENE               | 0.05   | MG/KG | 0.25  | 0.05   |      | 076SB-0105M-0001-SC | 0.05   | 0.25  | 0.05   |      | N/A | Yes      |
| 076SB-0104M-0001-SO | NITROGLYCERIN              | 0.25   | MG/KG | 0.5   | 0.25   |      | 076SB-0105M-0001-SC | 0.25   | 0.5   | 0.25   |      | N/A | Yes      |
| 076SB-0104M-0001-SO | NITROGUANIDINE             | 0.039  | MG/KG | 0.25  | 0.039  |      | 076SB-0105M-0001-SC | 0.04   | 0.25  | 0.04   |      | N/A | Yes      |
| 076SB-0104M-0001-SO | PETN                       | 0.25   | MG/KG | 0.5   | 0.25   |      | 076SB-0105M-0001-SC | 0.25   | 0.5   | 0.25   |      | N/A | Yes      |
| 076SB-0104M-0001-SO | RDX                        | 0.05   | MG/KG | 0.25  | 0.05   |      | 076SB-0105M-0001-SC | 0.05   | 0.25  | 0.05   |      | N/A | Yes      |
| 076SB-0104M-0001-SO | TETRYL                     | 0.05   | MG/KG | 0.25  | 0.05   |      | 076SB-0105M-0001-SC | 0.05   | 0.25  | 0.05   |      | N/A | Yes      |
| 076SB-0106M-0001-SO | NITROCELLULOSE             | 8.8    | MG/KG | 49    | 18     | J    | 076SB-0107M-0001-SC | 9.2    | 47    | 17     | J    | N/A | Yes      |
| 076SB-0106M-0001-SO | ALUMINUM                   | 6100   | MG/KG | 2.4   | 0.48   |      | 076SB-0107M-0001-SC | 7500   | 2.2   | 0.44   |      | 21  | N/A      |
| 076SB-0106M-0001-SO | ANTIMONY                   | 0.13   | MG/KG | 0.16  | 0.079  | J    | 076SB-0107M-0001-SC | 0.14   | 0.15  | 0.074  | J    | N/A | Yes      |
| 076SB-0106M-0001-SO | ARSENIC                    | 13     | MG/KG | 0.079 | 0.04   |      | 076SB-0107M-0001-SC | 15     | 0.074 | 0.037  |      | 14  | N/A      |
| 076SB-0106M-0001-SO | BARIUM                     | 29     | MG/KG | 0.79  | 0.016  |      | 076SB-0107M-0001-SC | 30     | 0.74  | 0.015  |      | 3   | N/A      |
| 076SB-0106M-0001-SO | BERYLLIUM                  | 0.42   | MG/KG | 0.079 | 0.0079 |      | 076SB-0107M-0001-SC | 0.45   | 0.074 | 0.0074 |      | 7   | N/A      |
| 076SB-0106M-0001-SO | CADMIUM                    | 0.16   | MG/KG | 0.079 | 0.024  |      | 076SB-0107M-0001-SC | 0.15   | 0.074 | 0.022  |      | N/A | Yes      |
| 076SB-0106M-0001-SO | CALCIUM                    | 1200   | MG/KG | 7.9   | 2      |      | 076SB-0107M-0001-SC | 1100   | 7.4   | 1.9    |      | 9   | N/A      |
| 076SB-0106M-0001-SO | CHROMIUM                   | 16     | MG/KG | 0.16  | 0.032  |      | 076SB-0107M-0001-SC | 16     | 0.15  | 0.03   |      | 0   | N/A      |
| 076SB-0106M-0001-SO | COBALT                     | 7.9    | MG/KG | 0.04  | 0.0079 |      | 076SB-0107M-0001-SC | 7.9    | 0.037 | 0.0074 |      | 0   | N/A      |
| 076SB-0106M-0001-SO | COPPER                     | 16     | MG/KG | 0.16  | 0.048  |      | 076SB-0107M-0001-SC | 17     | 0.15  | 0.044  |      | 6   | N/A      |
| 076SB-0106M-0001-SO | IRON                       | 22000  | MG/KG | 4     | 1.6    |      | 076SB-0107M-0001-SC | 22000  | 3.7   | 1.5    |      | 0   | N/A      |
| 076SB-0106M-0001-SO | LEAD                       | 15     | MG/KG | 0.079 | 0.024  |      | 076SB-0107M-0001-SC | 12     | 0.074 | 0.022  |      | 22  | N/A      |
| 076SB-0106M-0001-SO | MAGNESIUM                  | 1700   | MG/KG | 7.9   | 1.6    |      | 076SB-0107M-0001-SC | 1900   | 7.4   | 1.5    |      | 11  | N/A      |

| Sample              | Analyte                   | Result | Units | LOQ   | LOD   | Qual | Sample              | Result | LOQ   | LOD   | Qual | RPD | W/In LOQ |
|---------------------|---------------------------|--------|-------|-------|-------|------|---------------------|--------|-------|-------|------|-----|----------|
| 076SB-0106M-0001-SO | MANGANESE                 | 370    | MG/KG | 0.4   | 0.024 |      | 076SB-0107M-0001-SC | 320    | 0.37  | 0.022 |      | 14  | N/A      |
| 076SB-0106M-0001-SO | NICKEL                    | 21     | MG/KG | 0.079 | 0.024 |      | 076SB-0107M-0001-SC | 21     | 0.074 | 0.022 |      | 0   | N/A      |
| 076SB-0106M-0001-SO | POTASSIUM                 | 740    | MG/KG | 7.9   | 4.8   |      | 076SB-0107M-0001-SC | 950    | 7.4   | 4.4   |      | 25  | N/A      |
| 076SB-0106M-0001-SO | SELENIUM                  | 0.19   | MG/KG | 0.4   | 0.079 | J    | 076SB-0107M-0001-SC | 0.48   | 0.37  | 0.074 |      | N/A | Yes      |
| 076SB-0106M-0001-SO | SILVER                    | 0.022  | MG/KG | 0.079 | 0.024 | J    | 076SB-0107M-0001-SC | 0.02   | 0.074 | 0.022 | J    | N/A | Yes      |
| 076SB-0106M-0001-SO | SODIUM                    | 23     | MG/KG | 7.9   | 4     |      | 076SB-0107M-0001-SC | 28     | 7.4   | 3.7   |      | N/A | Yes      |
| 076SB-0106M-0001-SO | THALLIUM                  | 0.11   | MG/KG | 0.079 | 0.016 |      | 076SB-0107M-0001-SC | 0.14   | 0.074 | 0.015 |      | N/A | Yes      |
| 076SB-0106M-0001-SO | VANADIUM                  | 11     | MG/KG | 0.079 | 0.048 |      | 076SB-0107M-0001-SC | 13     | 0.074 | 0.044 |      | 17  | N/A      |
| 076SB-0106M-0001-SO | ZINC                      | 56     | MG/KG | 0.4   | 0.16  |      | 076SB-0107M-0001-SC | 60     | 0.37  | 0.15  |      | 7   | N/A      |
| 076SB-0106M-0001-SO | MERCURY                   | 0.026  | MG/KG | 0.11  | 0.037 | J    | 076SB-0107M-0001-SC | 0.025  | 0.09  | 0.03  | J    | N/A | Yes      |
| 076SB-0106M-0001-SO | AROCLOR 1016              | 25     | UG/KG | 65    | 25    |      | 076SB-0107M-0001-SC | 25     | 65    | 25    |      | N/A | Yes      |
| 076SB-0106M-0001-SO | AROCLOR 1221              | 25     | UG/KG | 50    | 25    |      | 076SB-0107M-0001-SC | 25     | 50    | 25    |      | N/A | Yes      |
| 076SB-0106M-0001-SO | AROCLOR 1232              | 25     | UG/KG | 45    | 25    |      | 076SB-0107M-0001-SC | 25     | 45    | 25    |      | N/A | Yes      |
| 076SB-0106M-0001-SO | AROCLOR 1242              | 25     | UG/KG | 40    | 25    |      | 076SB-0107M-0001-SC | 25     | 40    | 25    |      | N/A | Yes      |
| 076SB-0106M-0001-SO | AROCLOR 1248              | 25     | UG/KG | 55    | 25    |      | 076SB-0107M-0001-SC | 25     | 55    | 25    |      | N/A | Yes      |
| 076SB-0106M-0001-SO | AROCLOR 1254              | 25     | UG/KG | 55    | 25    |      | 076SB-0107M-0001-SC | 25     | 55    | 25    |      | N/A | Yes      |
| 076SB-0106M-0001-SO | AROCLOR 1260              | 25     | UG/KG | 55    | 25    |      | 076SB-0107M-0001-SC | 25     | 55    | 25    |      | N/A | Yes      |
| 076SB-0106M-0001-SO | 1,1,1-TRICHLOROETHANE     | 0.94   | UG/KG | 4.7   | 0.94  |      | 076SB-0107M-0001-SC | 1      | 5.2   | 1     |      | N/A | Yes      |
| 076SB-0106M-0001-SO | 1,1,2,2-TETRACHLOROETHANE | 0.47   | UG/KG | 4.7   | 0.47  |      | 076SB-0107M-0001-SC | 0.52   | 5.2   | 0.52  |      | N/A | Yes      |
| 076SB-0106M-0001-SO | 1,1,2-TRICHLOROETHANE     | 0.47   | UG/KG | 4.7   | 0.47  |      | 076SB-0107M-0001-SC | 0.52   | 5.2   | 0.52  |      | N/A | Yes      |
| 076SB-0106M-0001-SO | 1,1-DICHLOROETHANE        | 0.47   | UG/KG | 4.7   | 0.47  |      | 076SB-0107M-0001-SC | 0.52   | 5.2   | 0.52  |      | N/A | Yes      |
| 076SB-0106M-0001-SO | 1,1-DICHLOROETHENE        | 0.94   | UG/KG | 4.7   | 0.94  |      | 076SB-0107M-0001-SC | 1      | 5.2   | 1     |      | N/A | Yes      |
| 076SB-0106M-0001-SO | 1,2-DIBROMOETHANE         | 0.94   | UG/KG | 4.7   | 0.94  |      | 076SB-0107M-0001-SC | 1      | 5.2   | 1     |      | N/A | Yes      |
| 076SB-0106M-0001-SO | 1,2-DICHLOROETHANE        | 0.47   | UG/KG | 4.7   | 0.47  |      | 076SB-0107M-0001-SC | 0.52   | 5.2   | 0.52  |      | N/A | Yes      |
| 076SB-0106M-0001-SO | 1,2-DICHLOROPROPANE       | 0.94   | UG/KG | 4.7   | 0.94  |      | 076SB-0107M-0001-SC | 1      | 5.2   | 1     |      | N/A | Yes      |
| 076SB-0106M-0001-SO | 2-HEXANONE                | 0.94   | UG/KG | 19    | 0.94  |      | 076SB-0107M-0001-SC | 1      | 21    | 1     |      | N/A | Yes      |
| 076SB-0106M-0001-SO | ACETONE                   | 5.9    | UG/KG | 19    | 5.9   |      | 076SB-0107M-0001-SC | 6.5    | 21    | 6.5   |      | N/A | Yes      |
| 076SB-0106M-0001-SO | BENZENE                   | 0.47   | UG/KG | 4.7   | 0.47  |      | 076SB-0107M-0001-SC | 0.52   | 5.2   | 0.52  |      | N/A | Yes      |
| 076SB-0106M-0001-SO | BROMOCHLOROMETHANE        | 0.94   | UG/KG | 4.7   | 0.94  |      | 076SB-0107M-0001-SC | 1      | 5.2   | 1     |      | N/A | Yes      |
| 076SB-0106M-0001-SO | BROMODICHLOROMETHANE      | 0.47   | UG/KG | 4.7   | 0.47  |      | 076SB-0107M-0001-SC | 0.52   | 5.2   | 0.52  |      | N/A | Yes      |
| 076SB-0106M-0001-SO | BROMOFORM                 | 0.47   | UG/KG | 4.7   | 0.47  |      | 076SB-0107M-0001-SC | 0.52   | 5.2   | 0.52  |      | N/A | Yes      |
| 076SB-0106M-0001-SO | BROMOMETHANE              | 0.94   | UG/KG | 4.7   | 0.94  |      | 076SB-0107M-0001-SC | 1      | 5.2   | 1     |      | N/A | Yes      |
| 076SB-0106M-0001-SO | CARBON DISULFIDE          | 0.47   | UG/KG | 4.7   | 0.47  |      | 076SB-0107M-0001-SC | 0.52   | 5.2   | 0.52  |      | N/A | Yes      |
| 076SB-0106M-0001-SO | CARBON TETRACHLORIDE      | 0.47   | UG/KG | 4.7   | 0.47  |      | 076SB-0107M-0001-SC | 0.52   | 5.2   | 0.52  |      | N/A | Yes      |
| 076SB-0106M-0001-SO | CHLOROBENZENE             | 0.47   | UG/KG | 4.7   | 0.47  |      | 076SB-0107M-0001-SC | 0.52   | 5.2   | 0.52  |      | N/A | Yes      |
| 076SB-0106M-0001-SO | CHLOROETHANE              | 0.94   | UG/KG | 4.7   | 0.94  |      | 076SB-0107M-0001-SC | 1      | 5.2   | 1     |      | N/A | Yes      |

| Sample              | Analyte                    | Result | Units | LOQ | LOD  | Qual | Sample              | Result | LOQ | LOD  | Qual | RPD | W/In LOQ |
|---------------------|----------------------------|--------|-------|-----|------|------|---------------------|--------|-----|------|------|-----|----------|
| 076SB-0106M-0001-SO | CHLOROFORM                 | 0.47   | UG/KG | 4.7 | 0.47 |      | 076SB-0107M-0001-SC | 0.52   | 5.2 | 0.52 |      | N/A | Yes      |
| 076SB-0106M-0001-SO | CHLOROMETHANE              | 0.47   | UG/KG | 4.7 | 0.47 |      | 076SB-0107M-0001-SC | 0.52   | 5.2 | 0.52 |      | N/A | Yes      |
| 076SB-0106M-0001-SO | CIS-1,3-DICHLOROPROPENE    | 0.47   | UG/KG | 4.7 | 0.47 |      | 076SB-0107M-0001-SC | 0.52   | 5.2 | 0.52 |      | N/A | Yes      |
| 076SB-0106M-0001-SO | DIBROMOCHLOROMETHANE       | 0.94   | UG/KG | 4.7 | 0.94 |      | 076SB-0107M-0001-SC | 1      | 5.2 | 1    |      | N/A | Yes      |
| 076SB-0106M-0001-SO | ETHYLBENZENE               | 0.47   | UG/KG | 4.7 | 0.47 |      | 076SB-0107M-0001-SC | 0.52   | 5.2 | 0.52 |      | N/A | Yes      |
| 076SB-0106M-0001-SO | METHYL ETHYL KETONE        | 1.9    | UG/KG | 19  | 1.9  |      | 076SB-0107M-0001-SC | 2.1    | 21  | 2.1  |      | N/A | Yes      |
| 076SB-0106M-0001-SO | METHYL ISOBUTYL KETONE     | 0.94   | UG/KG | 19  | 0.94 |      | 076SB-0107M-0001-SC | 1      | 21  | 1    |      | N/A | Yes      |
| 076SB-0106M-0001-SO | METHYLENE CHLORIDE         | 0.94   | UG/KG | 4.7 | 0.94 |      | 076SB-0107M-0001-SC | 1      | 5.2 | 1    |      | N/A | Yes      |
| 076SB-0106M-0001-SO | STYRENE                    | 0.47   | UG/KG | 4.7 | 0.47 |      | 076SB-0107M-0001-SC | 0.52   | 5.2 | 0.52 |      | N/A | Yes      |
| 076SB-0106M-0001-SO | TETRACHLOROETHYLENE        | 0.94   | UG/KG | 4.7 | 0.94 |      | 076SB-0107M-0001-SC | 1      | 5.2 | 1    |      | N/A | Yes      |
| 076SB-0106M-0001-SO | TOLUENE                    | 0.97   | UG/KG | 4.7 | 0.47 | J    | 076SB-0107M-0001-SC | 1      | 5.2 | 0.52 | J    | N/A | Yes      |
| 076SB-0106M-0001-SO | TOTAL 1,2-DICHLOROETHENE   | 0.94   | UG/KG | 9.4 | 0.94 |      | 076SB-0107M-0001-SC | 1      | 10  | 1    |      | N/A | Yes      |
| 076SB-0106M-0001-SO | TRANS-1,3-DICHLOROPROPENE  | 0.94   | UG/KG | 4.7 | 0.94 |      | 076SB-0107M-0001-SC | 1      | 5.2 | 1    |      | N/A | Yes      |
| 076SB-0106M-0001-SO | TRICHLOROETHYLENE          | 0.47   | UG/KG | 4.7 | 0.47 |      | 076SB-0107M-0001-SC | 0.52   | 5.2 | 0.52 |      | N/A | Yes      |
| 076SB-0106M-0001-SO | VINYL CHLORIDE             | 0.47   | UG/KG | 4.7 | 0.47 |      | 076SB-0107M-0001-SC | 0.52   | 5.2 | 0.52 |      | N/A | Yes      |
| 076SB-0106M-0001-SO | XYLENES, TOTAL             | 1.4    | UG/KG | 9.4 | 1.4  |      | 076SB-0107M-0001-SC | 1.6    | 10  | 1.6  |      | N/A | Yes      |
| 076SB-0106M-0001-SO | 1,2,4-TRICHLOROBENZENE     | 27     | UG/KG | 50  | 27   |      | 076SB-0107M-0001-SC | 27     | 50  | 27   |      | N/A | Yes      |
| 076SB-0106M-0001-SO | 1,2-DICHLOROBENZENE        | 27     | UG/KG | 50  | 27   |      | 076SB-0107M-0001-SC | 27     | 50  | 27   |      | N/A | Yes      |
| 076SB-0106M-0001-SO | 1,3-DICHLOROBENZENE        | 27     | UG/KG | 50  | 27   |      | 076SB-0107M-0001-SC | 27     | 50  | 27   |      | N/A | Yes      |
| 076SB-0106M-0001-SO | 1,4-DICHLOROBENZENE        | 27     | UG/KG | 50  | 27   |      | 076SB-0107M-0001-SC | 27     | 50  | 27   |      | N/A | Yes      |
| 076SB-0106M-0001-SO | 2,4,5-TRICHLOROPHENOL      | 27     | UG/KG | 150 | 27   |      | 076SB-0107M-0001-SC | 27     | 150 | 27   |      | N/A | Yes      |
| 076SB-0106M-0001-SO | 2,4,6-TRICHLOROPHENOL      | 79     | UG/KG | 150 | 79   |      | 076SB-0107M-0001-SC | 80     | 150 | 80   |      | N/A | Yes      |
| 076SB-0106M-0001-SO | 2,4-DICHLOROPHENOL         | 27     | UG/KG | 150 | 27   |      | 076SB-0107M-0001-SC | 27     | 150 | 27   |      | N/A | Yes      |
| 076SB-0106M-0001-SO | 2,4-DIMETHYLPHENOL         | 79     | UG/KG | 150 | 79   |      | 076SB-0107M-0001-SC | 80     | 150 | 80   |      | N/A | Yes      |
| 076SB-0106M-0001-SO | 2,4-DINITROPHENOL          | 79     | UG/KG | 330 | 79   |      | 076SB-0107M-0001-SC | 80     | 330 | 80   |      | N/A | Yes      |
| 076SB-0106M-0001-SO | 2,4-DINITROTOLUENE         | 27     | UG/KG | 200 | 27   |      | 076SB-0107M-0001-SC | 27     | 200 | 27   |      | N/A | Yes      |
| 076SB-0106M-0001-SO | 2,6-DINITROTOLUENE         | 27     | UG/KG | 200 | 27   |      | 076SB-0107M-0001-SC | 27     | 200 | 27   |      | N/A | Yes      |
| 076SB-0106M-0001-SO | 2-CHLORONAPHTHALENE        | 3.3    | UG/KG | 50  | 3.3  |      | 076SB-0107M-0001-SC | 3.3    | 50  | 3.3  |      | N/A | Yes      |
| 076SB-0106M-0001-SO | 2-CHLOROPHENOL             | 27     | UG/KG | 50  | 27   |      | 076SB-0107M-0001-SC | 27     | 50  | 27   |      | N/A | Yes      |
| 076SB-0106M-0001-SO | 2-METHYLNAPHTHALENE        | 4.2    | UG/KG | 6.6 | 3.3  | J    | 076SB-0107M-0001-SC | 4.7    | 6.7 | 3.3  | J    | N/A | Yes      |
| 076SB-0106M-0001-SO | 2-METHYLPHENOL             | 79     | UG/KG | 200 | 79   |      | 076SB-0107M-0001-SC | 80     | 200 | 80   |      | N/A | Yes      |
| 076SB-0106M-0001-SO | 2-NITROANILINE             | 27     | UG/KG | 200 | 27   |      | 076SB-0107M-0001-SC | 27     | 200 | 27   |      | N/A | Yes      |
| 076SB-0106M-0001-SO | 2-NITROPHENOL              | 27     | UG/KG | 50  | 27   |      | 076SB-0107M-0001-SC | 27     | 50  | 27   |      | N/A | Yes      |
| 076SB-0106M-0001-SO | 3,3'-DICHLOROBENZIDINE     | 79     | UG/KG | 99  | 79   |      | 076SB-0107M-0001-SC | 80     | 100 | 80   |      | N/A | Yes      |
| 076SB-0106M-0001-SO | 3-NITROANILINE             | 79     | UG/KG | 200 | 79   |      | 076SB-0107M-0001-SC | 80     | 200 | 80   |      | N/A | Yes      |
| 076SB-0106M-0001-SO | 4,6-DINITRO-2-METHYLPHENOL | 79     | UG/KG | 150 | 79   |      | 076SB-0107M-0001-SC | 80     | 150 | 80   |      | N/A | Yes      |

| Sample              | Analyte                      | Result | Units | LOQ | LOD | Qual | Sample              | Result | LOQ | LOD | Qual | RPD | W/In LOQ |
|---------------------|------------------------------|--------|-------|-----|-----|------|---------------------|--------|-----|-----|------|-----|----------|
| 076SB-0106M-0001-SO | 4-BROMOPHENYL PHENYL ETHER   | 27     | UG/KG | 50  | 27  |      | 076SB-0107M-0001-SC | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0106M-0001-SO | 4-CHLORO-3-METHYLPHENOL      | 27     | UG/KG | 150 | 27  |      | 076SB-0107M-0001-SC | 27     | 150 | 27  |      | N/A | Yes      |
| 076SB-0106M-0001-SO | 4-CHLOROANILINE              | 27     | UG/KG | 150 | 27  |      | 076SB-0107M-0001-SC | 27     | 150 | 27  |      | N/A | Yes      |
| 076SB-0106M-0001-SO | 4-CHLOROPHENYL PHENYL ETHER  | 27     | UG/KG | 50  | 27  |      | 076SB-0107M-0001-SC | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0106M-0001-SO | 4-NITROANILINE               | 27     | UG/KG | 200 | 27  |      | 076SB-0107M-0001-SC | 27     | 200 | 27  |      | N/A | Yes      |
| 076SB-0106M-0001-SO | 4-NITROPHENOL                | 79     | UG/KG | 330 | 79  |      | 076SB-0107M-0001-SC | 80     | 330 | 80  |      | N/A | Yes      |
| 076SB-0106M-0001-SO | ACENAPHTHENE                 | 3.3    | UG/KG | 6.6 | 3.3 |      | 076SB-0107M-0001-SC | 3.3    | 6.7 | 3.3 |      | N/A | Yes      |
| 076SB-0106M-0001-SO | ACENAPHTHYLENE               | 3.3    | UG/KG | 6.6 | 3.3 |      | 076SB-0107M-0001-SC | 3.3    | 6.7 | 3.3 |      | N/A | Yes      |
| 076SB-0106M-0001-SO | ANTHRACENE                   | 3.3    | UG/KG | 6.6 | 3.3 |      | 076SB-0107M-0001-SC | 3.3    | 6.7 | 3.3 |      | N/A | Yes      |
| 076SB-0106M-0001-SO | BENZO(A)ANTHRACENE           | 3.3    | UG/KG | 6.6 | 3.3 |      | 076SB-0107M-0001-SC | 3.3    | 6.7 | 3.3 |      | N/A | Yes      |
| 076SB-0106M-0001-SO | BENZO(A)PYRENE               | 3.3    | UG/KG | 6.6 | 3.3 |      | 076SB-0107M-0001-SC | 3.3    | 6.7 | 3.3 |      | N/A | Yes      |
| 076SB-0106M-0001-SO | BENZO(B)FLUORANTHENE         | 3.3    | UG/KG | 6.6 | 3.3 |      | 076SB-0107M-0001-SC | 3.3    | 6.7 | 3.3 |      | N/A | Yes      |
| 076SB-0106M-0001-SO | BENZO(G,H,I)PERYLENE         | 3.3    | UG/KG | 6.6 | 3.3 |      | 076SB-0107M-0001-SC | 3.3    | 6.7 | 3.3 |      | N/A | Yes      |
| 076SB-0106M-0001-SO | BENZO(K)FLUORANTHENE         | 3.3    | UG/KG | 6.6 | 3.3 |      | 076SB-0107M-0001-SC | 3.3    | 6.7 | 3.3 |      | N/A | Yes      |
| 076SB-0106M-0001-SO | BENZOIC ACID                 | 330    | UG/KG | 650 | 330 |      | 076SB-0107M-0001-SC | 330    | 660 | 330 |      | N/A | Yes      |
| 076SB-0106M-0001-SO | BENZYL ALCOHOL               | 27     | UG/KG | 330 | 27  |      | 076SB-0107M-0001-SC | 27     | 330 | 27  |      | N/A | Yes      |
| 076SB-0106M-0001-SO | BENZYL BUTYL PHTHALATE       | 27     | UG/KG | 50  | 27  |      | 076SB-0107M-0001-SC | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0106M-0001-SO | BIS(2-CHLOROETHOXY) METHANE  | 27     | UG/KG | 99  | 27  |      | 076SB-0107M-0001-SC | 27     | 100 | 27  |      | N/A | Yes      |
| 076SB-0106M-0001-SO | BIS(2-CHLOROETHYL) ETHER     | 3.3    | UG/KG | 99  | 3.3 |      | 076SB-0107M-0001-SC | 3.3    | 100 | 3.3 |      | N/A | Yes      |
| 076SB-0106M-0001-SO | BIS(2-CHLOROISOPROPYL) ETHER | 27     | UG/KG | 99  | 27  |      | 076SB-0107M-0001-SC | 27     | 100 | 27  |      | N/A | Yes      |
| 076SB-0106M-0001-SO | BIS(2-ETHYLHEXYL) PHTHALATE  | 25     | UG/KG | 50  | 27  | J    | 076SB-0107M-0001-SC | 25     | 50  | 27  | J    | N/A | Yes      |
| 076SB-0106M-0001-SO | CARBAZOLE                    | 27     | UG/KG | 50  | 27  |      | 076SB-0107M-0001-SC | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0106M-0001-SO | CHRYSENE                     | 3.3    | UG/KG | 6.6 | 3.3 |      | 076SB-0107M-0001-SC | 3.3    | 6.7 | 3.3 |      | N/A | Yes      |
| 076SB-0106M-0001-SO | CRESOLS, M & P               | 79     | UG/KG | 400 | 79  |      | 076SB-0107M-0001-SC | 80     | 400 | 80  |      | N/A | Yes      |
| 076SB-0106M-0001-SO | DIBENZ(A,H)ANTHRACENE        | 3.3    | UG/KG | 6.6 | 3.3 |      | 076SB-0107M-0001-SC | 3.3    | 6.7 | 3.3 |      | N/A | Yes      |
| 076SB-0106M-0001-SO | DIBENZOFURAN                 | 3.3    | UG/KG | 50  | 3.3 |      | 076SB-0107M-0001-SC | 3.3    | 50  | 3.3 |      | N/A | Yes      |
| 076SB-0106M-0001-SO | DIETHYL PHTHALATE            | 27     | UG/KG | 50  | 27  |      | 076SB-0107M-0001-SC | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0106M-0001-SO | DIMETHYL PHTHALATE           | 27     | UG/KG | 50  | 27  |      | 076SB-0107M-0001-SC | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0106M-0001-SO | DI-N-BUTYL PHTHALATE         | 27     | UG/KG | 50  | 27  |      | 076SB-0107M-0001-SC | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0106M-0001-SO | DI-N-OCTYLPHTHALATE          | 27     | UG/KG | 50  | 27  |      | 076SB-0107M-0001-SC | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0106M-0001-SO | FLUORANTHENE                 | 3.3    | UG/KG | 6.6 | 3.3 |      | 076SB-0107M-0001-SC | 3.3    | 6.7 | 3.3 |      | N/A | Yes      |
| 076SB-0106M-0001-SO | FLUORENE                     | 3.3    | UG/KG | 6.6 | 3.3 |      | 076SB-0107M-0001-SC | 3.3    | 6.7 | 3.3 |      | N/A | Yes      |
| 076SB-0106M-0001-SO | HEXACHLOROBENZENE            | 3.3    | UG/KG | 6.6 | 3.3 |      | 076SB-0107M-0001-SC | 3.3    | 6.7 | 3.3 |      | N/A | Yes      |
| 076SB-0106M-0001-SO | HEXACHLOROBUTADIENE          | 27     | UG/KG | 50  | 27  |      | 076SB-0107M-0001-SC | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0106M-0001-SO | HEXACHLOROCYCLOPENTADIENE    | 27     | UG/KG | 330 | 27  |      | 076SB-0107M-0001-SC | 27     | 330 | 27  |      | N/A | Yes      |
| 076SB-0106M-0001-SO | HEXACHLOROETHANE             | 27     | UG/KG | 50  | 27  |      | 076SB-0107M-0001-SC | 27     | 50  | 27  |      | N/A | Yes      |

| Sample              | Analyte                    | Result | Units | LOQ   | LOD    | Qual | Sample              | Result | LOQ   | LOD    | Qual | RPD | W/In LOQ |
|---------------------|----------------------------|--------|-------|-------|--------|------|---------------------|--------|-------|--------|------|-----|----------|
| 076SB-0106M-0001-SO | INDENO(1,2,3-C,D)PYRENE    | 3.3    | UG/KG | 6.6   | 3.3    |      | 076SB-0107M-0001-SC | 3.3    | 6.7   | 3.3    |      | N/A | Yes      |
| 076SB-0106M-0001-SO | ISOPHORONE                 | 33     | UG/KG | 50    | 27     | J    | 076SB-0107M-0001-SC | 27     | 50    | 27     |      | N/A | Yes      |
| 076SB-0106M-0001-SO | NAPHTHALENE                | 4.5    | UG/KG | 6.6   | 3.3    | J    | 076SB-0107M-0001-SC | 3.3    | 6.7   | 3.3    |      | N/A | Yes      |
| 076SB-0106M-0001-SO | NITROBENZENE               | 3.3    | UG/KG | 99    | 3.3    |      | 076SB-0107M-0001-SC | 3.3    | 100   | 3.3    |      | N/A | Yes      |
| 076SB-0106M-0001-SO | N-NITROSODI-N-PROPYLAMINE  | 27     | UG/KG | 50    | 27     |      | 076SB-0107M-0001-SC | 27     | 50    | 27     |      | N/A | Yes      |
| 076SB-0106M-0001-SO | N-NITROSODIPHENYLAMINE     | 27     | UG/KG | 50    | 27     |      | 076SB-0107M-0001-SC | 27     | 50    | 27     |      | N/A | Yes      |
| 076SB-0106M-0001-SO | PENTACHLOROPHENOL          | 79     | UG/KG | 150   | 79     |      | 076SB-0107M-0001-SC | 80     | 150   | 80     |      | N/A | Yes      |
| 076SB-0106M-0001-SO | PHENANTHRENE               | 3.3    | UG/KG | 6.6   | 3.3    |      | 076SB-0107M-0001-SC | 3.3    | 6.7   | 3.3    |      | N/A | Yes      |
| 076SB-0106M-0001-SO | PHENOL                     | 27     | UG/KG | 50    | 27     |      | 076SB-0107M-0001-SC | 27     | 50    | 27     |      | N/A | Yes      |
| 076SB-0106M-0001-SO | PYRENE                     | 3.3    | UG/KG | 6.6   | 3.3    |      | 076SB-0107M-0001-SC | 3.3    | 6.7   | 3.3    |      | N/A | Yes      |
| 076SB-0106M-0001-SO | 1,3,5-TRINITROBENZENE      | 0.05   | MG/KG | 0.25  | 0.05   |      | 076SB-0107M-0001-SC | 0.05   | 0.25  | 0.05   |      | N/A | Yes      |
| 076SB-0106M-0001-SO | 1,3-DINITROBENZENE         | 0.05   | MG/KG | 0.25  | 0.05   |      | 076SB-0107M-0001-SC | 0.05   | 0.25  | 0.05   |      | N/A | Yes      |
| 076SB-0106M-0001-SO | 2,4,6-TRINITROTOLUENE      | 0.05   | MG/KG | 0.25  | 0.05   |      | 076SB-0107M-0001-SC | 0.05   | 0.25  | 0.05   |      | N/A | Yes      |
| 076SB-0106M-0001-SO | 2,4-DINITROTOLUENE         | 0.05   | MG/KG | 0.25  | 0.05   |      | 076SB-0107M-0001-SC | 0.05   | 0.25  | 0.05   |      | N/A | Yes      |
| 076SB-0106M-0001-SO | 2,6-DINITROTOLUENE         | 0.05   | MG/KG | 0.25  | 0.05   |      | 076SB-0107M-0001-SC | 0.05   | 0.25  | 0.05   |      | N/A | Yes      |
| 076SB-0106M-0001-SO | 2-AMINO-4,6-DINITROTOLUENE | 0.05   | MG/KG | 0.25  | 0.05   |      | 076SB-0107M-0001-SC | 0.05   | 0.25  | 0.05   |      | N/A | Yes      |
| 076SB-0106M-0001-SO | 2-NITROTOLUENE             | 0.05   | MG/KG | 0.25  | 0.05   |      | 076SB-0107M-0001-SC | 0.05   | 0.25  | 0.05   |      | N/A | Yes      |
| 076SB-0106M-0001-SO | 3-NITROTOLUENE             | 0.05   | MG/KG | 0.25  | 0.05   |      | 076SB-0107M-0001-SC | 0.05   | 0.25  | 0.05   |      | N/A | Yes      |
| 076SB-0106M-0001-SO | 4-AMINO-2,6-DINITROTOLUENE | 0.05   | MG/KG | 0.25  | 0.05   |      | 076SB-0107M-0001-SC | 0.05   | 0.25  | 0.05   |      | N/A | Yes      |
| 076SB-0106M-0001-SO | 4-NITROTOLUENE             | 0.05   | MG/KG | 0.25  | 0.05   |      | 076SB-0107M-0001-SC | 0.05   | 0.25  | 0.05   |      | N/A | Yes      |
| 076SB-0106M-0001-SO | HMX                        | 0.05   | MG/KG | 0.25  | 0.05   |      | 076SB-0107M-0001-SC | 0.05   | 0.25  | 0.05   |      | N/A | Yes      |
| 076SB-0106M-0001-SO | NITROBENZENE               | 0.05   | MG/KG | 0.25  | 0.05   |      | 076SB-0107M-0001-SC | 0.05   | 0.25  | 0.05   |      | N/A | Yes      |
| 076SB-0106M-0001-SO | NITROGLYCERIN              | 0.25   | MG/KG | 0.5   | 0.25   |      | 076SB-0107M-0001-SC | 0.25   | 0.5   | 0.25   |      | N/A | Yes      |
| 076SB-0106M-0001-SO | NITROGUANIDINE             | 0.039  | MG/KG | 0.25  | 0.039  |      | 076SB-0107M-0001-SC | 0.039  | 0.24  | 0.039  |      | N/A | Yes      |
| 076SB-0106M-0001-SO | PETN                       | 0.25   | MG/KG | 0.5   | 0.25   |      | 076SB-0107M-0001-SC | 0.25   | 0.5   | 0.25   |      | N/A | Yes      |
| 076SB-0106M-0001-SO | RDX                        | 0.05   | MG/KG | 0.25  | 0.05   |      | 076SB-0107M-0001-SC | 0.05   | 0.25  | 0.05   |      | N/A | Yes      |
| 076SB-0106M-0001-SO | TETRYL                     | 0.05   | MG/KG | 0.25  | 0.05   |      | 076SB-0107M-0001-SC | 0.05   | 0.25  | 0.05   |      | N/A | Yes      |
| 076SB-0110M-0001-SO | ALUMINUM                   | 8100   | MG/KG | 2.6   | 0.52   |      | 076SB-0111M-0001-SC | 6700   | 2.6   | 0.53   |      | 19  | N/A      |
| 076SB-0110M-0001-SO | ANTIMONY                   | 0.082  | MG/KG | 0.17  | 0.086  | J    | 076SB-0111M-0001-SC | 0.082  | 0.18  | 0.088  | J    | N/A | Yes      |
| 076SB-0110M-0001-SO | ARSENIC                    | 15     | MG/KG | 0.086 | 0.043  |      | 076SB-0111M-0001-SC | 14     | 0.088 | 0.044  |      | 7   | N/A      |
| 076SB-0110M-0001-SO | BARIUM                     | 38     | MG/KG | 0.86  | 0.017  |      | 076SB-0111M-0001-SC | 32     | 0.88  | 0.018  |      | 17  | N/A      |
| 076SB-0110M-0001-SO | BERYLLIUM                  | 0.43   | MG/KG | 0.086 | 0.0086 |      | 076SB-0111M-0001-SC | 0.38   | 0.088 | 0.0088 |      | N/A | Yes      |
| 076SB-0110M-0001-SO | CADMIUM                    | 0.16   | MG/KG | 0.086 | 0.026  |      | 076SB-0111M-0001-SC | 0.15   | 0.088 | 0.026  |      | N/A | Yes      |
| 076SB-0110M-0001-SO | CALCIUM                    | 2900   | MG/KG | 8.6   | 2.2    |      | 076SB-0111M-0001-SC | 3300   | 8.8   | 2.2    |      | 13  | N/A      |
| 076SB-0110M-0001-SO | CHROMIUM                   | 17     | MG/KG | 0.17  | 0.034  |      | 076SB-0111M-0001-SC | 14     | 0.18  | 0.035  |      | 19  | N/A      |
| 076SB-0110M-0001-SO | COBALT                     | 8.8    | MG/KG | 0.043 | 0.0086 |      | 076SB-0111M-0001-SC | 7.4    | 0.044 | 0.0088 |      | 17  | N/A      |

| Sample              | Analyte                   | Result | Units | LOQ   | LOD   | Qual | Sample              | Result | LOQ   | LOD   | Qual | RPD | W/In LOQ |
|---------------------|---------------------------|--------|-------|-------|-------|------|---------------------|--------|-------|-------|------|-----|----------|
| 076SB-0110M-0001-SO | COPPER                    | 17     | MG/KG | 0.17  | 0.052 |      | 076SB-0111M-0001-SC | 14     | 0.18  | 0.053 |      | 19  | N/A      |
| 076SB-0110M-0001-SO | IRON                      | 22000  | MG/KG | 4.3   | 1.7   |      | 076SB-0111M-0001-SC | 21000  | 4.4   | 1.8   |      | 5   | N/A      |
| 076SB-0110M-0001-SO | LEAD                      | 11     | MG/KG | 0.086 | 0.026 |      | 076SB-0111M-0001-SC | 9.8    | 0.088 | 0.026 |      | 12  | N/A      |
| 076SB-0110M-0001-SO | MAGNESIUM                 | 2500   | MG/KG | 8.6   | 1.7   |      | 076SB-0111M-0001-SC | 2100   | 8.8   | 1.8   |      | 17  | N/A      |
| 076SB-0110M-0001-SO | MANGANESE                 | 400    | MG/KG | 0.43  | 0.026 |      | 076SB-0111M-0001-SC | 350    | 0.44  | 0.026 |      | 13  | N/A      |
| 076SB-0110M-0001-SO | NICKEL                    | 21     | MG/KG | 0.086 | 0.026 |      | 076SB-0111M-0001-SC | 18     | 0.088 | 0.026 |      | 15  | N/A      |
| 076SB-0110M-0001-SO | POTASSIUM                 | 870    | MG/KG | 8.6   | 5.2   |      | 076SB-0111M-0001-SC | 700    | 8.8   | 5.3   |      | 22  | N/A      |
| 076SB-0110M-0001-SO | SELENIUM                  | 0.42   | MG/KG | 0.43  | 0.086 | J    | 076SB-0111M-0001-SC | 0.71   | 0.44  | 0.088 |      | N/A | Yes      |
| 076SB-0110M-0001-SO | SILVER                    | 0.021  | MG/KG | 0.086 | 0.026 | J    | 076SB-0111M-0001-SC | 0.022  | 0.088 | 0.026 | J    | N/A | Yes      |
| 076SB-0110M-0001-SO | SODIUM                    | 35     | MG/KG | 8.6   | 4.3   |      | 076SB-0111M-0001-SC | 37     | 8.8   | 4.4   |      | N/A | Yes      |
| 076SB-0110M-0001-SO | THALLIUM                  | 0.11   | MG/KG | 0.086 | 0.017 |      | 076SB-0111M-0001-SC | 0.093  | 0.088 | 0.018 |      | N/A | Yes      |
| 076SB-0110M-0001-SO | VANADIUM                  | 14     | MG/KG | 0.086 | 0.052 |      | 076SB-0111M-0001-SC | 12     | 0.088 | 0.053 |      | 15  | N/A      |
| 076SB-0110M-0001-SO | ZINC                      | 52     | MG/KG | 0.43  | 0.17  |      | 076SB-0111M-0001-SC | 40     | 0.44  | 0.18  |      | 26  | N/A      |
| 076SB-0110M-0001-SO | MERCURY                   | 0.023  | MG/KG | 0.097 | 0.032 | J    | 076SB-0111M-0001-SC | 0.022  | 0.091 | 0.03  | J    | N/A | Yes      |
| 076SB-0110M-0001-SO | 1,1,1-TRICHLOROETHANE     | 1      | UG/KG | 5     | 1     |      | 076SB-0111M-0001-SC | 0.93   | 4.7   | 0.93  |      | N/A | Yes      |
| 076SB-0110M-0001-SO | 1,1,2,2-TETRACHLOROETHANE | 0.5    | UG/KG | 5     | 0.5   |      | 076SB-0111M-0001-SC | 0.47   | 4.7   | 0.47  |      | N/A | Yes      |
| 076SB-0110M-0001-SO | 1,1,2-TRICHLOROETHANE     | 0.5    | UG/KG | 5     | 0.5   |      | 076SB-0111M-0001-SC | 0.47   | 4.7   | 0.47  |      | N/A | Yes      |
| 076SB-0110M-0001-SO | 1,1-DICHLOROETHANE        | 0.5    | UG/KG | 5     | 0.5   |      | 076SB-0111M-0001-SC | 0.47   | 4.7   | 0.47  |      | N/A | Yes      |
| 076SB-0110M-0001-SO | 1,1-DICHLOROETHENE        | 1      | UG/KG | 5     | 1     |      | 076SB-0111M-0001-SC | 0.93   | 4.7   | 0.93  |      | N/A | Yes      |
| 076SB-0110M-0001-SO | 1,2-DIBROMOETHANE         | 1      | UG/KG | 5     | 1     |      | 076SB-0111M-0001-SC | 0.93   | 4.7   | 0.93  |      | N/A | Yes      |
| 076SB-0110M-0001-SO | 1,2-DICHLOROETHANE        | 0.5    | UG/KG | 5     | 0.5   |      | 076SB-0111M-0001-SC | 0.47   | 4.7   | 0.47  |      | N/A | Yes      |
| 076SB-0110M-0001-SO | 1,2-DICHLOROPROPANE       | 1      | UG/KG | 5     | 1     |      | 076SB-0111M-0001-SC | 0.93   | 4.7   | 0.93  |      | N/A | Yes      |
| 076SB-0110M-0001-SO | 2-HEXANONE                | 1      | UG/KG | 20    | 1     |      | 076SB-0111M-0001-SC | 0.93   | 19    | 0.93  |      | N/A | Yes      |
| 076SB-0110M-0001-SO | ACETONE                   | 30     | UG/KG | 20    | 6.3   |      | 076SB-0111M-0001-SC | 30     | 19    | 5.9   |      | N/A | Yes      |
| 076SB-0110M-0001-SO | BENZENE                   | 0.5    | UG/KG | 5     | 0.5   |      | 076SB-0111M-0001-SC | 0.47   | 4.7   | 0.47  |      | N/A | Yes      |
| 076SB-0110M-0001-SO | BROMOCHLOROMETHANE        | 1      | UG/KG | 5     | 1     |      | 076SB-0111M-0001-SC | 0.93   | 4.7   | 0.93  |      | N/A | Yes      |
| 076SB-0110M-0001-SO | BROMODICHLOROMETHANE      | 0.5    | UG/KG | 5     | 0.5   |      | 076SB-0111M-0001-SC | 0.47   | 4.7   | 0.47  |      | N/A | Yes      |
| 076SB-0110M-0001-SO | BROMOFORM                 | 0.5    | UG/KG | 5     | 0.5   |      | 076SB-0111M-0001-SC | 0.47   | 4.7   | 0.47  |      | N/A | Yes      |
| 076SB-0110M-0001-SO | BROMOMETHANE              | 1      | UG/KG | 5     | 1     |      | 076SB-0111M-0001-SC | 0.93   | 4.7   | 0.93  |      | N/A | Yes      |
| 076SB-0110M-0001-SO | CARBON DISULFIDE          | 0.5    | UG/KG | 5     | 0.5   |      | 076SB-0111M-0001-SC | 0.47   | 4.7   | 0.47  |      | N/A | Yes      |
| 076SB-0110M-0001-SO | CARBON TETRACHLORIDE      | 0.5    | UG/KG | 5     | 0.5   |      | 076SB-0111M-0001-SC | 0.47   | 4.7   | 0.47  |      | N/A | Yes      |
| 076SB-0110M-0001-SO | CHLOROBENZENE             | 0.5    | UG/KG | 5     | 0.5   |      | 076SB-0111M-0001-SC | 0.47   | 4.7   | 0.47  |      | N/A | Yes      |
| 076SB-0110M-0001-SO | CHLOROETHANE              | 1      | UG/KG | 5     | 1     |      | 076SB-0111M-0001-SC | 0.93   | 4.7   | 0.93  |      | N/A | Yes      |
| 076SB-0110M-0001-SO | CHLOROFORM                | 0.5    | UG/KG | 5     | 0.5   |      | 076SB-0111M-0001-SC | 0.47   | 4.7   | 0.47  |      | N/A | Yes      |
| 076SB-0110M-0001-SO | CHLOROMETHANE             | 0.5    | UG/KG | 5     | 0.5   |      | 076SB-0111M-0001-SC | 0.47   | 4.7   | 0.47  |      | N/A | Yes      |
| 076SB-0110M-0001-SO | CIS-1,3-DICHLOROPROPENE   | 0.5    | UG/KG | 5     | 0.5   |      | 076SB-0111M-0001-SC | 0.47   | 4.7   | 0.47  |      | N/A | Yes      |

| Sample              | Analyte                    | Result | Units | LOQ | LOD | Qual | Sample              | Result | LOQ | LOD  | Qual | RPD | W/In LOQ |
|---------------------|----------------------------|--------|-------|-----|-----|------|---------------------|--------|-----|------|------|-----|----------|
| 076SB-0110M-0001-SO | DIBROMOCHLOROMETHANE       | 1      | UG/KG | 5   | 1   |      | 076SB-0111M-0001-SC | 0.93   | 4.7 | 0.93 |      | N/A | Yes      |
| 076SB-0110M-0001-SO | ETHYLBENZENE               | 0.5    | UG/KG | 5   | 0.5 |      | 076SB-0111M-0001-SC | 0.47   | 4.7 | 0.47 |      | N/A | Yes      |
| 076SB-0110M-0001-SO | METHYL ETHYL KETONE        | 4.2    | UG/KG | 20  | 2   | J    | 076SB-0111M-0001-SC | 5.6    | 19  | 1.9  | J    | N/A | Yes      |
| 076SB-0110M-0001-SO | METHYL ISOBUTYL KETONE     | 1      | UG/KG | 20  | 1   |      | 076SB-0111M-0001-SC | 0.93   | 19  | 0.93 |      | N/A | Yes      |
| 076SB-0110M-0001-SO | METHYLENE CHLORIDE         | 1      | UG/KG | 5   | 1   |      | 076SB-0111M-0001-SC | 0.93   | 4.7 | 0.93 |      | N/A | Yes      |
| 076SB-0110M-0001-SO | STYRENE                    | 0.5    | UG/KG | 5   | 0.5 |      | 076SB-0111M-0001-SC | 0.47   | 4.7 | 0.47 |      | N/A | Yes      |
| 076SB-0110M-0001-SO | TETRACHLOROETHYLENE        | 1      | UG/KG | 5   | 1   |      | 076SB-0111M-0001-SC | 0.93   | 4.7 | 0.93 |      | N/A | Yes      |
| 076SB-0110M-0001-SO | TOLUENE                    | 1.2    | UG/KG | 5   | 0.5 | J    | 076SB-0111M-0001-SC | 0.95   | 4.7 | 0.47 | J    | N/A | Yes      |
| 076SB-0110M-0001-SO | TOTAL 1,2-DICHLOROETHENE   | 1      | UG/KG | 10  | 1   |      | 076SB-0111M-0001-SC | 0.93   | 9.3 | 0.93 |      | N/A | Yes      |
| 076SB-0110M-0001-SO | TRANS-1,3-DICHLOROPROPENE  | 1      | UG/KG | 5   | 1   |      | 076SB-0111M-0001-SC | 0.93   | 4.7 | 0.93 |      | N/A | Yes      |
| 076SB-0110M-0001-SO | TRICHLOROETHYLENE          | 0.5    | UG/KG | 5   | 0.5 |      | 076SB-0111M-0001-SC | 0.47   | 4.7 | 0.47 |      | N/A | Yes      |
| 076SB-0110M-0001-SO | VINYL CHLORIDE             | 0.5    | UG/KG | 5   | 0.5 |      | 076SB-0111M-0001-SC | 0.47   | 4.7 | 0.47 |      | N/A | Yes      |
| 076SB-0110M-0001-SO | XYLENES, TOTAL             | 1.5    | UG/KG | 10  | 1.5 |      | 076SB-0111M-0001-SC | 1.4    | 9.3 | 1.4  |      | N/A | Yes      |
| 076SB-0110M-0001-SO | 1,2,4-TRICHLOROBENZENE     | 27     | UG/KG | 50  | 27  |      | 076SB-0111M-0001-SC | 27     | 50  | 27   |      | N/A | Yes      |
| 076SB-0110M-0001-SO | 1,2-DICHLOROBENZENE        | 27     | UG/KG | 50  | 27  |      | 076SB-0111M-0001-SC | 27     | 50  | 27   |      | N/A | Yes      |
| 076SB-0110M-0001-SO | 1,3-DICHLOROBENZENE        | 27     | UG/KG | 50  | 27  |      | 076SB-0111M-0001-SC | 27     | 50  | 27   |      | N/A | Yes      |
| 076SB-0110M-0001-SO | 1,4-DICHLOROBENZENE        | 27     | UG/KG | 50  | 27  |      | 076SB-0111M-0001-SC | 27     | 50  | 27   |      | N/A | Yes      |
| 076SB-0110M-0001-SO | 2,4,5-TRICHLOROPHENOL      | 27     | UG/KG | 150 | 27  |      | 076SB-0111M-0001-SC | 27     | 150 | 27   |      | N/A | Yes      |
| 076SB-0110M-0001-SO | 2,4,6-TRICHLOROPHENOL      | 80     | UG/KG | 150 | 80  |      | 076SB-0111M-0001-SC | 80     | 150 | 80   |      | N/A | Yes      |
| 076SB-0110M-0001-SO | 2,4-DICHLOROPHENOL         | 27     | UG/KG | 150 | 27  |      | 076SB-0111M-0001-SC | 27     | 150 | 27   |      | N/A | Yes      |
| 076SB-0110M-0001-SO | 2,4-DIMETHYLPHENOL         | 80     | UG/KG | 150 | 80  |      | 076SB-0111M-0001-SC | 80     | 150 | 80   |      | N/A | Yes      |
| 076SB-0110M-0001-SO | 2,4-DINITROPHENOL          | 80     | UG/KG | 330 | 80  |      | 076SB-0111M-0001-SC | 80     | 330 | 80   |      | N/A | Yes      |
| 076SB-0110M-0001-SO | 2,4-DINITROTOLUENE         | 27     | UG/KG | 200 | 27  |      | 076SB-0111M-0001-SC | 27     | 200 | 27   |      | N/A | Yes      |
| 076SB-0110M-0001-SO | 2,6-DINITROTOLUENE         | 27     | UG/KG | 200 | 27  |      | 076SB-0111M-0001-SC | 27     | 200 | 27   |      | N/A | Yes      |
| 076SB-0110M-0001-SO | 2-CHLORONAPHTHALENE        | 3.3    | UG/KG | 50  | 3.3 |      | 076SB-0111M-0001-SC | 3.3    | 50  | 3.3  |      | N/A | Yes      |
| 076SB-0110M-0001-SO | 2-CHLOROPHENOL             | 27     | UG/KG | 50  | 27  |      | 076SB-0111M-0001-SC | 27     | 50  | 27   |      | N/A | Yes      |
| 076SB-0110M-0001-SO | 2-METHYLNAPHTHALENE        | 10     | UG/KG | 6.6 | 3.3 |      | 076SB-0111M-0001-SC | 13     | 6.6 | 3.3  |      | N/A | Yes      |
| 076SB-0110M-0001-SO | 2-METHYLPHENOL             | 80     | UG/KG | 200 | 80  |      | 076SB-0111M-0001-SC | 80     | 200 | 80   |      | N/A | Yes      |
| 076SB-0110M-0001-SO | 2-NITROANILINE             | 27     | UG/KG | 200 | 27  |      | 076SB-0111M-0001-SC | 27     | 200 | 27   |      | N/A | Yes      |
| 076SB-0110M-0001-SO | 2-NITROPHENOL              | 27     | UG/KG | 50  | 27  |      | 076SB-0111M-0001-SC | 27     | 50  | 27   |      | N/A | Yes      |
| 076SB-0110M-0001-SO | 3,3'-DICHLOROBENZIDINE     | 80     | UG/KG | 99  | 80  |      | 076SB-0111M-0001-SC | 80     | 100 | 80   |      | N/A | Yes      |
| 076SB-0110M-0001-SO | 3-NITROANILINE             | 80     | UG/KG | 200 | 80  |      | 076SB-0111M-0001-SC | 80     | 200 | 80   |      | N/A | Yes      |
| 076SB-0110M-0001-SO | 4,6-DINITRO-2-METHYLPHENOL | 80     | UG/KG | 150 | 80  |      | 076SB-0111M-0001-SC | 80     | 150 | 80   |      | N/A | Yes      |
| 076SB-0110M-0001-SO | 4-BROMOPHENYL PHENYL ETHER | 27     | UG/KG | 50  | 27  |      | 076SB-0111M-0001-SC | 27     | 50  | 27   |      | N/A | Yes      |
| 076SB-0110M-0001-SO | 4-CHLORO-3-METHYLPHENOL    | 27     | UG/KG | 150 | 27  |      | 076SB-0111M-0001-SC | 27     | 150 | 27   |      | N/A | Yes      |
| 076SB-0110M-0001-SO | 4-CHLOROANILINE            | 27     | UG/KG | 150 | 27  |      | 076SB-0111M-0001-SC | 27     | 150 | 27   |      | N/A | Yes      |

