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**DATA VALIDATION SUMMARY REPORT**  
**JULY THROUGH DECEMBER 2016**  
**SEMI-ANNUAL REMEDIAL PERFORMANCE**  
**SAMPLING**  
**NEVADA ENVIRONMENTAL RESPONSE TRUST SITE**  
**HENDERSON, NEVADA**

# CONTENTS

|            |   |           |
|------------|---|-----------|
| <b>1.</b>  | <b>INTRODUCTION</b>                                 | <b>1</b>  |
| <b>2.</b>  | <b>PRECISION AND ACCURACY OF ENVIRONMENTAL DATA</b> | <b>3</b>  |
| <b>3.</b>  | <b>VOLATILE ORGANIC COMPOUNDS</b>                   | <b>8</b>  |
| 3.1        | Precision and Accuracy                              | 8         |
| 3.1.2      | Surrogates  | 8         |
| 3.2        | Representativeness                                  | 9         |
| 3.3        | Comparability                                       | 9         |
| 3.4        | Completeness  | 9         |
| <b>3.5</b> | <b>SENSITIVITY</b>                                  | <b>9</b>  |
| <b>4.</b>  | <b>1,2,3-TRICHLOROPROPANE AND 1,4-DIOXANE</b>       | <b>10</b> |
| 4.1        | Precision and Accuracy                              | 10        |
| 4.2        | Representativeness                                  | 10        |
| 4.3        | Comparability                                       | 11        |
| 4.4        | Completeness  | 11        |
| 4.5        | Sensitivity   | 11        |
| <b>5.</b>  | <b>TOTAL AND DISSOLVED METALS</b>                   | <b>12</b> |
| 5.1        | Precision and Accuracy                              | 12        |
| 5.2        | Representativeness                                  | 13        |
| 5.3        | Comparability                                       | 13        |
| 5.4        | Completeness  | 13        |
| 5.5        | Sensitivity   | 14        |
| <b>6.</b>  | <b>WET CHEMISTRY</b>                                | <b>15</b> |
| 6.1        | Precision and Accuracy                              | 15        |
| 6.2        | Representativeness                                  | 16        |
| 6.3        | Comparability                                       | 17        |
| 6.4        | Completeness  | 17        |
| 6.5        | Sensitivity   | 17        |
| <b>7.</b>  | <b>VARIANCES IN ANALYTICAL PERFORMANCE</b>          | <b>18</b> |
| <b>8.</b>  | <b>SUMMARY OF PARCCS CRITERIA</b>                   | <b>19</b> |
| 8.1        | Precision and Accuracy                              | 19        |
| 8.2        | Representativeness                                  | 19        |
| 8.3        | Comparability                                       | 19        |
| 8.4        | Completeness  | 19        |
| 8.5        | Sensitivity   | 19        |
| <b>9.</b>  | <b>CONCLUSIONS AND RECOMMENDATIONS</b>              | <b>20</b> |
| <b>10.</b> | <b>REFERENCES</b>                                   | <b>21</b> |

## **TABLES**

|           |                              |
|-----------|------------------------------|
| Table I   | Sample Cross-Reference       |
| Table IIa | Stage 2B Validation Elements |
| Table IIb | Stage 4 Validation Elements  |
| Table III | Reason Codes and Definitions |
| Table IV  | Overall Qualified Results    |

## **ATTACHMENTS**

|              |   |
|--------------|---|
| Attachment A | VOC Data Validation Report                                    |
| Attachment B | 1,2,3-Trichloropropane and 1,4-Dioxane Data Validation Report |
| Attachment C | Metals Data Validation Report                                 |
| Attachment D | Wet Chemistry Data Validation Report                          |

## ACRONYMS AND ABBREVIATIONS

|          |   |
|----------|---|
| CCB      | Continuing Calibration Blank  |
| DL       | Detection Limit   |
| DNR      | Do Not Report   |
| DOO      | Data Quality Objectives   |
| DUP      | Duplicate   |
| DVSR     | Data Validation Summary Report  |
| EB       | Equipment Blank   |
| EPA      | Environmental Protection Agency   |
| FB       | Field Blank   |
| FD       | Field Duplicate   |
| ICB      | Initial Calibration Blank   |
| ICV      | Initial Calibration Verification  |
| LCS/LCSD | Laboratory Control Sample / Laboratory Control Sample Duplicate                   |
| LDC      | Laboratory Data Consultants, Inc.   |
| MDL      | Method Detection Limit  |
| MS/MSD   | Matrix Spike / Matrix Spike Duplicate   |
| NDEP     | Nevada Department of Environmental Protection                                     |
| NERT     | Nevada Environmental Response Trust   |
| NFG      | National Functional Guidelines  |
| PARCCS   | Precision, Accuracy, Representativeness, Comparability, Completeness, Sensitivity |
| PQL      | Practical Quantitation Limit  |
| QA/QC    | Quality Assurance / Quality Control   |
| QAPP     | Quality Assurance Project Plan  |
| RPD      | Relative Percent Difference   |
| SDG      | Sample Delivery Group   |
| SQL      | Sample Quantitation Limit   |
| TB       | Trip Blank  |
| TCP      | 1,2,3-Trichloropropane  |
| TDS      | Total Dissolved Solids  |
| TIN      | Total Inorganic Nitrogen  |
| TOC      | Total Organic Carbon  |
| TOX      | Total Organic Halides   |
| USEPA    | United States Environmental Protection Agency                                     |
| VOC      | Volatile Organic Compound   |

|      |                                     |
|------|-------------------------------------|
| %RSD | Percent Relative Standard Deviation |
| %D   | Percent Difference                  |
| %R   | Percent Recovery                    |

# 1. INTRODUCTION

Ramboll Environ has prepared this data validation summary report (DVSR) to assess the validity and usability of laboratory analytical data from the Semi-Annual Remedial Performance Sampling conducted at the Nevada Environmental Response Trust (NERT) site in Henderson, Nevada. The assessment was performed by Ramboll Environ as a part of the *Quality Assurance Project Plan (QAPP), Revision 1, Nevada Environmental Response Trust Site, Henderson, Nevada* dated July 2014 and included the collection and analyses of 982 groundwater, water, and water-matrix quality control (QC) samples. The samples were analyzed by one or more of the following methods:

- Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) SW-846 Method 8260B
- 1,2,3-Trichloropropane (TCP) and 1,4-Dioxane by EPA SW-846 Method 8260B in Selective Ion Monitoring (SIM) Mode
- Metals by EPA Methods 200.7
- Wet Chemistry:
  - Hexavalent Chromium by EPA Method 218.6
  - Chloride, Nitrate as Nitrogen, Nitrite as Nitrogen, and Sulfate (Anions) by EPA Method 300.0
  - Nitrate/Nitrite as Nitrogen by Calculation
  - Total Inorganic Nitrogen (TIN) by Calculation
  - Chlorate by EPA Method 300.1B
  - Perchlorate by EPA Method 314.0
  - Ammonia as Nitrogen by EPA Method 350.1
  - Total Recoverable Phenolics by EPA Method 420.1
  - Specific Conductance by Standard Method 2510B
  - Total Dissolved Solids (TDS) by Standard Method 2540C
  - Total Organic Carbon (TOC) by Standard Method 5310C
  - Toxic Organic Halides (TOX) by EPA SW 846 Method 9020B
  - pH by Field Sampling Method

Laboratory analytical services were provided by TestAmerica, Inc. Silver State Analytical Laboratories performed analyses for hexavalent chromium. The samples were grouped into sample delivery groups (SDGs). The water samples are associated with QA/QC samples designed to document the data quality of the entire SDG or a sub-group of samples within an SDG. Table I is a cross-reference table listing each sample, analysis, SDG, collection date, laboratory sample number, matrix, and validation level.

The laboratory analytical data were validated by Laboratory Data Consultants, Inc. (LDC) in accordance with procedures described in the Nevada Division of Environmental Protection (NDEP) *Data Verification and Validation Requirements - Supplement* established for the BMI Plant Sites and Common Areas Projects, Henderson, Nevada, April 13, 2009. Consistent with the NDEP requirements, approximately ninety percent of the analytical data were validated according to Stage 2B data validation procedures and approximately ten percent of the samples were validated according to Stage 4 data validation procedures. Table II is a

reference table that identifies the QC elements reviewed for each validation level per method, as applicable.

The analytical data were evaluated for QA/QC based on the following documents: *Quality Assurance Project Plan, Revision 1, NERT Site, Henderson, Nevada*, July 2014; Nevada Department of Environmental Protection (NDEP) *Revised Guidance on Qualifying Data due to Blank Contamination for the BMI Complex and Common Areas*, January 5 2012; USEPA *National Functional Guidelines for Inorganic Superfund Data Review*, August 2014 (NFG); USEPA *National Functional Guidelines for Organic Superfund Data Review*, August 2014 (NFG); and the EPA *SW 846 Third Edition, Test Methods for Evaluating Solid Waste*, update I, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IV, February 2007; update V, July 2014.

This report summarizes the QA/QC evaluation of the data according to precision, accuracy, representativeness, completeness, comparability, and sensitivity (PARCCS) relative to the project data quality objectives (DQOs). This report provides a quantitative and qualitative assessment of the data and identifies potential sources of error, uncertainty, and bias that may affect the overall usability.

The PARCCS evaluation is a summary of the results of QA/QC data validation for the entire sampling program. Each analytical group has a separate section for each of the PARCCS criteria. These sections interpret specific QC deviations and their effects on both individual data points and the analyses as a whole. Section 8.0 presents a summary of the PARCCS criteria by comparing quantitative parameters with acceptability criteria defined in the project DQO's. Qualitative PARCCS criteria are also summarized in this section.

## 2. PRECISION AND ACCURACY OF ENVIRONMENTAL DATA

Environmental data quality depends on sample collection procedures, analytical methods and instrumentation, documentation, and sample matrix properties. Both sampling procedures and laboratory analyses contain potential sources of uncertainty, error, and/or bias, which affect the overall quality of a measurement. Errors for sample data may result from incomplete equipment decontamination, inappropriate sampling techniques, sample heterogeneity, improper filtering, and improper preservation. The accuracy of analytical results is dependent on selecting appropriate analytical methods, maintaining equipment properly, and complying with QC requirements. The sample matrix also is an important factor in the ability to obtain precise and accurate results within a given media.

Environmental and laboratory QA/QC samples assess the effects of sampling procedures and evaluate laboratory contamination, laboratory performance, and matrix effects. QA/QC samples include: trip blanks (TB), equipment blanks (EB), field blanks (FB), field duplicates (FD), method blanks, laboratory control samples/laboratory control sample duplicates (LCS/LCSD), laboratory duplicates (DUP), and matrix spike/matrix spike duplicates (MS/MSD).

Before conducting the PARCCS evaluation, the analytical data were validated according to the QAPP (July 2014), NFG (USEPA 2014), and EPA SW 846 Test Methods. Samples not meeting the acceptance criteria were qualified with a flag, an abbreviation indicating a nonconformance with the data. The following qualifiers are used for data validation:

- J- Estimated - The associated numerical value is an estimated quantity with a negative bias. The analyte was detected but the reported value may not be accurate or precise.
- J+ Estimated - The associated numerical value is an estimated quantity with a positive bias. The analyte was detected but the reported value may not be accurate or precise.
- J Estimated - The associated numerical value is an estimated quantity. It is not possible to assess the direction of the potential bias. The analyte was detected but the reported value may not be accurate or precise. The "J" qualification indicates the data fell outside the QC limits but the exceedance was not sufficient to cause rejection of the data.
- R Rejected - The data is unusable (the analyte may or may not be present). Use of the "R" qualifier indicates a significant variance from functional guideline acceptance criteria. Either resampling or reanalysis is necessary to determine the presence or absence of the rejected analyte.
- U Nondetected - Analyses were performed for the analyte, but it was not detected.
- UJ Estimated/Nondetected - Analyses were performed for the analyte, but it was not detected and the sample quantitation or detection limit is an estimated quantity due to poor accuracy or precision. This qualification is also used to flag possible false negative results in the case where low bias in the analytical system is indicated by low calibration response, surrogate, or other spike recovery.
- DNR Do Not Report - A more appropriate result is reported from another analysis or dilution.
- A Additional flag referenced in the data validation reports; indicates the finding is based upon technical validation criteria.
- P Additional flag referenced in the data validation reports; indicates the finding is related to a protocol/contractual deviation.



A result that does not have a qualifier listed was not significantly impacted by a finding; therefore, qualification was not required.

Occasionally, results will have more than one data validation qualifier applied. The hierarchy of flags to determine the final qualifier is listed below:

|                |   |
|----------------|---|
| R > J          | The R flag will always take precedence over the J qualifier.  |
| J+             | The high bias (J+) flag is applied only to detected results.  |
| J > J+ or J-   | A non-biased (J) flag will always supersede biased (J+ or J-) flags since it is not possible to assess the direction of the potential bias. |
| J = J+ plus J- | Adding biased (J+, J-) flags with opposite signs will result in a non-biased flag (J).  |
| UJ = U plus J  | The UJ flag is used when a non-detected (U) flag is added to a non-biased flag (J).   |

Table III lists the reason codes used. Reason codes explain why flags have been applied and identify possible limitations of data use. Reason codes are cumulative except when one of the flags is R; then only the reason code associated with the R flag will be used.

Table IV presents the overall qualified results after all the flags or validation qualifiers and associated reason codes have been applied.

Once the data are reviewed and qualified according to the QAPP, NFG, and EPA Test Methods, the data set is then evaluated using PARCCS criteria. PARCCS criteria provide an evaluation of overall data usability. The following is a discussion of PARCCS criteria as related to the project DQOs.

**Precision** is a measure of the agreement or reproducibility of analytical results under a given set of conditions. It is a quantity that cannot be measured directly but is calculated from reported concentrations. Precision is expressed as the relative percent difference (RPD):

$$RPD = (D1-D2)/\{1/2(D1+D2)\} \times 100$$

where:

D1 = reported concentration for the sample

D2 = reported concentration for the duplicate

Precision is primarily assessed by calculating an RPD from the reported concentrations of the spiked compounds for each sample in the MS/MSD pair. In the absence of an MS/MSD pair, a laboratory duplicate or LCS/LCSD pair can be analyzed as an alternative means of assessing precision. An additional measure of sampling precision was obtained by collecting and analyzing field duplicate samples, which were compared using the RPD result as the evaluation criteria.

MS and MSD samples are field samples spiked by the laboratory with target analytes prior to preparation and analysis. These samples measure the overall efficiency of the analytical method in recovering target analytes from an environmental matrix. A LCS is similar to an MS/MSD sample in that the LCS is spiked with the same target analytes prior to preparation and analysis. However, the LCS is prepared using a controlled interference-free matrix instead of a field sample aliquot. Laboratory reagent water is used to prepare aqueous LCS. The LCS measures laboratory efficiency in recovering target analytes from an aqueous matrix in the absence of matrix interferences.

Laboratory duplicates (DUPs) measure laboratory precision. The analytical results for DUPs are reported as the RPD between the sample and laboratory results. DUPs are replicate samples and are prepared by taking two aliquots from one sample container.

Laboratory and field sampling precision are evaluated by calculating RPDs for aqueous field sample duplicate pairs. The sampler collects two field samples at the same location and under identically controlled conditions. The laboratory then analyzes the samples under identical conditions.

An RPD outside the numerical QC limit in the LCS/LCSD, MS/MSD, DUPs, or field duplicates indicates imprecision. Imprecision is the variance in the consistency with which the laboratory arrives at a particular reported result. Thus, the actual analyte concentration may be higher or lower than the reported result. Possible causes of poor precision include sample heterogeneity, improper sample collection or handling, inconsistent sample preparation, or poor instrument stability. In some duplicate pairs, results may be reported in either the primary or duplicate samples at levels below the practical quantitation limit (PQL) or non-detected. Since these values are considered to be estimates, RPD exceedances from these duplicate pairs do not suggest a significant impact on the data quality.

**Accuracy** is a measure of the agreement of an experimental determination and the true value of the parameter being measured. It is used to identify bias in a given measurement system. Recoveries outside acceptable QC limits may be caused by factors such as instrumentation, analyst error, or matrix interference. Accuracy is assessed through the analysis of MS, MSD, LCS, and samples containing surrogate spikes. In some cases, samples from multiple SDGs were within one QC batch and therefore are associated with the same laboratory QC samples. Surrogate spikes are either isotopically labeled compounds or compounds that are not typically detected in the samples. Surrogate spikes are added to every blank, environmental sample, LCS, MS/MSD, and standard, for all applicable organic analyses. Accuracy of inorganic analyses is determined using the percent recoveries of MS and LCS analyses. Percent recovery (%R) is calculated using the following equation:

$$\%R = (A-B)/C \times 100$$

where:

A = measured concentration in the spiked sample

B = measured concentration of the spike compound in the unspiked sample

C = concentration of the spike

The percent recovery of each analyte spiked in MS/MSD samples, LCS/LCSD, and surrogate compounds added to environmental samples is evaluated with the acceptance criteria specified by the previously noted documents. Spike recoveries outside the acceptable QC accuracy limits provide an indication of bias, where the reported data may overestimate or underestimate the actual concentration of compounds detected or quantitation limits reported for environmental samples.

**Representativeness** is a qualitative parameter that expresses the degree to which the sample data are characteristic of a population. Representativeness is evaluated by reviewing the QC results of blanks, samples, and holding times. Positive detects of compounds in the blank samples identify compounds that may have been introduced into the samples during sample collection, transport, preparation, or analysis. The QA/QC blanks collected and analyzed are method blanks, calibration blanks, TBs, EBs, and FBs.

A method blank is a laboratory-grade water or solid matrix that contains the method reagents and has undergone the same preparation and analysis as the environmental samples. The

method blank provides a measure of the combined contamination derived from the laboratory source water, glassware, instruments, reagents, and sample preparation steps. Method blanks are prepared for each sample of a similar matrix extracted by the same method at a similar concentration level.

Initial and continuing calibration blanks (ICB/CCBs) consist of acidified laboratory grade water, which are injected at the beginning and at a regular frequency during each 12 - hour sample analysis run. These blanks estimate residual contaminants from the previous sample or standards analysis and measure baseline shifts that commonly occur in emission and absorption spectroscopy.

Trip blanks are used to identify possible volatile organic contamination introduced into the sample during transport. A trip blank is a sample bottle filled in the laboratory with reagent-grade water and preserved to a pH less than 2 with hydrochloric acid. It is transported to the site, stored with the sample containers, and returned unopened to the laboratory for analysis.

Equipment blanks consist of analyte-free water poured over or through the sample collection equipment. The water is collected in a sample container for laboratory analysis. These blanks are collected after the sampling equipment is decontaminated and measure efficiency of the decontamination procedure.

Field blanks consist of analyte-free source water stored at the sample collection site. The field blank is collected from each source water used during each sampling event.

The blanks and associated samples were evaluated according to the NDEP *BMI Plant Sites and Common Areas Projects, Henderson, Nevada, Revised Guidance on Qualifying Data due to Blank Contamination for the BMI Complex and Common Areas*, January 5, 2012.

Holding times are evaluated to assure that the sample integrity is intact for accurate sample preparation and analysis. Holding times will be specific for each method and matrix analyzed. Holding time exceedance can cause loss of sample constituents due to biodegradation, precipitation, volatilization, and chemical degradation.

**Comparability** is a qualitative expression of the confidence with which one data set may be compared to another. It provides an assessment of the equivalence of the analytical results to data obtained from other analyses. It is important that data sets be comparable if they are used in conjunction with other data sets. The factors affecting comparability include the following: sample collection and handling techniques, matrix type, and analytical method. If these aspects of sampling and analysis are carried out according to standard analytical procedures, the data are considered comparable. Comparability is also dependent upon other PARCCS criteria, because only when precision, accuracy, and representativeness are known can data sets be compared with confidence.

**Completeness** is defined as the percentage of acceptable sample results compared to the total number of sample results. Completeness is evaluated to determine if an acceptable amount of usable data were obtained so that a valid scientific site assessment can be completed. Completeness equals the total number of sample results for each fraction minus the total number of rejected sample results divided by the total number of sample results multiplied by 100. As specified in the project DQOs, the goal for completeness for target analytes in each analytical fraction is 90 percent. Percent completeness is calculated using the following equation:

$$\%C = (T - R)/T \times 100$$

where:

%C = percent completeness

T = total number of sample results

R = total number of rejected sample results

Completeness is also determined by comparing the planned number of samples per method and matrix as specified in the QAPP, with the number determined above.

**Sensitivity** is the ability of an analytical method or instrument to discriminate between measurement responses representing different concentrations. This capability is established during the planning phase to meet the DQOs. It is important that calibration requirements, detection limits (DLs), and PQLs presented in the QAPP are achieved and that target analytes can be detected at concentrations necessary to support the DQOs. The method detection limits (MDLs) represent the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero. Sample quantitation limits (SQLs) are adjusted MDL values that reflect sample specific actions, such as dilutions or varying aliquot sizes. PQLs are the lowest level at which the entire analytical system gives a recognizable signal and acceptable calibration point for the analyte. The laboratory is required to report detected analytes down to the MDL for this project. Results that are reported between the MDL and PQL are reported as estimated by the laboratory. In addition, sample results are compared to method blank and field blank results to identify potential effects of laboratory background and field procedures on sensitivity.

The following sections present a review of QC data for each analytical method.

### 3. VOLATILE ORGANIC COMPOUNDS

A total of 37 water samples were analyzed for VOCs by EPA SW-846 Method 8260B. All VOC data were assessed to be valid. This section discusses the QA/QC supporting documentation as defined by the PARCCS criteria and evaluated based on the DQOs.

#### 3.1 Precision and Accuracy

##### 3.1.1 Instrument Calibration

Initial and continuing calibration results provide a means of evaluating accuracy within a particular SDG. Relative response factor (RRF), percent relative standard deviation (%RSD), and percent difference (%D) are the major parameters used to measure the effectiveness of instrument calibration. RRF is a measure of the relative spectral response of an analyte compared to its internal standard. %RSD is an expression of the linearity of instrument response. %D is a comparison of a continuing calibration instrumental response with its initial response. %RSD and %D exceedances suggest routine instrumental anomalies, which typically impact all sample results for the affected compounds.

The %RSDs met the acceptance criteria of 15 percent (%) for each individual compound and 30% for calibration check compounds, or the coefficient of determination ( $r^2$ ) was  $\geq 0.990$  in the initial calibration.

The %Ds in the initial calibration verification (ICV) standards met the acceptance criteria of 20% for all compounds, with the exception of dichlorodifluoromethane. Twenty-three dichlorodifluoromethane results were qualified as non-detected estimated (UJ) because the %D exceeded 20% in two associated ICV standards. The details regarding the qualification of results are provided in Attachment A.

The %Ds in the continuing calibration verifications were outside the acceptance criteria of 20% for several parameters. Nineteen results were qualified as non-detected estimated (UJ) or detected estimated (J+) because the associated continuing calibration verification (CCV) standard %Ds were outside the acceptance criteria of 20%. The affected compounds are 1,1,2,2-tetrachloroethane, 1,2,3-trichlorobenzene, 1,2,4-trichlorobenzene, and chloromethane. The details regarding the qualification of results are provided in Attachment A.

##### 3.1.2 Surrogates

All surrogate recoveries were within the QC limits.

##### 3.1.3 MS/MSD Samples

MS/MSD %Rs and RPDs were within QC limits.

##### 3.1.4 LCS Samples

All LCS %Rs met the laboratory acceptance criteria.

##### 3.1.5 Internal Standards

All internal standard areas and retention times met the method acceptance criteria.

##### 3.1.6 FD Samples

The field duplicate samples were evaluated for acceptable precision with RPDs. The results for 1,3-dichlorobenzene in FD pair PC-153-20160912 and PC-153-20160912-FD were qualified as detected estimated (J) because the calculate RPD exceeded the QAPP acceptance criteria of  $\leq 30\%$ . The details regarding the qualification of results are provided in Attachment A.

##### 3.1.7 Compound Quantitation and Target Identification

Raw data were evaluated for 16 VOC samples. All compound quantitation and target identifications were acceptable for the samples evaluated to Stage 4.

## **3.2 Representativeness**

### **3.2.1 Sample Preservation and Holding Times**

The evaluation of holding times to verify compliance with the method was conducted. All samples met the 14-day analysis holding time criteria for VOCs.

### **3.2.2 Blanks**

Method blanks, TBs, EBs, and FBs were collected and analyzed to evaluate representativeness. The concentration for an individual target compound in any of the types of QA/QC blanks was used for data qualification. The following criteria are used to evaluate results associated with blanks that have contaminants detected:

Results Below or Above the PQL - If a sample result for the blank contaminant was less than or greater than the PQL and less than or equal to 2 times the blank value; the sample result was qualified as detected estimated (J) at the reported concentration.

No Action - If a sample result for the blank contaminant was greater than 2 times the blank value, the result was not qualified.

#### **3.2.2.1 Method Blanks**

Chloroform and 1,2,4-trimethylbenzene were detected in method blanks for this analysis. The sample concentrations were compared to concentrations detected in the laboratory blanks. The sample concentrations were either not detected or were significantly greater than the concentrations found in the associated laboratory blanks.

#### **3.2.2.2 TBs**

No contaminants were detected in the trip blanks for this analysis.

#### **3.2.2.3 EBs and FBs**

No contaminants were detected in the equipment and field blanks for this analysis.

## **3.3 Comparability**

The laboratory used standard analytical methods for all of the analyses. In all cases, the SQLs attained were at or below the PQLs. Target compounds detected below the PQLs flagged (J) by the laboratory should be considered estimated. The comparability of the VOC data is regarded as acceptable.

## **3.4 Completeness**

The completeness level attained for VOC field samples was 100 percent. This percentage was calculated as the total number of accepted sample results divided by the total number of sample results multiplied by 100.

## **3.5 Sensitivity**

The calibration was evaluated for instrument sensitivity and was determined to be technically acceptable.

All laboratory PQLs met the specified requirements in the QAPP with the exception of several VOCs.

## 4. 1,2,3-TRICHLOROPROPANE AND 1,4-DIOXANE

A total of 37 water samples were analyzed for 1,2,3-trichloropropane and 1,4-dioxane by EPA SW-846 Method 8260B-SIM. All 1,2,3-trichloropropane and 1,4-dioxane data were assessed to be valid since none of the results were rejected. This section discusses the QA/QC supporting documentation as defined by the PARCCS criteria and evaluated based on the DQOs.

### 4.1 Precision and Accuracy

#### 4.1.1 Instrument Calibration

The %RSDs met the acceptance criteria of 15 percent in the initial calibration. The %Ds in the continuing calibration verifications met the acceptance criteria of 20%.

Four 1,2,3-trichloropropane results were qualified as detected estimated (J+). The %Ds in the initial calibration verifications were outside the acceptance criteria of 20%. The details regarding the qualification of results are provided in Attachment B.

#### 4.1.2 Surrogates

All surrogate %Rs met the laboratory acceptance criteria, with one exception. The %R for the surrogate dibromofluoromethane was above the laboratory control limit in one sample. 1,2,3-Trichloropropane and 1,4-dioxane were not detected in the sample; therefore, no data were qualified.

#### 4.1.3 MS/MSD Samples

MS/MSD %Rs and RPDs were within QC limits.

#### 4.1.4 LCS Samples

All LCS %Rs met the laboratory acceptance criteria.

#### 4.1.5 Internal Standards

All internal standard areas and retention times met the method acceptance criteria.

#### 4.1.6 FD Samples

The field duplicate samples were evaluated for acceptable precision with RPDs. 1,4-Dioxane was only detected in one field duplicate pair. The calculate RPD was below the QAPP acceptance criteria of  $\leq 30$ . 1,2,3-Trichloropropane was not detected in any of the field duplicate pairs.

#### 4.1.7 Compound Quantitation and Target Identification

Raw data were evaluated for 16 samples analyzed for 1,2,3-trichloropropane and 1,4-dioxane. All compound quantitation and target identifications were acceptable for the samples evaluated to Stage 4.

### 4.2 Representativeness

#### 4.2.1 Sample Preservation and Holding Times

The evaluation of holding times to verify compliance with the method was conducted. All samples met the 14-day analysis holding time criteria for 1,2,3-trichloropropane and 1,4-dioxane.

#### 4.2.2 Blanks

Method blanks, TBs, EBs, and FBs were collected and analyzed to evaluate representativeness. The concentration for an individual target compound in any of the types of QA/QC blanks was used for data qualification.

#### **4.2.2.1 Method blanks**

No contaminants were detected in the method blanks for this analysis.

#### **4.2.2.2 TBs**

No contaminants were detected in the trip blanks for this analysis.

#### **4.2.2.3 EBs and FBs**

No contaminants were detected in the equipment or field blanks for this analysis.

### **4.3 Comparability**

The laboratory used standard analytical methods for all of the analyses. In all cases, the SQLs attained were at or below the PQLs. Target compounds detected below the PQLs flagged (J) by the laboratory should be considered estimated. The comparability of the VOC data is regarded as acceptable.

### **4.4 Completeness**

The completeness level attained for 1,2,3-trichloropropane and 1,4-dioxane field samples was 100 percent. This percentage was calculated as the total number of accepted sample results divided by the total number of sample results multiplied by 100.

### **4.5 Sensitivity**

The calibration was evaluated for instrument sensitivity and was determined to be technically acceptable. All laboratory PQLs met the specified requirements described in the QAPP.



## 5. TOTAL AND DISSOLVED METALS

A total of 38 water samples were analyzed for boron by EPA Method 200.7; six water samples were analyzed for iron and manganese by EPA Method 200.7; four water samples were analysed for sodium by EPA Method 200.7; and 542 water samples were analyzed for chromium by EPA Method 200.7. All metals data were assessed to be valid since none of the 596 total results were rejected based on holding time and QC exceedances. This section discusses the QA/QC supporting documentation as defined by the PARCCS criteria and evaluated based on the DQOs.

### 5.1 Precision and Accuracy

#### 5.1.1 Instrument Calibration

Initial and continuing calibration verification results provide a means of evaluating accuracy within a particular SDG. Correlation coefficient ( $r$ ) and percent recovery (%R) are the two major parameters used to measure the effectiveness of instrument calibration. The correlation coefficient indicates the linearity of the calibration curve. %R is used to verify the ongoing calibration acceptability of the analytical system. The most critical of the two calibration parameters,  $r$ , has the potential to affect data accuracy across an SDG when it is outside the acceptable QC limits. %R exceedances suggest more routine instrumental anomalies, which typically impact all sample results for the affected analytes.

The correlation coefficients in the initial calibrations met the method acceptance criteria of  $\geq 0.995$ . The %Rs in the initial and continuing calibration verifications were within the method acceptance criteria of 90-110%. Low-level check standard %Rs were within the acceptance criteria of 70-130%.

#### 5.1.2 MS/MSD Samples

The boron results for samples M-161D, M-162D, M-162D-FD, PC-151, PC-152, PC-153, and PC-153-FD were qualified as detected estimated (J+) because the recovery for the associated MSD was above the laboratory control limit. Details regarding the qualified results are provided in Attachment C.

No data were qualified for sample results associated with MS/MSD recoveries outside the acceptance criteria when the parent sample results were greater than 4x the spike concentration used to prepare the MS/MSD.

All MS/MSD RPDs met the laboratory acceptance criteria.

#### 5.1.3 LCS/LCSD Samples

All LCS/LCSD %Rs and RPDs met the laboratory acceptance criteria.

#### 5.1.4 ICP Interference Check Sample

All ICP interference check %Rs met the method acceptance criteria.

#### 5.1.5 Internal Standards

All internal standard %Rs met the method acceptance criteria.

#### 5.1.6 FD Samples

Field duplicate samples were evaluated for acceptable precision with RPDs or difference in instances wherein the field duplicate results were less than five times the reporting limit. Due to, the chromium results in FD pair M-37 and DUP12 (both sampled on 8/10/16) and FD pair I-AR and DUP14 (both sampled on 8/11/16) were qualified as detected estimated (J) because

the calculated RPDs exceeded the QAPP acceptance criteria of  $\leq 30$ . The details regarding the qualification of results are presented in Attachment C.

### **5.1.7 Sample Result Verification**

Raw data were evaluated for 98 chromium results, 17 boron results, three iron results, three manganese results, and one sodium result. All compound quantitation and target identifications were acceptable for the samples evaluated to Stage 4.

## **5.2 Representativeness**

### **5.2.1 Sample Preservation and Holding Times**

The evaluation of holding times to verify compliance with the method was conducted. All samples met the 180-day analysis holding time criteria for metals.

### **5.2.2 Blanks**

Method blanks, ICB/CCBs, EBs, and FBs were analyzed to evaluate representativeness. The concentration for an individual target analyte in any of the types of QA/QC blanks was used for data qualification. The following criteria are used to evaluate results associated with blanks that have contaminants detected:

- Results Below the PQL If a sample result and blank contaminant value were less than the PQL, the sample result was amended as estimated (J) at the concentration reported in the sample results.
- Results Above the PQL If a sample result and blank contaminant value were greater than the PQL and the sample result was less than 10 times the blank contaminant value, the sample result was qualified as detected estimated (J+) at the concentration reported in the sample results.
- No Action If blank contaminant values were less than the PQL and associated sample results were greater than the PQL, or if blank contaminant values were greater than the PQL and associated sample results were greater than 10 times the blank contaminant value, the result was not amended.

#### **5.2.2.1 Method and Calibration Blanks**

Chromium and iron were detected in method blanks for this analysis. The sample concentrations were compared to concentrations detected in the laboratory blanks. The sample concentrations were either not detected or were significantly greater than the concentrations found in the associated laboratory blanks.

#### **5.2.2.2 EBs and FBs**

Chromium was detected in three equipment blanks collected as part of this data set. Chromium results in two samples were qualified as detected estimated (J).

## **5.3 Comparability**

The laboratory used standard analytical methods for all of the analyses. In all cases, the SQLs attained were at or below the PQLs. Target analytes detected below the PQLs flagged (J) by the laboratory are considered estimated. The comparability of the metals data is regarded as acceptable.

## **5.4 Completeness**

The completeness level attained for metal field samples was 100 percent. This percentage was calculated as the total number of accepted sample results divided by the total number of sample results multiplied by 100.

## **5.5 Sensitivity**

The calibration was evaluated for instrument sensitivity and was determined to be technically acceptable. All laboratory PQLs met the specified requirements described in the QAPP.