| Sample              | Analyte                      | Result | Units | LOQ | LOD | Qual | Sample              | Result | LOQ | LOD | Qual | RPD | W/In LOQ |
|---------------------|------------------------------|--------|-------|-----|-----|------|---------------------|--------|-----|-----|------|-----|----------|
| 076SB-0110M-0001-SO | 4-CHLOROPHENYL PHENYL ETHER  | 27     | UG/KG | 50  | 27  |      | 076SB-0111M-0001-SC | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0110M-0001-SO | 4-NITROANILINE               | 27     | UG/KG | 200 | 27  |      | 076SB-0111M-0001-SC | 27     | 200 | 27  |      | N/A | Yes      |
| 076SB-0110M-0001-SO | 4-NITROPHENOL                | 80     | UG/KG | 330 | 80  |      | 076SB-0111M-0001-SC | 80     | 330 | 80  |      | N/A | Yes      |
| 076SB-0110M-0001-SO | ACENAPHTHENE                 | 3.3    | UG/KG | 6.6 | 3.3 |      | 076SB-0111M-0001-SC | 3.3    | 6.6 | 3.3 |      | N/A | Yes      |
| 076SB-0110M-0001-SO | ACENAPHTHYLENE               | 3.3    | UG/KG | 6.6 | 3.3 |      | 076SB-0111M-0001-SC | 3.3    | 6.6 | 3.3 |      | N/A | Yes      |
| 076SB-0110M-0001-SO | ANTHRACENE                   | 3.3    | UG/KG | 6.6 | 3.3 |      | 076SB-0111M-0001-SC | 13     | 6.6 | 3.3 |      | N/A | No       |
| 076SB-0110M-0001-SO | BENZO(A)ANTHRACENE           | 21     | UG/KG | 6.6 | 3.3 |      | 076SB-0111M-0001-SC | 31     | 6.6 | 3.3 |      | N/A | No       |
| 076SB-0110M-0001-SO | BENZO(A)PYRENE               | 20     | UG/KG | 6.6 | 3.3 |      | 076SB-0111M-0001-SC | 23     | 6.6 | 3.3 |      | N/A | Yes      |
| 076SB-0110M-0001-SO | BENZO(B)FLUORANTHENE         | 30     | UG/KG | 6.6 | 3.3 |      | 076SB-0111M-0001-SC | 32     | 6.6 | 3.3 |      | N/A | Yes      |
| 076SB-0110M-0001-SO | BENZO(G,H,I)PERYLENE         | 12     | UG/KG | 6.6 | 3.3 |      | 076SB-0111M-0001-SC | 15     | 6.6 | 3.3 |      | N/A | Yes      |
| 076SB-0110M-0001-SO | BENZO(K)FLUORANTHENE         | 7.7    | UG/KG | 6.6 | 3.3 |      | 076SB-0111M-0001-SC | 10     | 6.6 | 3.3 |      | N/A | Yes      |
| 076SB-0110M-0001-SO | BENZOIC ACID                 | 330    | UG/KG | 660 | 330 |      | 076SB-0111M-0001-SC | 330    | 660 | 330 |      | N/A | Yes      |
| 076SB-0110M-0001-SO | BENZYL ALCOHOL               | 27     | UG/KG | 330 | 27  |      | 076SB-0111M-0001-SC | 27     | 330 | 27  |      | N/A | Yes      |
| 076SB-0110M-0001-SO | BENZYL BUTYL PHTHALATE       | 27     | UG/KG | 50  | 27  |      | 076SB-0111M-0001-SC | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0110M-0001-SO | BIS(2-CHLOROETHOXY) METHANE  | 27     | UG/KG | 99  | 27  |      | 076SB-0111M-0001-SC | 27     | 100 | 27  |      | N/A | Yes      |
| 076SB-0110M-0001-SO | BIS(2-CHLOROETHYL) ETHER     | 3.3    | UG/KG | 99  | 3.3 |      | 076SB-0111M-0001-SC | 3.3    | 100 | 3.3 |      | N/A | Yes      |
| 076SB-0110M-0001-SO | BIS(2-CHLOROISOPROPYL) ETHER | 27     | UG/KG | 99  | 27  |      | 076SB-0111M-0001-SC | 27     | 100 | 27  |      | N/A | Yes      |
| 076SB-0110M-0001-SO | BIS(2-ETHYLHEXYL) PHTHALATE  | 36     | UG/KG | 50  | 27  | J    | 076SB-0111M-0001-SC | 23     | 50  | 27  | J    | N/A | Yes      |
| 076SB-0110M-0001-SO | CARBAZOLE                    | 27     | UG/KG | 50  | 27  |      | 076SB-0111M-0001-SC | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0110M-0001-SO | CHRYSENE                     | 20     | UG/KG | 6.6 | 3.3 |      | 076SB-0111M-0001-SC | 28     | 6.6 | 3.3 |      | N/A | No       |
| 076SB-0110M-0001-SO | CRESOLS, M & P               | 80     | UG/KG | 400 | 80  |      | 076SB-0111M-0001-SC | 80     | 400 | 80  |      | N/A | Yes      |
| 076SB-0110M-0001-SO | DIBENZ(A,H)ANTHRACENE        | 3.3    | UG/KG | 6.6 | 3.3 |      | 076SB-0111M-0001-SC | 3.3    | 6.6 | 3.3 |      | N/A | Yes      |
| 076SB-0110M-0001-SO | DIBENZOFURAN                 | 3.4    | UG/KG | 50  | 3.3 | J    | 076SB-0111M-0001-SC | 8.5    | 50  | 3.3 | J    | N/A | Yes      |
| 076SB-0110M-0001-SO | DIETHYL PHTHALATE            | 27     | UG/KG | 50  | 27  |      | 076SB-0111M-0001-SC | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0110M-0001-SO | DIMETHYL PHTHALATE           | 27     | UG/KG | 50  | 27  |      | 076SB-0111M-0001-SC | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0110M-0001-SO | DI-N-BUTYL PHTHALATE         | 27     | UG/KG | 50  | 27  |      | 076SB-0111M-0001-SC | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0110M-0001-SO | DI-N-OCTYLPHTHALATE          | 27     | UG/KG | 50  | 27  |      | 076SB-0111M-0001-SC | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0110M-0001-SO | FLUORANTHENE                 | 22     | UG/KG | 6.6 | 3.3 |      | 076SB-0111M-0001-SC | 64     | 6.6 | 3.3 |      | N/A | No       |
| 076SB-0110M-0001-SO | FLUORENE                     | 3.3    | UG/KG | 6.6 | 3.3 |      | 076SB-0111M-0001-SC | 7.4    | 6.6 | 3.3 |      | N/A | Yes      |
| 076SB-0110M-0001-SO | HEXACHLOROBENZENE            | 3.3    | UG/KG | 6.6 | 3.3 |      | 076SB-0111M-0001-SC | 3.3    | 6.6 | 3.3 |      | N/A | Yes      |
| 076SB-0110M-0001-SO | HEXACHLOROBUTADIENE          | 27     | UG/KG | 50  | 27  |      | 076SB-0111M-0001-SC | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0110M-0001-SO | HEXACHLOROCYCLOPENTADIENE    | 27     | UG/KG | 330 | 27  |      | 076SB-0111M-0001-SC | 27     | 330 | 27  |      | N/A | Yes      |
| 076SB-0110M-0001-SO | HEXACHLOROETHANE             | 27     | UG/KG | 50  | 27  |      | 076SB-0111M-0001-SC | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0110M-0001-SO | INDENO(1,2,3-C,D)PYRENE      | 12     | UG/KG | 6.6 | 3.3 |      | 076SB-0111M-0001-SC | 14     | 6.6 | 3.3 |      | N/A | Yes      |
| 076SB-0110M-0001-SO | ISOPHORONE                   | 27     | UG/KG | 50  | 27  |      | 076SB-0111M-0001-SC | 27     | 50  | 27  |      | N/A | Yes      |
| 076SB-0110M-0001-SO | NAPHTHALENE                  | 8.7    | UG/KG | 6.6 | 3.3 |      | 076SB-0111M-0001-SC | 12     | 6.6 | 3.3 |      | N/A | Yes      |



| Sample              | Analyte                   | Result | Units | LOQ   | LOD   | Qual | Sample              | Result | LOQ   | LOD    | Qual | RPD | W/In LOQ |
|---------------------|---------------------------|--------|-------|-------|-------|------|---------------------|--------|-------|--------|------|-----|----------|
| 076SB-0110M-0001-SO | NITROBENZENE              | 3.3    | UG/KG | 99    | 3.3   |      | 076SB-0111M-0001-SC | 3.3    | 100   | 3.3    |      | N/A | Yes      |
| 076SB-0110M-0001-SO | N-NITROSODI-N-PROPYLAMINE | 27     | UG/KG | 50    | 27    |      | 076SB-0111M-0001-SC | 27     | 50    | 27     |      | N/A | Yes      |
| 076SB-0110M-0001-SO | N-NITROSODIPHENYLAMINE    | 27     | UG/KG | 50    | 27    |      | 076SB-0111M-0001-SC | 27     | 50    | 27     |      | N/A | Yes      |
| 076SB-0110M-0001-SO | PENTACHLOROPHENOL         | 80     | UG/KG | 150   | 80    |      | 076SB-0111M-0001-SC | 80     | 150   | 80     |      | N/A | Yes      |
| 076SB-0110M-0001-SO | PHENANTHRENE              | 3.3    | UG/KG | 6.6   | 3.3   |      | 076SB-0111M-0001-SC | 60     | 6.6   | 3.3    |      | N/A | No       |
| 076SB-0110M-0001-SO | PHENOL                    | 27     | UG/KG | 50    | 27    |      | 076SB-0111M-0001-SC | 27     | 50    | 27     |      | N/A | Yes      |
| 076SB-0110M-0001-SO | PYRENE                    | 20     | UG/KG | 6.6   | 3.3   |      | 076SB-0111M-0001-SC | 50     | 6.6   | 3.3    |      | 86  | N/A      |
| 076SB-0112M-0001-SO | ALUMINUM                  | 7600   | MG/KG | 3     | 0.6   |      | 076SB-0113M-0001-SC | 7900   | 2.5   | 0.51   |      | 4   | N/A      |
| 076SB-0112M-0001-SO | ANTIMONY                  | 0.13   | MG/KG | 0.2   | 0.1   | J    | 076SB-0113M-0001-SC | 0.1    | 0.17  | 0.085  | J    | N/A | Yes      |
| 076SB-0112M-0001-SO | ARSENIC                   | 13     | MG/KG | 0.1   | 0.05  |      | 076SB-0113M-0001-SC | 12     | 0.085 | 0.042  |      | 8   | N/A      |
| 076SB-0112M-0001-SO | BARIUM                    | 63     | MG/KG | 1     | 0.02  |      | 076SB-0113M-0001-SC | 57     | 0.85  | 0.017  |      | 10  | N/A      |
| 076SB-0112M-0001-SO | BERYLLIUM                 | 0.48   | MG/KG | 0.1   | 0.01  |      | 076SB-0113M-0001-SC | 0.5    | 0.085 | 0.0085 |      | N/A | Yes      |
| 076SB-0112M-0001-SO | CADMIUM                   | 0.31   | MG/KG | 0.1   | 0.03  |      | 076SB-0113M-0001-SC | 0.28   | 0.085 | 0.025  |      | N/A | Yes      |
| 076SB-0112M-0001-SO | CALCIUM                   | 5400   | MG/KG | 10    | 2.5   |      | 076SB-0113M-0001-SC | 5900   | 8.5   | 2.1    |      | 9   | N/A      |
| 076SB-0112M-0001-SO | CHROMIUM                  | 17     | MG/KG | 0.2   | 0.04  |      | 076SB-0113M-0001-SC | 13     | 0.17  | 0.034  |      | 27  | N/A      |
| 076SB-0112M-0001-SO | COBALT                    | 8.2    | MG/KG | 0.05  | 0.01  |      | 076SB-0113M-0001-SC | 7.4    | 0.042 | 0.0085 |      | 10  | N/A      |
| 076SB-0112M-0001-SO | COPPER                    | 18     | MG/KG | 0.2   | 0.06  |      | 076SB-0113M-0001-SC | 17     | 0.17  | 0.051  |      | 6   | N/A      |
| 076SB-0112M-0001-SO | IRON                      | 20000  | MG/KG | 5     | 2     |      | 076SB-0113M-0001-SC | 19000  | 4.2   | 1.7    |      | 5   | N/A      |
| 076SB-0112M-0001-SO | LEAD                      | 15     | MG/KG | 0.1   | 0.03  |      | 076SB-0113M-0001-SC | 15     | 0.085 | 0.025  |      | 0   | N/A      |
| 076SB-0112M-0001-SO | MAGNESIUM                 | 2400   | MG/KG | 10    | 2     |      | 076SB-0113M-0001-SC | 2600   | 8.5   | 1.7    |      | 8   | N/A      |
| 076SB-0112M-0001-SO | MANGANESE                 | 520    | MG/KG | 0.5   | 0.03  |      | 076SB-0113M-0001-SC | 440    | 0.42  | 0.025  |      | 17  | N/A      |
| 076SB-0112M-0001-SO | NICKEL                    | 21     | MG/KG | 0.1   | 0.03  |      | 076SB-0113M-0001-SC | 18     | 0.085 | 0.025  |      | 15  | N/A      |
| 076SB-0112M-0001-SO | POTASSIUM                 | 650    | MG/KG | 10    | 6     |      | 076SB-0113M-0001-SC | 730    | 8.5   | 5.1    |      | 12  | N/A      |
| 076SB-0112M-0001-SO | SELENIUM                  | 0.79   | MG/KG | 0.5   | 0.1   |      | 076SB-0113M-0001-SC | 0.65   | 0.42  | 0.085  |      | N/A | Yes      |
| 076SB-0112M-0001-SO | SILVER                    | 0.031  | MG/KG | 0.1   | 0.03  | J    | 076SB-0113M-0001-SC | 0.028  | 0.085 | 0.025  | J    | N/A | Yes      |
| 076SB-0112M-0001-SO | SODIUM                    | 43     | MG/KG | 10    | 5     |      | 076SB-0113M-0001-SC | 42     | 8.5   | 4.2    |      | N/A | Yes      |
| 076SB-0112M-0001-SO | THALLIUM                  | 0.13   | MG/KG | 0.1   | 0.02  |      | 076SB-0113M-0001-SC | 0.12   | 0.085 | 0.017  |      | N/A | Yes      |
| 076SB-0112M-0001-SO | VANADIUM                  | 15     | MG/KG | 0.1   | 0.06  |      | 076SB-0113M-0001-SC | 15     | 0.085 | 0.051  |      | 0   | N/A      |
| 076SB-0112M-0001-SO | ZINC                      | 54     | MG/KG | 0.5   | 0.2   |      | 076SB-0113M-0001-SC | 52     | 0.42  | 0.17   |      | 4   | N/A      |
| 076SB-0112M-0001-SO | MERCURY                   | 0.03   | MG/KG | 0.094 | 0.031 | J    | 076SB-0113M-0001-SC | 0.031  | 0.12  | 0.039  | J    | N/A | Yes      |
| 076SB-0112M-0001-SO | 1,1,1-TRICHLOROETHANE     | 0.87   | UG/KG | 4.3   | 0.87  |      | 076SB-0113M-0001-SC | 0.91   | 4.5   | 0.91   | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | 1,1,2,2-TETRACHLOROETHANE | 0.43   | UG/KG | 4.3   | 0.43  |      | 076SB-0113M-0001-SC | 0.45   | 4.5   | 0.45   | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | 1,1,2-TRICHLOROETHANE     | 0.43   | UG/KG | 4.3   | 0.43  |      | 076SB-0113M-0001-SC | 0.45   | 4.5   | 0.45   | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | 1,1-DICHLOROETHANE        | 0.43   | UG/KG | 4.3   | 0.43  |      | 076SB-0113M-0001-SC | 0.45   | 4.5   | 0.45   | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | 1,1-DICHLOROETHENE        | 0.87   | UG/KG | 4.3   | 0.87  |      | 076SB-0113M-0001-SC | 0.91   | 4.5   | 0.91   | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | 1,2-DIBROMOETHANE         | 0.87   | UG/KG | 4.3   | 0.87  |      | 076SB-0113M-0001-SC | 0.91   | 4.5   | 0.91   | U    | N/A | Yes      |

| Sample              | Analyte                   | Result | Units | LOQ  | LOD  | Qual | Sample              | Result | LOQ  | LOD  | Qual | RPD | W/In LOQ |
|---------------------|---------------------------|--------|-------|------|------|------|---------------------|--------|------|------|------|-----|----------|
| 076SB-0112M-0001-SO | 1,2-DICHLOROETHANE        | 0.43   | UG/KG | 4.3  | 0.43 |      | 076SB-0113M-0001-SC | 0.45   | 4.5  | 0.45 | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | 1,2-DICHLOROPROPANE       | 0.87   | UG/KG | 4.3  | 0.87 |      | 076SB-0113M-0001-SC | 0.91   | 4.5  | 0.91 | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | 2-HEXANONE                | 0.87   | UG/KG | 17   | 0.87 |      | 076SB-0113M-0001-SC | 0.91   | 18   | 0.91 | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | ACETONE                   | 6.6    | UG/KG | 17   | 5.5  | J    | 076SB-0113M-0001-SC | 12     | 18   | 5.7  | J    | N/A | Yes      |
| 076SB-0112M-0001-SO | BENZENE                   | 0.43   | UG/KG | 4.3  | 0.43 |      | 076SB-0113M-0001-SC | 0.45   | 4.5  | 0.45 | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | BROMOCHLOROMETHANE        | 0.87   | UG/KG | 4.3  | 0.87 |      | 076SB-0113M-0001-SC | 0.91   | 4.5  | 0.91 | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | BROMODICHLOROMETHANE      | 0.43   | UG/KG | 4.3  | 0.43 |      | 076SB-0113M-0001-SC | 0.45   | 4.5  | 0.45 | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | BROMOFORM                 | 0.43   | UG/KG | 4.3  | 0.43 |      | 076SB-0113M-0001-SC | 0.45   | 4.5  | 0.45 | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | BROMOMETHANE              | 0.87   | UG/KG | 4.3  | 0.87 |      | 076SB-0113M-0001-SC | 0.91   | 4.5  | 0.91 | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | CARBON DISULFIDE          | 0.43   | UG/KG | 4.3  | 0.43 |      | 076SB-0113M-0001-SC | 0.45   | 4.5  | 0.45 | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | CARBON TETRACHLORIDE      | 0.43   | UG/KG | 4.3  | 0.43 |      | 076SB-0113M-0001-SC | 0.45   | 4.5  | 0.45 | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | CHLOROBENZENE             | 0.43   | UG/KG | 4.3  | 0.43 |      | 076SB-0113M-0001-SC | 0.45   | 4.5  | 0.45 | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | CHLOROETHANE              | 0.87   | UG/KG | 4.3  | 0.87 |      | 076SB-0113M-0001-SC | 0.91   | 4.5  | 0.91 | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | CHLOROFORM                | 0.43   | UG/KG | 4.3  | 0.43 |      | 076SB-0113M-0001-SC | 0.45   | 4.5  | 0.45 | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | CHLOROMETHANE             | 0.43   | UG/KG | 4.3  | 0.43 |      | 076SB-0113M-0001-SC | 0.45   | 4.5  | 0.45 | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | CIS-1,3-DICHLOROPROPENE   | 0.43   | UG/KG | 4.3  | 0.43 |      | 076SB-0113M-0001-SC | 0.45   | 4.5  | 0.45 | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | DIBROMOCHLOROMETHANE      | 0.87   | UG/KG | 4.3  | 0.87 |      | 076SB-0113M-0001-SC | 0.91   | 4.5  | 0.91 | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | ETHYLBENZENE              | 0.43   | UG/KG | 4.3  | 0.43 |      | 076SB-0113M-0001-SC | 0.45   | 4.5  | 0.45 | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | METHYL ETHYL KETONE       | 1.7    | UG/KG | 17   | 1.7  | J    | 076SB-0113M-0001-SC | 3.3    | 18   | 1.8  | J    | N/A | Yes      |
| 076SB-0112M-0001-SO | METHYL ISOBUTYL KETONE    | 0.87   | UG/KG | 17   | 0.87 |      | 076SB-0113M-0001-SC | 0.91   | 18   | 0.91 | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | METHYLENE CHLORIDE        | 0.87   | UG/KG | 4.3  | 0.87 |      | 076SB-0113M-0001-SC | 1.1    | 4.5  | 0.91 | J    | N/A | Yes      |
| 076SB-0112M-0001-SO | STYRENE                   | 0.43   | UG/KG | 4.3  | 0.43 |      | 076SB-0113M-0001-SC | 0.45   | 4.5  | 0.45 | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | TETRACHLOROETHYLENE       | 0.87   | UG/KG | 4.3  | 0.87 |      | 076SB-0113M-0001-SC | 0.91   | 4.5  | 0.91 | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | TOLUENE                   | 1      | UG/KG | 4.3  | 0.43 | J    | 076SB-0113M-0001-SC | 1.5    | 4.5  | 0.45 | J    | N/A | Yes      |
| 076SB-0112M-0001-SO | TOTAL 1,2-DICHLOROETHENE  | 0.87   | UG/KG | 8.7  | 0.87 |      | 076SB-0113M-0001-SC | 0.91   | 9.1  | 0.91 | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | TRANS-1,3-DICHLOROPROPENE | 0.87   | UG/KG | 4.3  | 0.87 |      | 076SB-0113M-0001-SC | 0.91   | 4.5  | 0.91 | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | TRICHLOROETHYLENE         | 0.43   | UG/KG | 4.3  | 0.43 |      | 076SB-0113M-0001-SC | 0.45   | 4.5  | 0.45 | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | VINYL CHLORIDE            | 0.43   | UG/KG | 4.3  | 0.43 |      | 076SB-0113M-0001-SC | 0.45   | 4.5  | 0.45 | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | XYLENES, TOTAL            | 1.3    | UG/KG | 8.7  | 1.3  |      | 076SB-0113M-0001-SC | 1.4    | 9.1  | 1.4  | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | 1,2,4-TRICHLOROBENZENE    | 530    | UG/KG | 990  | 530  |      | 076SB-0113M-0001-SC | 540    | 1000 | 540  | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | 1,2-DICHLOROBENZENE       | 530    | UG/KG | 990  | 530  |      | 076SB-0113M-0001-SC | 540    | 1000 | 540  | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | 1,3-DICHLOROBENZENE       | 530    | UG/KG | 990  | 530  |      | 076SB-0113M-0001-SC | 540    | 1000 | 540  | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | 1,4-DICHLOROBENZENE       | 530    | UG/KG | 990  | 530  |      | 076SB-0113M-0001-SC | 540    | 1000 | 540  | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | 2,4,5-TRICHLOROPHENOL     | 530    | UG/KG | 3000 | 530  |      | 076SB-0113M-0001-SC | 540    | 3000 | 540  | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | 2,4,6-TRICHLOROPHENOL     | 1600   | UG/KG | 3000 | 1600 |      | 076SB-0113M-0001-SC | 1600   | 3000 | 1600 | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | 2,4-DICHLOROPHENOL        | 530    | UG/KG | 3000 | 530  |      | 076SB-0113M-0001-SC | 540    | 3000 | 540  | U    | N/A | Yes      |

| Sample              | Analyte                      | Result | Units | LOQ   | LOD  | Qual | Sample              | Result | LOQ   | LOD  | Qual | RPD | W/In LOQ |
|---------------------|------------------------------|--------|-------|-------|------|------|---------------------|--------|-------|------|------|-----|----------|
| 076SB-0112M-0001-SO | 2,4-DIMETHYLPHENOL           | 1600   | UG/KG | 3000  | 1600 |      | 076SB-0113M-0001-SC | 1600   | 3000  | 1600 | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | 2,4-DINITROPHENOL            | 1600   | UG/KG | 6500  | 1600 |      | 076SB-0113M-0001-SC | 1600   | 6600  | 1600 | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | 2,4-DINITROTOLUENE           | 530    | UG/KG | 3900  | 530  |      | 076SB-0113M-0001-SC | 540    | 4000  | 540  | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | 2,6-DINITROTOLUENE           | 530    | UG/KG | 3900  | 530  |      | 076SB-0113M-0001-SC | 540    | 4000  | 540  | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | 2-CHLORONAPHTHALENE          | 65     | UG/KG | 990   | 65   |      | 076SB-0113M-0001-SC | 66     | 1000  | 66   | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | 2-CHLOROPHENOL               | 530    | UG/KG | 990   | 530  |      | 076SB-0113M-0001-SC | 540    | 1000  | 540  | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | 2-METHYLNAPHTHALENE          | 65     | UG/KG | 130   | 65   |      | 076SB-0113M-0001-SC | 66     | 130   | 66   | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | 2-METHYLPHENOL               | 1600   | UG/KG | 3900  | 1600 |      | 076SB-0113M-0001-SC | 1600   | 4000  | 1600 | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | 2-NITROANILINE               | 530    | UG/KG | 3900  | 530  |      | 076SB-0113M-0001-SC | 540    | 4000  | 540  | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | 2-NITROPHENOL                | 530    | UG/KG | 990   | 530  |      | 076SB-0113M-0001-SC | 540    | 1000  | 540  | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | 3,3'-DICHLOROBENZIDINE       | 1600   | UG/KG | 2000  | 1600 |      | 076SB-0113M-0001-SC | 1600   | 2000  | 1600 | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | 3-NITROANILINE               | 1600   | UG/KG | 3900  | 1600 |      | 076SB-0113M-0001-SC | 1600   | 4000  | 1600 | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | 4,6-DINITRO-2-METHYLPHENOL   | 1600   | UG/KG | 3000  | 1600 |      | 076SB-0113M-0001-SC | 1600   | 3000  | 1600 | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | 4-BROMOPHENYL PHENYL ETHER   | 530    | UG/KG | 990   | 530  |      | 076SB-0113M-0001-SC | 540    | 1000  | 540  | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | 4-CHLORO-3-METHYLPHENOL      | 530    | UG/KG | 3000  | 530  |      | 076SB-0113M-0001-SC | 540    | 3000  | 540  | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | 4-CHLOROANILINE              | 530    | UG/KG | 3000  | 530  |      | 076SB-0113M-0001-SC | 540    | 3000  | 540  | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | 4-CHLOROPHENYL PHENYL ETHER  | 530    | UG/KG | 990   | 530  |      | 076SB-0113M-0001-SC | 540    | 1000  | 540  | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | 4-NITROANILINE               | 530    | UG/KG | 3900  | 530  |      | 076SB-0113M-0001-SC | 540    | 4000  | 540  | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | 4-NITROPHENOL                | 1600   | UG/KG | 6500  | 1600 |      | 076SB-0113M-0001-SC | 1600   | 6600  | 1600 | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | ACENAPHTHENE                 | 65     | UG/KG | 130   | 65   |      | 076SB-0113M-0001-SC | 66     | 130   | 66   | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | ACENAPHTHYLENE               | 65     | UG/KG | 130   | 65   |      | 076SB-0113M-0001-SC | 66     | 130   | 66   | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | ANTHRACENE                   | 65     | UG/KG | 130   | 65   |      | 076SB-0113M-0001-SC | 66     | 130   | 66   | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | BENZO(A)ANTHRACENE           | 200    | UG/KG | 130   | 65   |      | 076SB-0113M-0001-SC | 270    | 130   | 66   |      | N/A | Yes      |
| 076SB-0112M-0001-SO | BENZO(A)PYRENE               | 140    | UG/KG | 130   | 65   |      | 076SB-0113M-0001-SC | 220    | 130   | 66   |      | N/A | Yes      |
| 076SB-0112M-0001-SO | BENZO(B)FLUORANTHENE         | 190    | UG/KG | 130   | 65   |      | 076SB-0113M-0001-SC | 270    | 130   | 66   |      | N/A | Yes      |
| 076SB-0112M-0001-SO | BENZO(G,H,I)PERYLENE         | 120    | UG/KG | 130   | 65   | J    | 076SB-0113M-0001-SC | 140    | 130   | 66   |      | N/A | Yes      |
| 076SB-0112M-0001-SO | BENZO(K)FLUORANTHENE         | 110    | UG/KG | 130   | 65   | J    | 076SB-0113M-0001-SC | 110    | 130   | 66   | J    | N/A | Yes      |
| 076SB-0112M-0001-SO | BENZOIC ACID                 | 6600   | UG/KG | 13000 | 6600 |      | 076SB-0113M-0001-SC | 6600   | 13000 | 6600 | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | BENZYL ALCOHOL               | 530    | UG/KG | 6500  | 530  |      | 076SB-0113M-0001-SC | 540    | 6600  | 540  | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | BENZYL BUTYL PHTHALATE       | 530    | UG/KG | 990   | 530  |      | 076SB-0113M-0001-SC | 540    | 1000  | 540  | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | BIS(2-CHLOROETHOXY) METHANE  | 530    | UG/KG | 2000  | 530  |      | 076SB-0113M-0001-SC | 540    | 2000  | 540  | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | BIS(2-CHLOROETHYL) ETHER     | 65     | UG/KG | 2000  | 65   |      | 076SB-0113M-0001-SC | 66     | 2000  | 66   | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | BIS(2-CHLOROISOPROPYL) ETHER | 530    | UG/KG | 2000  | 530  |      | 076SB-0113M-0001-SC | 540    | 2000  | 540  | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | BIS(2-ETHYLHEXYL) PHTHALATE  | 530    | UG/KG | 990   | 530  |      | 076SB-0113M-0001-SC | 540    | 1000  | 540  | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | CARBAZOLE                    | 530    | UG/KG | 990   | 530  |      | 076SB-0113M-0001-SC | 540    | 1000  | 540  | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | CHRYSENE                     | 160    | UG/KG | 130   | 65   |      | 076SB-0113M-0001-SC | 280    | 130   | 66   |      | N/A | Yes      |

| Sample              | Analyte                   | Result | Units | LOQ   | LOD    | Qual | Sample              | Result | LOQ   | LOD    | Qual | RPD | W/In LOQ |
|---------------------|---------------------------|--------|-------|-------|--------|------|---------------------|--------|-------|--------|------|-----|----------|
| 076SB-0112M-0001-SO | CRESOLS, M & P            | 1600   | UG/KG | 7900  | 1600   |      | 076SB-0113M-0001-SC | 1600   | 8000  | 1600   | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | DIBENZ(A,H)ANTHRACENE     | 65     | UG/KG | 130   | 65     |      | 076SB-0113M-0001-SC | 66     | 130   | 66     | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | DIBENZOFURAN              | 65     | UG/KG | 990   | 65     |      | 076SB-0113M-0001-SC | 66     | 1000  | 66     | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | DIETHYL PHTHALATE         | 530    | UG/KG | 990   | 530    |      | 076SB-0113M-0001-SC | 540    | 1000  | 540    | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | DIMETHYL PHTHALATE        | 530    | UG/KG | 990   | 530    |      | 076SB-0113M-0001-SC | 540    | 1000  | 540    | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | DI-N-BUTYL PHTHALATE      | 530    | UG/KG | 990   | 530    |      | 076SB-0113M-0001-SC | 540    | 1000  | 540    | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | DI-N-OCTYLPHTHALATE       | 530    | UG/KG | 990   | 530    |      | 076SB-0113M-0001-SC | 540    | 1000  | 540    | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | FLUORANTHENE              | 410    | UG/KG | 130   | 65     |      | 076SB-0113M-0001-SC | 660    | 130   | 66     |      | N/A | No       |
| 076SB-0112M-0001-SO | FLUORENE                  | 65     | UG/KG | 130   | 65     |      | 076SB-0113M-0001-SC | 66     | 130   | 66     | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | HEXACHLOROBENZENE         | 65     | UG/KG | 130   | 65     |      | 076SB-0113M-0001-SC | 66     | 130   | 66     | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | HEXACHLOROBUTADIENE       | 530    | UG/KG | 990   | 530    |      | 076SB-0113M-0001-SC | 540    | 1000  | 540    | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | HEXACHLOROCYCLOPENTADIENE | 530    | UG/KG | 6500  | 530    |      | 076SB-0113M-0001-SC | 540    | 6600  | 540    | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | HEXACHLOROETHANE          | 530    | UG/KG | 990   | 530    |      | 076SB-0113M-0001-SC | 540    | 1000  | 540    | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | INDENO(1,2,3-C,D)PYRENE   | 83     | UG/KG | 130   | 65     | J    | 076SB-0113M-0001-SC | 120    | 130   | 66     | J    | N/A | Yes      |
| 076SB-0112M-0001-SO | ISOPHORONE                | 530    | UG/KG | 990   | 530    |      | 076SB-0113M-0001-SC | 540    | 1000  | 540    | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | NAPHTHALENE               | 65     | UG/KG | 130   | 65     |      | 076SB-0113M-0001-SC | 66     | 130   | 66     | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | NITROBENZENE              | 65     | UG/KG | 2000  | 65     |      | 076SB-0113M-0001-SC | 66     | 2000  | 66     | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | N-NITROSODI-N-PROPYLAMINE | 530    | UG/KG | 990   | 530    |      | 076SB-0113M-0001-SC | 540    | 1000  | 540    | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | N-NITROSODIPHENYLAMINE    | 530    | UG/KG | 990   | 530    |      | 076SB-0113M-0001-SC | 540    | 1000  | 540    | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | PENTACHLOROPHENOL         | 1600   | UG/KG | 3000  | 1600   |      | 076SB-0113M-0001-SC | 1600   | 3000  | 1600   | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | PHENANTHRENE              | 280    | UG/KG | 130   | 65     |      | 076SB-0113M-0001-SC | 470    | 130   | 66     |      | N/A | No       |
| 076SB-0112M-0001-SO | PHENOL                    | 530    | UG/KG | 990   | 530    |      | 076SB-0113M-0001-SC | 540    | 1000  | 540    | U    | N/A | Yes      |
| 076SB-0112M-0001-SO | PYRENE                    | 330    | UG/KG | 130   | 65     |      | 076SB-0113M-0001-SC | 510    | 130   | 66     |      | N/A | No       |
| 076SB-0114M-0001-SO | ALUMINUM                  | 7600   | MG/KG | 2.7   | 0.55   |      | 076SB-0115M-0001-SC | 7800   | 2.6   | 0.52   |      | 3   | N/A      |
| 076SB-0114M-0001-SO | ANTIMONY                  | 0.088  | MG/KG | 0.18  | 0.091  | J-   | 076SB-0115M-0001-SC | 0.093  | 0.17  | 0.087  | J    | N/A | Yes      |
| 076SB-0114M-0001-SO | ARSENIC                   | 13     | MG/KG | 0.091 | 0.045  | J-   | 076SB-0115M-0001-SC | 14     | 0.087 | 0.043  |      | 7   | N/A      |
| 076SB-0114M-0001-SO | BARIUM                    | 36     | MG/KG | 0.91  | 0.018  | J    | 076SB-0115M-0001-SC | 37     | 0.87  | 0.017  |      | 3   | N/A      |
| 076SB-0114M-0001-SO | BERYLLIUM                 | 0.35   | MG/KG | 0.091 | 0.0091 | J-   | 076SB-0115M-0001-SC | 0.35   | 0.087 | 0.0087 |      | N/A | Yes      |
| 076SB-0114M-0001-SO | CADMIUM                   | 0.15   | MG/KG | 0.091 | 0.027  | J-   | 076SB-0115M-0001-SC | 0.15   | 0.087 | 0.026  |      | N/A | Yes      |
| 076SB-0114M-0001-SO | CALCIUM                   | 530    | MG/KG | 9.1   | 2.3    | J+   | 076SB-0115M-0001-SC | 570    | 8.7   | 2.2    |      | 7   | N/A      |
| 076SB-0114M-0001-SO | CHROMIUM                  | 12     | MG/KG | 0.18  | 0.036  | J-   | 076SB-0115M-0001-SC | 12     | 0.17  | 0.035  |      | 0   | N/A      |
| 076SB-0114M-0001-SO | COBALT                    | 8      | MG/KG | 0.045 | 0.0091 | J-   | 076SB-0115M-0001-SC | 8.2    | 0.043 | 0.0087 |      | 2   | N/A      |
| 076SB-0114M-0001-SO | COPPER                    | 16     | MG/KG | 0.18  | 0.055  | J-   | 076SB-0115M-0001-SC | 17     | 0.17  | 0.052  |      | 6   | N/A      |
| 076SB-0114M-0001-SO | IRON                      | 20000  | MG/KG | 4.5   | 1.8    |      | 076SB-0115M-0001-SC | 20000  | 4.3   | 1.7    |      | 0   | N/A      |
| 076SB-0114M-0001-SO | LEAD                      | 11     | MG/KG | 0.091 | 0.027  | J    | 076SB-0115M-0001-SC | 12     | 0.087 | 0.026  |      | 9   | N/A      |
| 076SB-0114M-0001-SO | MAGNESIUM                 | 1900   | MG/KG | 9.1   | 1.8    |      | 076SB-0115M-0001-SC | 1900   | 8.7   | 1.7    |      | 0   | N/A      |

| Sample              | Analyte                   | Result | Units | LOQ   | LOD   | Qual | Sample              | Result | LOQ   | LOD   | Qual | RPD | W/In LOQ |
|---------------------|---------------------------|--------|-------|-------|-------|------|---------------------|--------|-------|-------|------|-----|----------|
| 076SB-0114M-0001-SO | MANGANESE                 | 420    | MG/KG | 0.45  | 0.027 | J    | 076SB-0115M-0001-SC | 430    | 0.43  | 0.026 |      | 2   | N/A      |
| 076SB-0114M-0001-SO | NICKEL                    | 17     | MG/KG | 0.091 | 0.027 | J-   | 076SB-0115M-0001-SC | 17     | 0.087 | 0.026 |      | 0   | N/A      |
| 076SB-0114M-0001-SO | POTASSIUM                 | 550    | MG/KG | 9.1   | 5.5   | J-   | 076SB-0115M-0001-SC | 580    | 8.7   | 5.2   |      | 5   | N/A      |
| 076SB-0114M-0001-SO | SELENIUM                  | 0.51   | MG/KG | 0.45  | 0.091 | J-   | 076SB-0115M-0001-SC | 0.48   | 0.43  | 0.087 |      | N/A | Yes      |
| 076SB-0114M-0001-SO | SILVER                    | 0.019  | MG/KG | 0.091 | 0.027 | J-   | 076SB-0115M-0001-SC | 0.02   | 0.087 | 0.026 | J    | N/A | Yes      |
| 076SB-0114M-0001-SO | SODIUM                    | 20     | MG/KG | 9.1   | 4.5   |      | 076SB-0115M-0001-SC | 22     | 8.7   | 4.3   |      | N/A | Yes      |
| 076SB-0114M-0001-SO | THALLIUM                  | 0.12   | MG/KG | 0.091 | 0.018 |      | 076SB-0115M-0001-SC | 0.12   | 0.087 | 0.017 |      | N/A | Yes      |
| 076SB-0114M-0001-SO | VANADIUM                  | 13     | MG/KG | 0.091 | 0.055 |      | 076SB-0115M-0001-SC | 14     | 0.087 | 0.052 |      | 7   | N/A      |
| 076SB-0114M-0001-SO | ZINC                      | 54     | MG/KG | 0.45  | 0.18  | J    | 076SB-0115M-0001-SC | 55     | 0.43  | 0.17  |      | 2   | N/A      |
| 076SB-0114M-0001-SO | MERCURY                   | 0.03   | MG/KG | 0.09  | 0.03  | J    | 076SB-0115M-0001-SC | 0.033  | 0.12  | 0.039 | J    | N/A | Yes      |
| 076SB-0114M-0001-SO | AROCLOR 1016              | 25     | UG/KG | 65    | 25    | U    | 076SB-0115M-0001-SC | 25     | 65    | 25    | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | AROCLOR 1221              | 25     | UG/KG | 50    | 25    | U    | 076SB-0115M-0001-SC | 25     | 50    | 25    | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | AROCLOR 1232              | 25     | UG/KG | 45    | 25    | U    | 076SB-0115M-0001-SC | 25     | 45    | 25    | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | AROCLOR 1242              | 25     | UG/KG | 40    | 25    | U    | 076SB-0115M-0001-SC | 25     | 40    | 25    | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | AROCLOR 1248              | 25     | UG/KG | 55    | 25    | U    | 076SB-0115M-0001-SC | 25     | 55    | 25    | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | AROCLOR 1254              | 25     | UG/KG | 55    | 25    | U    | 076SB-0115M-0001-SC | 25     | 55    | 25    | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | AROCLOR 1260              | 25     | UG/KG | 55    | 25    | U    | 076SB-0115M-0001-SC | 25     | 55    | 25    | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | 1,1,1-TRICHLOROETHANE     | 0.96   | UG/KG | 4.8   | 0.96  | U    | 076SB-0115M-0001-SC | 1      | 5.2   | 1     | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | 1,1,2,2-TETRACHLOROETHANE | 0.48   | UG/KG | 4.8   | 0.48  | U    | 076SB-0115M-0001-SC | 0.52   | 5.2   | 0.52  | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | 1,1,2-TRICHLOROETHANE     | 0.48   | UG/KG | 4.8   | 0.48  | U    | 076SB-0115M-0001-SC | 0.52   | 5.2   | 0.52  | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | 1,1-DICHLOROETHANE        | 0.48   | UG/KG | 4.8   | 0.48  | U    | 076SB-0115M-0001-SC | 0.52   | 5.2   | 0.52  | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | 1,1-DICHLOROETHENE        | 0.96   | UG/KG | 4.8   | 0.96  | U    | 076SB-0115M-0001-SC | 1      | 5.2   | 1     | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | 1,2-DIBROMOETHANE         | 0.96   | UG/KG | 4.8   | 0.96  | U    | 076SB-0115M-0001-SC | 1      | 5.2   | 1     | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | 1,2-DICHLOROETHANE        | 0.48   | UG/KG | 4.8   | 0.48  | U    | 076SB-0115M-0001-SC | 0.52   | 5.2   | 0.52  | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | 1,2-DICHLOROPROPANE       | 0.96   | UG/KG | 4.8   | 0.96  | U    | 076SB-0115M-0001-SC | 1      | 5.2   | 1     | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | 2-HEXANONE                | 0.96   | UG/KG | 19    | 0.96  | U    | 076SB-0115M-0001-SC | 1      | 21    | 1     | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | ACETONE                   | 6      | UG/KG | 19    | 6     | U    | 076SB-0115M-0001-SC | 6.6    | 21    | 6.6   | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | BENZENE                   | 0.48   | UG/KG | 4.8   | 0.48  | U    | 076SB-0115M-0001-SC | 0.52   | 5.2   | 0.52  | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | BROMOCHLOROMETHANE        | 0.96   | UG/KG | 4.8   | 0.96  | U    | 076SB-0115M-0001-SC | 1      | 5.2   | 1     | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | BROMODICHLOROMETHANE      | 0.48   | UG/KG | 4.8   | 0.48  | U    | 076SB-0115M-0001-SC | 0.52   | 5.2   | 0.52  | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | BROMOFORM                 | 0.48   | UG/KG | 4.8   | 0.48  | U    | 076SB-0115M-0001-SC | 0.52   | 5.2   | 0.52  | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | BROMOMETHANE              | 0.96   | UG/KG | 4.8   | 0.96  | U    | 076SB-0115M-0001-SC | 1      | 5.2   | 1     | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | CARBON DISULFIDE          | 0.48   | UG/KG | 4.8   | 0.48  | U    | 076SB-0115M-0001-SC | 0.52   | 5.2   | 0.52  | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | CARBON TETRACHLORIDE      | 0.48   | UG/KG | 4.8   | 0.48  | U    | 076SB-0115M-0001-SC | 0.52   | 5.2   | 0.52  | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | CHLOROBENZENE             | 0.48   | UG/KG | 4.8   | 0.48  | U    | 076SB-0115M-0001-SC | 0.52   | 5.2   | 0.52  | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | CHLOROETHANE              | 0.96   | UG/KG | 4.8   | 0.96  | U    | 076SB-0115M-0001-SC | 1      | 5.2   | 1     | U    | N/A | Yes      |

| Sample              | Analyte                    | Result | Units | LOQ | LOD  | Qual | Sample              | Result | LOQ | LOD  | Qual | RPD | W/In LOQ |
|---------------------|----------------------------|--------|-------|-----|------|------|---------------------|--------|-----|------|------|-----|----------|
| 076SB-0114M-0001-SO | CHLOROFORM                 | 0.48   | UG/KG | 4.8 | 0.48 | U    | 076SB-0115M-0001-SC | 0.52   | 5.2 | 0.52 | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | CHLOROMETHANE              | 0.48   | UG/KG | 4.8 | 0.48 | U    | 076SB-0115M-0001-SC | 0.52   | 5.2 | 0.52 | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | CIS-1,3-DICHLOROPROPENE    | 0.48   | UG/KG | 4.8 | 0.48 | U    | 076SB-0115M-0001-SC | 0.52   | 5.2 | 0.52 | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | DIBROMOCHLOROMETHANE       | 0.96   | UG/KG | 4.8 | 0.96 | U    | 076SB-0115M-0001-SC | 1      | 5.2 | 1    | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | ETHYLBENZENE               | 0.48   | UG/KG | 4.8 | 0.48 | U    | 076SB-0115M-0001-SC | 0.52   | 5.2 | 0.52 | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | METHYL ETHYL KETONE        | 1.9    | UG/KG | 19  | 1.9  | U    | 076SB-0115M-0001-SC | 2.1    | 21  | 2.1  | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | METHYL ISOBUTYL KETONE     | 0.96   | UG/KG | 19  | 0.96 | U    | 076SB-0115M-0001-SC | 1      | 21  | 1    | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | METHYLENE CHLORIDE         | 0.96   | UG/KG | 4.8 | 0.96 | U    | 076SB-0115M-0001-SC | 1.7    | 5.2 | 1    | J    | N/A | Yes      |
| 076SB-0114M-0001-SO | STYRENE                    | 0.48   | UG/KG | 4.8 | 0.48 | U    | 076SB-0115M-0001-SC | 0.52   | 5.2 | 0.52 | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | TETRACHLOROETHYLENE        | 0.96   | UG/KG | 4.8 | 0.96 | U    | 076SB-0115M-0001-SC | 1      | 5.2 | 1    | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | TOLUENE                    | 0.52   | UG/KG | 4.8 | 0.48 | J    | 076SB-0115M-0001-SC | 1.5    | 5.2 | 0.52 | J    | N/A | Yes      |
| 076SB-0114M-0001-SO | TOTAL 1,2-DICHLOROETHENE   | 0.96   | UG/KG | 9.6 | 0.96 | U    | 076SB-0115M-0001-SC | 1      | 10  | 1    | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | TRANS-1,3-DICHLOROPROPENE  | 0.96   | UG/KG | 4.8 | 0.96 | U    | 076SB-0115M-0001-SC | 1      | 5.2 | 1    | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | TRICHLOROETHYLENE          | 0.48   | UG/KG | 4.8 | 0.48 | U    | 076SB-0115M-0001-SC | 0.52   | 5.2 | 0.52 | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | VINYL CHLORIDE             | 0.48   | UG/KG | 4.8 | 0.48 | U    | 076SB-0115M-0001-SC | 0.52   | 5.2 | 0.52 | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | XYLENES, TOTAL             | 1.4    | UG/KG | 9.6 | 1.4  | U    | 076SB-0115M-0001-SC | 1.6    | 10  | 1.6  | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | 1,2,4-TRICHLOROBENZENE     | 27     | UG/KG | 50  | 27   | U    | 076SB-0115M-0001-SC | 27     | 49  | 27   | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | 1,2-DICHLOROBENZENE        | 27     | UG/KG | 50  | 27   | U    | 076SB-0115M-0001-SC | 27     | 49  | 27   | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | 1,3-DICHLOROBENZENE        | 27     | UG/KG | 50  | 27   | U    | 076SB-0115M-0001-SC | 27     | 49  | 27   | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | 1,4-DICHLOROBENZENE        | 27     | UG/KG | 50  | 27   | U    | 076SB-0115M-0001-SC | 27     | 49  | 27   | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | 2,4,5-TRICHLOROPHENOL      | 27     | UG/KG | 150 | 27   | U    | 076SB-0115M-0001-SC | 27     | 150 | 27   | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | 2,4,6-TRICHLOROPHENOL      | 81     | UG/KG | 150 | 81   | U    | 076SB-0115M-0001-SC | 79     | 150 | 79   | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | 2,4-DICHLOROPHENOL         | 27     | UG/KG | 150 | 27   | U    | 076SB-0115M-0001-SC | 27     | 150 | 27   | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | 2,4-DIMETHYLPHENOL         | 81     | UG/KG | 150 | 81   | U    | 076SB-0115M-0001-SC | 79     | 150 | 79   | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | 2,4-DINITROPHENOL          | 81     | UG/KG | 330 | 81   | U    | 076SB-0115M-0001-SC | 79     | 330 | 79   | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | 2,4-DINITROTOLUENE         | 27     | UG/KG | 200 | 27   | U    | 076SB-0115M-0001-SC | 27     | 200 | 27   | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | 2,6-DINITROTOLUENE         | 27     | UG/KG | 200 | 27   | U    | 076SB-0115M-0001-SC | 27     | 200 | 27   | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | 2-CHLORONAPHTHALENE        | 3.3    | UG/KG | 50  | 3.3  | U    | 076SB-0115M-0001-SC | 3.3    | 49  | 3.3  | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | 2-CHLOROPHENOL             | 27     | UG/KG | 50  | 27   | U    | 076SB-0115M-0001-SC | 27     | 49  | 27   | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | 2-METHYLNAPHTHALENE        | 8.3    | UG/KG | 6.7 | 3.3  |      | 076SB-0115M-0001-SC | 12     | 6.6 | 3.3  |      | N/A | Yes      |
| 076SB-0114M-0001-SO | 2-METHYLPHENOL             | 81     | UG/KG | 200 | 81   | U    | 076SB-0115M-0001-SC | 79     | 200 | 79   | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | 2-NITROANILINE             | 27     | UG/KG | 200 | 27   | U    | 076SB-0115M-0001-SC | 27     | 200 | 27   | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | 2-NITROPHENOL              | 27     | UG/KG | 50  | 27   | U    | 076SB-0115M-0001-SC | 27     | 49  | 27   | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | 3,3'-DICHLOROBENZIDINE     | 81     | UG/KG | 100 | 81   | U    | 076SB-0115M-0001-SC | 79     | 99  | 79   | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | 3-NITROANILINE             | 81     | UG/KG | 200 | 81   | U    | 076SB-0115M-0001-SC | 79     | 200 | 79   | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | 4,6-DINITRO-2-METHYLPHENOL | 81     | UG/KG | 150 | 81   | U    | 076SB-0115M-0001-SC | 79     | 150 | 79   | U    | N/A | Yes      |

| Sample              | Analyte                      | Result | Units | LOQ | LOD | Qual | Sample              | Result | LOQ | LOD | Qual | RPD | W/In LOQ |
|---------------------|------------------------------|--------|-------|-----|-----|------|---------------------|--------|-----|-----|------|-----|----------|
| 076SB-0114M-0001-SO | 4-BROMOPHENYL PHENYL ETHER   | 27     | UG/KG | 50  | 27  | U    | 076SB-0115M-0001-SC | 27     | 49  | 27  | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | 4-CHLORO-3-METHYLPHENOL      | 27     | UG/KG | 150 | 27  | U    | 076SB-0115M-0001-SC | 27     | 150 | 27  | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | 4-CHLOROANILINE              | 27     | UG/KG | 150 | 27  | U    | 076SB-0115M-0001-SC | 27     | 150 | 27  | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | 4-CHLOROPHENYL PHENYL ETHER  | 27     | UG/KG | 50  | 27  | U    | 076SB-0115M-0001-SC | 27     | 49  | 27  | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | 4-NITROANILINE               | 27     | UG/KG | 200 | 27  | U    | 076SB-0115M-0001-SC | 27     | 200 | 27  | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | 4-NITROPHENOL                | 81     | UG/KG | 330 | 81  | U    | 076SB-0115M-0001-SC | 79     | 330 | 79  | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | ACENAPHTHENE                 | 3.3    | UG/KG | 6.7 | 3.3 | U    | 076SB-0115M-0001-SC | 3.3    | 6.6 | 3.3 | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | ACENAPHTHYLENE               | 3.3    | UG/KG | 6.7 | 3.3 | U    | 076SB-0115M-0001-SC | 3.3    | 6.6 | 3.3 | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | ANTHRACENE                   | 4.5    | UG/KG | 6.7 | 3.3 | J    | 076SB-0115M-0001-SC | 9.1    | 6.6 | 3.3 |      | N/A | Yes      |
| 076SB-0114M-0001-SO | BENZO(A)ANTHRACENE           | 23     | UG/KG | 6.7 | 3.3 |      | 076SB-0115M-0001-SC | 33     | 6.6 | 3.3 |      | N/A | No       |
| 076SB-0114M-0001-SO | BENZO(A)PYRENE               | 23     | UG/KG | 6.7 | 3.3 |      | 076SB-0115M-0001-SC | 32     | 6.6 | 3.3 |      | N/A | No       |
| 076SB-0114M-0001-SO | BENZO(B)FLUORANTHENE         | 35     | UG/KG | 6.7 | 3.3 |      | 076SB-0115M-0001-SC | 50     | 6.6 | 3.3 |      | 35  | N/A      |
| 076SB-0114M-0001-SO | BENZO(G,H,I)PERYLENE         | 17     | UG/KG | 6.7 | 3.3 |      | 076SB-0115M-0001-SC | 26     | 6.6 | 3.3 |      | N/A | No       |
| 076SB-0114M-0001-SO | BENZO(K)FLUORANTHENE         | 8.6    | UG/KG | 6.7 | 3.3 |      | 076SB-0115M-0001-SC | 19     | 6.6 | 3.3 |      | N/A | No       |
| 076SB-0114M-0001-SO | BENZOIC ACID                 | 340    | UG/KG | 660 | 340 | U    | 076SB-0115M-0001-SC | 330    | 650 | 330 | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | BENZYL ALCOHOL               | 27     | UG/KG | 330 | 27  | U    | 076SB-0115M-0001-SC | 27     | 330 | 27  | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | BENZYL BUTYL PHTHALATE       | 27     | UG/KG | 50  | 27  | U    | 076SB-0115M-0001-SC | 27     | 49  | 27  | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | BIS(2-CHLOROETHOXY) METHANE  | 27     | UG/KG | 100 | 27  | U    | 076SB-0115M-0001-SC | 27     | 99  | 27  | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | BIS(2-CHLOROETHYL) ETHER     | 3.3    | UG/KG | 100 | 3.3 | U    | 076SB-0115M-0001-SC | 3.3    | 99  | 3.3 | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | BIS(2-CHLOROISOPROPYL) ETHER | 27     | UG/KG | 100 | 27  | U    | 076SB-0115M-0001-SC | 27     | 99  | 27  | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | BIS(2-ETHYLHEXYL) PHTHALATE  | 27     | UG/KG | 50  | 27  | U    | 076SB-0115M-0001-SC | 25     | 49  | 27  | J    | N/A | Yes      |
| 076SB-0114M-0001-SO | CARBAZOLE                    | 27     | UG/KG | 50  | 27  | U    | 076SB-0115M-0001-SC | 27     | 49  | 27  | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | CHRYSENE                     | 28     | UG/KG | 6.7 | 3.3 |      | 076SB-0115M-0001-SC | 39     | 6.6 | 3.3 |      | N/A | No       |
| 076SB-0114M-0001-SO | CRESOLS, M & P               | 81     | UG/KG | 400 | 81  | U    | 076SB-0115M-0001-SC | 79     | 390 | 79  | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | DIBENZ(A,H)ANTHRACENE        | 3.3    | UG/KG | 6.7 | 3.3 | U    | 076SB-0115M-0001-SC | 3.3    | 6.6 | 3.3 | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | DIBENZOFURAN                 | 4.2    | UG/KG | 50  | 3.3 | J    | 076SB-0115M-0001-SC | 5.7    | 49  | 3.3 | J    | N/A | Yes      |
| 076SB-0114M-0001-SO | DIETHYL PHTHALATE            | 27     | UG/KG | 50  | 27  | U    | 076SB-0115M-0001-SC | 27     | 49  | 27  | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | DIMETHYL PHTHALATE           | 27     | UG/KG | 50  | 27  | U    | 076SB-0115M-0001-SC | 27     | 49  | 27  | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | DI-N-BUTYL PHTHALATE         | 27     | UG/KG | 50  | 27  | U    | 076SB-0115M-0001-SC | 27     | 49  | 27  | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | DI-N-OCTYLPHTHALATE          | 27     | UG/KG | 50  | 27  | U    | 076SB-0115M-0001-SC | 27     | 49  | 27  | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | FLUORANTHENE                 | 53     | UG/KG | 6.7 | 3.3 |      | 076SB-0115M-0001-SC | 79     | 6.6 | 3.3 |      | 39  | N/A      |
| 076SB-0114M-0001-SO | FLUORENE                     | 3.3    | UG/KG | 6.7 | 3.3 | U    | 076SB-0115M-0001-SC | 4.5    | 6.6 | 3.3 | J    | N/A | Yes      |
| 076SB-0114M-0001-SO | HEXACHLOROBENZENE            | 3.3    | UG/KG | 6.7 | 3.3 | U    | 076SB-0115M-0001-SC | 3.3    | 6.6 | 3.3 | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | HEXACHLOROBUTADIENE          | 27     | UG/KG | 50  | 27  | U    | 076SB-0115M-0001-SC | 27     | 49  | 27  | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | HEXACHLOROCYCLOPENTADIENE    | 27     | UG/KG | 330 | 27  | U    | 076SB-0115M-0001-SC | 27     | 330 | 27  | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | HEXACHLOROETHANE             | 27     | UG/KG | 50  | 27  | U    | 076SB-0115M-0001-SC | 27     | 49  | 27  | U    | N/A | Yes      |

| Sample              | Analyte                   | Result | Units | LOQ   | LOD    | Qual | Sample              | Result | LOQ   | LOD    | Qual | RPD | W/In LOQ |
|---------------------|---------------------------|--------|-------|-------|--------|------|---------------------|--------|-------|--------|------|-----|----------|
| 076SB-0114M-0001-SO | INDENO(1,2,3-C,D)PYRENE   | 14     | UG/KG | 6.7   | 3.3    |      | 076SB-0115M-0001-SO | 20     | 6.6   | 3.3    |      | N/A | Yes      |
| 076SB-0114M-0001-SO | ISOPHORONE                | 27     | UG/KG | 50    | 27     | U    | 076SB-0115M-0001-SO | 27     | 49    | 27     | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | NAPHTHALENE               | 8.3    | UG/KG | 6.7   | 3.3    |      | 076SB-0115M-0001-SO | 11     | 6.6   | 3.3    |      | N/A | Yes      |
| 076SB-0114M-0001-SO | NITROBENZENE              | 3.3    | UG/KG | 100   | 3.3    | U    | 076SB-0115M-0001-SO | 3.3    | 99    | 3.3    | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | N-NITROSODI-N-PROPYLAMINE | 27     | UG/KG | 50    | 27     | U    | 076SB-0115M-0001-SO | 27     | 49    | 27     | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | N-NITROSODIPHENYLAMINE    | 27     | UG/KG | 50    | 27     | R    | 076SB-0115M-0001-SO | 27     | 49    | 27     | U    | N/A | N/A      |
| 076SB-0114M-0001-SO | PENTACHLOROPHENOL         | 81     | UG/KG | 150   | 81     | U    | 076SB-0115M-0001-SO | 79     | 150   | 79     | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | PHENANTHRENE              | 34     | UG/KG | 6.7   | 3.3    |      | 076SB-0115M-0001-SO | 52     | 6.6   | 3.3    |      | 42  | N/A      |
| 076SB-0114M-0001-SO | PHENOL                    | 27     | UG/KG | 50    | 27     | U    | 076SB-0115M-0001-SO | 27     | 49    | 27     | U    | N/A | Yes      |
| 076SB-0114M-0001-SO | PYRENE                    | 44     | UG/KG | 6.7   | 3.3    |      | 076SB-0115M-0001-SO | 67     | 6.6   | 3.3    |      | 41  | N/A      |
| 076SD-0009-0001-SO  | ALUMINUM                  | 7500   | MG/KG | 9.6   | 3.8    | J    | 076SD-0010-0001-SO  | 8500   | 49    | 19     |      | 13  | N/A      |
| 076SD-0009-0001-SO  | ANTIMONY                  | 0.72   | MG/KG | 0.96  | 0.72   | R    | 076SD-0010-0001-SO  | 0.73   | 0.97  | 0.73   | U    | N/A | N/A      |
| 076SD-0009-0001-SO  | ARSENIC                   | 9.5    | MG/KG | 0.48  | 0.14   |      | 076SD-0010-0001-SO  | 9.7    | 0.49  | 0.15   |      | 2   | N/A      |
| 076SD-0009-0001-SO  | BARIUM                    | 57     | MG/KG | 2.4   | 1.4    |      | 076SD-0010-0001-SO  | 58     | 2.4   | 1.5    |      | 2   | N/A      |
| 076SD-0009-0001-SO  | BERYLLIUM                 | 0.45   | MG/KG | 0.096 | 0.0096 |      | 076SD-0010-0001-SO  | 0.46   | 0.097 | 0.0097 |      | N/A | Yes      |
| 076SD-0009-0001-SO  | CADMIUM                   | 0.16   | MG/KG | 0.19  | 0.0096 | J    | 076SD-0010-0001-SO  | 0.16   | 0.19  | 0.0097 | J    | N/A | Yes      |
| 076SD-0009-0001-SO  | CALCIUM                   | 1800   | MG/KG | 190   | 96     | J+   | 076SD-0010-0001-SO  | 2100   | 970   | 490    |      | N/A | Yes      |
| 076SD-0009-0001-SO  | CHROMIUM                  | 44     | MG/KG | 0.48  | 0.43   | J    | 076SD-0010-0001-SO  | 25     | 2.4   | 2.2    |      | 55  | N/A      |
| 076SD-0009-0001-SO  | COBALT                    | 7.3    | MG/KG | 0.096 | 0.014  |      | 076SD-0010-0001-SO  | 8      | 0.49  | 0.073  |      | 9   | N/A      |
| 076SD-0009-0001-SO  | COPPER                    | 15     | MG/KG | 0.38  | 0.29   |      | 076SD-0010-0001-SO  | 16     | 1.9   | 1.5    |      | 6   | N/A      |
| 076SD-0009-0001-SO  | IRON                      | 19000  | MG/KG | 48    | 29     | J    | 076SD-0010-0001-SO  | 21000  | 240   | 150    |      | 10  | N/A      |
| 076SD-0009-0001-SO  | LEAD                      | 19     | MG/KG | 1.4   | 0.96   |      | 076SD-0010-0001-SO  | 19     | 1.5   | 0.97   |      | 0   | N/A      |
| 076SD-0009-0001-SO  | MAGNESIUM                 | 1800   | MG/KG | 96    | 24     |      | 076SD-0010-0001-SO  | 2000   | 490   | 120    |      | N/A | Yes      |
| 076SD-0009-0001-SO  | MANGANESE                 | 310    | MG/KG | 0.48  | 0.38   |      | 076SD-0010-0001-SO  | 360    | 2.4   | 1.9    |      | 15  | N/A      |
| 076SD-0009-0001-SO  | NICKEL                    | 30     | MG/KG | 0.48  | 0.24   | J    | 076SD-0010-0001-SO  | 22     | 2.4   | 1.2    |      | 31  | N/A      |
| 076SD-0009-0001-SO  | POTASSIUM                 | 590    | MG/KG | 96    | 9.6    | J+   | 076SD-0010-0001-SO  | 670    | 490   | 49     |      | N/A | Yes      |
| 076SD-0009-0001-SO  | SELENIUM                  | 0.52   | MG/KG | 0.48  | 0.058  | J    | 076SD-0010-0001-SO  | 0.54   | 0.49  | 0.058  |      | N/A | Yes      |
| 076SD-0009-0001-SO  | SILVER                    | 0.029  | MG/KG | 0.096 | 0.048  | J    | 076SD-0010-0001-SO  | 0.029  | 0.097 | 0.049  | J    | N/A | Yes      |
| 076SD-0009-0001-SO  | SODIUM                    | 49     | MG/KG | 96    | 38     | J    | 076SD-0010-0001-SO  | 190    | 490   | 190    | U    | N/A | Yes      |
| 076SD-0009-0001-SO  | THALLIUM                  | 0.72   | MG/KG | 0.96  | 0.72   | U    | 076SD-0010-0001-SO  | 0.73   | 0.97  | 0.73   | U    | N/A | Yes      |
| 076SD-0009-0001-SO  | VANADIUM                  | 14     | MG/KG | 0.48  | 0.096  | J+   | 076SD-0010-0001-SO  | 15     | 2.4   | 0.49   |      | 7   | N/A      |
| 076SD-0009-0001-SO  | ZINC                      | 49     | MG/KG | 3.8   | 1.9    |      | 076SD-0010-0001-SO  | 59     | 19    | 9.7    |      | N/A | Yes      |
| 076SD-0009-0001-SO  | MERCURY                   | 0.053  | MG/KG | 0.095 | 0.031  | U    | 076SD-0010-0001-SO  | 0.059  | 0.11  | 0.035  | J    | N/A | Yes      |
| 076SD-0009-0001-SO  | 1,2,4-TRICHLOROBENZENE    | 27     | UG/KG | 51    | 27     | U    | 076SD-0010-0001-SO  | 27     | 51    | 27     | U    | N/A | Yes      |
| 076SD-0009-0001-SO  | 1,2-DICHLOROBENZENE       | 27     | UG/KG | 51    | 27     | U    | 076SD-0010-0001-SO  | 27     | 51    | 27     | U    | N/A | Yes      |
| 076SD-0009-0001-SO  | 1,3-DICHLOROBENZENE       | 27     | UG/KG | 51    | 27     | U    | 076SD-0010-0001-SO  | 27     | 51    | 27     | U    | N/A | Yes      |



| Sample             | Analyte                      | Result | Units | LOQ | LOD | Qual | Sample             | Result | LOQ | LOD | Qual | RPD | W/In LOQ |
|--------------------|------------------------------|--------|-------|-----|-----|------|--------------------|--------|-----|-----|------|-----|----------|
| 076SD-0009-0001-SO | 1,4-DICHLOROBENZENE          | 27     | UG/KG | 51  | 27  | U    | 076SD-0010-0001-SO | 27     | 51  | 27  | U    | N/A | Yes      |
| 076SD-0009-0001-SO | 2,2'-OXYBIS(1-CHLORO)PROPANE | 27     | UG/KG | 100 | 27  | U    | 076SD-0010-0001-SO | 27     | 100 | 27  | U    | N/A | Yes      |
| 076SD-0009-0001-SO | 2,4,5-TRICHLOROPHENOL        | 27     | UG/KG | 150 | 27  | U    | 076SD-0010-0001-SO | 27     | 150 | 27  | U    | N/A | Yes      |
| 076SD-0009-0001-SO | 2,4,6-TRICHLOROPHENOL        | 81     | UG/KG | 150 | 81  | U    | 076SD-0010-0001-SO | 81     | 150 | 81  | U    | N/A | Yes      |
| 076SD-0009-0001-SO | 2,4-DICHLOROPHENOL           | 27     | UG/KG | 150 | 27  | U    | 076SD-0010-0001-SO | 27     | 150 | 27  | U    | N/A | Yes      |
| 076SD-0009-0001-SO | 2,4-DIMETHYLPHENOL           | 81     | UG/KG | 150 | 81  | U    | 076SD-0010-0001-SO | 81     | 150 | 81  | U    | N/A | Yes      |
| 076SD-0009-0001-SO | 2,4-DINITROPHENOL            | 81     | UG/KG | 330 | 81  | UJ   | 076SD-0010-0001-SO | 81     | 330 | 81  | U    | N/A | Yes      |
| 076SD-0009-0001-SO | 2,4-DINITROTOLUENE           | 27     | UG/KG | 200 | 27  | U    | 076SD-0010-0001-SO | 27     | 200 | 27  | U    | N/A | Yes      |
| 076SD-0009-0001-SO | 2,6-DINITROTOLUENE           | 27     | UG/KG | 200 | 27  | U    | 076SD-0010-0001-SO | 27     | 200 | 27  | U    | N/A | Yes      |
| 076SD-0009-0001-SO | 2-CHLORONAPHTHALENE          | 3.3    | UG/KG | 51  | 3.3 | U    | 076SD-0010-0001-SO | 3.3    | 51  | 3.3 | U    | N/A | Yes      |
| 076SD-0009-0001-SO | 2-CHLOROPHENOL               | 27     | UG/KG | 51  | 27  | U    | 076SD-0010-0001-SO | 27     | 51  | 27  | U    | N/A | Yes      |
| 076SD-0009-0001-SO | 2-METHYLNAPHTHALENE          | 30     | UG/KG | 6.8 | 3.3 |      | 076SD-0010-0001-SO | 20     | 6.7 | 3.3 |      | N/A | No       |
| 076SD-0009-0001-SO | 2-METHYLPHENOL               | 81     | UG/KG | 200 | 81  | U    | 076SD-0010-0001-SO | 81     | 200 | 81  | U    | N/A | Yes      |
| 076SD-0009-0001-SO | 2-NITROANILINE               | 27     | UG/KG | 200 | 27  | U    | 076SD-0010-0001-SO | 27     | 200 | 27  | U    | N/A | Yes      |
| 076SD-0009-0001-SO | 2-NITROPHENOL                | 27     | UG/KG | 51  | 27  | U    | 076SD-0010-0001-SO | 27     | 51  | 27  | U    | N/A | Yes      |
| 076SD-0009-0001-SO | 3,3'-DICHLOROBENZIDINE       | 81     | UG/KG | 100 | 81  | R    | 076SD-0010-0001-SO | 81     | 100 | 81  | U    | N/A | N/A      |
| 076SD-0009-0001-SO | 3-NITROANILINE               | 81     | UG/KG | 200 | 81  | R    | 076SD-0010-0001-SO | 81     | 200 | 81  | U    | N/A | N/A      |
| 076SD-0009-0001-SO | 4,6-DINITRO-2-METHYLPHENOL   | 81     | UG/KG | 150 | 81  | U    | 076SD-0010-0001-SO | 81     | 150 | 81  | U    | N/A | Yes      |
| 076SD-0009-0001-SO | 4-BROMOPHENYL PHENYL ETHER   | 27     | UG/KG | 51  | 27  | UJ   | 076SD-0010-0001-SO | 27     | 51  | 27  | U    | N/A | Yes      |
| 076SD-0009-0001-SO | 4-CHLORO-3-METHYLPHENOL      | 27     | UG/KG | 150 | 27  | U    | 076SD-0010-0001-SO | 27     | 150 | 27  | U    | N/A | Yes      |
| 076SD-0009-0001-SO | 4-CHLOROANILINE              | 27     | UG/KG | 150 | 27  | R    | 076SD-0010-0001-SO | 27     | 150 | 27  | U    | N/A | N/A      |
| 076SD-0009-0001-SO | 4-CHLOROPHENYL PHENYL ETHER  | 27     | UG/KG | 51  | 27  | U    | 076SD-0010-0001-SO | 27     | 51  | 27  | U    | N/A | Yes      |
| 076SD-0009-0001-SO | 4-NITROANILINE               | 27     | UG/KG | 200 | 27  | R    | 076SD-0010-0001-SO | 27     | 200 | 27  | U    | N/A | N/A      |
| 076SD-0009-0001-SO | 4-NITROPHENOL                | 81     | UG/KG | 330 | 81  | U    | 076SD-0010-0001-SO | 81     | 330 | 81  | U    | N/A | Yes      |
| 076SD-0009-0001-SO | ACENAPHTHENE                 | 7.1    | UG/KG | 6.8 | 3.3 |      | 076SD-0010-0001-SO | 5.6    | 6.7 | 3.3 | J    | N/A | Yes      |
| 076SD-0009-0001-SO | ACENAPHTHYLENE               | 13     | UG/KG | 6.8 | 3.3 |      | 076SD-0010-0001-SO | 6.5    | 6.7 | 3.3 | J    | N/A | Yes      |
| 076SD-0009-0001-SO | ANTHRACENE                   | 16     | UG/KG | 6.8 | 3.3 |      | 076SD-0010-0001-SO | 11     | 6.7 | 3.3 |      | N/A | Yes      |
| 076SD-0009-0001-SO | BENZO(A)ANTHRACENE           | 71     | UG/KG | 6.8 | 3.3 |      | 076SD-0010-0001-SO | 46     | 6.7 | 3.3 |      | 43  | N/A      |
| 076SD-0009-0001-SO | BENZO(A)PYRENE               | 69     | UG/KG | 6.8 | 3.3 |      | 076SD-0010-0001-SO | 52     | 6.7 | 3.3 |      | 28  | N/A      |
| 076SD-0009-0001-SO | BENZO(B)FLUORANTHENE         | 110    | UG/KG | 6.8 | 3.3 |      | 076SD-0010-0001-SO | 71     | 6.7 | 3.3 |      | 43  | N/A      |
| 076SD-0009-0001-SO | BENZO(G,H,I)PERYLENE         | 39     | UG/KG | 6.8 | 3.3 | J    | 076SD-0010-0001-SO | 31     | 6.7 | 3.3 |      | N/A | No       |
| 076SD-0009-0001-SO | BENZO(K)FLUORANTHENE         | 38     | UG/KG | 6.8 | 3.3 |      | 076SD-0010-0001-SO | 28     | 6.7 | 3.3 |      | N/A | No       |
| 076SD-0009-0001-SO | BENZOIC ACID                 | 340    | UG/KG | 670 | 340 | UJ   | 076SD-0010-0001-SO | 340    | 670 | 340 | U    | N/A | Yes      |
| 076SD-0009-0001-SO | BENZYL ALCOHOL               | 27     | UG/KG | 330 | 27  | U    | 076SD-0010-0001-SO | 27     | 330 | 27  | U    | N/A | Yes      |
| 076SD-0009-0001-SO | BENZYL BUTYL PHTHALATE       | 27     | UG/KG | 51  | 27  | U    | 076SD-0010-0001-SO | 27     | 51  | 27  | U    | N/A | Yes      |
| 076SD-0009-0001-SO | BIS(2-CHLOROETHOXY) METHANE  | 27     | UG/KG | 100 | 27  | U    | 076SD-0010-0001-SO | 27     | 100 | 27  | U    | N/A | Yes      |

| Sample              | Analyte                     | Result | Units | LOQ   | LOD    | Qual | Sample              | Result | LOQ   | LOD    | Qual | RPD | W/In LOQ |
|---------------------|-----------------------------|--------|-------|-------|--------|------|---------------------|--------|-------|--------|------|-----|----------|
| 076SD-0009-0001-SO  | BIS(2-CHLOROETHYL) ETHER    | 3.3    | UG/KG | 100   | 3.3    | U    | 076SD-0010-0001-SO  | 3.3    | 100   | 3.3    | U    | N/A | Yes      |
| 076SD-0009-0001-SO  | BIS(2-ETHYLHEXYL) PHTHALATE | 89     | UG/KG | 51    | 27     |      | 076SD-0010-0001-SO  | 72     | 51    | 27     |      | N/A | Yes      |
| 076SD-0009-0001-SO  | CARBAZOLE                   | 27     | UG/KG | 51    | 27     | U    | 076SD-0010-0001-SO  | 27     | 51    | 27     | U    | N/A | Yes      |
| 076SD-0009-0001-SO  | CHRYSENE                    | 73     | UG/KG | 6.8   | 3.3    |      | 076SD-0010-0001-SO  | 55     | 6.7   | 3.3    |      | 28  | N/A      |
| 076SD-0009-0001-SO  | CRESOLS, M & P              | 81     | UG/KG | 410   | 81     | U    | 076SD-0010-0001-SO  | 81     | 400   | 81     | U    | N/A | Yes      |
| 076SD-0009-0001-SO  | DIBENZ(A,H)ANTHRACENE       | 3.3    | UG/KG | 6.8   | 3.3    | U    | 076SD-0010-0001-SO  | 3.3    | 6.7   | 3.3    | U    | N/A | Yes      |
| 076SD-0009-0001-SO  | DIBENZOFURAN                | 14     | UG/KG | 51    | 3.3    | J    | 076SD-0010-0001-SO  | 17     | 51    | 3.3    | J    | N/A | Yes      |
| 076SD-0009-0001-SO  | DIETHYL PHTHALATE           | 23     | UG/KG | 51    | 27     | J    | 076SD-0010-0001-SO  | 27     | 51    | 27     | U    | N/A | Yes      |
| 076SD-0009-0001-SO  | DIMETHYL PHTHALATE          | 27     | UG/KG | 51    | 27     | U    | 076SD-0010-0001-SO  | 27     | 51    | 27     | U    | N/A | Yes      |
| 076SD-0009-0001-SO  | DI-N-BUTYL PHTHALATE        | 27     | UG/KG | 51    | 27     | U    | 076SD-0010-0001-SO  | 27     | 51    | 27     | U    | N/A | Yes      |
| 076SD-0009-0001-SO  | DI-N-OCTYLPHTHALATE         | 27     | UG/KG | 51    | 27     | U    | 076SD-0010-0001-SO  | 27     | 51    | 27     | U    | N/A | Yes      |
| 076SD-0009-0001-SO  | FLUORANTHENE                | 120    | UG/KG | 6.8   | 3.3    |      | 076SD-0010-0001-SO  | 88     | 6.7   | 3.3    |      | 31  | N/A      |
| 076SD-0009-0001-SO  | FLUORENE                    | 12     | UG/KG | 6.8   | 3.3    |      | 076SD-0010-0001-SO  | 7.8    | 6.7   | 3.3    |      | N/A | Yes      |
| 076SD-0009-0001-SO  | HEXACHLOROBENZENE           | 3.3    | UG/KG | 6.8   | 3.3    | U    | 076SD-0010-0001-SO  | 3.3    | 6.7   | 3.3    | U    | N/A | Yes      |
| 076SD-0009-0001-SO  | HEXACHLOROBUTADIENE         | 27     | UG/KG | 51    | 27     | U    | 076SD-0010-0001-SO  | 27     | 51    | 27     | U    | N/A | Yes      |
| 076SD-0009-0001-SO  | HEXACHLOROCYCLOPENTADIENE   | 27     | UG/KG | 330   | 27     | U    | 076SD-0010-0001-SO  | 27     | 330   | 27     | U    | N/A | Yes      |
| 076SD-0009-0001-SO  | HEXACHLOROETHANE            | 27     | UG/KG | 51    | 27     | UJ   | 076SD-0010-0001-SO  | 27     | 51    | 27     | U    | N/A | Yes      |
| 076SD-0009-0001-SO  | INDENO(1,2,3-C,D)PYRENE     | 33     | UG/KG | 6.8   | 3.3    | J    | 076SD-0010-0001-SO  | 28     | 6.7   | 3.3    |      | N/A | Yes      |
| 076SD-0009-0001-SO  | ISOPHORONE                  | 18     | UG/KG | 51    | 27     | J    | 076SD-0010-0001-SO  | 27     | 51    | 27     | U    | N/A | Yes      |
| 076SD-0009-0001-SO  | NAPHTHALENE                 | 22     | UG/KG | 6.8   | 3.3    |      | 076SD-0010-0001-SO  | 14     | 6.7   | 3.3    |      | N/A | No       |
| 076SD-0009-0001-SO  | NITROBENZENE                | 3.3    | UG/KG | 100   | 3.3    | U    | 076SD-0010-0001-SO  | 3.3    | 100   | 3.3    | U    | N/A | Yes      |
| 076SD-0009-0001-SO  | N-NITROSODI-N-PROPYLAMINE   | 27     | UG/KG | 51    | 27     | U    | 076SD-0010-0001-SO  | 27     | 51    | 27     | U    | N/A | Yes      |
| 076SD-0009-0001-SO  | N-NITROSODIPHENYLAMINE      | 27     | UG/KG | 51    | 27     | U    | 076SD-0010-0001-SO  | 27     | 51    | 27     | U    | N/A | Yes      |
| 076SD-0009-0001-SO  | PENTACHLOROPHENOL           | 81     | UG/KG | 150   | 81     | UJ   | 076SD-0010-0001-SO  | 81     | 150   | 81     | U    | N/A | Yes      |
| 076SD-0009-0001-SO  | PHENANTHRENE                | 68     | UG/KG | 6.8   | 3.3    |      | 076SD-0010-0001-SO  | 51     | 6.7   | 3.3    |      | 29  | N/A      |
| 076SD-0009-0001-SO  | PHENOL                      | 27     | UG/KG | 51    | 27     | U    | 076SD-0010-0001-SO  | 27     | 51    | 27     | U    | N/A | Yes      |
| 076SD-0009-0001-SO  | PYRENE                      | 100    | UG/KG | 6.8   | 3.3    |      | 076SD-0010-0001-SO  | 69     | 6.7   | 3.3    |      | 37  | N/A      |
| 076SS-0020M-0001-SO | NITROCELLULOSE              | 18     | MG/KG | 50    | 18     | U    | 076SS-0021M-0001-SO | 17     | 45    | 17     | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | ALUMINUM                    | 11000  | MG/KG | 9.3   | 3.7    |      | 076SS-0021M-0001-SO | 10000  | 8.3   | 3.3    |      | 10  | N/A      |
| 076SS-0020M-0001-SO | ANTIMONY                    | 0.17   | MG/KG | 0.19  | 0.14   | J-   | 076SS-0021M-0001-SO | 0.17   | 0.17  | 0.13   |      | N/A | Yes      |
| 076SS-0020M-0001-SO | ARSENIC                     | 11     | MG/KG | 0.46  | 0.14   | J-   | 076SS-0021M-0001-SO | 11     | 0.42  | 0.13   |      | 0   | N/A      |
| 076SS-0020M-0001-SO | BARIUM                      | 100    | MG/KG | 0.46  | 0.28   |      | 076SS-0021M-0001-SO | 88     | 0.42  | 0.25   |      | 13  | N/A      |
| 076SS-0020M-0001-SO | BERYLLIUM                   | 0.62   | MG/KG | 0.093 | 0.0093 |      | 076SS-0021M-0001-SO | 0.54   | 0.083 | 0.0083 |      | 14  | N/A      |
| 076SS-0020M-0001-SO | CADMIUM                     | 0.2    | MG/KG | 0.19  | 0.0093 |      | 076SS-0021M-0001-SO | 0.15   | 0.17  | 0.0083 | J    | N/A | Yes      |
| 076SS-0020M-0001-SO | CALCIUM                     | 1100   | MG/KG | 190   | 93     |      | 076SS-0021M-0001-SO | 1100   | 170   | 83     |      | 0   | N/A      |
| 076SS-0020M-0001-SO | CHROMIUM                    | 16     | MG/KG | 0.46  | 0.42   |      | 076SS-0021M-0001-SO | 15     | 0.42  | 0.38   |      | 6   | N/A      |

| Sample              | Analyte             | Result | Units | LOQ   | LOD   | Qual | Sample              | Result | LOQ   | LOD   | Qual | RPD | W/In LOQ |
|---------------------|---------------------|--------|-------|-------|-------|------|---------------------|--------|-------|-------|------|-----|----------|
| 076SS-0020M-0001-SO | COBALT              | 9.4    | MG/KG | 0.093 | 0.014 |      | 076SS-0021M-0001-SO | 9.4    | 0.083 | 0.013 |      | 0   | N/A      |
| 076SS-0020M-0001-SO | COPPER              | 12     | MG/KG | 0.37  | 0.28  |      | 076SS-0021M-0001-SO | 12     | 0.33  | 0.25  |      | 0   | N/A      |
| 076SS-0020M-0001-SO | IRON                | 19000  | MG/KG | 46    | 28    |      | 076SS-0021M-0001-SO | 21000  | 42    | 25    |      | 10  | N/A      |
| 076SS-0020M-0001-SO | LEAD                | 38     | MG/KG | 0.28  | 0.19  |      | 076SS-0021M-0001-SO | 36     | 0.25  | 0.17  |      | 5   | N/A      |
| 076SS-0020M-0001-SO | MAGNESIUM           | 2000   | MG/KG | 93    | 23    |      | 076SS-0021M-0001-SO | 2100   | 83    | 21    |      | 5   | N/A      |
| 076SS-0020M-0001-SO | MANGANESE           | 760    | MG/KG | 0.46  | 0.37  | J    | 076SS-0021M-0001-SO | 700    | 0.42  | 0.33  |      | 8   | N/A      |
| 076SS-0020M-0001-SO | NICKEL              | 18     | MG/KG | 0.46  | 0.23  |      | 076SS-0021M-0001-SO | 18     | 0.42  | 0.21  |      | 0   | N/A      |
| 076SS-0020M-0001-SO | POTASSIUM           | 801    | MG/KG | 93    | 9.3   |      | 076SS-0021M-0001-SO | 790    | 83    | 8.3   |      | 1   | N/A      |
| 076SS-0020M-0001-SO | SELENIUM            | 0.6    | MG/KG | 0.46  | 0.056 | J-   | 076SS-0021M-0001-SO | 0.5    | 0.42  | 0.05  |      | N/A | Yes      |
| 076SS-0020M-0001-SO | SILVER              | 0.073  | MG/KG | 0.093 | 0.046 | J    | 076SS-0021M-0001-SO | 0.13   | 0.083 | 0.042 |      | N/A | Yes      |
| 076SS-0020M-0001-SO | SODIUM              | 37     | MG/KG | 93    | 37    | U    | 076SS-0021M-0001-SO | 26     | 83    | 33    | J    | N/A | Yes      |
| 076SS-0020M-0001-SO | THALLIUM            | 0.21   | MG/KG | 0.19  | 0.14  | UJ   | 076SS-0021M-0001-SO | 0.17   | 0.17  | 0.13  |      | N/A | Yes      |
| 076SS-0020M-0001-SO | VANADIUM            | 18     | MG/KG | 0.46  | 0.093 |      | 076SS-0021M-0001-SO | 18     | 0.42  | 0.083 |      | 0   | N/A      |
| 076SS-0020M-0001-SO | ZINC                | 120    | MG/KG | 3.7   | 1.9   |      | 076SS-0021M-0001-SO | 77     | 3.3   | 1.7   |      | 44  | N/A      |
| 076SS-0020M-0001-SO | MERCURY             | 0.077  | MG/KG | 0.1   | 0.033 | U    | 076SS-0021M-0001-SO | 0.083  | 0.09  | 0.03  | J    | N/A | Yes      |
| 076SS-0020M-0001-SO | ALDRIN              | 6.7    | UG/KG | 20    | 6.7   | U    | 076SS-0021M-0001-SO | 1.3    | 4     | 1.3   | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | ALPHA BHC           | 6.7    | UG/KG | 13    | 6.7   | U    | 076SS-0021M-0001-SO | 1.3    | 2.5   | 1.3   | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | ALPHA ENDOSULFAN    | 3.4    | UG/KG | 8.6   | 3.4   | U    | 076SS-0021M-0001-SO | 0.67   | 1.7   | 0.67  | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | ALPHA-CHLORDANE     | 6.7    | UG/KG | 15    | 6.7   | U    | 076SS-0021M-0001-SO | 1.3    | 3     | 1.3   | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | BETA BHC            | 6.7    | UG/KG | 18    | 6.7   | U    | 076SS-0021M-0001-SO | 1.3    | 3.5   | 1.3   | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | BETA ENDOSULFAN     | 6.7    | UG/KG | 13    | 6.7   | U    | 076SS-0021M-0001-SO | 1.3    | 2.5   | 1.3   | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | DELTA BHC           | 6.7    | UG/KG | 20    | 6.7   | U    | 076SS-0021M-0001-SO | 1.3    | 4     | 1.3   | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | DIELDRIN            | 3.4    | UG/KG | 8.6   | 3.4   | U    | 076SS-0021M-0001-SO | 0.67   | 1.7   | 0.67  | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | ENDOSULFAN SULFATE  | 6.7    | UG/KG | 15    | 6.7   | U    | 076SS-0021M-0001-SO | 1.3    | 3     | 1.3   | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | ENDRIN              | 3.4    | UG/KG | 8.6   | 3.4   | U    | 076SS-0021M-0001-SO | 0.67   | 1.7   | 0.67  | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | ENDRIN ALDEHYDE     | 6.7    | UG/KG | 15    | 6.7   | U    | 076SS-0021M-0001-SO | 1.3    | 3     | 1.3   | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | ENDRIN KETONE       | 3.4    | UG/KG | 10    | 3.4   | U    | 076SS-0021M-0001-SO | 0.67   | 2     | 0.67  | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | GAMMA BHC (LINDANE) | 6.7    | UG/KG | 13    | 6.7   | U    | 076SS-0021M-0001-SO | 1.3    | 2.5   | 1.3   | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | GAMMA-CHLORDANE     | 3.4    | UG/KG | 8.6   | 3.4   | U    | 076SS-0021M-0001-SO | 0.67   | 1.7   | 0.67  | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | HEPTACHLOR          | 6.7    | UG/KG | 18    | 6.7   | U    | 076SS-0021M-0001-SO | 1.3    | 3.5   | 1.3   | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | HEPTACHLOR EPOXIDE  | 6.7    | UG/KG | 13    | 6.7   | U    | 076SS-0021M-0001-SO | 1.3    | 2.5   | 1.3   | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | METHOXYCHLOR        | 17     | UG/KG | 25    | 17    | U    | 076SS-0021M-0001-SO | 1.3    | 5     | 3.3   | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | P,P'-DDD            | 3.4    | UG/KG | 10    | 3.4   | U    | 076SS-0021M-0001-SO | 0.67   | 2     | 0.67  | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | P,P'-DDE            | 3.4    | UG/KG | 8.6   | 3.4   | U    | 076SS-0021M-0001-SO | 0.67   | 1.7   | 0.67  | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | P,P'-DDT            | 3.4    | UG/KG | 10    | 3.4   | U    | 076SS-0021M-0001-SO | 0.67   | 2     | 0.67  | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | TOXAPHENE           | 100    | UG/KG | 340   | 100   | UJ   | 076SS-0021M-0001-SO | 20     | 67    | 20    | U    | N/A | Yes      |

| Sample              | Analyte                   | Result | Units | LOQ | LOD  | Qual | Sample              | Result | LOQ | LOD  | Qual | RPD | W/In LOQ |
|---------------------|---------------------------|--------|-------|-----|------|------|---------------------|--------|-----|------|------|-----|----------|
| 076SS-0020M-0001-SO | AROCLOR 1016              | 25     | UG/KG | 66  | 25   | U    | 076SS-0021M-0001-SO | 25     | 65  | 25   | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | AROCLOR 1221              | 25     | UG/KG | 51  | 25   | U    | 076SS-0021M-0001-SO | 25     | 50  | 25   | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | AROCLOR 1232              | 25     | UG/KG | 46  | 25   | U    | 076SS-0021M-0001-SO | 25     | 45  | 25   | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | AROCLOR 1242              | 25     | UG/KG | 40  | 25   | U    | 076SS-0021M-0001-SO | 25     | 40  | 25   | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | AROCLOR 1248              | 25     | UG/KG | 56  | 25   | U    | 076SS-0021M-0001-SO | 25     | 55  | 25   | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | AROCLOR 1254              | 25     | UG/KG | 56  | 25   | U    | 076SS-0021M-0001-SO | 25     | 55  | 25   | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | AROCLOR 1260              | 25     | UG/KG | 56  | 25   | U    | 076SS-0021M-0001-SO | 25     | 55  | 25   | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | 1,1,1-TRICHLOROETHANE     | 1.2    | UG/KG | 5.8 | 1.2  | U    | 076SS-0021M-0001-SO | 1.2    | 5.9 | 1.2  | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | 1,1,2,2-TETRACHLOROETHANE | 0.58   | UG/KG | 5.8 | 0.58 | U    | 076SS-0021M-0001-SO | 0.59   | 5.9 | 0.59 | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | 1,1,2-TRICHLOROETHANE     | 0.58   | UG/KG | 5.8 | 0.58 | U    | 076SS-0021M-0001-SO | 0.59   | 5.9 | 0.59 | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | 1,1-DICHLOROETHANE        | 0.58   | UG/KG | 5.8 | 0.58 | U    | 076SS-0021M-0001-SO | 0.59   | 5.9 | 0.59 | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | 1,1-DICHLOROETHENE        | 1.2    | UG/KG | 5.8 | 1.2  | U    | 076SS-0021M-0001-SO | 1.2    | 5.9 | 1.2  | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | 1,2-DIBROMOETHANE         | 1.2    | UG/KG | 5.8 | 1.2  | U    | 076SS-0021M-0001-SO | 1.2    | 5.9 | 1.2  | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | 1,2-DICHLOROETHANE        | 0.58   | UG/KG | 5.8 | 0.58 | U    | 076SS-0021M-0001-SO | 0.59   | 5.9 | 0.59 | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | 1,2-DICHLOROPROPANE       | 1.2    | UG/KG | 5.8 | 1.2  | U    | 076SS-0021M-0001-SO | 1.2    | 5.9 | 1.2  | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | 2-HEXANONE                | 1.2    | UG/KG | 23  | 1.2  | U    | 076SS-0021M-0001-SO | 1.2    | 24  | 1.2  | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | ACETONE                   | 26     | UG/KG | 23  | 7.3  | U    | 076SS-0021M-0001-SO | 120    | 24  | 7.4  |      | N/A | No       |
| 076SS-0020M-0001-SO | BENZENE                   | 0.58   | UG/KG | 5.8 | 0.58 | U    | 076SS-0021M-0001-SO | 0.59   | 5.9 | 0.59 | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | BROMOCHLOROMETHANE        | 1.2    | UG/KG | 5.8 | 1.2  | U    | 076SS-0021M-0001-SO | 1.2    | 5.9 | 1.2  | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | BROMODICHLOROMETHANE      | 0.58   | UG/KG | 5.8 | 0.58 | U    | 076SS-0021M-0001-SO | 0.59   | 5.9 | 0.59 | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | BROMOFORM                 | 0.58   | UG/KG | 5.8 | 0.58 | U    | 076SS-0021M-0001-SO | 0.59   | 5.9 | 0.59 | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | BROMOMETHANE              | 1.2    | UG/KG | 5.8 | 1.2  | U    | 076SS-0021M-0001-SO | 1.2    | 5.9 | 1.2  | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | CARBON DISULFIDE          | 0.58   | UG/KG | 5.8 | 0.58 | U    | 076SS-0021M-0001-SO | 0.59   | 5.9 | 0.59 | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | CARBON TETRACHLORIDE      | 0.58   | UG/KG | 5.8 | 0.58 | U    | 076SS-0021M-0001-SO | 0.59   | 5.9 | 0.59 | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | CHLOROBENZENE             | 0.58   | UG/KG | 5.8 | 0.58 | U    | 076SS-0021M-0001-SO | 0.59   | 5.9 | 0.59 | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | CHLOROETHANE              | 1.2    | UG/KG | 5.8 | 1.2  | U    | 076SS-0021M-0001-SO | 1.2    | 5.9 | 1.2  | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | CHLOROFORM                | 0.58   | UG/KG | 5.8 | 0.58 | U    | 076SS-0021M-0001-SO | 0.59   | 5.9 | 0.59 | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | CHLOROMETHANE             | 0.58   | UG/KG | 5.8 | 0.58 | U    | 076SS-0021M-0001-SO | 0.59   | 5.9 | 0.59 | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | CIS-1,3-DICHLOROPROPENE   | 0.58   | UG/KG | 5.8 | 0.58 | U    | 076SS-0021M-0001-SO | 0.59   | 5.9 | 0.59 | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | DIBROMOCHLOROMETHANE      | 1.2    | UG/KG | 5.8 | 1.2  | U    | 076SS-0021M-0001-SO | 1.2    | 5.9 | 1.2  | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | ETHYLBENZENE              | 0.58   | UG/KG | 5.8 | 0.58 | U    | 076SS-0021M-0001-SO | 0.59   | 5.9 | 0.59 | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | METHYL ETHYL KETONE       | 2.3    | UG/KG | 23  | 2.3  | U    | 076SS-0021M-0001-SO | 6.4    | 24  | 2.4  | J    | N/A | Yes      |
| 076SS-0020M-0001-SO | METHYL ISOBUTYL KETONE    | 1.2    | UG/KG | 23  | 1.2  | U    | 076SS-0021M-0001-SO | 1.2    | 24  | 1.2  | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | METHYLENE CHLORIDE        | 1.2    | UG/KG | 5.8 | 1.2  | U    | 076SS-0021M-0001-SO | 1.2    | 5.9 | 1.2  | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | STYRENE                   | 0.58   | UG/KG | 5.8 | 0.58 | U    | 076SS-0021M-0001-SO | 0.59   | 5.9 | 0.59 | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | TERT-BUTYL METHYL ETHER   | 0.58   | UG/KG | 5.8 | 0.58 | U    | 076SS-0021M-0001-SO | 0.59   | 5.9 | 0.59 | U    | N/A | Yes      |

| Sample              | Analyte                      | Result | Units | LOQ | LOD  | Qual | Sample              | Result | LOQ | LOD  | Qual | RPD | W/In LOQ |
|---------------------|------------------------------|--------|-------|-----|------|------|---------------------|--------|-----|------|------|-----|----------|
| 076SS-0020M-0001-SO | TETRACHLOROETHYLENE          | 1.2    | UG/KG | 5.8 | 1.2  | U    | 076SS-0021M-0001-SO | 1.2    | 5.9 | 1.2  | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | TOLUENE                      | 0.58   | UG/KG | 5.8 | 0.58 | U    | 076SS-0021M-0001-SO | 0.36   | 5.9 | 0.59 | J    | N/A | Yes      |
| 076SS-0020M-0001-SO | TOTAL 1,2-DICHLOROETHENE     | 1.2    | UG/KG | 12  | 1.2  | U    | 076SS-0021M-0001-SO | 1.2    | 12  | 1.2  | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | TRANS-1,3-DICHLOROPROPENE    | 1.2    | UG/KG | 5.8 | 1.2  | U    | 076SS-0021M-0001-SO | 1.2    | 5.9 | 1.2  | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | TRICHLOROETHYLENE            | 0.58   | UG/KG | 5.8 | 0.58 | U    | 076SS-0021M-0001-SO | 0.59   | 5.9 | 0.59 | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | VINYL CHLORIDE               | 0.58   | UG/KG | 5.8 | 0.58 | U    | 076SS-0021M-0001-SO | 0.59   | 5.9 | 0.59 | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | XYLENES, TOTAL               | 1.7    | UG/KG | 12  | 1.7  | U    | 076SS-0021M-0001-SO | 1.8    | 12  | 1.8  | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | 1,2,4-TRICHLOROBENZENE       | 27     | UG/KG | 49  | 27   | U    | 076SS-0021M-0001-SO | 27     | 50  | 27   | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | 1,2-DICHLOROBENZENE          | 27     | UG/KG | 49  | 27   | U    | 076SS-0021M-0001-SO | 27     | 50  | 27   | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | 1,3-DICHLOROBENZENE          | 27     | UG/KG | 49  | 27   | U    | 076SS-0021M-0001-SO | 27     | 50  | 27   | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | 1,4-DICHLOROBENZENE          | 33     | UG/KG | 49  | 27   | J    | 076SS-0021M-0001-SO | 26     | 50  | 27   | J    | N/A | Yes      |
| 076SS-0020M-0001-SO | 2,2'-OXYBIS(1-CHLORO)PROPANE | 27     | UG/KG | 98  | 27   | U    | 076SS-0021M-0001-SO | 27     | 100 | 27   | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | 2,4,5-TRICHLOROPHENOL        | 27     | UG/KG | 150 | 27   | U    | 076SS-0021M-0001-SO | 27     | 150 | 27   | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | 2,4,6-TRICHLOROPHENOL        | 79     | UG/KG | 150 | 79   | U    | 076SS-0021M-0001-SO | 81     | 150 | 81   | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | 2,4-DICHLOROPHENOL           | 27     | UG/KG | 150 | 27   | U    | 076SS-0021M-0001-SO | 27     | 150 | 27   | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | 2,4-DIMETHYLPHENOL           | 79     | UG/KG | 150 | 79   | U    | 076SS-0021M-0001-SO | 81     | 150 | 81   | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | 2,4-DINITROPHENOL            | 79     | UG/KG | 330 | 79   | U    | 076SS-0021M-0001-SO | 81     | 330 | 81   | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | 2,4-DINITROTOLUENE           | 27     | UG/KG | 200 | 27   | U    | 076SS-0021M-0001-SO | 27     | 200 | 27   | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | 2,6-DINITROTOLUENE           | 27     | UG/KG | 200 | 27   | U    | 076SS-0021M-0001-SO | 27     | 200 | 27   | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | 2-CHLORONAPHTHALENE          | 3.3    | UG/KG | 49  | 3.3  | U    | 076SS-0021M-0001-SO | 3.3    | 50  | 3.3  | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | 2-CHLOROPHENOL               | 27     | UG/KG | 49  | 27   | U    | 076SS-0021M-0001-SO | 27     | 50  | 27   | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | 2-METHYLNAPHTHALENE          | 18     | UG/KG | 6.6 | 3.3  |      | 076SS-0021M-0001-SO | 15     | 6.7 | 3.3  |      | N/A | Yes      |
| 076SS-0020M-0001-SO | 2-METHYLPHENOL               | 79     | UG/KG | 200 | 79   | U    | 076SS-0021M-0001-SO | 81     | 200 | 81   | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | 2-NITROANILINE               | 27     | UG/KG | 200 | 27   | U    | 076SS-0021M-0001-SO | 27     | 200 | 27   | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | 2-NITROPHENOL                | 27     | UG/KG | 49  | 27   | U    | 076SS-0021M-0001-SO | 27     | 50  | 27   | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | 3,3'-DICHLOROBENZIDINE       | 79     | UG/KG | 98  | 79   | R    | 076SS-0021M-0001-SO | 81     | 100 | 81   | U    | N/A | N/A      |
| 076SS-0020M-0001-SO | 3-NITROANILINE               | 79     | UG/KG | 200 | 79   | R    | 076SS-0021M-0001-SO | 81     | 200 | 81   | U    | N/A | N/A      |
| 076SS-0020M-0001-SO | 4,6-DINITRO-2-METHYLPHENOL   | 79     | UG/KG | 150 | 79   | U    | 076SS-0021M-0001-SO | 81     | 150 | 81   | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | 4-BROMOPHENYL PHENYL ETHER   | 27     | UG/KG | 49  | 27   | U    | 076SS-0021M-0001-SO | 27     | 50  | 27   | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | 4-CHLORO-3-METHYLPHENOL      | 27     | UG/KG | 150 | 27   | U    | 076SS-0021M-0001-SO | 27     | 150 | 27   | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | 4-CHLOROANILINE              | 27     | UG/KG | 150 | 27   | R    | 076SS-0021M-0001-SO | 27     | 150 | 27   | U    | N/A | N/A      |
| 076SS-0020M-0001-SO | 4-CHLOROPHENYL PHENYL ETHER  | 27     | UG/KG | 49  | 27   | U    | 076SS-0021M-0001-SO | 27     | 50  | 27   | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | 4-NITROANILINE               | 27     | UG/KG | 200 | 27   | UJ   | 076SS-0021M-0001-SO | 27     | 200 | 27   | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | 4-NITROPHENOL                | 79     | UG/KG | 330 | 79   | U    | 076SS-0021M-0001-SO | 81     | 330 | 81   | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | ACENAPHTHENE                 | 3.3    | UG/KG | 6.6 | 3.3  | U    | 076SS-0021M-0001-SO | 3.3    | 6.7 | 3.3  | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | ACENAPHTHYLENE               | 3.3    | UG/KG | 6.6 | 3.3  | U    | 076SS-0021M-0001-SO | 3.3    | 6.7 | 3.3  | U    | N/A | Yes      |

| Sample              | Analyte                     | Result | Units | LOQ | LOD | Qual | Sample              | Result | LOQ | LOD | Qual | RPD | W/In LOQ |
|---------------------|-----------------------------|--------|-------|-----|-----|------|---------------------|--------|-----|-----|------|-----|----------|
| 076SS-0020M-0001-SO | ANTHRACENE                  | 3.3    | UG/KG | 6.6 | 3.3 | U    | 076SS-0021M-0001-SO | 3.3    | 6.7 | 3.3 | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | BENZO(A)ANTHRACENE          | 3.3    | UG/KG | 6.6 | 3.3 | U    | 076SS-0021M-0001-SO | 8.6    | 6.7 | 3.3 |      | N/A | Yes      |
| 076SS-0020M-0001-SO | BENZO(A)PYRENE              | 19     | UG/KG | 6.6 | 3.3 |      | 076SS-0021M-0001-SO | 17     | 6.7 | 3.3 |      | N/A | Yes      |
| 076SS-0020M-0001-SO | BENZO(B)FLUORANTHENE        | 19     | UG/KG | 6.6 | 3.3 |      | 076SS-0021M-0001-SO | 18     | 6.7 | 3.3 |      | N/A | Yes      |
| 076SS-0020M-0001-SO | BENZO(G,H,I)PERYLENE        | 10     | UG/KG | 6.6 | 3.3 |      | 076SS-0021M-0001-SO | 7.3    | 6.7 | 3.3 |      | N/A | Yes      |
| 076SS-0020M-0001-SO | BENZO(K)FLUORANTHENE        | 9.7    | UG/KG | 6.6 | 3.3 |      | 076SS-0021M-0001-SO | 5.7    | 6.7 | 3.3 | J    | N/A | Yes      |
| 076SS-0020M-0001-SO | BENZOIC ACID                | 330    | UG/KG | 650 | 330 | U    | 076SS-0021M-0001-SO | 340    | 660 | 340 | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | BENZYL ALCOHOL              | 27     | UG/KG | 330 | 27  | U    | 076SS-0021M-0001-SO | 27     | 330 | 27  | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | BENZYL BUTYL PHTHALATE      | 27     | UG/KG | 49  | 27  | U    | 076SS-0021M-0001-SO | 27     | 50  | 27  | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | BIS(2-CHLOROETHOXY) METHANE | 27     | UG/KG | 98  | 27  | U    | 076SS-0021M-0001-SO | 27     | 100 | 27  | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | BIS(2-CHLOROETHYL) ETHER    | 3.3    | UG/KG | 98  | 3.3 | U    | 076SS-0021M-0001-SO | 3.3    | 100 | 3.3 | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | BIS(2-ETHYLHEXYL) PHTHALATE | 36     | UG/KG | 49  | 27  | U    | 076SS-0021M-0001-SO | 41     | 50  | 27  | J    | N/A | Yes      |
| 076SS-0020M-0001-SO | CARBAZOLE                   | 27     | UG/KG | 49  | 27  | U    | 076SS-0021M-0001-SO | 27     | 50  | 27  | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | CHRYSENE                    | 3.3    | UG/KG | 6.6 | 3.3 | U    | 076SS-0021M-0001-SO | 15     | 6.7 | 3.3 |      | N/A | No       |
| 076SS-0020M-0001-SO | CRESOLS, M & P              | 79     | UG/KG | 390 | 79  | U    | 076SS-0021M-0001-SO | 81     | 400 | 81  | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | DIBENZ(A,H)ANTHRACENE       | 3.3    | UG/KG | 6.6 | 3.3 | U    | 076SS-0021M-0001-SO | 3.3    | 6.7 | 3.3 | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | DIBENZOFURAN                | 7      | UG/KG | 49  | 3.3 | J    | 076SS-0021M-0001-SO | 5.6    | 50  | 3.3 | J    | N/A | Yes      |
| 076SS-0020M-0001-SO | DIETHYL PHTHALATE           | 21     | UG/KG | 49  | 27  | U    | 076SS-0021M-0001-SO | 20     | 50  | 27  | J    | N/A | Yes      |
| 076SS-0020M-0001-SO | DIMETHYL PHTHALATE          | 27     | UG/KG | 49  | 27  | U    | 076SS-0021M-0001-SO | 27     | 50  | 27  | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | DI-N-BUTYL PHTHALATE        | 16     | UG/KG | 49  | 27  | J    | 076SS-0021M-0001-SO | 19     | 50  | 27  | J    | N/A | Yes      |
| 076SS-0020M-0001-SO | DI-N-OCTYLPHTHALATE         | 27     | UG/KG | 49  | 27  | U    | 076SS-0021M-0001-SO | 27     | 50  | 27  | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | FLUORANTHENE                | 28     | UG/KG | 6.6 | 3.3 |      | 076SS-0021M-0001-SO | 21     | 6.7 | 3.3 |      | N/A | No       |
| 076SS-0020M-0001-SO | FLUORENE                    | 4.7    | UG/KG | 6.6 | 3.3 | J    | 076SS-0021M-0001-SO | 4      | 6.7 | 3.3 | J    | N/A | Yes      |
| 076SS-0020M-0001-SO | HEXACHLOROBENZENE           | 3.3    | UG/KG | 6.6 | 3.3 | U    | 076SS-0021M-0001-SO | 3.3    | 6.7 | 3.3 | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | HEXACHLOROBUTADIENE         | 27     | UG/KG | 49  | 27  | U    | 076SS-0021M-0001-SO | 27     | 50  | 27  | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | HEXACHLOROCYCLOPENTADIENE   | 27     | UG/KG | 330 | 27  | U    | 076SS-0021M-0001-SO | 27     | 330 | 27  | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | HEXACHLOROETHANE            | 27     | UG/KG | 49  | 27  | U    | 076SS-0021M-0001-SO | 27     | 50  | 27  | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | INDENO(1,2,3-C,D)PYRENE     | 13     | UG/KG | 6.6 | 3.3 |      | 076SS-0021M-0001-SO | 12     | 6.7 | 3.3 |      | N/A | Yes      |
| 076SS-0020M-0001-SO | ISOPHORONE                  | 20     | UG/KG | 49  | 27  | J    | 076SS-0021M-0001-SO | 19     | 50  | 27  | J    | N/A | Yes      |
| 076SS-0020M-0001-SO | NAPHTHALENE                 | 20     | UG/KG | 6.6 | 3.3 |      | 076SS-0021M-0001-SO | 17     | 6.7 | 3.3 |      | N/A | Yes      |
| 076SS-0020M-0001-SO | NITROBENZENE                | 3.3    | UG/KG | 98  | 3.3 | U    | 076SS-0021M-0001-SO | 3.3    | 100 | 3.3 | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | N-NITROSODI-N-PROPYLAMINE   | 27     | UG/KG | 49  | 27  | U    | 076SS-0021M-0001-SO | 27     | 50  | 27  | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | N-NITROSODIPHENYLAMINE      | 27     | UG/KG | 49  | 27  | U    | 076SS-0021M-0001-SO | 27     | 50  | 27  | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | PENTACHLOROPHENOL           | 79     | UG/KG | 150 | 79  | U    | 076SS-0021M-0001-SO | 81     | 150 | 81  | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | PHENANTHRENE                | 22     | UG/KG | 6.6 | 3.3 |      | 076SS-0021M-0001-SO | 16     | 6.7 | 3.3 |      | N/A | Yes      |
| 076SS-0020M-0001-SO | PHENOL                      | 27     | UG/KG | 49  | 27  | U    | 076SS-0021M-0001-SO | 27     | 50  | 27  | U    | N/A | Yes      |

| Sample              | Analyte                    | Result | Units | LOQ  | LOD   | Qual | Sample              | Result | LOQ  | LOD   | Qual | RPD | W/In LOQ |
|---------------------|----------------------------|--------|-------|------|-------|------|---------------------|--------|------|-------|------|-----|----------|
| 076SS-0020M-0001-SO | PYRENE                     | 19     | UG/KG | 6.6  | 3.3   |      | 076SS-0021M-0001-SO | 15     | 6.7  | 3.3   |      | N/A | Yes      |
| 076SS-0020M-0001-SO | 1,3,5-TRINITROBENZENE      | 0.05   | MG/KG | 0.25 | 0.05  | U    | 076SS-0021M-0001-SO | 0.048  | 0.24 | 0.048 | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | 1,3-DINITROBENZENE         | 0.05   | MG/KG | 0.25 | 0.05  | U    | 076SS-0021M-0001-SO | 0.048  | 0.24 | 0.048 | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | 2,4,6-TRINITROTOLUENE      | 0.05   | MG/KG | 0.25 | 0.05  | U    | 076SS-0021M-0001-SO | 0.048  | 0.24 | 0.048 | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | 2,4-DINITROTOLUENE         | 0.05   | MG/KG | 0.25 | 0.05  | R    | 076SS-0021M-0001-SO | 0.048  | 0.24 | 0.048 | U    | N/A | N/A      |
| 076SS-0020M-0001-SO | 2,6-DINITROTOLUENE         | 0.05   | MG/KG | 0.25 | 0.05  | R    | 076SS-0021M-0001-SO | 0.048  | 0.24 | 0.048 | U    | N/A | N/A      |
| 076SS-0020M-0001-SO | 2-AMINO-4,6-DINITROTOLUENE | 0.05   | MG/KG | 0.25 | 0.05  | U    | 076SS-0021M-0001-SO | 0.048  | 0.24 | 0.048 | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | 2-NITROTOLUENE             | 0.05   | MG/KG | 0.25 | 0.05  | UJ   | 076SS-0021M-0001-SO | 0.048  | 0.24 | 0.048 | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | 3-NITROTOLUENE             | 0.05   | MG/KG | 0.25 | 0.05  | U    | 076SS-0021M-0001-SO | 0.048  | 0.24 | 0.048 | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | 4-AMINO-2,6-DINITROTOLUENE | 0.05   | MG/KG | 0.25 | 0.05  | U    | 076SS-0021M-0001-SO | 0.048  | 0.24 | 0.048 | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | 4-NITROTOLUENE             | 0.05   | MG/KG | 0.25 | 0.05  | U    | 076SS-0021M-0001-SO | 0.048  | 0.24 | 0.048 | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | HMX                        | 0.05   | MG/KG | 0.25 | 0.05  | U    | 076SS-0021M-0001-SO | 0.048  | 0.24 | 0.048 | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | NITROBENZENE               | 0.05   | MG/KG | 0.25 | 0.05  | R    | 076SS-0021M-0001-SO | 0.048  | 0.24 | 0.048 | U    | N/A | N/A      |
| 076SS-0020M-0001-SO | NITROGLYCERIN              | 0.25   | MG/KG | 0.5  | 0.25  | U    | 076SS-0021M-0001-SO | 0.24   | 0.48 | 0.24  | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | NITROGUANIDINE             | 0.04   | MG/KG | 0.25 | 0.04  | U    | 076SS-0021M-0001-SO | 0.04   | 0.25 | 0.04  | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | PETN                       | 0.25   | MG/KG | 0.5  | 0.25  | U    | 076SS-0021M-0001-SO | 0.24   | 0.48 | 0.24  | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | RDX                        | 0.05   | MG/KG | 0.25 | 0.05  | UJ   | 076SS-0021M-0001-SO | 0.048  | 0.24 | 0.048 | U    | N/A | Yes      |
| 076SS-0020M-0001-SO | TETRYL                     | 0.041  | MG/KG | 0.25 | 0.05  | NJ   | 076SS-0021M-0001-SO | 0.03   | 0.24 | 0.048 | J    | N/A | Yes      |
| 076SW-0013-0001-SW  | NITROCELLULOSE             | 1      | MG/L  | 2    | 1     | U    | 076SW-0014-0001-SW  | 1      | 2    | 1     | U    | N/A | Yes      |
| 076SW-0013-0001-SW  | AROCLOR 1016               | 0.19   | UG/L  | 0.48 | 0.19  | U    | 076SW-0014-0001-SW  | 0.2    | 0.5  | 0.2   | U    | N/A | Yes      |
| 076SW-0013-0001-SW  | AROCLOR 1221               | 0.19   | UG/L  | 0.48 | 0.19  | U    | 076SW-0014-0001-SW  | 0.2    | 0.5  | 0.2   | U    | N/A | Yes      |
| 076SW-0013-0001-SW  | AROCLOR 1232               | 0.19   | UG/L  | 0.48 | 0.19  | U    | 076SW-0014-0001-SW  | 0.2    | 0.5  | 0.2   | U    | N/A | Yes      |
| 076SW-0013-0001-SW  | AROCLOR 1242               | 0.38   | UG/L  | 0.48 | 0.38  | U    | 076SW-0014-0001-SW  | 0.4    | 0.5  | 0.4   | U    | N/A | Yes      |
| 076SW-0013-0001-SW  | AROCLOR 1248               | 0.19   | UG/L  | 0.48 | 0.19  | U    | 076SW-0014-0001-SW  | 0.2    | 0.5  | 0.2   | U    | N/A | Yes      |
| 076SW-0013-0001-SW  | AROCLOR 1254               | 0.19   | UG/L  | 0.48 | 0.19  | U    | 076SW-0014-0001-SW  | 0.2    | 0.5  | 0.2   | U    | N/A | Yes      |
| 076SW-0013-0001-SW  | AROCLOR 1260               | 0.19   | UG/L  | 0.48 | 0.19  | U    | 076SW-0014-0001-SW  | 0.2    | 0.5  | 0.2   | U    | N/A | Yes      |
| 076SW-0013-0001-SW  | 1,3,5-TRINITROBENZENE      | 0.051  | UG/L  | 0.1  | 0.051 | U    | 076SW-0014-0001-SW  | 0.052  | 0.1  | 0.052 | U    | N/A | Yes      |
| 076SW-0013-0001-SW  | 1,3-DINITROBENZENE         | 0.1    | UG/L  | 0.1  | 0.1   | U    | 076SW-0014-0001-SW  | 0.1    | 0.1  | 0.1   | U    | N/A | Yes      |
| 076SW-0013-0001-SW  | 2,4,6-TRINITROTOLUENE      | 0.1    | UG/L  | 0.1  | 0.1   | U    | 076SW-0014-0001-SW  | 0.1    | 0.1  | 0.1   | U    | N/A | Yes      |
| 076SW-0013-0001-SW  | 2,4-DINITROTOLUENE         | 0.1    | UG/L  | 0.1  | 0.1   | U    | 076SW-0014-0001-SW  | 0.1    | 0.1  | 0.1   | U    | N/A | Yes      |
| 076SW-0013-0001-SW  | 2,6-DINITROTOLUENE         | 0.1    | UG/L  | 0.1  | 0.1   | U    | 076SW-0014-0001-SW  | 0.1    | 0.1  | 0.1   | U    | N/A | Yes      |
| 076SW-0013-0001-SW  | 2-AMINO-4,6-DINITROTOLUENE | 0.1    | UG/L  | 0.2  | 0.1   | U    | 076SW-0014-0001-SW  | 0.1    | 0.21 | 0.1   | U    | N/A | Yes      |
| 076SW-0013-0001-SW  | 2-NITROTOLUENE             | 0.1    | UG/L  | 0.51 | 0.1   | U    | 076SW-0014-0001-SW  | 0.1    | 0.52 | 0.1   | U    | N/A | Yes      |
| 076SW-0013-0001-SW  | 3-NITROTOLUENE             | 0.1    | UG/L  | 0.51 | 0.1   | U    | 076SW-0014-0001-SW  | 0.1    | 0.52 | 0.1   | U    | N/A | Yes      |
| 076SW-0013-0001-SW  | 4-AMINO-2,6-DINITROTOLUENE | 0.1    | UG/L  | 0.1  | 0.1   | U    | 076SW-0014-0001-SW  | 0.1    | 0.1  | 0.1   | U    | N/A | Yes      |
| 076SW-0013-0001-SW  | 4-NITROTOLUENE             | 0.1    | UG/L  | 0.51 | 0.1   | U    | 076SW-0014-0001-SW  | 0.1    | 0.52 | 0.1   | U    | N/A | Yes      |