## 6. WET CHEMISTRY

A total of 316 water samples were analyzed for hexavalent chromium by EPA Method 218.6; 230 water samples were analyzed for nitrate as nitrogen by EPA Method 300.0; 26 water samples were analyzed for chloride by EPA Method 300.0; two water samples were analyzed for nitrite as nitrogen by EPA Method 300.0; 24 water samples for analyzed for sulfate by EPA Method 300.0; two water samples were analyzed for ammonia as nitrogen by EPA Method 350.1, nitrate/nitrite as nitrogen by Calculation, TIN by Calculation Method; 627 water samples were analyzed for perchlorate by EPA Method 314.0; 261 water samples were analyzed for chlorate by EPA Method 300.1; four water samples were analyzed for phenolics by EPA Method 420.1, specific conductance by Standard Method 2510, and TOC by Standard Method 5310C; 623 water samples were analyzed for TDS by Standard Method 2540C; five water samples were analyzed for TOX by EPA SW-846 Method 9020; and 476 water samples were analyzed for pH by Field Sampling Method. All wet chemistry data were assessed to be valid since none of the 2,608 total results were rejected based on holding time and QC exceedances. This section discusses the QA/QC supporting documentation as defined by the PARCCS criteria and evaluated based on the DQOs.

### 6.1 Precision and Accuracy

#### 6.1.1 Instrument Calibration

Initial and continuing calibration results provide a means of evaluating accuracy. Instrument calibrations were evaluated for all wet chemistry methods. The correlation coefficients in the initial calibrations were within the acceptance criteria of  $\geq 0.995$ .

Three nitrate results were qualified as detected estimated (J) or non-detected estimated (UJ) due to continuing calibration verification %Rs outside the acceptance criteria of 90-110%. The details regarding the qualification of results are presented in Attachment D.

#### 6.1.2 Surrogate

All surrogate %Rs associated to the chlorate analysis met the laboratory acceptance criteria.

#### 6.1.3 MS/MSD Samples

MS/MSD samples were evaluated for chlorate, hexavalent chromium, perchlorate, and nitrate. Forty-six nitrate results were qualified as detected estimated (J+ J-) or non-detected estimated (UJ) due to MS/MSD %Rs outside the laboratory acceptance criteria. Three perchlorate results were qualified as detected estimated (J-) due to MS/MSD %Rs outside the laboratory acceptance criteria.

Additionally, 11 nitrate samples were associated with MS/MSD %RPDs that were outside the laboratory acceptance criteria. The samples were qualified as detected estimated (J) or non-detected estimated (UJ).

The qualifications for MS/MSD results are further discussed in Attachment D.

#### 6.1.4 DUP Samples

DUP samples prepared with project samples were evaluated for precision. All laboratory DUP RPDs met the laboratory criteria.

#### 6.1.5 LCS Samples

All LCS/LCSD %Rs and RPDs met the laboratory acceptance criteria

#### 6.1.6 FD Samples

Field duplicate samples were evaluated for chlorate, hexavalent chromium, nitrate, perchlorate, TDS, and field pH. The field duplicate samples were evaluated for acceptable precision with RPDs or difference in instances wherein the field duplicate results were less than five times the PQL. Due to RPDs outside the QAPP acceptance criteria of  $\leq 30$ , the nitrate results in field duplicate pairs M-192 and M-192-FD8 (both sampled on 11/17/2016) were qualified as detected estimated (J).

The details regarding the qualification of results for field duplicate precision are presented in Attachment D.

### **6.1.7 Sample Result Verification**

Raw data were evaluated for 35 hexavalent chromium samples, eight chloride, 45 nitrate, six sulfate, two nitrate/nitrite as nitrogen samples, two TIN samples, 57 chlorate samples, 98 perchlorate samples, one phenolics sample, one specific conductance sample, 98 TDS samples, and two ammonia as nitrogen samples by EPA Method 350.1. All sample result verifications were acceptable for samples that underwent Stage 4 data validation. The 476 pH results were field measurements and therefore were not validated.

In instances where more than one result was reported for an individual sample, the least technically acceptable results were qualified as not reportable (DNR) by the validators in order to yield only one complete set of data for a given sample. Duplicate results for Nitrate as Nitrogen and Nitrite as Nitrogen were reported for sample M-10, because the laboratory information management system (LIMS) reported a calculated result in addition to the analysis result for these parameters. The calculated results were qualified as not reportable (DNR). In addition, results associated with samples that were resampled due to hold time exceedances were qualified as not reportable (DNR). The details regarding the qualification of results for holding times are discussed in Section 6.2.1 and presented in Attachment D.

## **6.2 Representativeness**

### **6.2.1 Sample Preservation and Holding Times**

The evaluation of holding times to verify compliance with all wet chemistry methods was conducted. All water samples met the 48-hour analysis holding time criteria for nitrite as nitrogen, the 7-day analysis holding time criteria for TDS, and the 28-day analysis holding time criteria for ammonia as nitrogen, chlorate, chloride, phenolics, phosphorus, specific conductance, sulfate, and TOX.

Three nitrate results were qualified as detected estimated (J-) because the holding time of 48 hours was exceeded. In addition, fifteen samples collected in November 2016 were received at the laboratory outside of the holding time for the nitrate analysis. The sample locations were resampled in December 2016 and were analyzed within the method holding time for nitrate. The results reported for nitrate for the November samples were qualified as not reportable (DNR).

Four hexavalent chromium results were qualified as detected estimated (J-) because the holding time of 24 hours was exceeded.

One TOX result and one perchlorate result was qualified as detected estimated (J-) because the holding time of 28 days was exceeded for the analyses. The details regarding the qualification of results for holding time are presented in Attachment D.

### **6.2.2 Blanks**

As previously discussed in Section 5.2.2, method blanks, ICB/CCBs, EBs, and FBs were analyzed to evaluate representativeness.

#### **6.2.2.1 Method and Calibration Blanks**

Perchlorate and TOC were detected in calibration blanks for this analysis. The sample concentrations were compared to concentrations detected in the laboratory blanks. The sample concentrations were either not detected or were significantly greater than the concentrations found in the associated laboratory blanks.

#### **6.2.2.2 EBs and FBs**

Perchlorate was detected in six equipment blanks and one field blank associated with this data set. In addition, nitrate was detected in one field blank. The sample concentrations were either not detected or were significantly greater than the concentrations found in the associated blanks.

### **6.3 Comparability**

The laboratory used standard analytical methods for all of the analyses. In all cases, the SQLs attained were at or below the PQLs. Target analytes detected below the PQLs flagged (J) by the laboratory should be considered estimated. The comparability of the data is regarded as acceptable.

### **6.4 Completeness**

The completeness level attained for wet chemistry field samples was 100 percent. This percentage was calculated as the total number of accepted sample results divided by the total number of sample results multiplied by 100.

### **6.5 Sensitivity**

The calibration was evaluated for instrument sensitivity and was determined to be technically acceptable. All laboratory PQLs met the specified requirements described in the QAPP.

## **7. VARIANCES IN ANALYTICAL PERFORMANCE**

The laboratory used standard analytical methods for all of the analyses throughout the project. The analyses were conducted within all specifications of the methods. No systematic variances in analytical performance were noted in the laboratory case narratives.

## 8. SUMMARY OF PARCCS CRITERIA

The validation reports present the PARCCS results for all SDGs. Each PARCCS criterion is discussed in detail in the following sections.

### 8.1 Precision and Accuracy

Precision and accuracy were evaluated using data quality indicators such as calibration, surrogates, MS/MSD, DUP, LCS/LCSD, and field duplicates. The precision and accuracy of the data set were considered acceptable after integration of result qualification.

All calibrations were performed as required and met the acceptance criteria with the exceptions noted in Sections 3.1.1, 4.1.1, and 6.1.1. All surrogate, MS/MSD, DUP, LCS, and field duplicate percent recoveries, RPDs, and difference met acceptance criteria with the exceptions noted in Sections 3.1.6, 5.1.2, and 6.1.3. All ICP interference check sample %Rs met acceptance criteria.

### 8.2 Representativeness

All samples for each method and matrix were evaluated for holding time compliance. All samples were associated with a method blank in each individual SDG. The representativeness of the project data is considered acceptable after integration of result qualification.

### 8.3 Comparability

Sampling frequency requirements were met in obtaining necessary equipment blanks, field blanks and field duplicates. The laboratory used standard analytical methods for the analyses. The analytical results were reported in correct standard units. Sample integrity criteria were met. Sample preservation and holding times were within QC criteria with the exceptions noted in Section 6.2.1. The overall comparability is considered acceptable after integration of result qualification.

### 8.4 Completeness

Of the 5,535 total analytes reported, no results were rejected. The completeness for the SDGs is as follows:

| Parameter                            | Total Analytes | No. of Rejects | % Completeness |
|--------------------------------------|----------------|----------------|----------------|
| VOC                                  | 2,257          | 0              | 100            |
| 1,2,3-Trichloropropane & 1,4-Dioxane | 74             | 0              | 100            |
| Metals                               | 596            | 0              | 100            |
| Wet Chemistry                        | 2,608          | 0              | 100            |
| <b>Total</b>                         | <b>5,535</b>   | <b>0</b>       | <b>100</b>     |

The completeness percentage based on rejected data met the 90 percent DQO goal.

### 8.5 Sensitivity

Sensitivity was achieved by the laboratory to support the DQOs. Calibration concentrations, VOC SQLs, metals and wet chemistry PQLs met the project requirements and low level contamination in the method blanks, calibration blanks, equipment blanks, and field blanks did not affect sensitivity.



## 9. CONCLUSIONS AND RECOMMENDATIONS

The analytical data quality assessment for the water sample laboratory analytical results generated during the Annual Remedial Performance Sampling at the NERT site in Henderson, Nevada established that the overall project requirements and completeness levels were met. Sample results that were found to be estimated (J), (J+), (J-), and (UJ) are usable for limited purposes only. Based upon the Stage 2B and Stage 4 data validation all other results are considered valid and usable for all purposes.

## 10. REFERENCES

- NDEP 2009. Data Verification and Validation Requirements - Supplement established for the BMI Plant Sites and Common Areas Projects, Henderson, Nevada. April 13.
- NDEP 2012. Revised Guidance on Qualifying Data due to Blank Contamination for the BMI Complex and Common Areas. January 5.
- Basic Remediation Company (BRC), 2009. Standard Operating Procedures, SOP-40 Data Review/Validation. Revision 4. May.
- Revised Phase B Quality Assurance Project Plan Tronox LLC Facility, Henderson, Nevada (QAPP), Revision. May 2009.
- Region 9 Superfund Data Evaluation/Validation Guidance, R6QA/006.1, Draft. December 2001.
- USEPA 2014. National Functional Guidelines for Inorganic Superfund Data Review. August.
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- \_\_\_\_\_.1983. EPA Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, Cincinnati, Ohio. March.
- \_\_\_\_\_.1996. EPA SW 846 Third Edition, Test Methods for Evaluating Solid Waste, update I, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IV, February 2007.
- (Eaton et al., 1998) *Standard Method for the Examination of Water and Wastewater* (20th ed.). Washington, DC: American Public Health Association.

## TABLES

**TABLE I: Sample Cross Reference**  
**Nevada Environmental Response Trust Site**  
**Henderson, Nevada**

| SDG                   | Client Sample ID   | Laboratory Sample ID | Matrix   | Sample Date | QC Type  | Validation Level | Ammonia (as N) | Total Organic Carbon | Chlorate | Chloride | Conductivity | Dissolved Solids (total) | Nitrate | Nitrite, Nitrate/Nitrite, TIN | Perchlorate | Sulfate | Boron | Chromium (total) | Chromium VI | Iron | Manganese | Sodium | VOCs | 1,4-Dioxane (SIM) | 1,2,3-Trichloropropane (SIM) | Field pH | Organic Halides (total) | Phenolics, Recoverable (total) |
|-----------------------|--------------------|----------------------|----------|-------------|----------|------------------|----------------|----------------------|----------|----------|--------------|--------------------------|---------|-------------------------------|-------------|---------|-------|------------------|-------------|------|-----------|--------|------|-------------------|------------------------------|----------|-------------------------|--------------------------------|
| 440-151677-1          | ART-1A-20160705_A  | 440-151677-5         | WG       | 07/05/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                       | ART-2-20160705_A   | 440-151677-1         | WG       | 07/05/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                       | ART-3A-20160705_A  | 440-151677-6         | WG       | 07/05/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                       | ART-4-20160705_A   | 440-151677-8         | WG       | 07/05/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                       | ART-7B-20160705_A  | 440-151677-4         | WG       | 07/05/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                       | ART-8A-20160705_A  | 440-151677-3         | WG       | 07/05/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                       | ART-9-20160705_A   | 440-151677-7         | WG       | 07/05/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                       | PC-115R-20160705_A | 440-151677-10        | WG       | 07/05/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                       | PC-116R-20160705_A | 440-151677-11        | WG       | 07/05/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                       | PC-117-20160705_A  | 440-151677-14        | WG       | 07/05/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                       | PC-118-20160705_A  | 440-151677-12        | WG       | 07/05/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                       | PC-119-20160705_A  | 440-151677-13        | WG       | 07/05/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                       | PC-120-20160705_A  | 440-151677-17        | WG       | 07/05/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                       | PC-121-20160705_A  | 440-151677-16        | WG       | 07/05/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
| PC-133-20160705_A     | 440-151677-15      | WG                   | 07/05/16 |             | Stage 2B |                  |                |                      |          |          | X            |                          |         | X                             |             |         | X     |                  |             |      |           |        |      |                   |                              | X        |                         |                                |
| PC-150-20160705_A     | 440-151677-2       | WG                   | 07/05/16 |             | Stage 2B |                  |                |                      |          |          | X            |                          |         | X                             |             |         | X     |                  |             |      |           |        |      |                   |                              | X        |                         |                                |
| PC-99R2/R3-20160705_A | 440-151677-9       | WG                   | 07/05/16 |             | Stage 2B |                  |                |                      |          |          | X            |                          |         | X                             |             |         | X     |                  |             |      |           |        |      |                   |                              | X        |                         |                                |
| 440-151794-1          | ART-1A-20160705    | 440-151794-5         | WG       | 07/05/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | ART-2-20160705     | 440-151794-1         | WG       | 07/05/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | ART-3A-20160705    | 440-151794-6         | WG       | 07/05/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | ART-4-20160705     | 440-151794-8         | WG       | 07/05/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | ART-7B-20160705    | 440-151794-4         | WG       | 07/05/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | ART-8A-20160705    | 440-151794-3         | WG       | 07/05/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | ART-9-20160705     | 440-151794-7         | WG       | 07/05/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | PC-115R-20160705   | 440-151794-10        | WG       | 07/05/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | PC-116R-20160705   | 440-151794-11        | WG       | 07/05/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | PC-117-20160705    | 440-151794-14        | WG       | 07/05/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | PC-118-20160705    | 440-151794-12        | WG       | 07/05/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | PC-119-20160705    | 440-151794-13        | WG       | 07/05/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | PC-120-20160705    | 440-151794-17        | WG       | 07/05/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | PC-121-20160705    | 440-151794-16        | WG       | 07/05/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
| PC-133-20160705       | 440-151794-15      | WG                   | 07/05/16 |             | Stage 2B |                  |                |                      |          |          |              |                          |         |                               |             |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
| PC-150-20160705       | 440-151794-2       | WG                   | 07/05/16 |             | Stage 2B |                  |                |                      |          |          |              |                          |         |                               |             |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
| PC-99R2/R3-20160705   | 440-151794-9       | WG                   | 07/05/16 |             | Stage 2B |                  |                |                      |          |          |              |                          |         |                               |             |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
| 440-152035-1          | I-AA-20160706      | 440-152035-15        | WG       | 07/06/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                       | I-AR-20160706      | 440-152035-16        | WG       | 07/06/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |

**TABLE I: Sample Cross Reference**  
**Nevada Environmental Response Trust Site**  
**Henderson, Nevada**

| SDG              | Client Sample ID  | Laboratory Sample ID | Matrix   | Sample Date | QC Type  | Validation Level | Ammonia (as N) | Total Organic Carbon | Chlorate | Chloride | Conductivity | Dissolved Solids (total) | Nitrate | Nitrite, Nitrate/Nitrite, TIN | Perchlorate | Sulfate | Boron | Chromium (total) | Chromium VI | Iron | Manganese | Sodium | VOCs | 1,4-Dioxane (SIM) | 1,2,3-Trichloropropane (SIM) | Field pH | Organic Halides (total) | Phenolics, Recoverable (total) |
|------------------|-------------------|----------------------|----------|-------------|----------|------------------|----------------|----------------------|----------|----------|--------------|--------------------------|---------|-------------------------------|-------------|---------|-------|------------------|-------------|------|-----------|--------|------|-------------------|------------------------------|----------|-------------------------|--------------------------------|
| 440-152035-1     | I-B-20160706      | 440-152035-14        | WG       | 07/06/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                  | I-C-20160706      | 440-152035-9         | WG       | 07/06/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                  | I-F-20160706      | 440-152035-8         | WG       | 07/06/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                  | I-H-20160706      | 440-152035-4         | WG       | 07/06/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                  | I-L-20160706      | 440-152035-11        | WG       | 07/06/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                  | I-O-20160706      | 440-152035-1         | WG       | 07/06/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                  | I-P-20160706      | 440-152035-3         | WG       | 07/06/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                  | I-Q-20160706      | 440-152035-7         | WG       | 07/06/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                  | I-R-20160706      | 440-152035-13        | WG       | 07/06/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                  | I-S-20160706      | 440-152035-10        | WG       | 07/06/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                  | I-T-20160706      | 440-152035-6         | WG       | 07/06/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                  | I-U-20160706      | 440-152035-5         | WG       | 07/06/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
| I-W-20160706     | 440-152035-2      | WG                   | 07/06/16 |             | Stage 2B |                  |                |                      |          |          | X            |                          |         | X                             |             |         | X     |                  |             |      |           |        |      |                   |                              | X        |                         |                                |
| I-Y-20160706     | 440-152035-12     | WG                   | 07/06/16 |             | Stage 2B |                  |                |                      |          |          | X            |                          |         | X                             |             |         | X     |                  |             |      |           |        |      |                   |                              | X        |                         |                                |
| 440-152574-1     | I-AB-20160712     | 440-152574-5         | WG       | 07/12/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                  | I-AC-20160712     | 440-152574-13        | WG       | 07/12/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                  | I-AD-20160712     | 440-152574-14        | WG       | 07/12/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                  | I-D-20160712      | 440-152574-2         | WG       | 07/12/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                  | I-E-20160712      | 440-152574-7         | WG       | 07/12/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                  | I-G-20160712      | 440-152574-6         | WG       | 07/12/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                  | I-I-20160712      | 440-152574-9         | WG       | 07/12/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                  | I-J-20160712      | 440-152574-11        | WG       | 07/12/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                  | I-K-20160712      | 440-152574-12        | WG       | 07/12/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                  | I-M-20160712      | 440-152574-4         | WG       | 07/12/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                  | I-N-20160712      | 440-152574-1         | WG       | 07/12/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                  | I-V-20160712      | 440-152574-8         | WG       | 07/12/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                  | I-X-20160712      | 440-152574-3         | WG       | 07/12/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
| I-Z-20160712     | 440-152574-10     | WG                   | 07/12/16 |             | Stage 2B |                  |                |                      |          |          | X            |                          |         | X                             |             |         | X     |                  |             |      |           |        |      |                   |                              | X        |                         |                                |
| 440-152845-1     | I-AB-20160712_SSA | 440-152845-5         | WG       | 07/12/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
|                  | I-AC-20160712_SSA | 440-152845-13        | WG       | 07/12/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
|                  | I-AD-20160712_SSA | 440-152845-14        | WG       | 07/12/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
|                  | I-D-20160712_SSA  | 440-152845-2         | WG       | 07/12/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
|                  | I-E-20160712_SSA  | 440-152845-7         | WG       | 07/12/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
|                  | I-G-20160712_SSA  | 440-152845-6         | WG       | 07/12/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
|                  | I-I-20160712_SSA  | 440-152845-9         | WG       | 07/12/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
| I-J-20160712_SSA | 440-152845-10     | WG                   | 07/12/16 |             | Stage 2B |                  |                |                      |          |          |              |                          |         |                               |             |         | X     |                  |             |      |           |        |      |                   |                              |          |                         |                                |

**TABLE I: Sample Cross Reference**  
**Nevada Environmental Response Trust Site**  
**Henderson, Nevada**

| SDG              | Client Sample ID  | Laboratory Sample ID | Matrix   | Sample Date | QC Type  | Validation Level | Ammonia (as N) | Total Organic Carbon | Chlorate | Chloride | Conductivity | Dissolved Solids (total) | Nitrate | Nitrite, Nitrate/Nitrite, TIN | Perchlorate | Sulfate | Boron | Chromium (total) | Chromium VI | Iron | Manganese | Sodium | VOCs | 1,4-Dioxane (SIM) | 1,2,3-Trichloropropane (SIM) | Field pH | Organic Halides (total) | Phenolics, Recoverable (total) |
|------------------|-------------------|----------------------|----------|-------------|----------|------------------|----------------|----------------------|----------|----------|--------------|--------------------------|---------|-------------------------------|-------------|---------|-------|------------------|-------------|------|-----------|--------|------|-------------------|------------------------------|----------|-------------------------|--------------------------------|
| 440-152845-1     | I-K-20160712_SSA  | 440-152845-12        | WG       | 07/12/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                  | I-M-20160712_SSA  | 440-152845-4         | WG       | 07/12/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                  | I-N-20160712_SSA  | 440-152845-1         | WG       | 07/12/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                  | I-V-20160712_SSA  | 440-152845-8         | WG       | 07/12/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                  | I-X-20160712_SSA  | 440-152845-3         | WG       | 07/12/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                  | I-Z-20160712_SSA  | 440-152845-11        | WG       | 07/12/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
| 440-152846-1     | I-AA-20160706_SSA | 440-152846-15        | WG       | 07/06/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                  | I-AR-20160706_SSA | 440-152846-16        | WG       | 07/06/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                  | I-B-20160706_SSA  | 440-152846-14        | WG       | 07/06/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                  | I-C-20160706_SSA  | 440-152846-9         | WG       | 07/06/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                  | I-F-20160706_SSA  | 440-152846-8         | WG       | 07/06/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                  | I-H-20160706_SSA  | 440-152846-4         | WG       | 07/06/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                  | I-L-20160706_SSA  | 440-152846-11        | WG       | 07/06/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                  | I-O-20160706_SSA  | 440-152846-1         | WG       | 07/06/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                  | I-P-20160706_SSA  | 440-152846-3         | WG       | 07/06/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                  | I-Q-20160706_SSA  | 440-152846-7         | WG       | 07/06/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                  | I-R-20160706_SSA  | 440-152846-13        | WG       | 07/06/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                  | I-S-20160706_SSA  | 440-152846-10        | WG       | 07/06/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                  | I-T-20160706_SSA  | 440-152846-6         | WG       | 07/06/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                  | I-U-20160706_SSA  | 440-152846-5         | WG       | 07/06/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
| I-W-20160706_SSA | 440-152846-2      | WG                   | 07/06/16 |             | Stage 2B |                  |                |                      |          |          |              |                          |         |                               |             |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
| I-Y-20160706_SSA | 440-152846-12     | WG                   | 07/06/16 |             | Stage 2B |                  |                |                      |          |          |              |                          |         |                               |             |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
| 440-153241-1     | ART-6-20160719    | 440-153241-14        | WG       | 07/19/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                  | M-83-20160719     | 440-153241-1         | WG       | 07/19/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              | X        |                         |                                |
|                  | MEB-1-20160719    | 440-153241-12        | WQ       | 07/19/16    | EB       | Stage 2B         |                |                      |          |          |              |                          |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              | X        |                         |                                |
|                  | PC-101R-20160719  | 440-153241-15        | WG       | 07/19/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              | X        |                         |                                |
|                  | PC-122-20160719   | 440-153241-13        | WG       | 07/19/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              | X        |                         |                                |
|                  | PC-56-20160719    | 440-153241-3         | WG       | 07/19/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              | X        |                         |                                |
|                  | PC-58-20160719    | 440-153241-2         | WG       | 07/19/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              | X        |                         |                                |
|                  | PC-59-20160719    | 440-153241-5         | WG       | 07/19/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              | X        |                         |                                |
|                  | PC-60-20160719    | 440-153241-4         | WG       | 07/19/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              | X        |                         |                                |
|                  | PC-62-20160719    | 440-153241-6         | WG       | 07/19/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              | X        |                         |                                |
|                  | PC-68-20160719    | 440-153241-7         | WG       | 07/19/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              | X        |                         |                                |
|                  | PC-86-20160719    | 440-153241-8         | WG       | 07/19/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              | X        |                         |                                |
|                  | PC-90-20160719    | 440-153241-10        | WG       | 07/19/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              | X        |                         |                                |
|                  | PC-91-20160719    | 440-153241-9         | WG       | 07/19/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              | X        |                         |                                |

**TABLE I: Sample Cross Reference**  
**Nevada Environmental Response Trust Site**  
**Henderson, Nevada**

| SDG                   | Client Sample ID   | Laboratory Sample ID | Matrix   | Sample Date | QC Type  | Validation Level | Ammonia (as N) | Total Organic Carbon | Chlorate | Chloride | Conductivity | Dissolved Solids (total) | Nitrate | Nitrite, Nitrate/Nitrite, TIN | Perchlorate | Sulfate | Boron | Chromium (total) | Chromium VI | Iron | Manganese | Sodium | VOCs | 1,4-Dioxane (SIM) | 1,2,3-Trichloropropane (SIM) | Field pH | Organic Halides (total) | Phenolics, Recoverable (total) |  |
|-----------------------|--------------------|----------------------|----------|-------------|----------|------------------|----------------|----------------------|----------|----------|--------------|--------------------------|---------|-------------------------------|-------------|---------|-------|------------------|-------------|------|-----------|--------|------|-------------------|------------------------------|----------|-------------------------|--------------------------------|--|
| 440-153241-1          | PC-97-20160719     | 440-153241-11        | WG       | 07/19/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              | X        |                         |                                |  |
| 440-153307-1          | ART-6-20160719_SSA | 440-153307-1         | WG       | 07/19/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
| 440-153408-1          | ARP-1-20160720     | 440-153408-2         | WG       | 07/20/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              | X        |                         |                                |  |
|                       | ARP-2A-20160720    | 440-153408-11        | WG       | 07/20/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              | X        |                         |                                |  |
|                       | ARP-3A-20160720    | 440-153408-10        | WG       | 07/20/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              | X        |                         |                                |  |
|                       | ARP-4A-20160720    | 440-153408-8         | WG       | 07/20/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              | X        |                         |                                |  |
|                       | ARP-5A-20160720    | 440-153408-7         | WG       | 07/20/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              | X        |                         |                                |  |
|                       | ARP-6B-20160720    | 440-153408-6         | WG       | 07/20/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              | X        |                         |                                |  |
|                       | ARP-7-20160720     | 440-153408-5         | WG       | 07/20/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              | X        |                         |                                |  |
|                       | MW-K4-20160720     | 440-153408-9         | W        | 07/20/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              | X        |                         |                                |  |
|                       | MW-K5-20160720     | 440-153408-4         | W        | 07/20/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              | X        |                         |                                |  |
|                       | PC-103-20160720    | 440-153408-12        | WG       | 07/20/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              | X        |                         |                                |  |
|                       | PC-18-20160720     | 440-153408-1         | WG       | 07/20/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              | X        |                         |                                |  |
|                       | PC-53-20160720     | 440-153408-3         | WG       | 07/20/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              | X        |                         |                                |  |
|                       | PC-55-20160720     | 440-153408-14        | WG       | 07/20/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              | X        |                         |                                |  |
| PC-98R-20160720       | 440-153408-13      | WG                   | 07/20/16 |             | Stage 2B |                  |                |                      |          |          | X            |                          |         | X                             |             |         |       |                  |             |      |           |        |      |                   | X                            |          |                         |                                |  |
| 440-154229-1          | ART-1A-20160801_A  | 440-154229-14        | WG       | 08/01/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |  |
|                       | ART-2A-20160801_A  | 440-154229-13        | WG       | 08/01/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |  |
|                       | ART-3A-20160801_A  | 440-154229-11        | WG       | 08/01/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |  |
|                       | ART-4-20160801_A   | 440-154229-10        | WG       | 08/01/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |  |
|                       | ART-7B-20160801_A  | 440-154229-15        | WG       | 08/01/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |  |
|                       | ART-8A-20160801_A  | 440-154229-12        | WG       | 08/01/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |  |
|                       | ART-9-20160801_A   | 440-154229-16        | WG       | 08/01/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |  |
|                       | PC-115R-20160801_A | 440-154229-2         | WG       | 08/01/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |  |
|                       | PC-116R-20160801_A | 440-154229-3         | WG       | 08/01/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |  |
|                       | PC-117-20160801_A  | 440-154229-4         | WG       | 08/01/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |  |
|                       | PC-118-20160801_A  | 440-154229-5         | WG       | 08/01/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |  |
|                       | PC-119-20160801_A  | 440-154229-6         | WG       | 08/01/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |  |
|                       | PC-120-20160801_A  | 440-154229-8         | WG       | 08/01/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |  |
|                       | PC-121-20160801_A  | 440-154229-9         | WG       | 08/01/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |  |
|                       | PC-133-20160801_A  | 440-154229-7         | WG       | 08/01/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |  |
| PC-150-20160801_A     | 440-154229-17      | WG                   | 08/01/16 |             | Stage 2B |                  |                |                      |          |          | X            |                          |         | X                             |             |         | X     |                  |             |      |           |        |      |                   | X                            |          |                         |                                |  |
| PC-99R2/R3-20160801_A | 440-154229-1       | WG                   | 08/01/16 |             | Stage 2B |                  |                |                      |          |          | X            |                          |         | X                             |             |         | X     |                  |             |      |           |        |      |                   | X                            |          |                         |                                |  |
| 440-154365-1          | ART-1A-20160801    | 440-154365-14        | WG       | 08/01/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                       | ART-2A-20160801    | 440-154365-13        | WG       | 08/01/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                       | ART-3A-20160801    | 440-154365-11        | WG       | 08/01/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |

**TABLE I: Sample Cross Reference**  
**Nevada Environmental Response Trust Site**  
**Henderson, Nevada**

| SDG                 | Client Sample ID | Laboratory Sample ID | Matrix   | Sample Date | QC Type  | Validation Level | Ammonia (as N) | Total Organic Carbon | Chlorate | Chloride | Conductivity | Dissolved Solids (total) | Nitrate | Nitrite, Nitrate/Nitrite, TIN | Perchlorate | Sulfate | Boron | Chromium (total) | Chromium VI | Iron | Manganese | Sodium | VOCs | 1,4-Dioxane (SIM) | 1,2,3-Trichloropropane (SIM) | Field pH | Organic Halides (total) | Phenolics, Recoverable (total) |  |
|---------------------|------------------|----------------------|----------|-------------|----------|------------------|----------------|----------------------|----------|----------|--------------|--------------------------|---------|-------------------------------|-------------|---------|-------|------------------|-------------|------|-----------|--------|------|-------------------|------------------------------|----------|-------------------------|--------------------------------|--|
| 440-154365-1        | ART-4-20160801   | 440-154365-10        | WG       | 08/01/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | ART-7B-20160801  | 440-154365-15        | WG       | 08/01/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | ART-8A-20160801  | 440-154365-12        | WG       | 08/01/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | ART-9-20160801   | 440-154365-16        | WG       | 08/01/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | PC-115R-20160801 | 440-154365-2         | WG       | 08/01/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | PC-116R-20160801 | 440-154365-3         | WG       | 08/01/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | PC-117-20160801  | 440-154365-4         | WG       | 08/01/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | PC-118-20160801  | 440-154365-5         | WG       | 08/01/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | PC-119-20160801  | 440-154365-6         | WG       | 08/01/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | PC-120-20160801  | 440-154365-8         | WG       | 08/01/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | PC-121-20160801  | 440-154365-9         | WG       | 08/01/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
| PC-133-20160801     | 440-154365-7     | WG                   | 08/01/16 |             | Stage 2B |                  |                |                      |          |          |              |                          |         |                               |             |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
| PC-150-20160801     | 440-154365-17    | WG                   | 08/01/16 |             | Stage 2B |                  |                |                      |          |          |              |                          |         |                               |             |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
| PC-99R2/R3-20160801 | 440-154365-1     | WG                   | 08/01/16 |             | Stage 2B |                  |                |                      |          |          |              |                          |         |                               |             |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
| 440-154471-1        | EB-1-20160802    | 440-154471-8         | WQ       | 08/02/16    | EB       | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |  |
|                     | FB-1-20160802    | 440-154471-4         | WQ       | 08/02/16    | FB       | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |  |
|                     | PC-122-20160802  | 440-154471-1         | WG       | 08/02/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |  |
|                     | PC-56-20160802   | 440-154471-3         | WG       | 08/02/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  | X           |      |           |        |      |                   |                              |          | X                       |                                |  |
|                     | PC-58-20160802   | 440-154471-2         | WG       | 08/02/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  | X           |      |           |        |      |                   |                              |          | X                       |                                |  |
|                     | PC-59-20160802   | 440-154471-6         | WG       | 08/02/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  | X           |      |           |        |      |                   |                              |          | X                       |                                |  |
|                     | PC-60-20160802   | 440-154471-5         | WG       | 08/02/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  | X           |      |           |        |      |                   |                              |          | X                       |                                |  |
|                     | PC-62-20160802   | 440-154471-7         | WG       | 08/02/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  | X           |      |           |        |      |                   |                              |          | X                       |                                |  |
|                     | PC-68-20160802   | 440-154471-9         | WG       | 08/02/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  | X           |      |           |        |      |                   |                              |          | X                       |                                |  |
|                     | PC-86-20160802   | 440-154471-10        | WG       | 08/02/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  | X           |      |           |        |      |                   |                              |          | X                       |                                |  |
|                     | PC-90-20160802   | 440-154471-12        | WG       | 08/02/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  | X           |      |           |        |      |                   |                              |          | X                       |                                |  |
|                     | PC-91-20160802   | 440-154471-13        | WG       | 08/02/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  | X           |      |           |        |      |                   |                              |          | X                       |                                |  |
|                     | PC-94-20160802   | 440-154471-14        | WG       | 08/02/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  | X           |      |           |        |      |                   |                              |          | X                       |                                |  |
| PC-97-20160802      | 440-154471-11    | WG                   | 08/02/16 |             | Stage 2B |                  |                |                      |          |          | X            |                          |         | X                             |             |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |  |
| 440-154485-1        | ART-6-20160802_A | 440-154485-1         | WG       | 08/02/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |  |
| 440-154590-1        | ARP-1-20160803   | 440-154590-2         | WG       | 08/03/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |  |
|                     | ARP-2A-20160803  | 440-154590-19        | WG       | 08/03/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |  |
|                     | ARP-3A-20160803  | 440-154590-18        | WG       | 08/03/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |  |
|                     | ARP-4A-20160803  | 440-154590-13        | WG       | 08/03/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  | X           |      |           |        |      |                   |                              |          | X                       |                                |  |
|                     | ARP-5A-20160803  | 440-154590-11        | WG       | 08/03/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  | X           |      |           |        |      |                   |                              |          | X                       |                                |  |
|                     | ARP-6B-20160803  | 440-154590-10        | WG       | 08/03/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  | X           |      |           |        |      |                   |                              |          | X                       |                                |  |
|                     | ARP-7-20160803   | 440-154590-9         | WG       | 08/03/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  | X           |      |           |        |      |                   |                              |          | X                       |                                |  |