| Sample             | Analyte        | Result | Units | LOQ  | LOD   | Qual | Sample             | Result | LOQ  | LOD   | Qual | RPD | W/In LOQ |
|--------------------|----------------|--------|-------|------|-------|------|--------------------|--------|------|-------|------|-----|----------|
| 076SW-0013-0001-SW | HMX            | 0.051  | UG/L  | 0.1  | 0.051 | U    | 076SW-0014-0001-SW | 0.052  | 0.1  | 0.052 | U    | N/A | Yes      |
| 076SW-0013-0001-SW | NITROBENZENE   | 0.1    | UG/L  | 0.1  | 0.1   | U    | 076SW-0014-0001-SW | 0.1    | 0.1  | 0.1   | U    | N/A | Yes      |
| 076SW-0013-0001-SW | NITROGLYCERIN  | 0.51   | UG/L  | 0.66 | 0.51  | U    | 076SW-0014-0001-SW | 0.52   | 0.67 | 0.52  | U    | N/A | Yes      |
| 076SW-0013-0001-SW | NITROGUANIDINE | 6      | UG/L  | 20   | 6     | U    | 076SW-0014-0001-SW | 6      | 20   | 6     | U    | N/A | Yes      |
| 076SW-0013-0001-SW | PETN           | 0.51   | UG/L  | 0.66 | 0.51  | U    | 076SW-0014-0001-SW | 0.52   | 0.67 | 0.52  | U    | N/A | Yes      |
| 076SW-0013-0001-SW | RDX            | 0.051  | UG/L  | 0.1  | 0.051 | U    | 076SW-0014-0001-SW | 0.052  | 0.1  | 0.052 | U    | N/A | Yes      |
| 076SW-0013-0001-SW | TETRYL         | 0.1    | UG/L  | 0.1  | 0.1   | U    | 076SW-0014-0001-SW | 0.1    | 0.1  | 0.1   | U    | N/A | Yes      |



| Sample              | Analyte                   | Result | Units | LOQ | LOD  | Qual | Sample              | Result | LOQ | LOD  | Qual | Code | RPD | W/In LOQ |
|---------------------|---------------------------|--------|-------|-----|------|------|---------------------|--------|-----|------|------|------|-----|----------|
| 078SB-0009M-0001-SO | 1,1,1-TRICHLOROETHANE     | 1.2    | UG/KG | 6.2 | 1.2  | U    | 078SB-0056M-0001-SO | 1.1    | 5.4 | 1.1  | U    |      | N/A | Yes      |
| 078SB-0009M-0001-SO | 1,1,2,2-TETRACHLOROETHANE | 0.62   | UG/KG | 6.2 | 0.62 | U    | 078SB-0056M-0001-SO | 0.54   | 5.4 | 0.54 | U    |      | N/A | Yes      |
| 078SB-0009M-0001-SO | 1,1,2-TRICHLOROETHANE     | 0.62   | UG/KG | 6.2 | 0.62 | U    | 078SB-0056M-0001-SO | 0.54   | 5.4 | 0.54 | U    |      | N/A | Yes      |
| 078SB-0009M-0001-SO | 1,1-DICHLOROETHANE        | 0.62   | UG/KG | 6.2 | 0.62 | U    | 078SB-0056M-0001-SO | 0.54   | 5.4 | 0.54 | U    |      | N/A | Yes      |
| 078SB-0009M-0001-SO | 1,1-DICHLOROETHENE        | 1.2    | UG/KG | 6.2 | 1.2  | U    | 078SB-0056M-0001-SO | 1.1    | 5.4 | 1.1  | U    |      | N/A | Yes      |
| 078SB-0009M-0001-SO | 1,2-DIBROMOETHANE         | 1.2    | UG/KG | 6.2 | 1.2  | U    | 078SB-0056M-0001-SO | 1.1    | 5.4 | 1.1  | U    |      | N/A | Yes      |
| 078SB-0009M-0001-SO | 1,2-DICHLOROETHANE        | 0.62   | UG/KG | 6.2 | 0.62 | U    | 078SB-0056M-0001-SO | 0.54   | 5.4 | 0.54 | U    |      | N/A | Yes      |
| 078SB-0009M-0001-SO | 1,2-DICHLOROPROPANE       | 1.2    | UG/KG | 6.2 | 1.2  | U    | 078SB-0056M-0001-SO | 1.1    | 5.4 | 1.1  | U    |      | N/A | Yes      |
| 078SB-0009M-0001-SO | 2-HEXANONE                | 1.2    | UG/KG | 25  | 1.2  | U    | 078SB-0056M-0001-SO | 1.1    | 21  | 1.1  | U    |      | N/A | Yes      |
| 078SB-0009M-0001-SO | ACETONE                   | 7.8    | UG/KG | 25  | 7.8  | U    | 078SB-0056M-0001-SO | 6.7    | 21  | 6.7  | U    |      | N/A | Yes      |
| 078SB-0009M-0001-SO | BENZENE                   | 0.62   | UG/KG | 6.2 | 0.62 | U    | 078SB-0056M-0001-SO | 0.54   | 5.4 | 0.54 | U    |      | N/A | Yes      |
| 078SB-0009M-0001-SO | BROMOCHLOROMETHANE        | 1.2    | UG/KG | 6.2 | 1.2  | U    | 078SB-0056M-0001-SO | 1.1    | 5.4 | 1.1  | U    |      | N/A | Yes      |
| 078SB-0009M-0001-SO | BROMODICHLOROMETHANE      | 0.62   | UG/KG | 6.2 | 0.62 | U    | 078SB-0056M-0001-SO | 0.54   | 5.4 | 0.54 | U    |      | N/A | Yes      |
| 078SB-0009M-0001-SO | BROMOFORM                 | 0.62   | UG/KG | 6.2 | 0.62 | U    | 078SB-0056M-0001-SO | 0.54   | 5.4 | 0.54 | U    |      | N/A | Yes      |
| 078SB-0009M-0001-SO | BROMOMETHANE              | 1.2    | UG/KG | 6.2 | 1.2  | U    | 078SB-0056M-0001-SO | 1.1    | 5.4 | 1.1  | U    |      | N/A | Yes      |
| 078SB-0009M-0001-SO | CARBON DISULFIDE          | 0.62   | UG/KG | 6.2 | 0.62 | U    | 078SB-0056M-0001-SO | 0.54   | 5.4 | 0.54 | U    |      | N/A | Yes      |
| 078SB-0009M-0001-SO | CARBON TETRACHLORIDE      | 0.62   | UG/KG | 6.2 | 0.62 | U    | 078SB-0056M-0001-SO | 0.54   | 5.4 | 0.54 | U    |      | N/A | Yes      |
| 078SB-0009M-0001-SO | CHLOROBENZENE             | 0.62   | UG/KG | 6.2 | 0.62 | U    | 078SB-0056M-0001-SO | 0.54   | 5.4 | 0.54 | U    |      | N/A | Yes      |
| 078SB-0009M-0001-SO | CHLOROETHANE              | 1.2    | UG/KG | 6.2 | 1.2  | U    | 078SB-0056M-0001-SO | 1.1    | 5.4 | 1.1  | U    |      | N/A | Yes      |
| 078SB-0009M-0001-SO | CHLOROFORM                | 0.62   | UG/KG | 6.2 | 0.62 | U    | 078SB-0056M-0001-SO | 0.54   | 5.4 | 0.54 | U    |      | N/A | Yes      |
| 078SB-0009M-0001-SO | CHLOROMETHANE             | 0.62   | UG/KG | 6.2 | 0.62 | U    | 078SB-0056M-0001-SO | 0.54   | 5.4 | 0.54 | U    |      | N/A | Yes      |
| 078SB-0009M-0001-SO | CIS-1,3-DICHLOROPROPENE   | 0.62   | UG/KG | 6.2 | 0.62 | U    | 078SB-0056M-0001-SO | 0.54   | 5.4 | 0.54 | U    |      | N/A | Yes      |
| 078SB-0009M-0001-SO | DIBROMOCHLOROMETHANE      | 1.2    | UG/KG | 6.2 | 1.2  | U    | 078SB-0056M-0001-SO | 1.1    | 5.4 | 1.1  | U    |      | N/A | Yes      |
| 078SB-0009M-0001-SO | ETHYLBENZENE              | 0.62   | UG/KG | 6.2 | 0.62 | U    | 078SB-0056M-0001-SO | 0.54   | 5.4 | 0.54 | U    |      | N/A | Yes      |
| 078SB-0009M-0001-SO | METHYL ETHYL KETONE       | 2.5    | UG/KG | 25  | 2.5  | U    | 078SB-0056M-0001-SO | 2.1    | 21  | 2.1  | U    |      | N/A | Yes      |
| 078SB-0009M-0001-SO | METHYL ISOBUTYL KETONE    | 1.2    | UG/KG | 25  | 1.2  | U    | 078SB-0056M-0001-SO | 1.1    | 21  | 1.1  | U    |      | N/A | Yes      |
| 078SB-0009M-0001-SO | METHYLENE CHLORIDE        | 1.2    | UG/KG | 6.2 | 1.2  | J    | 078SB-0056M-0001-SO | 1.1    | 5.4 | 1.1  | J    |      | N/A | Yes      |
| 078SB-0009M-0001-SO | STYRENE                   | 0.62   | UG/KG | 6.2 | 0.62 | U    | 078SB-0056M-0001-SO | 0.54   | 5.4 | 0.54 | U    |      | N/A | Yes      |
| 078SB-0009M-0001-SO | TETRACHLOROETHYLENE       | 1.2    | UG/KG | 6.2 | 1.2  | U    | 078SB-0056M-0001-SO | 1.1    | 5.4 | 1.1  | U    |      | N/A | Yes      |
| 078SB-0009M-0001-SO | TOLUENE                   | 0.62   | UG/KG | 6.2 | 0.62 | U    | 078SB-0056M-0001-SO | 0.54   | 5.4 | 0.54 | U    |      | N/A | Yes      |
| 078SB-0009M-0001-SO | TOTAL 1,2-DICHLOROETHENE  | 1.2    | UG/KG | 12  | 1.2  | U    | 078SB-0056M-0001-SO | 1.1    | 11  | 1.1  | U    |      | N/A | Yes      |
| 078SB-0009M-0001-SO | TRANS-1,3-DICHLOROPROPENE | 1.2    | UG/KG | 6.2 | 1.2  | U    | 078SB-0056M-0001-SO | 1.1    | 5.4 | 1.1  | U    |      | N/A | Yes      |
| 078SB-0009M-0001-SO | TRICHLOROETHYLENE         | 0.62   | UG/KG | 6.2 | 0.62 | U    | 078SB-0056M-0001-SO | 0.54   | 5.4 | 0.54 | U    |      | N/A | Yes      |
| 078SB-0009M-0001-SO | VINYL CHLORIDE            | 0.62   | UG/KG | 6.2 | 0.62 | U    | 078SB-0056M-0001-SO | 0.54   | 5.4 | 0.54 | U    |      | N/A | Yes      |
| 078SB-0009M-0001-SO | XYLENES, TOTAL            | 1.9    | UG/KG | 12  | 1.9  | U    | 078SB-0056M-0001-SO | 1.6    | 11  | 1.6  | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | NITROCELLULOSE            | 1.8    | MG/KG | 5   | 1.8  |      | 078SB-0018M-0001-SO | 1.8    | 5   | 1.8  | U    |      | N/A | Yes      |

| Sample              | Analyte                   | Result | Units | LOQ  | LOD    | Qual | Sample              | Result | LOQ  | LOD   | Qual | Code | RPD | W/In LOQ |
|---------------------|---------------------------|--------|-------|------|--------|------|---------------------|--------|------|-------|------|------|-----|----------|
| 078SB-0017M-0001-SO | ALUMINUM                  | 720    | MG/KG | 2.9  | 0.58   |      | 078SB-0018M-0001-SO | 760    | 2.7  | 0.54  |      |      | 5   | N/A      |
| 078SB-0017M-0001-SO | ANTIMONY                  | 0.35   | MG/KG | 0.19 | 0.097  |      | 078SB-0018M-0001-SO | 0.21   | 0.18 | 0.09  |      |      | N/A | Yes      |
| 078SB-0017M-0001-SO | ARSENIC                   | 0.62   | MG/KG | 0.1  | 0.049  |      | 078SB-0018M-0001-SO | 0.74   | 0.09 | 0.045 |      |      | 18  | N/A      |
| 078SB-0017M-0001-SO | BARIUM                    | 16     | MG/KG | 0.97 | 0.019  |      | 078SB-0018M-0001-SO | 16     | 0.9  | 0.018 |      |      | 0   | N/A      |
| 078SB-0017M-0001-SO | BERYLLIUM                 | 0.098  | MG/KG | 0.1  | 0.0097 |      | 078SB-0018M-0001-SO | 0.11   | 0.09 | 0.009 |      |      | N/A | Yes      |
| 078SB-0017M-0001-SO | CADMIUM                   | 0.056  | MG/KG | 0.1  | 0.029  | J    | 078SB-0018M-0001-SO | 0.07   | 0.09 | 0.027 |      |      | N/A | Yes      |
| 078SB-0017M-0001-SO | CALCIUM                   | 95     | MG/KG | 9.7  | 2.4    |      | 078SB-0018M-0001-SO | 95     | 9    | 2.3   |      |      | 0   | N/A      |
| 078SB-0017M-0001-SO | CHROMIUM                  | 1.6    | MG/KG | 0.19 | 0.039  |      | 078SB-0018M-0001-SO | 2      | 0.18 | 0.036 |      |      | 22  | N/A      |
| 078SB-0017M-0001-SO | COBALT                    | 1.7    | MG/KG | 0.05 | 0.0097 |      | 078SB-0018M-0001-SO | 1.5    | 0.05 | 0.009 |      |      | 13  | N/A      |
| 078SB-0017M-0001-SO | COPPER                    | 2.8    | MG/KG | 0.19 | 0.058  |      | 078SB-0018M-0001-SO | 2.9    | 0.18 | 0.054 |      |      | 4   | N/A      |
| 078SB-0017M-0001-SO | IRON                      | 4600   | MG/KG | 4.9  | 1.9    |      | 078SB-0018M-0001-SO | 6000   | 4.5  | 1.8   |      |      | 26  | N/A      |
| 078SB-0017M-0001-SO | LEAD                      | 6      | MG/KG | 0.1  | 0.029  |      | 078SB-0018M-0001-SO | 7.4    | 0.09 | 0.027 |      |      | 21  | N/A      |
| 078SB-0017M-0001-SO | MAGNESIUM                 | 140    | MG/KG | 9.7  | 1.9    |      | 078SB-0018M-0001-SO | 150    | 9    | 1.8   |      |      | 7   | N/A      |
| 078SB-0017M-0001-SO | MANGANESE                 | 130    | MG/KG | 0.49 | 0.029  |      | 078SB-0018M-0001-SO | 120    | 0.45 | 0.027 |      |      | 8   | N/A      |
| 078SB-0017M-0001-SO | NICKEL                    | 2.4    | MG/KG | 0.1  | 0.029  |      | 078SB-0018M-0001-SO | 2.5    | 0.09 | 0.027 |      |      | 4   | N/A      |
| 078SB-0017M-0001-SO | POTASSIUM                 | 260    | MG/KG | 9.7  | 5.8    |      | 078SB-0018M-0001-SO | 240    | 9    | 5.4   |      |      | 8   | N/A      |
| 078SB-0017M-0001-SO | SELENIUM                  | 0.097  | MG/KG | 0.49 | 0.097  | U    | 078SB-0018M-0001-SO | 0.09   | 0.45 | 0.09  | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | SILVER                    | 0.029  | MG/KG | 0.1  | 0.029  | U    | 078SB-0018M-0001-SO | 0.03   | 0.09 | 0.027 | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | SODIUM                    | 14     | MG/KG | 9.7  | 4.9    |      | 078SB-0018M-0001-SO | 13     | 9    | 4.5   |      |      | N/A | Yes      |
| 078SB-0017M-0001-SO | THALLIUM                  | 0.03   | MG/KG | 0.1  | 0.019  | J    | 078SB-0018M-0001-SO | 0.03   | 0.09 | 0.018 | J    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | VANADIUM                  | 1.7    | MG/KG | 0.1  | 0.058  |      | 078SB-0018M-0001-SO | 2.1    | 0.09 | 0.054 |      |      | 21  | N/A      |
| 078SB-0017M-0001-SO | ZINC                      | 16     | MG/KG | 0.49 | 0.19   |      | 078SB-0018M-0001-SO | 18     | 0.45 | 0.18  |      |      | 12  | N/A      |
| 078SB-0017M-0001-SO | MERCURY                   | 0.038  | MG/KG | 0.1  | 0.034  | J    | 078SB-0018M-0001-SO | 0.04   | 0.1  | 0.034 | J    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | PCB-1016                  | 25     | UG/KG | 66   | 25     |      | 078SB-0018M-0001-SO | 25     | 65   | 25    | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | PCB-1221                  | 25     | UG/KG | 51   | 25     |      | 078SB-0018M-0001-SO | 25     | 50   | 25    | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | PCB-1232                  | 25     | UG/KG | 45   | 25     |      | 078SB-0018M-0001-SO | 25     | 45   | 25    | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | PCB-1242                  | 25     | UG/KG | 40   | 25     |      | 078SB-0018M-0001-SO | 25     | 40   | 25    | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | PCB-1248                  | 25     | UG/KG | 56   | 25     |      | 078SB-0018M-0001-SO | 25     | 55   | 25    | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | PCB-1254                  | 25     | UG/KG | 56   | 25     |      | 078SB-0018M-0001-SO | 25     | 55   | 25    | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | PCB-1260                  | 25     | UG/KG | 56   | 25     |      | 078SB-0018M-0001-SO | 25     | 55   | 25    | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | 1,1,1-TRICHLOROETHANE     | 1.1    | UG/KG | 5.6  | 1.1    | U    | 078SB-0018M-0001-SO | 1.1    | 5.4  | 1.1   | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | 1,1,2,2-TETRACHLOROETHANE | 0.56   | UG/KG | 5.6  | 0.56   | U    | 078SB-0018M-0001-SO | 0.54   | 5.4  | 0.54  | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | 1,1,2-TRICHLOROETHANE     | 0.56   | UG/KG | 5.6  | 0.56   | U    | 078SB-0018M-0001-SO | 0.54   | 5.4  | 0.54  | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | 1,1-DICHLOROETHANE        | 0.56   | UG/KG | 5.6  | 0.56   | U    | 078SB-0018M-0001-SO | 0.54   | 5.4  | 0.54  | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | 1,1-DICHLOROETHENE        | 1.1    | UG/KG | 5.6  | 1.1    | U    | 078SB-0018M-0001-SO | 1.1    | 5.4  | 1.1   | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | 1,2-DIBROMOETHANE         | 1.1    | UG/KG | 5.6  | 1.1    | U    | 078SB-0018M-0001-SO | 1.1    | 5.4  | 1.1   | U    |      | N/A | Yes      |

| Sample              | Analyte                   | Result | Units | LOQ | LOD  | Qual | Sample              | Result | LOQ | LOD  | Qual | Code | RPD | W/In LOQ |
|---------------------|---------------------------|--------|-------|-----|------|------|---------------------|--------|-----|------|------|------|-----|----------|
| 078SB-0017M-0001-SO | 1,2-DICHLOROETHANE        | 0.56   | UG/KG | 5.6 | 0.56 | U    | 078SB-0018M-0001-SO | 0.54   | 5.4 | 0.54 | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | 1,2-DICHLOROPROPANE       | 1.1    | UG/KG | 5.6 | 1.1  | U    | 078SB-0018M-0001-SO | 1.1    | 5.4 | 1.1  | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | 2-HEXANONE                | 1.1    | UG/KG | 22  | 1.1  | U    | 078SB-0018M-0001-SO | 1.1    | 22  | 1.1  | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | ACETONE                   | 7.8    | UG/KG | 22  | 7    | J    | 078SB-0018M-0001-SO | 6.8    | 22  | 6.8  | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | BENZENE                   | 0.56   | UG/KG | 5.6 | 0.56 | U    | 078SB-0018M-0001-SO | 0.54   | 5.4 | 0.54 | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | BROMOCHLOROMETHANE        | 1.1    | UG/KG | 5.6 | 1.1  | U    | 078SB-0018M-0001-SO | 1.1    | 5.4 | 1.1  | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | BROMODICHLOROMETHANE      | 0.56   | UG/KG | 5.6 | 0.56 | U    | 078SB-0018M-0001-SO | 0.54   | 5.4 | 0.54 | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | BROMOFORM                 | 0.56   | UG/KG | 5.6 | 0.56 | U    | 078SB-0018M-0001-SO | 0.54   | 5.4 | 0.54 | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | BROMOMETHANE              | 1.1    | UG/KG | 5.6 | 1.1  | U    | 078SB-0018M-0001-SO | 1.1    | 5.4 | 1.1  | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | CARBON DISULFIDE          | 3.4    | UG/KG | 5.6 | 0.56 | J    | 078SB-0018M-0001-SO | 0.54   | 5.4 | 0.54 | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | CARBON TETRACHLORIDE      | 0.56   | UG/KG | 5.6 | 0.56 | U    | 078SB-0018M-0001-SO | 0.54   | 5.4 | 0.54 | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | CHLOROBENZENE             | 0.56   | UG/KG | 5.6 | 0.56 | U    | 078SB-0018M-0001-SO | 0.54   | 5.4 | 0.54 | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | CHLOROETHANE              | 1.1    | UG/KG | 5.6 | 1.1  | U    | 078SB-0018M-0001-SO | 1.1    | 5.4 | 1.1  | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | CHLOROFORM                | 0.56   | UG/KG | 5.6 | 0.56 | U    | 078SB-0018M-0001-SO | 0.54   | 5.4 | 0.54 | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | CHLOROMETHANE             | 0.56   | UG/KG | 5.6 | 0.56 | U    | 078SB-0018M-0001-SO | 0.54   | 5.4 | 0.54 | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | CIS-1,3-DICHLOROPROPENE   | 0.56   | UG/KG | 5.6 | 0.56 | U    | 078SB-0018M-0001-SO | 0.54   | 5.4 | 0.54 | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | DIBROMOCHLOROMETHANE      | 1.1    | UG/KG | 5.6 | 1.1  | U    | 078SB-0018M-0001-SO | 1.1    | 5.4 | 1.1  | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | ETHYLBENZENE              | 0.56   | UG/KG | 5.6 | 0.56 | U    | 078SB-0018M-0001-SO | 0.54   | 5.4 | 0.54 | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | METHYL ETHYL KETONE       | 2.2    | UG/KG | 22  | 2.2  | U    | 078SB-0018M-0001-SO | 2.2    | 22  | 2.2  | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | METHYL ISOBUTYL KETONE    | 1.1    | UG/KG | 22  | 1.1  | U    | 078SB-0018M-0001-SO | 1.1    | 22  | 1.1  | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | METHYLENE CHLORIDE        | 1.1    | UG/KG | 5.6 | 1.1  | J    | 078SB-0018M-0001-SO | 1.1    | 5.4 | 1.1  | J    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | STYRENE                   | 0.56   | UG/KG | 5.6 | 0.56 | U    | 078SB-0018M-0001-SO | 0.54   | 5.4 | 0.54 | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | TETRACHLOROETHYLENE       | 1.1    | UG/KG | 5.6 | 1.1  | U    | 078SB-0018M-0001-SO | 1.1    | 5.4 | 1.1  | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | TOLUENE                   | 0.56   | UG/KG | 5.6 | 0.56 | U    | 078SB-0018M-0001-SO | 0.54   | 5.4 | 0.54 | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | TOTAL 1,2-DICHLOROETHENE  | 1.1    | UG/KG | 11  | 1.1  | U    | 078SB-0018M-0001-SO | 1.1    | 11  | 1.1  | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | TRANS-1,3-DICHLOROPROPENE | 1.1    | UG/KG | 5.6 | 1.1  | U    | 078SB-0018M-0001-SO | 1.1    | 5.4 | 1.1  | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | TRICHLOROETHYLENE         | 0.56   | UG/KG | 5.6 | 0.56 | U    | 078SB-0018M-0001-SO | 0.54   | 5.4 | 0.54 | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | VINYL CHLORIDE            | 0.56   | UG/KG | 5.6 | 0.56 | U    | 078SB-0018M-0001-SO | 0.54   | 5.4 | 0.54 | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | XYLENES, TOTAL            | 1.7    | UG/KG | 11  | 1.7  | U    | 078SB-0018M-0001-SO | 1.6    | 11  | 1.6  | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | 1,2,4-TRICHLOROBENZENE    | 27     | UG/KG | 50  | 27   | U    | 078SB-0018M-0001-SO | 27     | 51  | 27   | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | 1,2-DICHLOROBENZENE       | 27     | UG/KG | 50  | 27   | U    | 078SB-0018M-0001-SO | 27     | 51  | 27   | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | 1,3-DICHLOROBENZENE       | 27     | UG/KG | 50  | 27   | U    | 078SB-0018M-0001-SO | 27     | 51  | 27   | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | 1,4-DICHLOROBENZENE       | 27     | UG/KG | 50  | 27   | U    | 078SB-0018M-0001-SO | 27     | 51  | 27   | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | 2,4,5-TRICHLOROPHENOL     | 27     | UG/KG | 150 | 27   | U    | 078SB-0018M-0001-SO | 27     | 150 | 27   | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | 2,4,6-TRICHLOROPHENOL     | 81     | UG/KG | 150 | 81   | U    | 078SB-0018M-0001-SO | 81     | 150 | 81   | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | 2,4-DICHLOROPHENOL        | 27     | UG/KG | 150 | 27   | U    | 078SB-0018M-0001-SO | 27     | 150 | 27   | U    |      | N/A | Yes      |

| Sample              | Analyte                      | Result | Units | LOQ | LOD | Qual | Sample              | Result | LOQ | LOD | Qual | Code | RPD | W/In LOQ |
|---------------------|------------------------------|--------|-------|-----|-----|------|---------------------|--------|-----|-----|------|------|-----|----------|
| 078SB-0017M-0001-SO | 2,4-DIMETHYLPHENOL           | 81     | UG/KG | 150 | 81  | U    | 078SB-0018M-0001-SO | 81     | 150 | 81  | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | 2,4-DINITROPHENOL            | 81     | UG/KG | 330 | 81  | U    | 078SB-0018M-0001-SO | 81     | 340 | 81  | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | 2,4-DINITROTOLUENE           | 27     | UG/KG | 200 | 27  | U    | 078SB-0018M-0001-SO | 27     | 200 | 27  | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | 2,6-DINITROTOLUENE           | 27     | UG/KG | 200 | 27  | U    | 078SB-0018M-0001-SO | 27     | 200 | 27  | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | 2-CHLORONAPHTHALENE          | 3.3    | UG/KG | 50  | 3.3 | U    | 078SB-0018M-0001-SO | 3.4    | 51  | 3.4 | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | 2-CHLOROPHENOL               | 27     | UG/KG | 50  | 27  | U    | 078SB-0018M-0001-SO | 27     | 51  | 27  | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | 2-METHYLNAPHTHALENE          | 3.3    | UG/KG | 6.7 | 3.3 | U    | 078SB-0018M-0001-SO | 3.4    | 6.8 | 3.4 | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | 2-METHYLPHENOL (O-CRESOL)    | 81     | UG/KG | 200 | 81  | U    | 078SB-0018M-0001-SO | 81     | 200 | 81  | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | 2-NITROANILINE               | 27     | UG/KG | 200 | 27  | U    | 078SB-0018M-0001-SO | 27     | 200 | 27  | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | 2-NITROPHENOL                | 27     | UG/KG | 50  | 27  | U    | 078SB-0018M-0001-SO | 27     | 51  | 27  | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | 3,3'-DICHLOROBENZIDINE       | 81     | UG/KG | 100 | 81  | U    | 078SB-0018M-0001-SO | 81     | 100 | 81  | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | 3-NITROANILINE               | 81     | UG/KG | 200 | 81  | U    | 078SB-0018M-0001-SO | 81     | 200 | 81  | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | 4,6-DINITRO-2-METHYLPHENOL   | 81     | UG/KG | 150 | 81  | U    | 078SB-0018M-0001-SO | 81     | 150 | 81  | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | 4-BROMOPHENYL PHENYL ETHER   | 27     | UG/KG | 50  | 27  | U    | 078SB-0018M-0001-SO | 27     | 51  | 27  | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | 4-CHLORO-3-METHYLPHENOL      | 27     | UG/KG | 150 | 27  | U    | 078SB-0018M-0001-SO | 27     | 150 | 27  | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | 4-CHLOROANILINE              | 27     | UG/KG | 150 | 27  | U    | 078SB-0018M-0001-SO | 27     | 150 | 27  | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | 4-CHLOROPHENYL PHENYL ETHER  | 27     | UG/KG | 50  | 27  | U    | 078SB-0018M-0001-SO | 27     | 51  | 27  | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | 4-NITROANILINE               | 27     | UG/KG | 200 | 27  | U    | 078SB-0018M-0001-SO | 27     | 200 | 27  | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | 4-NITROPHENOL                | 81     | UG/KG | 330 | 81  | U    | 078SB-0018M-0001-SO | 81     | 340 | 81  | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | ACENAPHTHENE                 | 3.3    | UG/KG | 6.7 | 3.3 | U    | 078SB-0018M-0001-SO | 3.4    | 6.8 | 3.4 | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | ACENAPHTHYLENE               | 3.3    | UG/KG | 6.7 | 3.3 | U    | 078SB-0018M-0001-SO | 3.4    | 6.8 | 3.4 | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | ANTHRACENE                   | 3.3    | UG/KG | 6.7 | 3.3 | U    | 078SB-0018M-0001-SO | 3.4    | 6.8 | 3.4 | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | BENZO(A)ANTHRACENE           | 3.3    | UG/KG | 6.7 | 3.3 | U    | 078SB-0018M-0001-SO | 3.4    | 6.8 | 3.4 | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | BENZO(A)PYRENE               | 3.3    | UG/KG | 6.7 | 3.3 | U    | 078SB-0018M-0001-SO | 3.4    | 6.8 | 3.4 | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | BENZO(B)FLUORANTHENE         | 3.3    | UG/KG | 6.7 | 3.3 | U    | 078SB-0018M-0001-SO | 3.4    | 6.8 | 3.4 | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | BENZO(G,H,I)PERYLENE         | 3.3    | UG/KG | 6.7 | 3.3 | U    | 078SB-0018M-0001-SO | 3.4    | 6.8 | 3.4 | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | BENZO(K)FLUORANTHENE         | 3.3    | UG/KG | 6.7 | 3.3 | U    | 078SB-0018M-0001-SO | 3.4    | 6.8 | 3.4 | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | BENZOIC ACID                 | 340    | UG/KG | 660 | 340 | U    | 078SB-0018M-0001-SO | 340    | 670 | 340 | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | BENZYL ALCOHOL               | 27     | UG/KG | 330 | 27  | U    | 078SB-0018M-0001-SO | 27     | 340 | 27  | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | BENZYL BUTYL PHTHALATE       | 27     | UG/KG | 50  | 27  | U    | 078SB-0018M-0001-SO | 27     | 51  | 27  | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | BIS(2-CHLOROETHOXY) METHANE  | 27     | UG/KG | 100 | 27  | U    | 078SB-0018M-0001-SO | 27     | 100 | 27  | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | BIS(2-CHLOROETHYL) ETHER     | 3.3    | UG/KG | 100 | 3.3 | U    | 078SB-0018M-0001-SO | 3.4    | 100 | 3.4 | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | BIS(2-CHLOROISOPROPYL) ETHER | 27     | UG/KG | 100 | 27  | U    | 078SB-0018M-0001-SO | 27     | 100 | 27  | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | BIS(2-ETHYLHEXYL) PHTHALATE  | 35     | UG/KG | 50  | 27  | J    | 078SB-0018M-0001-SO | 41     | 51  | 27  | J    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | CARBAZOLE                    | 27     | UG/KG | 50  | 27  | U    | 078SB-0018M-0001-SO | 27     | 51  | 27  | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | CHRYSENE                     | 3.3    | UG/KG | 6.7 | 3.3 | U    | 078SB-0018M-0001-SO | 3.4    | 6.8 | 3.4 | U    |      | N/A | Yes      |

| Sample              | Analyte                   | Result | Units | LOQ  | LOD    | Qual | Sample              | Result | LOQ  | LOD   | Qual | Code | RPD | W/In LOQ |
|---------------------|---------------------------|--------|-------|------|--------|------|---------------------|--------|------|-------|------|------|-----|----------|
| 078SB-0017M-0001-SO | CRESOLS, M & P            | 81     | UG/KG | 400  | 81     | U    | 078SB-0018M-0001-SO | 81     | 410  | 81    | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | DIBENZ(A,H)ANTHRACENE     | 3.3    | UG/KG | 6.7  | 3.3    | U    | 078SB-0018M-0001-SO | 3.4    | 6.8  | 3.4   | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | DIBENZOFURAN              | 3.3    | UG/KG | 50   | 3.3    | U    | 078SB-0018M-0001-SO | 3.4    | 51   | 3.4   | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | DIETHYL PHTHALATE         | 27     | UG/KG | 50   | 27     | U    | 078SB-0018M-0001-SO | 27     | 51   | 27    | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | DIMETHYL PHTHALATE        | 27     | UG/KG | 50   | 27     | U    | 078SB-0018M-0001-SO | 27     | 51   | 27    | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | DI-N-BUTYL PHTHALATE      | 27     | UG/KG | 50   | 27     | U    | 078SB-0018M-0001-SO | 27     | 51   | 27    | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | DI-N-OCTYLPHTHALATE       | 27     | UG/KG | 50   | 27     | U    | 078SB-0018M-0001-SO | 27     | 51   | 27    | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | FLUORANTHENE              | 3.3    | UG/KG | 6.7  | 3.3    | U    | 078SB-0018M-0001-SO | 3.4    | 6.8  | 3.4   | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | FLUORENE                  | 3.3    | UG/KG | 6.7  | 3.3    | U    | 078SB-0018M-0001-SO | 3.4    | 6.8  | 3.4   | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | HEXACHLOROBENZENE         | 3.3    | UG/KG | 6.7  | 3.3    | U    | 078SB-0018M-0001-SO | 3.4    | 6.8  | 3.4   | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | HEXACHLOROBUTADIENE       | 27     | UG/KG | 50   | 27     | U    | 078SB-0018M-0001-SO | 27     | 51   | 27    | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | HEXACHLOROCYCLOPENTADIENE | 27     | UG/KG | 330  | 27     | U    | 078SB-0018M-0001-SO | 27     | 340  | 27    | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | HEXACHLOROETHANE          | 27     | UG/KG | 50   | 27     | U    | 078SB-0018M-0001-SO | 27     | 51   | 27    | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | INDENO(1,2,3-C,D)PYRENE   | 3.3    | UG/KG | 6.7  | 3.3    | U    | 078SB-0018M-0001-SO | 3.4    | 6.8  | 3.4   | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | ISOPHORONE                | 27     | UG/KG | 50   | 27     | U    | 078SB-0018M-0001-SO | 27     | 51   | 27    | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | NAPHTHALENE               | 3.3    | UG/KG | 6.7  | 3.3    | U    | 078SB-0018M-0001-SO | 3.4    | 6.8  | 3.4   | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | NITROBENZENE              | 3.3    | UG/KG | 100  | 3.3    | U    | 078SB-0018M-0001-SO | 3.4    | 100  | 3.4   | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | N-NITROSODI-N-PROPYLAMINE | 27     | UG/KG | 50   | 27     | U    | 078SB-0018M-0001-SO | 27     | 51   | 27    | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | N-NITROSODIPHENYLAMINE    | 27     | UG/KG | 50   | 27     | U    | 078SB-0018M-0001-SO | 27     | 51   | 27    | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | PENTACHLOROPHENOL         | 81     | UG/KG | 150  | 81     | U    | 078SB-0018M-0001-SO | 81     | 150  | 81    | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | PHENANTHRENE              | 3.3    | UG/KG | 6.7  | 3.3    | U    | 078SB-0018M-0001-SO | 5.5    | 6.8  | 3.4   | J    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | PHENOL                    | 27     | UG/KG | 50   | 27     | U    | 078SB-0018M-0001-SO | 27     | 51   | 27    | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | PYRENE                    | 3.3    | UG/KG | 6.7  | 3.3    | U    | 078SB-0018M-0001-SO | 3.4    | 6.8  | 3.4   | U    |      | N/A | Yes      |
| 078SB-0017M-0001-SO | NITROGUANIDINE            | 0.038  | MG/KG | 0.24 | 0.038  |      | 078SB-0018M-0001-SO | 0.04   | 0.25 | 0.04  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | NITROCELLULOSE            | 0.89   | MG/KG | 4.7  | 1.7    |      | 078SB-0026M-0001-SO | 1.7    | 4.8  | 1.7   | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | ALUMINUM                  | 1800   | MG/KG | 2.9  | 0.57   |      | 078SB-0026M-0001-SO | 3300   | 2.6  | 0.53  |      |      | 59  | N/A      |
| 078SB-0025M-0001-SO | ANTIMONY                  | 0.095  | MG/KG | 0.19 | 0.095  | U    | 078SB-0026M-0001-SO | 0.05   | 0.18 | 0.088 | J    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | ARSENIC                   | 0.94   | MG/KG | 0.1  | 0.048  |      | 078SB-0026M-0001-SO | 1.8    | 0.09 | 0.044 |      |      | 63  | N/A      |
| 078SB-0025M-0001-SO | BARIUM                    | 13     | MG/KG | 0.95 | 0.019  |      | 078SB-0026M-0001-SO | 19     | 0.88 | 0.018 |      |      | 38  | N/A      |
| 078SB-0025M-0001-SO | BERYLLIUM                 | 0.22   | MG/KG | 0.1  | 0.0095 |      | 078SB-0026M-0001-SO | 0.45   | 0.09 | 0.009 |      |      | 69  | N/A      |
| 078SB-0025M-0001-SO | CADMIUM                   | 0.095  | MG/KG | 0.1  | 0.029  |      | 078SB-0026M-0001-SO | 0.16   | 0.09 | 0.026 |      |      | N/A | Yes      |
| 078SB-0025M-0001-SO | CALCIUM                   | 100    | MG/KG | 9.5  | 2.4    |      | 078SB-0026M-0001-SO | 180    | 8.8  | 2.2   |      |      | 57  | N/A      |
| 078SB-0025M-0001-SO | CHROMIUM                  | 4      | MG/KG | 0.19 | 0.038  |      | 078SB-0026M-0001-SO | 7.3    | 0.18 | 0.035 |      |      | 58  | N/A      |
| 078SB-0025M-0001-SO | COBALT                    | 2.6    | MG/KG | 0.05 | 0.0095 |      | 078SB-0026M-0001-SO | 5.5    | 0.04 | 0.009 |      |      | 72  | N/A      |
| 078SB-0025M-0001-SO | COPPER                    | 4.1    | MG/KG | 0.19 | 0.057  |      | 078SB-0026M-0001-SO | 11     | 0.18 | 0.053 |      |      | 91  | N/A      |
| 078SB-0025M-0001-SO | IRON                      | 12000  | MG/KG | 4.8  | 1.9    |      | 078SB-0026M-0001-SO | #####  | 4.4  | 1.8   |      |      | 34  | N/A      |

| Sample              | Analyte                   | Result | Units | LOQ  | LOD   | Qual | Sample              | Result | LOQ  | LOD   | Qual | Code | RPD | W/In LOQ |
|---------------------|---------------------------|--------|-------|------|-------|------|---------------------|--------|------|-------|------|------|-----|----------|
| 078SB-0025M-0001-SO | LEAD                      | 6      | MG/KG | 0.1  | 0.029 |      | 078SB-0026M-0001-SO | 9.2    | 0.09 | 0.026 |      |      | 42  | N/A      |
| 078SB-0025M-0001-SO | MAGNESIUM                 | 930    | MG/KG | 9.5  | 1.9   |      | 078SB-0026M-0001-SO | 1700   | 8.8  | 1.8   |      |      | 59  | N/A      |
| 078SB-0025M-0001-SO | MANGANESE                 | 290    | MG/KG | 0.48 | 0.029 |      | 078SB-0026M-0001-SO | 390    | 0.44 | 0.026 |      |      | 29  | N/A      |
| 078SB-0025M-0001-SO | NICKEL                    | 6.7    | MG/KG | 0.1  | 0.029 |      | 078SB-0026M-0001-SO | 11     | 0.09 | 0.026 |      |      | 49  | N/A      |
| 078SB-0025M-0001-SO | POTASSIUM                 | 400    | MG/KG | 9.5  | 5.7   |      | 078SB-0026M-0001-SO | 580    | 8.8  | 5.3   |      |      | 37  | N/A      |
| 078SB-0025M-0001-SO | SELENIUM                  | 0.08   | MG/KG | 0.48 | 0.095 | J    | 078SB-0026M-0001-SO | 0.13   | 0.44 | 0.088 | J    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | SILVER                    | 0.029  | MG/KG | 0.1  | 0.029 | U    | 078SB-0026M-0001-SO | 0.02   | 0.09 | 0.026 | J    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | SODIUM                    | 16     | MG/KG | 9.5  | 4.8   |      | 078SB-0026M-0001-SO | 18     | 8.8  | 4.4   |      |      | N/A | Yes      |
| 078SB-0025M-0001-SO | THALLIUM                  | 0.026  | MG/KG | 0.1  | 0.019 | J    | 078SB-0026M-0001-SO | 0.07   | 0.09 | 0.018 | J    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | VANADIUM                  | 4.5    | MG/KG | 0.1  | 0.057 |      | 078SB-0026M-0001-SO | 7.6    | 0.09 | 0.053 |      |      | 51  | N/A      |
| 078SB-0025M-0001-SO | ZINC                      | 40     | MG/KG | 0.48 | 0.19  |      | 078SB-0026M-0001-SO | 48     | 0.44 | 0.18  |      |      | 18  | N/A      |
| 078SB-0025M-0001-SO | MERCURY                   | 0.02   | MG/KG | 0.1  | 0.034 | J    | 078SB-0026M-0001-SO | 0.02   | 0.11 | 0.037 | J    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | PCB-1016                  | 25     | UG/KG | 66   | 25    |      | 078SB-0026M-0001-SO | 25     | 66   | 25    | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | PCB-1221                  | 25     | UG/KG | 51   | 25    |      | 078SB-0026M-0001-SO | 25     | 50   | 25    | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | PCB-1232                  | 25     | UG/KG | 46   | 25    |      | 078SB-0026M-0001-SO | 25     | 45   | 25    | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | PCB-1242                  | 25     | UG/KG | 41   | 25    |      | 078SB-0026M-0001-SO | 25     | 40   | 25    | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | PCB-1248                  | 25     | UG/KG | 56   | 25    |      | 078SB-0026M-0001-SO | 25     | 55   | 25    | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | PCB-1254                  | 25     | UG/KG | 56   | 25    |      | 078SB-0026M-0001-SO | 25     | 55   | 25    | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | PCB-1260                  | 25     | UG/KG | 56   | 25    |      | 078SB-0026M-0001-SO | 25     | 55   | 25    | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | 1,1,1-TRICHLOROETHANE     | 1      | UG/KG | 5    | 1     | U    | 078SB-0026M-0001-SO | 1.9    | 9.5  | 1.9   | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | 1,1,2,2-TETRACHLOROETHANE | 0.5    | UG/KG | 5    | 0.5   | U    | 078SB-0026M-0001-SO | 0.95   | 9.5  | 0.95  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | 1,1,2-TRICHLOROETHANE     | 0.5    | UG/KG | 5    | 0.5   | U    | 078SB-0026M-0001-SO | 0.95   | 9.5  | 0.95  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | 1,1-DICHLOROETHANE        | 0.5    | UG/KG | 5    | 0.5   | U    | 078SB-0026M-0001-SO | 0.95   | 9.5  | 0.95  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | 1,1-DICHLOROETHENE        | 1      | UG/KG | 5    | 1     | U    | 078SB-0026M-0001-SO | 1.9    | 9.5  | 1.9   | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | 1,2-DIBROMOETHANE         | 1      | UG/KG | 5    | 1     | U    | 078SB-0026M-0001-SO | 1.9    | 9.5  | 1.9   | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | 1,2-DICHLOROETHANE        | 0.5    | UG/KG | 5    | 0.5   | U    | 078SB-0026M-0001-SO | 0.95   | 9.5  | 0.95  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | 1,2-DICHLOROPROPANE       | 1      | UG/KG | 5    | 1     | U    | 078SB-0026M-0001-SO | 1.9    | 9.5  | 1.9   | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | 2-HEXANONE                | 1      | UG/KG | 20   | 1     | U    | 078SB-0026M-0001-SO | 1.9    | 38   | 1.9   | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | ACETONE                   | 6.3    | UG/KG | 20   | 6.3   | U    | 078SB-0026M-0001-SO | 12     | 38   | 12    | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | BENZENE                   | 0.5    | UG/KG | 5    | 0.5   | U    | 078SB-0026M-0001-SO | 0.95   | 9.5  | 0.95  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | BROMOCHLOROMETHANE        | 1      | UG/KG | 5    | 1     | U    | 078SB-0026M-0001-SO | 1.9    | 9.5  | 1.9   | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | BROMODICHLOROMETHANE      | 0.5    | UG/KG | 5    | 0.5   | U    | 078SB-0026M-0001-SO | 0.95   | 9.5  | 0.95  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | BROMOFORM                 | 0.5    | UG/KG | 5    | 0.5   | U    | 078SB-0026M-0001-SO | 0.95   | 9.5  | 0.95  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | BROMOMETHANE              | 1      | UG/KG | 5    | 1     | U    | 078SB-0026M-0001-SO | 1.9    | 9.5  | 1.9   | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | CARBON DISULFIDE          | 0.5    | UG/KG | 5    | 0.5   | U    | 078SB-0026M-0001-SO | 0.95   | 9.5  | 0.95  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | CARBON TETRACHLORIDE      | 0.5    | UG/KG | 5    | 0.5   | U    | 078SB-0026M-0001-SO | 0.95   | 9.5  | 0.95  | U    |      | N/A | Yes      |

| Sample              | Analyte                   | Result | Units | LOQ  | LOD | Qual | Sample              | Result | LOQ  | LOD  | Qual | Code | RPD | W/In LOQ |
|---------------------|---------------------------|--------|-------|------|-----|------|---------------------|--------|------|------|------|------|-----|----------|
| 078SB-0025M-0001-SO | CHLOROBENZENE             | 0.5    | UG/KG | 5    | 0.5 | U    | 078SB-0026M-0001-SO | 0.95   | 9.5  | 0.95 | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | CHLOROETHANE              | 1      | UG/KG | 5    | 1   | U    | 078SB-0026M-0001-SO | 1.9    | 9.5  | 1.9  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | CHLOROFORM                | 0.5    | UG/KG | 5    | 0.5 | U    | 078SB-0026M-0001-SO | 0.95   | 9.5  | 0.95 | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | CHLOROMETHANE             | 0.5    | UG/KG | 5    | 0.5 | U    | 078SB-0026M-0001-SO | 0.95   | 9.5  | 0.95 | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | CIS-1,3-DICHLOROPROPENE   | 0.5    | UG/KG | 5    | 0.5 | U    | 078SB-0026M-0001-SO | 0.95   | 9.5  | 0.95 | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | DIBROMOCHLOROMETHANE      | 1      | UG/KG | 5    | 1   | U    | 078SB-0026M-0001-SO | 1.9    | 9.5  | 1.9  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | ETHYLBENZENE              | 0.5    | UG/KG | 5    | 0.5 | U    | 078SB-0026M-0001-SO | 0.95   | 9.5  | 0.95 | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | METHYL ETHYL KETONE       | 2      | UG/KG | 20   | 2   | U    | 078SB-0026M-0001-SO | 3.8    | 38   | 3.8  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | METHYL ISOBUTYL KETONE    | 1      | UG/KG | 20   | 1   | U    | 078SB-0026M-0001-SO | 1.9    | 38   | 1.9  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | METHYLENE CHLORIDE        | 1      | UG/KG | 5    | 1   | J    | 078SB-0026M-0001-SO | 1.9    | 9.5  | 1.9  | J    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | STYRENE                   | 0.5    | UG/KG | 5    | 0.5 | U    | 078SB-0026M-0001-SO | 0.95   | 9.5  | 0.95 | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | TETRACHLOROETHYLENE       | 1      | UG/KG | 5    | 1   | U    | 078SB-0026M-0001-SO | 1.9    | 9.5  | 1.9  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | TOLUENE                   | 0.5    | UG/KG | 5    | 0.5 | U    | 078SB-0026M-0001-SO | 0.95   | 9.5  | 0.95 | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | TOTAL 1,2-DICHLOROETHENE  | 1      | UG/KG | 10   | 1   | U    | 078SB-0026M-0001-SO | 1.9    | 19   | 1.9  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | TRANS-1,3-DICHLOROPROPENE | 1      | UG/KG | 5    | 1   | U    | 078SB-0026M-0001-SO | 1.9    | 9.5  | 1.9  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | TRICHLOROETHYLENE         | 0.5    | UG/KG | 5    | 0.5 | U    | 078SB-0026M-0001-SO | 0.95   | 9.5  | 0.95 | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | VINYL CHLORIDE            | 0.5    | UG/KG | 5    | 0.5 | U    | 078SB-0026M-0001-SO | 0.95   | 9.5  | 0.95 | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | XYLENES, TOTAL            | 1.5    | UG/KG | 10   | 1.5 | U    | 078SB-0026M-0001-SO | 2.9    | 19   | 2.9  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | 1,2,4-TRICHLOROBENZENE    | 140    | UG/KG | 250  | 140 | U    | 078SB-0026M-0001-SO | 140    | 250  | 140  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | 1,2-DICHLOROBENZENE       | 140    | UG/KG | 250  | 140 | U    | 078SB-0026M-0001-SO | 140    | 250  | 140  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | 1,3-DICHLOROBENZENE       | 140    | UG/KG | 250  | 140 | U    | 078SB-0026M-0001-SO | 140    | 250  | 140  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | 1,4-DICHLOROBENZENE       | 140    | UG/KG | 250  | 140 | U    | 078SB-0026M-0001-SO | 140    | 250  | 140  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | 2,4,5-TRICHLOROPHENOL     | 140    | UG/KG | 750  | 140 | U    | 078SB-0026M-0001-SO | 140    | 760  | 140  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | 2,4,6-TRICHLOROPHENOL     | 400    | UG/KG | 750  | 400 | U    | 078SB-0026M-0001-SO | 410    | 760  | 410  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | 2,4-DICHLOROPHENOL        | 140    | UG/KG | 750  | 140 | U    | 078SB-0026M-0001-SO | 140    | 760  | 140  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | 2,4-DIMETHYLPHENOL        | 400    | UG/KG | 750  | 400 | U    | 078SB-0026M-0001-SO | 410    | 760  | 410  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | 2,4-DINITROPHENOL         | 400    | UG/KG | 1700 | 400 | U    | 078SB-0026M-0001-SO | 410    | 1700 | 410  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | 2,4-DINITROTOLUENE        | 140    | UG/KG | 1000 | 140 | U    | 078SB-0026M-0001-SO | 140    | 1000 | 140  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | 2,6-DINITROTOLUENE        | 140    | UG/KG | 1000 | 140 | U    | 078SB-0026M-0001-SO | 140    | 1000 | 140  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | 2-CHLORONAPHTHALENE       | 17     | UG/KG | 250  | 17  | U    | 078SB-0026M-0001-SO | 17     | 250  | 17   | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | 2-CHLOROPHENOL            | 140    | UG/KG | 250  | 140 | U    | 078SB-0026M-0001-SO | 140    | 250  | 140  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | 2-METHYLNAPHTHALENE       | 17     | UG/KG | 33   | 17  | U    | 078SB-0026M-0001-SO | 17     | 34   | 17   | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | 2-METHYLPHENOL (O-CRESOL) | 400    | UG/KG | 1000 | 400 | U    | 078SB-0026M-0001-SO | 410    | 1000 | 410  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | 2-NITROANILINE            | 140    | UG/KG | 1000 | 140 | U    | 078SB-0026M-0001-SO | 140    | 1000 | 140  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | 2-NITROPHENOL             | 140    | UG/KG | 250  | 140 | U    | 078SB-0026M-0001-SO | 140    | 250  | 140  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | 3,3'-DICHLOROBENZIDINE    | 400    | UG/KG | 500  | 400 | U    | 078SB-0026M-0001-SO | 410    | 510  | 410  | U    |      | N/A | Yes      |

| Sample              | Analyte                      | Result | Units | LOQ  | LOD  | Qual | Sample              | Result | LOQ  | LOD  | Qual | Code | RPD | W/In LOQ |
|---------------------|------------------------------|--------|-------|------|------|------|---------------------|--------|------|------|------|------|-----|----------|
| 078SB-0025M-0001-SO | 3-NITROANILINE               | 400    | UG/KG | 1000 | 400  | U    | 078SB-0026M-0001-SO | 410    | 1000 | 410  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | 4,6-DINITRO-2-METHYLPHENOL   | 400    | UG/KG | 750  | 400  | U    | 078SB-0026M-0001-SO | 410    | 760  | 410  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | 4-BROMOPHENYL PHENYL ETHER   | 140    | UG/KG | 250  | 140  | U    | 078SB-0026M-0001-SO | 140    | 250  | 140  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | 4-CHLORO-3-METHYLPHENOL      | 140    | UG/KG | 750  | 140  | U    | 078SB-0026M-0001-SO | 140    | 760  | 140  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | 4-CHLOROANILINE              | 140    | UG/KG | 750  | 140  | U    | 078SB-0026M-0001-SO | 140    | 760  | 140  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | 4-CHLOROPHENYL PHENYL ETHER  | 140    | UG/KG | 250  | 140  | U    | 078SB-0026M-0001-SO | 140    | 250  | 140  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | 4-NITROANILINE               | 140    | UG/KG | 1000 | 140  | U    | 078SB-0026M-0001-SO | 140    | 1000 | 140  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | 4-NITROPHENOL                | 400    | UG/KG | 1700 | 400  | U    | 078SB-0026M-0001-SO | 410    | 1700 | 410  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | ACENAPHTHENE                 | 17     | UG/KG | 33   | 17   | U    | 078SB-0026M-0001-SO | 17     | 34   | 17   | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | ACENAPHTHYLENE               | 17     | UG/KG | 33   | 17   | U    | 078SB-0026M-0001-SO | 17     | 34   | 17   | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | ANTHRACENE                   | 17     | UG/KG | 33   | 17   | U    | 078SB-0026M-0001-SO | 17     | 34   | 17   | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | BENZO(A)ANTHRACENE           | 17     | UG/KG | 33   | 17   | U    | 078SB-0026M-0001-SO | 17     | 34   | 17   | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | BENZO(A)PYRENE               | 17     | UG/KG | 33   | 17   | U    | 078SB-0026M-0001-SO | 17     | 34   | 17   | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | BENZO(B)FLUORANTHENE         | 17     | UG/KG | 33   | 17   | U    | 078SB-0026M-0001-SO | 17     | 34   | 17   | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | BENZO(G,H,I)PERYLENE         | 17     | UG/KG | 33   | 17   | U    | 078SB-0026M-0001-SO | 17     | 34   | 17   | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | BENZO(K)FLUORANTHENE         | 17     | UG/KG | 33   | 17   | U    | 078SB-0026M-0001-SO | 17     | 34   | 17   | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | BENZOIC ACID                 | 1700   | UG/KG | 3300 | 1700 | U    | 078SB-0026M-0001-SO | 1700   | 3300 | 1700 | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | BENZYL ALCOHOL               | 140    | UG/KG | 1700 | 140  | U    | 078SB-0026M-0001-SO | 140    | 1700 | 140  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | BENZYL BUTYL PHTHALATE       | 140    | UG/KG | 250  | 140  | U    | 078SB-0026M-0001-SO | 140    | 250  | 140  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | BIS(2-CHLOROETHOXY) METHANE  | 140    | UG/KG | 500  | 140  | U    | 078SB-0026M-0001-SO | 140    | 510  | 140  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | BIS(2-CHLOROETHYL) ETHER     | 17     | UG/KG | 500  | 17   | U    | 078SB-0026M-0001-SO | 17     | 510  | 17   | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | BIS(2-CHLOROISOPROPYL) ETHER | 140    | UG/KG | 500  | 140  | U    | 078SB-0026M-0001-SO | 140    | 510  | 140  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | BIS(2-ETHYLHEXYL) PHTHALATE  | 140    | UG/KG | 250  | 140  | U    | 078SB-0026M-0001-SO | 140    | 250  | 140  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | CARBAZOLE                    | 140    | UG/KG | 250  | 140  | U    | 078SB-0026M-0001-SO | 140    | 250  | 140  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | CHRYSENE                     | 17     | UG/KG | 33   | 17   | U    | 078SB-0026M-0001-SO | 17     | 34   | 17   | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | CRESOLS, M & P               | 400    | UG/KG | 2000 | 400  | U    | 078SB-0026M-0001-SO | 410    | 2000 | 410  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | DIBENZ(A,H)ANTHRACENE        | 17     | UG/KG | 33   | 17   | U    | 078SB-0026M-0001-SO | 17     | 34   | 17   | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | DIBENZOFURAN                 | 17     | UG/KG | 250  | 17   | U    | 078SB-0026M-0001-SO | 17     | 250  | 17   | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | DIETHYL PHTHALATE            | 140    | UG/KG | 250  | 140  | U    | 078SB-0026M-0001-SO | 140    | 250  | 140  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | DIMETHYL PHTHALATE           | 140    | UG/KG | 250  | 140  | U    | 078SB-0026M-0001-SO | 140    | 250  | 140  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | DI-N-BUTYL PHTHALATE         | 140    | UG/KG | 250  | 140  | U    | 078SB-0026M-0001-SO | 140    | 250  | 140  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | DI-N-OCTYLPHTHALATE          | 140    | UG/KG | 250  | 140  | U    | 078SB-0026M-0001-SO | 140    | 250  | 140  | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | FLUORANTHENE                 | 17     | UG/KG | 33   | 17   | U    | 078SB-0026M-0001-SO | 17     | 34   | 17   | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | FLUORENE                     | 17     | UG/KG | 33   | 17   | U    | 078SB-0026M-0001-SO | 17     | 34   | 17   | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | HEXACHLOROBENZENE            | 17     | UG/KG | 33   | 17   | U    | 078SB-0026M-0001-SO | 17     | 34   | 17   | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | HEXACHLOROBUTADIENE          | 140    | UG/KG | 250  | 140  | U    | 078SB-0026M-0001-SO | 140    | 250  | 140  | U    |      | N/A | Yes      |



| Sample              | Analyte                   | Result | Units | LOQ  | LOD  | Qual | Sample              | Result | LOQ  | LOD   | Qual | Code | RPD | W/In LOQ |
|---------------------|---------------------------|--------|-------|------|------|------|---------------------|--------|------|-------|------|------|-----|----------|
| 078SB-0025M-0001-SO | HEXACHLOROCYCLOPENTADIENE | 140    | UG/KG | 1700 | 140  | U    | 078SB-0026M-0001-SO | 140    | 1700 | 140   | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | HEXACHLOROETHANE          | 140    | UG/KG | 250  | 140  | U    | 078SB-0026M-0001-SO | 140    | 250  | 140   | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | INDENO(1,2,3-C,D)PYRENE   | 17     | UG/KG | 33   | 17   | U    | 078SB-0026M-0001-SO | 17     | 34   | 17    | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | ISOPHORONE                | 140    | UG/KG | 250  | 140  | U    | 078SB-0026M-0001-SO | 140    | 250  | 140   | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | NAPHTHALENE               | 17     | UG/KG | 33   | 17   | U    | 078SB-0026M-0001-SO | 17     | 34   | 17    | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | NITROBENZENE              | 17     | UG/KG | 500  | 17   | U    | 078SB-0026M-0001-SO | 17     | 510  | 17    | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | N-NITROSODI-N-PROPYLAMINE | 140    | UG/KG | 250  | 140  | U    | 078SB-0026M-0001-SO | 140    | 250  | 140   | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | N-NITROSODIPHENYLAMINE    | 140    | UG/KG | 250  | 140  | U    | 078SB-0026M-0001-SO | 140    | 250  | 140   | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | PENTACHLOROPHENOL         | 400    | UG/KG | 750  | 400  | U    | 078SB-0026M-0001-SO | 410    | 760  | 410   | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | PHENANTHRENE              | 17     | UG/KG | 33   | 17   | U    | 078SB-0026M-0001-SO | 17     | 34   | 17    | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | PHENOL                    | 140    | UG/KG | 250  | 140  | U    | 078SB-0026M-0001-SO | 140    | 250  | 140   | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | PYRENE                    | 17     | UG/KG | 33   | 17   | U    | 078SB-0026M-0001-SO | 17     | 34   | 17    | U    |      | N/A | Yes      |
| 078SB-0025M-0001-SO | NITROGUANIDINE            | 0.04   | MG/KG | 0.25 | 0.04 |      | 078SB-0026M-0001-SO | 0.04   | 0.24 | 0.039 | U    |      | N/A | Yes      |

| Sample              | Analyte   | Result | Units | DL     | LOQ   | Qual | Sample              | Result | LOQ   | LOD    | Qual | Code | RPD | W/In LOQ |
|---------------------|-----------|--------|-------|--------|-------|------|---------------------|--------|-------|--------|------|------|-----|----------|
| 079SB-0150M-0001-SO | ALUMINUM  | 12000  | MG/KG | 0.28   | 3     |      | 079SB-0234M-0001-SO | 12000  | 3     | 0.59   |      |      | 0   | N/A      |
| 079SB-0150M-0001-SO | ANTIMONY  | 0.1    | MG/KG | 0.046  | 0.2   | U    | 079SB-0234M-0001-SO | 0.099  | 0.2   | 0.099  | R    | Q    | N/A | N/A      |
| 079SB-0150M-0001-SO | ARSENIC   | 9.8    | MG/KG | 0.018  | 0.1   |      | 079SB-0234M-0001-SO | 9.9    | 0.099 | 0.05   | J-   | Q    | 1   | N/A      |
| 079SB-0150M-0001-SO | BARIUM    | 88     | MG/KG | 0.011  | 1     |      | 079SB-0234M-0001-SO | 81     | 0.99  | 0.02   | J-   | E, Q | 8   | N/A      |
| 079SB-0150M-0001-SO | BERYLLIUM | 0.7    | MG/KG | 0.0075 | 0.1   |      | 079SB-0234M-0001-SO | 0.65   | 0.099 | 0.0099 |      |      | 7   | N/A      |
| 079SB-0150M-0001-SO | CADMIUM   | 0.15   | MG/KG | 0.013  | 0.1   |      | 079SB-0234M-0001-SO | 0.15   | 0.099 | 0.03   |      |      | 0   | N/A      |
| 079SB-0150M-0001-SO | CALCIUM   | 770    | MG/KG | 1.3    | 10    |      | 079SB-0234M-0001-SO | 750    | 9.9   | 2.5    |      |      | 3   | N/A      |
| 079SB-0150M-0001-SO | CHROMIUM  | 20     | MG/KG | 0.022  | 0.2   |      | 079SB-0234M-0001-SO | 19     | 0.2   | 0.04   |      |      | 5   | N/A      |
| 079SB-0150M-0001-SO | COBALT    | 12     | MG/KG | 0.0024 | 0.05  |      | 079SB-0234M-0001-SO | 13     | 0.05  | 0.0099 |      |      | 8   | N/A      |
| 079SB-0150M-0001-SO | COPPER    | 18     | MG/KG | 0.033  | 0.2   |      | 079SB-0234M-0001-SO | 17     | 0.2   | 0.059  | J-   | Q    | 6   | N/A      |
| 079SB-0150M-0001-SO | IRON      | 26000  | MG/KG | 1.1    | 5     |      | 079SB-0234M-0001-SO | 24000  | 5     | 2      |      |      | 8   | N/A      |
| 079SB-0150M-0001-SO | LEAD      | 14     | MG/KG | 0.015  | 0.1   |      | 079SB-0234M-0001-SO | 14     | 0.099 | 0.03   | J    | E    | 0   | N/A      |
| 079SB-0150M-0001-SO | MAGNESIUM | 4000   | MG/KG | 1.1    | 10    |      | 079SB-0234M-0001-SO | 3800   | 9.9   | 2      |      |      | 5   | N/A      |
| 079SB-0150M-0001-SO | MANGANESE | 370    | MG/KG | 0.016  | 0.5   |      | 079SB-0234M-0001-SO | 490    | 0.5   | 0.03   | J    | E    | 28  | N/A      |
| 079SB-0150M-0001-SO | NICKEL    | 32     | MG/KG | 0.011  | 0.1   |      | 079SB-0234M-0001-SO | 28     | 0.099 | 0.03   | J-   | Q    | 13  | N/A      |
| 079SB-0150M-0001-SO | POTASSIUM | 1100   | MG/KG | 3.2    | 10    |      | 079SB-0234M-0001-SO | 1100   | 9.9   | 5.9    |      |      | 0   | N/A      |
| 079SB-0150M-0001-SO | SELENIUM  | 0.25   | MG/KG | 0.051  | 0.5   | J    | 079SB-0234M-0001-SO | 0.23   | 0.5   | 0.099  | J-   | Q    | 8   | N/A      |
| 079SB-0150M-0001-SO | SILVER    | 0.022  | MG/KG | 0.011  | 0.1   | J    | 079SB-0234M-0001-SO | 0.023  | 0.099 | 0.03   | J    |      | 4   | N/A      |
| 079SB-0150M-0001-SO | SODIUM    | 140    | MG/KG | 2.7    | 10    |      | 079SB-0234M-0001-SO | 120    | 9.9   | 5      | J    | E    | 15  | N/A      |
| 079SB-0150M-0001-SO | THALLIUM  | 0.15   | MG/KG | 0.01   | 0.1   |      | 079SB-0234M-0001-SO | 0.15   | 0.099 | 0.02   | J    | E    | 0   | N/A      |
| 079SB-0150M-0001-SO | VANADIUM  | 19     | MG/KG | 0.03   | 0.1   |      | 079SB-0234M-0001-SO | 18     | 0.099 | 0.059  |      |      | 5   | N/A      |
| 079SB-0150M-0001-SO | ZINC      | 54     | MG/KG | 0.065  | 0.5   |      | 079SB-0234M-0001-SO | 53     | 0.5   | 0.2    | J-   | Q    | 2   | N/A      |
| 079SB-0150M-0001-SO | MERCURY   | 0.018  | MG/KG | 0.016  | 0.11  | J    | 079SB-0234M-0001-SO | 0.025  | 0.09  | 0.03   | J    |      | 33  | N/A      |
| 079SB-0165M-0001-SO | ALUMINUM  | 2900   | MG/KG | 0.28   | 2.9   |      | 079SB-0236M-0001-SO | 4000   | 3     | 0.6    |      |      | 32  | N/A      |
| 079SB-0165M-0001-SO | ANTIMONY  | 0.098  | MG/KG | 0.045  | 0.2   | U    | 079SB-0236M-0001-SO | 0.1    | 0.2   | 0.1    | R    | Q    | N/A | N/A      |
| 079SB-0165M-0001-SO | ARSENIC   | 9.2    | MG/KG | 0.018  | 0.098 |      | 079SB-0236M-0001-SO | 11     | 0.1   | 0.05   | J-   | Q    | 18  | N/A      |
| 079SB-0165M-0001-SO | BARIUM    | 260    | MG/KG | 0.01   | 0.98  |      | 079SB-0236M-0001-SO | 100    | 1     | 0.02   | J-   | E, Q | 89  | N/A      |
| 079SB-0165M-0001-SO | BERYLLIUM | 0.24   | MG/KG | 0.0074 | 0.098 |      | 079SB-0236M-0001-SO | 0.25   | 0.1   | 0.01   |      |      | 4   | N/A      |
| 079SB-0165M-0001-SO | CADMIUM   | 0.07   | MG/KG | 0.013  | 0.098 | J    | 079SB-0236M-0001-SO | 0.059  | 0.1   | 0.03   | J    |      | 17  | N/A      |
| 079SB-0165M-0001-SO | CALCIUM   | 230    | MG/KG | 1.3    | 9.8   |      | 079SB-0236M-0001-SO | 310    | 10    | 2.5    |      |      | 30  | N/A      |
| 079SB-0165M-0001-SO | CHROMIUM  | 8.5    | MG/KG | 0.022  | 0.2   |      | 079SB-0236M-0001-SO | 17     | 0.2   | 0.04   |      |      | 67  | N/A      |
| 079SB-0165M-0001-SO | COBALT    | 5.2    | MG/KG | 0.0024 | 0.049 |      | 079SB-0236M-0001-SO | 5.2    | 0.05  | 0.01   |      |      | 0   | N/A      |
| 079SB-0165M-0001-SO | COPPER    | 5.5    | MG/KG | 0.032  | 0.2   |      | 079SB-0236M-0001-SO | 7.2    | 0.2   | 0.06   | J-   | Q    | 27  | N/A      |
| 079SB-0165M-0001-SO | IRON      | 8300   | MG/KG | 1.1    | 4.9   |      | 079SB-0236M-0001-SO | 12000  | 5     | 2      |      |      | 36  | N/A      |
| 079SB-0165M-0001-SO | LEAD      | 5.9    | MG/KG | 0.015  | 0.098 |      | 079SB-0236M-0001-SO | 6.4    | 0.1   | 0.03   | J    | E    | 8   | N/A      |
| 079SB-0165M-0001-SO | MAGNESIUM | 970    | MG/KG | 1.1    | 9.8   |      | 079SB-0236M-0001-SO | 1200   | 10    | 2      |      |      | 21  | N/A      |

| Sample              | Analyte   | Result | Units | DL     | LOQ   | Qual | Sample              | Result | LOQ   | LOD    | Qual | Code | RPD | W/In LOQ |
|---------------------|-----------|--------|-------|--------|-------|------|---------------------|--------|-------|--------|------|------|-----|----------|
| 079SB-0165M-0001-SO | MANGANESE | 1900   | MG/KG | 0.016  | 0.49  |      | 079SB-0236M-0001-SO | 2500   | 5     | 0.3    | J    | E    | 27  | N/A      |
| 079SB-0165M-0001-SO | NICKEL    | 16     | MG/KG | 0.011  | 0.098 |      | 079SB-0236M-0001-SO | 14     | 0.1   | 0.03   | J-   | Q    | 13  | N/A      |
| 079SB-0165M-0001-SO | POTASSIUM | 430    | MG/KG | 3.1    | 9.8   |      | 079SB-0236M-0001-SO | 620    | 10    | 6      |      |      | 36  | N/A      |
| 079SB-0165M-0001-SO | SELENIUM  | 0.06   | MG/KG | 0.05   | 0.49  | J    | 079SB-0236M-0001-SO | 0.12   | 0.5   | 0.1    | J-   | Q    | 67  | N/A      |
| 079SB-0165M-0001-SO | SILVER    | 0.012  | MG/KG | 0.011  | 0.098 | J    | 079SB-0236M-0001-SO | 0.014  | 0.1   | 0.03   | J    |      | 15  | N/A      |
| 079SB-0165M-0001-SO | SODIUM    | 34     | MG/KG | 2.6    | 9.8   |      | 079SB-0236M-0001-SO | 48     | 10    | 5      | J    | E    | 34  | N/A      |
| 079SB-0165M-0001-SO | THALLIUM  | 0.15   | MG/KG | 0.01   | 0.098 |      | 079SB-0236M-0001-SO | 0.18   | 0.1   | 0.02   | J    | E    | 18  | N/A      |
| 079SB-0165M-0001-SO | VANADIUM  | 5.3    | MG/KG | 0.029  | 0.098 |      | 079SB-0236M-0001-SO | 7.6    | 0.1   | 0.06   |      |      | 36  | N/A      |
| 079SB-0165M-0001-SO | ZINC      | 21     | MG/KG | 0.064  | 0.49  |      | 079SB-0236M-0001-SO | 24     | 0.5   | 0.2    | J-   | Q    | 13  | N/A      |
| 079SB-0165M-0001-SO | MERCURY   | 0.018  | MG/KG | 0.014  | 0.098 | J    | 079SB-0236M-0001-SO | 0.038  | 0.12  | 0.038  | U    |      | 71  | N/A      |
| 079SB-0217M-0001-SO | ALUMINUM  | 6100   | MG/KG | 0.27   | 2.8   |      | 079SB-0319M-0001-SO | 6100   | 2.9   | 0.58   |      |      | 0   | N/A      |
| 079SB-0217M-0001-SO | ANTIMONY  | 0.053  | MG/KG | 0.043  | 0.19  | J-   | 079SB-0319M-0001-SO | 0.049  | 0.19  | 0.097  | J    |      | 8   | N/A      |
| 079SB-0217M-0001-SO | ARSENIC   | 6.6    | MG/KG | 0.017  | 0.094 | J-   | 079SB-0319M-0001-SO | 7.1    | 0.097 | 0.049  |      |      | 7   | N/A      |
| 079SB-0217M-0001-SO | BARIUM    | 36     | MG/KG | 0.01   | 0.94  | J-   | 079SB-0319M-0001-SO | 45     | 0.97  | 0.019  |      |      | 22  | N/A      |
| 079SB-0217M-0001-SO | BERYLLIUM | 0.36   | MG/KG | 0.0071 | 0.094 |      | 079SB-0319M-0001-SO | 0.41   | 0.097 | 0.0097 |      |      | 13  | N/A      |
| 079SB-0217M-0001-SO | CADMIUM   | 0.13   | MG/KG | 0.012  | 0.094 |      | 079SB-0319M-0001-SO | 0.32   | 0.097 | 0.029  |      |      | 84  | N/A      |
| 079SB-0217M-0001-SO | CALCIUM   | 330    | MG/KG | 1.3    | 9.4   |      | 079SB-0319M-0001-SO | 360    | 9.7   | 2.4    |      |      | 9   | N/A      |
| 079SB-0217M-0001-SO | CHROMIUM  | 8.2    | MG/KG | 0.021  | 0.19  |      | 079SB-0319M-0001-SO | 8.7    | 0.19  | 0.039  |      |      | 6   | N/A      |
| 079SB-0217M-0001-SO | COBALT    | 6.9    | MG/KG | 0.0023 | 0.047 |      | 079SB-0319M-0001-SO | 8.6    | 0.049 | 0.0097 |      |      | 22  | N/A      |
| 079SB-0217M-0001-SO | COPPER    | 11     | MG/KG | 0.031  | 0.19  | J-   | 079SB-0319M-0001-SO | 11     | 0.19  | 0.058  |      |      | 0   | N/A      |
| 079SB-0217M-0001-SO | IRON      | 15000  | MG/KG | 1      | 4.7   |      | 079SB-0319M-0001-SO | 18000  | 4.9   | 1.9    |      |      | 18  | N/A      |
| 079SB-0217M-0001-SO | LEAD      | 8.6    | MG/KG | 0.015  | 0.094 | J    | 079SB-0319M-0001-SO | 8.8    | 0.097 | 0.029  |      |      | 2   | N/A      |
| 079SB-0217M-0001-SO | MAGNESIUM | 1700   | MG/KG | 1      | 9.4   |      | 079SB-0319M-0001-SO | 1800   | 9.7   | 1.9    |      |      | 6   | N/A      |
| 079SB-0217M-0001-SO | MANGANESE | 490    | MG/KG | 0.015  | 0.47  | J    | 079SB-0319M-0001-SO | 880    | 0.49  | 0.029  |      |      | 57  | N/A      |
| 079SB-0217M-0001-SO | NICKEL    | 15     | MG/KG | 0.011  | 0.094 | J-   | 079SB-0319M-0001-SO | 20     | 0.097 | 0.029  |      |      | 29  | N/A      |
| 079SB-0217M-0001-SO | POTASSIUM | 690    | MG/KG | 3      | 9.4   |      | 079SB-0319M-0001-SO | 730    | 9.7   | 5.8    |      |      | 6   | N/A      |
| 079SB-0217M-0001-SO | SELENIUM  | 0.21   | MG/KG | 0.048  | 0.47  | J-   | 079SB-0319M-0001-SO | 0.18   | 0.49  | 0.097  | J    |      | 15  | N/A      |
| 079SB-0217M-0001-SO | SILVER    | 0.02   | MG/KG | 0.011  | 0.094 | J    | 079SB-0319M-0001-SO | 0.029  | 0.097 | 0.029  | J    |      | 37  | N/A      |
| 079SB-0217M-0001-SO | SODIUM    | 32     | MG/KG | 2.5    | 9.4   | J    | 079SB-0319M-0001-SO | 34     | 9.7   | 4.9    |      |      | 6   | N/A      |
| 079SB-0217M-0001-SO | THALLIUM  | 0.12   | MG/KG | 0.0096 | 0.094 | J    | 079SB-0319M-0001-SO | 0.13   | 0.097 | 0.019  |      |      | 8   | N/A      |
| 079SB-0217M-0001-SO | VANADIUM  | 9.8    | MG/KG | 0.028  | 0.094 |      | 079SB-0319M-0001-SO | 9.9    | 0.097 | 0.058  |      |      | 1   | N/A      |
| 079SB-0217M-0001-SO | ZINC      | 46     | MG/KG | 0.061  | 0.47  | J-   | 079SB-0319M-0001-SO | 67     | 0.49  | 0.19   |      |      | 37  | N/A      |
| 079SB-0217M-0001-SO | MERCURY   | 0.034  | MG/KG | 0.016  | 0.12  | J    | 079SB-0319M-0001-SO | 0.037  | 0.1   | 0.034  | J    |      | 8   | N/A      |
| 079SB-0247M-0001-SO | ALUMINUM  | 2100   | MG/KG | 0.28   | 2.9   |      | 079SB-0325M-0001-SO | 1900   | 2.9   | 0.58   |      |      | 10  | N/A      |
| 079SB-0247M-0001-SO | ANTIMONY  | 0.19   | MG/KG | 0.045  | 0.2   | J-   | 079SB-0325M-0001-SO | 0.074  | 0.19  | 0.097  | J    |      | 88  | N/A      |
| 079SB-0247M-0001-SO | ARSENIC   | 4.7    | MG/KG | 0.018  | 0.098 | J-   | 079SB-0325M-0001-SO | 4.3    | 0.097 | 0.049  |      |      | 9   | N/A      |

| Sample              | Analyte   | Result | Units | DL     | LOQ   | Qual | Sample              | Result | LOQ   | LOD    | Qual | Code | RPD | W/In LOQ |
|---------------------|-----------|--------|-------|--------|-------|------|---------------------|--------|-------|--------|------|------|-----|----------|
| 079SB-0247M-0001-SO | BARIUM    | 45     | MG/KG | 0.01   | 0.98  |      | 079SB-0325M-0001-SO | 29     | 0.97  | 0.019  |      |      | 43  | N/A      |
| 079SB-0247M-0001-SO | BERYLLIUM | 0.14   | MG/KG | 0.0074 | 0.098 |      | 079SB-0325M-0001-SO | 0.12   | 0.097 | 0.0097 |      |      | 15  | N/A      |
| 079SB-0247M-0001-SO | CADMIUM   | 0.055  | MG/KG | 0.013  | 0.098 | J    | 079SB-0325M-0001-SO | 0.06   | 0.097 | 0.029  | J    |      | 9   | N/A      |
| 079SB-0247M-0001-SO | CALCIUM   | 210    | MG/KG | 1.3    | 9.8   |      | 079SB-0325M-0001-SO | 480    | 9.7   | 2.4    |      |      | 78  | N/A      |
| 079SB-0247M-0001-SO | CHROMIUM  | 7.8    | MG/KG | 0.022  | 0.2   |      | 079SB-0325M-0001-SO | 7.4    | 0.19  | 0.039  |      |      | 5   | N/A      |
| 079SB-0247M-0001-SO | COBALT    | 4.5    | MG/KG | 0.0024 | 0.049 |      | 079SB-0325M-0001-SO | 4.7    | 0.049 | 0.0097 |      |      | 4   | N/A      |
| 079SB-0247M-0001-SO | COPPER    | 3.6    | MG/KG | 0.032  | 0.2   |      | 079SB-0325M-0001-SO | 3.8    | 0.19  | 0.058  |      |      | 5   | N/A      |
| 079SB-0247M-0001-SO | IRON      | 6800   | MG/KG | 1.1    | 4.9   |      | 079SB-0325M-0001-SO | 6000   | 4.9   | 1.9    |      |      | 13  | N/A      |
| 079SB-0247M-0001-SO | LEAD      | 3.6    | MG/KG | 0.015  | 0.098 |      | 079SB-0325M-0001-SO | 3.4    | 0.097 | 0.029  |      |      | 6   | N/A      |
| 079SB-0247M-0001-SO | MAGNESIUM | 450    | MG/KG | 1.1    | 9.8   |      | 079SB-0325M-0001-SO | 480    | 9.7   | 1.9    |      |      | 6   | N/A      |
| 079SB-0247M-0001-SO | MANGANESE | 950    | MG/KG | 0.016  | 0.49  |      | 079SB-0325M-0001-SO | 2300   | 4.9   | 0.29   |      |      | 83  | N/A      |
| 079SB-0247M-0001-SO | NICKEL    | 11     | MG/KG | 0.011  | 0.098 |      | 079SB-0325M-0001-SO | 12     | 0.097 | 0.029  |      |      | 9   | N/A      |
| 079SB-0247M-0001-SO | POTASSIUM | 350    | MG/KG | 3.1    | 9.8   |      | 079SB-0325M-0001-SO | 320    | 9.7   | 5.8    |      |      | 9   | N/A      |
| 079SB-0247M-0001-SO | SELENIUM  | 0.098  | MG/KG | 0.05   | 0.49  | UJ   | 079SB-0325M-0001-SO | 0.097  | 0.49  | 0.097  | U    |      | 1   | N/A      |
| 079SB-0247M-0001-SO | SILVER    | 0.029  | MG/KG | 0.011  | 0.098 | U    | 079SB-0325M-0001-SO | 0.029  | 0.097 | 0.029  | U    |      | 0   | N/A      |
| 079SB-0247M-0001-SO | SODIUM    | 24     | MG/KG | 2.6    | 9.8   |      | 079SB-0325M-0001-SO | 20     | 9.7   | 4.9    |      |      | 18  | N/A      |
| 079SB-0247M-0001-SO | THALLIUM  | 0.061  | MG/KG | 0.01   | 0.098 | J    | 079SB-0325M-0001-SO | 0.061  | 0.097 | 0.019  | J    |      | 0   | N/A      |
| 079SB-0247M-0001-SO | VANADIUM  | 4.2    | MG/KG | 0.029  | 0.098 |      | 079SB-0325M-0001-SO | 4.7    | 0.097 | 0.058  |      |      | 11  | N/A      |
| 079SB-0247M-0001-SO | ZINC      | 21     | MG/KG | 0.064  | 0.49  | J-   | 079SB-0325M-0001-SO | 19     | 0.49  | 0.19   |      |      | 10  | N/A      |
| 079SB-0247M-0001-SO | MERCURY   | 0.031  | MG/KG | 0.013  | 0.095 | U    | 079SB-0325M-0001-SO | 0.017  | 0.11  | 0.035  | J    |      | 58  | N/A      |
| 079SB-0267M-0001-SO | ALUMINUM  | 8400   | MG/KG | 0.28   | 3     |      | 079SB-0322M-0001-SO | 7200   | 3     | 0.59   |      |      | 15  | N/A      |
| 079SB-0267M-0001-SO | ANTIMONY  | 0.099  | MG/KG | 0.045  | 0.2   | UJ   | 079SB-0322M-0001-SO | 0.099  | 0.2   | 0.099  | U    |      | 0   | N/A      |
| 079SB-0267M-0001-SO | ARSENIC   | 51     | MG/KG | 0.018  | 0.099 | J-   | 079SB-0322M-0001-SO | 36     | 0.099 | 0.05   |      |      | 34  | N/A      |
| 079SB-0267M-0001-SO | BARIUM    | 58     | MG/KG | 0.011  | 0.99  |      | 079SB-0322M-0001-SO | 48     | 0.99  | 0.02   |      |      | 19  | N/A      |
| 079SB-0267M-0001-SO | BERYLLIUM | 0.57   | MG/KG | 0.0074 | 0.099 |      | 079SB-0322M-0001-SO | 0.48   | 0.099 | 0.0099 |      |      | 17  | N/A      |
| 079SB-0267M-0001-SO | CADMIUM   | 0.1    | MG/KG | 0.013  | 0.099 |      | 079SB-0322M-0001-SO | 0.084  | 0.099 | 0.03   | J    |      | 17  | N/A      |
| 079SB-0267M-0001-SO | CALCIUM   | 3800   | MG/KG | 1.3    | 9.9   |      | 079SB-0322M-0001-SO | 1900   | 9.9   | 2.5    |      |      | 67  | N/A      |
| 079SB-0267M-0001-SO | CHROMIUM  | 12     | MG/KG | 0.022  | 0.2   |      | 079SB-0322M-0001-SO | 10     | 0.2   | 0.04   |      |      | 18  | N/A      |
| 079SB-0267M-0001-SO | COBALT    | 7.3    | MG/KG | 0.0024 | 0.05  |      | 079SB-0322M-0001-SO | 6.3    | 0.05  | 0.0099 |      |      | 15  | N/A      |
| 079SB-0267M-0001-SO | COPPER    | 12     | MG/KG | 0.033  | 0.2   |      | 079SB-0322M-0001-SO | 12     | 0.2   | 0.059  |      |      | 0   | N/A      |
| 079SB-0267M-0001-SO | IRON      | 18000  | MG/KG | 1.1    | 5     |      | 079SB-0322M-0001-SO | 17000  | 5     | 2      |      |      | 6   | N/A      |
| 079SB-0267M-0001-SO | LEAD      | 12     | MG/KG | 0.015  | 0.099 |      | 079SB-0322M-0001-SO | 9.6    | 0.099 | 0.03   |      |      | 22  | N/A      |
| 079SB-0267M-0001-SO | MAGNESIUM | 2900   | MG/KG | 1.1    | 9.9   |      | 079SB-0322M-0001-SO | 2300   | 9.9   | 2      |      |      | 23  | N/A      |
| 079SB-0267M-0001-SO | MANGANESE | 390    | MG/KG | 0.016  | 0.5   |      | 079SB-0322M-0001-SO | 280    | 0.5   | 0.03   |      |      | 33  | N/A      |
| 079SB-0267M-0001-SO | NICKEL    | 17     | MG/KG | 0.011  | 0.099 |      | 079SB-0322M-0001-SO | 16     | 0.099 | 0.03   |      |      | 6   | N/A      |
| 079SB-0267M-0001-SO | POTASSIUM | 1300   | MG/KG | 3.1    | 9.9   |      | 079SB-0322M-0001-SO | 1100   | 9.9   | 5.9    |      |      | 17  | N/A      |

| Sample              | Analyte   | Result | Units | DL     | LOQ   | Qual | Sample              | Result | LOQ   | LOD    | Qual | Code | RPD | W/In LOQ |
|---------------------|-----------|--------|-------|--------|-------|------|---------------------|--------|-------|--------|------|------|-----|----------|
| 079SB-0267M-0001-SO | SELENIUM  | 0.22   | MG/KG | 0.05   | 0.5   | J-   | 079SB-0322M-0001-SO | 0.11   | 0.5   | 0.099  | J    |      | 67  | N/A      |
| 079SB-0267M-0001-SO | SILVER    | 0.018  | MG/KG | 0.011  | 0.099 | J    | 079SB-0322M-0001-SO | 0.015  | 0.099 | 0.03   | J    |      | 18  | N/A      |
| 079SB-0267M-0001-SO | SODIUM    | 240    | MG/KG | 2.6    | 9.9   |      | 079SB-0322M-0001-SO | 240    | 9.9   | 5      |      |      | 0   | N/A      |
| 079SB-0267M-0001-SO | THALLIUM  | 0.12   | MG/KG | 0.01   | 0.099 |      | 079SB-0322M-0001-SO | 0.11   | 0.099 | 0.02   |      |      | 9   | N/A      |
| 079SB-0267M-0001-SO | VANADIUM  | 13     | MG/KG | 0.03   | 0.099 |      | 079SB-0322M-0001-SO | 11     | 0.099 | 0.059  |      |      | 17  | N/A      |
| 079SB-0267M-0001-SO | ZINC      | 36     | MG/KG | 0.064  | 0.5   | J-   | 079SB-0322M-0001-SO | 39     | 0.5   | 0.2    |      |      | 8   | N/A      |
| 079SB-0267M-0001-SO | MERCURY   | 0.023  | MG/KG | 0.015  | 0.11  | J    | 079SB-0322M-0001-SO | 0.017  | 0.12  | 0.039  | J    |      | 30  | N/A      |
| 079SB-0269M-0001-SO | ALUMINUM  | 2300   | MG/KG | 0.28   | 3     |      | 079SB-0323M-0001-SO | 3800   | 3     | 0.59   |      |      | 49  | N/A      |
| 079SB-0269M-0001-SO | ANTIMONY  | 0.099  | MG/KG | 0.045  | 0.2   | UJ   | 079SB-0323M-0001-SO | 0.099  | 0.2   | 0.099  | U    |      | 0   | N/A      |
| 079SB-0269M-0001-SO | ARSENIC   | 27     | MG/KG | 0.018  | 0.099 | J-   | 079SB-0323M-0001-SO | 43     | 0.099 | 0.05   |      |      | 46  | N/A      |
| 079SB-0269M-0001-SO | BARIUM    | 39     | MG/KG | 0.011  | 0.99  |      | 079SB-0323M-0001-SO | 48     | 0.99  | 0.02   |      |      | 21  | N/A      |
| 079SB-0269M-0001-SO | BERYLLIUM | 0.19   | MG/KG | 0.0074 | 0.099 |      | 079SB-0323M-0001-SO | 0.3    | 0.099 | 0.0099 |      |      | 45  | N/A      |
| 079SB-0269M-0001-SO | CADMIUM   | 0.035  | MG/KG | 0.013  | 0.099 | J    | 079SB-0323M-0001-SO | 0.06   | 0.099 | 0.03   | J    |      | 53  | N/A      |
| 079SB-0269M-0001-SO | CALCIUM   | 1400   | MG/KG | 1.3    | 9.9   |      | 079SB-0323M-0001-SO | 2900   | 9.9   | 2.5    |      |      | 70  | N/A      |
| 079SB-0269M-0001-SO | CHROMIUM  | 4.6    | MG/KG | 0.022  | 0.2   |      | 079SB-0323M-0001-SO | 7.3    | 0.2   | 0.04   |      |      | 45  | N/A      |
| 079SB-0269M-0001-SO | COBALT    | 2.7    | MG/KG | 0.0024 | 0.05  |      | 079SB-0323M-0001-SO | 3.1    | 0.05  | 0.0099 |      |      | 14  | N/A      |
| 079SB-0269M-0001-SO | COPPER    | 18     | MG/KG | 0.033  | 0.2   |      | 079SB-0323M-0001-SO | 18     | 0.2   | 0.059  |      |      | 0   | N/A      |
| 079SB-0269M-0001-SO | IRON      | 6400   | MG/KG | 1.1    | 5     |      | 079SB-0323M-0001-SO | 8000   | 5     | 2      |      |      | 22  | N/A      |
| 079SB-0269M-0001-SO | LEAD      | 160    | MG/KG | 0.015  | 0.099 |      | 079SB-0323M-0001-SO | 210    | 0.099 | 0.03   |      |      | 27  | N/A      |
| 079SB-0269M-0001-SO | MAGNESIUM | 980    | MG/KG | 1.1    | 9.9   |      | 079SB-0323M-0001-SO | 1700   | 9.9   | 2      |      |      | 54  | N/A      |
| 079SB-0269M-0001-SO | MANGANESE | 5000   | MG/KG | 0.16   | 5     |      | 079SB-0323M-0001-SO | 5000   | 5     | 0.3    |      |      | 0   | N/A      |
| 079SB-0269M-0001-SO | NICKEL    | 6.8    | MG/KG | 0.011  | 0.099 |      | 079SB-0323M-0001-SO | 8.9    | 0.099 | 0.03   |      |      | 27  | N/A      |
| 079SB-0269M-0001-SO | POTASSIUM | 490    | MG/KG | 3.1    | 9.9   |      | 079SB-0323M-0001-SO | 780    | 9.9   | 5.9    |      |      | 46  | N/A      |
| 079SB-0269M-0001-SO | SELENIUM  | 0.099  | MG/KG | 0.05   | 0.5   | UJ   | 079SB-0323M-0001-SO | 0.061  | 0.5   | 0.099  | J    |      | 48  | N/A      |
| 079SB-0269M-0001-SO | SILVER    | 0.03   | MG/KG | 0.011  | 0.099 | U    | 079SB-0323M-0001-SO | 0.012  | 0.099 | 0.03   | J    |      | 86  | N/A      |
| 079SB-0269M-0001-SO | SODIUM    | 130    | MG/KG | 2.6    | 9.9   |      | 079SB-0323M-0001-SO | 180    | 9.9   | 5      |      |      | 32  | N/A      |
| 079SB-0269M-0001-SO | THALLIUM  | 0.049  | MG/KG | 0.01   | 0.099 | J    | 079SB-0323M-0001-SO | 0.073  | 0.099 | 0.02   | J    |      | 39  | N/A      |
| 079SB-0269M-0001-SO | VANADIUM  | 5      | MG/KG | 0.03   | 0.099 |      | 079SB-0323M-0001-SO | 7.1    | 0.099 | 0.059  |      |      | 35  | N/A      |
| 079SB-0269M-0001-SO | ZINC      | 17     | MG/KG | 0.064  | 0.5   | J-   | 079SB-0323M-0001-SO | 22     | 0.5   | 0.2    |      |      | 26  | N/A      |
| 079SB-0269M-0001-SO | MERCURY   | 0.034  | MG/KG | 0.014  | 0.1   | U    | 079SB-0323M-0001-SO | 0.036  | 0.11  | 0.036  | U    |      | 6   | N/A      |
| 079SD-0305-0001-SD  | ALUMINUM  | 12000  | MG/KG | 0.47   | 5     |      | 079SD-0306-0001-SD  | 13000  | 5.5   | 1.1    |      |      | 8   | N/A      |
| 079SD-0305-0001-SD  | ANTIMONY  | 0.14   | MG/KG | 0.076  | 0.33  | J-   | 079SD-0306-0001-SD  | 0.13   | 0.36  | 0.18   | J    |      | 7   | N/A      |
| 079SD-0305-0001-SD  | ARSENIC   | 240    | MG/KG | 0.03   | 0.17  |      | 079SD-0306-0001-SD  | 180    | 0.18  | 0.091  |      |      | 29  | N/A      |
| 079SD-0305-0001-SD  | BARIUM    | 71     | MG/KG | 0.018  | 1.7   | J    | 079SD-0306-0001-SD  | 74     | 1.8   | 0.036  |      |      | 4   | N/A      |
| 079SD-0305-0001-SD  | BERYLLIUM | 0.65   | MG/KG | 0.012  | 0.17  |      | 079SD-0306-0001-SD  | 0.68   | 0.18  | 0.018  |      |      | 5   | N/A      |
| 079SD-0305-0001-SD  | CADMIUM   | 0.35   | MG/KG | 0.022  | 0.17  |      | 079SD-0306-0001-SD  | 0.37   | 0.18  | 0.055  |      |      | 6   | N/A      |

| Sample             | Analyte   | Result | Units | DL    | LOQ   | Qual | Sample             | Result | LOQ   | LOD   | Qual | Code | RPD | W/In LOQ |
|--------------------|-----------|--------|-------|-------|-------|------|--------------------|--------|-------|-------|------|------|-----|----------|
| 079SD-0305-0001-SD | CALCIUM   | 2400   | MG/KG | 2.2   | 17    | J    | 079SD-0306-0001-SD | 2100   | 18    | 4.6   |      |      | 13  | N/A      |
| 079SD-0305-0001-SD | CHROMIUM  | 28     | MG/KG | 0.037 | 0.33  |      | 079SD-0306-0001-SD | 29     | 0.36  | 0.073 |      |      | 4   | N/A      |
| 079SD-0305-0001-SD | COBALT    | 8.6    | MG/KG | 0.004 | 0.083 |      | 079SD-0306-0001-SD | 8.6    | 0.091 | 0.018 |      |      | 0   | N/A      |
| 079SD-0305-0001-SD | COPPER    | 21     | MG/KG | 0.055 | 0.33  |      | 079SD-0306-0001-SD | 24     | 0.36  | 0.11  |      |      | 13  | N/A      |
| 079SD-0305-0001-SD | IRON      | 21000  | MG/KG | 1.8   | 8.3   |      | 079SD-0306-0001-SD | 20000  | 9.1   | 3.6   |      |      | 5   | N/A      |
| 079SD-0305-0001-SD | LEAD      | 51     | MG/KG | 0.025 | 0.17  |      | 079SD-0306-0001-SD | 50     | 0.18  | 0.055 |      |      | 2   | N/A      |
| 079SD-0305-0001-SD | MAGNESIUM | 2800   | MG/KG | 1.8   | 17    |      | 079SD-0306-0001-SD | 2700   | 18    | 3.6   |      |      | 4   | N/A      |
| 079SD-0305-0001-SD | MANGANESE | 710    | MG/KG | 0.026 | 0.83  |      | 079SD-0306-0001-SD | 470    | 0.91  | 0.055 |      |      | 41  | N/A      |
| 079SD-0305-0001-SD | NICKEL    | 29     | MG/KG | 0.019 | 0.17  |      | 079SD-0306-0001-SD | 29     | 0.18  | 0.055 |      |      | 0   | N/A      |
| 079SD-0305-0001-SD | POTASSIUM | 1500   | MG/KG | 5.2   | 17    |      | 079SD-0306-0001-SD | 1900   | 18    | 11    |      |      | 24  | N/A      |
| 079SD-0305-0001-SD | SELENIUM  | 0.61   | MG/KG | 0.084 | 0.83  | J-   | 079SD-0306-0001-SD | 1      | 0.91  | 0.18  | J    |      | 48  | N/A      |
| 079SD-0305-0001-SD | SILVER    | 0.08   | MG/KG | 0.019 | 0.17  | J    | 079SD-0306-0001-SD | 0.092  | 0.18  | 0.055 | J    |      | 14  | N/A      |
| 079SD-0305-0001-SD | SODIUM    | 67     | MG/KG | 4.4   | 17    |      | 079SD-0306-0001-SD | 100    | 18    | 9.1   |      |      | 40  | N/A      |
| 079SD-0305-0001-SD | THALLIUM  | 0.17   | MG/KG | 0.017 | 0.17  |      | 079SD-0306-0001-SD | 0.21   | 0.18  | 0.036 |      |      | 21  | N/A      |
| 079SD-0305-0001-SD | VANADIUM  | 27     | MG/KG | 0.049 | 0.17  |      | 079SD-0306-0001-SD | 30     | 0.18  | 0.11  |      |      | 11  | N/A      |
| 079SD-0305-0001-SD | ZINC      | 80     | MG/KG | 0.11  | 0.83  |      | 079SD-0306-0001-SD | 81     | 0.91  | 0.36  |      |      | 1   | N/A      |
| 079SD-0305-0001-SD | MERCURY   | 0.046  | MG/KG | 0.027 | 0.19  | J    | 079SD-0306-0001-SD | 0.045  | 0.21  | 0.07  | J    |      | 2   | N/A      |
| 079SW-0311-0001-SW | ALUMINUM  | 40     | UG/L  | 2.6   | 30    |      | 079SW-0312-0001-SW | 36     | 30    | 5     |      |      | 11  | N/A      |
| 079SW-0311-0001-SW | ANTIMONY  | 0.9    | UG/L  | 0.46  | 2     | U    | 079SW-0312-0001-SW | 1      | 2     | 0.9   | J    |      | 11  | N/A      |
| 079SW-0311-0001-SW | ARSENIC   | 15     | UG/L  | 0.29  | 1     |      | 079SW-0312-0001-SW | 16     | 1     | 0.5   |      |      | 6   | N/A      |
| 079SW-0311-0001-SW | BARIUM    | 12     | UG/L  | 0.098 | 10    |      | 079SW-0312-0001-SW | 13     | 10    | 0.15  |      |      | 8   | N/A      |
| 079SW-0311-0001-SW | BERYLLIUM | 0.09   | UG/L  | 0.045 | 1     | U    | 079SW-0312-0001-SW | 0.09   | 1     | 0.09  | U    |      | 0   | N/A      |
| 079SW-0311-0001-SW | CADMIUM   | 0.3    | UG/L  | 0.13  | 1     | U    | 079SW-0312-0001-SW | 0.3    | 1     | 0.3   | U    |      | 0   | N/A      |
| 079SW-0311-0001-SW | CALCIUM   | 14000  | UG/L  | 9.4   | 100   |      | 079SW-0312-0001-SW | 15000  | 100   | 20    |      |      | 7   | N/A      |
| 079SW-0311-0001-SW | CHROMIUM  | 1.6    | UG/L  | 0.54  | 2     | J    | 079SW-0312-0001-SW | 1.7    | 2     | 1     | J    |      | 6   | N/A      |
| 079SW-0311-0001-SW | COBALT    | 0.044  | UG/L  | 0.026 | 0.5   | J    | 079SW-0312-0001-SW | 0.054  | 0.5   | 0.05  | J    |      | 20  | N/A      |
| 079SW-0311-0001-SW | COPPER    | 1.4    | UG/L  | 0.24  | 2     | J    | 079SW-0312-0001-SW | 1.5    | 2     | 0.5   | J    |      | 7   | N/A      |
| 079SW-0311-0001-SW | IRON      | 220    | UG/L  | 11    | 50    |      | 079SW-0312-0001-SW | 220    | 50    | 20    |      |      | 0   | N/A      |
| 079SW-0311-0001-SW | LEAD      | 0.3    | UG/L  | 0.15  | 1     | U    | 079SW-0312-0001-SW | 0.3    | 1     | 0.3   | J    |      | 0   | N/A      |
| 079SW-0311-0001-SW | MAGNESIUM | 3000   | UG/L  | 11    | 100   |      | 079SW-0312-0001-SW | 3200   | 100   | 22    |      |      | 6   | N/A      |
| 079SW-0311-0001-SW | MANGANESE | 12     | UG/L  | 0.16  | 5     |      | 079SW-0312-0001-SW | 12     | 5     | 0.3   |      |      | 0   | N/A      |
| 079SW-0311-0001-SW | NICKEL    | 0.57   | UG/L  | 0.17  | 1     | J    | 079SW-0312-0001-SW | 0.56   | 1     | 0.35  | J    |      | 2   | N/A      |
| 079SW-0311-0001-SW | POTASSIUM | 5000   | UG/L  | 32    | 100   |      | 079SW-0312-0001-SW | 5300   | 100   | 60    |      |      | 6   | N/A      |
| 079SW-0311-0001-SW | SELENIUM  | 1      | UG/L  | 0.51  | 5     | U    | 079SW-0312-0001-SW | 1      | 5     | 1     | U    |      | 0   | N/A      |
| 079SW-0311-0001-SW | SILVER    | 0.2    | UG/L  | 0.11  | 1     | U    | 079SW-0312-0001-SW | 0.2    | 1     | 0.2   | U    |      | 0   | N/A      |
| 079SW-0311-0001-SW | SODIUM    | 2900   | UG/L  | 27    | 100   |      | 079SW-0312-0001-SW | 3100   | 100   | 55    |      |      | 7   | N/A      |

| Sample             | Analyte  | Result | Units | DL   | LOQ | Qual | Sample             | Result | LOQ | LOD | Qual | Code | RPD | W/In LOQ |
|--------------------|----------|--------|-------|------|-----|------|--------------------|--------|-----|-----|------|------|-----|----------|
| 079SW-0311-0001-SW | THALLIUM | 0.2    | UG/L  | 0.1  | 1   | U    | 079SW-0312-0001-SW | 0.2    | 1   | 0.2 | U    |      | 0   | N/A      |
| 079SW-0311-0001-SW | VANADIUM | 0.6    | UG/L  | 0.3  | 1   | U    | 079SW-0312-0001-SW | 0.6    | 1   | 0.6 | U    |      | 0   | N/A      |
| 079SW-0311-0001-SW | ZINC     | 1.8    | UG/L  | 0.96 | 5   | J    | 079SW-0312-0001-SW | 2.3    | 5   | 2   | J    |      | 24  | N/A      |
| 079SW-0311-0001-SW | MERCURY  | 0.2    | UG/L  | 0.12 | 0.2 | U    | 079SW-0312-0001-SW | 0.2    | 0.2 | 0.2 | U    |      | 0   | N/A      |

## **APPENDIX D**

### **Validator Checklists**



# NITROAROMATICS & NITRAMINE DATA ANALYSIS (EXPLOSIVE RESIDUES) CHECKLIST

06855-0003m-0001-50 ext+prop

Project Name: CR Sites - Site 68

Laboratory: TA - N Cantar

Batch Number(s): \_\_\_\_\_

Sample Delivery Group: 17317

- |                                                                                                                                                                                             | <u>Yes</u>                          | <u>No</u>                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| 1. Holding Time:<br>Were samples analyzed within holding time?                                                                                                                              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 2. Initial Calibration:                                                                                                                                                                     |                                     |                                     |
| • Did the initial calibration consist of five standards?                                                                                                                                    | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Did the RSD meet the criteria $\leq 20\%$ for each individual Calibration Compound or $r \geq 0.99$ ?                                                                                     | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| • Was manual integration "M" performed?<br>If the answer is "Yes", check for supporting documents.                                                                                          | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was the manual integration necessary?                                                                                                                                                     | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| If the answer is "no", contact the laboratory inquiring about the reasons behind the manual integration, and <b>inform the District Chemist immediately if there were no valid reasons.</b> |                                     |                                     |
| 3. QCMDL:                                                                                                                                                                                   |                                     |                                     |
| • Was MDL Check performed?                                                                                                                                                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 4. QCMRL:                                                                                                                                                                                   |                                     |                                     |
| • Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours??                                                                                                      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was the percentage "D" for QC/MRL $\leq 30\%$ ?                                                                                                                                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 5. Initial Calibration Verification (ICV):                                                                                                                                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

1.696

|                                                                                                                                                                                                                           | <u>Yes</u>                          | <u>No</u>                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------|
| • Was the ICV made of a 2 <sup>nd</sup> source?                                                                                                                                                                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • Was the mid level (2 <sup>nd</sup> source) recovery within 85 - 115%?                                                                                                                                                   |                                     |                          |
| 6. Continuing Calibration Verification (CCV):                                                                                                                                                                             |                                     |                          |
| {Daily calibration}                                                                                                                                                                                                       |                                     |                          |
| • Was midpoint calibration standard conducted at the beginning of the day?                                                                                                                                                | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • Was midpoint calibration standard conducted every ten samples or every twelve hours?                                                                                                                                    | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • Was midpoint calibration standard conducted after the last sample of the day?                                                                                                                                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • Did the CCV meet the minimum requirements ( $D \leq 15\%$ with a maximum $D \leq 20\%$ for a specific compound if the mean $D \leq 15\%$ )?                                                                             | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 7. Sample Analysis:                                                                                                                                                                                                       |                                     |                          |
| • Was the RRT of an identified component within the retention time window created as SW-846 requires?                                                                                                                     | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • Were all identified hits, above the initial calibration curve, diluted and reanalyzed?                                                                                                                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • Were all identified hits confirmed on a second column?                                                                                                                                                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • Was RPD of target analyte confirmation $\leq 40$ ?                                                                                                                                                                      | <input type="checkbox"/>            | <input type="checkbox"/> |
| • Was there a shoulder on the 2,4,6-TNT peak?                                                                                                                                                                             | <input type="checkbox"/>            | <input type="checkbox"/> |
| If the answer is "Yes", then tetryl decomposition is suspected. Peak height rather than peak area should be used for calculating TNT concentration. If teryl was identified in aqueous samples, was pH adjusted to $<3$ ? | <input type="checkbox"/>            | <input type="checkbox"/> |
| If the answer is "No", then check for tetryl decomposition, and qualify hits with "J" accordingly.                                                                                                                        |                                     |                          |
| 8. Sample Quality Control:                                                                                                                                                                                                |                                     |                          |
| • <u>Method Blanks</u> : Were target analytes $\leq 1/2$ MRL?                                                                                                                                                             | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • <u>LCS</u> : Were the percent recoveries for LCS within the limits?                                                                                                                                                     | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Yes  
☒

No  
☐

- MS/MSD: Were the percent recoveries within limits?

Were the RPDs within control limits?

- System Monitoring Compounds (Surrogates): Were surrogate recoveries within QC limits?

☐

N

9. Comments (attach additional sheets if necessary):

conf surr 258% J tetra/ no detect  
MS/D on 04885-0003M -OK NG+EX NC 32% each J/Q  
tetra in conf MB @ 0.0189 mg/kg U/B  
RDX 20% RSD  
ZNT 16%

Validated/Reviewed by:

Signature: Patti MY

Date: 5/28/11

Name: Patti Meeks

# NITROAROMATICS & NITRAMINE DATA ANALYSIS (EXPLOSIVE RESIDUES) CHECKLIST

Project Name: RVAAP CR site 7369

06955-0001M-0001-50

-1

Laboratory: TA-N Canton

Batch Number(s): \_\_\_\_\_

Sample Delivery Group: 240-17525

|                                                                | <u>Yes</u>                          | <u>No</u>                |
|----------------------------------------------------------------|-------------------------------------|--------------------------|
| 1. Holding Time:<br>Were samples analyzed within holding time? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

2. Initial Calibration:

- |                                                                                                         |                                     |                                     |
|---------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| • Did the initial calibration consist of five standards?                                                | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Did the RSD meet the criteria $\leq 20\%$ for each individual Calibration Compound or $r \geq 0.99$ ? | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| • Was manual integration "M" performed?<br>If the answer is "Yes", check for supporting documents.      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was the manual integration necessary?                                                                 | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

If the answer is "no", contact the laboratory inquiring about the reasons behind the manual integration, and **inform the District Chemist immediately if there were no valid reasons.**

3. QCMDL:

- |                            |                          |                                     |
|----------------------------|--------------------------|-------------------------------------|
| • Was MDL Check performed? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|----------------------------|--------------------------|-------------------------------------|

4. QCMRL:

- |                                                                                        |                                     |                                     |
|----------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| • Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours?? | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was the percentage "D" for QC/MRL $\leq 30\%$ ?                                      | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

5. Initial Calibration Verification (ICV):

|                                     |                          |
|-------------------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|-------------------------------------|--------------------------|

Some ↑  
but Sample  
NO

|                                                                                                                                                                                                                         | <u>Yes</u>                             | <u>No</u>                        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|----------------------------------|
| • Was the ICV made of a 2 <sup>nd</sup> source?                                                                                                                                                                         | <input checked="" type="checkbox"/>    | <input type="checkbox"/>         |
| • Was the mid level (2 <sup>nd</sup> source) recovery within 85 - 115%?                                                                                                                                                 | <input type="checkbox"/>               | <input type="checkbox"/>         |
| 6. Continuing Calibration Verification (CCV):                                                                                                                                                                           |                                        |                                  |
| {Daily calibration}                                                                                                                                                                                                     |                                        |                                  |
| • Was midpoint calibration standard conducted at the beginning of the day?                                                                                                                                              | <input checked="" type="checkbox"/>    | <input type="checkbox"/>         |
| • Was midpoint calibration standard conducted every ten samples or every twelve hours?                                                                                                                                  | <input checked="" type="checkbox"/>    | <input type="checkbox"/>         |
| • Was midpoint calibration standard conducted after the last sample of the day?                                                                                                                                         | <input checked="" type="checkbox"/>    | <input type="checkbox"/>         |
| • Did the CCV meet the minimum requirements ( $D \leq 15\%$ with a maximum $D \leq 20\%$ for a specific compound if the mean $D \leq 15\%$ )?                                                                           | <input checked="" type="checkbox"/>    | <input type="checkbox"/>         |
| 7. Sample Analysis:                                                                                                                                                                                                     |                                        |                                  |
| • Was the RRT of an identified component within the retention time window created as SW-846 requires?                                                                                                                   | <input checked="" type="checkbox"/>    | <input type="checkbox"/>         |
| • Were all identified hits, above the initial calibration curve, diluted and reanalyzed?                                                                                                                                | <input checked="" type="checkbox"/>    | <input type="checkbox"/>         |
| • Were all identified hits confirmed on a second column?                                                                                                                                                                | <input checked="" type="checkbox"/> no | <input type="checkbox"/> confirm |
| • Was RPD of target analyte confirmation $\leq 40$ ? N/A                                                                                                                                                                | <input type="checkbox"/>               | <input type="checkbox"/>         |
| • Was there a shoulder on the 2,4,6-TNT peak? N/A                                                                                                                                                                       | <input type="checkbox"/>               | <input type="checkbox"/>         |
| If the answer is "Yes", then tetryl decomposition is suspected. Peak height rather than peak area should be used for calculating TNT concentration. If tetryl was identified in aqueous samples, was pH adjusted to <3? | <input type="checkbox"/>               | <input type="checkbox"/>         |
| If the answer is "No", then check for tetryl decomposition, and qualify hits with "J" accordingly.                                                                                                                      |                                        |                                  |
| 8. Sample Quality Control:                                                                                                                                                                                              |                                        |                                  |
| • <u>Method Blanks</u> : Were target analytes $\leq 1/2$ MRL?                                                                                                                                                           | <input checked="" type="checkbox"/>    | <input type="checkbox"/>         |
| • <u>LCS</u> : Were the percent recoveries for LCS within the limits?                                                                                                                                                   | <input checked="" type="checkbox"/>    | <input type="checkbox"/>         |

| <u>Yes</u>                          | <u>No</u>                |
|-------------------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> |

- MS/MSD: Were the percent recoveries within limits?

Were the RPDs within control limits?