**TABLE I: Sample Cross Reference**  
**Nevada Environmental Response Trust Site**  
**Henderson, Nevada**

| SDG             | Client Sample ID   | Laboratory Sample ID | Matrix   | Sample Date | QC Type  | Validation Level | Ammonia (as N) | Total Organic Carbon | Chlorate | Chloride | Conductivity | Dissolved Solids (total) | Nitrate | Nitrite, Nitrate/Nitrite, TIN | Perchlorate | Sulfate | Boron | Chromium (total) | Chromium VI | Iron | Manganese | Sodium | VOCs | 1,4-Dioxane (SIM) | 1,2,3-Trichloropropane (SIM) | Field pH | Organic Halides (total) | Phenolics, Recoverable (total) |
|-----------------|--------------------|----------------------|----------|-------------|----------|------------------|----------------|----------------------|----------|----------|--------------|--------------------------|---------|-------------------------------|-------------|---------|-------|------------------|-------------|------|-----------|--------|------|-------------------|------------------------------|----------|-------------------------|--------------------------------|
| 440-154590-1    | EB2-20160803       | 440-154590-5         | W        | 08/03/16    | EB       | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | MEB-1-20160803     | 440-154590-12        | W        | 08/03/16    | EB       | Stage 2B         |                |                      |          |          |              |                          |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              |          |                         |                                |
|                 | MW-K4-20160803     | 440-154590-14        | W        | 08/03/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | MW-K5-20160803     | 440-154590-6         | W        | 08/03/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | PC-101R-20160803   | 440-154590-17        | WG       | 08/03/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | PC-103-20160803    | 440-154590-7         | WG       | 08/03/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | PC-135A-20160803   | 440-154590-16        | WG       | 08/03/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | PC-136-20160803    | 440-154590-3         | WG       | 08/03/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | PC-144-20160803    | 440-154590-15        | WG       | 08/03/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | PC-18-20160803     | 440-154590-1         | WG       | 08/03/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
| PC-53-20160803  | 440-154590-4       | WG                   | 08/03/16 |             | Stage 2B |                  |                |                      |          |          | X            |                          |         | X                             |             |         | X     |                  |             |      |           |        |      |                   | X                            |          |                         |                                |
| PC-98R-20160803 | 440-154590-8       | WG                   | 08/03/16 |             | Stage 2B |                  |                |                      |          |          | X            |                          |         | X                             |             |         | X     |                  |             |      |           |        |      |                   | X                            |          |                         |                                |
| 440-154938-1    | DUP-6-20160808     | 440-154938-2         | WG       | 08/08/16    | FD       | Stage 4          |                |                      |          |          |              | X                        |         | X                             |             |         | X     |                  |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | DUP-7-20160808     | 440-154938-18        | W        | 08/08/16    | FD       | Stage 4          |                |                      |          |          |              | X                        |         | X                             |             |         | X     |                  |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | EB4-20160808       | 440-154938-12        | W        | 08/08/16    | EB       | Stage 4          |                |                      |          |          |              | X                        |         | X                             |             |         | X     |                  |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | M-44-20160808_A    | 440-154938-17        | WG       | 08/08/16    |          | Stage 4          |                |                      |          |          |              | X                        |         | X                             |             |         | X     |                  |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | M-48A-20160808     | 440-154938-16        | W        | 08/08/16    |          | Stage 4          |                |                      |          |          |              | X                        |         | X                             |             |         | X     |                  |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | PC-123-20160808    | 440-154938-1         | WG       | 08/08/16    |          | Stage 4          |                |                      |          |          |              | X                        |         | X                             |             |         | X     |                  |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | PC-124-20160808    | 440-154938-8         | WG       | 08/08/16    |          | Stage 4          |                |                      |          |          |              | X                        |         | X                             |             |         | X     |                  |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | PC-125-20160808    | 440-154938-9         | WG       | 08/08/16    |          | Stage 4          |                |                      |          |          |              | X                        |         | X                             |             |         | X     |                  |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | PC-126-20160808    | 440-154938-10        | WG       | 08/08/16    |          | Stage 4          |                |                      |          |          |              | X                        |         | X                             |             |         | X     |                  |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | PC-127-20160808    | 440-154938-11        | WG       | 08/08/16    |          | Stage 4          |                |                      |          |          |              | X                        |         | X                             |             |         | X     |                  |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | PC-128-20160808    | 440-154938-3         | WG       | 08/08/16    |          | Stage 4          |                |                      |          |          |              | X                        |         | X                             |             |         | X     |                  |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | PC-129-20160808    | 440-154938-4         | WG       | 08/08/16    |          | Stage 4          |                |                      |          |          |              | X                        |         | X                             |             |         | X     |                  |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | PC-130-20160808    | 440-154938-5         | WG       | 08/08/16    |          | Stage 4          |                |                      |          |          |              | X                        |         | X                             |             |         | X     |                  |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | PC-131-20160808    | 440-154938-6         | WG       | 08/08/16    |          | Stage 4          |                |                      |          |          |              | X                        |         | X                             |             |         | X     |                  |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | PC-132-20160808    | 440-154938-7         | WG       | 08/08/16    |          | Stage 4          |                |                      |          |          |              | X                        |         | X                             |             |         | X     |                  |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | PC-148-20160808    | 440-154938-13        | WG       | 08/08/16    |          | Stage 4          |                |                      |          |          |              | X                        |         | X                             |             |         | X     |                  |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | PC-149-20160808    | 440-154938-14        | WG       | 08/08/16    |          | Stage 4          |                |                      |          |          |              | X                        |         | X                             |             |         | X     |                  |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | PC-37-20160808     | 440-154938-22        | WG       | 08/08/16    |          | Stage 4          |                |                      |          |          |              | X                        |         | X                             |             |         | X     |                  |             |      |           |        |      |                   |                              | X        |                         |                                |
| PC-54-20160808  | 440-154938-15      | WG                   | 08/08/16 |             | Stage 4  |                  |                |                      |          |          | X            |                          | X       |                               |             | X       |       |                  |             |      |           |        |      |                   | X                            |          |                         |                                |
| PC-71-20160808  | 440-154938-19      | WG                   | 08/08/16 |             | Stage 4  |                  |                |                      |          |          | X            |                          | X       |                               |             | X       |       |                  |             |      |           |        |      |                   | X                            |          |                         |                                |
| PC-72-20160808  | 440-154938-20      | WG                   | 08/08/16 |             | Stage 4  |                  |                |                      |          |          | X            |                          | X       |                               |             | X       |       |                  |             |      |           |        |      |                   | X                            |          |                         |                                |
| PC-73-20160808  | 440-154938-21      | WG                   | 08/08/16 |             | Stage 4  |                  |                |                      |          |          | X            |                          | X       |                               |             | X       |       |                  |             |      |           |        |      |                   | X                            |          |                         |                                |
| 440-154944-1    | DUP-7-20160808_SSA | 440-154944-2         | W        | 08/08/16    | FD       | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                 | M-44-20160808      | 440-154944-1         | WG       | 08/08/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |

**TABLE I: Sample Cross Reference**  
**Nevada Environmental Response Trust Site**  
**Henderson, Nevada**

| SDG            | Client Sample ID | Laboratory Sample ID | Matrix   | Sample Date | QC Type  | Validation Level | Ammonia (as N) | Total Organic Carbon | Chlorate | Chloride | Conductivity | Dissolved Solids (total) | Nitrate | Nitrite, Nitrate/Nitrite, TIN | Perchlorate | Sulfate | Boron | Chromium (total) | Chromium VI | Iron | Manganese | Sodium | VOCs | 1,4-Dioxane (SIM) | 1,2,3-Trichloropropane (SIM) | Field pH | Organic Halides (total) | Phenolics, Recoverable (total) |
|----------------|------------------|----------------------|----------|-------------|----------|------------------|----------------|----------------------|----------|----------|--------------|--------------------------|---------|-------------------------------|-------------|---------|-------|------------------|-------------|------|-----------|--------|------|-------------------|------------------------------|----------|-------------------------|--------------------------------|
| 440-155035-1   | M-10-20160809    | 440-155035-1         | WG       | 08/09/16    |          | Stage 4          | X              |                      | X        | X        |              | X                        | X       | X                             |             |         | X     | X                | X           | X    | X         |        |      |                   |                              | X        |                         |                                |
| 440-155148-1   | DUP-8-20160809   | 440-155148-6         | W        | 08/09/16    | FD       | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                | DUP-9-20160809_A | 440-155148-16        | W        | 08/09/16    | FD       | Stage 2B         |                | X                    |          |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                | EB9-20160809     | 440-155148-8         | WQ       | 08/09/16    | EB       | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                | M-11-20160809_A  | 440-155148-14        | WG       | 08/09/16    |          | Stage 2B         |                | X                    |          |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                | M-12A-20160809_A | 440-155148-15        | WG       | 08/09/16    |          | Stage 2B         |                | X                    |          |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                | M-19-20160809    | 440-155148-10        | WG       | 08/09/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                | M-31A-20160809   | 440-155148-12        | WG       | 08/09/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                | M-35-20160809    | 440-155148-11        | WG       | 08/09/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                | M-52-20160809    | 440-155148-13        | WG       | 08/09/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                | M-67-20160809    | 440-155148-5         | WG       | 08/09/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                | M-68-20160809    | 440-155148-9         | WG       | 08/09/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                | M-73-20160809    | 440-155148-4         | WG       | 08/09/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                | M-74-20160809    | 440-155148-7         | WG       | 08/09/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                | M-80-20160809_A  | 440-155148-2         | WG       | 08/09/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
| M-81A-20160809 | 440-155148-3     | WG                   | 08/09/16 |             | Stage 2B |                  |                |                      |          |          | X            |                          |         | X                             |             |         | X     |                  |             |      |           |        |      |                   | X                            |          |                         |                                |
| M-83-20160809  | 440-155148-1     | WG                   | 08/09/16 |             | Stage 2B |                  |                |                      |          |          | X            |                          |         | X                             |             |         | X     |                  |             |      |           |        |      |                   | X                            |          |                         |                                |
| 440-155186-1   | DUP-9-20160809   | 440-155186-4         | W        | 08/09/16    | FD       | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                | M-11-20160809    | 440-155186-2         | WG       | 08/09/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                | M-12A-20160809   | 440-155186-3         | WG       | 08/09/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                | M-80-20160809    | 440-155186-1         | WG       | 08/09/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
| 440-155316-1   | DUP-10-20160810  | 440-155316-15        | W        | 08/10/16    | FD       | Stage 4          |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                | DUP-11-20160810  | 440-155316-18        | W        | 08/10/16    | FD       | Stage 4          |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                | DUP-12-20160810  | 440-155316-3         | W        | 08/10/16    | FD       | Stage 4          |                | X                    |          |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                | EB-10-20160810   | 440-155316-9         | W        | 08/10/16    | EB       | Stage 4          |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                | M-131-20160810   | 440-155316-5         | W        | 08/10/16    |          | Stage 4          |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                | M-135-20160810   | 440-155316-7         | W        | 08/10/16    |          | Stage 4          |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                | M-14A-20160810   | 440-155316-4         | W        | 08/10/16    |          | Stage 4          |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                | M-22A-20160810   | 440-155316-19        | W        | 08/10/16    |          | Stage 4          |                |                      |          |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                | M-23-20160810    | 440-155316-20        | W        | 08/10/16    |          | Stage 4          |                |                      | X        |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                | M-25-20160810    | 440-155316-1         | W        | 08/10/16    |          | Stage 4          |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                | M-37-20160810    | 440-155316-2         | W        | 08/10/16    |          | Stage 4          |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                | M-38-20160810    | 440-155316-17        | W        | 08/10/16    |          | Stage 4          |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                | M-57A-20160810   | 440-155316-6         | W        | 08/10/16    |          | Stage 4          |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                | M-64-20160810    | 440-155316-22        | W        | 08/10/16    |          | Stage 4          |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                | M-65-20160810    | 440-155316-14        | W        | 08/10/16    |          | Stage 4          |                |                      |          |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |

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**Nevada Environmental Response Trust Site**  
**Henderson, Nevada**

| SDG          | Client Sample ID  | Laboratory Sample ID | Matrix   | Sample Date | QC Type  | Validation Level | Ammonia (as N) | Total Organic Carbon | Chlorate | Chloride | Conductivity | Dissolved Solids (total) | Nitrate | Nitrite, Nitrate/Nitrite, TIN | Perchlorate | Sulfate | Boron | Chromium (total) | Chromium VI | Iron | Manganese | Sodium | VOCs | 1,4-Dioxane (SIM) | 1,2,3-Trichloropropane (SIM) | Field pH | Organic Halides (total) | Phenolics, Recoverable (total) |
|--------------|-------------------|----------------------|----------|-------------|----------|------------------|----------------|----------------------|----------|----------|--------------|--------------------------|---------|-------------------------------|-------------|---------|-------|------------------|-------------|------|-----------|--------|------|-------------------|------------------------------|----------|-------------------------|--------------------------------|
| 440-155316-1 | M-66-20160810     | 440-155316-16        | W        | 08/10/16    |          | Stage 4          |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|              | M-69-20160810     | 440-155316-8         | W        | 08/10/16    |          | Stage 4          |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|              | M-70-20160810     | 440-155316-11        | W        | 08/10/16    |          | Stage 4          |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|              | M-71-20160810     | 440-155316-12        | W        | 08/10/16    |          | Stage 4          |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|              | M-72-20160810     | 440-155316-13        | W        | 08/10/16    |          | Stage 4          |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|              | M-79-20160810     | 440-155316-10        | W        | 08/10/16    |          | Stage 4          |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|              | PC-55-20160810    | 440-155316-21        | WG       | 08/10/16    |          | Stage 4          |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
| 440-155320-1 | M-5A-20160810     | 440-155320-1         | W        | 08/10/16    |          | Stage 4          |                | X                    |          | X        | X            | X                        |         |                               | X           | X       | X     | X                |             | X    | X         | X      |      |                   |                              | X        | X                       | X                              |
| 440-155334-1 | DUP-11-20160810_A | 440-155334-4         | W        | 08/10/16    | FD       | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|              | DUP-12-20160810_A | 440-155334-2         | W        | 08/10/16    | FD       | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|              | M-37-20160810_A   | 440-155334-1         | W        | 08/10/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|              | M-38-20160810_A   | 440-155334-3         | W        | 08/10/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
| 440-155490-1 | H-28A-20160811    | 440-155490-1         | W        | 08/11/16    |          | Stage 2B         |                | X                    |          | X        | X            | X                        |         |                               | X           | X       | X     | X                |             | X    | X         | X      |      |                   |                              | X        | X                       | X                              |
|              | M-6A-20160811     | 440-155490-2         | W        | 08/11/16    |          | Stage 2B         |                | X                    |          | X        | X            | X                        |         |                               | X           | X       | X     | X                |             | X    | X         | X      |      |                   |                              | X        | X                       | X                              |
|              | M-7B-20160811     | 440-155490-3         | W        | 08/11/16    |          | Stage 2B         |                | X                    |          | X        | X            | X                        |         |                               | X           | X       | X     | X                |             | X    | X         | X      |      |                   |                              | X        | X                       | X                              |
| 440-155494-1 | DUP-14-20160811   | 440-155494-24        | WG       | 08/11/16    | FD       | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|              | I-AA-20160811     | 440-155494-22        | WG       | 08/11/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|              | I-AB-20160811     | 440-155494-21        | WG       | 08/11/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|              | I-AD-20160811     | 440-155494-25        | WG       | 08/11/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|              | I-AR-20160811     | 440-155494-23        | WG       | 08/11/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|              | I-B-20160811      | 440-155494-20        | WG       | 08/11/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|              | I-C-20160811      | 440-155494-15        | WG       | 08/11/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|              | I-D-20160811      | 440-155494-14        | WG       | 08/11/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|              | I-E-20160811      | 440-155494-12        | WG       | 08/11/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|              | I-F-20160811      | 440-155494-9         | WG       | 08/11/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|              | I-G-20160811      | 440-155494-7         | WG       | 08/11/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|              | I-H-20160811      | 440-155494-4         | WG       | 08/11/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|              | I-I-20160811      | 440-155494-29        | WG       | 08/11/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|              | I-J-20160811      | 440-155494-27        | WG       | 08/11/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|              | I-K-20160811      | 440-155494-26        | WG       | 08/11/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|              | I-L-20160811      | 440-155494-17        | WG       | 08/11/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|              | I-M-20160811      | 440-155494-13        | WG       | 08/11/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|              | I-N-20160811      | 440-155494-11        | WG       | 08/11/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|              | I-O-20160811      | 440-155494-1         | WG       | 08/11/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|              | I-P-20160811      | 440-155494-3         | WG       | 08/11/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
| I-Q-20160811 | 440-155494-8      | WG                   | 08/11/16 |             | Stage 2B |                  |                |                      |          |          | X            |                          |         | X                             |             |         | X     |                  |             |      |           |        |      |                   | X                            |          |                         |                                |

**TABLE I: Sample Cross Reference**  
**Nevada Environmental Response Trust Site**  
**Henderson, Nevada**

| SDG                 | Client Sample ID | Laboratory Sample ID | Matrix   | Sample Date | QC Type  | Validation Level | Ammonia (as N) | Total Organic Carbon | Chlorate | Chloride | Conductivity | Dissolved Solids (total) | Nitrate | Nitrite, Nitrate/Nitrite, TIN | Perchlorate | Sulfate | Boron | Chromium (total) | Chromium VI | Iron | Manganese | Sodium | VOCs | 1,4-Dioxane (SIM) | 1,2,3-Trichloropropane (SIM) | Field pH | Organic Halides (total) | Phenolics, Recoverable (total) |
|---------------------|------------------|----------------------|----------|-------------|----------|------------------|----------------|----------------------|----------|----------|--------------|--------------------------|---------|-------------------------------|-------------|---------|-------|------------------|-------------|------|-----------|--------|------|-------------------|------------------------------|----------|-------------------------|--------------------------------|
| 440-155494-1        | I-R-20160811     | 440-155494-19        | WG       | 08/11/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                     | I-S-20160811     | 440-155494-16        | WG       | 08/11/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                     | I-T-20160811     | 440-155494-6         | WG       | 08/11/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                     | I-U-20160811     | 440-155494-5         | WG       | 08/11/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                     | I-V-20160811     | 440-155494-30        | WG       | 08/11/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                     | I-W-20160811     | 440-155494-2         | WG       | 08/11/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                     | I-X-20160811     | 440-155494-10        | WG       | 08/11/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                     | I-Y-20160811     | 440-155494-18        | WG       | 08/11/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
| I-Z-20160811        | 440-155494-28    | WG                   | 08/11/16 |             | Stage 2B |                  |                |                      |          |          | X            |                          |         | X                             |             |         | X     |                  |             |      |           |        |      |                   |                              | X        |                         |                                |
| 440-156239-1        | ART-6-20160802   | 440-156239-1         | WG       | 08/02/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
| 440-156317-1        | I-AC-20160822    | 440-156317-1         | WG       | 08/22/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
| 440-156610-1        | M-48A-20160824   | 440-156610-1         | W        | 08/24/16    |          | Stage 2B         |                | X                    |          |          |              |                          | X       |                               |             |         |       |                  |             |      |           |        |      |                   |                              |          |                         |                                |
| 440-157616-1        | ART-1A-20160906  | 440-157616-10        | WG       | 09/06/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                     | ART-2A-20160906  | 440-157616-11        | WG       | 09/06/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                     | ART-3A-20160906  | 440-157616-12        | WG       | 09/06/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                     | ART-4-20160906   | 440-157616-13        | WG       | 09/06/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                     | ART-7B-20160906  | 440-157616-14        | WG       | 09/06/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                     | ART-8A-20160906  | 440-157616-15        | WG       | 09/06/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                     | ART-9-20160906   | 440-157616-16        | WG       | 09/06/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                     | PC-115R-20160906 | 440-157616-2         | WG       | 09/06/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                     | PC-116R-20160906 | 440-157616-3         | WG       | 09/06/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                     | PC-117-20160906  | 440-157616-4         | WG       | 09/06/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                     | PC-118-20160906  | 440-157616-5         | WG       | 09/06/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                     | PC-119-20160906  | 440-157616-6         | WG       | 09/06/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                     | PC-120-20160906  | 440-157616-7         | WG       | 09/06/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                     | PC-121-20160906  | 440-157616-8         | WG       | 09/06/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                     | PC-133-20160906  | 440-157616-9         | WG       | 09/06/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
| PC-150-20160906     | 440-157616-17    | WG                   | 09/06/16 |             | Stage 2B |                  |                |                      |          |          | X            |                          |         | X                             |             |         | X     |                  |             |      |           |        |      |                   | X                            |          |                         |                                |
| PC-99R2/R3-20160906 | 440-157616-1     | WG                   | 09/06/16 |             | Stage 2B |                  |                |                      |          |          | X            |                          |         | X                             |             |         | X     |                  |             |      |           |        |      |                   | X                            |          |                         |                                |
| 440-157843-1        | I-AA-20160907    | 440-157843-22        | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                     | I-AB-20160907    | 440-157843-21        | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                     | I-AC-20160907    | 440-157843-25        | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                     | I-AD-20160907    | 440-157843-24        | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                     | I-AR-20160907    | 440-157843-23        | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                     | I-B-20160907     | 440-157843-20        | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                     | I-C-20160907     | 440-157843-15        | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |

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**Nevada Environmental Response Trust Site**  
**Henderson, Nevada**

| SDG            | Client Sample ID  | Laboratory Sample ID | Matrix   | Sample Date | QC Type  | Validation Level | Ammonia (as N) | Total Organic Carbon | Chlorate | Chloride | Conductivity | Dissolved Solids (total) | Nitrate | Nitrite, Nitrate/Nitrite, TIN | Perchlorate | Sulfate | Boron | Chromium (total) | Chromium VI | Iron | Manganese | Sodium | VOCs | 1,4-Dioxane (SIM) | 1,2,3-Trichloropropane (SIM) | Field pH | Organic Halides (total) | Phenolics, Recoverable (total) |
|----------------|-------------------|----------------------|----------|-------------|----------|------------------|----------------|----------------------|----------|----------|--------------|--------------------------|---------|-------------------------------|-------------|---------|-------|------------------|-------------|------|-----------|--------|------|-------------------|------------------------------|----------|-------------------------|--------------------------------|
| 440-157843-1   | I-D-20160907      | 440-157843-14        | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                | I-E-20160907      | 440-157843-12        | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                | I-F-20160907      | 440-157843-9         | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                | I-G-20160907      | 440-157843-7         | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                | I-H-20160907      | 440-157843-4         | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                | I-I-20160907      | 440-157843-28        | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                | I-K-20160907      | 440-157843-26        | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                | I-L-20160907      | 440-157843-17        | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                | I-M-20160907      | 440-157843-13        | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                | I-N-20160907      | 440-157843-11        | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                | I-O-20160907      | 440-157843-1         | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                | I-P-20160907      | 440-157843-3         | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                | I-Q-20160907      | 440-157843-8         | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                | I-R-20160907      | 440-157843-19        | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                | I-S-20160907      | 440-157843-16        | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                | I-T-20160907      | 440-157843-6         | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                | I-U-20160907      | 440-157843-5         | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                | I-V-20160907      | 440-157843-29        | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                | I-W-20160907      | 440-157843-2         | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                | I-X-20160907      | 440-157843-10        | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
| I-Y-20160907   | 440-157843-18     | WG                   | 09/07/16 |             | Stage 2B |                  |                |                      |          |          | X            |                          |         | X                             |             |         | X     |                  |             |      |           |        |      |                   |                              | X        |                         |                                |
| I-Z-20160907   | 440-157843-27     | WG                   | 09/07/16 |             | Stage 2B |                  |                |                      |          |          | X            |                          |         | X                             |             |         | X     |                  |             |      |           |        |      |                   |                              | X        |                         |                                |
| 440-157936-1   | DUP-14-20160811_A | 440-157936-24        | WG       | 08/11/16    | FD       | Stage 4          |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                | I-AA-20160811_A   | 440-157936-22        | WG       | 08/11/16    |          | Stage 4          |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                | I-AB-20160811_A   | 440-157936-21        | WG       | 08/11/16    |          | Stage 4          |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                | I-AD-20160811_A   | 440-157936-25        | WG       | 08/11/16    |          | Stage 4          |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                | I-AR-20160811_A   | 440-157936-23        | WG       | 08/11/16    |          | Stage 4          |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                | I-B-20160811_A    | 440-157936-20        | WG       | 08/11/16    |          | Stage 4          |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                | I-C-20160811_A    | 440-157936-15        | WG       | 08/11/16    |          | Stage 4          |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                | I-D-20160811_A    | 440-157936-14        | WG       | 08/11/16    |          | Stage 4          |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                | I-E-20160811_A    | 440-157936-12        | WG       | 08/11/16    |          | Stage 4          |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                | I-F-20160811_A    | 440-157936-9         | WG       | 08/11/16    |          | Stage 4          |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                | I-G-20160811_A    | 440-157936-7         | WG       | 08/11/16    |          | Stage 4          |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                | I-H-20160811_A    | 440-157936-4         | WG       | 08/11/16    |          | Stage 4          |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                | I-I-20160811_A    | 440-157936-29        | WG       | 08/11/16    |          | Stage 4          |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
| I-J-20160811_A | 440-157936-27     | WG                   | 08/11/16 |             | Stage 4  |                  |                |                      |          |          |              |                          |         |                               |             |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |

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**Nevada Environmental Response Trust Site**  
**Henderson, Nevada**

| SDG                | Client Sample ID   | Laboratory Sample ID | Matrix   | Sample Date | QC Type  | Validation Level | Ammonia (as N) | Total Organic Carbon | Chlorate | Chloride | Conductivity | Dissolved Solids (total) | Nitrate | Nitrite, Nitrate/Nitrite, TIN | Perchlorate | Sulfate | Boron | Chromium (total) | Chromium VI | Iron | Manganese | Sodium | VOCs | 1,4-Dioxane (SIM) | 1,2,3-Trichloropropane (SIM) | Field pH | Organic Halides (total) | Phenolics, Recoverable (total) |  |
|--------------------|--------------------|----------------------|----------|-------------|----------|------------------|----------------|----------------------|----------|----------|--------------|--------------------------|---------|-------------------------------|-------------|---------|-------|------------------|-------------|------|-----------|--------|------|-------------------|------------------------------|----------|-------------------------|--------------------------------|--|
| 440-157936-1       | I-K-20160811_A     | 440-157936-26        | WG       | 08/11/16    |          | Stage 4          |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                    | I-L-20160811_A     | 440-157936-17        | WG       | 08/11/16    |          | Stage 4          |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                    | I-M-20160811_A     | 440-157936-13        | WG       | 08/11/16    |          | Stage 4          |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                    | I-N-20160811_A     | 440-157936-11        | WG       | 08/11/16    |          | Stage 4          |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                    | I-O-20160811_A     | 440-157936-1         | WG       | 08/11/16    |          | Stage 4          |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                    | I-P-20160811_A     | 440-157936-3         | WG       | 08/11/16    |          | Stage 4          |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                    | I-Q-20160811_A     | 440-157936-8         | WG       | 08/11/16    |          | Stage 4          |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                    | I-R-20160811_A     | 440-157936-19        | WG       | 08/11/16    |          | Stage 4          |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                    | I-S-20160811_A     | 440-157936-16        | WG       | 08/11/16    |          | Stage 4          |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                    | I-T-20160811_A     | 440-157936-6         | WG       | 08/11/16    |          | Stage 4          |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                    | I-U-20160811_A     | 440-157936-5         | WG       | 08/11/16    |          | Stage 4          |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                    | I-V-20160811_A     | 440-157936-30        | WG       | 08/11/16    |          | Stage 4          |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                    | I-W-20160811_A     | 440-157936-2         | WG       | 08/11/16    |          | Stage 4          |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
| I-X-20160811_A     | 440-157936-10      | WG                   | 08/11/16 |             | Stage 4  |                  |                |                      |          |          |              |                          |         |                               |             |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
| I-Y-20160811_A     | 440-157936-18      | WG                   | 08/11/16 |             | Stage 4  |                  |                |                      |          |          |              |                          |         |                               |             |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
| I-Z-20160811_A     | 440-157936-28      | WG                   | 08/11/16 |             | Stage 4  |                  |                |                      |          |          |              |                          |         |                               |             |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
| 440-158103-1       | I-AC-20160822_A    | 440-158103-1         | WG       | 08/22/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
| 440-158214-1       | M-161D-20160912    | 440-158214-2         | W        | 09/12/16    |          | Stage 2B         |                |                      | X        |          |              | X                        |         |                               | X           | X       |       |                  |             |      |           |        | X    | X                 | X                            |          |                         |                                |  |
|                    | M-161D-20160912-TB | 440-158214-1         | WQ       | 09/12/16    | TB       | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  |             |      |           |        | X    | X                 | X                            |          |                         |                                |  |
|                    | M-162D-20160912    | 440-158214-3         | W        | 09/12/16    |          | Stage 2B         |                |                      | X        |          |              | X                        |         |                               | X           | X       |       |                  |             |      |           |        | X    | X                 | X                            |          |                         |                                |  |
|                    | M-162D-20160912-FD | 440-158214-4         | W        | 09/12/16    | FD       | Stage 2B         |                |                      | X        |          |              | X                        |         |                               | X           | X       |       |                  |             |      |           |        | X    | X                 | X                            |          |                         |                                |  |
|                    | PC-151-20160912    | 440-158214-9         | WG       | 09/12/16    |          | Stage 2B         |                |                      | X        |          |              | X                        |         |                               | X           | X       |       |                  |             |      |           |        | X    | X                 | X                            |          |                         |                                |  |
|                    | PC-152-20160912    | 440-158214-8         | WG       | 09/12/16    |          | Stage 2B         |                |                      | X        |          |              | X                        |         |                               | X           | X       |       |                  |             |      |           |        | X    | X                 | X                            |          |                         |                                |  |
|                    | PC-152-20160912-FB | 440-158214-7         | WQ       | 09/12/16    | FB       | Stage 2B         |                |                      | X        |          |              | X                        |         |                               | X           | X       |       |                  |             |      |           |        | X    | X                 | X                            |          |                         |                                |  |
|                    | PC-153-20160912    | 440-158214-5         | WG       | 09/12/16    |          | Stage 2B         |                |                      | X        |          |              | X                        |         |                               | X           | X       |       |                  |             |      |           |        | X    | X                 | X                            |          |                         |                                |  |
| PC-153-20160912-FD | 440-158214-6       | WG                   | 09/12/16 | FD          | Stage 2B |                  |                | X                    |          |          | X            |                          |         | X                             | X           |         |       |                  |             |      |           | X      | X    | X                 |                              |          |                         |                                |  |
| 440-158404-1       | M-148A-20160913    | 440-158404-6         | W        | 09/13/16    |          | Stage 4          |                |                      | X        |          |              | X                        |         |                               | X           | X       |       |                  |             |      |           |        | X    | X                 | X                            |          |                         |                                |  |
|                    | M-148A-20160913-EB | 440-158404-5         | WQ       | 09/13/16    | EB       | Stage 4          |                |                      | X        |          |              | X                        |         |                               | X           | X       |       |                  |             |      |           |        | X    | X                 | X                            |          |                         |                                |  |
|                    | M-186-20160913     | 440-158404-4         | W        | 09/13/16    |          | Stage 4          |                |                      | X        |          |              | X                        |         |                               | X           | X       |       |                  |             |      |           |        | X    | X                 | X                            |          |                         |                                |  |
|                    | M-186D-20160913    | 440-158404-3         | W        | 09/13/16    |          | Stage 4          |                |                      | X        |          |              | X                        |         |                               | X           | X       |       |                  |             |      |           |        | X    | X                 | X                            |          |                         |                                |  |
|                    | M-186D-20160913-FB | 440-158404-2         | WQ       | 09/13/16    | FB       | Stage 4          |                |                      | X        |          |              | X                        |         |                               | X           | X       |       |                  |             |      |           |        | X    | X                 | X                            |          |                         |                                |  |
|                    | M-186D-20160913-TB | 440-158404-1         | WQ       | 09/13/16    | TB       | Stage 4          |                |                      |          |          |              |                          |         |                               |             |         |       |                  |             |      |           |        | X    | X                 | X                            |          |                         |                                |  |
|                    | M-190-20160913     | 440-158404-7         | W        | 09/13/16    |          | Stage 4          |                |                      | X        |          |              | X                        |         |                               | X           | X       |       |                  |             |      |           |        | X    | X                 | X                            |          |                         |                                |  |
|                    | M-193-20160913     | 440-158404-8         | W        | 09/13/16    |          | Stage 4          |                |                      | X        |          |              | X                        |         |                               | X           | X       |       |                  |             |      |           |        | X    | X                 | X                            |          |                         |                                |  |
|                    | PC-134D-20160913   | 440-158404-16        | WG       | 09/13/16    |          | Stage 4          |                |                      | X        |          |              | X                        |         |                               | X           | X       |       |                  |             |      |           |        | X    | X                 | X                            |          |                         |                                |  |
| PC-137D-20160913   | 440-158404-15      | WG                   | 09/13/16 |             | Stage 4  |                  |                | X                    |          |          | X            |                          |         | X                             | X           |         |       |                  |             |      |           | X      | X    | X                 |                              |          |                         |                                |  |