- System Monitoring Compounds (Surrogates): Were surrogate recoveries within QC limits?

|                                     |                          |
|-------------------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|-------------------------------------|--------------------------|

9. Comments (attach additional sheets if necessary):

1/2 ASDs 20% RDN  
16% ZND

NC ICV test for 157% R

NC ↑ MRL closing - NO sample  
closing MRL 64% 05/12  
↳ reanalyzed @ 88%

Validated/Reviewed by:

Signature: Pat M

Date: 6/3/14

Name: P. Meeks

Conf surr ↑ 121% all ND

MS/D NG, EX & NC - OK  
↳ RPD ≤ 71%

# NITROAROMATICS & NITRAMINE DATA ANALYSIS (EXPLOSIVE RESIDUES) CHECKLIST

,5

Project Name: WVAP on site 73

07355-0002M-0001-SU Ex+prop

Laboratory: TA-W Center

Batch Number(s): \_\_\_\_\_

Sample Delivery Group: 240-17422-1

- |                                                                                                                                                                                             | <u>Yes</u>                          | <u>No</u>                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| 1. Holding Time:<br>Were samples analyzed within holding time?                                                                                                                              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 2. Initial Calibration:                                                                                                                                                                     |                                     |                                     |
| • Did the initial calibration consist of five standards?                                                                                                                                    | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Did the RSD meet the criteria $\leq 20\%$ for each individual Calibration Compound or $r \geq 0.99$ ?                                                                                     | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| • Was manual integration "M" performed?<br>If the answer is "Yes", check for supporting documents.                                                                                          | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was the manual integration necessary?                                                                                                                                                     | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| If the answer is "no", contact the laboratory inquiring about the reasons behind the manual integration, and <b>inform the District Chemist immediately if there were no valid reasons.</b> |                                     |                                     |
| 3. QCMDL:                                                                                                                                                                                   |                                     |                                     |
| • Was MDL Check performed?                                                                                                                                                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 4. QCMRL:                                                                                                                                                                                   |                                     |                                     |
| • Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours??                                                                                                      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was the percentage "D" for QC/MRL $\leq 30\%$ ?                                                                                                                                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 5. Initial Calibration Verification (ICV):                                                                                                                                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |



|                                                                                                                                                                                                                            | <u>Yes</u>                          | <u>No</u>                           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| • Was the ICV made of a 2 <sup>nd</sup> source?                                                                                                                                                                            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was the mid level (2 <sup>nd</sup> source) recovery within 85 - 115%?                                                                                                                                                    |                                     |                                     |
| 6. Continuing Calibration Verification (CCV):<br>{Daily calibration}                                                                                                                                                       |                                     |                                     |
| • Was midpoint calibration standard conducted at the beginning of the day?                                                                                                                                                 | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was midpoint calibration standard conducted every ten samples or every twelve hours?                                                                                                                                     | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was midpoint calibration standard conducted after the last sample of the day?                                                                                                                                            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Did the CCV meet the minimum requirements ( $D \leq 15\%$ with a maximum $D \leq 20\%$ for a specific compound if the mean $D \leq 15\%$ )?                                                                              | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 7. Sample Analysis:                                                                                                                                                                                                        |                                     |                                     |
| • Was the RRT of an identified component within the retention time window created as SW-846 requires?                                                                                                                      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Were all identified hits, above the initial calibration curve, diluted and reanalyzed?                                                                                                                                   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Were all identified hits confirmed on a second column?                                                                                                                                                                   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was RPD of target analyte confirmation $\leq 40$ ? No but N/A                                                                                                                                                            | <input type="checkbox"/>            | <input type="checkbox"/>            |
| • Was there a shoulder on the 2,4,6-TNT peak?                                                                                                                                                                              | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| If the answer is "Yes", then tetryl decomposition is suspected. Peak height rather than peak area should be used for calculating TNT concentration. If tetryl was identified in aqueous samples, was pH adjusted to $<3$ ? | <input type="checkbox"/>            | <input type="checkbox"/>            |
| If the answer is "No", then check for tetryl decomposition, and qualify hits with "J" accordingly.                                                                                                                         |                                     |                                     |
| 8. Sample Quality Control:                                                                                                                                                                                                 |                                     |                                     |
| • <u>Method Blanks</u> : Were target analytes $\leq 1/2$ MRL?                                                                                                                                                              | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| • <u>LCS</u> : Were the percent recoveries for LCS within the limits?                                                                                                                                                      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |



- MS/MSD: Were the percent recoveries within limits? non Yes  
[ ] No  
[ ]

Were the RPDs within control limits?

- System Monitoring Compounds (Surrogates): Were surrogate recoveries within QC limits? [ ] ☒

9. Comments (attach additional sheets if necessary):

% RSDs RDX = 20  
2NT = 16

2° surr ↑ 121% but no detect

Validated/Reviewed by:

Signature: PATX AS

Date: 6/2/14

Name: P. Meek

Tetryl 0.0189 MB 326-6026 U/P

# NITROAROMATICS & NITRAMINE DATA ANALYSIS (EXPLOSIVE RESIDUES) CHECKLIST

Project Name: RVAAP CR Site 74

0745B - 6010 - 0001 - 50

Laboratory: TA-N Canton

Batch Number(s): \_\_\_\_\_

Sample Delivery Group: 240-22804-1

- |                                                                                                                                                                                             | <u>Yes</u>                          | <u>No</u>                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| 1. Holding Time:<br>Were samples analyzed within holding time?                                                                                                                              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 2. Initial Calibration:                                                                                                                                                                     |                                     |                                     |
| • Did the initial calibration consist of five standards?                                                                                                                                    | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Did the RSD meet the criteria $\leq 20\%$ for each individual Calibration Compound or $r \geq 0.99$ ?                                                                                     | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was manual integration "M" performed?<br>If the answer is "Yes", check for supporting documents.                                                                                          | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was the manual integration necessary?                                                                                                                                                     | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| If the answer is "no", contact the laboratory inquiring about the reasons behind the manual integration, and <b>inform the District Chemist immediately if there were no valid reasons.</b> |                                     |                                     |
| 3. QCMDL:                                                                                                                                                                                   |                                     |                                     |
| • Was MDL Check performed?                                                                                                                                                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 4. QCMRL:                                                                                                                                                                                   |                                     |                                     |
| • Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours??                                                                                                      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was the percentage "D" for QC/MRL $\leq 30\%$ ?                                                                                                                                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 5. Initial Calibration Verification (ICV):                                                                                                                                                  | <input type="checkbox"/>            | <input type="checkbox"/>            |

|                                                                                                                                                                                                                           | <u>Yes</u>     | <u>No</u> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-----------|
| • Was the ICV made of a 2 <sup>nd</sup> source?                                                                                                                                                                           | <del>[ ]</del> | [ ]       |
| • Was the mid level (2 <sup>nd</sup> source) recovery within 85 - 115%?                                                                                                                                                   |                |           |
| 6. Continuing Calibration Verification (CCV):<br>{Daily calibration}                                                                                                                                                      |                |           |
| • Was midpoint calibration standard conducted at the beginning of the day?                                                                                                                                                | <del>[ ]</del> | [ ]       |
| • Was midpoint calibration standard conducted every ten samples or every twelve hours?                                                                                                                                    | <del>[ ]</del> | [ ]       |
| • Was midpoint calibration standard conducted after the last sample of the day?                                                                                                                                           | <del>[ ]</del> | [ ]       |
| • Did the CCV meet the minimum requirements ( $D \leq 15\%$ with a maximum $D \leq 20\%$ for a specific compound if the mean $D \leq 15\%$ )?                                                                             | <del>[ ]</del> | [ ]       |
| 7. Sample Analysis:                                                                                                                                                                                                       |                |           |
| • Was the RRT of an identified component within the retention time window created as SW-846 requires?                                                                                                                     | N/A [ ]        | [ ]       |
| • Were all identified hits, above the initial calibration curve, diluted and reanalyzed?                                                                                                                                  | [ ]            | [ ]       |
| • Were all identified hits confirmed on a second column?                                                                                                                                                                  | [ ]            | [ ]       |
| • Was RPD of target analyte confirmation $\leq 40$ ?                                                                                                                                                                      | [ ]            | [ ]       |
| • Was there a shoulder on the 2,4,6-TNT peak?                                                                                                                                                                             | [ ]            | [ ]       |
| If the answer is "Yes", then tetryl decomposition is suspected. Peak height rather than peak area should be used for calculating TNT concentration. If teryl was identified in aqueous samples, was pH adjusted to $<3$ ? | [ ]            | [ ]       |
| If the answer is "No", then check for tetryl decomposition, and qualify hits with "J" accordingly.                                                                                                                        |                |           |
| 8. Sample Quality Control:                                                                                                                                                                                                | <del>[ ]</del> | [ ]       |
| • <u>Method Blanks</u> : Were target analytes $\leq 1/2$ MRL?                                                                                                                                                             |                |           |
| • <u>LCS</u> : Were the percent recoveries for LCS within the limits?                                                                                                                                                     | <del>[ ]</del> | [ ]       |

- MS/MSD: Were the percent recoveries within limits? Yes  
[ ] No  
[ ]

Were the RPDs within control limits?

- System Monitoring Compounds (Surrogates): Were surrogate recoveries within QC limits? N [ ] [ ]

9. Comments (attach additional sheets if necessary):

RSDs RDX-16 = conf column - not reported on 1<sup>o</sup>

Validated/Reviewed by:

Signature: P. Meeks

Date: 6/3/14

Name: P. Meeks

# NITROAROMATICS & NITRAMINE DATA ANALYSIS (EXPLOSIVE RESIDUES) CHECKLIST

Project Name: RVAAD -76 CR Sites RI

Laboratory: TA-Sac

Batch Number(s): \_\_\_\_\_

Sample Delivery Group: 18544-1 17317 17422-1

07653-0020M 11/21 11:11  
0765B-0102M 12/20 13:49  
0765B-0114M 21:13

- |                                                                                                                                                                                             | <u>Yes</u>                          | <u>No</u>                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| 1. Holding Time:<br>Were samples analyzed within holding time?                                                                                                                              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 2. Initial Calibration:                                                                                                                                                                     |                                     |                                     |
| • Did the initial calibration consist of five standards?                                                                                                                                    | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Did the RSD meet the criteria $\leq 20\%$ for each individual Calibration Compound or $r \geq 0.99$ ?                                                                                     | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| • Was manual integration "M" performed?<br>If the answer is "Yes", check for supporting documents.                                                                                          | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was the manual integration necessary?                                                                                                                                                     | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| If the answer is "no", contact the laboratory inquiring about the reasons behind the manual integration, and <b>inform the District Chemist immediately if there were no valid reasons.</b> |                                     |                                     |
| 3. QCMDL:                                                                                                                                                                                   |                                     |                                     |
| • Was MDL Check performed?                                                                                                                                                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 4. QCMRL:                                                                                                                                                                                   |                                     |                                     |
| • Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours??                                                                                                      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was the percentage "D" for QC/MRL $\leq 30\%$ ?                                                                                                                                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 5. Initial Calibration Verification (ICV):                                                                                                                                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

|                                                                                                                                                                                                                            | <u>Yes</u>                          | <u>No</u>                           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| • Was the ICV made of a 2 <sup>nd</sup> source?                                                                                                                                                                            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was the mid level (2 <sup>nd</sup> source) recovery within 85 - 115%?                                                                                                                                                    |                                     |                                     |
| 6. Continuing Calibration Verification (CCV):<br>{Daily calibration}                                                                                                                                                       |                                     |                                     |
| • Was midpoint calibration standard conducted at the beginning of the day?                                                                                                                                                 | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was midpoint calibration standard conducted every ten samples or every twelve hours?                                                                                                                                     | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was midpoint calibration standard conducted after the last sample of the day?                                                                                                                                            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Did the CCV meet the minimum requirements ( $D \leq 15\%$ with a maximum $D \leq 20\%$ for a specific compound if the mean $D \leq 15\%$ )?                                                                              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 7. Sample Analysis:                                                                                                                                                                                                        |                                     |                                     |
| • Was the RRT of an identified component within the retention time window created as SW-846 requires?                                                                                                                      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Were all identified hits, above the initial calibration curve, diluted and reanalyzed?                                                                                                                                   | N/A <input type="checkbox"/>        | <input type="checkbox"/>            |
| • Were all identified hits confirmed on a second column?                                                                                                                                                                   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was RPD of target analyte confirmation $\leq 40$ ?                                                                                                                                                                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| • Was there a shoulder on the 2,4,6-TNT peak?                                                                                                                                                                              | N/A <input type="checkbox"/>        | <input type="checkbox"/>            |
| If the answer is "Yes", then tetryl decomposition is suspected. Peak height rather than peak area should be used for calculating TNT concentration. If tetryl was identified in aqueous samples, was pH adjusted to $<3$ ? | <input type="checkbox"/>            | <input type="checkbox"/>            |
| If the answer is "No", then check for tetryl decomposition, and qualify hits with "J" accordingly.                                                                                                                         |                                     |                                     |
| 8. Sample Quality Control:                                                                                                                                                                                                 | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • <u>Method Blanks</u> : Were target analytes $\leq 1/2$ MRL?                                                                                                                                                              |                                     |                                     |
| • <u>LCS</u> : Were the percent recoveries for LCS within the limits?                                                                                                                                                      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

- |                                                                                                 | <u>Yes</u><br>[ ]                   | <u>No</u><br>[ ]         |
|-------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------|
| • <u>MS/MSD</u> : Were the percent recoveries within limits?                                    | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Were the RPDs within control limits?                                                            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • <u>System Monitoring Compounds (Surrogates)</u> : Were surrogate recoveries within QC limits? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

9. Comments (attach additional sheets if necessary):

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Validated/Reviewed by:

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Name: \_\_\_\_\_

07655 MS/MSD rOK + propellants  
07655 tetryl intercolumn = 108%  
1CAL RDX %RSD 20% } all samples  
2NT 16%  
tetryl = 0.0189 mg/kg 320-6026/1-A on CN

# NITROAROMATICS & NITRAMINE DATA ANALYSIS (EXPLOSIVE RESIDUES) CHECKLIST

14

Project Name: RVAAP CR Site 78

078SB-0016M-0001-50 Exp prep

Laboratory: TA-N. Canton

Batch Number(s): \_\_\_\_\_

Sample Delivery Group: 240-22559

- |                                                                                                                                                                                             | <u>Yes</u>                          | <u>No</u>                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| 1. Holding Time:<br>Were samples analyzed within holding time?                                                                                                                              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 2. Initial Calibration:                                                                                                                                                                     |                                     |                                     |
| • Did the initial calibration consist of five standards?                                                                                                                                    | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Did the RSD meet the criteria $\leq 20\%$ for each individual Calibration Compound or $r \geq 0.99$ ?                                                                                     | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was manual integration "M" performed?<br>If the answer is "Yes", check for supporting documents.                                                                                          | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was the manual integration necessary?                                                                                                                                                     | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| If the answer is "no", contact the laboratory inquiring about the reasons behind the manual integration, and <b>inform the District Chemist immediately if there were no valid reasons.</b> |                                     |                                     |
| 3. QCMDL:                                                                                                                                                                                   |                                     |                                     |
| • Was MDL Check performed?                                                                                                                                                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 4. QCMRL:                                                                                                                                                                                   |                                     |                                     |
| • Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours??                                                                                                      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was the percentage "D" for QC/MRL $\leq 30\%$ ?                                                                                                                                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 5. Initial Calibration Verification (ICV):                                                                                                                                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |



|                                                                                                                                                                                                                            | <u>Yes</u>                          | <u>No</u>                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------|
| • Was the ICV made of a 2 <sup>nd</sup> source?                                                                                                                                                                            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • Was the mid level (2 <sup>nd</sup> source) recovery within 85 - 115%?                                                                                                                                                    | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 6. Continuing Calibration Verification (CCV):<br>{Daily calibration}                                                                                                                                                       |                                     |                          |
| • Was midpoint calibration standard conducted at the beginning of the day?                                                                                                                                                 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • Was midpoint calibration standard conducted every ten samples or every twelve hours?                                                                                                                                     | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • Was midpoint calibration standard conducted after the last sample of the day?                                                                                                                                            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • Did the CCV meet the minimum requirements ( $D \leq 15\%$ with a maximum $D \leq 20\%$ for a specific compound if the mean $D \leq 15\%$ )?                                                                              | <input type="checkbox"/>            | <input type="checkbox"/> |
| 7. Sample Analysis:                                                                                                                                                                                                        |                                     |                          |
| • Was the RRT of an identified component within the retention time window created as SW-846 requires?                                                                                                                      | <input type="checkbox"/>            | <input type="checkbox"/> |
| • Were all identified hits, above the initial calibration curve, diluted and reanalyzed?                                                                                                                                   | <input type="checkbox"/>            | <input type="checkbox"/> |
| • Were all identified hits confirmed on a second column?                                                                                                                                                                   | <input type="checkbox"/>            | <input type="checkbox"/> |
| • Was RPD of target analyte confirmation $\leq 40\%$ ?                                                                                                                                                                     | <input type="checkbox"/>            | <input type="checkbox"/> |
| • Was there a shoulder on the 2,4,6-TNT peak?                                                                                                                                                                              | <input type="checkbox"/>            | <input type="checkbox"/> |
| If the answer is "Yes", then tetryl decomposition is suspected. Peak height rather than peak area should be used for calculating TNT concentration. If tetryl was identified in aqueous samples, was pH adjusted to $<3$ ? | <input type="checkbox"/>            | <input type="checkbox"/> |
| If the answer is "No", then check for tetryl decomposition, and qualify hits with "J" accordingly.                                                                                                                         |                                     |                          |
| 8. Sample Quality Control:                                                                                                                                                                                                 |                                     |                          |
| • <u>Method Blanks</u> : Were target analytes $\leq 1/2$ MRL?                                                                                                                                                              | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • <u>LCS</u> : Were the percent recoveries for LCS within the limits?                                                                                                                                                      | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Yes  
[ ]

No  
[ ]

- MS/MSD: Were the percent recoveries within limits? *none*

Were the RPDs within control limits?

- System Monitoring Compounds (Surrogates): Were ☒ surrogate recoveries within QC limits? [ ]

9. Comments (attach additional sheets if necessary):

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Validated/Reviewed by:

Signature: *Pat M*

Date: 6/2/14

Name: *Pat M*

# NITROAROMATICS & NITRAMINE DATA ANALYSIS (EXPLOSIVE RESIDUES) CHECKLIST

Project Name: RVAAP CR Site 79

Laboratory: TA-North Canton

Batch Number(s): \_\_\_\_\_

Sample Delivery Group: 240-22662

079SW-0311-0001-SW

- |                                                                                                                                                                                             | <u>Yes</u>                          | <u>No</u>                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| 1. Holding Time:<br>Were samples analyzed within holding time?                                                                                                                              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 2. Initial Calibration:                                                                                                                                                                     |                                     |                                     |
| • Did the initial calibration consist of five standards?                                                                                                                                    | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Did the RSD meet the criteria $\leq 20\%$ for each individual Calibration Compound or $r \geq 0.99$ ?                                                                                     | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was manual integration "M" performed?<br>If the answer is "Yes", check for supporting documents.                                                                                          | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was the manual integration necessary?                                                                                                                                                     | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| If the answer is "no", contact the laboratory inquiring about the reasons behind the manual integration, and <b>inform the District Chemist immediately if there were no valid reasons.</b> |                                     |                                     |
| 3. QCMDL:                                                                                                                                                                                   |                                     |                                     |
| • Was MDL Check performed?                                                                                                                                                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 4. QCMRL:                                                                                                                                                                                   |                                     |                                     |
| • Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours??                                                                                                      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was the percentage "D" for QC/MRL $\leq 30\%$ ?                                                                                                                                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 5. Initial Calibration Verification (ICV):                                                                                                                                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

|                                                                                                                                                                                                                           | <u>Yes</u>                              | <u>No</u>                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|--------------------------|
| • Was the ICV made of a 2 <sup>nd</sup> source?                                                                                                                                                                           | <input checked="" type="checkbox"/>     | <input type="checkbox"/> |
| • Was the mid level (2 <sup>nd</sup> source) recovery within 85 - 115%?                                                                                                                                                   |                                         |                          |
| 6. Continuing Calibration Verification (CCV):                                                                                                                                                                             |                                         |                          |
| {Daily calibration}                                                                                                                                                                                                       |                                         |                          |
| • Was midpoint calibration standard conducted at the beginning of the day?                                                                                                                                                | <input checked="" type="checkbox"/>     | <input type="checkbox"/> |
| • Was midpoint calibration standard conducted every ten samples or every twelve hours?                                                                                                                                    | <input checked="" type="checkbox"/>     | <input type="checkbox"/> |
| • Was midpoint calibration standard conducted after the last sample of the day?                                                                                                                                           | <input checked="" type="checkbox"/>     | <input type="checkbox"/> |
| • Did the CCV meet the minimum requirements ( $D \leq 15\%$ with a maximum $D \leq 20\%$ for a specific compound if the mean $D \leq 15\%$ )?                                                                             | <input checked="" type="checkbox"/>     | <input type="checkbox"/> |
| 7. Sample Analysis:                                                                                                                                                                                                       |                                         |                          |
| • Was the RRT of an identified component within the retention time window created as SW-846 requires?                                                                                                                     | <input checked="" type="checkbox"/> N/A | <input type="checkbox"/> |
| • Were all identified hits, above the initial calibration curve, diluted and reanalyzed?                                                                                                                                  | <input type="checkbox"/>                | <input type="checkbox"/> |
| • Were all identified hits confirmed on a second column?                                                                                                                                                                  | <input type="checkbox"/>                | <input type="checkbox"/> |
| • Was RPD of target analyte confirmation $\leq 40$ ?                                                                                                                                                                      | <input type="checkbox"/>                | <input type="checkbox"/> |
| • Was there a shoulder on the 2,4,6-TNT peak?                                                                                                                                                                             | <input type="checkbox"/>                | <input type="checkbox"/> |
| If the answer is "Yes", then tetryl decomposition is suspected. Peak height rather than peak area should be used for calculating TNT concentration. If teryl was identified in aqueous samples, was pH adjusted to $<3$ ? | <input type="checkbox"/>                | <input type="checkbox"/> |
| If the answer is "No", then check for tetryl decomposition, and qualify hits with "J" accordingly.                                                                                                                        |                                         |                          |
| 8. Sample Quality Control:                                                                                                                                                                                                |                                         |                          |
| • <u>Method Blanks</u> : Were target analytes $\leq 1/2$ MRL?                                                                                                                                                             | <input checked="" type="checkbox"/>     | <input type="checkbox"/> |
| • <u>LCS</u> : Were the percent recoveries for LCS within the limits?                                                                                                                                                     | <input checked="" type="checkbox"/>     | <input type="checkbox"/> |

Yes  
☒

No  
☐

- MS/MSD: Were the percent recoveries within limits?

Were the RPDs within control limits?

- System Monitoring Compounds (Surrogates): Were surrogate recoveries within QC limits?

☒

☐

9. Comments (attach additional sheets if necessary):

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Validated/Reviewed by:

Signature:

R. Meeks

Date: 6/3/14

Name:

R. Meeks

MS/D: NG, EX - OK

Chrom Revision: 2.1 07-Apr-2013 20:36:54

Data File:

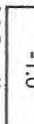
1.5 = 1

LC 8330B ICAL

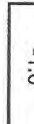
$$G_m = 7$$
500.0  $\mu$ l

4.60 mm

ak: 1



### Y Scaling:



$\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$   
 $\frac{1}{4} \times \frac{1}{4} = \frac{1}{16}$   
 $\frac{1}{16} \times \frac{1}{16} = \frac{1}{256}$   
 $\frac{1}{256} \times \frac{1}{256} = \frac{1}{65536}$   
 $\frac{1}{65536} \times \frac{1}{65536} = \frac{1}{4294967296}$



## POLY CHLORINATED BIPHENYLS (PCB/AROCLORS) CHECKLIST

Project Name: RV AAP - 76 CR Sits R1

076SS-002UM-0001

Laboratory: TA - N. Canton

076SP-0102M-0001

Batch Number(s): \_\_\_\_\_

Sample Delivery Group: 17422-1, 18544-1

|                                                                                                                                                                                             | <u>Yes</u>                          | <u>No</u>                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| 1. Holding Time:                                                                                                                                                                            |                                     |                                     |
| (a) Were samples extracted within holding time?                                                                                                                                             | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| (b) Were samples analyzed within holding time?                                                                                                                                              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 2. Initial Calibration:                                                                                                                                                                     |                                     |                                     |
| • Did the initial calibration consist of five standards?                                                                                                                                    | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Did Aroclors 1016 and 1260 meet the $RSD \leq 20\%$ or the $r \geq 0.99$ ?                                                                                                                | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was manual integration "M" performed?<br>If the answer is "Yes", check for supporting documents.                                                                                          | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was the manual integration necessary?                                                                                                                                                     | <input type="checkbox"/>            | <input type="checkbox"/>            |
| If the answer is "no", contact the laboratory inquiring about the reasons behind the manual integration, and <b>inform the District Chemist immediately if there were no valid reasons.</b> |                                     |                                     |
| 3. QCMDL:                                                                                                                                                                                   |                                     |                                     |
| • Was MDL Check performed?                                                                                                                                                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 4. QCMRL:                                                                                                                                                                                   |                                     |                                     |
| • Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours??                                                                                                      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was the QC/MRL between 70-130% R                                                                                                                                                          | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 5. Initial Calibration Verification (ICV):                                                                                                                                                  |                                     |                                     |
| Is the mid level (2 <sup>nd</sup> source) recovery within 85 - 115%?                                                                                                                        | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

|                                                                                                                                                                                                                              | <u>Yes</u>                              | <u>No</u>                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|--------------------------|
| 6. Continuing Calibration Verification (CCV):                                                                                                                                                                                |                                         |                          |
| • Was CCV conducted every 12 hours?                                                                                                                                                                                          | <input checked="" type="checkbox"/>     | <input type="checkbox"/> |
| • Was Drift or $D \leq 15\%$ from the initial calibration with a maximum $\%D < 20\%$ for a specific compound?                                                                                                               | <input checked="" type="checkbox"/>     | <input type="checkbox"/> |
| 7. Sample Analysis:                                                                                                                                                                                                          |                                         |                          |
| • Was the RRT of an identified component within the retention time window created as SW-846 requires?                                                                                                                        | <input checked="" type="checkbox"/> N/A | <input type="checkbox"/> |
| • Were samples with levels higher than the calibration range (E), diluted and re-analyzed?                                                                                                                                   | <input type="checkbox"/>                | <input type="checkbox"/> |
| • Were identified Aroclors confirmed on a second GC column?                                                                                                                                                                  | <input type="checkbox"/>                | <input type="checkbox"/> |
| • Were individual Aroclor standards used to determine the pattern of the peaks?<br>(Individual Aroclors are 1221, 1232, 1242, 1248, and 1254. Both Aroclor 1016, and 1260 can be used from the mixed calibration standards.) | <input checked="" type="checkbox"/>     | <input type="checkbox"/> |
| • Was RPD of target analyte conformation $\leq 40$ ?                                                                                                                                                                         | <input type="checkbox"/> N/A            | <input type="checkbox"/> |
| 8. Sample Quality Control:                                                                                                                                                                                                   |                                         |                          |
| • <u>Method Blanks</u> : Were target analytes $\leq 1/2$ MRL?                                                                                                                                                                | <input checked="" type="checkbox"/>     | <input type="checkbox"/> |
| • <u>LCS</u> : Were the percent recoveries for LCS within the limits?                                                                                                                                                        | <input checked="" type="checkbox"/>     | <input type="checkbox"/> |
| • <u>MS/MSD</u> : Were the percent recoveries within limits?<br>— 0020M                                                                                                                                                      | <input checked="" type="checkbox"/>     | <input type="checkbox"/> |
| Were the RPDs within control limits?                                                                                                                                                                                         | <input type="checkbox"/>                | <input type="checkbox"/> |
| • <u>System Monitoring Compounds (Surrogates)</u> : are surrogate recoveries within QC limits?                                                                                                                               | <input checked="" type="checkbox"/>     | <input type="checkbox"/> |



This image shows a full page of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page, providing a template for handwriting practice. There are no margins, text, or other markings on the paper.

Signature: Pat M

Date: 4/22/14

Name: Patt. Meeks

## POLY CHLORINATED BIPHENYLS (PCB/AROCLORS) CHECKLIST

Project Name: RVAAP CR Sites 68, 69, 73, 74, 78, 79

Laboratory: TA-North Canton

Batch Number(s): 45400, 499, 64779, 65153, 80730, -548, 81544, -730

Sample Delivery Group: 240-17317, -17422, -17477, -17525, -22559, -22648, -22662, -22804

- |                                                 | <u>Yes</u>                          | <u>No</u>                |
|-------------------------------------------------|-------------------------------------|--------------------------|
| 1. Holding Time:                                |                                     |                          |
| (a) Were samples extracted within holding time? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| (b) Were samples analyzed within holding time?  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

2. Initial Calibration:

- |                                                                                                                                   |                                     |                          |
|-----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------|
| • Did the initial calibration consist of five standards?                                                                          | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • Did Aroclors 1016 and 1260 meet the $RSD \leq 20\%$ or the $r \geq 0.99$ ? <u>All Aroclors</u>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • Was manual integration "M" performed?<br>If the answer is "Yes", check for supporting documents.<br><u>baseline/split peaks</u> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • Was the manual integration necessary?                                                                                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

If the answer is "no", contact the laboratory inquiring about the reasons behind the manual integration, and **inform the District Chemist immediately if there were no valid reasons.**

3. QCMDL:

- |                            |                          |                                     |
|----------------------------|--------------------------|-------------------------------------|
| • Was MDL Check performed? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|----------------------------|--------------------------|-------------------------------------|

4. QCMRL:

- |                                                                                        |                                     |                          |
|----------------------------------------------------------------------------------------|-------------------------------------|--------------------------|
| • Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours?? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • Was the QC/MRL between 70-130% R                                                     | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

5. Initial Calibration Verification (ICV):

- |                                                                                                                               |                                     |                                     |
|-------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| Is the mid level (2 <sup>nd</sup> source) recovery within <u>85-115%</u> ? <u>QSM 80-120</u><br><u>see comments</u> <u>MC</u> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
|-------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|

|                                                                                                                                                                                                                              | <u>Yes</u>                          | <u>No</u>                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------|
| 6. Continuing Calibration Verification (CCV):                                                                                                                                                                                |                                     |                          |
| • Was CCV conducted every 12 hours?                                                                                                                                                                                          | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • Was Drift or $D \leq 15\%$ from the initial calibration with a maximum $\%D < 20\%$ for a specific compound? <i>QSM 20%</i>                                                                                                | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 7. Sample Analysis:                                                                                                                                                                                                          |                                     |                          |
| • Was the RRT of an identified component within the retention time window created as SW-846 requires?                                                                                                                        | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • Were samples with levels higher than the calibration range (E), diluted and re-analyzed? <i>QC only - no sample detected</i> <i>n/a</i>                                                                                    | <input type="checkbox"/>            | <input type="checkbox"/> |
| • Were identified Aroclors confirmed on a second GC column? <i>QC</i>                                                                                                                                                        | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • Were individual Aroclor standards used to determine the pattern of the peaks?<br>(Individual Aroclors are 1221, 1232, 1242, 1248, and 1254. Both Aroclor 1016, and 1260 can be used from the mixed calibration standards.) | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • Was RPD of target analyte conformation $\leq 40\%$ ?                                                                                                                                                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 8. Sample Quality Control:                                                                                                                                                                                                   |                                     |                          |
| • <u>Method Blanks</u> : Were target analytes $\leq 1/2$ MRL? <i>ND</i>                                                                                                                                                      | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • <u>LCS</u> : Were the percent recoveries for LCS within the limits?                                                                                                                                                        | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • <u>MS/MSD</u> : Were the percent recoveries within limits?                                                                                                                                                                 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Were the RPDs within control limits?                                                                                                                                                                                         | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • <u>System Monitoring Compounds (Surrogates)</u> : are surrogate recoveries within QC limits?                                                                                                                               | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

9. <sup>idc</sup>  
10. Comments (attach additional sheets if necessary):

ICA) AP12 4.1.

ICV - Aroclor 1221: one of 3 peaks missed on  
primary column / secondary acceptable

- Samples qualified UT/C: 0785B-0008M-0001-SO  
0785B-0014M-0001-SO  
0785B-0053M-0001-SO  
079W-03M-0001-SW

Validated/Reviewed by:

Signature:

*L.S. Calvin*

Date: 10.3.2014

Name:

*L.S. Calvin*

## ORGANOCHLORINE PESTICIDES ANALYSIS CHECKLIST

Project Name: RVAAP-76 CR Sites R1

07655-0020M-0001-S6

Laboratory: TA-W Canton

4/28 10:32

Batch Number(s): —

5X

Sample Delivery Group: 17422-1

- |                                                                                                                                                                                             | <u>Yes</u>                          | <u>No</u>                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------|
| 1. Holding Time:                                                                                                                                                                            |                                     |                          |
| (a) Were samples extracted within holding time?                                                                                                                                             | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| (b) Were samples analyzed within holding time?                                                                                                                                              | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. DDT/Endrin Breakdown:                                                                                                                                                                    |                                     |                          |
| • Was breakdown $\leq 15\%$ ?                                                                                                                                                               | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Initial Calibration:                                                                                                                                                                     |                                     |                          |
| • Did the initial calibration consist of five standards?                                                                                                                                    | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • Did all compounds meet the $RSD \leq 20\%$ or $r \geq 0.99$ ?                                                                                                                             | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • Was manual integration "M" performed?<br>If the answer is "Yes", check for supporting documents.                                                                                          | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • Was the manual integration necessary?                                                                                                                                                     | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| If the answer is "no", contact the laboratory inquiring about the reasons behind the manual integration, and <b>inform the District Chemist immediately if there were no valid reasons.</b> |                                     |                          |
| 4. QCMDL:                                                                                                                                                                                   |                                     |                          |
| • Was MDL Check performed?                                                                                                                                                                  | <input type="checkbox"/>            | <input type="checkbox"/> |
| 5. QCMRL:                                                                                                                                                                                   |                                     |                          |
| • Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours??                                                                                                      | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • Was the QC/MRL between 70-130% R                                                                                                                                                          | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

|                                                                                                                 | <u>Yes</u>                                            | <u>No</u>                           |
|-----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|-------------------------------------|
| 6. Initial Calibration Verification (ICV):                                                                      |                                                       |                                     |
| • Is the mid level (2 <sup>nd</sup> source) recovery within 85 - 115%?                                          | [ ]                                                   | <input checked="" type="checkbox"/> |
| 7. Continuing Calibration Verification (CCV):                                                                   |                                                       |                                     |
| • Was CCV conducted every 12 hours?                                                                             | <input checked="" type="checkbox"/>                   | [ ]                                 |
| • Was Drift or $D \leq 15\%$ from the initial calibration with a maximum $D \leq 20\%$ for a specific compound? | <input checked="" type="checkbox"/> affecting results | [ ]                                 |
| 8. Sample Analysis:                                                                                             |                                                       |                                     |
| • Was the RRT of an identified component within the retention time window created as SW-846 requires?           | NA [ ]                                                | [ ]                                 |
| • Were samples with levels higher than the calibration range (E), diluted and re-analyzed?                      | [ ]                                                   | [ ]                                 |
| • Were identified compounds confirmed on a second GC column?                                                    | [ ]                                                   | [ ]                                 |
| • Was RPD of target analyte confirmation $\leq 40\%$ ?                                                          | <input checked="" type="checkbox"/> [ ]               | [ ]                                 |
| 9. Sample Quality Control:                                                                                      |                                                       |                                     |
| • <u>Method Blanks</u> : Were target analytes $\leq 1/2$ MRL?                                                   | <input checked="" type="checkbox"/>                   | [ ]                                 |
| • <u>LCS</u> : Were the percent recoveries for LCS within the limits?                                           | <input checked="" type="checkbox"/>                   | [ ]                                 |
| • <u>MS/MSD</u> : Were the percent recoveries within limits?                                                    | <input checked="" type="checkbox"/> 0.0201            | [ ]                                 |
| Were the RPD within control limits?                                                                             | <input checked="" type="checkbox"/>                   | [ ]                                 |
| • <u>System Monitoring Compounds (Surrogates)</u> : are surrogate recoveries within QC limits?                  | <input checked="" type="checkbox"/>                   | [ ]                                 |

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Signature: Pat A

Date: 4/22/14

Name: Pat. Meeks

Tox peak 7  $\overset{-34.0}{\text{---}} \text{20.9\%} \downarrow \%R \text{ in ICV}$

## ORGANOCHLORINE PESTICIDES ANALYSIS CHECKLIST

Project Name: RVAAP CR Sites 73, 78, 79

Laboratory: TA-North Canton

Batch Number(s): 45500, 80549, 80736

Sample Delivery Group: 240-17422, -22559, -22662

- |                                                                                                                                                                                                                                                            | <u>Yes</u>                          | <u>No</u>                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| 1. Holding Time:                                                                                                                                                                                                                                           |                                     |                                     |
| (a) Were samples extracted within holding time?                                                                                                                                                                                                            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| (b) Were samples analyzed within holding time?                                                                                                                                                                                                             | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 2. DDT/Endrin Breakdown:                                                                                                                                                                                                                                   |                                     |                                     |
| • Was breakdown $\leq 15\%$ ?                                                                                                                                                                                                                              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 3. Initial Calibration:                                                                                                                                                                                                                                    |                                     |                                     |
| • Did the initial calibration consist of five standards?                                                                                                                                                                                                   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Did all compounds meet the $RSD \leq 20\%$ or $r \geq 0.99$ ?                                                                                                                                                                                            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was manual integration "M" performed?<br>If the answer is "Yes", check for supporting documents.                                                                                                                                                         | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was the manual integration necessary?<br><br>If the answer is "no", contact the laboratory inquiring<br>about the reasons behind the manual integration, and<br><b>inform the District Chemist immediately if there were<br/>      no valid reasons.</b> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 4. QCMDL:                                                                                                                                                                                                                                                  |                                     |                                     |
| • Was MDL Check performed?                                                                                                                                                                                                                                 | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 5. QCMRL:                                                                                                                                                                                                                                                  |                                     |                                     |
| • Were QC/MRL run at the beginning and end of every<br>daily sequence or every 12 hours??                                                                                                                                                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was the QC/MRL between 70-130% R <i>see comments</i>                                                                                                                                                                                                     | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |



|                                                                                                                                                                                                      | <u>Yes</u>                          | <u>No</u>                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| 6. Initial Calibration Verification (ICV):                                                                                                                                                           |                                     |                                     |
| <ul style="list-style-type: none"> <li>Is the mid level (2<sup>nd</sup> source) recovery within <del>85-115%</del> <i>QSM 80-120 see comments N/A</i>?</li> </ul>                                    | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| 7. Continuing Calibration Verification (CCV):                                                                                                                                                        |                                     |                                     |
| <ul style="list-style-type: none"> <li>Was CCV conducted every 12 hours?</li> </ul>                                                                                                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| <ul style="list-style-type: none"> <li>Was Drift or <math>D \leq 15\%</math> from the initial calibration with a maximum <math>D \leq 20\%</math> for a specific compound? <i>QSM 20%</i></li> </ul> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 8. Sample Analysis:                                                                                                                                                                                  |                                     |                                     |
| <ul style="list-style-type: none"> <li>Was the RRT of an identified component within the retention time window created as SW-846 requires?</li> </ul>                                                | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| <ul style="list-style-type: none"> <li>Were samples with levels higher than the calibration range (E), diluted and re-analyzed? <i>N/A</i></li> </ul>                                                | <input type="checkbox"/>            | <input type="checkbox"/>            |
| <ul style="list-style-type: none"> <li>Were identified compounds confirmed on a second GC column?</li> </ul>                                                                                         | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| <ul style="list-style-type: none"> <li>Was RPD of target analyte confirmation <math>\leq 40\%</math>?</li> </ul>                                                                                     | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 9. Sample Quality Control:                                                                                                                                                                           |                                     |                                     |
| <ul style="list-style-type: none"> <li><u>Method Blanks</u>: Were target analytes <math>\leq 1/2</math> MRL? <i>N/D</i></li> </ul>                                                                   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| <ul style="list-style-type: none"> <li><u>LCS</u>: Were the percent recoveries for LCS within the limits?</li> </ul>                                                                                 | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| <ul style="list-style-type: none"> <li><u>MS/MSD</u>: Were the percent recoveries within limits? <i>N/A</i></li> </ul>                                                                               | <input type="checkbox"/>            | <input type="checkbox"/>            |
| Were the RPD within control limits?                                                                                                                                                                  | <input type="checkbox"/>            | <input type="checkbox"/>            |
| <ul style="list-style-type: none"> <li><u>System Monitoring Compounds (Surrogates)</u>: are surrogate recoveries within QC limits?</li> </ul>                                                        | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

10. *alc*

9. Comments (attach additional sheets if necessary):

- 3 TDUs had toluene peak outliers:

|                     |                       |                             |
|---------------------|-----------------------|-----------------------------|
| HP9 11.28           | HP9 4.3               | HP3 3.14                    |
| 1° - 20.9, 53.7     | 1° - 21.2, 40.5       | ↑ (N/A - ND)                |
| 2° - 34.0, 88.2     | 2° - 33.9, 38.1, 40.1 | 2° - 32.8, 34.4, 33.3, 72.2 |
| ↓                   | ↓                     | ↓                           |
| 01355-0002M-0001-SO | 0135B-0014M-0001-SO   | 019W-0311-0001-SW           |

- Samples qualified UJ/C

MPT assoc. w/ 0135B-0014M-0001-SO 4,4'-DDD 108%  
UJ/C

Validated/Reviewed by:

Signature: *L.S. Calvin*

Date: 6.4.2014

Name: *L.S. Calvin*

*alc*  
181 184

# SEMIVOLATILE ORGANIC ANALYSIS CHECKLIST

Project Name: LV AAP Site 68

Laboratory: TA - N. Canton

Batch Number(s): \_\_\_\_\_

Sample Delivery Group: 17317, 17422, 17477, 22648

068SS-0003M (~~17~~317-7) 11/21 1338  
 068SD-0009 (17422-9) 11/26 13:12  
 068SW-0006 (17477-4) 11/16 14:08  
 068SB-0003M (~~17~~22648-58) 11/21 1338  
 4/18 2215

|                                                                                                          | <u>Yes</u>                          | <u>No</u>                           |
|----------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| 1. <u>Sample Holding Time:</u>                                                                           |                                     |                                     |
| (a) Were samples extracted within holding time?                                                          | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| (b) Were samples analyzed within holding time?                                                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 2. <u>Instrument Tuning:</u>                                                                             |                                     |                                     |
| Was the DFTPP tune performed at the beginning of each 12-hour period during which samples were analyzed? | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 3. <u>Ion Mass Assignments:</u>                                                                          |                                     |                                     |
| Was mass assignment based on m/z 198?                                                                    | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 4. <u>Ion Abundance:</u>                                                                                 |                                     |                                     |
| Indicate if DFTPP ions abundance relative to m/z 198 base peak met the ions abundance criteria:          |                                     |                                     |
| <u>m/z</u>                                                                                               | <u>Acceptance Criteria</u>          |                                     |
| 51                                                                                                       | 30.0 - 60.0 %                       | <input checked="" type="checkbox"/> |
| 68                                                                                                       | < 2% of mass 69                     | <input checked="" type="checkbox"/> |
| 70                                                                                                       | < 2% of mass 69                     | <input checked="" type="checkbox"/> |
| 127                                                                                                      | 40-60%                              | <input checked="" type="checkbox"/> |
| 197                                                                                                      | < 1%                                | <input checked="" type="checkbox"/> |
| <b>198</b>                                                                                               | <b>100%, Base peak</b>              | <input checked="" type="checkbox"/> |
| 199                                                                                                      | 5-9%                                | <input checked="" type="checkbox"/> |
| 275                                                                                                      | 10 - 30%                            | <input checked="" type="checkbox"/> |
| 365                                                                                                      | > 1%                                | <input checked="" type="checkbox"/> |
| 441                                                                                                      | present but < mass 443              | <input checked="" type="checkbox"/> |
| 442                                                                                                      | > 40%                               | <input checked="" type="checkbox"/> |
| 443                                                                                                      | 17-23% of mass 442                  | <input checked="" type="checkbox"/> |

|                                                                                                                                                                                                                                 | <u>Yes</u>                                                                             | <u>No</u>                                                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|--------------------------------------------------------------|
| <b>5.0 Initial Calibration:</b>                                                                                                                                                                                                 |                                                                                        |                                                              |
| <ul style="list-style-type: none"> <li>Did the initial calibration consist of five or more standards?</li> </ul>                                                                                                                | <del>5-stds</del> <input checked="" type="checkbox"/><br>more <input type="checkbox"/> | <input type="checkbox"/><br><input type="checkbox"/>         |
| If the calibration curve consists of 5-standards, check validity of the calibration model.                                                                                                                                      |                                                                                        |                                                              |
| Was the linear model applied?                                                                                                                                                                                                   | <del> </del> <input checked="" type="checkbox"/>                                       | <input type="checkbox"/>                                     |
| <ul style="list-style-type: none"> <li>Did the followings System Performance Check Compounds (SPCC) meet the minimum mean response factor (RF)?</li> </ul>                                                                      |                                                                                        |                                                              |
|                                                                                                                                                                                                                                 | <u>RF</u>                                                                              |                                                              |
| N-nitroso-di-n-propylamine                                                                                                                                                                                                      | 0.05                                                                                   | <input checked="" type="checkbox"/> <input type="checkbox"/> |
| Hexachlorocyclopentadiene                                                                                                                                                                                                       | 0.05                                                                                   | <input checked="" type="checkbox"/> <input type="checkbox"/> |
| 2,4-dinitrophenol                                                                                                                                                                                                               | 0.05                                                                                   | <input checked="" type="checkbox"/> <input type="checkbox"/> |
| 4-nitrophenol                                                                                                                                                                                                                   | 0.05                                                                                   | <input checked="" type="checkbox"/> <input type="checkbox"/> |
| <ul style="list-style-type: none"> <li>Did the RSD meet the criteria <math>\leq 30\%</math> for the followings each individual Calibration Check Compound (CCC)?</li> </ul>                                                     |                                                                                        |                                                              |
| <u>Base/Neutral Fraction:</u>                                                                                                                                                                                                   |                                                                                        |                                                              |
| Acenaphthene                                                                                                                                                                                                                    | <input checked="" type="checkbox"/> <input type="checkbox"/>                           | <input type="checkbox"/> <input type="checkbox"/>            |
| 1,4-Dichlorobenzene                                                                                                                                                                                                             | <input checked="" type="checkbox"/> <input type="checkbox"/>                           | <input type="checkbox"/> <input type="checkbox"/>            |
| Hexachlorobutadiene                                                                                                                                                                                                             | <input checked="" type="checkbox"/> <input type="checkbox"/>                           | <input type="checkbox"/> <input type="checkbox"/>            |
| Diphenylamine                                                                                                                                                                                                                   | <input checked="" type="checkbox"/> <input type="checkbox"/>                           | <input type="checkbox"/> <input type="checkbox"/>            |
| Di-n-octylphthalate                                                                                                                                                                                                             | <input checked="" type="checkbox"/> <input type="checkbox"/>                           | <input type="checkbox"/> <input type="checkbox"/>            |
| Fluoranthene                                                                                                                                                                                                                    | <input checked="" type="checkbox"/> <input type="checkbox"/>                           | <input type="checkbox"/> <input type="checkbox"/>            |
| Benzo(a)pyrene                                                                                                                                                                                                                  | <input checked="" type="checkbox"/> <input type="checkbox"/>                           | <input type="checkbox"/> <input type="checkbox"/>            |
| <u>Acid Fraction:</u>                                                                                                                                                                                                           |                                                                                        |                                                              |
| 4-Chloro-3-methylphenol                                                                                                                                                                                                         | <input checked="" type="checkbox"/> <input type="checkbox"/>                           | <input type="checkbox"/> <input type="checkbox"/>            |
| 2,4-Dichlorophenol                                                                                                                                                                                                              | <input checked="" type="checkbox"/> <input type="checkbox"/>                           | <input type="checkbox"/> <input type="checkbox"/>            |
| 2-Nitrophenol                                                                                                                                                                                                                   | <input checked="" type="checkbox"/> <input type="checkbox"/>                           | <input type="checkbox"/> <input type="checkbox"/>            |
| Phenol                                                                                                                                                                                                                          | <input checked="" type="checkbox"/> <input type="checkbox"/>                           | <input type="checkbox"/> <input type="checkbox"/>            |
| Pentachlorophenol                                                                                                                                                                                                               | <input checked="" type="checkbox"/> <input type="checkbox"/>                           | <input type="checkbox"/> <input type="checkbox"/>            |
| 2,4,6-Trichlorophenol                                                                                                                                                                                                           | <input checked="" type="checkbox"/> <input type="checkbox"/>                           | <input type="checkbox"/> <input type="checkbox"/>            |
| <ul style="list-style-type: none"> <li>Are the RSDs for the remaining target analytes <math>\leq 15\%</math>?</li> </ul>                                                                                                        | <del> </del> <input checked="" type="checkbox"/>                                       | <input type="checkbox"/> <input type="checkbox"/>            |
| <ul style="list-style-type: none"> <li>If the answer is "No", are the mean RSDs <math>\leq 15\%</math> or <math>r \geq 0.99</math> with a mean RSD <math>\leq 15\%</math> with a maximum RSD <math>\leq 30\%</math>?</li> </ul> | <input type="checkbox"/> <input type="checkbox"/>                                      | <input type="checkbox"/> <input type="checkbox"/>            |

- |                                         | <u>Yes</u>                          | <u>No</u>                |
|-----------------------------------------|-------------------------------------|--------------------------|
| • Was manual integration "M" performed? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

If the answer is "Yes", check for supporting documents.

- |                                         |                                     |                          |
|-----------------------------------------|-------------------------------------|--------------------------|
| • Was the manual integration necessary? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|-----------------------------------------|-------------------------------------|--------------------------|

If the answer is "No", contact the laboratory inquiring about the reasons behind the manual integration, and **inform the District Chemist immediately if there were no valid reasons.**

6. QCMDL:

- |                            |                          |                                     |
|----------------------------|--------------------------|-------------------------------------|
| • Was MDL Check performed? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|----------------------------|--------------------------|-------------------------------------|

7. QCMRL:

- |                                                                                                   |                                     |                                     |
|---------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| • Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours?             | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
|                                                                                                   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| • Was the QC/MRL between 70-130% R                                                                |                                     |                                     |
| • For the non-contaminants of concern was the QC/MRL between 50-150% (Sporadic Marginal Failure)? | N/A <input type="checkbox"/>        | <input type="checkbox"/>            |

8. Initial Calibration Verification (ICV):

- |                                                                                                                                  |                                     |                          |
|----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------|
| • Is the mid level (2 <sup>nd</sup> source) recovery within 70-130% for contaminants of concern ?                                | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • Is the mid level (2 <sup>nd</sup> source) recovery within 50-150% for non-contaminants of concern (Sporadic Marginal Failure)? | N/A <input type="checkbox"/>        | <input type="checkbox"/> |

9. Continuing Calibration Verification (CCV):

- |                                               |                                     |                          |
|-----------------------------------------------|-------------------------------------|--------------------------|
| • Was CCV conducted every 12 hours?           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • Did any of SPCC meet the minimum RF values? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

|                            |      | Yes                                 | No                       |
|----------------------------|------|-------------------------------------|--------------------------|
| N-nitroso-di-n-propylamine | 0.05 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Hexachlorocyclopentadiene  | 0.05 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2,4-dinitrophenol          | 0.05 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 4-nitrophenol              | 0.05 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

- Did the CCC meet the minimum requirements ( $D \leq 20\%$ ) for the followings?

Base/Neutral Fraction:

|                     |                                     |                          |
|---------------------|-------------------------------------|--------------------------|
| Acenaphthene        | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 1,4-Dichlorobenzene | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Hexachlorobutadiene | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Diphenylamine       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Di-n-octylphthalate | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Fluoranthene        | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Benzo(a)pyrene      | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Acid Fraction:

|                         |                                     |                          |
|-------------------------|-------------------------------------|--------------------------|
| 4-Chloro-3-methylphenol | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2,4-Dichlorophenol      | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2-Nitrophenol           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Phenol                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Pentachlorophenol       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2,4,6-Trichlorophenol   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

- Primary Evaluation: Was Drift or  $D \leq 20\%$  calculated from the initial calibration? ☒ ☐
- Alternative Evaluation: Maximum allowable Drift/D for each target analyte is  $\leq 30\%$ . ☐ ☐

10. Sample Analysis:

- Was the RRT of an identified component within  $\pm 0.06$  RRT units of the RRT of the standard component? ☒ ☐
- Did the abundance of ions in the sample spectra agree within 30% of the major ions ( $> 10\%$  of the base ion) in the standard spectra? ☒ ☐
- Were the internal standard areas within the QC limits (from -50% to +200%)? ☒ ☐

11. Sample Quality Control:

- |                                                                                                | Yes                                 | No                                  |
|------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| • <u>Method Blanks</u> : Were target analytes $\leq 1/2$ MRL?                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| • <u>LCS</u> : Were the percent recoveries for LCS within the limits?                          | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| • <u>MS/MSD</u> : Were the percent recoveries within limits?                                   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Were the RPD within control limits?                                                            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| • <u>System Monitoring Compounds (Surrogates)</u> : are surrogate recoveries within QC limits? | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

12. Comments (attach additional sheets if necessary):

MS/D on 3M: BAP  $\downarrow$  MSD (46%) 50-110%  
~~benzoic acid 0+0~~ keep 0-110% R/Q  
 4-CA MS  $\downarrow$  (8%, 10-45%)  
 3,3L 4/6%, 10-130% R/Q

MRL 46DN-2MP 59% + 24DNP 50% 3M, ghi 62%, n-ndpa } 3M  
 hexachloromellane 69%, a,h 24DNP  
 06855  $\leftarrow$  g,h,i (58%), a,h (65%), 24DNP (68%), indeno (66%), hexachloropentadecene (10%)

LCS - 0685D benzoic acid U  
 MS/D on 0685D benzoic acid 0/0% (0-110)  
 4-chloroaniline RPD 74% due to low MS (9/21, 10-95)  
 3,3L (0%, 10-130%)

Validated/Reviewed by: 3-nitroaniline (9/17, 25-110%) RPD 64%  
 4-NA (21/23, 35-115%)

MRL 24DNP MRL 61% - 0685B

Signature: P. Meels

Date: 6/5/14

Name: P. Meels

bis MB = 20.5 ug/kg  
 = 22.1 ug/kg  
 22.4

U/B @ Level 0685  
 U/B @ level 0685D  
 U/B @ level 0685B

m/SD SW 3,3L 0,2% , 14DCB (33% RPD), 13DCB (33% RPD), 12DCB (34% RPD) a,h (86% RPD)  
 2-chloroisoprop (32% RPD) 2-chloroethyl (35% RPD), ghi (31% RPD)  
 1-octyl (38% RPD), hexabuta (32), hexethyl (31), indeno (34%)  
 124TCB (31)

# SEMIVOLATILE ORGANIC ANALYSIS CHECKLIST

Project Name: CR Site 69

17525-1 06955-000M 11/28 1009  
17602-9 06955-000M 11/29 1736

Laboratory: TA-N Canton

Batch Number(s): \_\_\_\_\_

Sample Delivery Group: 17525, 17602

- |                                                                                                          | <u>Yes</u>                          | <u>No</u>                           |
|----------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| 1. <u>Sample Holding Time:</u>                                                                           |                                     |                                     |
| (a) Were samples extracted within holding time?                                                          | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| (b) Were samples analyzed within holding time?                                                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 2. <u>Instrument Tuning:</u>                                                                             |                                     |                                     |
| Was the DFTPP tune performed at the beginning of each 12-hour period during which samples were analyzed? | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 3. <u>Ion Mass Assignments:</u>                                                                          |                                     |                                     |
| Was mass assignment based on m/z 198?                                                                    | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 4. <u>Ion Abundance:</u>                                                                                 |                                     |                                     |
| Indicate if DFTPP ions abundance relative to m/z 198 base peak met the ions abundance criteria:          |                                     |                                     |
| <u>m/z</u>                                                                                               | <u>Acceptance Criteria</u>          |                                     |
| 51                                                                                                       | 30.0 - 60.0 %                       | <input checked="" type="checkbox"/> |
| 68                                                                                                       | < 2% of mass 69                     | <input checked="" type="checkbox"/> |
| 70                                                                                                       | < 2% of mass 69                     | <input checked="" type="checkbox"/> |
| 127                                                                                                      | 40-60%                              | <input checked="" type="checkbox"/> |
| 197                                                                                                      | < 1%                                | <input checked="" type="checkbox"/> |
| <b>198</b>                                                                                               | <b>100%, Base peak</b>              | <input checked="" type="checkbox"/> |
| 199                                                                                                      | 5-9%                                | <input checked="" type="checkbox"/> |
| 275                                                                                                      | 10 - 30%                            | <input checked="" type="checkbox"/> |
| 365                                                                                                      | > 1%                                | <input checked="" type="checkbox"/> |
| 441                                                                                                      | present but < mass 443              | <input checked="" type="checkbox"/> |
| 442                                                                                                      | > 40%                               | <input checked="" type="checkbox"/> |
| 443                                                                                                      | 17-23% of mass 442                  | <input checked="" type="checkbox"/> |



|                                                                                                                                                                                                                                 | <u>Yes</u>                                                                                                                                                                                                                                                                         | <u>No</u>                                                                                                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| <b>5.0 Initial Calibration:</b>                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                    |                                                                                                                     |
| <ul style="list-style-type: none"> <li>Did the initial calibration consist of five or more standards?</li> </ul>                                                                                                                | <input checked="" type="checkbox"/><br><div style="display: flex; justify-content: space-between; width: 100px;"> <span>5-stds</span> <span>more</span> </div> <div style="display: flex; justify-content: space-between; width: 100px;"> <span>[ ]</span> <span>[ ]</span> </div> | <div style="display: flex; justify-content: space-between; width: 100px;"> <span>[ ]</span> <span>[ ]</span> </div> |
| If the calibration curve consists of 5-standards, check validity of the calibration model.                                                                                                                                      |                                                                                                                                                                                                                                                                                    |                                                                                                                     |
| Was the linear model applied?                                                                                                                                                                                                   | <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                | <input type="checkbox"/>                                                                                            |
| <ul style="list-style-type: none"> <li>Did the followings System Performance Check Compounds (SPCC) meet the minimum mean response factor (RF)?</li> </ul>                                                                      |                                                                                                                                                                                                                                                                                    |                                                                                                                     |
|                                                                                                                                                                                                                                 | <u>RF</u>                                                                                                                                                                                                                                                                          |                                                                                                                     |
| N-nitroso-di-n-propylamine                                                                                                                                                                                                      | 0.05                                                                                                                                                                                                                                                                               | <input checked="" type="checkbox"/>                                                                                 |
| Hexachlorocyclopentadiene                                                                                                                                                                                                       | 0.05                                                                                                                                                                                                                                                                               | <input checked="" type="checkbox"/>                                                                                 |
| 2,4-dinitrophenol                                                                                                                                                                                                               | 0.05                                                                                                                                                                                                                                                                               | <input checked="" type="checkbox"/>                                                                                 |
| 4-nitrophenol                                                                                                                                                                                                                   | 0.05                                                                                                                                                                                                                                                                               | <input checked="" type="checkbox"/>                                                                                 |
| <ul style="list-style-type: none"> <li>Did the RSD meet the criteria <math>\leq 30\%</math> for the followings each individual Calibration Check Compound (CCC)?</li> </ul>                                                     |                                                                                                                                                                                                                                                                                    |                                                                                                                     |
| <u>Base/Neutral Fraction:</u>                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                    |                                                                                                                     |
| Acenaphthene                                                                                                                                                                                                                    | <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                | <input type="checkbox"/>                                                                                            |
| 1,4-Dichlorobenzene                                                                                                                                                                                                             | <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                | <input type="checkbox"/>                                                                                            |
| Hexachlorobutadiene                                                                                                                                                                                                             | <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                | <input type="checkbox"/>                                                                                            |
| Diphenylamine                                                                                                                                                                                                                   | <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                | <input type="checkbox"/>                                                                                            |
| Di-n-octylphthalate                                                                                                                                                                                                             | <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                | <input type="checkbox"/>                                                                                            |
| Fluoranthene                                                                                                                                                                                                                    | <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                | <input type="checkbox"/>                                                                                            |
| Benzo(a)pyrene                                                                                                                                                                                                                  | <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                | <input type="checkbox"/>                                                                                            |
| <u>Acid Fraction:</u>                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                    |                                                                                                                     |
| 4-Chloro-3-methylphenol                                                                                                                                                                                                         | <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                | <input type="checkbox"/>                                                                                            |
| 2,4-Dichlorophenol                                                                                                                                                                                                              | <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                | <input type="checkbox"/>                                                                                            |
| 2-Nitrophenol                                                                                                                                                                                                                   | <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                | <input type="checkbox"/>                                                                                            |
| Phenol                                                                                                                                                                                                                          | <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                | <input type="checkbox"/>                                                                                            |
| Pentachlorophenol                                                                                                                                                                                                               | <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                | <input type="checkbox"/>                                                                                            |
| 2,4,6-Trichlorophenol                                                                                                                                                                                                           | <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                | <input type="checkbox"/>                                                                                            |
| <ul style="list-style-type: none"> <li>Are the RSDs for the remaining target analytes <math>\leq 15\%</math>?</li> </ul>                                                                                                        | <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                | <input type="checkbox"/>                                                                                            |
| <ul style="list-style-type: none"> <li>If the answer is "No", are the mean RSDs <math>\leq 15\%</math> or <math>r \geq 0.99</math> with a mean RSD <math>\leq 15\%</math> with a maximum RSD <math>\leq 30\%</math>?</li> </ul> | <input type="checkbox"/>                                                                                                                                                                                                                                                           | <input type="checkbox"/>                                                                                            |
|                                                                                                                                                                                                                                 | <input type="checkbox"/>                                                                                                                                                                                                                                                           | <input type="checkbox"/>                                                                                            |

- |                                         |                                     |                          |
|-----------------------------------------|-------------------------------------|--------------------------|
|                                         | <u>Yes</u>                          | <u>No</u>                |
| • Was manual integration "M" performed? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

If the answer is "Yes", check for supporting documents.