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**Henderson, Nevada**

| SDG            | Client Sample ID    | Laboratory Sample ID | Matrix   | Sample Date | QC Type  | Validation Level | Ammonia (as N) | Total Organic Carbon | Chlorate | Chloride | Conductivity | Dissolved Solids (total) | Nitrate | Nitrite, Nitrate/Nitrite, TIN | Perchlorate | Sulfate | Boron | Chromium (total) | Chromium VI | Iron | Manganese | Sodium | VOCs | 1,4-Dioxane (SIM) | 1,2,3-Trichloropropane (SIM) | Field pH | Organic Halides (total) | Phenolics, Recoverable (total) |  |
|----------------|---------------------|----------------------|----------|-------------|----------|------------------|----------------|----------------------|----------|----------|--------------|--------------------------|---------|-------------------------------|-------------|---------|-------|------------------|-------------|------|-----------|--------|------|-------------------|------------------------------|----------|-------------------------|--------------------------------|--|
| 440-158404-1   | PC-137D-20160913-EB | 440-158404-14        | WQ       | 09/13/16    | EB       | Stage 4          |                |                      | X        |          |              | X                        |         |                               | X           |         | X     | X                |             |      |           |        | X    | X                 | X                            |          |                         |                                |  |
|                | PC-154-20160913     | 440-158404-10        | WG       | 09/13/16    |          | Stage 4          |                |                      | X        |          |              | X                        |         |                               | X           |         | X     | X                |             |      |           |        | X    | X                 | X                            |          |                         |                                |  |
|                | PC-154-20160913-TB  | 440-158404-9         | WQ       | 09/13/16    | TB       | Stage 4          |                |                      |          |          |              |                          |         |                               |             |         |       |                  |             |      |           |        | X    | X                 | X                            |          |                         |                                |  |
|                | PC-158-20160913     | 440-158404-11        | WG       | 09/13/16    |          | Stage 4          |                |                      | X        |          |              | X                        |         |                               | X           |         | X     | X                |             |      |           |        | X    | X                 | X                            |          |                         |                                |  |
|                | PC-159-20160913     | 440-158404-12        | WG       | 09/13/16    |          | Stage 4          |                |                      | X        |          |              | X                        |         |                               | X           |         | X     | X                |             |      |           |        | X    | X                 | X                            |          |                         |                                |  |
|                | PC-159-20160913-FD  | 440-158404-13        | WG       | 09/13/16    | FD       | Stage 4          |                |                      | X        |          |              | X                        |         |                               | X           |         | X     | X                |             |      |           |        | X    | X                 | X                            |          |                         |                                |  |
| 440-158406-1   | I-J-20160913_A      | 440-158406-12        | WG       | 09/13/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         | X                             |             |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |  |
|                | M-83-20160913       | 440-158406-11        | WG       | 09/13/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         | X                             |             |         |       |                  |             |      |           |        |      |                   |                              | X        |                         |                                |  |
|                | PC-56-20160913      | 440-158406-1         | WG       | 09/13/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         | X                             |             |         |       |                  |             |      |           |        |      |                   |                              | X        |                         |                                |  |
|                | PC-58-20160913      | 440-158406-3         | WG       | 09/13/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         | X                             |             |         |       |                  |             |      |           |        |      |                   |                              | X        |                         |                                |  |
|                | PC-59-20160913      | 440-158406-4         | WG       | 09/13/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         | X                             |             |         |       |                  |             |      |           |        |      |                   |                              | X        |                         |                                |  |
|                | PC-60-20160913      | 440-158406-2         | WG       | 09/13/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         | X                             |             |         |       |                  |             |      |           |        |      |                   |                              | X        |                         |                                |  |
|                | PC-62-20160913      | 440-158406-5         | WG       | 09/13/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         | X                             |             |         |       |                  |             |      |           |        |      |                   |                              | X        |                         |                                |  |
|                | PC-68-20160913      | 440-158406-6         | WG       | 09/13/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         | X                             |             |         |       |                  |             |      |           |        |      |                   |                              | X        |                         |                                |  |
|                | PC-86-20160913      | 440-158406-7         | WG       | 09/13/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         | X                             |             |         |       |                  |             |      |           |        |      |                   |                              | X        |                         |                                |  |
|                | PC-90-20160913      | 440-158406-9         | WG       | 09/13/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         | X                             |             |         |       |                  |             |      |           |        |      |                   |                              | X        |                         |                                |  |
|                | PC-91-20160913      | 440-158406-8         | WG       | 09/13/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         | X                             |             |         |       |                  |             |      |           |        |      |                   |                              | X        |                         |                                |  |
| PC-97-20160913 | 440-158406-10       | WG                   | 09/13/16 |             | Stage 2B |                  |                |                      |          |          | X            |                          | X       |                               |             |         |       |                  |             |      |           |        |      |                   | X                            |          |                         |                                |  |
| 440-158478-1   | I-J-20160913        | 440-158478-1         | WG       | 09/13/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
| 440-158607-1   | ART-6-20160914_A    | 440-158607-5         | WG       | 09/14/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         | X                             |             |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |  |
|                | MEB-1-20160914      | 440-158607-6         | WQ       | 09/14/16    | EB       | Stage 2B         |                |                      |          |          |              |                          |         | X                             |             |         |       |                  |             |      |           |        |      |                   |                              | X        |                         |                                |  |
|                | PC-101R-20160914    | 440-158607-4         | WG       | 09/14/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         | X                             |             |         |       |                  |             |      |           |        |      |                   |                              | X        |                         |                                |  |
|                | PC-122-20160914     | 440-158607-3         | WG       | 09/14/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         | X                             |             |         |       |                  |             |      |           |        |      |                   |                              | X        |                         |                                |  |
|                | PC-18-20160914      | 440-158607-1         | WG       | 09/14/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         | X                             |             |         |       |                  |             |      |           |        |      |                   |                              | X        |                         |                                |  |
|                | PC-55-20160914      | 440-158607-2         | WG       | 09/14/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         | X                             |             |         |       |                  |             |      |           |        |      |                   |                              | X        |                         |                                |  |
| 440-158652-1   | ART-6-20160914      | 440-158652-1         | WG       | 09/14/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
| 440-158656-1   | M-145-20160914      | 440-158656-2         | W        | 09/14/16    |          | Stage 2B         |                |                      | X        |          |              | X                        |         | X                             |             |         | X     | X                |             |      |           |        | X    | X                 | X                            |          |                         |                                |  |
|                | M-145-20160914-TB   | 440-158656-1         | WQ       | 09/14/16    | TB       | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  |             |      |           |        | X    | X                 | X                            |          |                         |                                |  |
|                | M-191-20160914      | 440-158656-3         | W        | 09/14/16    |          | Stage 2B         |                |                      | X        |          |              | X                        |         | X                             |             |         | X     | X                |             |      |           |        | X    | X                 | X                            |          |                         |                                |  |
|                | M-192-20160914      | 440-158656-4         | W        | 09/14/16    |          | Stage 2B         |                |                      | X        |          |              | X                        |         | X                             |             |         | X     | X                |             |      |           |        | X    | X                 | X                            |          |                         |                                |  |
|                | PC-155A-20160914    | 440-158656-9         | WG       | 09/14/16    |          | Stage 2B         |                |                      | X        |          |              | X                        |         | X                             |             |         | X     | X                |             |      |           |        | X    | X                 | X                            |          |                         |                                |  |
|                | PC-155B-20160914    | 440-158656-10        | WG       | 09/14/16    |          | Stage 2B         |                |                      | X        |          |              | X                        |         | X                             |             |         | X     | X                |             |      |           |        | X    | X                 | X                            |          |                         |                                |  |
|                | PC-156A-20160914    | 440-158656-7         | WG       | 09/14/16    |          | Stage 2B         |                |                      | X        |          |              | X                        |         | X                             |             |         | X     | X                |             |      |           |        | X    | X                 | X                            |          |                         |                                |  |
|                | PC-156B-20160914    | 440-158656-8         | WG       | 09/14/16    |          | Stage 2B         |                |                      | X        |          |              | X                        |         | X                             |             |         | X     | X                |             |      |           |        | X    | X                 | X                            |          |                         |                                |  |
|                | PC-157A-20160914    | 440-158656-5         | WG       | 09/14/16    |          | Stage 2B         |                |                      | X        |          |              | X                        |         | X                             |             |         | X     | X                |             |      |           |        | X    | X                 | X                            |          |                         |                                |  |
|                | PC-157B-20160914    | 440-158656-11        | WG       | 09/14/16    |          | Stage 2B         |                |                      | X        |          |              | X                        |         | X                             |             |         | X     | X                |             |      |           |        | X    | X                 | X                            |          |                         |                                |  |

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|-----------------------|--------------------|----------------------|----------|-------------|----------|------------------|----------------|----------------------|----------|----------|--------------|--------------------------|---------|-------------------------------|-------------|---------|-------|------------------|-------------|------|-----------|--------|------|-------------------|------------------------------|----------|-------------------------|--------------------------------|
| 440-158656-1          | PC-160-20160914    | 440-158656-6         | WG       | 09/14/16    |          | Stage 2B         |                |                      | X        |          |              | X                        |         |                               | X           |         | X     | X                |             |      |           |        | X    | X                 | X                            |          |                         |                                |
|                       | PC-160-20160914-TB | 440-158656-12        | WQ       | 09/14/16    | TB       | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  |             |      |           |        | X    | X                 | X                            |          |                         |                                |
| 440-159190-1          | ARP-1-20160920     | 440-159190-1         | WG       | 09/20/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              |          | X                       |                                |
|                       | ARP-2A-20160920    | 440-159190-10        | WG       | 09/20/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              |          | X                       |                                |
|                       | ARP-3A-20160920    | 440-159190-9         | WG       | 09/20/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              |          | X                       |                                |
|                       | ARP-4A-20160920    | 440-159190-7         | WG       | 09/20/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              |          | X                       |                                |
|                       | ARP-5A-20160920    | 440-159190-6         | WG       | 09/20/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              |          | X                       |                                |
|                       | ARP-6B-20160920    | 440-159190-5         | WG       | 09/20/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              |          | X                       |                                |
|                       | ARP-7-20160920     | 440-159190-4         | WG       | 09/20/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              |          | X                       |                                |
|                       | MW-K4-20160920     | 440-159190-8         | WG       | 09/20/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              |          | X                       |                                |
|                       | MW-K5-20160920     | 440-159190-3         | WG       | 09/20/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              |          | X                       |                                |
|                       | PC-103-20160920    | 440-159190-11        | WG       | 09/20/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              |          | X                       |                                |
|                       | PC-53-20160920     | 440-159190-2         | WG       | 09/20/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              |          | X                       |                                |
| PC-98R-20160920       | 440-159190-12      | WG                   | 09/20/16 |             | Stage 2B |                  |                |                      |          |          | X            |                          |         | X                             |             |         |       |                  |             |      |           |        |      |                   |                              | X        |                         |                                |
| 440-159527-1          | ART-1A-20160906_A  | 440-159527-10        | WG       | 09/06/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | ART-2A-20160906_A  | 440-159527-11        | WG       | 09/06/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | ART-3A-20160906_A  | 440-159527-12        | WG       | 09/06/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | ART-4-20160906_A   | 440-159527-13        | WG       | 09/06/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | ART-7B-20160906_A  | 440-159527-14        | WG       | 09/06/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | ART-8A-20160906_A  | 440-159527-15        | WG       | 09/06/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | ART-9-20160906_A   | 440-159527-16        | WG       | 09/06/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | PC-115R-20160906_A | 440-159527-2         | WG       | 09/06/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | PC-116R-20160906_A | 440-159527-3         | WG       | 09/06/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | PC-117-20160906_A  | 440-159527-4         | WG       | 09/06/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | PC-118-20160906_A  | 440-159527-5         | WG       | 09/06/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | PC-119-20160906_A  | 440-159527-6         | WG       | 09/06/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | PC-120-20160906_A  | 440-159527-7         | WG       | 09/06/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | PC-121-20160906_A  | 440-159527-8         | WG       | 09/06/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | PC-133-20160906_A  | 440-159527-9         | WG       | 09/06/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
| PC-150-20160906_A     | 440-159527-17      | WG                   | 09/06/16 |             | Stage 2B |                  |                |                      |          |          |              |                          |         |                               |             |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
| PC-99R2/R3-20160906_A | 440-159527-1       | WG                   | 09/06/16 |             | Stage 2B |                  |                |                      |          |          |              |                          |         |                               |             |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
| 440-159532-1          | I-AA-20160907_A    | 440-159532-22        | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | I-AB-20160907_A    | 440-159532-21        | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | I-AC-20160907_A    | 440-159532-25        | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | I-AD-20160907_A    | 440-159532-24        | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | I-AR-20160907_A    | 440-159532-23        | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |



**TABLE I: Sample Cross Reference**  
**Nevada Environmental Response Trust Site**  
**Henderson, Nevada**

| SDG            | Client Sample ID | Laboratory Sample ID | Matrix   | Sample Date | QC Type  | Validation Level | Ammonia (as N) | Total Organic Carbon | Chlorate | Chloride | Conductivity | Dissolved Solids (total) | Nitrate | Nitrite, Nitrate/Nitrite, TIN | Perchlorate | Sulfate | Boron | Chromium (total) | Chromium VI | Iron | Manganese | Sodium | VOCs | 1,4-Dioxane (SIM) | 1,2,3-Trichloropropane (SIM) | Field pH | Organic Halides (total) | Phenolics, Recoverable (total) |  |  |  |  |
|----------------|------------------|----------------------|----------|-------------|----------|------------------|----------------|----------------------|----------|----------|--------------|--------------------------|---------|-------------------------------|-------------|---------|-------|------------------|-------------|------|-----------|--------|------|-------------------|------------------------------|----------|-------------------------|--------------------------------|--|--|--|--|
| 440-159532-1   | I-B-20160907_A   | 440-159532-20        | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  |             | X    |           |        |      |                   |                              |          |                         |                                |  |  |  |  |
|                | I-C-20160907_A   | 440-159532-15        | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  |             | X    |           |        |      |                   |                              |          |                         |                                |  |  |  |  |
|                | I-D-20160907_A   | 440-159532-14        | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  |             | X    |           |        |      |                   |                              |          |                         |                                |  |  |  |  |
|                | I-E-20160907_A   | 440-159532-12        | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  |             | X    |           |        |      |                   |                              |          |                         |                                |  |  |  |  |
|                | I-F-20160907_A   | 440-159532-9         | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  |             | X    |           |        |      |                   |                              |          |                         |                                |  |  |  |  |
|                | I-G-20160907_A   | 440-159532-7         | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  |             | X    |           |        |      |                   |                              |          |                         |                                |  |  |  |  |
|                | I-H-20160907_A   | 440-159532-4         | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  |             | X    |           |        |      |                   |                              |          |                         |                                |  |  |  |  |
|                | I-I-20160907_A   | 440-159532-28        | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  |             | X    |           |        |      |                   |                              |          |                         |                                |  |  |  |  |
|                | I-K-20160907_A   | 440-159532-26        | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  |             | X    |           |        |      |                   |                              |          |                         |                                |  |  |  |  |
|                | I-L-20160907_A   | 440-159532-17        | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  |             | X    |           |        |      |                   |                              |          |                         |                                |  |  |  |  |
|                | I-M-20160907_A   | 440-159532-13        | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  |             | X    |           |        |      |                   |                              |          |                         |                                |  |  |  |  |
|                | I-N-20160907_A   | 440-159532-11        | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  |             | X    |           |        |      |                   |                              |          |                         |                                |  |  |  |  |
|                | I-O-20160907_A   | 440-159532-1         | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  |             | X    |           |        |      |                   |                              |          |                         |                                |  |  |  |  |
|                | I-P-20160907_A   | 440-159532-3         | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  |             | X    |           |        |      |                   |                              |          |                         |                                |  |  |  |  |
|                | I-Q-20160907_A   | 440-159532-8         | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  |             | X    |           |        |      |                   |                              |          |                         |                                |  |  |  |  |
|                | I-R-20160907_A   | 440-159532-19        | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  |             | X    |           |        |      |                   |                              |          |                         |                                |  |  |  |  |
|                | I-S-20160907_A   | 440-159532-16        | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  |             | X    |           |        |      |                   |                              |          |                         |                                |  |  |  |  |
|                | I-T-20160907_A   | 440-159532-6         | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  |             | X    |           |        |      |                   |                              |          |                         |                                |  |  |  |  |
|                | I-U-20160907_A   | 440-159532-5         | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  |             | X    |           |        |      |                   |                              |          |                         |                                |  |  |  |  |
|                | I-V-20160907_A   | 440-159532-29        | WG       | 09/07/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  |             | X    |           |        |      |                   |                              |          |                         |                                |  |  |  |  |
| I-W-20160907_A | 440-159532-2     | WG                   | 09/07/16 |             | Stage 2B |                  |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |  |  |  |
| I-X-20160907_A | 440-159532-10    | WG                   | 09/07/16 |             | Stage 2B |                  |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |  |  |  |
| I-Y-20160907_A | 440-159532-18    | WG                   | 09/07/16 |             | Stage 2B |                  |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |  |  |  |
| I-Z-20160907_A | 440-159532-27    | WG                   | 09/07/16 |             | Stage 2B |                  |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |  |  |  |
| 440-160590-1   | I-AC-20161004_A  | 440-160590-2         | WG       | 10/04/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |  |  |  |
|                | I-AD-20161004_A  | 440-160590-1         | WG       | 10/04/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |  |  |  |
|                | I-I-20161004_A   | 440-160590-6         | WG       | 10/04/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |  |  |  |
|                | I-J-20161004_A   | 440-160590-4         | WG       | 10/04/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  |             | X    |           |        |      |                   |                              |          |                         |                                |  |  |  |  |
|                | I-K-20161004_A   | 440-160590-3         | WG       | 10/04/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  |             | X    |           |        |      |                   |                              |          |                         |                                |  |  |  |  |
| I-Z-20161004_A | 440-160590-5     | WG                   | 10/04/16 |             | Stage 2B |                  |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |  |  |  |
| 440-160680-1   | I-AC-20161004    | 440-160680-2         | WG       | 10/04/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |  |  |  |  |
|                | I-AD-20161004    | 440-160680-1         | WG       | 10/04/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |  |  |  |  |
|                | I-I-20161004     | 440-160680-6         | WG       | 10/04/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |  |  |  |  |
|                | I-J-20161004     | 440-160680-4         | WG       | 10/04/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |  |  |  |  |
|                | I-K-20161004     | 440-160680-3         | WG       | 10/04/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |  |  |  |  |
| I-Z-20161004   | 440-160680-5     | WG                   | 10/04/16 |             | Stage 2B |                  |                |                      |          |          | X            |                          |         | X                             |             |         | X     |                  |             |      |           |        |      |                   |                              | X        |                         |                                |  |  |  |  |

**TABLE I: Sample Cross Reference**  
**Nevada Environmental Response Trust Site**  
**Henderson, Nevada**

| SDG            | Client Sample ID | Laboratory Sample ID | Matrix   | Sample Date | QC Type  | Validation Level | Ammonia (as N) | Total Organic Carbon | Chlorate | Chloride | Conductivity | Dissolved Solids (total) | Nitrate | Nitrite, Nitrate/Nitrite, TIN | Perchlorate | Sulfate | Boron | Chromium (total) | Chromium VI | Iron | Manganese | Sodium | VOCs | 1,4-Dioxane (SIM) | 1,2,3-Trichloropropane (SIM) | Field pH | Organic Halides (total) | Phenolics, Recoverable (total) |  |
|----------------|------------------|----------------------|----------|-------------|----------|------------------|----------------|----------------------|----------|----------|--------------|--------------------------|---------|-------------------------------|-------------|---------|-------|------------------|-------------|------|-----------|--------|------|-------------------|------------------------------|----------|-------------------------|--------------------------------|--|
| 440-161336-1   | I-AA-20161010_A  | 440-161336-22        | WG       | 10/10/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |  |
|                | I-AB-20161010_A  | 440-161336-21        | WG       | 10/10/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  | X           |      |           |        |      |                   |                              |          | X                       |                                |  |
|                | I-AR-20161010_A  | 440-161336-23        | WG       | 10/10/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  | X           |      |           |        |      |                   |                              |          | X                       |                                |  |
|                | I-B-20161010_A   | 440-161336-20        | WG       | 10/10/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  | X           |      |           |        |      |                   |                              |          | X                       |                                |  |
|                | I-C-20161010_A   | 440-161336-15        | WG       | 10/10/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  | X           |      |           |        |      |                   |                              |          | X                       |                                |  |
|                | I-D-20161010_A   | 440-161336-14        | WG       | 10/10/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  | X           |      |           |        |      |                   |                              |          | X                       |                                |  |
|                | I-E-20161010_A   | 440-161336-12        | WG       | 10/10/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  | X           |      |           |        |      |                   |                              |          | X                       |                                |  |
|                | I-F-20161010_A   | 440-161336-9         | WG       | 10/10/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  | X           |      |           |        |      |                   |                              |          | X                       |                                |  |
|                | I-G-20161010_A   | 440-161336-7         | WG       | 10/10/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  | X           |      |           |        |      |                   |                              |          | X                       |                                |  |
|                | I-H-20161010_A   | 440-161336-4         | WG       | 10/10/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  | X           |      |           |        |      |                   |                              |          | X                       |                                |  |
|                | I-L-20161010_A   | 440-161336-17        | WG       | 10/10/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  | X           |      |           |        |      |                   |                              |          | X                       |                                |  |
|                | I-M-20161010_A   | 440-161336-13        | WG       | 10/10/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  | X           |      |           |        |      |                   |                              |          | X                       |                                |  |
|                | I-N-20161010_A   | 440-161336-11        | WG       | 10/10/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  | X           |      |           |        |      |                   |                              |          | X                       |                                |  |
|                | I-O-20161010_A   | 440-161336-1         | WG       | 10/10/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  | X           |      |           |        |      |                   |                              |          | X                       |                                |  |
|                | I-P-20161010_A   | 440-161336-3         | WG       | 10/10/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  | X           |      |           |        |      |                   |                              |          | X                       |                                |  |
|                | I-Q-20161010_A   | 440-161336-8         | WG       | 10/10/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  | X           |      |           |        |      |                   |                              |          | X                       |                                |  |
|                | I-R-20161010_A   | 440-161336-19        | WG       | 10/10/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  | X           |      |           |        |      |                   |                              |          | X                       |                                |  |
|                | I-S-20161010_A   | 440-161336-16        | WG       | 10/10/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  | X           |      |           |        |      |                   |                              |          | X                       |                                |  |
|                | I-T-20161010_A   | 440-161336-6         | WG       | 10/10/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  | X           |      |           |        |      |                   |                              |          | X                       |                                |  |
| I-U-20161010_A | 440-161336-5     | WG                   | 10/10/16 |             | Stage 2B |                  |                |                      |          |          | X            |                          |         | X                             |             |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |  |
| I-W-20161010_A | 440-161336-2     | WG                   | 10/10/16 |             | Stage 2B |                  |                |                      |          |          | X            |                          |         | X                             |             |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |  |
| I-X-20161010_A | 440-161336-10    | WG                   | 10/10/16 |             | Stage 2B |                  |                |                      |          |          | X            |                          |         | X                             |             |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |  |
| I-Y-20161010_A | 440-161336-18    | WG                   | 10/10/16 |             | Stage 2B |                  |                |                      |          |          | X            |                          |         | X                             |             |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |  |
| 440-161484-1   | I-AA-20161010    | 440-161484-22        | WG       | 10/10/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                | I-AB-20161010    | 440-161484-21        | WG       | 10/10/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                | I-AR-20161010    | 440-161484-23        | WG       | 10/10/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                | I-B-20161010     | 440-161484-20        | WG       | 10/10/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                | I-C-20161010     | 440-161484-15        | WG       | 10/10/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                | I-D-20161010     | 440-161484-14        | WG       | 10/10/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                | I-E-20161010     | 440-161484-12        | WG       | 10/10/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                | I-F-20161010     | 440-161484-9         | WG       | 10/10/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                | I-G-20161010     | 440-161484-7         | WG       | 10/10/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                | I-H-20161010     | 440-161484-4         | WG       | 10/10/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                | I-L-20161010     | 440-161484-17        | WG       | 10/10/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                | I-M-20161010     | 440-161484-13        | WG       | 10/10/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                | I-N-20161010     | 440-161484-11        | WG       | 10/10/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |

**TABLE I: Sample Cross Reference**  
**Nevada Environmental Response Trust Site**  
**Henderson, Nevada**

| SDG            | Client Sample ID | Laboratory Sample ID | Matrix   | Sample Date | QC Type  | Validation Level | Ammonia (as N) | Total Organic Carbon | Chlorate | Chloride | Conductivity | Dissolved Solids (total) | Nitrate | Nitrite, Nitrate/Nitrite, TIN | Perchlorate | Sulfate | Boron | Chromium (total) | Chromium VI | Iron | Manganese | Sodium | VOCs | 1,4-Dioxane (SIM) | 1,2,3-Trichloropropane (SIM) | Field pH | Organic Halides (total) | Phenolics, Recoverable (total) |
|----------------|------------------|----------------------|----------|-------------|----------|------------------|----------------|----------------------|----------|----------|--------------|--------------------------|---------|-------------------------------|-------------|---------|-------|------------------|-------------|------|-----------|--------|------|-------------------|------------------------------|----------|-------------------------|--------------------------------|
| 440-161484-1   | I-O-20161010     | 440-161484-1         | WG       | 10/10/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                | I-P-20161010     | 440-161484-3         | WG       | 10/10/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                | I-Q-20161010     | 440-161484-8         | WG       | 10/10/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                | I-R-20161010     | 440-161484-19        | WG       | 10/10/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                | I-S-20161010     | 440-161484-16        | WG       | 10/10/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                | I-T-20161010     | 440-161484-6         | WG       | 10/10/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                | I-U-20161010     | 440-161484-5         | WG       | 10/10/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                | I-W-20161010     | 440-161484-2         | WG       | 10/10/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
| I-X-20161010   | 440-161484-10    | WG                   | 10/10/16 |             | Stage 2B |                  |                |                      |          |          |              |                          |         |                               |             |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
| I-Y-20161010   | 440-161484-18    | WG                   | 10/10/16 |             | Stage 2B |                  |                |                      |          |          |              |                          |         |                               |             |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
| 440-161552-1   | M-83-20161011    | 440-161552-1         | W        | 10/11/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              |          | X                       |                                |
|                | PC-56-20161011   | 440-161552-3         | WG       | 10/11/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              |          | X                       |                                |
|                | PC-58-20161011   | 440-161552-2         | WG       | 10/11/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              |          | X                       |                                |
|                | PC-59-20161011   | 440-161552-4         | WG       | 10/11/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              |          | X                       |                                |
|                | PC-60-20161011   | 440-161552-5         | WG       | 10/11/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              |          | X                       |                                |
|                | PC-62-20161011   | 440-161552-6         | WG       | 10/11/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              |          | X                       |                                |
|                | PC-68-20161011   | 440-161552-7         | WG       | 10/11/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              |          | X                       |                                |
|                | PC-86-20161011   | 440-161552-8         | WG       | 10/11/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              |          | X                       |                                |
|                | PC-90-20161011   | 440-161552-10        | WG       | 10/11/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              |          | X                       |                                |
| PC-91-20161011 | 440-161552-9     | WG                   | 10/11/16 |             | Stage 2B |                  |                |                      |          |          | X            |                          |         | X                             |             |         |       |                  |             |      |           |        |      |                   |                              | X        |                         |                                |
| PC-97-20161011 | 440-161552-11    | WG                   | 10/11/16 |             | Stage 2B |                  |                |                      |          |          | X            |                          |         | X                             |             |         |       |                  |             |      |           |        |      |                   |                              | X        |                         |                                |
| 440-161556-1   | I-V-20161011_A   | 440-161556-1         | WG       | 10/11/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
| 440-161752-1   | ARP-1-20161012   | 440-161752-2         | WG       | 10/12/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              |          | X                       |                                |
|                | ARP-2A-20161012  | 440-161752-16        | WG       | 10/12/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              |          | X                       |                                |
|                | ARP-3A-20161012  | 440-161752-14        | WG       | 10/12/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              |          | X                       |                                |
|                | ARP-4A-20161012  | 440-161752-11        | WG       | 10/12/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              |          | X                       |                                |
|                | ARP-5A-20161012  | 440-161752-10        | WG       | 10/12/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              |          | X                       |                                |
|                | ARP-6B-20161012  | 440-161752-9         | WG       | 10/12/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              |          | X                       |                                |
|                | ARP-7-20161012   | 440-161752-8         | WG       | 10/12/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              |          | X                       |                                |
|                | MEB-1-20161012   | 440-161752-12        | W        | 10/12/16    | EB       | Stage 2B         |                |                      |          |          |              |                          |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              |          | X                       |                                |
|                | MW-K4-20161012   | 440-161752-13        | W        | 10/12/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              |          | X                       |                                |
|                | MW-K5-20161012   | 440-161752-5         | W        | 10/12/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              |          | X                       |                                |
|                | PC-101R-20161012 | 440-161752-15        | WG       | 10/12/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              |          | X                       |                                |
|                | PC-103-20161012  | 440-161752-6         | WG       | 10/12/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              |          | X                       |                                |
|                | PC-122-20161012  | 440-161752-3         | WG       | 10/12/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              |          | X                       |                                |
|                | PC-18-20161012   | 440-161752-1         | WG       | 10/12/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              |          | X                       |                                |

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**Nevada Environmental Response Trust Site**  
**Henderson, Nevada**

| SDG                   | Client Sample ID   | Laboratory Sample ID | Matrix   | Sample Date | QC Type  | Validation Level | Ammonia (as N) | Total Organic Carbon | Chlorate | Chloride | Conductivity | Dissolved Solids (total) | Nitrate | Nitrite, Nitrate/Nitrite, TIN | Perchlorate | Sulfate | Boron | Chromium (total) | Chromium VI | Iron | Manganese | Sodium | VOCs | 1,4-Dioxane (SIM) | 1,2,3-Trichloropropane (SIM) | Field pH | Organic Halides (total) | Phenolics, Recoverable (total) |
|-----------------------|--------------------|----------------------|----------|-------------|----------|------------------|----------------|----------------------|----------|----------|--------------|--------------------------|---------|-------------------------------|-------------|---------|-------|------------------|-------------|------|-----------|--------|------|-------------------|------------------------------|----------|-------------------------|--------------------------------|
| 440-161752-1          | PC-53-20161012     | 440-161752-4         | WG       | 10/12/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              |          | X                       |                                |
|                       | PC-55-20161012     | 440-161752-17        | WG       | 10/12/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              |          | X                       |                                |
|                       | PC-98R-20161012    | 440-161752-7         | WG       | 10/12/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       |                  |             |      |           |        |      |                   |                              |          | X                       |                                |
| 440-162514-1          | PC-115R-20161018_A | 440-162514-2         | WG       | 10/18/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                       | PC-116R-20161018_A | 440-162514-3         | WG       | 10/18/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                       | PC-117-20161018_A  | 440-162514-4         | WG       | 10/18/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                       | PC-118-20161018_A  | 440-162514-5         | WG       | 10/18/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                       | PC-119-20161018_A  | 440-162514-6         | WG       | 10/18/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                       | PC-120-20161018_A  | 440-162514-7         | WG       | 10/18/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                       | PC-121-20161018_A  | 440-162514-8         | WG       | 10/18/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                       | PC-133-20161018_A  | 440-162514-9         | WG       | 10/18/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
| PC-99R2/R3-20161018_A | 440-162514-1       | WG                   | 10/18/16 |             | Stage 2B |                  |                |                      |          |          | X            |                          |         | X                             |             |         | X     |                  |             |      |           |        |      |                   |                              | X        |                         |                                |
| 440-162515-1          | PC-115R-20161018   | 440-162515-2         | WG       | 10/18/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | PC-116R-20161018   | 440-162515-3         | WG       | 10/18/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | PC-117-20161018    | 440-162515-4         | WG       | 10/18/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | PC-118-20161018    | 440-162515-5         | WG       | 10/18/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | PC-119-20161018    | 440-162515-6         | WG       | 10/18/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | PC-120-20161018    | 440-162515-7         | WG       | 10/18/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | PC-121-20161018    | 440-162515-8         | WG       | 10/18/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | PC-133-20161018    | 440-162515-9         | WG       | 10/18/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
| PC-99R2/R3-20161018   | 440-162515-1       | WG                   | 10/18/16 |             | Stage 2B |                  |                |                      |          |          |              |                          |         |                               |             |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
| 440-163451-1          | ART-1A-20161026_A  | 440-163451-1         | WG       | 10/26/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | ART-2-20161026_A   | 440-163451-2         | WG       | 10/26/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | ART-3-20161026_A   | 440-163451-3         | WG       | 10/26/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | ART-4-20161026_A   | 440-163451-4         | WG       | 10/26/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | ART-6-20161026_A   | 440-163451-5         | WG       | 10/26/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | ART-7B-20161026_A  | 440-163451-6         | WG       | 10/26/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | ART-8-20161026_A   | 440-163451-7         | WG       | 10/26/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | PC-150-20161026_A  | 440-163451-9         | WG       | 10/26/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
| 440-163453-1          | ART-1A-20161026    | 440-163453-1         | WG       | 10/26/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                       | ART-2-20161026     | 440-163453-2         | WG       | 10/26/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                       | ART-3-20161026     | 440-163453-3         | WG       | 10/26/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                       | ART-4-20161026     | 440-163453-4         | WG       | 10/26/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                       | ART-6-20161026     | 440-163453-5         | WG       | 10/26/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                       | ART-7B-20161026    | 440-163453-6         | WG       | 10/26/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |

**TABLE I: Sample Cross Reference**  
**Nevada Environmental Response Trust Site**  
**Henderson, Nevada**

| SDG             | Client Sample ID | Laboratory Sample ID | Matrix   | Sample Date | QC Type  | Validation Level | Ammonia (as N) | Total Organic Carbon | Chlorate | Chloride | Conductivity | Dissolved Solids (total) | Nitrate | Nitrite, Nitrate/Nitrite, TIN | Perchlorate | Sulfate | Boron | Chromium (total) | Chromium VI | Iron | Manganese | Sodium | VOCs | 1,4-Dioxane (SIM) | 1,2,3-Trichloropropane (SIM) | Field pH | Organic Halides (total) | Phenolics, Recoverable (total) |
|-----------------|------------------|----------------------|----------|-------------|----------|------------------|----------------|----------------------|----------|----------|--------------|--------------------------|---------|-------------------------------|-------------|---------|-------|------------------|-------------|------|-----------|--------|------|-------------------|------------------------------|----------|-------------------------|--------------------------------|
| 440-163453-1    | ART-8-20161026   | 440-163453-7         | WG       | 10/26/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | ART-9-20161026   | 440-163453-8         | WG       | 10/26/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | PC-150-20161026  | 440-163453-9         | WG       | 10/26/16    |          | Stage 2B         |                |                      |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
| 440-163816-1    | I-V-20161011     | 440-163816-1         | WG       | 10/11/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
| 440-166056-1    | I-AA-20161115_A  | 440-166056-2         | WG       | 11/15/16    |          | Stage 2B         |                | X                    |          |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | I-AR-20161115_A  | 440-166056-1         | WG       | 11/15/16    |          | Stage 2B         |                | X                    |          |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | I-G-20161115_A   | 440-166056-9         | WG       | 11/15/16    |          | Stage 2B         |                | X                    |          |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | I-H-20161115_A   | 440-166056-6         | WG       | 11/15/16    |          | Stage 2B         |                | X                    |          |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | I-O-20161115_A   | 440-166056-3         | WG       | 11/15/16    |          | Stage 2B         |                | X                    |          |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | I-P-20161115_A   | 440-166056-5         | WG       | 11/15/16    |          | Stage 2B         |                | X                    |          |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | I-Q-20161115_A   | 440-166056-10        | WG       | 11/15/16    |          | Stage 2B         |                | X                    |          |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | I-T-20161115_A   | 440-166056-8         | WG       | 11/15/16    |          | Stage 2B         |                | X                    |          |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | I-U-20161115_A   | 440-166056-7         | WG       | 11/15/16    |          | Stage 2B         |                | X                    |          |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
| I-W-20161115_A  | 440-166056-4     | WG                   | 11/15/16 |             | Stage 2B |                  | X              |                      |          |          | X            | X                        |         | X                             |             |         | X     |                  |             |      |           |        |      |                   | X                            |          |                         |                                |
| 440-166060-1    | I-B-20161115     | 440-166060-6         | WG       | 11/15/16    |          | Stage 2B         |                | X                    |          |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | I-C-20161115     | 440-166060-1         | WG       | 11/15/16    |          | Stage 2B         |                | X                    |          |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | I-D-20161115     | 440-166060-9         | WG       | 11/15/16    |          | Stage 2B         |                | X                    |          |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | I-E-20161115     | 440-166060-7         | WG       | 11/15/16    |          | Stage 2B         |                | X                    |          |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | I-F-20161115     | 440-166060-11        | WG       | 11/15/16    |          | Stage 2B         |                | X                    |          |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | I-L-20161115     | 440-166060-3         | WG       | 11/15/16    |          | Stage 2B         |                | X                    |          |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | I-M-20161115     | 440-166060-10        | WG       | 11/15/16    |          | Stage 2B         |                | X                    |          |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | I-N-20161115     | 440-166060-12        | WG       | 11/15/16    |          | Stage 2B         |                | X                    |          |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | I-R-20161115     | 440-166060-5         | WG       | 11/15/16    |          | Stage 2B         |                | X                    |          |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | I-S-20161115     | 440-166060-2         | WG       | 11/15/16    |          | Stage 2B         |                | X                    |          |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
| I-X-20161115    | 440-166060-8     | WG                   | 11/15/16 |             | Stage 2B |                  | X              |                      |          |          | X            | X                        |         | X                             |             |         | X     |                  |             |      |           |        |      |                   | X                            |          |                         |                                |
| I-Y-20161115    | 440-166060-4     | WG                   | 11/15/16 |             | Stage 2B |                  | X              |                      |          |          | X            | X                        |         | X                             |             |         | X     |                  |             |      |           |        |      |                   | X                            |          |                         |                                |
| 440-166063-1    | ART-1-20161114   | 440-166063-1         | WG       | 11/14/16    |          | Stage 2B         |                | X                    |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | ART-2-20161114   | 440-166063-2         | WG       | 11/14/16    |          | Stage 2B         |                | X                    |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | ART-3A-20161114  | 440-166063-3         | WG       | 11/14/16    |          | Stage 2B         |                | X                    |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | ART-4-20161114   | 440-166063-4         | WG       | 11/14/16    |          | Stage 2B         |                | X                    |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | ART-6-20161114   | 440-166063-5         | WG       | 11/14/16    |          | Stage 2B         |                | X                    |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | ART-7B-20161114  | 440-166063-6         | WG       | 11/14/16    |          | Stage 2B         |                | X                    |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | ART-8A-20161114  | 440-166063-7         | WG       | 11/14/16    |          | Stage 2B         |                | X                    |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | ART-9-20161114   | 440-166063-8         | WG       | 11/14/16    |          | Stage 2B         |                | X                    |          |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
| PC-150-20161114 | 440-166063-9     | WG                   | 11/14/16 |             | Stage 2B |                  | X              |                      |          |          | X            |                          |         | X                             |             |         | X     |                  |             |      |           |        |      |                   | X                            |          |                         |                                |
| 440-166082-1    | PC-155A-20161114 | 440-166082-4         | WG       | 11/14/16    |          | Stage 2B         |                | X                    |          |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |

**TABLE I: Sample Cross Reference**  
**Nevada Environmental Response Trust Site**  
**Henderson, Nevada**

| SDG                 | Client Sample ID     | Laboratory Sample ID | Matrix   | Sample Date | QC Type  | Validation Level | Ammonia (as N) | Total Organic Carbon | Chlorate | Chloride | Conductivity | Dissolved Solids (total) | Nitrate | Nitrite, Nitrate/Nitrite, TIN | Perchlorate | Sulfate | Boron | Chromium (total) | Chromium VI | Iron | Manganese | Sodium | VOCs | 1,4-Dioxane (SIM) | 1,2,3-Trichloropropane (SIM) | Field pH | Organic Halides (total) | Phenolics, Recoverable (total) |  |
|---------------------|----------------------|----------------------|----------|-------------|----------|------------------|----------------|----------------------|----------|----------|--------------|--------------------------|---------|-------------------------------|-------------|---------|-------|------------------|-------------|------|-----------|--------|------|-------------------|------------------------------|----------|-------------------------|--------------------------------|--|
| 440-166082-1        | PC-155B-20161114     | 440-166082-1         | WG       | 11/14/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | PC-156A-20161114     | 440-166082-5         | WG       | 11/14/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | PC-156B-20161114     | 440-166082-3         | WG       | 11/14/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | PC-86-20161114       | 440-166082-2         | WG       | 11/14/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
| 440-166090-1        | PC-157B-20161114     | 440-166090-8         | WG       | 11/14/16    |          | Stage 2B         |                |                      | X        |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | PC-56-20161114       | 440-166090-3         | WG       | 11/14/16    |          | Stage 2B         |                |                      | X        |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | PC-59-20161114       | 440-166090-2         | WG       | 11/14/16    |          | Stage 2B         |                |                      | X        |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | PC-60-20161114       | 440-166090-1         | WG       | 11/14/16    |          | Stage 2B         |                |                      | X        |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | PC-62-20161114       | 440-166090-4         | WG       | 11/14/16    |          | Stage 2B         |                |                      | X        |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | PC-94-20161114       | 440-166090-6         | WG       | 11/14/16    |          | Stage 2B         |                |                      | X        |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | PC-94-20161114-FD4   | 440-166090-7         | WG       | 11/14/16    | FD       | Stage 2B         |                |                      | X        |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
| PC-97-20161114      | 440-166090-5         | WG                   | 11/14/16 |             | Stage 2B |                  |                | X                    |          |          | X            |                          |         | X                             |             |         | X     |                  |             |      |           |        |      |                   |                              |          |                         |                                |  |
| 440-166103-1        | PC-115R-20161114     | 440-166103-2         | WG       | 11/14/16    |          | Stage 2B         |                |                      | X        | X        |              | X                        |         |                               | X           | X       |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |  |
|                     | PC-116R-20161114     | 440-166103-3         | WG       | 11/14/16    |          | Stage 2B         |                |                      | X        | X        |              | X                        |         |                               | X           | X       |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |  |
|                     | PC-117-20161114      | 440-166103-4         | WG       | 11/14/16    |          | Stage 2B         |                |                      | X        | X        |              | X                        |         |                               | X           | X       |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |  |
|                     | PC-118-20161114      | 440-166103-5         | WG       | 11/14/16    |          | Stage 2B         |                |                      | X        | X        |              | X                        |         |                               | X           | X       |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |  |
|                     | PC-119-20161114      | 440-166103-6         | WG       | 11/14/16    |          | Stage 2B         |                |                      | X        | X        |              | X                        |         |                               | X           | X       |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |  |
|                     | PC-120-20161114      | 440-166103-7         | WG       | 11/14/16    |          | Stage 2B         |                |                      | X        | X        |              | X                        |         |                               | X           | X       |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |  |
|                     | PC-121-20161114      | 440-166103-8         | WG       | 11/14/16    |          | Stage 2B         |                |                      | X        | X        |              | X                        |         |                               | X           | X       |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |  |
|                     | PC-133-20161114      | 440-166103-9         | WG       | 11/14/16    |          | Stage 2B         |                |                      | X        | X        |              | X                        |         |                               | X           | X       |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |  |
| PC-99R2/R3-20161114 | 440-166103-1         | WG                   | 11/14/16 |             | Stage 2B |                  |                | X                    | X        |          | X            |                          |         | X                             | X           |         | X     |                  |             |      |           |        |      |                   |                              | X        |                         |                                |  |
| 440-166109-1        | ARP-2A-20161115      | 440-166109-3         | WG       | 11/15/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | ARP-3A-20161115      | 440-166109-4         | WG       | 11/15/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | ARP-4A-20161115      | 440-166109-6         | WG       | 11/15/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | MW-K4-20161115       | 440-166109-5         | W        | 11/15/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | PC-98R-20161115      | 440-166109-1         | WG       | 11/15/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | PC-98R-20161115-FD6  | 440-166109-2         | WG       | 11/15/16    | FD       | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
| 440-166111-1        | ARP-6B-20161115      | 440-166111-3         | WG       | 11/15/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | ARP-6B-20161115-FD5  | 440-166111-4         | WG       | 11/15/16    | FD       | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | ARP-7-20161115       | 440-166111-2         | WG       | 11/15/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | PC-135A-20161115     | 440-166111-5         | WG       | 11/15/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
| PC-53-20161115      | 440-166111-1         | WG                   | 11/15/16 |             | Stage 2B |                  |                | X                    |          |          | X            | X                        |         | X                             |             |         | X     |                  |             |      |           |        |      |                   |                              |          |                         |                                |  |
| 440-166112-1        | PC-157A-20161114     | 440-166112-3         | WG       | 11/14/16    |          | Stage 2B         |                |                      | X        |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | PC-157A-20161114-FB4 | 440-166112-4         | WQ       | 11/14/16    | FB       | Stage 2B         |                |                      | X        |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | PC-58-20161114       | 440-166112-1         | WG       | 11/14/16    |          | Stage 2B         |                |                      | X        |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | PC-91-20161114       | 440-166112-2         | WG       | 11/14/16    |          | Stage 2B         |                |                      | X        |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |

**TABLE I: Sample Cross Reference**  
**Nevada Environmental Response Trust Site**  
**Henderson, Nevada**

| SDG             | Client Sample ID     | Laboratory Sample ID | Matrix   | Sample Date | QC Type  | Validation Level | Ammonia (as N) | Total Organic Carbon | Chlorate | Chloride | Conductivity | Dissolved Solids (total) | Nitrate | Nitrite, Nitrate/Nitrite, TIN | Perchlorate | Sulfate | Boron | Chromium (total) | Chromium VI | Iron | Manganese | Sodium | VOCs | 1,4-Dioxane (SIM) | 1,2,3-Trichloropropane (SIM) | Field pH | Organic Halides (total) | Phenolics, Recoverable (total) |
|-----------------|----------------------|----------------------|----------|-------------|----------|------------------|----------------|----------------------|----------|----------|--------------|--------------------------|---------|-------------------------------|-------------|---------|-------|------------------|-------------|------|-----------|--------|------|-------------------|------------------------------|----------|-------------------------|--------------------------------|
| 440-166117-1    | ARP-1-20161115       | 440-166117-2         | WG       | 11/15/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
|                 | PC-18-20161115       | 440-166117-3         | WG       | 11/15/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
|                 | PC-90-20161115       | 440-166117-1         | WG       | 11/15/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
| 440-166123-1    | ARP-5A-20161115      | 440-166123-3         | WG       | 11/15/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
|                 | MW-K5-20161115       | 440-166123-2         | W        | 11/15/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
|                 | PC-101R-20161115     | 440-166123-4         | WG       | 11/15/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
|                 | PC-103-20161115      | 440-166123-1         | WG       | 11/15/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
| 440-166209-1    | PC-134D-20161115     | 440-166209-7         | WG       | 11/15/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
|                 | PC-134D-20161115-EB4 | 440-166209-5         | WQ       | 11/15/16    | EB       | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
|                 | PC-136-20161115      | 440-166209-2         | WG       | 11/15/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
|                 | PC-136-20161115-FB5  | 440-166209-4         | WQ       | 11/15/16    | FB       | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
|                 | PC-137D-20161115     | 440-166209-6         | WG       | 11/15/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
|                 | PC-55-20161115       | 440-166209-3         | WG       | 11/15/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
| 440-166210-1    | PC-55-20161115-EB5   | 440-166209-1         | WQ       | 11/15/16    | EB       | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
|                 | I-AC-20161116        | 440-166210-2         | WG       | 11/16/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | I-AD-20161116        | 440-166210-1         | WG       | 11/16/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | I-I-20161116         | 440-166210-6         | WG       | 11/16/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | I-J-20161116         | 440-166210-4         | WG       | 11/16/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | I-K-20161116         | 440-166210-3         | WG       | 11/16/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | I-V-20161116         | 440-166210-7         | WG       | 11/16/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
| 440-166337-1    | I-Z-20161116         | 440-166210-5         | WG       | 11/16/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                 | PC-124-20161116      | 440-166337-3         | WG       | 11/16/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
|                 | PC-126-20161116      | 440-166337-4         | WG       | 11/16/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
|                 | PC-130-20161116      | 440-166337-5         | WG       | 11/16/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
|                 | PC-144-20161116      | 440-166337-1         | WG       | 11/16/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
| 440-166339-1    | PC-144-20161116-FB6  | 440-166337-2         | WQ       | 11/16/16    | FB       | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
|                 | PC-123-20161116      | 440-166339-1         | WG       | 11/16/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
|                 | PC-127-20161116      | 440-166339-2         | WG       | 11/16/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
|                 | PC-131-20161116      | 440-166339-3         | WG       | 11/16/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
| 440-166340-1    | PC-151-20161116      | 440-166339-4         | WG       | 11/16/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
|                 | PC-149-20161116      | 440-166340-1         | WG       | 11/16/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
|                 | PC-149-20161116-EB6  | 440-166340-2         | WQ       | 11/16/16    | EB       | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
|                 | PC-153-20161116      | 440-166340-6         | WG       | 11/16/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
|                 | PC-154-20161116      | 440-166340-5         | WG       | 11/16/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
|                 | PC-158-20161116      | 440-166340-4         | WG       | 11/16/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
| PC-160-20161116 | 440-166340-3         | WG                   | 11/16/16 |             | Stage 2B |                  |                | X                    |          |          | X            | X                        |         | X                             |             |         | X     |                  |             |      |           |        |      |                   |                              |          |                         |                                |

**TABLE I: Sample Cross Reference**  
**Nevada Environmental Response Trust Site**  
**Henderson, Nevada**

| SDG            | Client Sample ID    | Laboratory Sample ID | Matrix   | Sample Date | QC Type  | Validation Level | Ammonia (as N) | Total Organic Carbon | Chlorate | Chloride | Conductivity | Dissolved Solids (total) | Nitrate | Nitrite, Nitrate/Nitrite, TIN | Perchlorate | Sulfate | Boron | Chromium (total) | Chromium VI | Iron | Manganese | Sodium | VOCs | 1,4-Dioxane (SIM) | 1,2,3-Trichloropropane (SIM) | Field pH | Organic Halides (total) | Phenolics, Recoverable (total) |  |
|----------------|---------------------|----------------------|----------|-------------|----------|------------------|----------------|----------------------|----------|----------|--------------|--------------------------|---------|-------------------------------|-------------|---------|-------|------------------|-------------|------|-----------|--------|------|-------------------|------------------------------|----------|-------------------------|--------------------------------|--|
| 440-166342-1   | PC-125-20161116     | 440-166342-4         | WG       | 11/16/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                | PC-128-20161116     | 440-166342-5         | WG       | 11/16/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                | PC-132-20161116     | 440-166342-6         | WG       | 11/16/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                | PC-148-20161116     | 440-166342-1         | WG       | 11/16/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                | PC-148-20161116-FD7 | 440-166342-2         | WG       | 11/16/16    | FD       | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                | PC-159-20161116     | 440-166342-3         | WG       | 11/16/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
| 440-166420-1   | M-22A-20161117      | 440-166420-6         | W        | 11/17/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                | M-22A-20161117-FB7  | 440-166420-5         | WQ       | 11/17/16    | FB       | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                | M-25-20161117       | 440-166420-4         | W        | 11/17/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                | M-64-20161117       | 440-166420-3         | W        | 11/17/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                | M-65-20161117       | 440-166420-2         | W        | 11/17/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                | M-66-20161117       | 440-166420-1         | W        | 11/17/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
| 440-166423-1   | M-189-20161117      | 440-166423-8         | W        | 11/17/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                | M-192-20161117      | 440-166423-3         | W        | 11/17/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                | M-192-20161117-FD8  | 440-166423-4         | W        | 11/17/16    | FD       | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                | PC-129-20161117     | 440-166423-2         | WG       | 11/17/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                | PC-152-20161117     | 440-166423-7         | WG       | 11/17/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                | PC-54-20161117      | 440-166423-1         | WG       | 11/17/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                | PC-71-20161117      | 440-166423-5         | WG       | 11/17/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
| PC-72-20161117 | 440-166423-6        | WG                   | 11/17/16 |             | Stage 2B |                  |                | X                    |          |          | X            | X                        |         | X                             |             |         | X     |                  |             |      |           |        |      |                   |                              |          |                         |                                |  |
| 440-166430-1   | M-14A-20161117_A    | 440-166430-1         | WG       | 11/17/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                | M-38-20161117-EB8_A | 440-166430-3         | WQ       | 11/17/16    | EB       | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                | M-38-20161117_A     | 440-166430-2         | WG       | 11/17/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
| 440-166433-1   | PC-122-20161116     | 440-166433-2         | WG       | 11/16/16    |          | Stage 2B         |                |                      | X        |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                | PC-151-20161116-EB7 | 440-166433-1         | W        | 11/16/16    | EB       | Stage 2B         |                |                      | X        |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
| 440-166437-1   | ART-1-20161117_A    | 440-166437-1         | WG       | 11/17/16    |          | Stage 2B         |                |                      |          |          |              |                          | X       |                               |             |         |       |                  |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                | ART-2-20161117_A    | 440-166437-2         | WG       | 11/17/16    |          | Stage 2B         |                |                      |          |          |              |                          | X       |                               |             |         |       |                  |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                | ART-3A-20161117_A   | 440-166437-3         | WG       | 11/17/16    |          | Stage 2B         |                |                      |          |          |              |                          | X       |                               |             |         |       |                  |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                | ART-4-20161117_A    | 440-166437-4         | WG       | 11/17/16    |          | Stage 2B         |                |                      |          |          |              |                          | X       |                               |             |         |       |                  |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                | ART-6-20161117_A    | 440-166437-5         | WG       | 11/17/16    |          | Stage 2B         |                |                      |          |          |              |                          | X       |                               |             |         |       |                  |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                | ART-7B-20161117_A   | 440-166437-6         | WG       | 11/17/16    |          | Stage 2B         |                |                      |          |          |              |                          | X       |                               |             |         |       |                  |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                | ART-8A-20161117_A   | 440-166437-7         | WG       | 11/17/16    |          | Stage 2B         |                |                      |          |          |              |                          | X       |                               |             |         |       |                  |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                | ART-9-20161117_A    | 440-166437-8         | WG       | 11/17/16    |          | Stage 2B         |                |                      |          |          |              |                          | X       |                               |             |         |       |                  |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                | PC-115R-20161117_A  | 440-166437-11        | WG       | 11/17/16    |          | Stage 2B         |                |                      |          |          |              |                          | X       |                               |             |         |       |                  |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                | PC-116R-20161117_A  | 440-166437-12        | WG       | 11/17/16    |          | Stage 2B         |                |                      |          |          |              |                          | X       |                               |             |         |       |                  |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                | PC-117-20161117_A   | 440-166437-13        | WG       | 11/17/16    |          | Stage 2B         |                |                      |          |          |              |                          | X       |                               |             |         |       |                  |             |      |           |        |      |                   |                              |          |                         |                                |  |



**TABLE I: Sample Cross Reference**  
**Nevada Environmental Response Trust Site**  
**Henderson, Nevada**

| SDG          | Client Sample ID      | Laboratory Sample ID | Matrix | Sample Date | QC Type | Validation Level | Ammonia (as N) | Total Organic Carbon | Chlorate | Chloride | Conductivity | Dissolved Solids (total) | Nitrate | Nitrite, Nitrate/Nitrite, TIN | Perchlorate | Sulfate | Boron | Chromium (total) | Chromium VI | Iron | Manganese | Sodium | VOCs | 1,4-Dioxane (SIM) | 1,2,3-Trichloropropane (SIM) | Field pH | Organic Halides (total) | Phenolics, Recoverable (total) |  |  |
|--------------|-----------------------|----------------------|--------|-------------|---------|------------------|----------------|----------------------|----------|----------|--------------|--------------------------|---------|-------------------------------|-------------|---------|-------|------------------|-------------|------|-----------|--------|------|-------------------|------------------------------|----------|-------------------------|--------------------------------|--|--|
| 440-166437-1 | PC-118-20161117_A     | 440-166437-14        | WG     | 11/17/16    |         | Stage 2B         |                |                      |          |          |              |                          | X       |                               |             |         |       |                  |             |      |           |        |      |                   |                              |          |                         |                                |  |  |
|              | PC-119-20161117_A     | 440-166437-15        | WG     | 11/17/16    |         | Stage 2B         |                |                      |          |          |              |                          | X       |                               |             |         |       |                  |             |      |           |        |      |                   |                              |          |                         |                                |  |  |
|              | PC-120-20161117_A     | 440-166437-16        | WG     | 11/17/16    |         | Stage 2B         |                |                      |          |          |              |                          | X       |                               |             |         |       |                  |             |      |           |        |      |                   |                              |          |                         |                                |  |  |
|              | PC-121-20161117_A     | 440-166437-17        | WG     | 11/17/16    |         | Stage 2B         |                |                      |          |          |              |                          | X       |                               |             |         |       |                  |             |      |           |        |      |                   |                              |          |                         |                                |  |  |
|              | PC-133-20161117_A     | 440-166437-18        | WG     | 11/17/16    |         | Stage 2B         |                |                      |          |          |              |                          | X       |                               |             |         |       |                  |             |      |           |        |      |                   |                              |          |                         |                                |  |  |
|              | PC-150-20161117_A     | 440-166437-9         | WG     | 11/17/16    |         | Stage 2B         |                |                      |          |          |              |                          | X       |                               |             |         |       |                  |             |      |           |        |      |                   |                              |          |                         |                                |  |  |
|              | PC-99R2/R3-20161117_A | 440-166437-10        | WG     | 11/17/16    |         | Stage 2B         |                |                      |          |          |              | X                        |         |                               |             |         |       |                  |             |      |           |        |      |                   |                              |          |                         |                                |  |  |
| 440-166442-1 | I-AB-20161117         | 440-166442-1         | WG     | 11/17/16    |         | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |  |  |
| 440-166552-1 | M-193-20161117        | 440-166552-3         | W      | 11/17/16    |         | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |  |
|              | M-69-20161117         | 440-166552-2         | W      | 11/17/16    |         | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |  |
|              | M-71-20161117         | 440-166552-4         | W      | 11/17/16    |         | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |  |
|              | M-79-20161117         | 440-166552-1         | W      | 11/17/16    |         | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |  |
| 440-166600-1 | M-161D-20161118       | 440-166600-4         | W      | 11/18/16    |         | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |  |
|              | M-57A-20161118        | 440-166600-1         | W      | 11/18/16    |         | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |  |
|              | M-70-20161118         | 440-166600-3         | W      | 11/18/16    |         | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |  |
|              | M-72-20161118         | 440-166600-2         | W      | 11/18/16    |         | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |  |
| 440-166602-1 | M-67-20161118         | 440-166602-3         | W      | 11/18/16    |         | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |  |
|              | M-73-20161118         | 440-166602-2         | W      | 11/18/16    |         | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |  |
|              | M-80-20161118         | 440-166602-1         | W      | 11/18/16    |         | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |  |
| 440-166603-1 | M-19-20161118         | 440-166603-4         | W      | 11/18/16    |         | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |  |
|              | M-35-20161118         | 440-166603-5         | W      | 11/18/16    |         | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |  |
|              | M-68-20161118         | 440-166603-3         | W      | 11/18/16    |         | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |  |
|              | M-74-20161118         | 440-166603-2         | W      | 11/18/16    |         | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |  |
|              | M-81A-20161118        | 440-166603-1         | W      | 11/18/16    |         | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |  |
| 440-166790-1 | M-11-20161121         | 440-166790-5         | W      | 11/21/16    |         | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |  |
|              | M-11-20161121-FD9     | 440-166790-6         | W      | 11/21/16    | FD      | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |  |
|              | M-135-20161121        | 440-166790-3         | W      | 11/21/16    |         | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |  |
|              | M-135-20161121-FB9    | 440-166790-4         | WQ     | 11/21/16    | FB      | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |  |
|              | PC-37-20161121        | 440-166790-1         | WG     | 11/21/16    |         | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |  |
|              | PC-73-20161121        | 440-166790-2         | WG     | 11/21/16    |         | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |  |
| 440-166980-1 | M-162D-20161122       | 440-166980-2         | W      | 11/22/16    |         | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |  |
|              | M-23-20161122         | 440-166980-4         | W      | 11/22/16    |         | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |  |
|              | M-23-20161122-EB9     | 440-166980-5         | WQ     | 11/22/16    | EB      | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |  |
|              | M-37-20161122         | 440-166980-1         | W      | 11/22/16    |         | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |  |
|              | M-48A-20161122        | 440-166980-3         | W      | 11/22/16    |         | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |  |
| 440-166988-1 | M-10-20161122         | 440-166988-2         | W      | 11/22/16    |         | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |  |

**TABLE I: Sample Cross Reference**  
**Nevada Environmental Response Trust Site**  
**Henderson, Nevada**

| SDG            | Client Sample ID  | Laboratory Sample ID | Matrix   | Sample Date | QC Type  | Validation Level | Ammonia (as N) | Total Organic Carbon | Chlorate | Chloride | Conductivity | Dissolved Solids (total) | Nitrate | Nitrite, Nitrate/Nitrite, TIN | Perchlorate | Sulfate | Boron | Chromium (total) | Chromium VI | Iron | Manganese | Sodium | VOCs | 1,4-Dioxane (SIM) | 1,2,3-Trichloropropane (SIM) | Field pH | Organic Halides (total) | Phenolics, Recoverable (total) |  |
|----------------|-------------------|----------------------|----------|-------------|----------|------------------|----------------|----------------------|----------|----------|--------------|--------------------------|---------|-------------------------------|-------------|---------|-------|------------------|-------------|------|-----------|--------|------|-------------------|------------------------------|----------|-------------------------|--------------------------------|--|
| 440-166988-1   | M-10-20161122-FB8 | 440-166988-3         | WQ       | 11/22/16    | FB       | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                | M-12A-20161122    | 440-166988-7         | W        | 11/22/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                | M-186D-20161122   | 440-166988-6         | W        | 11/22/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                | M-190-20161122    | 440-166988-4         | W        | 11/22/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                | M-52-20161122     | 440-166988-5         | W        | 11/22/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                | M-83-20161121     | 440-166988-1         | W        | 11/21/16    |          | Stage 2B         |                |                      | X        |          |              | X                        |         |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
| 440-167033-1   | M-191-20161122    | 440-167033-1         | W        | 11/22/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
| 440-167238-1   | I-AA-20161115     | 440-167238-2         | WG       | 11/15/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                | I-AR-20161115     | 440-167238-1         | WG       | 11/15/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                | I-G-20161115      | 440-167238-9         | WG       | 11/15/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                | I-H-20161115      | 440-167238-6         | WG       | 11/15/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                | I-O-20161115      | 440-167238-3         | WG       | 11/15/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                | I-P-20161115      | 440-167238-5         | WG       | 11/15/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                | I-Q-20161115      | 440-167238-10        | WG       | 11/15/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                | I-T-20161115      | 440-167238-8         | WG       | 11/15/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                | I-U-20161115      | 440-167238-7         | WG       | 11/15/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
| I-W-20161115   | 440-167238-4      | WG                   | 11/15/16 |             | Stage 2B |                  |                |                      |          |          |              |                          |         |                               |             |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
| 440-167500-1   | I-B-20161115_A    | 440-167500-6         | WG       | 11/15/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                | I-C-20161115_A    | 440-167500-1         | WG       | 11/15/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                | I-D-20161115_A    | 440-167500-9         | WG       | 11/15/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                | I-E-20161115_A    | 440-167500-7         | WG       | 11/15/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                | I-F-20161115_A    | 440-167500-11        | WG       | 11/15/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                | I-L-20161115_A    | 440-167500-3         | WG       | 11/15/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                | I-M-20161115_A    | 440-167500-10        | WG       | 11/15/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                | I-N-20161115_A    | 440-167500-12        | WG       | 11/15/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                | I-R-20161115_A    | 440-167500-5         | WG       | 11/15/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                | I-S-20161115_A    | 440-167500-2         | WG       | 11/15/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
| I-X-20161115_A | 440-167500-8      | WG                   | 11/15/16 |             | Stage 2B |                  |                |                      |          |          |              |                          |         |                               |             |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
| I-Y-20161115_A | 440-167500-4      | WG                   | 11/15/16 |             | Stage 2B |                  |                |                      |          |          |              |                          |         |                               |             |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
| 440-167564-1   | ART-1-20161117    | 440-167564-10        | WG       | 11/17/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                | ART-2-20161117    | 440-167564-11        | WG       | 11/17/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                | ART-3A-20161117   | 440-167564-12        | WG       | 11/17/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                | ART-4-20161117    | 440-167564-13        | WG       | 11/17/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                | ART-6-20161117    | 440-167564-14        | WG       | 11/17/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                | ART-7B-20161117   | 440-167564-15        | WG       | 11/17/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                | ART-8A-20161117   | 440-167564-16        | WG       | 11/17/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |

**TABLE I: Sample Cross Reference**  
**Nevada Environmental Response Trust Site**  
**Henderson, Nevada**

| SDG                 | Client Sample ID     | Laboratory Sample ID | Matrix   | Sample Date | QC Type  | Validation Level | Ammonia (as N) | Total Organic Carbon | Chlorate | Chloride | Conductivity | Dissolved Solids (total) | Nitrate | Nitrite, Nitrate/Nitrite, TIN | Perchlorate | Sulfate | Boron | Chromium (total) | Chromium VI | Iron | Manganese | Sodium | VOCs | 1,4-Dioxane (SIM) | 1,2,3-Trichloropropane (SIM) | Field pH | Organic Halides (total) | Phenolics, Recoverable (total) |  |
|---------------------|----------------------|----------------------|----------|-------------|----------|------------------|----------------|----------------------|----------|----------|--------------|--------------------------|---------|-------------------------------|-------------|---------|-------|------------------|-------------|------|-----------|--------|------|-------------------|------------------------------|----------|-------------------------|--------------------------------|--|
| 440-167564-1        | ART-9-20161117       | 440-167564-17        | WG       | 11/17/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | PC-115R-20161117     | 440-167564-2         | WG       | 11/17/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | PC-116R-20161117     | 440-167564-3         | WG       | 11/17/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | PC-117-20161117      | 440-167564-4         | WG       | 11/17/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | PC-118-20161117      | 440-167564-5         | WG       | 11/17/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | PC-119-20161117      | 440-167564-6         | WG       | 11/17/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | PC-120-20161117      | 440-167564-7         | WG       | 11/17/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | PC-121-20161117      | 440-167564-8         | WG       | 11/17/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | PC-133-20161117      | 440-167564-9         | WG       | 11/17/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
| PC-150-20161117     | 440-167564-18        | WG                   | 11/17/16 |             | Stage 2B |                  |                |                      |          |          |              |                          |         |                               |             |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
| PC-99R2/R3-20161117 | 440-167564-1         | WG                   | 11/17/16 |             | Stage 2B |                  |                |                      |          |          |              |                          |         |                               |             |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
| 440-167568-1        | M-14A-20161117       | 440-167568-1         | WG       | 11/17/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | M-38-20161117        | 440-167568-2         | WG       | 11/17/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | M-38-20161117-EB8    | 440-167568-3         | WQ       | 11/17/16    | EB       | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
| 440-167631-1        | M-31A-20161130       | 440-167631-1         | W        | 11/30/16    |          | Stage 2B         |                | X                    |          |          | X            | X                        |         | X                             |             |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
| 440-167718-1        | I-AC-20161116_A      | 440-167718-2         | WG       | 11/16/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | I-AD-20161116_A      | 440-167718-1         | WG       | 11/16/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | I-I-20161116_A       | 440-167718-6         | WG       | 11/16/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | I-J-20161116_A       | 440-167718-4         | WG       | 11/16/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | I-K-20161116_A       | 440-167718-3         | WG       | 11/16/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | I-V-20161116_A       | 440-167718-7         | WG       | 11/16/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
| I-Z-20161116_A      | 440-167718-5         | WG                   | 11/16/16 |             | Stage 2B |                  |                |                      |          |          |              |                          |         |                               |             |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |  |
| 440-168227-1        | I-AB-20161117_A      | 440-168227-1         | WG       | 11/17/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |
| 440-168260-1        | PC-157B-20161206     | 440-168260-1         | WG       | 12/06/16    |          | Stage 2B         |                |                      |          |          |              |                          | X       |                               |             |         |       |                  |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | PC-56-20161206       | 440-168260-3         | WG       | 12/06/16    |          | Stage 2B         |                |                      |          |          |              |                          | X       |                               |             |         |       |                  |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | PC-59-20161206       | 440-168260-4         | WG       | 12/06/16    |          | Stage 2B         |                |                      |          |          |              |                          | X       |                               |             |         |       |                  |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | PC-59-20161206-EB7   | 440-168260-5         | WQ       | 12/06/16    | EB       | Stage 2B         |                |                      |          |          |              |                          | X       |                               |             |         |       |                  |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | PC-91-20161206       | 440-168260-2         | WG       | 12/06/16    |          | Stage 2B         |                |                      |          |          |              |                          | X       |                               |             |         |       |                  |             |      |           |        |      |                   |                              |          |                         |                                |  |
| 440-168261-1        | PC-122-20161206      | 440-168261-9         | WG       | 12/06/16    |          | Stage 2B         |                |                      |          |          |              |                          | X       |                               |             |         |       |                  |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | PC-157A-20161206     | 440-168261-1         | WG       | 12/06/16    |          | Stage 2B         |                |                      |          |          |              |                          | X       |                               |             |         |       |                  |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | PC-157A-20161206-FB4 | 440-168261-2         | W        | 12/06/16    | FB       | Stage 2B         |                |                      |          |          |              |                          | X       |                               |             |         |       |                  |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | PC-58-20161206       | 440-168261-7         | WG       | 12/06/16    |          | Stage 2B         |                |                      |          |          |              |                          | X       |                               |             |         |       |                  |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | PC-60-20161206       | 440-168261-6         | WG       | 12/06/16    |          | Stage 2B         |                |                      |          |          |              |                          | X       |                               |             |         |       |                  |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | PC-62-20161206       | 440-168261-8         | WG       | 12/06/16    |          | Stage 2B         |                |                      |          |          |              |                          | X       |                               |             |         |       |                  |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | PC-94-20161206       | 440-168261-4         | WG       | 12/06/16    |          | Stage 2B         |                |                      |          |          |              |                          | X       |                               |             |         |       |                  |             |      |           |        |      |                   |                              |          |                         |                                |  |
|                     | PC-94-20161206-FD4   | 440-168261-5         | WG       | 12/06/16    | FD       | Stage 2B         |                |                      |          |          |              |                          | X       |                               |             |         |       |                  |             |      |           |        |      |                   |                              |          |                         |                                |  |