- |                                         |                                     |                          |
|-----------------------------------------|-------------------------------------|--------------------------|
| • Was the manual integration necessary? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|-----------------------------------------|-------------------------------------|--------------------------|

If the answer is "No", contact the laboratory inquiring about the reasons behind the manual integration, and **inform the District Chemist immediately if there were no valid reasons.**

6. QCMDL:

- |                            |                          |                                     |
|----------------------------|--------------------------|-------------------------------------|
| • Was MDL Check performed? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|----------------------------|--------------------------|-------------------------------------|

7. QCMRL:

- |                                                                                                   |                                     |                                     |
|---------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| • Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours?             | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was the QC/MRL between 70-130% R                                                                | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| • For the non-contaminants of concern was the QC/MRL between 50-150% (Sporadic Marginal Failure)? | <input type="checkbox"/>            | <input type="checkbox"/>            |

8. Initial Calibration Verification (ICV):

- |                                                                                                                                  |                                     |                                     |
|----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| • Is the mid level (2 <sup>nd</sup> source) recovery within 70-130% for contaminants of concern ?                                | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| • Is the mid level (2 <sup>nd</sup> source) recovery within 50-150% for non-contaminants of concern (Sporadic Marginal Failure)? | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

9. Continuing Calibration Verification (CCV):

- |                                               |                                     |                          |
|-----------------------------------------------|-------------------------------------|--------------------------|
| • Was CCV conducted every 12 hours?           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • Did any of SPCC meet the minimum RF values? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

RF

|                            |      | Yes                                 | No                       |
|----------------------------|------|-------------------------------------|--------------------------|
| N-nitroso-di-n-propylamine | 0.05 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Hexachlorocyclopentadiene  | 0.05 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2,4-dinitrophenol          | 0.05 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 4-nitrophenol              | 0.05 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

- Did the CCC meet the minimum requirements ( $D \leq 20\%$ ) for the followings?

Base/Neutral Fraction:

|                     |                                     |                          |
|---------------------|-------------------------------------|--------------------------|
| Acenaphthene        | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 1,4-Dichlorobenzene | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Hexachlorobutadiene | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Diphenylamine       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Di-n-octylphthalate | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Fluoranthene        | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Benzo(a)pyrene      | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Acid Fraction:

|                         |                                     |                          |
|-------------------------|-------------------------------------|--------------------------|
| 4-Chloro-3-methylphenol | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2,4-Dichlorophenol      | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2-Nitrophenol           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Phenol                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Pentachlorophenol       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2,4,6-Trichlorophenol   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

- Primary Evaluation: Was Drift or  $D \leq 20\%$  calculated from the initial calibration? ☒ ☐
- Alternative Evaluation: Maximum allowable Drift/D for each target analyte is  $\leq 30\%$ . ☐ ☐

10. Sample Analysis:

- Was the RRT of an identified component within  $\pm 0.06$  RRT units of the RRT of the standard component? ☒ ☐
- Did the abundance of ions in the sample spectra agree within 30% of the major ions ( $> 10\%$  of the base ion) in the standard spectra? ☒ ☐
- Were the internal standard areas within the QC limits (from -50% to +200%)? ☒ ☐

11. Sample Quality Control:

- |                                                                                                | <u>Yes</u>                          | <u>No</u>                           |
|------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| • <u>Method Blanks</u> : Were target analytes $\leq 1/2$ MRL?                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| • <u>LCS</u> : Were the percent recoveries for LCS within the limits?                          | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • <u>MS/MSD</u> : Were the percent recoveries within limits?                                   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Were the RPD within control limits?                                                            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| • <u>System Monitoring Compounds (Surrogates)</u> : are surrogate recoveries within QC limits? | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

12. Comments (attach additional sheets if necessary):

raw data shows OK

|      |       |              |       |            |         |
|------|-------|--------------|-------|------------|---------|
| LCS  | 0001M | benzoic acid | U     | -R/L       |         |
| MS/D | 0001M | "            | "     | R/Q + 3,3' | U R/Q   |
|      |       | 46 DN 2 MP   |       | OK/O, 200  | 10-130  |
|      |       | 4 NP         |       | OK, U, 200 | 15-146  |
| MRL  | 0001M | ND phenyl    | 0%    |            |         |
| lev  | 0001M | 3,3'         | 26.1% | yes        | → 0013M |
| MD   | bis   | 19.8         | U/B   |            | 0013M   |

Validated/Reviewed by:

Signature: P. Meeks

Date: 6/6/14

Name: P. Meeks

# SEMIVOLATILE ORGANIC ANALYSIS CHECKLIST

Project Name: RV AAP CR Site 73

Laboratory: TA - W. Canton

Batch Number(s): \_\_\_\_\_

Sample Delivery Group: 17422, 18441, 22648, 22663

07355-0002m (17422-5) 11/26 1508  
07358-0016m (22648-1) 4/16/15  
07358-0047 (22648-11) 4/16 1714  
07358-0009m (18441-23) 12/18 1922  
07358-0038m (22663-14) 5/5 0057  
5/3 1648

|                                                                                                          | Yes                                 | No                                                 |
|----------------------------------------------------------------------------------------------------------|-------------------------------------|----------------------------------------------------|
| 1. <u>Sample Holding Time:</u>                                                                           |                                     |                                                    |
| (a) Were samples extracted within holding time?                                                          | <input type="checkbox"/>            | <input checked="" type="checkbox"/> 0038m lid post |
| (b) Were samples analyzed within holding time?                                                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>                           |
| 2. <u>Instrument Tuning:</u>                                                                             |                                     |                                                    |
| Was the DFTPP tune performed at the beginning of each 12-hour period during which samples were analyzed? | <input checked="" type="checkbox"/> | <input type="checkbox"/>                           |
| 3. <u>Ion Mass Assignments:</u>                                                                          |                                     |                                                    |
| Was mass assignment based on m/z 198?                                                                    | <input checked="" type="checkbox"/> | <input type="checkbox"/>                           |
| 4. <u>Ion Abundance:</u>                                                                                 |                                     |                                                    |
| Indicate if DFTPP ions abundance relative to m/z 198 base peak met the ions abundance criteria:          |                                     |                                                    |
| <u>m/z</u> <u>Acceptance Criteria</u>                                                                    |                                     |                                                    |
| 51      30.0 - 60.0 %                                                                                    | <input checked="" type="checkbox"/> | <input type="checkbox"/>                           |
| 68      < 2% of mass 69                                                                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>                           |
| 70      < 2% of mass 69                                                                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>                           |
| 127      40-60%                                                                                          | <input checked="" type="checkbox"/> | <input type="checkbox"/>                           |
| 197      < 1%                                                                                            | <input checked="" type="checkbox"/> | <input type="checkbox"/>                           |
| 198      100%, Base peak                                                                                 | <input checked="" type="checkbox"/> | <input type="checkbox"/>                           |
| 199      5-9%                                                                                            | <input checked="" type="checkbox"/> | <input type="checkbox"/>                           |
| 275      10 - 30%                                                                                        | <input checked="" type="checkbox"/> | <input type="checkbox"/>                           |
| 365      > 1%                                                                                            | <input checked="" type="checkbox"/> | <input type="checkbox"/>                           |
| 441      present but < mass 443                                                                          | <input checked="" type="checkbox"/> | <input type="checkbox"/>                           |
| 442      > 40%                                                                                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>                           |
| 443      17-23% of mass 442                                                                              | <input checked="" type="checkbox"/> | <input type="checkbox"/>                           |

|                                                                                                                                                                                                                                 |                                                                             | <u>Yes</u>                          | <u>No</u>                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|-------------------------------------|--------------------------|
| <b>5.0 <u>Initial Calibration:</u></b>                                                                                                                                                                                          |                                                                             |                                     |                          |
| <ul style="list-style-type: none"> <li>Did the initial calibration consist of five or more standards?</li> </ul>                                                                                                                | 5-stds <input checked="" type="checkbox"/><br>more <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| If the calibration curve consists of 5-standards, check validity of the calibration model.                                                                                                                                      |                                                                             |                                     |                          |
| Was the linear model applied?                                                                                                                                                                                                   | <input checked="" type="checkbox"/>                                         | <input type="checkbox"/>            | <input type="checkbox"/> |
| <ul style="list-style-type: none"> <li>Did the followings System Performance Check Compounds (SPCC) meet the minimum mean response factor (RF)?</li> </ul>                                                                      |                                                                             |                                     |                          |
|                                                                                                                                                                                                                                 | <u>RF</u>                                                                   |                                     |                          |
| N-nitroso-di-n-propylamine                                                                                                                                                                                                      | 0.05                                                                        | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Hexachlorocyclopentadiene                                                                                                                                                                                                       | 0.05                                                                        | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2,4-dinitrophenol                                                                                                                                                                                                               | 0.05                                                                        | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 4-nitrophenol                                                                                                                                                                                                                   | 0.05                                                                        | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <ul style="list-style-type: none"> <li>Did the RSD meet the criteria <math>\leq 30\%</math> for the followings each individual Calibration Check Compound (CCC)?</li> </ul>                                                     |                                                                             |                                     |                          |
| <u>Base/Neutral Fraction:</u>                                                                                                                                                                                                   |                                                                             |                                     |                          |
| Acenaphthene                                                                                                                                                                                                                    |                                                                             | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 1,4-Dichlorobenzene                                                                                                                                                                                                             |                                                                             | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Hexachlorobutadiene                                                                                                                                                                                                             |                                                                             | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Diphenylamine                                                                                                                                                                                                                   |                                                                             | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Di-n-octylphthalate                                                                                                                                                                                                             |                                                                             | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Fluoranthene                                                                                                                                                                                                                    |                                                                             | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Benzo(a)pyrene                                                                                                                                                                                                                  |                                                                             | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <u>Acid Fraction:</u>                                                                                                                                                                                                           |                                                                             |                                     |                          |
| 4-Chloro-3-methylphenol                                                                                                                                                                                                         |                                                                             | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2,4-Dichlorophenol                                                                                                                                                                                                              |                                                                             | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2-Nitrophenol                                                                                                                                                                                                                   |                                                                             | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Phenol                                                                                                                                                                                                                          |                                                                             | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Pentachlorophenol                                                                                                                                                                                                               |                                                                             | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2,4,6-Trichlorophenol                                                                                                                                                                                                           |                                                                             | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <ul style="list-style-type: none"> <li>Are the RSDs for the remaining target analytes <math>\leq 15\%</math>?</li> </ul>                                                                                                        | <input checked="" type="checkbox"/>                                         | <input type="checkbox"/>            | <input type="checkbox"/> |
| <ul style="list-style-type: none"> <li>If the answer is "No", are the mean RSDs <math>\leq 15\%</math> or <math>r \geq 0.99</math> with a mean RSD <math>\leq 15\%</math> with a maximum RSD <math>\leq 30\%</math>?</li> </ul> | <input type="checkbox"/>                                                    | <input type="checkbox"/>            | <input type="checkbox"/> |
|                                                                                                                                                                                                                                 | <input type="checkbox"/>                                                    | <input type="checkbox"/>            | <input type="checkbox"/> |

- |                                         | <u>Yes</u>                          | <u>No</u>                |
|-----------------------------------------|-------------------------------------|--------------------------|
| • Was manual integration "M" performed? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

If the answer is "Yes", check for supporting documents.

- |                                         |                          |                          |
|-----------------------------------------|--------------------------|--------------------------|
| • Was the manual integration necessary? | <input type="checkbox"/> | <input type="checkbox"/> |
|-----------------------------------------|--------------------------|--------------------------|

If the answer is "No", contact the laboratory inquiring about the reasons behind the manual integration, and **inform the District Chemist immediately if there were no valid reasons.**

6. QCMDL:

- |                            |                          |                                     |
|----------------------------|--------------------------|-------------------------------------|
| • Was MDL Check performed? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|----------------------------|--------------------------|-------------------------------------|

7. QCMRL:

- |                                                                                                   |                                     |                                     |
|---------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| • Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours?             | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
|                                                                                                   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| • Was the QC/MRL between 70-130% R                                                                |                                     |                                     |
| • For the non-contaminants of concern was the QC/MRL between 50-150% (Sporadic Marginal Failure)? | <input type="checkbox"/>            | <input type="checkbox"/>            |

8. Initial Calibration Verification (ICV):

- |                                                                                                                                  |                          |                                     |
|----------------------------------------------------------------------------------------------------------------------------------|--------------------------|-------------------------------------|
| • Is the mid level (2 <sup>nd</sup> source) recovery within <sup>±20</sup> <del>70-130</del> % for contaminants of concern ?     | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| • Is the mid level (2 <sup>nd</sup> source) recovery within 50-150% for non-contaminants of concern (Sporadic Marginal Failure)? | <input type="checkbox"/> | <input type="checkbox"/>            |

9. Continuing Calibration Verification (CCV):

- |                                               |                                     |                          |
|-----------------------------------------------|-------------------------------------|--------------------------|
| • Was CCV conducted every 12 hours?           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • Did any of SPCC meet the minimum RF values? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |



|                            |      | Yes                                 | No                       |
|----------------------------|------|-------------------------------------|--------------------------|
| N-nitroso-di-n-propylamine | 0.05 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Hexachlorocyclopentadiene  | 0.05 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2,4-dinitrophenol          | 0.05 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 4-nitrophenol              | 0.05 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

- Did the CCC meet the minimum requirements ( $D \leq 20\%$ ) for the followings?

Base/Neutral Fraction:

|                     |                                     |                          |
|---------------------|-------------------------------------|--------------------------|
| Acenaphthene        | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 1,4-Dichlorobenzene | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Hexachlorobutadiene | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Diphenylamine       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Di-n-octylphthalate | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Fluoranthene        | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Benzo(a)pyrene      | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Acid Fraction:

|                         |                                     |                          |
|-------------------------|-------------------------------------|--------------------------|
| 4-Chloro-3-methylphenol | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2,4-Dichlorophenol      | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2-Nitrophenol           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Phenol                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Pentachlorophenol       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2,4,6-Trichlorophenol   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

- Primary Evaluation: Was Drift or  $D \leq 20\%$  calculated from the initial calibration? ☒ ☐
- Alternative Evaluation: Maximum allowable Drift/D for each target analyte is  $\leq 30\%$ . ☐ ☐

10. Sample Analysis:

- Was the RRT of an identified component within  $\pm 0.06$  RRT units of the RRT of the standard component? ☒ ☐
- Did the abundance of ions in the sample spectra agree within 30% of the major ions ( $> 10\%$  of the base ion) in the standard spectra? ☒ ☐
- Were the internal standard areas within the QC limits (from -50% to +200%)? ☒ ☐

11. Sample Quality Control:



- |                                                                                                | <u>Yes</u> | <u>No</u>                               |
|------------------------------------------------------------------------------------------------|------------|-----------------------------------------|
| • <u>Method Blanks</u> : Were target analytes $\leq 1/2$ MRL?                                  | [ ]        | <input checked="" type="checkbox"/> [ ] |
| • <u>LCS</u> : Were the percent recoveries for LCS within the limits?                          | [ ]        | <input checked="" type="checkbox"/> [ ] |
| • <u>MS/MSD</u> : Were the percent recoveries within limits?                                   | [ ]        | [ ]                                     |
| Were the RPD within control limits?                                                            | [ ]        | [ ]                                     |
| • <u>System Monitoring Compounds (Surrogates)</u> : are surrogate recoveries within QC limits? | [ ]        | [ ]                                     |

12. Comments (attach additional sheets if necessary):

07355-0002M MB bis = 22.1 but ND, LCS benz acid  $\phi$   
MRL: ghi (58), gh (65), 24DNP (68), induo (66), hexa  
07355-0016M, 07380 MRL: hexachloroethane 44%  
LCS benzoic acid U - R/L 0009M (68752), 0038M (664)  
ICV 3.3' -21.1% 0009M, 0047  
MRL 0038M 24DNP 39% 46DN2MP 58%

Validated/Reviewed by:

Signature: P. Meeks

Date: 6/6/14

Name: P. Meeks

MB bis = 28.2 : 16M + 0047  
di-n-butyl 15.5 : 0016M

## CHECKLIST

0745 B-G002 (-2) 4/19 1855

0745B-0016 (-4) 4/28 1905

6245B - 0027 (-10) 4/23 1553

|                                                                                                          |                                     | <u>Yes</u>                          | <u>No</u>                           |
|----------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. <u>Sample Holding Time:</u>                                                                           |                                     |                                     |                                     |
| (a) Were samples extracted within holding time?                                                          | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| (b) Were samples analyzed within holding time?                                                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 2. <u>Instrument Tuning:</u>                                                                             |                                     |                                     |                                     |
| Was the DFTPP tune performed at the beginning of each 12-hour period during which samples were analyzed? | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 3. <u>Ion Mass Assignments:</u>                                                                          |                                     |                                     |                                     |
| Was mass assignment based on m/z 198?                                                                    | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 4. <u>Ion Abundance:</u>                                                                                 |                                     |                                     |                                     |
| Indicate if DFTPP ions abundance relative to m/z 198 base peak met the ions abundance criteria:          |                                     |                                     |                                     |
| <u>m/z</u>                                                                                               | <u>Acceptance Criteria</u>          |                                     |                                     |
| 51                                                                                                       | 30.0 - 60.0 %                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 68                                                                                                       | < 2% of mass 69                     | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 70                                                                                                       | < 2% of mass 69                     | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 127                                                                                                      | 40-60%                              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 197                                                                                                      | < 1%                                | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| <b>198</b>                                                                                               | <b>100%, Base peak</b>              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 199                                                                                                      | 5-9%                                | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 275                                                                                                      | 10 - 30%                            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 365                                                                                                      | > 1%                                | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 441                                                                                                      | present but < mass 443              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 442                                                                                                      | > 40%                               | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 443                                                                                                      | 17-23% of mass 442                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

|                                                                                                                                                                                                                                 | <u>Yes</u>                        | <u>No</u>  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|------------|
| <b>5.0 Initial Calibration:</b>                                                                                                                                                                                                 |                                   |            |
| <ul style="list-style-type: none"> <li>Did the initial calibration consist of five or more standards?</li> </ul>                                                                                                                | <del>5-stds</del> [ ]<br>more [ ] | [ ]<br>[ ] |
| If the calibration curve consists of 5-standards, check validity of the calibration model.                                                                                                                                      |                                   |            |
| Was the linear model applied?                                                                                                                                                                                                   | <del>[ ]</del>                    | [ ]        |
| <ul style="list-style-type: none"> <li>Did the followings System Performance Check Compounds (SPCC) meet the minimum mean response factor (RF)?</li> </ul>                                                                      |                                   |            |
| <u>RF</u>                                                                                                                                                                                                                       |                                   |            |
| N-nitroso-di-n-propylamine 0.05                                                                                                                                                                                                 | <del>[ ]</del>                    | [ ]        |
| Hexachlorocyclopentadiene 0.05                                                                                                                                                                                                  | <del>[ ]</del>                    | [ ]        |
| 2,4-dinitrophenol 0.05                                                                                                                                                                                                          | <del>[ ]</del>                    | [ ]        |
| 4-nitrophenol 0.05                                                                                                                                                                                                              | <del>[ ]</del>                    | [ ]        |
| <ul style="list-style-type: none"> <li>Did the RSD meet the criteria <math>\leq 30\%</math> for the followings each individual Calibration Check Compound (CCC)?</li> </ul>                                                     |                                   |            |
| <u>Base/Neutral Fraction:</u>                                                                                                                                                                                                   |                                   |            |
| Acenaphthene                                                                                                                                                                                                                    | <del>[ ]</del>                    | [ ]        |
| 1,4-Dichlorobenzene                                                                                                                                                                                                             | <del>[ ]</del>                    | [ ]        |
| Hexachlorobutadiene                                                                                                                                                                                                             | <del>[ ]</del>                    | [ ]        |
| Diphenylamine                                                                                                                                                                                                                   | <del>[ ]</del>                    | [ ]        |
| Di-n-octylphthalate                                                                                                                                                                                                             | <del>[ ]</del>                    | [ ]        |
| Fluoranthene                                                                                                                                                                                                                    | <del>[ ]</del>                    | [ ]        |
| Benzo(a)pyrene                                                                                                                                                                                                                  | <del>[ ]</del>                    | [ ]        |
| <u>Acid Fraction:</u>                                                                                                                                                                                                           |                                   |            |
| 4-Chloro-3-methylphenol                                                                                                                                                                                                         | <del>[ ]</del>                    | [ ]        |
| 2,4-Dichlorophenol                                                                                                                                                                                                              | <del>[ ]</del>                    | [ ]        |
| 2-Nitrophenol                                                                                                                                                                                                                   | <del>[ ]</del>                    | [ ]        |
| Phenol                                                                                                                                                                                                                          | <del>[ ]</del>                    | [ ]        |
| Pentachlorophenol                                                                                                                                                                                                               | <del>[ ]</del>                    | [ ]        |
| 2,4,6-Trichlorophenol                                                                                                                                                                                                           | <del>[ ]</del>                    | [ ]        |
| <ul style="list-style-type: none"> <li>Are the RSDs for the remaining target analytes <math>\leq 15\%</math>?</li> </ul>                                                                                                        | <del>[ ]</del>                    | [ ]        |
| <ul style="list-style-type: none"> <li>If the answer is "No", are the mean RSDs <math>\leq 15\%</math> or <math>r \geq 0.99</math> with a mean RSD <math>\leq 15\%</math> with a maximum RSD <math>\leq 30\%</math>?</li> </ul> | [ ]<br>[ ]                        | [ ]<br>[ ] |

- Was manual integration "M" performed?

Yes  
☒

No  
☐

If the answer is "Yes", check for supporting documents.

- Was the manual integration necessary?

☒

☐

If the answer is "No", contact the laboratory inquiring about the reasons behind the manual integration, and **inform the District Chemist immediately if there were no valid reasons.**

6. QCMDL:

- Was MDL Check performed?

☐

☒

7. QCMRL:

- Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours?

☒

☐

- Was the QC/MRL between 70-130% R

☐

☒

- For the non-contaminants of concern was the QC/MRL between 50-150% (Sporadic Marginal Failure)?

☐

☐

8. Initial Calibration Verification (ICV):

- Is the mid level (2<sup>nd</sup> source) recovery within 70-130% for contaminants of concern ?

☒

☐

- Is the mid level (2<sup>nd</sup> source) recovery within 50-150% for non-contaminants of concern (Sporadic Marginal Failure)?

☒

☐

9. Continuing Calibration Verification (CCV):

- Was CCV conducted every 12 hours?
- Did any of SPCC meet the minimum RF values?

☒  
☒

☐  
☐

|                            |      | Yes                                 | No                       |
|----------------------------|------|-------------------------------------|--------------------------|
| N-nitroso-di-n-propylamine | 0.05 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Hexachlorocyclopentadiene  | 0.05 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2,4-dinitrophenol          | 0.05 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 4-nitrophenol              | 0.05 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

- Did the CCC meet the minimum requirements ( $D \leq 20\%$ ) for the followings?

Base/Neutral Fraction:

|                     |                                     |                          |
|---------------------|-------------------------------------|--------------------------|
| Acenaphthene        | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 1,4-Dichlorobenzene | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Hexachlorobutadiene | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Diphenylamine       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Di-n-octylphthalate | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Fluoranthene        | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Benzo(a)pyrene      | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Acid Fraction:

|                         |                                     |                          |
|-------------------------|-------------------------------------|--------------------------|
| 4-Chloro-3-methylphenol | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2,4-Dichlorophenol      | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2-Nitrophenol           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Phenol                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Pentachlorophenol       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2,4,6-Trichlorophenol   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

- Primary Evaluation: Was Drift or  $D \leq 20\%$  calculated from the initial calibration? ☒ ☐
- Alternative Evaluation: Maximum allowable Drift/D for each target analyte is  $\leq 30\%$ . ☐ ☐

10. Sample Analysis:

- Was the RRT of an identified component within  $\pm 0.06$  RRT units of the RRT of the standard component? ☒ ☐
- Did the abundance of ions in the sample spectra agree within 30% of the major ions ( $> 10\%$  of the base ion) in the standard spectra? ☒ ☐
- Were the internal standard areas within the QC limits (from -50% to +200%)? ☒ ☐

11. Sample Quality Control:

- |                                                                                                | <u>Yes</u>                          | <u>No</u>                           |
|------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| • <u>Method Blanks</u> : Were target analytes $\leq 1/2$ MRL?                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| • <u>LCS</u> : Were the percent recoveries for LCS within the limits?                          | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| • <u>MS/MSD</u> : Were the percent recoveries within limits? <i>no</i>                         | <input type="checkbox"/>            | <input type="checkbox"/>            |
| Were the RPD within control limits?                                                            | <input type="checkbox"/>            | <input type="checkbox"/>            |
| • <u>System Monitoring Compounds (Surrogates)</u> : are surrogate recoveries within QC limits? | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

12. Comments (attach additional sheets if necessary):

MB his = 19.9 U 0002 / Di-n-butyl 24.5 w/ 0027  
benz acid LCS U but ok for all but -0010 -  
MRL 46 52% 24DNP 40% - 0002  
24 DNP 49 - 0010 0027  
benzonic acid 65% w/ 0010

Validated/Reviewed by:

Signature: \_\_\_\_\_

*P. Meeks*

Date: *6/6/14*

Name: \_\_\_\_\_

*P. Meeks*

## SEMIVOLATILE ORGANIC ANALYSIS CHECKLIST

Project Name: RVAAP Site 74 (CR)

Laboratory: TA - North Canton

Batch Number(s): AC 45171, 45503, 49174, 49185

Sample Delivery Group: 17422, 18544

|                                                                                                          | <u>Yes</u>                          | <u>No</u>                                                    |
|----------------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------------------------------------------|
| 1. <u>Sample Holding Time:</u>                                                                           |                                     |                                                              |
| (a) Were samples extracted within holding time?                                                          | <input checked="" type="checkbox"/> | <input type="checkbox"/>                                     |
| (b) Were samples analyzed within holding time?                                                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>                                     |
| 2. <u>Instrument Tuning:</u>                                                                             |                                     |                                                              |
| Was the DFTPP tune performed at the beginning of each 12-hour period during which samples were analyzed? | <input checked="" type="checkbox"/> | <input type="checkbox"/>                                     |
| 3. <u>Ion Mass Assignments:</u>                                                                          |                                     |                                                              |
| Was mass assignment based on m/z 198?                                                                    | <input checked="" type="checkbox"/> | <input type="checkbox"/>                                     |
| 4. <u>Ion Abundance:</u>                                                                                 |                                     |                                                              |
| Indicate if DFTPP ions abundance relative to m/z 198 base peak met the ions abundance criteria:          |                                     |                                                              |
| <u>m/z</u>                                                                                               | <u>Acceptance Criteria</u>          |                                                              |
| 51                                                                                                       | 30.0 - 60.0 %                       | <input checked="" type="checkbox"/> <input type="checkbox"/> |
| 68                                                                                                       | < 2% of mass 69                     | <input checked="" type="checkbox"/> <input type="checkbox"/> |
| 70                                                                                                       | < 2% of mass 69                     | <input checked="" type="checkbox"/> <input type="checkbox"/> |
| 127                                                                                                      | 40-60%                              | <input checked="" type="checkbox"/> <input type="checkbox"/> |
| 197                                                                                                      | < 1%                                | <input checked="" type="checkbox"/> <input type="checkbox"/> |
| 198                                                                                                      | 100%, Base peak                     | <input checked="" type="checkbox"/> <input type="checkbox"/> |
| 199                                                                                                      | 5-9%                                | <input checked="" type="checkbox"/> <input type="checkbox"/> |
| 275                                                                                                      | 10 - 30%                            | <input checked="" type="checkbox"/> <input type="checkbox"/> |
| 365                                                                                                      | > 1%                                | <input checked="" type="checkbox"/> <input type="checkbox"/> |
| 441                                                                                                      | present but < mass 443              | <input checked="" type="checkbox"/> <input type="checkbox"/> |
| 442                                                                                                      | > 40%                               | <input checked="" type="checkbox"/> <input type="checkbox"/> |
| 443                                                                                                      | 17-23% of mass 442                  | <input checked="" type="checkbox"/> <input type="checkbox"/> |

5.0 Initial Calibration:

Yes

No

- Did the initial calibration consist of five or more standards? 5-stds ☒ more ☒ ☐ ☐

If the calibration curve consists of 5-standards, check validity of the calibration model.

Was the linear model applied? ☒ ☐

- Did the followings System Performance Check Compounds (SPCC) meet the minimum mean response factor (RF)?

|                            | <u>RF</u> |                                     |                          |
|----------------------------|-----------|-------------------------------------|--------------------------|
| N-nitroso-di-n-propylamine | 0.05      | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Hexachlorocyclopentadiene  | 0.05      | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2,4-dinitrophenol          | 0.05      | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 4-nitrophenol              | 0.05      | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

- Did the RSD meet the criteria  $\leq 30\%$  for the followings each individual Calibration Check Compound (CCC)?

Base/Neutral Fraction:

|                     |                                     |                          |
|---------------------|-------------------------------------|--------------------------|
| Acenaphthene        | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 1,4-Dichlorobenzene | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Hexachlorobutadiene | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Diphenylamine       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Di-n-octylphthalate | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Fluoranthene        | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Benzo(a)pyrene      | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Acid Fraction:

|                         |                                     |                          |
|-------------------------|-------------------------------------|--------------------------|
| 4-Chloro-3-methylphenol | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2,4-Dichlorophenol      | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2-Nitrophenol           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Phenol                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Pentachlorophenol       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2,4,6-Trichlorophenol   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

- Are the RSDs for the remaining target analytes  $\leq 15\%$ ? ☒ ☐
- If the answer is "No", are the mean RSDs  $\leq 15\%$  or  $r \geq 0.99$  with a mean RSD  $\leq 15\%$  with a maximum RSD  $\leq 30\%$ ? ☒ ☐



- |                                         | <u>Yes</u>                          | <u>No</u>                |
|-----------------------------------------|-------------------------------------|--------------------------|
| • Was manual integration "M" performed? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

If the answer is "Yes", check for supporting documents.

- |                                         |                                     |                          |
|-----------------------------------------|-------------------------------------|--------------------------|
| • Was the manual integration necessary? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|-----------------------------------------|-------------------------------------|--------------------------|

If the answer is "No", contact the laboratory inquiring about the reasons behind the manual integration, and **inform the District Chemist immediately if there were no valid reasons.**

6. QCMDL:

- |                            |                                     |                          |
|----------------------------|-------------------------------------|--------------------------|
| • Was MDL Check performed? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|----------------------------|-------------------------------------|--------------------------|

7. QCMRL:

- |                                                                                                   |                                     |                                     |
|---------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| • Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours?             | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was the QC/MRL between 70-130% R                                                                | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| <i>see attached</i>                                                                               |                                     |                                     |
| • For the non-contaminants of concern was the QC/MRL between 50-150% (Sporadic Marginal Failure)? | <i>N/A</i> <input type="checkbox"/> | <input type="checkbox"/>            |

8. Initial Calibration Verification (ICV):

- |                                                                                                                                  |                                     |                                     |
|----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| • Is the mid level (2 <sup>nd</sup> source) recovery within <sup>80-120</sup> <del>70-130</del> % for contaminants of concern?   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| • Is the mid level (2 <sup>nd</sup> source) recovery within 50-150% for non-contaminants of concern (Sporadic Marginal Failure)? | <i>N/A</i> <input type="checkbox"/> | <input type="checkbox"/>            |

*4-hydroxyphenyl phenyl ether 79.5%  
W/C in 076SD-0009-0001-50*

9. Continuing Calibration Verification (CCV):

- |                                               |                                     |                          |
|-----------------------------------------------|-------------------------------------|--------------------------|
| • Was CCV conducted every 12 hours?           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • Did any of SPCC meet the minimum RF values? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

RF

|                            |      | <u>Yes</u>                          | <u>No</u>                |
|----------------------------|------|-------------------------------------|--------------------------|
| N-nitroso-di-n-propylamine | 0.05 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Hexachlorocyclopentadiene  | 0.05 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2,4-dinitrophenol          | 0.05 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 4-nitrophenol              | 0.05 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

- Did the CCC meet the minimum requirements ( $D \leq 20\%$ ) for the followings?

Base/Neutral Fraction:

|                     |                                     |                          |
|---------------------|-------------------------------------|--------------------------|
| Acenaphthene        | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 1,4-Dichlorobenzene | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Hexachlorobutadiene | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Diphenylamine       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Di-n-octylphthalate | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Fluoranthene        | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Benzo(a)pyrene      | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Acid Fraction:

|                         |                                     |                          |
|-------------------------|-------------------------------------|--------------------------|
| 4-Chloro-3-methylphenol | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2,4-Dichlorophenol      | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2-Nitrophenol           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Phenol                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Pentachlorophenol       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2,4,6-Trichlorophenol   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

- Primary Evaluation: Was Drift or  $D \leq 20\%$  calculated from the initial calibration? ☒ ☐
- Alternative Evaluation: Maximum allowable Drift/D for each target analyte is  $\leq 30\%$ . ☒ ☐

10. Sample Analysis:

- Was the RRT of an identified component within  $\pm 0.06$  RRT units of the RRT of the standard component? ☒ ☐
- Did the abundance of ions in the sample spectra agree within 30% of the major ions ( $> 10\%$  of the base ion) in the standard spectra? ☒ ☐
- Were the internal standard areas within the QC limits (from -50% to +200%)? ☒ ☐

11. Sample Quality Control:

- |                                                                                                | Yes                                 | No                                  |
|------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| • <u>Method Blanks</u> : Were target analytes $\leq$ 1/2 MRL?<br><i>see comments</i>           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • <u>LCS</u> : Were the percent recoveries for LCS within the limits?                          | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • <u>MS/MSD</u> : Were the percent recoveries within limits?<br><i>see attached</i>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Were the RPD within control limits?                                                            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • <u>System Monitoring Compounds (Surrogates)</u> : are surrogate recoveries within QC limits? | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

12. Comments (attach additional sheets if necessary):

*MBs bis* *U/B at level of contamination in*  
*diethyl phth. / 01455-0020 M-0001-50*  
*bis / all others except 0009 - detects U/B*

Validated/Reviewed by:

Signature: *L.S. Calvin*

Date: *4.19.2014*

Name: *L.S. Calvin*

- MRL standard recoveries were within the reasonable control limit of  $\pm 30\%$ , with exceptions affecting sample data noted in the table below. The nondetected results for n-nitrosodiphenylamine were rejected, "R," in the affected samples and the remaining results listed in the table below, all nondetects, were qualified as estimated, "UJ." All qualified results were coded with a "C" qualification code.

| Samples qualified for MRL %R outliers |     |                                            |
|---------------------------------------|-----|--------------------------------------------|
| Analyte                               | %R  | Qualified Samples                          |
| 2,4-dinitrophenol                     | 53% | 076SD-0009-0001-SO                         |
| benzoic acid                          | 63% |                                            |
| hexachloroethane                      | 58% |                                            |
| pentachlorophenol                     | 61% |                                            |
| n-nitrosodiphenylamine                | 0%  | 076SD-0102M-0001-SO<br>076SD-0114M-0001-SO |

- Bolded results listed in the table below were rejected, "R," for recoveries <10%. Remaining results were qualified as estimated, "J," for detects, or "UJ," for nondetects in the parent sample. All qualified results were coded with a "Q" qualification code. All RPDs were within the control limit of ≤30% listed in DoD QSM Table F-4.

| Samples Qualified for MS/MSD Recovery Outliers |                  |         |                         |
|------------------------------------------------|------------------|---------|-------------------------|
| Analyte                                        | % Recoveries     | Limits  | Qualified Parent Sample |
| <b>3,3'-dichlorobenzidine</b>                  | <b>0% / 0%</b>   | 10-130% | 076SD-0009-0001-SO      |
| <b>3-nitroaniline</b>                          | <b>0% / 0%</b>   | 25-110% |                         |
| <b>4-chloroaniline</b>                         | <b>3% / 3%</b>   | 10-95%  |                         |
| <b>4-nitroaniline</b>                          | <b>0% / 0%</b>   | 35-115% |                         |
| benzo(g,h,i)perylene                           | 32% / 35%        | 40-125% |                         |
| hexachloroethane                               | 19% / 21%        | 35-110% |                         |
| <b>3,3'-dichlorobenzidine</b>                  | <b>0% / 0%</b>   | 10-130% | 076SS-0020M-0001-SO     |
| <b>3-nitroaniline</b>                          | <b>8% / 12%</b>  | 25-110% |                         |
| <b>4-chloroaniline</b>                         | <b>5% / 7%</b>   | 10-95%  |                         |
| <b>4-nitroaniline</b>                          | <b>19% / 23%</b> | 35-115% |                         |

## SEMIVOLATILE ORGANIC ANALYSIS CHECKLIST

Project Name: RV AAP SR Side 78

678SB-0008M (22559-8) 4/12  
1910

Laboratory: TA- N. Conter

028SB-0016M (22559-14) 4/12  
1822

Batch Number(s): \_\_\_\_\_

Sample Delivery Group: 22559

|                                                                                                          | <u>Yes</u>                          | <u>No</u>                |
|----------------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------|
| 1. <u>Sample Holding Time:</u>                                                                           |                                     |                          |
| (a) Were samples extracted within holding time?                                                          | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| (b) Were samples analyzed within holding time?                                                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. <u>Instrument Tuning:</u>                                                                             |                                     |                          |
| Was the DFTPP tune performed at the beginning of each 12-hour period during which samples were analyzed? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. <u>Ion Mass Assignments:</u>                                                                          |                                     |                          |
| Was mass assignment based on m/z 198?                                                                    | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 4. <u>Ion Abundance:</u>                                                                                 |                                     |                          |
| Indicate if DFTPP ions abundance relative to m/z 198 base peak met the ions abundance criteria:          |                                     |                          |
| <u>m/z</u> <u>Acceptance Criteria</u>                                                                    |                                     |                          |
| 51      30.0 - 60.0 %                                                                                    | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 68      < 2% of mass 69                                                                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 70      < 2% of mass 69                                                                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 127      40-60%                                                                                          | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 197      < 1%                                                                                            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <b>198      100%, Base peak</b>                                                                          | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 199      5-9%                                                                                            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 275      10 - 30%                                                                                        | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 365      > 1%                                                                                            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 441      present but < mass 443                                                                          | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 442      > 40%                                                                                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 443      17-23% of mass 442                                                                              | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

|                                                                                                                                                                                                                                 | <u>Yes</u>                                                                             | <u>No</u>                                            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|------------------------------------------------------|
| <b>5.0 Initial Calibration:</b>                                                                                                                                                                                                 |                                                                                        |                                                      |
| <ul style="list-style-type: none"> <li>Did the initial calibration consist of five or more standards?</li> </ul>                                                                                                                | <del>5-stds</del> <input checked="" type="checkbox"/><br>more <input type="checkbox"/> | <input type="checkbox"/><br><input type="checkbox"/> |
| If the calibration curve consists of 5-standards, check validity of the calibration model.                                                                                                                                      |                                                                                        |                                                      |
| Was the linear model applied?                                                                                                                                                                                                   | <del><input type="checkbox"/></del>                                                    | <input type="checkbox"/>                             |
| <ul style="list-style-type: none"> <li>Did the followings System Performance Check Compounds (SPCC) meet the minimum mean response factor (RF)?</li> </ul>                                                                      |                                                                                        |                                                      |
|                                                                                                                                                                                                                                 | <u>RF</u>                                                                              |                                                      |
| N-nitroso-di-n-propylamine                                                                                                                                                                                                      | 0.05                                                                                   | <del><input type="checkbox"/></del>                  |
| Hexachlorocyclopentadiene                                                                                                                                                                                                       | 0.05                                                                                   | <del><input type="checkbox"/></del>                  |
| 2,4-dinitrophenol                                                                                                                                                                                                               | 0.05                                                                                   | <del><input type="checkbox"/></del>                  |
| 4-nitrophenol                                                                                                                                                                                                                   | 0.05                                                                                   | <del><input type="checkbox"/></del>                  |
| <ul style="list-style-type: none"> <li>Did the RSD meet the criteria <math>\leq 30\%</math> for the followings each individual Calibration Check Compound (CCC)?</li> </ul>                                                     |                                                                                        |                                                      |
| <u>Base/Neutral Fraction:</u>                                                                                                                                                                                                   |                                                                                        |                                                      |
| Acenaphthene                                                                                                                                                                                                                    | <del><input type="checkbox"/></del>                                                    | <input type="checkbox"/>                             |
| 1,4-Dichlorobenzene                                                                                                                                                                                                             | <del><input type="checkbox"/></del>                                                    | <input type="checkbox"/>                             |
| Hexachlorobutadiene                                                                                                                                                                                                             | <del><input type="checkbox"/></del>                                                    | <input type="checkbox"/>                             |
| Diphenylamine                                                                                                                                                                                                                   | <del><input type="checkbox"/></del>                                                    | <input type="checkbox"/>                             |
| Di-n-octylphthalate                                                                                                                                                                                                             | <del><input type="checkbox"/></del>                                                    | <input type="checkbox"/>                             |
| Fluoranthene                                                                                                                                                                                                                    | <del><input type="checkbox"/></del>                                                    | <input type="checkbox"/>                             |
| Benzo(a)pyrene                                                                                                                                                                                                                  | <del><input type="checkbox"/></del>                                                    | <input type="checkbox"/>                             |
| <u>Acid Fraction:</u>                                                                                                                                                                                                           |                                                                                        |                                                      |
| 4-Chloro-3-methylphenol                                                                                                                                                                                                         | <del><input type="checkbox"/></del>                                                    | <input type="checkbox"/>                             |
| 2,4-Dichlorophenol                                                                                                                                                                                                              | <del><input type="checkbox"/></del>                                                    | <input type="checkbox"/>                             |
| 2-Nitrophenol                                                                                                                                                                                                                   | <del><input type="checkbox"/></del>                                                    | <input type="checkbox"/>                             |
| Phenol                                                                                                                                                                                                                          | <del><input type="checkbox"/></del>                                                    | <input type="checkbox"/>                             |
| Pentachlorophenol                                                                                                                                                                                                               | <del><input type="checkbox"/></del>                                                    | <input type="checkbox"/>                             |
| 2,4,6-Trichlorophenol                                                                                                                                                                                                           | <del><input type="checkbox"/></del>                                                    | <input type="checkbox"/>                             |
| <ul style="list-style-type: none"> <li>Are the RSDs for the remaining target analytes <math>\leq 15\%</math>?</li> </ul>                                                                                                        | <del><input type="checkbox"/></del>                                                    | <input type="checkbox"/>                             |
| <ul style="list-style-type: none"> <li>If the answer is "No", are the mean RSDs <math>\leq 15\%</math> or <math>r \geq 0.99</math> with a mean RSD <math>\leq 15\%</math> with a maximum RSD <math>\leq 30\%</math>?</li> </ul> | <input type="checkbox"/>                                                               | <input type="checkbox"/>                             |
|                                                                                                                                                                                                                                 | <input type="checkbox"/>                                                               | <input type="checkbox"/>                             |

- |                                         | <u>Yes</u>                          | <u>No</u>                |
|-----------------------------------------|-------------------------------------|--------------------------|
| • Was manual integration "M" performed? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

If the answer is "Yes", check for supporting documents.

- |                                         |                                     |                          |
|-----------------------------------------|-------------------------------------|--------------------------|
| • Was the manual integration necessary? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|-----------------------------------------|-------------------------------------|--------------------------|

If the answer is "No", contact the laboratory inquiring about the reasons behind the manual integration, and **inform the District Chemist immediately if there were no valid reasons.**

6. QCMDL:

- |                            |                          |                                     |
|----------------------------|--------------------------|-------------------------------------|
| • Was MDL Check performed? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|----------------------------|--------------------------|-------------------------------------|

7. QCMRL:

- |                                                                                                   |                                     |                                     |
|---------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| • Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours?             | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was the QC/MRL between 70-130% R                                                                | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| • For the non-contaminants of concern was the QC/MRL between 50-150% (Sporadic Marginal Failure)? | <input type="checkbox"/>            | <input type="checkbox"/>            |

8. Initial Calibration Verification (ICV):

- |                                                                                                                                  |                                     |                          |
|----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------|
| • Is the mid level (2 <sup>nd</sup> source) recovery within 70-130% for contaminants of concern ?                                | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • Is the mid level (2 <sup>nd</sup> source) recovery within 50-150% for non-contaminants of concern (Sporadic Marginal Failure)? | <input type="checkbox"/>            | <input type="checkbox"/> |

9. Continuing Calibration Verification (CCV):

- |                                               |                                     |                          |
|-----------------------------------------------|-------------------------------------|--------------------------|
| • Was CCV conducted every 12 hours?           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • Did any of SPCC meet the minimum RF values? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |



|                            |      | Yes                                 | No                       |
|----------------------------|------|-------------------------------------|--------------------------|
| N-nitroso-di-n-propylamine | 0.05 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Hexachlorocyclopentadiene  | 0.05 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2,4-dinitrophenol          | 0.05 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 4-nitrophenol              | 0.05 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

- Did the CCC meet the minimum requirements ( $D \leq 20\%$ ) for the followings?

Base/Neutral Fraction:

|                     |                                     |                          |
|---------------------|-------------------------------------|--------------------------|
| Acenaphthene        | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 1,4-Dichlorobenzene | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Hexachlorobutadiene | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Diphenylamine       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Di-n-octylphthalate | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Fluoranthene        | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Benzo(a)pyrene      | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Acid Fraction:

|                         |                                     |                          |
|-------------------------|-------------------------------------|--------------------------|
| 4-Chloro-3-methylphenol | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2,4-Dichlorophenol      | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2-Nitrophenol           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Phenol                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Pentachlorophenol       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2,4,6-Trichlorophenol   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

- Primary Evaluation: Was Drift or  $D \leq 20\%$  calculated from the initial calibration? ☒ ☐
- Alternative Evaluation: Maximum allowable Drift/D for each target analyte is  $\leq 30\%$ . ☐ ☐

10. Sample Analysis:

- Was the RRT of an identified component within  $\pm 0.06$  RRT units of the RRT of the standard component? ☒ ☐
- Did the abundance of ions in the sample spectra agree within 30% of the major ions ( $> 10\%$  of the base ion) in the standard spectra? ☒ ☐
- Were the internal standard areas within the QC limits (from -50% to +200%)? ☒ ☐

11. Sample Quality Control:

- |                                                                                                | <u>Yes</u>                          | <u>No</u>                |
|------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------|
| • <u>Method Blanks</u> : Were target analytes $\leq 1/2$ MRL?                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • <u>LCS</u> : Were the percent recoveries for LCS within the limits?                          | <input type="checkbox"/>            | <input type="checkbox"/> |
| • <u>MS/MSD</u> : Were the percent recoveries within limits? N/A                               | <input type="checkbox"/>            | <input type="checkbox"/> |
| Were the RPD within control limits?                                                            | <input type="checkbox"/>            | <input type="checkbox"/> |
| • <u>System Monitoring Compounds (Surrogates)</u> : are surrogate recoveries within QC limits? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

12. Comments (attach additional sheets if necessary):

benz acid reported ND in LCS

MRL 9h, 62% J/W both

46 13, 24 DNP 15, hexaethan 63%

Validated/Reviewed by:

Signature: P. Meeks

Date: 6/6/14

Name: P. Meeks

# SEMIVOLATILE ORGANIC ANALYSIS CHECKLIST

Project Name: RVAAP CR Site 79

079SW-0311-0001-SW 4/11  
1957

Laboratory: JA-W Canton

Batch Number(s): \_\_\_\_\_

Sample Delivery Group: 22662

- |                                                                                                          | <u>Yes</u>                          | <u>No</u>                           |
|----------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| 1. <u>Sample Holding Time:</u>                                                                           |                                     |                                     |
| (a) Were samples extracted within holding time?                                                          | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| (b) Were samples analyzed within holding time?                                                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 2. <u>Instrument Tuning:</u>                                                                             |                                     |                                     |
| Was the DFTPP tune performed at the beginning of each 12-hour period during which samples were analyzed? | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 3. <u>Ion Mass Assignments:</u>                                                                          |                                     |                                     |
| Was mass assignment based on m/z 198?                                                                    | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 4. <u>Ion Abundance:</u>                                                                                 |                                     |                                     |
| Indicate if DFTPP ions abundance relative to m/z 198 base peak met the ions abundance criteria:          |                                     |                                     |
| <u>m/z</u>                                                                                               | <u>Acceptance Criteria</u>          |                                     |
| 51                                                                                                       | 30.0 - 60.0 %                       | <input checked="" type="checkbox"/> |
| 68                                                                                                       | < 2% of mass 69                     | <input checked="" type="checkbox"/> |
| 70                                                                                                       | < 2% of mass 69                     | <input checked="" type="checkbox"/> |
| 127                                                                                                      | 40-60%                              | <input checked="" type="checkbox"/> |
| 197                                                                                                      | < 1%                                | <input checked="" type="checkbox"/> |
| <b>198</b>                                                                                               | <b>100%, Base peak</b>              | <input checked="" type="checkbox"/> |
| 199                                                                                                      | 5-9%                                | <input checked="" type="checkbox"/> |
| 275                                                                                                      | 10 - 30%                            | <input checked="" type="checkbox"/> |
| 365                                                                                                      | > 1%                                | <input checked="" type="checkbox"/> |
| 441                                                                                                      | present but < mass 443              | <input checked="" type="checkbox"/> |
| 442                                                                                                      | > 40%                               | <input checked="" type="checkbox"/> |
| 443                                                                                                      | 17-23% of mass 442                  | <input checked="" type="checkbox"/> |

- |                                                                  | <u>Yes</u>                                                                      | <u>No</u>                                                |
|------------------------------------------------------------------|---------------------------------------------------------------------------------|----------------------------------------------------------|
| 5.0 <u>Initial Calibration:</u>                                  |                                                                                 |                                                          |
| • Did the initial calibration consist of five or more standards? | 5-stds <input checked="" type="checkbox"/> ]<br>more <input type="checkbox"/> ] | <input type="checkbox"/> ]<br><input type="checkbox"/> ] |

If the calibration curve consists of 5-standards, check validity of the calibration model.

|                               |                                       |                            |
|-------------------------------|---------------------------------------|----------------------------|
| Was the linear model applied? | <input checked="" type="checkbox"/> ] | <input type="checkbox"/> ] |
|-------------------------------|---------------------------------------|----------------------------|

- Did the followings System Performance Check Compounds (SPCC) meet the minimum mean response factor (RF)?

|                            | <u>RF</u> |                                       |  |                            |
|----------------------------|-----------|---------------------------------------|--|----------------------------|
| N-nitroso-di-n-propylamine | 0.05      | <input checked="" type="checkbox"/> ] |  | <input type="checkbox"/> ] |
| Hexachlorocyclopentadiene  | 0.05      | <input checked="" type="checkbox"/> ] |  | <input type="checkbox"/> ] |
| 2,4-dinitrophenol          | 0.05      | <input checked="" type="checkbox"/> ] |  | <input type="checkbox"/> ] |
| 4-nitrophenol              | 0.05      | <input checked="" type="checkbox"/> ] |  | <input type="checkbox"/> ] |

- Did the RSD meet the criteria  $\leq 30\%$  for the followings each individual Calibration Check Compound (CCC)?

Base/Neutral Fraction:

|                     |                                       |                            |
|---------------------|---------------------------------------|----------------------------|
| Acenaphthene        | <input checked="" type="checkbox"/> ] | <input type="checkbox"/> ] |
| 1,4-Dichlorobenzene | <input checked="" type="checkbox"/> ] | <input type="checkbox"/> ] |
| Hexachlorobutadiene | <input checked="" type="checkbox"/> ] | <input type="checkbox"/> ] |
| Diphenylamine       | <input checked="" type="checkbox"/> ] | <input type="checkbox"/> ] |
| Di-n-octylphthalate | <input checked="" type="checkbox"/> ] | <input type="checkbox"/> ] |
| Fluoranthene        | <input checked="" type="checkbox"/> ] | <input type="checkbox"/> ] |
| Benzo(a)pyrene      | <input checked="" type="checkbox"/> ] | <input type="checkbox"/> ] |

Acid Fraction:

|                         |                                       |                            |
|-------------------------|---------------------------------------|----------------------------|
| 4-Chloro-3-methylphenol | <input checked="" type="checkbox"/> ] | <input type="checkbox"/> ] |
| 2,4-Dichlorophenol      | <input checked="" type="checkbox"/> ] | <input type="checkbox"/> ] |
| 2-Nitrophenol           | <input checked="" type="checkbox"/> ] | <input type="checkbox"/> ] |
| Phenol                  | <input checked="" type="checkbox"/> ] | <input type="checkbox"/> ] |
| Pentachlorophenol       | <input checked="" type="checkbox"/> ] | <input type="checkbox"/> ] |
| 2,4,6-Trichlorophenol   | <input checked="" type="checkbox"/> ] | <input type="checkbox"/> ] |

- Are the RSDs for the remaining target analytes  $\leq 15\%$ ? ☒ ] ☐ ]
- If the answer is "No", are the mean RSDs  $\leq 15\%$  or  $r \geq 0.99$  with a mean RSD  $\leq 15\%$  with a maximum RSD  $\leq 30\%$ ? ☐ ] ☐ ]  
☐ ] ☐ ]

- |                                         |                                     |                          |
|-----------------------------------------|-------------------------------------|--------------------------|
|                                         | <del>Yes</del>                      | <del>No</del>            |
| • Was manual integration "M" performed? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

If the answer is "Yes", check for supporting documents.

- |                                         |                                     |                          |
|-----------------------------------------|-------------------------------------|--------------------------|
| • Was the manual integration necessary? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|-----------------------------------------|-------------------------------------|--------------------------|

If the answer is "No", contact the laboratory inquiring about the reasons behind the manual integration, and **inform the District Chemist immediately if there were no valid reasons.**

6. QCMDL:

- |                            |                          |                                     |
|----------------------------|--------------------------|-------------------------------------|
| • Was MDL Check performed? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|----------------------------|--------------------------|-------------------------------------|

7. QCMRL:

- |                                                                                                   |                                     |                          |
|---------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------|
| • Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours?             | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • Was the QC/MRL between 70-130% R                                                                | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • For the non-contaminants of concern was the QC/MRL between 50-150% (Sporadic Marginal Failure)? | <input type="checkbox"/>            | <input type="checkbox"/> |

8. Initial Calibration Verification (ICV):

- |                                                                                                                                  |                                     |                          |
|----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------|
| • Is the mid level (2 <sup>nd</sup> source) recovery within 70-130% for contaminants of concern ?                                | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • Is the mid level (2 <sup>nd</sup> source) recovery within 50-150% for non-contaminants of concern (Sporadic Marginal Failure)? | <input type="checkbox"/>            | <input type="checkbox"/> |

9. Continuing Calibration Verification (CCV):

- |                                               |                                     |                          |
|-----------------------------------------------|-------------------------------------|--------------------------|
| • Was CCV conducted every 12 hours?           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • Did any of SPCC meet the minimum RF values? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

|                            |      | Yes                                 | No                       |
|----------------------------|------|-------------------------------------|--------------------------|
| N-nitroso-di-n-propylamine | 0.05 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Hexachlorocyclopentadiene  | 0.05 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2,4-dinitrophenol          | 0.05 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 4-nitrophenol              | 0.05 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

- Did the CCC meet the minimum requirements ( $D \leq 20\%$ ) for the followings?