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**Nevada Environmental Response Trust Site**  
**Henderson, Nevada**

| SDG          | Client Sample ID     | Laboratory Sample ID | Matrix | Sample Date | QC Type | Validation Level | Ammonia (as N) | Total Organic Carbon | Chlorate | Chloride | Conductivity | Dissolved Solids (total) | Nitrate | Nitrite, Nitrate/Nitrite, TIN | Perchlorate | Sulfate | Boron | Chromium (total) | Chromium VI | Iron | Manganese | Sodium | VOCs | 1,4-Dioxane (SIM) | 1,2,3-Trichloropropane (SIM) | Field pH | Organic Halides (total) | Phenolics, Recoverable (total) |  |  |
|--------------|----------------------|----------------------|--------|-------------|---------|------------------|----------------|----------------------|----------|----------|--------------|--------------------------|---------|-------------------------------|-------------|---------|-------|------------------|-------------|------|-----------|--------|------|-------------------|------------------------------|----------|-------------------------|--------------------------------|--|--|
| 440-168261-1 | PC-97-20161206       | 440-168261-3         | WG     | 12/06/16    |         | Stage 2B         |                |                      |          |          |              |                          | X       |                               |             |         |       |                  |             |      |           |        |      |                   |                              |          |                         |                                |  |  |
| 440-168264-1 | M-80-20161118_A      | 440-168264-1         | W      | 11/18/16    |         | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |  |
| 440-168537-1 | M-83-20161207        | 440-168537-1         | WG     | 12/07/16    |         | Stage 2B         |                |                      |          |          |              |                          | X       |                               |             |         |       |                  |             |      |           |        |      |                   |                              |          |                         |                                |  |  |
| 440-169256-1 | M-11-20161121-FD9_A  | 440-169256-2         | W      | 11/21/16    | FD      | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |  |
|              | M-11-20161121_A      | 440-169256-1         | W      | 11/21/16    |         | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |  |
| 440-169258-1 | M-10-20161122-FB8_A  | 440-169258-2         | WQ     | 11/22/16    | FB      | Stage 4          |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |  |
|              | M-10-20161122_A      | 440-169258-1         | W      | 11/22/16    |         | Stage 4          |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |  |
|              | M-12A-20161122_A     | 440-169258-3         | W      | 11/22/16    |         | Stage 4          |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |  |
|              | M-37-20161122_A      | 440-169258-4         | W      | 11/22/16    |         | Stage 4          |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |  |
| 440-169582-1 | ART-1-20161215       | 440-169582-1         | WG     | 12/15/16    |         | Stage 4          |                | X                    |          |          | X            | X                        |         | X                             |             |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |  |  |
|              | ART-1-20161215-FB    | 440-169582-10        | WQ     | 12/15/16    | FB      | Stage 4          |                | X                    |          |          | X            | X                        |         | X                             |             |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |  |  |
|              | ART-2-20161215       | 440-169582-2         | WG     | 12/15/16    |         | Stage 4          |                | X                    |          |          | X            | X                        |         | X                             |             |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |  |  |
|              | ART-3-20161215       | 440-169582-3         | WG     | 12/15/16    |         | Stage 4          |                | X                    |          |          | X            | X                        |         | X                             |             |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |  |  |
|              | ART-4-20161215       | 440-169582-4         | WG     | 12/15/16    |         | Stage 4          |                | X                    |          |          | X            | X                        |         | X                             |             |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |  |  |
|              | ART-6-20161215       | 440-169582-5         | WG     | 12/15/16    |         | Stage 4          |                | X                    |          |          | X            | X                        |         | X                             |             |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |  |  |
|              | ART-7A-20161215      | 440-169582-6         | WG     | 12/15/16    |         | Stage 4          |                | X                    |          |          | X            | X                        |         | X                             |             |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |  |  |
|              | ART-8A-20161215      | 440-169582-7         | WG     | 12/15/16    |         | Stage 4          |                | X                    |          |          | X            | X                        |         | X                             |             |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |  |  |
|              | ART-9-20161215       | 440-169582-8         | WG     | 12/15/16    |         | Stage 4          |                | X                    |          |          | X            | X                        |         | X                             |             |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |  |  |
|              | ART-9-20161215-FD    | 440-169582-11        | WG     | 12/15/16    | FD      | Stage 4          |                | X                    |          |          | X            | X                        |         | X                             |             |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |  |  |
|              | PC-117-20161215      | 440-169582-12        | WG     | 12/15/16    |         | Stage 4          |                | X                    | X        |          | X            | X                        |         | X                             | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |  |  |
|              | PC-118-20161215      | 440-169582-13        | WG     | 12/15/16    |         | Stage 4          |                | X                    | X        |          | X            | X                        |         | X                             | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |  |  |
|              | PC-119-20161215      | 440-169582-14        | WG     | 12/15/16    |         | Stage 4          |                | X                    | X        |          | X            | X                        |         | X                             | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |  |  |
|              | PC-120-20161215      | 440-169582-15        | WG     | 12/15/16    |         | Stage 4          |                | X                    | X        |          | X            | X                        |         | X                             | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |  |  |
|              | PC-121-20161215      | 440-169582-16        | WG     | 12/15/16    |         | Stage 4          |                | X                    | X        |          | X            | X                        |         | X                             | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |  |  |
|              | PC-150-20161215      | 440-169582-9         | WG     | 12/15/16    |         | Stage 4          |                | X                    |          |          | X            | X                        |         | X                             |             |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |  |  |
| 440-170150-1 | ART-1-20161215_at    | 440-170150-5         | WG     | 12/15/16    |         | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |  |
|              | ART-1-20161215_at-FB | 440-170150-6         | WQ     | 12/15/16    | FB      | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |  |
|              | ART-2-20161215_at    | 440-170150-4         | WG     | 12/15/16    |         | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |  |
|              | ART-3-20161215_at    | 440-170150-2         | WG     | 12/15/16    |         | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |  |
|              | ART-4-20161215_at    | 440-170150-1         | WG     | 12/15/16    |         | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |  |
|              | ART-6-20161215_at    | 440-170150-16        | WG     | 12/15/16    |         | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |  |
|              | ART-7A-20161215_at   | 440-170150-8         | WG     | 12/15/16    |         | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |  |
|              | ART-8A-20161215_at   | 440-170150-3         | WG     | 12/15/16    |         | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |  |
|              | ART-9-20161215_at    | 440-170150-9         | WG     | 12/15/16    |         | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |  |
|              | ART-9-20161215_at-FD | 440-170150-10        | WG     | 12/15/16    | FD      | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |  |
|              | PC-117-20161215_at   | 440-170150-15        | WG     | 12/15/16    |         | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |  |  |

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**Henderson, Nevada**

| SDG                        | Client Sample ID             | Laboratory Sample ID | Matrix   | Sample Date | QC Type  | Validation Level | Ammonia (as N) | Total Organic Carbon | Chlorate | Chloride | Conductivity | Dissolved Solids (total) | Nitrate | Nitrite, Nitrate/Nitrite, TIN | Perchlorate | Sulfate | Boron | Chromium (total) | Chromium VI | Iron | Manganese | Sodium | VOCs | 1,4-Dioxane (SIM) | 1,2,3-Trichloropropane (SIM) | Field pH | Organic Halides (total) | Phenolics, Recoverable (total) |
|----------------------------|------------------------------|----------------------|----------|-------------|----------|------------------|----------------|----------------------|----------|----------|--------------|--------------------------|---------|-------------------------------|-------------|---------|-------|------------------|-------------|------|-----------|--------|------|-------------------|------------------------------|----------|-------------------------|--------------------------------|
| 440-170150-1               | PC-118-20161215_at           | 440-170150-11        | WG       | 12/15/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                            | PC-119-20161215_at           | 440-170150-12        | WG       | 12/15/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                            | PC-120-20161215_at           | 440-170150-13        | WG       | 12/15/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                            | PC-121-20161215_at           | 440-170150-14        | WG       | 12/15/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                            | PC-150-20161215_at           | 440-170150-7         | WG       | 12/15/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
| 440-170151-1               | PC-115R-121916-20161219_A    | 440-170151-2         | WG       | 12/19/16    |          | Stage 2B         |                |                      | X        | X        |              | X                        | X       |                               | X           | X       |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                            | PC-116R-121916-20161219-FD_A | 440-170151-5         | WG       | 12/19/16    | FD       | Stage 2B         |                |                      | X        | X        |              | X                        | X       |                               | X           | X       |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                            | PC-116R-121916-20161219_A    | 440-170151-3         | WG       | 12/19/16    |          | Stage 2B         |                |                      | X        | X        |              | X                        | X       |                               | X           | X       |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                            | PC-133-121916-20161219-EB_A  | 440-170151-6         | W        | 12/19/16    | EB       | Stage 2B         |                |                      | X        | X        |              | X                        | X       |                               | X           | X       |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                            | PC-133-121916-20161219_A     | 440-170151-4         | WG       | 12/19/16    |          | Stage 2B         |                |                      | X        | X        |              | X                        | X       |                               | X           | X       |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                            | PC-99R2/R3-121916-20161219_A | 440-170151-1         | WG       | 12/19/16    |          | Stage 2B         |                |                      | X        | X        |              | X                        | X       |                               | X           | X       |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
| 440-170153-1               | PC-115R-121916-20161219      | 440-170153-2         | WG       | 12/19/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                            | PC-116R-121916-20161219      | 440-170153-3         | WG       | 12/19/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                            | PC-116R-121916-20161219-FD   | 440-170153-5         | WG       | 12/19/16    | FD       | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                            | PC-133-121916-20161219       | 440-170153-4         | WG       | 12/19/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                            | PC-133-121916-20161219-EB    | 440-170153-6         | W        | 12/19/16    | EB       | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
| PC-99R2/R3-121916-20161219 | 440-170153-1                 | WG                   | 12/19/16 |             | Stage 2B |                  |                |                      |          |          |              |                          |         |                               |             |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
| 440-170398-1               | I-AA-122016-20161220         | 440-170398-2         | WG       | 12/20/16    |          | Stage 4          |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                            | I-AR-122016-20161220         | 440-170398-1         | WG       | 12/20/16    |          | Stage 4          |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                            | I-B-122016-20161220          | 440-170398-3         | WG       | 12/20/16    |          | Stage 4          |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                            | I-C-122016-20161220          | 440-170398-8         | WG       | 12/20/16    |          | Stage 4          |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                            | I-D-122016-20161220          | 440-170398-9         | WG       | 12/20/16    |          | Stage 4          |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                            | I-E-122016-20161220          | 440-170398-11        | WG       | 12/20/16    |          | Stage 4          |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                            | I-F-122016-20161220          | 440-170398-14        | WG       | 12/20/16    |          | Stage 4          |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                            | I-G-122016-20161220          | 440-170398-16        | WG       | 12/20/16    |          | Stage 4          |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                            | I-H-122016-20161220          | 440-170398-19        | WG       | 12/20/16    |          | Stage 4          |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                            | I-L-122016-20161220          | 440-170398-6         | WG       | 12/20/16    |          | Stage 4          |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                            | I-M-122016-20161220          | 440-170398-10        | WG       | 12/20/16    |          | Stage 4          |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                            | I-N-122016-20161220          | 440-170398-12        | WG       | 12/20/16    |          | Stage 4          |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                            | I-O-122016-20161220          | 440-170398-21        | WG       | 12/20/16    |          | Stage 4          |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                            | I-P-122016-20161220          | 440-170398-20        | WG       | 12/20/16    |          | Stage 4          |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                            | I-Q-122016-20161220          | 440-170398-15        | WG       | 12/20/16    |          | Stage 4          |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                            | I-R-122016-20161220          | 440-170398-4         | WG       | 12/20/16    |          | Stage 4          |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                            | I-S-122016-20161220          | 440-170398-7         | WG       | 12/20/16    |          | Stage 4          |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
|                            | I-T-122016-20161220          | 440-170398-17        | WG       | 12/20/16    |          | Stage 4          |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              |          | X                       |                                |
| I-U-122016-20161220        | 440-170398-18                | WG                   | 12/20/16 |             | Stage 4  |                  |                | X                    |          |          | X            | X                        |         | X                             |             |         | X     |                  |             |      |           |        |      |                   |                              | X        |                         |                                |

**TABLE I: Sample Cross Reference**  
**Nevada Environmental Response Trust Site**  
**Henderson, Nevada**

| SDG                    | Client Sample ID       | Laboratory Sample ID | Matrix   | Sample Date | QC Type  | Validation Level | Ammonia (as N) | Total Organic Carbon | Chlorate | Chloride | Conductivity | Dissolved Solids (total) | Nitrate | Nitrite, Nitrate/Nitrite, TIN | Perchlorate | Sulfate | Boron | Chromium (total) | Chromium VI | Iron | Manganese | Sodium | VOCs | 1,4-Dioxane (SIM) | 1,2,3-Trichloropropane (SIM) | Field pH | Organic Halides (total) | Phenolics, Recoverable (total) |
|------------------------|------------------------|----------------------|----------|-------------|----------|------------------|----------------|----------------------|----------|----------|--------------|--------------------------|---------|-------------------------------|-------------|---------|-------|------------------|-------------|------|-----------|--------|------|-------------------|------------------------------|----------|-------------------------|--------------------------------|
| 440-170398-1           | I-X-122016-20161220    | 440-170398-13        | WG       | 12/20/16    |          | Stage 4          |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                        | I-X-122016-20161220-EB | 440-170398-22        | W        | 12/20/16    | EB       | Stage 4          |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                        | I-Y-122016-20161220    | 440-170398-5         | WG       | 12/20/16    |          | Stage 4          |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
| 440-170572-1           | I-AB 122116-20161221   | 440-170572-1         | WG       | 12/21/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                        | I-AD 122116-20161221   | 440-170572-8         | WG       | 12/21/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                        | I-I 122116-20161221    | 440-170572-4         | WG       | 12/21/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                        | I-J 122116-20161221    | 440-170572-6         | WG       | 12/21/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                        | I-K 122116-20161221    | 440-170572-7         | WG       | 12/21/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                        | I-V 122116-20161221    | 440-170572-3         | WG       | 12/21/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                        | I-W 122116-20161221    | 440-170572-2         | WG       | 12/21/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
|                        | I-W 122116-20161221-FD | 440-170572-9         | WG       | 12/21/16    | FD       | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
| I-Z 122116-20161221    | 440-170572-5           | WG                   | 12/21/16 |             | Stage 2B |                  |                | X                    |          |          | X            | X                        |         | X                             |             |         | X     |                  |             |      |           |        |      |                   | X                            |          |                         |                                |
| 440-170796-1           | I-AC 122116-20161222   | 440-170796-1         | WG       | 12/22/16    |          | Stage 2B         |                |                      | X        |          |              | X                        | X       |                               | X           |         |       | X                |             |      |           |        |      |                   |                              | X        |                         |                                |
| 440-170899-1           | I-AA 122016-20161220   | 440-170899-2         | WG       | 12/20/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                        | I-AR 122016-20161220   | 440-170899-1         | WG       | 12/20/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                        | I-B 122016-20161220    | 440-170899-3         | WG       | 12/20/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                        | I-C 122016-20161220    | 440-170899-8         | WG       | 12/20/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                        | I-D 122016-20161220    | 440-170899-9         | WG       | 12/20/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                        | I-E 122016-20161220    | 440-170899-11        | WG       | 12/20/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                        | I-F 122016-20161220    | 440-170899-14        | WG       | 12/20/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                        | I-G 122016-20161220    | 440-170899-16        | WG       | 12/20/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                        | I-H 122016-20161220    | 440-170899-19        | WG       | 12/20/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                        | I-L 122016-20161220    | 440-170899-6         | WG       | 12/20/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                        | I-M 122016-20161220    | 440-170899-10        | WG       | 12/20/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                        | I-N 122016-20161220    | 440-170899-12        | WG       | 12/20/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                        | I-O 122016-20161220    | 440-170899-21        | WG       | 12/20/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                        | I-P 122016-20161220    | 440-170899-20        | WG       | 12/20/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                        | I-Q 122016-20161220    | 440-170899-15        | WG       | 12/20/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                        | I-R 122016-20161220    | 440-170899-4         | WG       | 12/20/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                        | I-S 122016-20161220    | 440-170899-7         | WG       | 12/20/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                        | I-T 122016-20161220    | 440-170899-17        | WG       | 12/20/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
| I-U 122016-20161220    | 440-170899-18          | WG                   | 12/20/16 |             | Stage 2B |                  |                |                      |          |          |              |                          |         |                               |             |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
| I-X 122016 EB-20161220 | 440-170899-22          | W                    | 12/20/16 | EB          | Stage 2B |                  |                |                      |          |          |              |                          |         |                               |             |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
| I-X 122016-20161220    | 440-170899-13          | WG                   | 12/20/16 |             | Stage 2B |                  |                |                      |          |          |              |                          |         |                               |             |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
| I-Y 122016-20161220    | 440-170899-5           | WG                   | 12/20/16 |             | Stage 2B |                  |                |                      |          |          |              |                          |         |                               |             |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
| 440-170907-1           | I-AC 122216-20161222   | 440-170907-1         | WG       | 12/22/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |

**TABLE I: Sample Cross Reference**  
**Nevada Environmental Response Trust Site**  
**Henderson, Nevada**

| SDG                   | Client Sample ID         | Laboratory Sample ID | Matrix   | Sample Date | QC Type  | Validation Level | Ammonia (as N) | Total Organic Carbon | Chlorate | Chloride | Conductivity | Dissolved Solids (total) | Nitrate | Nitrite, Nitrate/Nitrite, TIN | Perchlorate | Sulfate | Boron | Chromium (total) | Chromium VI | Iron | Manganese | Sodium | VOCs | 1,4-Dioxane (SIM) | 1,2,3-Trichloropropane (SIM) | Field pH | Organic Halides (total) | Phenolics, Recoverable (total) |
|-----------------------|--------------------------|----------------------|----------|-------------|----------|------------------|----------------|----------------------|----------|----------|--------------|--------------------------|---------|-------------------------------|-------------|---------|-------|------------------|-------------|------|-----------|--------|------|-------------------|------------------------------|----------|-------------------------|--------------------------------|
| 440-170911-1          | I-AB 122116-20161221_A   | 440-170911-1         | WG       | 12/21/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | I-AD 122116-20161221_A   | 440-170911-8         | WG       | 12/21/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | I-I 122116-20161221_A    | 440-170911-4         | WG       | 12/21/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | I-J 122116-20161221_A    | 440-170911-6         | WG       | 12/21/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | I-K 122116-20161221_A    | 440-170911-7         | WG       | 12/21/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | I-V 122116-20161221_A    | 440-170911-3         | WG       | 12/21/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | I-W 122116-20161221-FD_A | 440-170911-9         | WG       | 12/21/16    | FD       | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
|                       | I-W 122116-20161221_A    | 440-170911-2         | WG       | 12/21/16    |          | Stage 2B         |                |                      |          |          |              |                          |         |                               |             |         |       |                  | X           |      |           |        |      |                   |                              |          |                         |                                |
| I-Z 122116-20161221_A | 440-170911-5             | WG                   | 12/21/16 |             | Stage 2B |                  |                |                      |          |          |              |                          |         |                               |             |         |       | X                |             |      |           |        |      |                   |                              |          |                         |                                |
| 440-171145-1          | M-10-20161227            | 440-171145-1         | WG       | 12/27/16    |          | Stage 4          | X              |                      | X        |          |              | X                        | X       |                               |             | X       |       |                  | X           | X    |           |        |      |                   |                              |          |                         |                                |

**Notes:**

- EB = Equipment Blank
- FB = Field Blank
- FD = Field Duplicate
- ID = Identification
- QC = Quality Control
- SDG = Sample Delivery Group
- VOCs = Volatile Organic Compounds
- W = Water
- WG = Groundwater
- WQ = Blank Water

**TABLE IIa. VALIDATION ELEMENTS**

Nevada Environmental Response Trust

Henderson, Nevada

| Quality Control Elements  | Stage 2B |        |               |
|---|----------|--------|---------------|
|   | VOCs     | Metals | Wet Chemistry |
| Sample Receipt & Technical Holding Time                                     | √        | √      | √             |
| Instrument Performance Check  | √        | √      | N/A           |
| Initial Calibration (ICAL)  | √        | √      | √             |
| Initial Calibration Verification (ICV)                                      | √        | √      | √             |
| Continuing Calibration Verification (CCV)                                   | √        | √      | √             |
| Laboratory Blanks   | √        | √      | √             |
| Initial Calibration Blank and Continuing Calibration Blank (ICB/CCB)        | N/A      | √      | √             |
| Field Blanks  | √        | √      | √             |
| Inductively Coupled Plasma (ICP) Interference Check Sample                  | N/A      | √      | N/A           |
| Surrogate Spikes  | √        | √      | √             |
| Matrix Spike (MS), Matrix Spike Duplicate (MSD)                             | √        | √      | √             |
| Laboratory Control Sample (LCS)/ Laboratory Control Sample Duplicate (LCSD) | √        | √      | √             |
| Serial Dilution   | N/A      | √      | N/A           |
| Internal Standards  | √        | √      | N/A           |
| Field Duplicate   | √        | √      | √             |
| Project Quantitation Limits (QL)  | √        | √      | √             |
| Multiple Results for One Sample   | √        | √      | √             |
| Target Compound Identification  | —        | —      | —             |
| Compound Quantitation/Sample Result Verification                            | —        | —      | —             |
| System Performance <sup>1</sup>   | —        | —      | —             |
| Overall Data Usability Assessment   | √        | √      | √             |

√ = Reviewed for Stage 2B review

N/A = Not applicable to method or not performed during this sampling event

— = Not applicable for State 2B review

<sup>1</sup>System performance is a thorough review of the data acquisitions that can yield indicators of degrading instrument performance affecting quality of data



**TABLE IIb. VALIDATION ELEMENTS**

Nevada Environmental Response Trust

Henderson, Nevada

| Quality Control Elements  | Stage 4    |            |               |
|---|------------|------------|---------------|
|   | VOCs       | Metals     | Wet Chemistry |
| Sample Receipt & Technical Holding Time                                     | √          | √          | √             |
| Instrument Performance Check  | √          | √          | <b>N/A</b>    |
| Initial Calibration (ICAL)  | √          | √          | √             |
| Initial Calibration Verification (ICV)                                      | √          | √          | √             |
| Continuing Calibration Verification (CCV)                                   | √          | √          | √             |
| Laboratory Blanks   | √          | √          | √             |
| Initial Calibration Blank and Continuing Calibration Blank (ICB/CCB)        | <b>N/A</b> | √          | √             |
| Field Blanks  | √          | √          | √             |
| Inductively Coupled Plasma (ICP) Interference Check Sample                  | <b>N/A</b> | √          | <b>N/A</b>    |
| Surrogate Spikes  | √          | √          | √             |
| Matrix Spike (MS), Matrix Spike Duplicate (MSD)                             | √          | √          | √             |
| Laboratory Control Sample (LCS)/ Laboratory Control Sample Duplicate (LCSD) | √          | √          | √             |
| Serial Dilution   | <b>N/A</b> | √          | <b>N/A</b>    |
| Internal Standards  | √          | √          | √             |
| Field Duplicate   | √          | √          | √             |
| Project Quantitation Limits (QL)  | √          | √          | √             |
| Multiple Results for One Sample   | √          | √          | √             |
| Target Compound Identification  | √          | <b>N/A</b> | <b>N/A</b>    |
| Compound Quantitation/Sample Result Verification                            | √          | √          | √             |
| System Performance <sup>1</sup>   | √          | <b>N/A</b> | <b>N/A</b>    |
| Overall Data Usability Assessment   | √          | √          | √             |

√ = Reviewed for Stage 2B review

N/A = Not applicable to method or not performed during this sampling event

<sup>1</sup>System performance is a thorough review of the data acquisitions that can yield indicators of degrading instrument performance affecting quality of data

**TABLE III. REASON CODES AND DEFINITIONS**

Nevada Environmental Response Trust  
Henderson, Nevada

| <b>Reason</b> | <b>Explanation</b>  |
|---------------|---|
| a             | qualified due to low abundance (radiochemical activity)   |
| be            | qualified due to equipment blank contamination  |
| bf            | qualified due to field blank contamination  |
| bl            | qualified due to lab blank contamination  |
| bt            | qualified due to trip blank contamination   |
| bp            | qualified due to pump blank contamination (wells w/o dedicated pumps, when contamination is detected in the Pump Blk) |
| br            | qualified due to filter blank contamination (aqueous Hexavalent Chromium and Dissolved sample fractions)              |
| c             | qualified due to calibration problems   |
| cp            | qualified due to insufficient ingrowth (radiochemical only)   |
| dc            | duel column confirmation %D exceeded  |
| e             | concentration exceeded the calibration range  |
| fd            | qualified due to field duplicate imprecision  |
| h             | qualified due to holding time exceedance  |
| i             | qualified due to internal standard areas  |
| k             | qualified as Estimated Maximum Possible Concentrations (dioxins and PCB congeners)                                    |
| l             | qualified due to LCS recoveries   |
| ld            | qualified due to lab duplicate imprecision (matrix duplicate, MSD, LCSD)  |
| m             | qualified due to matrix spike recoveries  |
| nb            | qualified due to negative lab blank contamination (nondetect results only)  |
| nd            | qualified due to non-detected target analyte  |
| o             | other   |
| p             | qualified due to quantitation during shipping   |
| pH            | sample preservation not within acceptance range   |
| q             | qualified due to quantitation problem   |
| s             | qualified due to surrogate recoveries   |
| sd            | serial dilution did not meet control criteria   |
| sp            | detected value report >SQL <PQL   |
| st            | sample receipt temperature exceeded   |
| t             | qualified due to elevated helium tracer concentrations  |
| vh            | volatile headspace detected in aqueous sample containers submitted for VOC analysis                                   |
| x             | qualified due to low % solids   |
| z             | qualified due to ICS results  |

**TABLE IV: Overall Qualified Results**  
**Nevada Environmental Response Trust Site**  
**Henderson, Nevada**

| Method       | CAS        | Analyte          | SDG          | Sample ID    | Sample Date | Lab Result | Lab Qualifier | SQL    | PQL    | Units  | Validator Qualifier | Reason Code | Reason Code Definition |                 |                  |               |
|--------------|------------|------------------|--------------|--------------|-------------|------------|---------------|--------|--------|--------|---------------------|-------------|------------------------|-----------------|------------------|---------------|
| 200.7        | 7440-42-8  | Boron            | 440-158214-1 | M-161D       | 09/12/16    | 0.90       |               | 0.010  | 0.050  | mg/l   | J+                  | m           | Matrix Spike %R        |                 |                  |               |
|              |            |                  |              | M-162D       | 09/12/16    | 0.77       |               | 0.010  | 0.050  | mg/l   | J+                  | m           | Matrix Spike %R        |                 |                  |               |
|              |            |                  |              | M-162D-FD    | 09/12/16    | 0.80       |               | 0.010  | 0.050  | mg/l   | J+                  | m           | Matrix Spike %R        |                 |                  |               |
|              |            |                  |              | PC-151       | 09/12/16    | 1.8        | F1            | 0.010  | 0.050  | mg/l   | J+                  | m           | Matrix Spike %R        |                 |                  |               |
|              |            |                  |              | PC-152       | 09/12/16    | 1.7        |               | 0.010  | 0.050  | mg/l   | J+                  | m           | Matrix Spike %R        |                 |                  |               |
|              |            |                  |              | PC-153       | 09/12/16    | 2.2        |               | 0.010  | 0.050  | mg/l   | J+                  | m           | Matrix Spike %R        |                 |                  |               |
|              |            |                  |              | PC-153-FD    | 09/12/16    | 2.2        |               | 0.010  | 0.050  | mg/l   | J+                  | m           | Matrix Spike %R        |                 |                  |               |
|              | 7440-47-3  | Chromium (total) | 440-154471-1 | PC-56        | 08/02/16    | 0.0038     | J             | 0.0025 | 0.0050 | mg/l   | J                   | sp          |                        | Detect <PQL     |                  |               |
|              |            |                  |              | 440-154590-1 | ARP-4A      | 08/03/16   | 0.0042        | J      | 0.0025 | 0.0050 | mg/l                | J           | be                     |                 | EB Contamination |               |
|              |            |                  |              |              | EB2         | 08/03/16   | 0.0038        | J      | 0.0025 | 0.0050 | mg/l                | J           | sp                     |                 | Detect <PQL      |               |
|              |            |                  |              |              | MW-K5       | 08/03/16   | 0.0027        | J      | 0.0025 | 0.0050 | mg/l                | J           | be                     |                 | EB Contamination |               |
|              |            |                  |              | 440-154938-1 | PC-131      | 08/08/16   | 0.0031        | J      | 0.0025 | 0.0050 | mg/l                | J           | sp                     |                 | Detect <PQL      |               |
|              |            |                  |              | 440-155148-1 | EB9         | 08/09/16   | 0.0037        | J      | 0.0025 | 0.0050 | mg/l                | J           | sp                     |                 | Detect <PQL      |               |
|              |            |                  |              | 440-155316-1 | DUP-12      | 08/10/16   | 0.013         |        | 0.0025 | 0.0050 | mg/l                | J           | fd                     |                 |                  | FD Difference |
|              |            |                  |              |              | M-37        | 08/10/16   | 0.027         |        | 0.013  | 0.025  | mg/l                | J           | fd                     |                 |                  | FD Difference |
|              |            |                  |              |              | PC-55       | 08/10/16   | 0.0033        | J      | 0.0025 | 0.0050 | mg/l                | J           | sp                     |                 |                  | Detect <PQL   |
|              |            |                  |              | 440-155494-1 | DUP-14      | 08/11/16   | 2.5           | F1     | 0.013  | 0.025  | mg/l                | J           | fd                     |                 |                  | FD Difference |
|              |            |                  |              |              | I-AR        | 08/11/16   | 0.49          |        | 0.013  | 0.025  | mg/l                | J           | fd                     |                 |                  | FD Difference |
|              |            |                  |              | 440-166063-1 | ART-2       | 11/14/16   | 0.0045        | J      | 0.0025 | 0.0050 | mg/l                | J           | sp                     |                 |                  | Detect <PQL   |
|              |            |                  |              | 440-166082-1 | PC-156B     | 11/14/16   | 0.0032        | J      | 0.0025 | 0.0050 | mg/l                | J           | sp                     |                 |                  | Detect <PQL   |
| PC-86        | 11/14/16   | 0.0036           | J            |              | 0.0025      | 0.0050     | mg/l          | J      | sp     |        |                     | Detect <PQL |                        |                 |                  |               |
| 440-166090-1 | PC-56      | 11/14/16         | 0.0025       | J            | 0.0025      | 0.0050     | mg/l          | J      | sp     |        |                     | Detect <PQL |                        |                 |                  |               |
| 440-166109-1 | ARP-4A     | 11/15/16         | 0.0035       | J            | 0.0025      | 0.0050     | mg/l          | J      | sp     |        |                     | Detect <PQL |                        |                 |                  |               |
| 440-166209-1 | PC-55      | 11/15/16         | 0.0025       | J            | 0.0025      | 0.0050     | mg/l          | J      | sp     |        |                     | Detect <PQL |                        |                 |                  |               |
| 440-166339-1 | PC-131     | 11/16/16         | 0.0034       | J            | 0.0025      | 0.0050     | mg/l          | J      | sp     |        |                     | Detect <PQL |                        |                 |                  |               |
|              | PC-151     | 11/16/16         | 0.0035       | J            | 0.0025      | 0.0050     | mg/l          | J      | sp     |        |                     | Detect <PQL |                        |                 |                  |               |
| 218.6        | 18540-29-9 | Chromium VI      | 440-155316-1 | DUP-11       | 08/10/16    | 7,600      | H             | 0.19   | 1,000  | µg/l   | J-                  | h           | Hold Time              |                 |                  |               |
|              |            |                  |              | DUP-12       | 08/10/16    | 12         | H             | 0.19   | 1      | µg/l   | J-                  | h           | Hold Time              |                 |                  |               |
|              |            |                  |              | M-37         | 08/10/16    | 12         | H             | 0.19   | 1      | µg/l   | J-                  | h           | Hold Time              |                 |                  |               |
|              |            |                  |              | M-38         | 08/10/16    | 6,700      | H             | 0.19   | 1,000  | µg/l   | J-                  | h           | Hold Time              |                 |                  |               |
| 300          | 14797-55-8 | Nitrate          | 440-155186-1 | DUP-9        | 08/09/16    | 6.9        | H             | 0.55   | 1.1    | mg/l   | J-                  | h           | Hold Time              |                 |                  |               |
|              |            |                  |              | M-11         | 08/09/16    | 1.7        | H             | 0.11   | 0.22   | mg/l   | J-                  | h           | Hold Time              |                 |                  |               |
|              |            |                  |              | M-12A        | 08/09/16    | 7.0        | H             | 0.55   | 1.1    | mg/l   | J-                  | h           | Hold Time              |                 |                  |               |
|              |            |                  | 440-155316-1 | DUP-12       | 08/10/16    | 140        |               | 11     | 22     | mg/l   | J-                  | m           |                        | Matrix Spike %R |                  |               |
|              |            |                  |              | M-22A        | 08/10/16    | 40         | F1            | 1.1    | 2.2    | mg/l   | J-                  | m           |                        | Matrix Spike %R |                  |               |