Base/Neutral Fraction:

|                     |                                     |                          |
|---------------------|-------------------------------------|--------------------------|
| Acenaphthene        | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 1,4-Dichlorobenzene | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Hexachlorobutadiene | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Diphenylamine       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Di-n-octylphthalate | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Fluoranthene        | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Benzo(a)pyrene      | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Acid Fraction:

|                         |                                     |                          |
|-------------------------|-------------------------------------|--------------------------|
| 4-Chloro-3-methylphenol | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2,4-Dichlorophenol      | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2-Nitrophenol           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Phenol                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Pentachlorophenol       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2,4,6-Trichlorophenol   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

- Primary Evaluation: Was Drift or  $D \leq 20\%$  calculated from the initial calibration? ☒ ☐
- Alternative Evaluation: Maximum allowable Drift/D for each target analyte is  $\leq 30\%$ . ☐ ☐

10. Sample Analysis:

- Was the RRT of an identified component within  $\pm 0.06$  RRT units of the RRT of the standard component? ☒ ☐
- Did the abundance of ions in the sample spectra agree within 30% of the major ions ( $> 10\%$  of the base ion) in the standard spectra? ☒ ☐
- Were the internal standard areas within the QC limits (from -50% to +200%)? ☒ ☐

11. Sample Quality Control:

- |                                                                                                | <u>Yes</u>                          | <u>No</u>                           |
|------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| • <u>Method Blanks</u> : Were target analytes $\leq 1/2$ MRL?                                  | [ ]                                 | <input checked="" type="checkbox"/> |
| • <u>LCS</u> : Were the percent recoveries for LCS within the limits?                          | <input checked="" type="checkbox"/> | [ ]                                 |
| • <u>MS/MSD</u> : Were the percent recoveries within limits? <i>no</i>                         | [ ]                                 | [ ]                                 |
| Were the RPD within control limits?                                                            | [ ]                                 | [ ]                                 |
| • <u>System Monitoring Compounds (Surrogates)</u> : are surrogate recoveries within QC limits? | <input checked="" type="checkbox"/> | [ ]                                 |

12. Comments (attach additional sheets if necessary):

*benz acid 0 in LCS but OK*

*many ↓ detects in MB but sample ND*

Validated/Reviewed by:

Signature: P. Meeks

Date: 6/6/14

Name: P. Meeks

~~Total Petroleum Hydrocarbons (TPH)~~  
**POLY CHLORINATED BIPHENYLS**  
**(PCB/AROCLORS) CHECKLIST**

Project Name: RVAAP CR Site 74

Laboratory: VA - North Canton

Batch Number(s): 82317, 82097

Sample Delivery Group: 240-22750, -22804

- |                                                                                                                                                                                             | <u>Yes</u>                          | <u>No</u>                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| 1. Holding Time:                                                                                                                                                                            |                                     |                                     |
| (a) Were samples extracted within holding time?                                                                                                                                             | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| (b) Were samples analyzed within holding time?                                                                                                                                              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 2. Initial Calibration:                                                                                                                                                                     |                                     |                                     |
| • Did the initial calibration consist of five standards?                                                                                                                                    | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Did <del>Aroclors 1016 and 1260</del> meet the $RSD \leq 20\%$ or the $r \geq 0.99$ ? <u>DRD C10-C28</u>                                                                                  | <input type="checkbox"/>            | <input type="checkbox"/>            |
| • Was manual integration "M" performed?<br>If the answer is "Yes", check for supporting documents.                                                                                          | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| • Was the manual integration necessary? <u>N/A</u>                                                                                                                                          | <input type="checkbox"/>            | <input type="checkbox"/>            |
| If the answer is "no", contact the laboratory inquiring about the reasons behind the manual integration, and <b>inform the District Chemist immediately if there were no valid reasons.</b> |                                     |                                     |
| 3. QCMDL:                                                                                                                                                                                   |                                     |                                     |
| • Was MDL Check performed?                                                                                                                                                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 4. QCMRL:                                                                                                                                                                                   |                                     |                                     |
| • Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours??                                                                                                      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was the QC/MRL between 70-130% R                                                                                                                                                          | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 5. Initial Calibration Verification (ICV):                                                                                                                                                  |                                     |                                     |
| Is the mid level (2 <sup>nd</sup> source) recovery within <u>QSM 80-120</u> <del>85-115%</del> ?                                                                                            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |



|                                                                                                                                                                                                                              | <u>Yes</u>                                    | <u>No</u>                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|--------------------------|
| 6. Continuing Calibration Verification (CCV):                                                                                                                                                                                |                                               |                          |
| • Was CCV conducted every 12 hours?                                                                                                                                                                                          | <input checked="" type="checkbox"/>           | <input type="checkbox"/> |
| • Was Drift or D $\leq$ 15% from the initial calibration with a maximum %D $\leq$ 20% for a specific compound?<br><i>QSM 20%</i><br><i>(those affecting sample data)</i>                                                     | <input checked="" type="checkbox"/>           | <input type="checkbox"/> |
| 7. Sample Analysis:                                                                                                                                                                                                          |                                               |                          |
| • Was the RRT of an identified component within the retention time window created as SW-846 requires?                                                                                                                        | <input checked="" type="checkbox"/>           | <input type="checkbox"/> |
| • Were samples with levels higher than the calibration range (E), diluted and re-analyzed?<br><i>QC (samples ND)</i>                                                                                                         | <i>N/A</i> <input type="checkbox"/>           | <input type="checkbox"/> |
| • Were identified Aroclors confirmed on a second GC column?                                                                                                                                                                  | <i>N/A</i> <input type="checkbox"/>           | <input type="checkbox"/> |
| • Were individual Aroclor standards used to determine the pattern of the peaks?<br>(Individual Aroclors are 1221, 1232, 1242, 1248, and 1254. Both Aroclor 1016, and 1260 can be used from the mixed calibration standards.) | <input type="checkbox"/>                      | <input type="checkbox"/> |
| • Was RPD of target analyte conformation $\leq$ 40?                                                                                                                                                                          | <i>N/A</i> <input type="checkbox"/>           | <input type="checkbox"/> |
| 8. Sample Quality Control:                                                                                                                                                                                                   |                                               |                          |
| • <u>Method Blanks</u> : Were target analytes $\leq$ 1/2 MRL?                                                                                                                                                                | <i>ND</i> <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • <u>LCS</u> : Were the percent recoveries for LCS within the limits?                                                                                                                                                        | <input checked="" type="checkbox"/>           | <input type="checkbox"/> |
| • <u>MS/MSD</u> : Were the percent recoveries within limits?                                                                                                                                                                 | <input checked="" type="checkbox"/>           | <input type="checkbox"/> |
| Were the RPDs within control limits?                                                                                                                                                                                         | <input checked="" type="checkbox"/>           | <input type="checkbox"/> |
| • <u>System Monitoring Compounds (Surrogates)</u> : are surrogate recoveries within QC limits?                                                                                                                               | <input checked="" type="checkbox"/>           | <input type="checkbox"/> |

9. Comments (attach additional sheets if necessary):

QC and standards C10-C28 (direct)  
samples C10-C20, C20-C34

Validated/Reviewed by:

Signature:

*W. Calvin*

Date: 4.4.2014

Name:

*W.S. Calvin*

## VOLATILE ORGANIC ANALYSIS CHECKLIST

Project Name: RVAAP - Site 74 (CR)

Laboratory: TA-North Canton

Batch Number(s): 45171, 48830

Sample Delivery Group (SDG): 17422, 18544

- |                                                                                                           | <u>Yes</u>                          | <u>No</u>                |
|-----------------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------|
| 1. Holding Time:                                                                                          |                                     |                          |
| (a) Were samples preserved?                                                                               | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| (b) Were samples analyzed within holding time?                                                            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Was the BFB tune performed at the beginning of each 12-hour period during which samples were analyzed? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Was mass assignment based on m/z 95?                                                                   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 4. Indicate if BFB ions abundance relative to m/z 95 base peak met the ions abundance criteria:           |                                     |                          |

| <u>m/z</u> | <u>Acceptance Criteria</u> |                                     |                          |
|------------|----------------------------|-------------------------------------|--------------------------|
| 50         | 15.0 - 40.0 %              | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 75         | 30.0 - 66.0 %              | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 95         | 100%, Base Peak            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 96         | 5.0 - 9.0%                 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 173        | <2.0% of m/z 174           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 174        | >50%                       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 175        | 5.0 - 9.0% of mass 174     | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 176        | 95.0 - 101.0% of m/z 174   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 177        | 5.0 - 9.0% of m/z 176      | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

The relative ion abundance of m/z 95/96, m/z 174/176, and 176/177 are of critical importance.

The relative ion abundance of m/z 50 and 75 are of lower importance.

|                                                                                                                                                                                      | <u>Yes</u>                          | <u>No</u>                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| 5. Initial Calibration:                                                                                                                                                              |                                     |                                     |
| • Did the initial calibration consist of five standards?                                                                                                                             | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Did the System Performance Check Compounds (SPCC) meet the minimum mean response factor (RF)?                                                                                      |                                     |                                     |
| <u>RF</u>                                                                                                                                                                            |                                     |                                     |
| Chloromethane 0.1                                                                                                                                                                    | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 1,1-Dichloroethane 0.1                                                                                                                                                               | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Bromoform 0.1                                                                                                                                                                        | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Chlorobenzene 0.3                                                                                                                                                                    | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 1,1,2,2-Tetrachloroethane 0.3                                                                                                                                                        | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Did the RSD meet the criteria $\leq 30\%$ for each individual Calibration Check Compound (CCC)?                                                                                    |                                     |                                     |
| 1,1-Dichloroethene                                                                                                                                                                   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Chloroform                                                                                                                                                                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 1,2-Dichloropropane                                                                                                                                                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Toluene                                                                                                                                                                              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Ethylbenzene                                                                                                                                                                         | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Vinyl chloride                                                                                                                                                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Are the RSDs for the remaining target analytes $\leq 15\%$ or $\geq 0.99$ with a mean RSD $\leq 15\%$ with a maximum RSD $\leq 20\%$ ?                                             | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| If the answer is "No", are the mean RSDs $\leq 15\%$ ?                                                                                                                               | N/A <input type="checkbox"/>        | <input type="checkbox"/>            |
| • Was manual integration "M" performed?                                                                                                                                              | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| If the answer is "Yes", check for supporting documents.                                                                                                                              | N/A <input type="checkbox"/>        | <input type="checkbox"/>            |
| • Was the manual integration necessary?                                                                                                                                              | <input type="checkbox"/>            | <input type="checkbox"/>            |
| If the answer is "No", contact the laboratory inquiring about the reasons behind the manual integration, and inform the District Chemist immediately if there were no valid reasons. | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 6. QCMDL:                                                                                                                                                                            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was MDL Check performed?                                                                                                                                                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 7. QCML:                                                                                                                                                                             | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

|                                                                                                                                             | <u>Yes</u>                          | <u>No</u>                           |
|---------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| • Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours?                                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was the QC/MRL between 70-130% R<br><i>see comments</i>                                                                                   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| • For the non-contaminants of concern was the QC/MRL between 60-140% (Sporadic Marginal Failure) <i>N/A</i>                                 | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 8. Initial Calibration Verification (ICV):                                                                                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Is the mid level (2 <sup>nd</sup> source) recovery within 80 - 120% for contaminants of concern ?                                         |                                     |                                     |
| • Is the mid level (2 <sup>nd</sup> source) recovery within 60-140% for non-contaminants of concern (Sporadic Marginal Failure)? <i>N/A</i> |                                     |                                     |
| 9. Continuing Calibration Verification (CCV):                                                                                               |                                     |                                     |
| • Was CCV conducted every 12 hours?                                                                                                         | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Did SPCC meet the RF values?                                                                                                              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| <u>RF</u>                                                                                                                                   |                                     |                                     |
| Chloromethane 0.1                                                                                                                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 1,1-Dichloroethane 0.1                                                                                                                      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Bromoform 0.1                                                                                                                               | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Chlorobenzene 0.3                                                                                                                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 1,1,2,2-Tetrachloroethane 0.3                                                                                                               | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Did the CCC meet the minimum requirements ( $D \leq 20\%$ )?                                                                              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 1,1-Dichloroethene                                                                                                                          | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Chloroform                                                                                                                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 1,2-Dichloropropane                                                                                                                         | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Toluene                                                                                                                                     | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Ethylbenzene                                                                                                                                | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Vinyl chloride                                                                                                                              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • <u>Primary Evaluation</u> : Was the mean, Drift or $D \leq 20\%$ from the initial calibration?                                            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • <u>Alternative Evaluation</u> : Maximum allowable Drift/D for                                                                             |                                     |                                     |

each target analyte is  $\leq 30\%$  when mean D  $\leq 20\%$ ?

N/A

Yes  
☐

No  
☐

10. Sample Analysis:

- Was the RRT of an identified component within  $\pm 0.06$  RRT units of the RRT of the standard component? ☒
- Did the abundance of ions in the sample spectra agree within 30% of the major ions ( $> 10\%$  of the base ion) in the standard spectra? ☒
- Were the internal standard areas within the QC limits (from -50% to +200%)? ☐

11. Sample Quality Control:

- Method Blanks: Were target analytes  $\leq 1/2$  MRL? ☒  
Acetone 4.4% / U/B level of contamination in 0745B-0094M-0001-50
- LCS: Were the percent recoveries for LCS within the limits? ☒
- MS/MSD: Were the percent recoveries within limits? ☐  
low in MSD only - no qualifications
- Were the RPD within control limits? ☒

System Monitoring Compounds (Surrogates): are surrogate recoveries within QC limits (-50-150%)? ☐ ☒  
Table C-3 see comments

12. Comments (attach additional sheets if necessary):

- MRL/hexanone 43%, 4-methyl-2-pentanone 49%  
UJ/C in 0745B-0094M-0001-50 and 0745B-0102M-0001-50
- BFB 81% (85-120) 0745B-0094M-0001-50 all J/UJ'S

Validated/Reviewed by:

Signature:

ACalvin

Date: 4.17.2014

Name:

L.S. Calvin

## VOLATILE ORGANIC ANALYSIS CHECKLIST

Project Name: RVAAP CR Sites 68, 69, 73, 74, 78, 79

Laboratory: JA-North Canton

Batch Number(s): 64980, 66014/20, 80954, 81930, 81013, 80388, -593

Sample Delivery Group (SDG): 240-17317, -17422, -17525, -17602, -22559, -22602, -22804

- |                                                                                                           | <u>Yes</u>                          | <u>No</u>                |
|-----------------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------|
| 1. Holding Time:                                                                                          |                                     |                          |
| (a) Were samples preserved?                                                                               | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| (b) Were samples analyzed within holding time?                                                            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Was the BFB tune performed at the beginning of each 12-hour period during which samples were analyzed? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Was mass assignment based on m/z 95?                                                                   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 4. Indicate if BFB ions abundance relative to m/z 95 base peak met the ions abundance criteria:           |                                     |                          |

| <u>m/z</u> | <u>Acceptance Criteria</u> |                                     |                          |
|------------|----------------------------|-------------------------------------|--------------------------|
| 50         | 15.0 - 40.0 %              | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 75         | 30.0 - 66.0 %              | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 95         | 100%, Base Peak            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 96         | 5.0 - 9.0%                 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 173        | <2.0% of m/z 174           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 174        | >50%                       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 175        | 5.0 - 9.0% of mass 174     | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 176        | 95.0 - 101.0% of m/z 174   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 177        | 5.0 - 9.0% of m/z 176      | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

The relative ion abundance of m/z 95/96, m/z 174/176, and 176/177 are of critical importance.

The relative ion abundance of m/z 50 and 75 are of lower importance.

|                                                                                                                                                                                             | <u>Yes</u>                          | <u>No</u>                                     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-----------------------------------------------|
| 5. Initial Calibration:                                                                                                                                                                     |                                     |                                               |
| • Did the initial calibration consist of five standards?                                                                                                                                    | <input checked="" type="checkbox"/> | <input type="checkbox"/>                      |
| • Did the System Performance Check Compounds (SPCC) meet the minimum mean response factor (RF)?                                                                                             |                                     |                                               |
| <u>RF</u>                                                                                                                                                                                   |                                     |                                               |
| Chloromethane 0.1                                                                                                                                                                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>                      |
| 1,1-Dichloroethane 0.1                                                                                                                                                                      | <input checked="" type="checkbox"/> | <input type="checkbox"/>                      |
| Bromoform 0.1                                                                                                                                                                               | <input checked="" type="checkbox"/> | <input type="checkbox"/>                      |
| Chlorobenzene 0.3                                                                                                                                                                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>                      |
| 1,1,2,2-Tetrachloroethane 0.3                                                                                                                                                               | <input checked="" type="checkbox"/> | <input type="checkbox"/>                      |
| • Did the RSD meet the criteria $\leq 30\%$ for each individual Calibration Check Compound (CCC)?                                                                                           |                                     |                                               |
| 1,1-Dichloroethene                                                                                                                                                                          | <input checked="" type="checkbox"/> | <input type="checkbox"/>                      |
| Chloroform                                                                                                                                                                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>                      |
| 1,2-Dichloropropane                                                                                                                                                                         | <input checked="" type="checkbox"/> | <input type="checkbox"/>                      |
| Toluene                                                                                                                                                                                     | <input checked="" type="checkbox"/> | <input type="checkbox"/>                      |
| Ethylbenzene                                                                                                                                                                                | <input checked="" type="checkbox"/> | <input type="checkbox"/>                      |
| Vinyl chloride                                                                                                                                                                              | <input checked="" type="checkbox"/> | <input type="checkbox"/>                      |
| • Are the RSDs for the remaining target analytes $\leq 15\%$ or $r \geq 0.99$ with a mean RSD $\leq 15\%$ with a maximum RSD $\leq 20\%$ ?                                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>                      |
| If the answer is "No", are the mean RSDs $\leq 15\%$ ?                                                                                                                                      | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> <i>MC</i> |
| • Was manual integration "M" performed?                                                                                                                                                     | <input type="checkbox"/>            | <input checked="" type="checkbox"/>           |
| If the answer is "Yes", check for supporting documents.                                                                                                                                     | <input type="checkbox"/>            | <input type="checkbox"/>                      |
| • Was the manual integration necessary?                                                                                                                                                     |                                     |                                               |
| If the answer is "No", contact the laboratory inquiring about the reasons behind the manual integration, and <b>inform the District Chemist immediately if there were no valid reasons.</b> | <input checked="" type="checkbox"/> | <input type="checkbox"/>                      |
| 6. QCMDL:                                                                                                                                                                                   | <input type="checkbox"/>            | <input checked="" type="checkbox"/>           |
| • Was MDL Check performed?                                                                                                                                                                  |                                     |                                               |
| 7. QCMRL:                                                                                                                                                                                   | <input checked="" type="checkbox"/> | <input type="checkbox"/>                      |



|                                                                                                                                             | <u>Yes</u>                          | <u>No</u>                           |
|---------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| • Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours?                                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was the QC/MRL between 70-130% R<br><i>see comments site 79</i>                                                                           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| • For the non-contaminants of concern was the QC/MRL between 60-140% (Sporadic Marginal Failure) <i>N/A</i>                                 | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 8. Initial Calibration Verification (ICV):                                                                                                  |                                     |                                     |
| • Is the mid level (2 <sup>nd</sup> source) recovery within 80 - 120% for contaminants of concern ?                                         | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Is the mid level (2 <sup>nd</sup> source) recovery within 60-140% for non-contaminants of concern (Sporadic Marginal Failure)? <i>N/A</i> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 9. Continuing Calibration Verification (CCV):                                                                                               |                                     |                                     |
| • Was CCV conducted every 12 hours?                                                                                                         | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Did SPCC meet the RF values?                                                                                                              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| <u>RF</u>                                                                                                                                   |                                     |                                     |
| Chloromethane 0.1                                                                                                                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 1,1-Dichloroethane 0.1                                                                                                                      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Bromoform 0.1                                                                                                                               | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Chlorobenzene 0.3                                                                                                                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 1,1,2,2-Tetrachloroethane 0.3                                                                                                               | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Did the CCC meet the minimum requirements (D ≤ 20%)?                                                                                      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 1,1-Dichloroethene                                                                                                                          | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Chloroform                                                                                                                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 1,2-Dichloropropane                                                                                                                         | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Toluene                                                                                                                                     | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Ethylbenzene                                                                                                                                | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Vinyl chloride                                                                                                                              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • <u>Primary Evaluation</u> : Was the mean, Drift or D ≤ 20% from the initial calibration?<br><i>see comments site 69</i>                   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| • <u>Alternative Evaluation</u> : Maximum allowable Drift/D for                                                                             |                                     |                                     |

each target analyte is  $\leq 30\%$  when mean  $D \leq 20\%$ ? *N/A*

|            |           |
|------------|-----------|
| <u>Yes</u> | <u>No</u> |
| [ ]        | [ ]       |

10. Sample Analysis:

- Was the RRT of an identified component within  $\pm 0.06$  RRT units of the RRT of the standard component? ☒ [ ]
- Did the abundance of ions in the sample spectra agree within 30% of the major ions ( $> 10\%$  of the base ion) in the standard spectra? ☒ [ ]
- Were the internal standard areas within the QC limits (from -50% to +200%)? [ ] ☒

*see comments Site 73*

11. Sample Quality Control:

- Method Blanks: Were target analytes  $\leq 1/2$  MRL? ☒ [ ]  
*see comments Site 78*
- LCS: Were the percent recoveries for LCS within the limits? ☒ [ ]
- MS/MSD: Were the percent recoveries within limits? [ ] ☒  
*see comments Site 78*
- Were the RPD within control limits? ☒ [ ]

System Monitoring Compounds (Surrogates): are surrogate recoveries within QC limits (50-150%)? [ ] ☒

12. Comments (attach additional sheets if necessary):

*see comments Sites 74 and 78*

Validated/Reviewed by:

Signature:

*ACalvin*

Date: *6.5.2014*

*→ 6.10.2014*

Name: *L.S. Calvin*

VO Fraction Comments:

Site 68

068SS-0003M-0001-SO, MS/MSD (limits 75-125%) chlorobenzene 57% and 67%, ethylbenzene 53% and 66%, styrene 54% and 66%, and total xylenes 52% and 64%. "UJ"/"Q"

Site 69

069SS-0001M-0001-SO and 069SB-0013M-0001-SO, CCV %D for carbon disulfide -30.2% , "UJ"/"C"

Site 73

073SS-0002M-0001-SO, IS 1,4-dichlorobenzene-d4 recovered at 33%, 1,1,2,2-tetrachloroethane "UJ"/"I"  
073SS-0002M-0001-SO, toluene "U"/"F" for field blank contamination

Site 74

074SB-0010-0001-SO, BFB 35% (85-120%) and toluene-d8 54% (85-115%) 2-butanone (methyl ethyl ketone), 2-hexanone, and 4-methyl-2-pentanone (methyl isobutyl ketone) "UJ"/"S"

Site 78

078SB-0008M-0001-SO and sample 078SB-0016M-0001-SO, methylene chloride "U"/"B" for method blank contamination  
078SB-0008M-0001-SO, BFB 84% (85-120%) all results "J"/"S" or "UJ"/"S"

Site 79

079W-0311-0001-SW, MRL acetone 68% (70-130) "J"/"C"

## ICP METALS ANALYSIS (6010)

### CHECKLIST

6020 + 7471A

Project Name: RVAAP CR Site 68

Laboratory: TA - North Canton

Batch Number(s): \_\_\_\_\_

Sample Delivery Group: -17317-1, -17422-1,  
-17477-1, -22648-1

- |                                                                                        | <u>Yes</u>                              | <u>No</u>                               |
|----------------------------------------------------------------------------------------|-----------------------------------------|-----------------------------------------|
| 1. Holding Time:                                                                       |                                         |                                         |
| • Were samples analyzed within holding time (6-Months)?                                | [ <input checked="" type="checkbox"/> ] | [ ]                                     |
| 2. Initial Calibration:                                                                |                                         |                                         |
| • Did the initial calibration consist of                                               |                                         |                                         |
| One calibration standard and a blank?                                                  | [ <input checked="" type="checkbox"/> ] | [ ]                                     |
| three calibration standards and a blank?                                               | [ <input checked="" type="checkbox"/> ] | [ ]                                     |
| • Was $R \geq 0.995$                                                                   | [ <input checked="" type="checkbox"/> ] | [ ]                                     |
| 3. QCMDL:                                                                              |                                         |                                         |
| • Was MDL Check performed?                                                             | [ ]                                     | [ <input checked="" type="checkbox"/> ] |
| QCMRL:                                                                                 |                                         |                                         |
| • Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours?? | [ <input checked="" type="checkbox"/> ] | [ ]                                     |
| • Was the QC/MRL between 70-130% R?                                                    | [ ]                                     | [ <input checked="" type="checkbox"/> ] |
| Common Elements can be between the MRL and 2X MRL level (Fe, Al, Mg and Ca)            | [ <input checked="" type="checkbox"/> ] | [ ]                                     |
| 4. Initial Calibration Verification (ICV):                                             |                                         |                                         |
| • Is the mid level (2 <sup>nd</sup> source) recovery within 90 - 110%?                 |                                         |                                         |
| 5. Initial Calibration Blank (ICP):                                                    |                                         |                                         |

|                                                                                            | <u>Yes</u> | <u>No</u> |
|--------------------------------------------------------------------------------------------|------------|-----------|
| • Were analytes in the blank $\leq 1/2$ MRL?                                               | [✓]        | [ ]       |
| 6. Interelement Check Standard:                                                            |            |           |
| • Was ICS-A (interferents only) conducted at the beginning of analytical sequence?         | [✓]        | [ ]       |
| • Was ICS-AB results within QC limits (80-120)?                                            | [✓]        | [ ]       |
| 7. Continuing calibration Blank (CCB):                                                     |            |           |
| • Was CCB conducted every 10 samples?                                                      | [✓]        | [ ]       |
| • Was CCB conducted at end of the analytical sequence?                                     | [✓]        | [ ]       |
| • Were analytes $\leq 1/2$ MRL?                                                            | [✓]        | [ ]       |
| 8. Continuing Calibration Verification (CCV):                                              |            |           |
| • Was CCV conducted every 10 samples?                                                      | [✓]        | [ ]       |
| • Was CCV conducted at end of the analytical sequence?                                     | [✓]        | [ ]       |
| • Was the %R between 90-110?                                                               | [✓]        | [ ]       |
| 9. Sample Analysis:                                                                        |            |           |
| • Were samples with levels higher than the calibration range (E), diluted and re-analyzed? | [✓]        | [ ]       |
| 10. Sample Quality Control:                                                                |            |           |
| • <u>Method Blanks</u> : Were target analytes $\leq 1/2$ MRL?                              | [ ]        | [✓]       |
| • <u>LCS</u> : Were the percent recoveries for LCS within the limits?                      | [✓]        | [ ]       |
| • <u>MS</u> : Were the percent recoveries within limits?                                   | [ ]        | [✓]       |
| • MD: Were the RPDs within control limits?                                                 | [ ] N/A    | [ ]       |
| 11. Serial Dilution:                                                                       |            |           |
| • Was serial dilution (1:4) conducted when needed?                                         | [✓]        | [ ]       |



- Was there an agreement between diluted and undiluted results (<10%)? Yes ☐ No ☒

12. Method of Standard Addition (MSA):

- Was MSA performed on samples suspected of matrix effect ( $R \geq 0.995$ )? [ ] N/A [ ]

13. Comments (attach additional sheets if necessary):

|                     | MT    | Hg           |
|---------------------|-------|--------------|
| 06855-0003M-0001-SO | 100mL | 1.17g, 0.61g |
| 06850-0009-0001-SO  | 11    | 1.04g, 0.63g |
| 0685W-0016-0001-SW  | 11    | 1.12g, 0.70g |
| 0685B-0053M-0001-SO | 11    | 1.1g, 0.59g  |

| Tune outliers                        | CRF outliers       |
|--------------------------------------|--------------------|
| <sup>78</sup> Se (20.427%) -7-0003M- | Tl (121%) -7-0009- |
| " (11.586%) -7-0009-                 | Fe (121%) -7-0016- |
| " (8.029%) -7-0016-                  | Hg (72%) -7-11     |

|                                        |                                                   |
|----------------------------------------|---------------------------------------------------|
| <sup>137</sup> Ba ratio (0.344%) -7-11 | SD outliers<br>Zn (11%), (119%), (12%)<br>→ 0053M |
| <sup>137</sup> Ba (91.287%) -7-0053M-  |                                                   |
| <sup>138</sup> Ba (19.999%) -7-11      |                                                   |

| MB detects                | Dilutions                     |
|---------------------------|-------------------------------|
| Hg 0.0245 mg/kg -7-0003M- | 20x for Mn -7-0009-           |
| " 0.0276 " -7-0009-       | 5x for Sb, Ba, Fe, Pb, Mn, Tl |
| Tl 0.348 µg/L -7-0016-    | → -0003M-                     |
| Zn 10.4 " -7-11           |                               |

See next page →

Validated/Reviewed by:

Signature:



Date:

6/11/14

Name:

Michael Cherny

## Duplicate Outliers

- 0009 -  $\rightarrow$  Mn (29%)
- 0003M -  $\rightarrow$  " (33%)
- 0053M -  $\rightarrow$  Al (24%), As (32%),  
Ba (29%), Ca (26%), Cr (25%),  
Co (28%), Cu (27%), Fe (28%),  
Mg (25%), Mn (43%), Na (22%),  
Ni (27%), Pb (25%), V (26%),  
Zn (27%), K (25%), Ca (24%),  
Ca (21%)

## MS Outliers

- 0009 -  $\rightarrow$  Sb (25%), As (70%),  
Sc (71%), Sb (25%), Se (72%),  
Sb (23%), As (59%), Ca (73%),  
Pb (73%), Se (71%)
- 0003M -  $\rightarrow$  Sb (25%), Sb (30%)
- 0053M -  $\rightarrow$  Sb (41%), As (66%),  
Sb (27%), Ca (73%), Sc (60%),  
Sb (30%), Ca (140%), Se (71%),  
Sb (30%), As (62%), Ca (49%),  
Sc (66%), Zn (68%)

## Field blank detects

070-0057-0001 Source Water

Na @ 1600 ng/L

$\rightarrow$  - 0003M - ND

# ICP METALS ANALYSIS ~~(6010)~~ CHECKLIST 6020 + 7471A

Project Name: RVAAP CR Site 69

Laboratory: TA - North Canton

Batch Number(s): \_\_\_\_\_

Sample Delivery Group: -17525-1/2 -17602-1/2

- |                                                                                        | <u>Yes</u>                          | <u>No</u>                           |
|----------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| 1. Holding Time:                                                                       |                                     |                                     |
| • Were samples analyzed within holding time (6-Months)?                                | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 2. Initial Calibration:                                                                |                                     |                                     |
| • Did the initial calibration consist of                                               |                                     |                                     |
| One calibration standard and a blank?                                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| three calibration standards and a blank?                                               | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was $R \geq 0.995$                                                                   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 3. QCMDL:                                                                              |                                     |                                     |
| • Was MDL Check performed?                                                             | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| QCMRL:                                                                                 |                                     |                                     |
| • Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours?? | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was the QC/MRL between 70-130% R?                                                    | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Common Elements can be between the MRL and 2X MRL level (Fe, Al, Mg and Ca)            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 4. Initial Calibration Verification (ICV):                                             |                                     |                                     |
| • Is the mid level (2 <sup>nd</sup> source) recovery within 90 - 110%?                 |                                     |                                     |
| 5. Initial Calibration Blank (ICP):                                                    |                                     |                                     |



|                                                                                            | <u>Yes</u> | <u>No</u> |
|--------------------------------------------------------------------------------------------|------------|-----------|
| • Were analytes in the blank $\leq 1/2$ MRL?                                               | [✓]        | [ ]       |
| 6. Interelement Check Standard:                                                            |            |           |
| • Was ICS-A (interferents only) conducted at the beginning of analytical sequence?         | [✓]        | [ ]       |
| • Was ICS-AB results within QC limits (80-120)?                                            | [✓]        | [ ]       |
| 7. Continuing calibration Blank (CCB):                                                     |            |           |
| • Was CCB conducted every 10 samples?                                                      | [✓]        | [ ]       |
| • Was CCB conducted at end of the analytical sequence?                                     | [✓]        | [ ]       |
| • Were analytes $\leq 1/2$ MRL?                                                            | [✓]        | [ ]       |
| 8. Continuing Calibration Verification (CCV):                                              |            |           |
| • Was CCV conducted every 10 samples?                                                      | [✓]        | [ ]       |
| • Was CCV conducted at end of the analytical sequence?                                     | [✓]        | [ ]       |
| • Was the %R between 90-110?                                                               | [✓]        | [ ]       |
| 9. Sample Analysis:                                                                        |            |           |
| • Were samples with levels higher than the calibration range (E), diluted and re-analyzed? | [ ] N/A    | [ ]       |
| 10. Sample Quality Control:                                                                |            |           |
| • <u>Method Blanks</u> : Were target analytes $\leq 1/2$ MRL?                              | [✓]        | [ ]       |
| • <u>LCS</u> : Were the percent recoveries for LCS within the limits?                      | [✓]        | [ ]       |
| • <u>MS</u> : Were the percent recoveries within limits?                                   | [ ]        | [✓]       |
| • MD: Were the RPDs within control limits?                                                 | [ ] N/A    | [ ]       |
| 11. Serial Dilution:                                                                       |            |           |
| • Was serial dilution (1:4) conducted when needed?                                         | [✓]        | [ ]       |

- Was there an agreement between diluted and undiluted results (<10%)? Yes ☐ No ☒

12. Method of Standard Addition (MSA):

- Was MSA performed on samples suspected of matrix effect ( $R \geq 0.995$ )? [ ] N/A [ ]

13. Comments (attach additional sheets if necessary):

06955-0001M-0001-SD  $\rightarrow$  100ml, 1.12g, 0.56g  
0695B-0013M-0001-SD  $\rightarrow$  " 1.1g, "

|                                   |                                          |
|-----------------------------------|------------------------------------------|
| Tune Outliers                     | ICSH Detects                             |
| <sup>137</sup> Ba (15.469%)       | Sb 0.259 $\mu$ g/L $\rightarrow$ -0001M- |
| $\rightarrow$ -0001M- and -0013M- | Ag 0.045 " $\rightarrow$ "               |
|                                   | Sb 0.259 " $\rightarrow$ -0013M-         |
| Duplicate Outliers                | Cd 0.249 " $\rightarrow$ "               |
| Ca (21%) x2 $\rightarrow$ -0001M- | Ag 0.045 " $\rightarrow$ "               |

|                                                                                                                      |                                         |
|----------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| MS Outliers                                                                                                          | SD outliers                             |
| -0001M- Sb (22%), As (72%),<br>Cd (79%), Cu (75%), Se (64%),<br>Sb (21%), As (78%), Cd (79%),<br>Cu (317%), Se (72%) | Ca (11%) (12%) $\rightarrow$ -0001M-    |
| -0013M- Sb (21%), Ca (69%),<br>Se (71%)                                                                              | Field blank detect                      |
|                                                                                                                      | 070-0057-0001 Source Water              |
|                                                                                                                      | Na 1600 $\mu$ g/L $\rightarrow$ -0001M- |
|                                                                                                                      | 076-0067-001 ER                         |
|                                                                                                                      | Tl 0.75 $\mu$ g/L $\rightarrow$ "       |

Validated/Reviewed by:

Signature: \_\_\_\_\_

Date: 6/11/14

Name: \_\_\_\_\_

Michael Cherny

## ICP METALS ANALYSIS (6010) CHECKLIST

Project Name: RVAAP CR site 73

Laboratory: \_\_\_\_\_

Batch Number(s): \_\_\_\_\_

Sample Delivery Group: 17422, 18441, 22648, 22663

07355 - 0002m  
0735B - 0009m  
0735B - 0016m  
0735B - 0038m

- |                                                                                        | <u>Yes</u>                          | <u>No</u>                           |
|----------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| 1. Holding Time:                                                                       |                                     |                                     |
| • Were samples analyzed within holding time (6-Months)?                                | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 2. Initial Calibration:                                                                |                                     |                                     |
| • Did the initial calibration consist of                                               |                                     |                                     |
| One calibration standard and a blank?                                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| three calibration standards and a blank?                                               | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was $R \geq 0.995$                                                                   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 3. QCMDL:                                                                              |                                     |                                     |
| • Was MDL Check performed?                                                             | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| QCMRL:                                                                                 |                                     |                                     |
| • Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours?? | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was the QC/MRL between 70-130% R?                                                    | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Common Elements can be between the MRL and 2X MRL level (Fe, Al, Mg and Ca)            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 4. Initial Calibration Verification (ICV):                                             |                                     |                                     |
| • Is the mid level (2 <sup>nd</sup> source) recovery within 90 - 110%?                 |                                     |                                     |
| 5. Initial Calibration Blank (ICP):                                                    |                                     |                                     |

|                                                                                            | <u>Yes</u>                          | <u>No</u>                           |
|--------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| • Were analytes in the blank $\leq 1/2$ MRL?                                               | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 6. Interelement Check Standard:                                                            |                                     |                                     |
| • Was ICS-A (interferents only) conducted at the beginning of analytical sequence?         | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was ICS-AB results within QC limits (80-120)?                                            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 7. Continuing calibration Blank (CCB):                                                     |                                     |                                     |
| • Was CCB conducted every 10 samples?                                                      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was CCB conducted at end of the analytical sequence?                                     | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Were analytes $\leq 1/2$ MRL?                                                            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 8. Continuing Calibration Verification (CCV):                                              |                                     |                                     |
| • Was CCV conducted every 10 samples?                                                      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was CCV conducted at end of the analytical sequence?                                     | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was the %R between 90-110?                                                               | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 9. Sample Analysis:                                                                        |                                     |                                     |
| • Were samples with levels higher than the calibration range (E), diluted and re-analyzed? | N/A <input type="checkbox"/>        | <input type="checkbox"/>            |
| 10. Sample Quality Control:                                                                |                                     |                                     |
| • <u>Method Blanks</u> : Were target analytes $\leq 1/2$ MRL?                              | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| • <u>LCS</u> : Were the percent recoveries for LCS within the limits?                      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • <u>MS</u> : Were the percent recoveries within limits?                                   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| • MD: Were the RPDs within control limits?                                                 | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 11. Serial Dilution:                                                                       |                                     |                                     |
| • Was serial dilution (1:4) conducted when needed?                                         | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |



- Was there an agreement between diluted and undiluted results (<10%)?

Yes  
☒

No  
☐

12. Method of Standard Addition (MSA):

- Was MSA performed on samples suspected of matrix w/A [ ] effect ( $R \geq 0.995$ )?

[ ]

13. Comments (attach additional sheets if necessary):

CCB Sb = 0.342 0/0002M @ LOD

Tl = 0.448

Hg = 0.0276 mg/kg " " level

Dup, SD

0038M (079SB-0024M Sb (21), Zn (71), Se (57))

Dup, SD

0735B-0040M As (63), Sb (46), Zn (68), Se (75)

Dup, SD

MS 079SB-0015M Sb (25), Zn (74), Se (70)

Dup

MS

MS 079SB-0072M As (62), Be (78), Ca (49), Cu (77), Sb (30), Zn (68), Se (66)

079SB-0070M As (78), Be (79), Sb (30), Zn (75), Se (71)

MS 079SB-0061M Ca (73), Sb (27), Se (60)

MS 0725B-0026 As (69), Ca (74), Cu (75), Sb (20), Tl (75), Se (73)

PDS, dup, SD  
Dup

0735B-0007 Cr (125), Sb (21), V (137), K (150)

MS/ 0765S-0020M Sb (25), As (70), Se (71)

0002M PDS, Dup, SD  
Dup (Hg)

0735S-0003M Sb (25), Se (72)

ICSA Cd = 0.315 mg/L 0009M Cr 0.385 Se = 6.912

ICSA Sb = 0.535 Be = 0.11, Cd = 0.49, Cu = 1.6, Tl = 0.177 - 0016M

Validated/Reviewed by:

Signature:

P. Meeker

Date:

6/1/14

Name:

P. Meeker

0061M Dup Ca (24)  
0061M SD Be (18), Zn (11)  
0072M SD Zn (12)  
0070M SD Be (20)

## ICP METALS ANALYSIS (6010) CHECKLIST

07458-0010-0007

Project Name: RVAAP CR site 74

Laboratory: TA N. Canton

Batch Number(s): \_\_\_\_\_

Sample Delivery Group: 22804

- |                                                                                        | <u>Yes</u>                          | <u>No</u>                           |
|----------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| 1. Holding Time:                                                                       |                                     |                                     |
| • Were samples analyzed within holding time (6-Months)?                                | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 2. Initial Calibration:                                                                |                                     |                                     |
| • Did the initial calibration consist of                                               |                                     |                                     |
| One calibration standard and a blank?                                                  | <input type="checkbox"/>            | <input type="checkbox"/>            |
| three calibration standards and a blank?                                               | <input type="checkbox"/>            | <input type="checkbox"/>            |
| • Was $R \geq 0.995$                                                                   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 3. QCMDL:                                                                              |                                     |                                     |
| • Was MDL Check performed?                                                             | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| QCMRL:                                                                                 |                                     |                                     |
| • Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours?? | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
|                                                                                        | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| • Was the QC/MRL between 70-130% R?                                                    |                                     |                                     |
| Common Elements can be between the MRL and 2X MRL level (Fe, Al, Mg and Ca)            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 4. Initial Calibration Verification (ICV):                                             |                                     |                                     |
| • Is the mid level (2 <sup>nd</sup> source) recovery within 90 - 110%?                 |                                     |                                     |
| 5. Initial Calibration Blank (ICP):                                                    |                                     |                                     |

|                                                                                            | <u>Yes</u>                          | <u>No</u>                           |
|--------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| • Were analytes in the blank $\leq 1/2$ MRL?                                               | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 6. Interelement Check Standard:                                                            |                                     |                                     |
| • Was ICS-A (interferents only) conducted at the beginning of analytical sequence?         | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was ICS-AB results within QC limits (80-120)?                                            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 7. Continuing calibration Blank (CCB):                                                     |                                     |                                     |
| • Was CCB conducted every 10 samples?                                                      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was CCB conducted at end of the analytical sequence?                                     | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Were analytes $\leq 1/2$ MRL?                                                            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 8. Continuing Calibration Verification (CCV):                                              |                                     |                                     |
| • Was CCV conducted every 10 samples?                                                      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was CCV conducted at end of the analytical sequence?                                     | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was the %R between 90-110?                                                               | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 9. Sample Analysis:                                                                        |                                     |                                     |
| • Were samples with levels higher than the calibration range (E), diluted and re-analyzed? | N/A <input type="checkbox"/>        | <input type="checkbox"/>            |
| 10. Sample Quality Control:                                                                |                                     |                                     |
| • <u>Method Blanks</u> : Were target analytes $\leq 1/2$ MRL?                              | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| • <u>LCS</u> : Were the percent recoveries for LCS within the limits?                      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • <u>MS</u> : Were the percent recoveries within limits? <i>none</i>                       | <input type="checkbox"/>            | <input type="checkbox"/>            |
| • MD: Were the RPDs within control limits? <i>↓</i>                                        | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 11. Serial Dilution:                                                                       |                                     |                                     |
| • Was serial dilution (1:4) conducted when needed? <i>none</i>                             | <input type="checkbox"/>            | <input type="checkbox"/>            |

- Was there an agreement between diluted and undiluted results ( $<10\%$ )? Yes  
[ ] No  
[ ] None [ ]

12. Method of Standard Addition (MSA):

- Was MSA performed on samples suspected of matrix effect ( $R \geq 0.995$ )? [ ] [ ] N/A

13. Comments (attach additional sheets if necessary):

ICSA  $C_d = 0.271$ ,  $S_e = 0.553$ ,  $A_g = 0.195$ ,  $\overline{Z}_A = 5.37$   
MS 039RN-0317-0001-RN none  
Hg CR1 = 65% WJ

Validated/Reviewed by:

Signature: P. Muecke

Date: 6/11/14

Name: P. Muecke

0.60 10:27 4/19  
1.00 13:29 5/7



# ICP METALS ANALYSIS (6010) CHECKLIST 6020 + 7471

Project Name: RVAAP CR Site 76

Laboratory: TA North Canton

Batch Number(s): \_\_\_\_\_

Sample Delivery Group: 240-17317-1, 240-17422-1,  
240-18544-1

- |                                                                                        | <u>Yes</u>                          | <u>No</u>                           |
|----------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| 1. Holding Time:                                                                       |                                     |                                     |
| • Were samples analyzed within holding time (6-Months)?                                | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 2. Initial Calibration:                                                                |                                     |                                     |
| • Did the initial calibration consist of                                               |                                     |                                     |
| One calibration standard and a blank?                                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| three calibration standards and a blank?                                               | <input type="checkbox"/>            | <input type="checkbox"/>            |
| • Was $R \geq 0.995$                                                                   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 3. QCMDL:                                                                              |                                     |                                     |
| • Was MDL Check performed?                                                             | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| QCMRL:                                                                                 |                                     |                                     |
| • Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours?? | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was the QC/MRL between <del>70-130%</del> <sup>80-120%</sup> R?                      | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Common Elements can be between the MRL and 2X MRL level (Fe, Al, Mg and Ca)            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 4. Initial Calibration Verification (ICV):                                             |                                     |                                     |
| • Is the mid level (2 <sup>nd</sup> source) recovery within 90 - 110%?                 |                                     |                                     |
| 5. Initial Calibration Blank (ICP):                                                    |                                     |                                     |

|                                                                                            | <u>Yes</u> | <u>No</u>       |
|--------------------------------------------------------------------------------------------|------------|-----------------|
| • Were analytes in the blank $\leq 1/2$ MRL?                                               | [✓]        | [ ]             |
| 6. Interelement Check Standard:                                                            |            |                 |
| • Was ICS-A (interferents only) conducted at the beginning of analytical sequence?         | [✓]        | [ ]             |
| • Was ICS-AB results within QC limits (80-120)?                                            | [✓]        | [ ]             |
| 7. Continuing calibration Blank (CCB):                                                     |            |                 |
| • Was CCB conducted every 10 samples?                                                      | [✓]        | [ ]             |
| • Was CCB conducted at end of the analytical sequence?                                     | [✓]        | [ ]             |
| • Were analytes $\leq 1/2$ MRL?                                                            | [ ]        | [✓]<br>but okay |
| 8. Continuing Calibration Verification (CCV):                                              |            |                 |
| • Was CCV conducted every 10 samples?                                                      | [✓]        | [ ]             |
| • Was CCV conducted at end of the analytical sequence?                                     | [✓]        | [ ]             |
| • Was the %R between 90-110?                                                               | [✓]        | [ ]             |
| 9. Sample Analysis:                                                                        |            |                 |
| • Were samples with levels higher than the calibration range (E), diluted and re-analyzed? | [✓]        | [ ]             |
| 10. Sample Quality Control:                                                                |            |                 |
| • <u>Method Blanks</u> : Were target analytes $\leq 1/2$ MRL?                              | [ ]        | [✓]             |
| • <u>LCS</u> : Were the percent recoveries for LCS within the limits?                      | [✓]        | [ ]             |
| • <u>MS</u> : Were the percent recoveries within limits?                                   | [ ]        | [✓]             |
| • MD: Were the RPDs within control limits?                                                 | [ ] N/A    | [ ]             |
| 11. Serial Dilution:                                                                       |            |                 |
| • Was serial dilution (1:4) conducted when needed?                                         | [✓]        | [ ]             |

- Was there an agreement between diluted and undiluted results (<10%)? Yes [ ] No [x]

12. Method of Standard Addition (MSA):

- Was MSA performed on samples suspected of matrix effect ( $R \geq 0.995$ )? [ ] N/A [ ]

13. Comments (attach additional sheets if necessary):

- (1) SDG: 240-17317-1: 076SD-0009-0001-SO  $\rightarrow 1.04\% \text{ IL} \cdot 63\%$   
 (2) 240-17422-1: 076SS-0020M-0001-SO  $\rightarrow 1.08\% \text{ IL} \cdot 63\%$   
 (3) 240-18544: 076SB-0094-0001-SO  $\rightarrow 1.12\% \text{ IL} \cdot 59\%$   
 (4) 076-SB-0096-0001-SO  $\rightarrow 1.42\% \text{ IL} \cdot 61\%$   
 (5) 076-SB-0102M-0001-SO  $\rightarrow 1.32\% \text{ IL} \cdot 65\%$   
 (6) 076-SB-0114H-0001-SO  $\rightarrow 1.1\% \text{ IL} \cdot 62\%$

| Time outliers:          | Method blank detects:         |
|-------------------------|-------------------------------|
| 78Se: 20.43% (1)        | 0.027 mg/kg $\rightarrow$ (1) |
| 11.59% (2)              | 0.027 mg/kg $\rightarrow$ (2) |
| 137Ba: 19.32% (3)(4)(5) |                               |
| 19.30% (6)              |                               |
| 138Ba: 7.81% (3)(4)(5)  | Duplicate outliers:           |
| 6.88% (6)               | -076SD-0009-0001              |
|                         | Cr 23% (1)                    |
|                         | -072SB-0063-0001-SO           |
| MRL outlier:            | Mn 36% (3)(4)(5)(6)           |
| TI at 121% (2)          | -076SB-0090M-0001-SO          |
|                         | Pb 24% (3)(4)(5)(6)           |

Validated/Reviewed by:

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Name: \_\_\_\_\_

Michael Cherny



## Matrix spike outliers:

068SS-0003M-0001-SO (1)  
(Sb, 25%), (Ni, 134%)

076SD-0009-0001-SO (1)  
(Sb, 30%), (Ca, 143%), (Ni, 71%)  
(K, 128%), (V, 122%)

076SS-0020M-0001-SO (2)  
(Sb, 25%), (As, 70%), (Se, 71%)

073SS-0003M-0001-SO (2)  
(Sb, 25%), (Se, 72%)

068SD-0009-0001-SO (2)  
(Sb, 23%), (As, 59%), (Se, 71%)

072SB-0003-0001-SO (3), (4), (5), (6)  
(Ag, 39%), (As, 0%), (Ca, 193%)  
(Cd, 60%), (Cr, 79%), (Co, 52%)  
(Cu, 16%), (Ni, 39%), (Sb, 28%)

(K, 70%), (Se, 25%)

076SB-0090M-0001-SO (3), (4), (5), (6)  
(As, 78%), (Sb, 25%), (Se, 71%)

076SB-0091M-0001-SO (3), (4), (5), (6)  
(Sb, 26%), (Se, 79%)

076SB-0100M-0001-SO (3), (4), (5), (6)  
(Be, 79%), (Sb, 19%), (K, 74%)  
(Se, 72%)

## Serial Dilution Outliers:

(3), (4), (5), (6)  
↳ (Zn, 11%)

89<sub>y</sub> not spiked  
in (3), (4), (5), (6)

Sb, Ba, Pb and Tl  
from 5x in (1)

## Field QC outliers

070-0057-0001  
Source water  
- Na 1600 µg/L

076-0007-0001-ER  
- Tl 0.75 µg/L

## ICP METALS ANALYSIS (6010) CHECKLIST

Project Name: RVAP CR Site 28

0785B-0008M (-8)

Laboratory: TA-N Canton

0785B-0016M (-14)

Batch Number(s): \_\_\_\_\_

Sample Delivery Group: 22559

- |                                                                                        | <u>Yes</u>                          | <u>No</u>                           |
|----------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| 1. Holding Time:                                                                       |                                     |                                     |
| • Were samples analyzed within holding time (6-Months)?                                | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 2. Initial Calibration:                                                                |                                     |                                     |
| • Did the initial calibration consist of                                               |                                     |                                     |
| One calibration standard and a blank?                                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| three calibration standards and a blank?                                               | <input type="checkbox"/>            | <input type="checkbox"/>            |
| • Was $R \geq 0.995$                                                                   | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 3. QCMDL:                                                                              |                                     |                                     |
| • Was MDL Check performed?                                                             | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| QCMRL:                                                                                 |                                     |                                     |
| • Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours?? | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
|                                                                                        | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was the QC/MRL between 70-130% R?                                                    |                                     |                                     |
| Common Elements can be between the MRL and 2X MRL level (Fe, Al, Mg and Ca)            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 4. Initial Calibration Verification (ICV):                                             |                                     |                                     |
| • Is the mid level (2 <sup>nd</sup> source) recovery within 90 - 110%?                 |                                     |                                     |
| 5. Initial Calibration Blank (ICP):                                                    |                                     |                                     |

|                                                                                            | <u>Yes</u>                          | <u>No</u>                           |
|--------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| • Were analytes in the blank $\leq 1/2$ MRL?                                               | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 6. Interelement Check Standard:                                                            |                                     |                                     |
| • Was ICS-A (interferents only) conducted at the beginning of analytical sequence?         | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was ICS-AB results within QC limits (80-120)?                                            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 7. Continuing calibration Blank (CCB):                                                     |                                     |                                     |
| • Was CCB conducted every 10 samples?                                                      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was CCB conducted at end of the analytical sequence?                                     | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Were analytes $\leq 1/2$ MRL?                                                            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 8. Continuing Calibration Verification (CCV):                                              |                                     |                                     |
| • Was CCV conducted every 10 samples?                                                      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was CCV conducted at end of the analytical sequence?                                     | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was the %R between 90-110?                                                               | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 9. Sample Analysis:                                                                        |                                     |                                     |
| • Were samples with levels higher than the calibration range (E), diluted and re-analyzed? | N/A <input type="checkbox"/>        | <input type="checkbox"/>            |
| 10. Sample Quality Control:                                                                |                                     |                                     |
| • <u>Method Blanks</u> : Were target analytes $\leq 1/2$ MRL?                              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • <u>LCS</u> : Were the percent recoveries for LCS within the limits?                      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • <u>MS</u> : Were the percent recoveries within limits?                                   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| • MD: Were the RPDs within control limits?                                                 | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 11. Serial Dilution:                                                                       |                                     |                                     |
| • Was serial dilution (1:4) conducted when needed?                                         | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

- Was there an agreement between diluted and undiluted results ( $<10\%$ )? Yes  
☒ No  
☐

12. Method of Standard Addition (MSA):

- Was MSA performed on samples suspected of matrix effect ( $R \geq 0.995$ )? ☐ ☐  
N/A

13. Comments (attach additional sheets if necessary):

MS 6m 15 m all 31m Hg 6m: As(72), Mn(122) Sb(68), Se(38)  
Dup / SD " " OK 15m As(67), Sb(69), Se(51)  
ICSA ~~CD = 0.271~~ w/ 8m only Fe ↑ error  
MM/CCB none suff

Validated/Reviewed by:

Signature: P. Meeks

Date: 6/9/11

Name: P. Meeks

## ICP METALS ANALYSIS (6010) CHECKLIST

Project Name: RVAAP CR SIK 79

Laboratory: TA-N Canton

Batch Number(s): \_\_\_\_\_

Sample Delivery Group: 22381 22281 22274 22662  
02950-0305

0295B-0247M -19 68356

0234M -25 68477

0236M -27 68777

0245M -1 68111

0247M -4 68111

0252M -10 68111

0267M -20 68111

0269M -22 68111

0272M -26 68272

1. Holding Time:

- Were samples analyzed within holding time (6-Months)?

Yes

No

☒

☐

2. Initial Calibration:

- Did the initial calibration consist of  
One calibration standard and a blank?  
three calibration standards and a blank?

☒

☐

☒

☐

- Was  $R \geq 0.995$

☒

☐

3. QCMDL:

- Was MDL Check performed?

☐

☒

QCMRL:

- Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours??

☒

☐

- Was the QC/MRL between 70-130% R?  
Common Elements can be between the MRL and 2X  
MRL level (Fe, Al, Mg and Ca)

☒

☐

☒

☐

4. Initial Calibration Verification (ICV):

- Is the mid level (2<sup>nd</sup> source) recovery within 90 - 110%?

5. Initial Calibration Blank (ICP):



|                                                                                            | <u>Yes</u>                          | <u>No</u>                           |
|--------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| • Were analytes in the blank $\leq 1/2$ MRL?                                               | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 6. Interelement Check Standard:                                                            |                                     |                                     |
| • Was ICS-A (interferents only) conducted at the beginning of analytical sequence?         | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was ICS-AB results within QC limits (80-120)?                                            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 7. Continuing calibration Blank (CCB):                                                     |                                     |                                     |
| • Was CCB conducted every 10 samples?                                                      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was CCB conducted at end of the analytical sequence?                                     | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Were analytes $\leq 1/2$ MRL?                                                            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 8. Continuing Calibration Verification (CCV):                                              |                                     |                                     |
| • Was CCV conducted every 10 samples?                                                      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was CCV conducted at end of the analytical sequence?                                     | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • Was the %R between 90-110?                                                               | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 9. Sample Analysis:                                                                        |                                     |                                     |
| • Were samples with levels higher than the calibration range (E), diluted and re-analyzed? | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 10. Sample Quality Control:                                                                |                                     |                                     |
| • <u>Method Blanks</u> : Were target analytes $\leq 1/2$ MRL?                              | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| • <u>LCS</u> : Were the percent recoveries for LCS within the limits?                      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • <u>MS</u> : Were the percent recoveries within limits?                                   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| • MD: Were the RPDs within control limits?                                                 | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 11. Serial Dilution:                                                                       |                                     |                                     |
| • Was serial dilution (1:4) conducted when needed?                                         | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

- Was there an agreement between diluted and undiluted results (<10%)? Yes ☐ No ☒

12. Method of Standard Addition (MSA):

- Was MSA performed on samples suspected of matrix effect ( $R \geq 0.995$ )? NA ☐ ☐

13. Comments (attach additional sheets if necessary):

MB  $Nu = 4.67 \text{ mg/kg}$  U/B 252M @ level,  $Se = 0.11 \text{ mg/kg}$  - all but -26 -1.8  
~~MB CCB~~  $Nu = 34.0 \text{ mg/kg}$  272m

MS/D 0795B - 0218M Hg > Dups  
 0244M  
 0181M Ni (79, 79), Sb (2833), Sn (77, -), Se (57, 64)  
 dups < 220M Ba (79, 79), Ni (77, -), Sb (2626), Se (64, 64), As (-, 77), Cu (-, 79)  
 171M Sb (23, 24), Se (70, 69)  
 Dup 220M Ba (123), Mn (142), Na (70), Pb (66), Tl (> ±RL)  
 SD: 151M - OK, 220M Be (11), 171M Be (16), Sn (12)

Hg MS 0795D - 0305, 0795B - 0264M  
 1CPMS MS 0795D - 0305 Sb (49, ) PDS OK Dup - OK SD - OK  
 0795B - 0264M Sb (27, ) " " Dup - Ca (82%) SD - OK

MB  $Se = -2.8$  w/ SD  
 Tune Ba138 = 6.52 w/ SD

CCB-MB Pb = 0.232  $\mu\text{g/L}$  w/ SW U @ LOD  
 MS 0311 SW Hg 1CPMS & PDS & DUP/SD

Validated/Reviewed by:

Signature: P. Meeks

Date: 6/19/14

Name: P. Meeks

~~Hg = 0.050 mg/kg in 0795D-0305 change result~~