**TABLE IV: Overall Qualified Results**  
**Nevada Environmental Response Trust Site**  
**Henderson, Nevada**

| Method | CAS        | Analyte | SDG          | Sample ID    | Sample Date | Lab Result | Lab Qualifier | SQL  | PQL  | Units | Validator Qualifier | Reason Code     | Reason Code Definition |     |                           |                           |
|--------|------------|---------|--------------|--------------|-------------|------------|---------------|------|------|-------|---------------------|-----------------|------------------------|-----|---------------------------|---------------------------|
| 300    | 14797-55-8 | Nitrate | 440-155316-1 | M-25         | 08/10/16    | 19         |               | 0.55 | 1.1  | mg/l  | J-                  | m               | Matrix Spike %R        |     |                           |                           |
|        |            |         |              | M-37         | 08/10/16    | 140        |               | 11   | 22   | mg/l  | J-                  | m               | Matrix Spike %R        |     |                           |                           |
|        |            |         |              | 440-166060-1 |             |            |               |      |      |       |                     |                 |                        |     |                           |                           |
|        |            |         | I-B          | 11/15/16     | 64          |            | 5.5           | 11   | mg/l | J-    | m                   | Matrix Spike %R |                        |     |                           |                           |
|        |            |         | I-C          | 11/15/16     | 51          | F1         | 1.1           | 2.2  | mg/l | J-    | m                   | Matrix Spike %R |                        |     |                           |                           |
|        |            |         | I-D          | 11/15/16     | 35          |            | 1.1           | 2.2  | mg/l | J-    | m                   | Matrix Spike %R |                        |     |                           |                           |
|        |            |         | I-E          | 11/15/16     | 31          |            | 1.1           | 2.2  | mg/l | J-    | m                   | Matrix Spike %R |                        |     |                           |                           |
|        |            |         | I-F          | 11/15/16     | 50          |            | 1.1           | 2.2  | mg/l | J+    | m                   | Matrix Spike %R |                        |     |                           |                           |
|        |            |         | I-L          | 11/15/16     | 110         |            | 5.5           | 11   | mg/l | J-    | m                   | Matrix Spike %R |                        |     |                           |                           |
|        |            |         | I-M          | 11/15/16     | 35          |            | 1.1           | 2.2  | mg/l | J-    | m                   | Matrix Spike %R |                        |     |                           |                           |
|        |            |         | I-N          | 11/15/16     | 47          | F1         | 1.1           | 2.2  | mg/l | J+    | m                   | Matrix Spike %R |                        |     |                           |                           |
|        |            |         | I-R          | 11/15/16     | 120         |            | 5.5           | 11   | mg/l | J-    | m                   | Matrix Spike %R |                        |     |                           |                           |
|        |            |         | I-S          | 11/15/16     | 73          |            | 5.5           | 11   | mg/l | J-    | m                   | Matrix Spike %R |                        |     |                           |                           |
|        |            |         | I-X          | 11/15/16     | 82          |            | 2.8           | 5.5  | mg/l | J-    | m                   | Matrix Spike %R |                        |     |                           |                           |
|        |            |         | I-Y          | 11/15/16     | 120         |            | 5.5           | 11   | mg/l | J-    | m                   | Matrix Spike %R |                        |     |                           |                           |
|        |            |         | 440-166082-1 |              |             | PC-156B    | 11/14/16      | 0.18 | J    | 0.11  | 0.22                | mg/l            | J                      | sp  | Detect <PQL               |                           |
|        |            |         | 440-166090-1 |              |             | PC-157B    | 11/14/16      | 7.4  | JH   | 5.5   | 11                  | mg/l            | DNR                    | o   | Other                     |                           |
|        |            |         |              |              |             | PC-56      | 11/14/16      | 6.4  | H    | 0.55  | 1.1                 | mg/l            | DNR                    | o   | Other                     |                           |
|        |            |         |              |              |             | PC-59      | 11/14/16      | 0.21 | JH   | 0.11  | 0.22                | mg/l            | DNR                    | o   | Other                     |                           |
|        |            |         |              |              |             | PC-60      | 11/14/16      | 0.74 | H    | 0.11  | 0.22                | mg/l            | DNR                    | o   | Other                     |                           |
|        |            |         |              |              |             | PC-62      | 11/14/16      |      | UH   | 0.11  | 0.22                | mg/l            | DNR                    | o   | Other                     |                           |
|        |            |         |              |              |             | PC-94      | 11/14/16      | 16   | H    | 5.5   | 11                  | mg/l            | DNR                    | o   | Other                     |                           |
|        |            |         |              |              |             | PC-94-FD4  | 11/14/16      | 16   | H    | 5.5   | 11                  | mg/l            | DNR                    | o   | Other                     |                           |
|        |            |         |              |              |             | PC-97      | 11/14/16      |      | UH   | 5.5   | 11                  | mg/l            | DNR                    | o   | Other                     |                           |
|        |            |         | 440-166109-1 |              |             | ARP-3A     | 11/15/16      | 1.6  | J    | 1.1   | 2.2                 | mg/l            | J                      | sp  | Detect <PQL               |                           |
|        |            |         | 440-166111-1 |              |             | ARP-6B     | 11/15/16      | 20   |      | 1.1   | 2.2                 | mg/l            | J-                     | m   | Matrix Spike %R           |                           |
|        |            |         |              |              |             | ARP-6B-FD5 | 11/15/16      | 20   |      | 1.1   | 2.2                 | mg/l            | J-                     | m   | Matrix Spike %R           |                           |
|        |            |         |              |              |             | ARP-7      | 11/15/16      | 29   |      |       | 1.1                 | 2.2             | mg/l                   | J   | c                         | Continuing Calibration %D |
|        |            |         |              |              | ld          |            |               |      |      |       |                     |                 |                        |     | MS/MSD RPD                |                           |
|        |            |         |              |              | m           |            |               |      |      |       |                     |                 |                        |     | Matrix Spike %R           |                           |
|        |            |         |              |              |             | PC-135A    | 11/15/16      |      | U    |       | 2.8                 | 5.5             | mg/l                   | UJ  | c                         | Continuing Calibration %D |
|        |            |         |              |              | ld          |            |               |      |      |       |                     |                 |                        |     | MS/MSD RPD                |                           |
|        |            |         |              |              | m           |            |               |      |      |       |                     |                 |                        |     | Matrix Spike %R           |                           |
|        |            |         |              |              |             | PC-53      | 11/15/16      | 12   |      | UF1F2 | 2.8                 | 5.5             | mg/l                   | DNR | o                         | Other                     |
|        |            |         |              |              | c           |            |               |      |      |       |                     |                 |                        |     | Continuing Calibration %D |                           |
|        |            |         |              |              |             |            |               |      |      |       |                     |                 |                        | J   | ld                        | MS/MSD RPD                |

**TABLE IV: Overall Qualified Results**  
**Nevada Environmental Response Trust Site**  
**Henderson, Nevada**

| Method       | CAS        | Analyte  | SDG          | Sample ID    | Sample Date | Lab Result      | Lab Qualifier       | SQL  | PQL   | Units       | Validator Qualifier | Reason Code | Reason Code Definition |                     |
|--------------|------------|----------|--------------|--------------|-------------|-----------------|---------------------|------|-------|-------------|---------------------|-------------|------------------------|---------------------|
| 300          | 14797-55-8 | Nitrate  | 440-166111-1 | PC-53        | 11/15/16    | 12              |                     | 1.1  | 2.2   | mg/l        | J                   | m           | Matrix Spike %R        |                     |
|              |            |          |              | 440-166112-1 | PC-157A     | 11/14/16        | 4.6                 | H    | 0.11  | 0.22        | mg/l                | DNR         | o                      | Other               |
|              |            |          |              |              | PC-157A-FB4 | 11/14/16        |                     | UH   | 0.055 | 0.11        | mg/l                | DNR         | o                      | Other               |
|              |            |          |              |              | PC-58       | 11/14/16        | 3.2                 | H    | 0.28  | 0.55        | mg/l                | DNR         | o                      | Other               |
|              |            |          |              |              | PC-91       | 11/14/16        | 6.0                 | H    | 0.11  | 0.22        | mg/l                | DNR         | o                      | Other               |
|              |            |          |              | 440-166117-1 | ARP-1       | 11/15/16        | 9.0                 |      | 0.55  | 1.1         | mg/l                | J+          | m                      | Matrix Spike %R     |
|              |            |          |              |              | PC-18       | 11/15/16        | 16                  |      | 1.1   | 2.2         | mg/l                | J+          | m                      | Matrix Spike %R     |
|              |            |          |              |              | PC-90       | 11/15/16        | 7.5                 |      | 0.28  | 0.55        | mg/l                | J+          | m                      | Matrix Spike %R     |
|              |            |          |              | 440-166123-1 | PC-101R     | 11/15/16        | 1.9                 | J    | 1.1   | 2.2         | mg/l                | J           | sp                     | Detect <PQL         |
|              |            |          |              | 440-166209-1 | PC-55       | 11/15/16        | 2.1                 | J    | 1.1   | 2.2         | mg/l                | J           | sp                     | Detect <PQL         |
|              |            |          |              | 440-166339-1 | PC-131      | 11/16/16        | 3.5                 | J    | 2.8   | 5.5         | mg/l                | J           | sp                     | Detect <PQL         |
|              |            |          |              | 440-166423-1 | M-189       | 11/17/16        | 5.2                 | F2F1 | 0.28  | 0.55        | mg/l                | J           | ld                     | Lab Dup Imprecision |
|              |            |          |              |              |             | m               | Matrix Spike %R     |      |       |             |                     |             |                        |                     |
|              |            |          |              |              | M-192       | 11/17/16        | 1.8                 |      | 0.28  | 0.55        | mg/l                | J           | fd                     | FD Difference       |
|              |            |          |              |              |             | ld              | Lab Dup Imprecision |      |       |             |                     |             |                        |                     |
|              |            |          |              |              | m           | Matrix Spike %R |                     |      |       |             |                     |             |                        |                     |
|              |            |          |              |              | M-192-FD8   | 11/17/16        | 3.6                 |      | 0.28  | 0.55        | mg/l                | J           | fd                     | FD Difference       |
|              |            |          |              |              |             | ld              | Lab Dup Imprecision |      |       |             |                     |             |                        |                     |
|              |            |          |              |              |             | m               | Matrix Spike %R     |      |       |             |                     |             |                        |                     |
|              |            |          |              |              | PC-129      | 11/17/16        | 21                  |      | 1.1   | 2.2         | mg/l                | J           | ld                     | Lab Dup Imprecision |
|              |            |          |              |              |             | m               | Matrix Spike %R     |      |       |             |                     |             |                        |                     |
|              |            |          |              |              | PC-152      | 11/17/16        | 11                  |      | 0.55  | 1.1         | mg/l                | J           | ld                     | Lab Dup Imprecision |
|              |            |          |              |              |             | m               | Matrix Spike %R     |      |       |             |                     |             |                        |                     |
|              |            |          |              | PC-54        | 11/17/16    | 33              |                     | 0.55 | 1.1   | mg/l        | J                   | ld          | Lab Dup Imprecision    |                     |
|              |            |          |              |              | m           | Matrix Spike %R |                     |      |       |             |                     |             |                        |                     |
|              |            |          |              | PC-71        | 11/17/16    | 44              |                     | 1.1  | 2.2   | mg/l        | J                   | ld          | Lab Dup Imprecision    |                     |
|              |            |          |              |              | m           | Matrix Spike %R |                     |      |       |             |                     |             |                        |                     |
|              |            |          |              | PC-72        | 11/17/16    | 35              |                     | 1.1  | 2.2   | mg/l        | J                   | ld          | Lab Dup Imprecision    |                     |
|              |            |          |              |              | m           | Matrix Spike %R |                     |      |       |             |                     |             |                        |                     |
|              |            |          |              | 440-166433-1 | PC-122      | 11/16/16        | 20                  | H    | 1.1   | 2.2         | mg/l                | DNR         | o                      | Other               |
| PC-151-EB7   | 11/16/16   |          | UH           |              | 0.055       | 0.11            | mg/l                | DNR  | o     | Other       |                     |             |                        |                     |
| 440-166988-1 | M-83       | 11/21/16 | 76           | H            | 5.5         | 11              | mg/l                | DNR  | o     | Other       |                     |             |                        |                     |
| 440-167564-1 | ART-1      | 11/17/16 | 1.3          | J            | 1.1         | 2.2             | mg/l                | J    | sp    | Detect <PQL |                     |             |                        |                     |
|              | PC-121     | 11/17/16 | 0.13         | J            | 0.11        | 0.22            | mg/l                | J    | sp    | Detect <PQL |                     |             |                        |                     |
| 440-168261-1 | PC-157A    | 12/06/16 | 0.064        | J            | 0.055       | 0.11            | mg/l                | J    | sp    | Detect <PQL |                     |             |                        |                     |

**TABLE IV: Overall Qualified Results**  
**Nevada Environmental Response Trust Site**  
**Henderson, Nevada**

| Method | CAS          | Analyte              | SDG          | Sample ID | Sample Date | Lab Result | Lab Qualifier | SQL   | PQL    | Units | Validator Qualifier | Reason Code               | Reason Code Definition    |
|--------|--------------|----------------------|--------------|-----------|-------------|------------|---------------|-------|--------|-------|---------------------|---------------------------|---------------------------|
| 300    | 14797-55-8   | Nitrate              | 440-168261-1 | PC-97     | 12/06/16    | 0.070      | J             | 0.055 | 0.11   | mg/l  | J                   | sp                        | Detect <PQL               |
|        |              |                      | 440-169582-1 | ART-1     | 12/15/16    | 0.85       | J             | 0.55  | 1.1    | mg/l  | J                   | sp                        | Detect <PQL               |
|        |              |                      |              | PC-119    | 12/15/16    | 0.13       | J             | 0.11  | 0.22   | mg/l  | J                   | sp                        | Detect <PQL               |
|        |              |                      | 440-170398-1 | I-H       | 12/20/16    | 61         |               | 2.8   | 5.5    | mg/l  | J-                  | m                         | Matrix Spike %R           |
|        |              |                      |              | I-O       | 12/20/16    | 53         | F1            | 2.8   | 5.5    | mg/l  | J-                  | m                         | Matrix Spike %R           |
|        |              |                      |              | I-P       | 12/20/16    | 61         |               | 2.8   | 5.5    | mg/l  | J-                  | m                         | Matrix Spike %R           |
|        |              |                      |              | I-T       | 12/20/16    | 62         |               | 2.8   | 5.5    | mg/l  | J-                  | m                         | Matrix Spike %R           |
|        |              |                      |              | I-U       | 12/20/16    | 59         |               | 2.8   | 5.5    | mg/l  | J-                  | m                         | Matrix Spike %R           |
|        |              |                      |              | I-X-EB    | 12/20/16    |            | U             | 0.055 | 0.11   | mg/l  | UJ                  | m                         | Matrix Spike %R           |
|        |              |                      | 440-170572-1 | I-AB      | 12/21/16    | 36         |               | 0.28  | 0.55   | mg/l  | J-                  | m                         | Matrix Spike %R           |
|        |              |                      |              | I-AD      | 12/21/16    | 13         | F1            | 0.55  | 1.1    | mg/l  | J-                  | m                         | Matrix Spike %R           |
|        |              |                      |              | I-I       | 12/21/16    | 15         |               | 1.1   | 2.2    | mg/l  | J-                  | m                         | Matrix Spike %R           |
|        |              |                      |              | I-J       | 12/21/16    | 19         |               | 0.55  | 1.1    | mg/l  | J-                  | m                         | Matrix Spike %R           |
|        |              |                      |              | I-K       | 12/21/16    | 16         |               | 0.55  | 1.1    | mg/l  | J-                  | m                         | Matrix Spike %R           |
|        |              |                      |              | I-V       | 12/21/16    | 24         |               | 1.1   | 2.2    | mg/l  | J-                  | m                         | Matrix Spike %R           |
|        |              |                      |              | I-W       | 12/21/16    | 47         |               | 1.1   | 2.2    | mg/l  | J-                  | m                         | Matrix Spike %R           |
|        |              |                      |              | I-Z       | 12/21/16    | 29         |               | 1.1   | 2.2    | mg/l  | J-                  | m                         | Matrix Spike %R           |
|        | 440-171145-1 | M-10                 | 12/27/16     |           | U           | 0.055      | 0.11          | mg/l  | DNR    | o     | Other               |                           |                           |
|        | 14797-65-0   | Nitrite              | 440-171145-1 | M-10      | 12/27/16    |            | UF1           | 0.070 | 0.15   | mg/l  | DNR                 | o                         | Other                     |
| 314.0  | 14797-73-0   | Perchlorate          | 440-158214-1 | M-161D    | 09/12/16    | 1.2        | J             | 0.95  | 4.0    | µg/l  | J                   | sp                        | Detect <PQL               |
|        |              |                      |              | M-162D    | 09/12/16    | 2.0        | J             | 0.95  | 4.0    | µg/l  | J                   | sp                        | Detect <PQL               |
|        |              |                      |              | M-162D-FD | 09/12/16    | 2.0        | J             | 0.95  | 4.0    | µg/l  | J                   | sp                        | Detect <PQL               |
|        |              |                      | 440-158404-1 | PC-137D   | 09/13/16    | 2.2        | J             | 0.95  | 4.0    | µg/l  | J                   | sp                        | Detect <PQL               |
|        |              |                      | 440-158607-1 | MEB-1     | 09/14/16    | 0.54       | J             | 0.50  | 1.0    | µg/l  | J                   | sp                        | Detect <PQL               |
|        |              |                      | 440-158656-1 | M-145     | 09/14/16    | 83         | F1            | 0.95  | 4.0    | µg/l  | J+                  | m                         | Matrix Spike %R           |
|        |              |                      | 440-161484-1 | I-AA      | 10/10/16    | 91,000     | H             | 5,000 | 10,000 | µg/l  | J-                  | h                         | Hold Time                 |
|        |              |                      | 440-162515-1 | PC-120    | 10/18/16    | 160        | F1            | 2.5   | 5.0    | µg/l  | J-                  | m                         | Matrix Spike %R           |
|        |              |                      |              | PC-121    | 10/18/16    | 210        |               | 2.5   | 5.0    | µg/l  | J-                  | m                         | Matrix Spike %R           |
|        | 440-166988-1 | M-10-FB8             | 11/22/16     | 0.50      | J           | 0.50       | 1.0           | µg/l  | J      | sp    | Detect <PQL         |                           |                           |
| 8260   | 75-27-4      | Bromodichloromethane | 440-158656-1 | M-191     | 09/14/16    | 0.34       | J             | 0.25  | 0.50   | µg/l  | J                   | sp                        | Detect <PQL               |
|        | 108-90-7     | Chlorobenzene        | 440-158214-1 | PC-152    | 09/12/16    | 0.27       | J             | 0.25  | 0.50   | µg/l  | J                   | sp                        | Detect <PQL               |
|        |              |                      |              | PC-153    | 09/12/16    | 0.46       | J             | 0.25  | 0.50   | µg/l  | J                   | sp                        | Detect <PQL               |
|        | 67-66-3      | Chloroform           | 440-158656-1 | M-145     | 09/14/16    | 0.35       | J             | 0.25  | 0.50   | µg/l  | J                   | sp                        | Detect <PQL               |
|        | 74-87-3      | Chloromethane        | 440-158656-1 | PC-155A   | 09/14/16    |            | U             | 0.25  | 0.50   | µg/l  | UJ                  | c                         | Continuing Calibration %D |
|        |              |                      | PC-155B      | 09/14/16  |             | U          | 0.25          | 0.50  | µg/l   | UJ    | c                   | Continuing Calibration %D |                           |

**TABLE IV: Overall Qualified Results**  
**Nevada Environmental Response Trust Site**  
**Henderson, Nevada**

| Method  | CAS                       | Analyte                 | SDG          | Sample ID    | Sample Date | Lab Result | Lab Qualifier | SQL  | PQL  | Units | Validator Qualifier | Reason Code               | Reason Code Definition    |             |
|---------|---------------------------|-------------------------|--------------|--------------|-------------|------------|---------------|------|------|-------|---------------------|---------------------------|---------------------------|-------------|
| 8260    | 74-87-3                   | Chloromethane           | 440-158656-1 | PC-157B      | 09/14/16    |            | U             | 0.25 | 0.50 | µg/l  | UJ                  | c                         | Continuing Calibration %D |             |
|         |                           |                         |              | PC-160-TB    | 09/14/16    |            | U             | 0.25 | 0.50 | µg/l  | UJ                  | c                         | Continuing Calibration %D |             |
|         | 541-73-1                  | 1,3-Dichlorobenzene     | 440-158214-1 | PC-152       | 09/12/16    | 0.33       | J             | 0.25 | 0.50 | µg/l  | J                   | sp                        | Detect <PQL               |             |
|         |                           |                         |              | PC-153       | 09/12/16    | 0.79       |               | 0.25 | 0.50 | µg/l  | J                   | fd                        | FD Difference             |             |
|         |                           |                         |              | PC-153-FD    | 09/12/16    | 1.5        |               | 0.25 | 0.50 | µg/l  | J                   | fd                        | FD Difference             |             |
|         |                           |                         |              | 440-158404-1 | PC-159      | 09/13/16   | 0.28          | J    | 0.25 | 0.50  | µg/l                | J                         | sp                        | Detect <PQL |
|         |                           |                         |              | PC-159-FD    | 09/13/16    | 0.29       | J             | 0.25 | 0.50 | µg/l  | J                   | sp                        | Detect <PQL               |             |
|         | 106-46-7                  | 1,4-Dichlorobenzene     | 440-158404-1 | PC-154       | 09/13/16    | 0.26       | J             | 0.25 | 0.50 | µg/l  | J                   | sp                        | Detect <PQL               |             |
|         | 75-71-8                   | Dichlorodifluoromethane | 440-158214-1 | M-161D       | 09/12/16    |            | U             | 0.40 | 1.0  | µg/l  | UJ                  | c                         | ICV %D                    |             |
|         |                           |                         |              | M-161D-TB    | 09/12/16    |            | U             | 0.40 | 1.0  | µg/l  | UJ                  | c                         | ICV %D                    |             |
|         |                           |                         |              | M-162D       | 09/12/16    |            | U             | 0.40 | 1.0  | µg/l  | UJ                  | c                         | ICV %D                    |             |
|         |                           |                         |              | M-162D-FD    | 09/12/16    |            | U             | 0.40 | 1.0  | µg/l  | UJ                  | c                         | ICV %D                    |             |
|         |                           |                         |              | PC-151       | 09/12/16    |            | U             | 0.40 | 1.0  | µg/l  | UJ                  | c                         | ICV %D                    |             |
|         |                           |                         |              | PC-152       | 09/12/16    |            | U             | 0.40 | 1.0  | µg/l  | UJ                  | c                         | ICV %D                    |             |
|         |                           |                         |              | PC-152-FB    | 09/12/16    |            | U             | 0.40 | 1.0  | µg/l  | UJ                  | c                         | ICV %D                    |             |
|         |                           |                         |              | PC-153       | 09/12/16    |            | U             | 0.40 | 1.0  | µg/l  | UJ                  | c                         | ICV %D                    |             |
|         |                           |                         |              | PC-153-FD    | 09/12/16    |            | U             | 0.40 | 1.0  | µg/l  | UJ                  | c                         | ICV %D                    |             |
|         |                           |                         |              | 440-158404-1 | M-148A      | 09/13/16   |               | U    | 0.40 | 1.0   | µg/l                | UJ                        | c                         | ICV %D      |
|         |                           |                         | M-148A-EB    | 09/13/16     |             | U          | 0.40          | 1.0  | µg/l | UJ    | c                   | ICV %D                    |                           |             |
|         |                           |                         | M-186        | 09/13/16     |             | U          | 0.40          | 1.0  | µg/l | UJ    | c                   | ICV %D                    |                           |             |
|         |                           |                         | M-186D       | 09/13/16     |             | U          | 0.40          | 1.0  | µg/l | UJ    | c                   | ICV %D                    |                           |             |
|         |                           |                         | M-186D-FB    | 09/13/16     |             | U          | 0.40          | 1.0  | µg/l | UJ    | c                   | ICV %D                    |                           |             |
|         |                           |                         | M-186D-TB    | 09/13/16     |             | U          | 0.40          | 1.0  | µg/l | UJ    | c                   | ICV %D                    |                           |             |
|         |                           |                         | 440-158656-1 | M-145        | 09/14/16    |            | U             | 0.40 | 1.0  | µg/l  | UJ                  | c                         | ICV %D                    |             |
|         |                           |                         | M-145-TB     | 09/14/16     |             | U          | 0.40          | 1.0  | µg/l | UJ    | c                   | ICV %D                    |                           |             |
|         |                           |                         | M-191        | 09/14/16     |             | U          | 0.40          | 1.0  | µg/l | UJ    | c                   | ICV %D                    |                           |             |
|         |                           |                         | M-192        | 09/14/16     |             | U          | 0.40          | 1.0  | µg/l | UJ    | c                   | ICV %D                    |                           |             |
|         |                           |                         | PC-156A      | 09/14/16     |             | U          | 0.40          | 1.0  | µg/l | UJ    | c                   | ICV %D                    |                           |             |
|         |                           |                         | PC-156B      | 09/14/16     |             | U          | 0.40          | 1.0  | µg/l | UJ    | c                   | ICV %D                    |                           |             |
|         |                           |                         | PC-157A      | 09/14/16     |             | U          | 0.40          | 1.0  | µg/l | UJ    | c                   | ICV %D                    |                           |             |
|         |                           |                         | PC-160       | 09/14/16     |             | U          | 0.40          | 1.0  | µg/l | UJ    | c                   | ICV %D                    |                           |             |
|         | 107-06-2                  | 1,2-Dichloroethane      | 440-158214-1 | PC-151       | 09/12/16    | 0.36       | J             | 0.25 | 0.50 | µg/l  | J                   | sp                        | Detect <PQL               |             |
|         |                           |                         |              | PC-152       | 09/12/16    | 0.43       | J             | 0.25 | 0.50 | µg/l  | J                   | sp                        | Detect <PQL               |             |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 440-158214-1            | PC-151       | 09/12/16     |             | U          | 0.25          | 0.50 | µg/l | UJ    | c                   | Continuing Calibration %D |                           |             |
|         |                           |                         | PC-152       | 09/12/16     |             | U          | 0.25          | 0.50 | µg/l | UJ    | c                   | Continuing Calibration %D |                           |             |

**TABLE IV: Overall Qualified Results**  
**Nevada Environmental Response Trust Site**  
**Henderson, Nevada**

| Method       | CAS       | Analyte                   | SDG          | Sample ID    | Sample Date  | Lab Result | Lab Qualifier | SQL    | PQL    | Units       | Validator Qualifier       | Reason Code | Reason Code Definition    |             |
|--------------|-----------|---------------------------|--------------|--------------|--------------|------------|---------------|--------|--------|-------------|---------------------------|-------------|---------------------------|-------------|
| 8260         | 79-34-5   | 1,1,2,2-Tetrachloroethane | 440-158214-1 | PC-152-FB    | 09/12/16     |            | U             | 0.25   | 0.50   | µg/l        | UJ                        | c           | Continuing Calibration %D |             |
|              |           |                           |              | PC-153       | 09/12/16     |            | U             | 0.25   | 0.50   | µg/l        | UJ                        | c           | Continuing Calibration %D |             |
|              |           |                           |              | PC-153-FD    | 09/12/16     |            | U             | 0.25   | 0.50   | µg/l        | UJ                        | c           | Continuing Calibration %D |             |
|              |           |                           | 440-158404-1 | M-148A       | 09/13/16     |            | U             | 0.25   | 0.50   | µg/l        | UJ                        | c           | Continuing Calibration %D |             |
|              |           |                           |              | M-148A-EB    | 09/13/16     |            | U             | 0.25   | 0.50   | µg/l        | UJ                        | c           | Continuing Calibration %D |             |
|              |           |                           |              | M-186        | 09/13/16     |            | U             | 0.25   | 0.50   | µg/l        | UJ                        | c           | Continuing Calibration %D |             |
|              |           |                           |              | M-186D       | 09/13/16     |            | U             | 0.25   | 0.50   | µg/l        | UJ                        | c           | Continuing Calibration %D |             |
|              |           |                           |              | M-186D-FB    | 09/13/16     |            | U             | 0.25   | 0.50   | µg/l        | UJ                        | c           | Continuing Calibration %D |             |
|              | M-186D-TB | 09/13/16                  |              |              | U            | 0.25       | 0.50          | µg/l   | UJ     | c           | Continuing Calibration %D |             |                           |             |
|              | 127-18-4  | Tetrachloroethene         |              | 440-158214-1 | PC-152       | 09/12/16   | 0.27          | J      | 0.25   | 0.50        | µg/l                      | J           | sp                        | Detect <PQL |
|              |           |                           | 440-158404-1 |              | PC-154       | 09/13/16   | 0.28          | J      | 0.25   | 0.50        | µg/l                      | J           | sp                        | Detect <PQL |
|              |           |                           |              |              | 440-158656-1 | M-191      | 09/14/16      | 0.26   | J      | 0.25        | 0.50                      | µg/l        | J                         | sp          |
|              | 87-61-6   | 1,2,3-Trichlorobenzene    | 440-158214-1 | PC-151       | 09/12/16     | 0.55       | J             | 0.40   | 1.0    | µg/l        | J                         | sp          | Detect <PQL               |             |
|              |           |                           |              | PC-152       | 09/12/16     | 0.61       | J             | 0.40   | 1.0    | µg/l        | J                         | sp          | Detect <PQL               |             |
|              |           |                           | 440-158404-1 | PC-159       | 09/13/16     | 0.66       | J             | 0.40   | 1.0    | µg/l        | J+                        | c           | Continuing Calibration %D |             |
|              |           |                           |              | PC-159-FD    | 09/13/16     | 0.71       | J             | 0.40   | 1.0    | µg/l        | J+                        | c           | Continuing Calibration %D |             |
|              |           |                           | 440-158656-1 | PC-160       | 09/14/16     | 0.64       | J             | 0.40   | 1.0    | µg/l        | J                         | sp          | Detect <PQL               |             |
|              | 120-82-1  | 1,2,4-Trichlorobenzene    | 440-158404-1 | PC-159       | 09/13/16     | 0.73       | J             | 0.40   | 1.0    | µg/l        | J+                        | c           | Continuing Calibration %D |             |
|              |           |                           |              | PC-159-FD    | 09/13/16     | 0.82       | J             | 0.40   | 1.0    | µg/l        | J+                        | c           | Continuing Calibration %D |             |
|              |           |                           | 440-158656-1 | PC-156B      | 09/14/16     | 0.40       | J             | 0.40   | 1.0    | µg/l        | J                         | sp          | Detect <PQL               |             |
|              | 79-01-6   | Trichloroethene           | 440-158404-1 | PC-159       | 09/13/16     | 0.29       | J             | 0.25   | 0.50   | µg/l        | J                         | sp          | Detect <PQL               |             |
|              |           |                           |              | PC-159-FD    | 09/13/16     | 0.28       | J             | 0.25   | 0.50   | µg/l        | J                         | sp          | Detect <PQL               |             |
|              |           |                           |              | 440-158656-1 | PC-160       | 09/14/16   | 0.28          | J      | 0.25   | 0.50        | µg/l                      | J           | sp                        | Detect <PQL |
|              | 8260BSIM  | 123-91-1                  | 1,4-Dioxane  | 440-158214-1 | PC-153       | 09/12/16   | 0.60          | J      | 0.50   | 2.0         | µg/l                      | J           | sp                        | Detect <PQL |
|              |           |                           |              |              | PC-153-FD    | 09/12/16   | 0.65          | J      | 0.50   | 2.0         | µg/l                      | J           | sp                        | Detect <PQL |
|              |           |                           |              | 440-158404-1 | M-148A       | 09/13/16   | 0.75          | J      | 0.50   | 2.0         | µg/l                      | J           | sp                        | Detect <PQL |
|              |           |                           |              |              | 440-158656-1 | M-145      | 09/14/16      | 0.92   | J      | 0.50        | 2.0                       | µg/l        | J                         | sp          |
| PC-160       |           |                           |              |              |              | 09/14/16   | 0.50          | J      | 0.50   | 2.0         | µg/l                      | J           | sp                        | Detect <PQL |
| 96-18-4      |           | 1,2,3-Trichloropropane    | 440-158404-1 | M-148A       | 09/13/16     | 0.0047     | J             | 0.0025 | 0.0050 | µg/l        | J+                        | c           | ICV %D                    |             |
|              |           |                           |              | M-186        | 09/13/16     | 0.055      |               | 0.0025 | 0.0050 | µg/l        | J+                        | c           | ICV %D                    |             |
|              |           |                           |              | M-190        | 09/13/16     | 0.0071     |               | 0.0025 | 0.0050 | µg/l        | J+                        | c           | ICV %D                    |             |
|              | M-193     |                           |              | 09/13/16     | 0.010        |            | 0.0025        | 0.0050 | µg/l   | J+          | c                         | ICV %D      |                           |             |
| 440-158656-1 | M-192     | 09/14/16                  | 0.0035       | J            | 0.0025       | 0.0050     | µg/l          | J      | sp     | Detect <PQL |                           |             |                           |             |
| 9020         | TOH       | Organic Halides (total)   | 440-155320-1 | M-5A         | 08/10/16     | 4,600      | JH            | 1,500  | 6,000  | µg/l        | J-                        | h           | Hold Time                 |             |

Notes:



**TABLE IV: Overall Qualified Results**  
**Nevada Environmental Response Trust Site**  
**Henderson, Nevada**

| Method | CAS | Analyte | SDG | Sample ID | Sample Date | Lab Result | Lab Qualifier | SQL | PQL | Units | Validator Qualifier | Reason Code | Reason Code Definition |
|--------|-----|---------|-----|-----------|-------------|------------|---------------|-----|-----|-------|---------------------|-------------|------------------------|
|--------|-----|---------|-----|-----------|-------------|------------|---------------|-----|-----|-------|---------------------|-------------|------------------------|

< = Less than  
 %D = Percent Difference  
 EB = Equipment Blank  
 ICV = Initial Calibration Verification  
 ID = Identification  
 J = Estimated with undetermined bias

J+ = Estimated with a high bias  
 J- = Estimated with a low bias  
 PQL = Practical Quantitation Limit  
 %R = Percent Recovery  
 SDG = Sample Delivery Group  
 SQL = Sample Quantitation Limit  
 UJ = Estimated Non-Detect

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** NERT 2016 Q3

**LDC Report Date:** February 6, 2017

**Parameters:** Volatiles

**Validation Level:** Stage 2B & 4

**Laboratory:** TestAmerica, Inc.

**Sample Delivery Group (SDG):** 440-158214-1, 440-158404-1, 440-158656-1

| Sample Identification | Laboratory Sample Identification | Matrix | Collection Date |
|-----------------------|----------------------------------|--------|-----------------|
| M-161D-20160912-TB    | 440-158214-1                     | Water  | 09/12/16        |
| M-161D-20160912       | 440-158214-2                     | Water  | 09/12/16        |
| M-162D-20160912       | 440-158214-3                     | Water  | 09/12/16        |
| M-162D-20160912-FD    | 440-158214-4                     | Water  | 09/12/16        |
| PC-153-20160912       | 440-158214-5                     | Water  | 09/12/16        |
| PC-153-20160912-FD    | 440-158214-6                     | Water  | 09/12/16        |
| PC-152-20160912-FB    | 440-158214-7                     | Water  | 09/12/16        |
| PC-152-20160912       | 440-158214-8                     | Water  | 09/12/16        |
| PC-151-20160912       | 440-158214-9                     | Water  | 09/12/16        |
| M-186D-20160913-TB**  | 440-158404-1**                   | Water  | 09/13/16        |
| M-186D-20160913-FB**  | 440-158404-2**                   | Water  | 09/13/16        |
| M-186D-20160913**     | 440-158404-3**                   | Water  | 09/13/16        |
| M-186-20160913**      | 440-158404-4**                   | Water  | 09/13/16        |
| M-148A-20160913-EB**  | 440-158404-5**                   | Water  | 09/13/16        |
| M-148A-20160913**     | 440-158404-6**                   | Water  | 09/13/16        |
| M-190-20160913**      | 440-158404-7**                   | Water  | 09/13/16        |
| M-193-20160913**      | 440-158404-8**                   | Water  | 09/13/16        |
| PC-154-20160913-TB**  | 440-158404-9**                   | Water  | 09/13/16        |
| PC-154-20160913**     | 440-158404-10**                  | Water  | 09/13/16        |
| PC-158-20160913**     | 440-158404-11**                  | Water  | 09/13/16        |
| PC-159-20160913**     | 440-158404-12**                  | Water  | 09/13/16        |
| PC-159-20160913-FD**  | 440-158404-13**                  | Water  | 09/13/16        |
| PC-137D-20160913-EB** | 440-158404-14**                  | Water  | 09/13/16        |
| PC-137D-20160913**    | 440-158404-15**                  | Water  | 09/13/16        |
| PC-134D-20160913**    | 440-158404-16**                  | Water  | 09/13/16        |
| M-186D-20160913MS     | 440-158404-3MS                   | Water  | 09/13/16        |

| <b>Sample Identification</b> | <b>Laboratory Sample Identification</b> | <b>Matrix</b> | <b>Collection Date</b> |
|------------------------------|---|---------------|------------------------|
| M-186D-20160913MSD           | 440-158404-3MSD                         | Water         | 09/13/16               |
| M-145-20160914-TB            | 440-158656-1                            | Water         | 09/14/16               |
| M-145-20160914               | 440-158656-2                            | Water         | 09/14/16               |
| M-191-20160914               | 440-158656-3                            | Water         | 09/14/16               |
| M-192-20160914               | 440-158656-4                            | Water         | 09/14/16               |
| PC-157A-20160914             | 440-158656-5                            | Water         | 09/14/16               |
| PC-160-20160914              | 440-158656-6                            | Water         | 09/14/16               |
| PC-156A-20160914             | 440-158656-7                            | Water         | 09/14/16               |
| PC-156B-20160914             | 440-158656-8                            | Water         | 09/14/16               |
| PC-155A-20160914             | 440-158656-9                            | Water         | 09/14/16               |
| PC-155B-20160914             | 440-158656-10                           | Water         | 09/14/16               |
| PC-157B-20160914             | 440-158656-11                           | Water         | 09/14/16               |
| PC-160-20160914-TB           | 440-158656-12                           | Water         | 09/14/16               |
| M-145-20160914MS             | 440-158656-2MS                          | Water         | 09/14/16               |
| M-145-20160914MSD            | 440-158656-2MSD                         | Water         | 09/14/16               |

\*\*Indicates sample underwent Stage 4 validation

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Quality Assurance Project Plan Revision 1, Nevada Environmental Response Trust (NERT) Site, Henderson, Nevada (July 2014) and a modified outline of the USEPA National Functional Guidelines (NFG) for Superfund Organic Methods Data Review (August 2014). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) SW 846 Method 8260B

All sample results were subjected to Stage 2B data validation, which comprises an evaluation of quality control (QC) summary results. Samples appended with a double asterisk on the cover page were subjected to Stage 4 data validation, which is comprised of the QC summary forms as well as the raw data, to confirm sample quantitation and identification.

The following are definitions of the data qualifiers utilized during data validation:

- J+ (Estimated, High Bias): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated, displaying high bias, due to non-conformances discovered during data validation.
- J- (Estimated, Low Bias): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated, displaying low bias, due to non-conformances discovered during data validation.
- J (Estimated, Bias Indeterminate): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated due to non-conformances discovered during data validation. Bias is indeterminate.
- U (Non-detected): The compound or analyte was analyzed for and positively identified by the laboratory; however the compound or analyte should be considered non-detected at the reported concentration due to the presence of contaminants detected in the associated blank(s).
- UJ (Non-detected estimated): The compound or analyte was reported as not detected by the laboratory; however the reported quantitation/detection limit is estimated due to non-conformances discovered during data validation.
- DNR (Do Not Report): A more appropriate result is reported from another analysis or dilution.
- R (Rejected): The sample results were rejected due to gross non-conformances discovered during data validation. Data qualified as rejected is not usable.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## Qualification Codes and Definitions

|    |   |
|----|---|
| a  | Qualified due to low abundance (radiochemical activity)   |
| be | Qualified due to equipment blank contamination  |
| bf | Qualified due to field blank contamination  |
| bl | Qualified due to lab blank contamination  |
| bt | Qualified due to trip blank contamination   |
| bp | Qualified due to pump blank contamination (wells without dedicated pumps, when contamination is detected in the pump blank) |
| br | Qualified due to filter blank contamination (aqueous Hexavalent Chromium and Dissolved sample fractions)                    |
| c  | Qualified due to calibration problems   |
| cp | Qualified due to insufficient ingrowth (Radiochemical only)   |
| dc | Duel column confirmation %D exceeded  |
| e  | Concentration exceeded the calibration range  |
| fd | Qualified due to field duplicate imprecision  |
| h  | Qualified due to holding time exceedance  |
| i  | Qualified due to internal standard areas  |
| k  | Qualified as Estimated Maximum Possible Concentrations (dioxins and PCB congeners)  |
| l  | Qualified due to LCS recoveries   |
| ld | Qualified due to lab duplicate imprecision (matrix duplicate, MSD, LCSD)  |
| m  | Qualified due to matrix spike recoveries  |
| nb | Qualified due to negative lab blank contamination (nondetect results only)  |
| nd | Qualified due to non-detected target analyte  |
| o  | Other   |
| p  | Qualified as a false positive due to contamination during shipping  |
| pH | Sample preservation not within acceptance range   |
| q  | Qualified due to quantitation problems  |
| s  | Qualified due to surrogate recoveries   |
| sd | Serial dilution did not meet control criteria   |
| sp | Detected value reported >SQL <PQL   |
| st | Sample receipt temperature exceeded   |
| t  | Qualified due to elevated helium tracer concentrations  |
| vh | Volatile headspace detected in aqueous sample containers submitted for VOC analysis   |
| x  | Qualified due to low % solids   |
| z  | Qualified due to ICS results  |

## I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## II. GC/MS Instrument Performance Check

A bromofluorobenzene (BFB) tune was performed at 12 hour intervals.

All ion abundance requirements were met.

## III. Initial Calibration and Initial Calibration Verification

An initial calibration was performed as required by the method.

For compounds where average relative response factors (RRFs) were utilized, percent relative standard deviations (%RSD) were less than or equal to 15.0% for each individual compound and less than or equal to 30.0% for calibration check compounds (CCCs).

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination ( $r^2$ ) were greater than or equal to 0.990.

Average relative response factors (RRF) for all compounds were within validation criteria.

The percent differences (%D) of the initial calibration verification (ICV) standard were less than or equal to 20.0% for all compounds with the following exceptions:

| SDG                          | Date     | Compound                | %D   | Associated Samples  | Flag                 | A or P |
|------------------------------|----------|-------------------------|------|---|----------------------|--------|
| 440-158214-1<br>440-158404-1 | 08/27/16 | Dichlorodifluoromethane | 23.7 | M-161D-20160912-TB<br>M-161D-20160912<br>M-162D-20160912<br>M-162D-20160912-FD<br>PC-153-20160912<br>PC-153-20160912-FD<br>PC-152-20160912-FB<br>PC-152-20160912<br>PC-151-20160912<br>M-186D-20160913-TB**<br>M-186D-20160913-FB**<br>M-186D-20160913**<br>M-186-20160913**<br>M-148A-20160913-EB**<br>M-148A-20160913** | UJ (all non-detects) | A      |

| SDG          | Date     | Compound                | %D | Associated Samples   | Flag                 | A or P |
|--------------|----------|-------------------------|----|--|----------------------|--------|
| 440-158656-1 | 09/13/16 | Dichlorodifluoromethane | 24 | M-145-20160914-TB<br>M-145-20160914<br>M-191-20160914<br>M-192-20160914<br>PC-157A-20160914<br>PC-160-20160914<br>PC-156A-20160914<br>PC-156B-20160914 | UJ (all non-detects) | A      |

#### IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) were less than or equal to 20.0% for all compounds with the following exceptions:

| SDG          | Date                | Compound   | %D                   | Associated Samples   | Flag                                 | A or P |
|--------------|---------------------|--|----------------------|--|--------------------------------------|--------|
| 440-158214-1 | 09/16/16<br>(07:19) | Dichlorodifluoromethane<br>Trichlorofluoromethane                        | 30.9<br>27.2         | M-161D-20160912-TB<br>M-161D-20160912<br>M-162D-20160912<br>M-162D-20160912-FD   | NA                                   | -      |
| 440-158214-1 | 09/16/16<br>(19:17) | Dichlorodifluoromethane<br>Trichlorofluoromethane<br>2,2-Dichloropropane | 29.1<br>25.0<br>21.3 | PC-153-20160912<br>PC-153-20160912-FD<br>PC-152-20160912-FB  | NA                                   | -      |
| 440-158214-1 | 09/16/16<br>(19:17) | 1,1,2,2-Tetrachloroethane  | 21.8                 | PC-153-20160912<br>PC-153-20160912-FD<br>PC-152-20160912-FB  | UJ (all non-detects)                 | A      |
| 440-158214-1 | 09/17/16<br>(10:02) | Dichlorodifluoromethane<br>Trichlorofluoromethane                        | 29.5<br>29.9         | PC-152-20160912<br>PC-151-20160912   | NA                                   | -      |
| 440-158214-1 | 09/17/16<br>(10:02) | 1,1,2,2-Tetrachloroethane  | 24.5                 | PC-152-20160912<br>PC-151-20160912   | UJ (all non-detects)                 | A      |
| 440-158404-1 | 09/19/16<br>(17:09) | 2,2-Dichloropropane<br>Hexachlorobutadiene                               | 25.1<br>24.0         | M-190-20160913**<br>M-193-20160913**<br>PC-154-20160913-TB**<br>PC-154-20160913**<br>PC-158-20160913**<br>PC-159-20160913**<br>PC-159-20160913-FD**<br>PC-137D-20160913-EB**<br>PC-137D-20160913**<br>PC-134D-20160913** | NA                                   | -      |
| 440-158404-1 | 09/19/16<br>(17:09) | 1,2,4-Trichlorobenzene<br>1,2,3-Trichlorobenzene                         | 26.6<br>26.5         | PC-159-20160913**<br>PC-159-20160913-FD**  | J+ (all detects)<br>J+ (all detects) | A      |



| SDG          | Date                | Compound  | %D                   | Associated Samples  | Flag                 | A or P |
|--------------|---------------------|---|----------------------|---|----------------------|--------|
| 440-158404-1 | 09/19/16<br>(17:09) | 1,2,4-Trichlorobenzene<br>1,2,3-Trichlorobenzene                | 26.6<br>26.5         | M-190-20160913**<br>M-193-20160913**<br>PC-154-20160913-TB**<br>PC-154-20160913**<br>PC-158-20160913**<br>PC-137D-20160913-EB**<br>PC-137D-20160913**<br>PC-134D-20160913** | NA                   | -      |
| 440-158404-1 | 09/19/16<br>(07:36) | Dichlorodifluoromethane<br>Trichlorofluoromethane               | 25.0<br>25.7         | M-186D-20160913-TB**<br>M-186D-20160913-FB**<br>M-186D-20160913**<br>M-186-20160913**<br>M-148A-20160913-EB**<br>M-148A-20160913**  | NA                   | -      |
| 440-158404-1 | 09/19/16<br>(07:36) | 1,1,2,2-Tetrachloroethane                                       | 23.8                 | M-186D-20160913-TB**<br>M-186D-20160913-FB**<br>M-186D-20160913**<br>M-186-20160913**<br>M-148A-20160913-EB**<br>M-148A-20160913**  | UJ (all non-detects) | A      |
| 440-158656-1 | 09/20/16<br>(18:18) | Chloromethane   | 22.8                 | PC-155A-20160914<br>PC-155B-20160914<br>PC-157B-20160914<br>PC-160-20160914-TB  | UJ (all non-detects) | A      |
| 440-158656-1 | 09/20/16<br>(18:18) | 1,2,4-Trichlorobenzene<br>Naphthalene<br>1,2,3-Trichlorobenzene | 24.3<br>22.8<br>27.9 | PC-155A-20160914<br>PC-155B-20160914<br>PC-157B-20160914<br>PC-160-20160914-TB  | NA                   | -      |

All of the continuing calibration relative response factors (RRF) were within validation criteria.

## V. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks with the following exceptions:

| SDG          | Blank ID      | Analysis Date | Compound               | Concentration | Associated Samples   |
|--------------|---------------|---------------|------------------------|---------------|--|
| 440-158214-1 | MB 440-356196 | 09/16/16      | Chloroform             | 0.381 ng/L    | PC-153-20160912<br>PC-153-20160912-FD<br>PC-152-20160912-FB  |
| 440-158404-1 | MB 440-356411 | 09/19/16      | 1,2,4-Trimethylbenzene | 0.286 ug/L    | M-186D-20160913-TB**<br>M-186D-20160913-FB**<br>M-186D-20160913**<br>M-186-20160913**<br>M-148A-20160913-EB**<br>M-148A-20160913** |

Sample concentrations were compared to concentrations detected in the laboratory blanks. The sample concentrations were either not detected or were significantly greater than the concentrations found in the associated laboratory blanks.

## **VI. Field Blanks**

Samples M-161D-20160912-TB (from SDG 440-158214-1), M-186D-20160913-TB\*\* (from SDG 440-158404-1), PC-154-20160913-TB\*\* (from SDG 440-158404-1), M-145-20160914-TB, (from SDG 440-158656-1), and PC-160-20160914-TB (from SDG 440-158656-1) were identified as trip blanks. No contaminants were found.

Samples M-148A-20160913-EB\*\* and PC-137D-20160913-EB\*\* (both from SDG 440-158404-1) were identified as equipment blanks. No contaminants were found.

Samples PC-152-20160912-FB (from SDG 440-158214-1), M-186D-20160913-FB\*\* (from SDG 440-158404-1) were identified as field blanks. No contaminants were found.

## **VII. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VIII. Matrix Spike/Matrix Spike Duplicates**

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **IX. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **X. Field Duplicates**

Samples M-162D-20160912 and M-162D-20160912-FD (from SDG 440-158214-1), samples PC-153-20160912 and PC-153-20160912-FD (from SDG 440-158214-1), and samples PC-159-20160913\*\* and PC-159-20160913-FD\*\* (from SDG 440-158404-1) were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

| SDG          | Compound               | Concentration (ug/L) |                    | RPD (Limits) | Flag            | A or P |
|--------------|------------------------|----------------------|--------------------|--------------|-----------------|--------|
|              |                        | PC-153-20160912      | PC-153-20160912-FD |              |                 |        |
| 440-158214-1 | Chlorobenzene          | 0.46                 | 0.52               | 12 (≤30)     | -               | -      |
|              | 1,2-Dichlorobenzene    | 7.1                  | 7.4                | 4 (≤30)      | -               | -      |
|              | 1,3-Dichlorobenzene    | 0.79                 | 1.5                | 62 (≤30)     | J (all detects) | A      |
|              | 1,4-Dichlorobenzene    | 9.5                  | 10                 | 5 (≤30)      | -               | -      |
|              | 1,1-Dichloroethane     | 1.2                  | 1.3                | 8 (≤30)      | -               | -      |
|              | 1,2,4-Trichlorobenzene | 6.4                  | 7.6                | 17 (≤30)     | -               | -      |
|              | Trichloroethene        | 0.91                 | 0.95               | 4 (≤30)      | -               | -      |

| SDG          | Compound               | Concentration (ug/L) |                      | RPD (Limits) | Flag | A or P |
|--------------|------------------------|----------------------|----------------------|--------------|------|--------|
|              |                        | PC-159-20160913**    | PC-159-20160913-FD** |              |      |        |
| 440-158404-1 | Chloroform             | 0.89                 | 0.86                 | 3 (≤30)      | -    | -      |
|              | 1,2-Dichlorobenzene    | 0.57                 | 0.57                 | 0 (≤30)      | -    | -      |
|              | 1,3-Dichlorobenzene    | 0.28                 | 0.29                 | 4 (≤30)      | -    | -      |
|              | 1,4-Dichlorobenzene    | 0.62                 | 0.62                 | 0 (≤30)      | -    | -      |
|              | 1,1-Dichloroethane     | 1.8                  | 1.7                  | 6 (≤30)      | -    | -      |
|              | 1,2,3-Trichlorobenzene | 0.66                 | 0.71                 | 7 (≤30)      | -    | -      |
|              | 1,2,4-Trichlorobenzene | 0.73                 | 0.82                 | 12 (≤30)     | -    | -      |
|              | Trichloroethene        | 0.29                 | 0.28                 | 4 (≤30)      | -    | -      |

## XI. Internal Standards

All internal standard areas and retention times were within QC limits.

## XII. Compound Quantitation

All compound quantitations met validation criteria for samples which underwent Stage 4 validation. Raw data were not reviewed for Stage 2B validation.

### **XIII. Target Compound Identifications**

All target compound identifications met validation criteria for samples which underwent Stage 4 validation. Raw data were not reviewed for Stage 2B validation.

### **XIV. System Performance**

The system performance was acceptable for samples which underwent Stage 4 validation. Raw data were not reviewed for Stage 2B validation.

### **XV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in these SDGs.

Due to ICV and continuing calibration %D and field duplicate RPD, data were qualified as estimated in twenty-nine samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the data validation all other results are considered valid and usable for all purposes.

**NERT 2016 Q3**

**Volatiles - Data Qualification Summary - SDG 440-158214-1, 440-158404-1, 440-158656-1**

| SDG  | Sample  | Compound   | Flag                                 | A or P | Reason (Code)                             |
|--|---|--|--------------------------------------|--------|---|
| 440-158214-1<br>440-158404-1<br>440-158656-1 | M-161D-20160912-TB<br>M-161D-20160912<br>M-162D-20160912<br>M-162D-20160912-FD<br>PC-153-20160912<br>PC-153-20160912-FD<br>PC-152-20160912-FB<br>PC-152-20160912<br>PC-151-20160912<br>M-186D-20160913-TB**<br>M-186D-20160913-FB**<br>M-186D-20160913**<br>M-186-20160913**<br>M-148A-20160913-EB**<br>M-148A-20160913**<br>M-145-20160914-TB<br>M-145-20160914<br>M-191-20160914<br>M-192-20160914<br>PC-157A-20160914<br>PC-160-20160914<br>PC-156A-20160914<br>PC-156B-20160914 | Dichlorodifluoromethane                          | UJ (all non-detects)                 | A      | Initial calibration verification (%D) (c) |
| 440-158214-1<br>440-158404-1                 | PC-153-20160912<br>PC-153-20160912-FD<br>PC-152-20160912-FB<br>PC-152-20160912<br>PC-151-20160912<br>M-186D-20160913-TB**<br>M-186D-20160913-FB**<br>M-186D-20160913**<br>M-186-20160913**<br>M-148A-20160913-EB**<br>M-148A-20160913**   | 1,1,2,2-Tetrachloroethane                        | UJ (all non-detects)                 | A      | Continuing calibration (%D) (c)           |
| 440-158404-1                                 | PC-159-20160913**<br>PC-159-20160913-FD**   | 1,2,4-Trichlorobenzene<br>1,2,3-Trichlorobenzene | J+ (all detects)<br>J+ (all detects) | A      | Continuing calibration (%D) (c)           |
| 440-158656-1                                 | PC-155A-20160914<br>PC-155B-20160914<br>PC-157B-20160914<br>PC-160-20160914-TB  | Chloromethane                                    | UJ (all non-detects)                 | A      | Continuing calibration (%D) (c)           |
| 440-158214-1                                 | PC-153-20160912<br>PC-153-20160912-FD   | 1,3-Dichlorobenzene                              | J (all detects)                      | A      | Field duplicates (RPD) (fd)               |

**NERT 2016 Q3**

**Volatiles - Laboratory Blank Data Qualification Summary - SDG 440-158214-1, 440-158404-1, 440-158656-1**

No Sample Data Qualified in these SDGs

**NERT 2016 Q3  
Volatiles - Field Blank Data Qualification Summary - SDG 440-158214-1, 440-158404-1, 440-158656-1**

No Sample Data Qualified in these SDGs

**ATTACHMENT B**  
**1,4-DIOXANE AND 1,2,3-TRICHLOROPROPANE**  
**DATA VALIDATION REPORT**

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** NERT 2016 Q3

**LDC Report Date:** February 6, 2017

**Parameters:** 1,4-Dioxane & 1,2,3-Trichloropropane

**Validation Level:** Stage 2B & 4

**Laboratory:** TestAmerica, Inc.

**Sample Delivery Group (SDG):** 440-158214-1, 440-158404-1, 440-158656-1

| Sample Identification | Laboratory Sample Identification | Matrix | Collection Date |
|-----------------------|----------------------------------|--------|-----------------|
| M-161D-20160912-TB    | 440-158214-1                     | Water  | 09/12/16        |
| M-161D-20160912       | 440-158214-2                     | Water  | 09/12/16        |
| M-162D-20160912       | 440-158214-3                     | Water  | 09/12/16        |
| M-162D-20160912-FD    | 440-158214-4                     | Water  | 09/12/16        |
| PC-153-20160912       | 440-158214-5                     | Water  | 09/12/16        |
| PC-153-20160912-FD    | 440-158214-6                     | Water  | 09/12/16        |
| PC-152-20160912-FB    | 440-158214-7                     | Water  | 09/12/16        |
| PC-152-20160912       | 440-158214-8                     | Water  | 09/12/16        |
| PC-151-20160912       | 440-158214-9                     | Water  | 09/12/16        |
| M-186D-20160913-TB**  | 440-158404-1**                   | Water  | 09/13/16        |
| M-186D-20160913-FB**  | 440-158404-2**                   | Water  | 09/13/16        |
| M-186D-20160913**     | 440-158404-3**                   | Water  | 09/13/16        |
| M-186-20160913**      | 440-158404-4**                   | Water  | 09/13/16        |
| M-148A-20160913-EB**  | 440-158404-5**                   | Water  | 09/13/16        |
| M-148A-20160913**     | 440-158404-6**                   | Water  | 09/13/16        |
| M-190-20160913**      | 440-158404-7**                   | Water  | 09/13/16        |
| M-193-20160913**      | 440-158404-8**                   | Water  | 09/13/16        |
| PC-154-20160913-TB**  | 440-158404-9**                   | Water  | 09/13/16        |
| PC-154-20160913**     | 440-158404-10**                  | Water  | 09/13/16        |
| PC-158-20160913**     | 440-158404-11**                  | Water  | 09/13/16        |
| PC-159-20160913**     | 440-158404-12**                  | Water  | 09/13/16        |
| PC-159-20160913-FD**  | 440-158404-13**                  | Water  | 09/13/16        |
| PC-137D-20160913-EB** | 440-158404-14**                  | Water  | 09/13/16        |
| PC-137D-20160913**    | 440-158404-15**                  | Water  | 09/13/16        |
| PC-134D-20160913**    | 440-158404-16**                  | Water  | 09/13/16        |
| M-186D-20160913MS     | 440-158404-3MS                   | Water  | 09/13/16        |



| <b>Sample Identification</b> | <b>Laboratory Sample Identification</b> | <b>Matrix</b> | <b>Collection Date</b> |
|------------------------------|---|---------------|------------------------|
| M-186D-20160913MSD           | 440-158404-3MSD                         | Water         | 09/13/16               |
| M-145-20160914-TB            | 440-158656-1                            | Water         | 09/14/16               |
| M-145-20160914               | 440-158656-2                            | Water         | 09/14/16               |
| M-191-20160914               | 440-158656-3                            | Water         | 09/14/16               |
| M-192-20160914               | 440-158656-4                            | Water         | 09/14/16               |
| PC-157A-20160914             | 440-158656-5                            | Water         | 09/14/16               |
| PC-160-20160914              | 440-158656-6                            | Water         | 09/14/16               |
| PC-156A-20160914             | 440-158656-7                            | Water         | 09/14/16               |
| PC-156B-20160914             | 440-158656-8                            | Water         | 09/14/16               |
| PC-155A-20160914             | 440-158656-9                            | Water         | 09/14/16               |
| PC-155B-20160914             | 440-158656-10                           | Water         | 09/14/16               |
| PC-157B-20160914             | 440-158656-11                           | Water         | 09/14/16               |
| PC-160-20160914-TB           | 440-158656-12                           | Water         | 09/14/16               |
| M-145-20160914MS             | 440-158656-2MS                          | Water         | 09/14/16               |
| M-145-20160914MSD            | 440-158656-2MSD                         | Water         | 09/14/16               |
| PC-155B-20160914MS           | 440-158656-10MS                         | Water         | 09/14/16               |
| PC-155B-20160914MSD          | 440-158656-10MSD                        | Water         | 09/14/16               |

\*\*Indicates sample underwent Stage 4 validation

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Quality Assurance Project Plan Revision 1, Nevada Environmental Response Trust (NERT) Site, Henderson, Nevada (July 2014) and a modified outline of the USEPA National Functional Guidelines (NFG) for Superfund Organic Methods Data Review (August 2014). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

1,4-Dioxane and 1,2,3-Trichloropropane by Environmental Protection Agency (EPA) SW 846 Method 8260B in Selected Ion Monitoring (SIM) mode

All sample results were subjected to Stage 2B data validation, which comprises an evaluation of quality control (QC) summary results. Samples appended with a double asterisk on the cover page were subjected to Stage 4 data validation, which is comprised of the QC summary forms as well as the raw data, to confirm sample quantitation and identification.

The following are definitions of the data qualifiers utilized during data validation:

- J+ (Estimated, High Bias): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated, displaying high bias, due to non-conformances discovered during data validation.
- J- (Estimated, Low Bias): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated, displaying low bias, due to non-conformances discovered during data validation.
- J (Estimated, Bias Indeterminate): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated due to non-conformances discovered during data validation. Bias is indeterminate.
- U (Non-detected): The compound or analyte was analyzed for and positively identified by the laboratory; however the compound or analyte should be considered non-detected at the reported concentration due to the presence of contaminants detected in the associated blank(s).
- UJ (Non-detected estimated): The compound or analyte was reported as not detected by the laboratory; however the reported quantitation/detection limit is estimated due to non-conformances discovered during data validation.
- DNR (Do Not Report): A more appropriate result is reported from another analysis or dilution.
- R (Rejected): The sample results were rejected due to gross non-conformances discovered during data validation. Data qualified as rejected is not usable.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## Qualification Codes and Definitions

|    |   |
|----|---|
| a  | Qualified due to low abundance (radiochemical activity)   |
| be | Qualified due to equipment blank contamination  |
| bf | Qualified due to field blank contamination  |
| bl | Qualified due to lab blank contamination  |
| bt | Qualified due to trip blank contamination   |
| bp | Qualified due to pump blank contamination (wells without dedicated pumps, when contamination is detected in the pump blank) |
| br | Qualified due to filter blank contamination (aqueous Hexavalent Chromium and Dissolved sample fractions)                    |
| c  | Qualified due to calibration problems   |
| cp | Qualified due to insufficient ingrowth (Radiochemical only)   |
| dc | Duel column confirmation %D exceeded  |
| e  | Concentration exceeded the calibration range  |
| fd | Qualified due to field duplicate imprecision  |
| h  | Qualified due to holding time exceedance  |
| i  | Qualified due to internal standard areas  |
| k  | Qualified as Estimated Maximum Possible Concentrations (dioxins and PCB congeners)  |
| l  | Qualified due to LCS recoveries   |
| ld | Qualified due to lab duplicate imprecision (matrix duplicate, MSD, LCSD)  |
| m  | Qualified due to matrix spike recoveries  |
| nb | Qualified due to negative lab blank contamination (nondetect results only)  |
| nd | Qualified due to non-detected target analyte  |
| o  | Other   |
| p  | Qualified as a false positive due to contamination during shipping  |
| pH | Sample preservation not within acceptance range   |
| q  | Qualified due to quantitation problems  |
| s  | Qualified due to surrogate recoveries   |
| sd | Serial dilution did not meet control criteria   |
| sp | Detected value reported >SQL <PQL   |
| st | Sample receipt temperature exceeded   |
| t  | Qualified due to elevated helium tracer concentrations  |
| vh | Volatile headspace detected in aqueous sample containers submitted for VOC analysis   |
| x  | Qualified due to low % solids   |
| z  | Qualified due to ICS results  |

## I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## II. GC/MS Instrument Performance Check

A bromofluorobenzene (BFB) tune was performed at 12 hour intervals.

All ion abundance requirements were met.

## III. Initial Calibration and Initial Calibration Verification

An initial calibration was performed as required by the method.

For compounds where average relative response factors (RRFs) were utilized, the percent relative standard deviations (%RSD) were less than or equal to 15.0%.

Average relative response factors (RRF) for all compounds were within validation criteria.

The percent differences (%D) of the initial calibration verification (ICV) standard were less than or equal to 20.0% for all compounds with the following exceptions:

| SDG          | Date                | Compound               | %D   | Associated Samples  | Flag             | A or P |
|--------------|---------------------|------------------------|------|---|------------------|--------|
| 440-158404-1 | 04/27/16<br>(04:19) | 1,2,3-Trichloropropane | 28.4 | M-186-20160913**<br>M-148A-20160913**<br>M-190-20160913**<br>M-193-20160913** | J+ (all detects) | A      |

| SDG  | Date                | Compound               | %D   | Associated Samples  | Flag | A or P |
|--|---------------------|------------------------|------|---|------|--------|
| 440-158214-1<br>440-158404-1<br>440-158656-1 | 04/27/16<br>(04:19) | 1,2,3-Trichloropropane | 28.4 | M-161D-20160912-TB<br>M-161D-20160912<br>M-162D-20160912<br>M-162D-20160912-FD<br>PC-153-20160912<br>PC-153-20160912-FD<br>PC-152-20160912-FB<br>PC-152-20160912<br>PC-151-20160912<br>M-186D-20160913-TB**<br>M-186D-20160913-FB**<br>M-186D-20160913**<br>M-148A-20160913-EB**<br>PC-154-20160913-TB**<br>PC-154-20160913**<br>PC-158-20160913**<br>PC-159-20160913**<br>PC-159-20160913-FD**<br>PC-137D-20160913-EB**<br>PC-137D-20160913**<br>PC-134D-20160913**<br>M-145-20160914-TB<br>M-145-20160914<br>M-191-20160914 | NA   | -      |

#### IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) were less than or equal to 20.0% for all compounds.

All of the continuing calibration relative response factors (RRF) were within validation criteria.

#### V. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

#### VI. Field Blanks

Samples M-161D-20160912-TB (from SDG 440-158214-1), M-186D-20160913-TB\*\* (from SDG 440-158404-1), PC-154-20160913-TB\*\* (from SDG 440-158404-1), M-145-20160914-TB, (from SDG 440-158656-1), and PC-160-20160914-TB (from SDG 440-158656-1) were identified as trip blanks. No contaminants were found.

Samples M-148A-20160913-EB\*\* and PC-137D-20160913-EB\*\* (both from SDG 440-158404-1) were identified as equipment blanks. No contaminants were found.

Samples PC-152-20160912-FB (from SDG 440-158214-1), M-186D-20160913-FB\*\* (from SDG 440-158404-1) were identified as field blanks. No contaminants were found.

## VII. Surrogates

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits with the following exceptions:

| SDG          | Sample         | Surrogate            | %R (Limits)  | Affected Compound | Flag | A or P |
|--------------|----------------|----------------------|--------------|-------------------|------|--------|
| 440-158656-1 | M-191-20160914 | Dibromofluoromethane | 121 (80-120) | All compounds     | NA   | -      |

## VIII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## IX. Laboratory Control Samples

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## X. Field Duplicates

Samples M-162D-20160912 and M-162D-20160912-FD (from SDG 440-158214-1), samples PC-153-20160912 and PC-153-20160912-FD (from SDG 440-158214-1), and samples PC-159-20160913\*\* and PC-159-20160913-FD\*\* (from SDG 440-158404-1) were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

| SDG          | Compound    | Concentration (ug/L) |                    | RPD (Limits) | Flag | A or P |
|--------------|-------------|----------------------|--------------------|--------------|------|--------|
|              |             | PC-153-20160912      | PC-153-20160912-FD |              |      |        |
| 440-158214-1 | 1,4-Dioxane | 0.60                 | 0.65               | 8 (≤30)      | -    | -      |

## XI. Internal Standards

All internal standard areas and retention times were within QC limits.

## XII. Compound Quantitation

All compound quantitations met validation criteria for samples which underwent Stage 4 validation. Raw data were not reviewed for Stage 2B validation.

## XIII. Target Compound Identifications

All target compound identifications met validation criteria for samples which underwent Stage 4 validation. Raw data were not reviewed for Stage 2B validation.

#### **XIV. System Performance**

The system performance was acceptable for samples which underwent Stage 4 validation. Raw data were not reviewed for Stage 2B validation.

#### **XV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in these SDGs.

Due to ICV %D, data were qualified as estimated in four samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the data validation all other results are considered valid and usable for all purposes.



**NERT 2016 Q3**

**1,4-Dioxane & 1,2,3-Trichloropropane - Data Qualification Summary - SDG 440-158214-1, 440-158404-1, 440-158656-1**

| SDG          | Sample  | Compound               | Flag             | A or P | Reason (Code)                             |
|--------------|---|------------------------|------------------|--------|---|
| 440-158404-1 | M-186-20160913**<br>M-148A-20160913**<br>M-190-20160913**<br>M-193-20160913** | 1,2,3-Trichloropropane | J+ (all detects) | A      | Initial calibration verification (%D) (c) |

**NERT 2016 Q3**

**1,4-Dioxane & 1,2,3-Trichloropropane - Laboratory Blank Data Qualification Summary - SDG 440-158214-1, 440-158404-1, 440-158656-1**

No Sample Data Qualified in these SDGs

**NERT 2016 Q3**

**1,4-Dioxane & 1,2,3-Trichloropropane - Field Blank Data Qualification Summary - SDG 440-158214-1, 440-158404-1, 440-158656-1**

No Sample Data Qualified in these SDGs

**ATTACHMENT C**  
**METALS DATA VALIDATION REPORT**

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** NERT 2016 Q3

**LDC Report Date:** March 2, 2017

**Parameters:** Metals

**Validation Level:** Stage 2B & 4

**Laboratory:** TestAmerica, Inc.

**Sample Delivery Group (SDG):** 440-151677-1, 440-152035-1, 440-152574-1,  
440-153241-1, 440-154229-1, 440-154471-1,  
440-154485-1, 440-154590-1, 440-154938-1,  
440-155035-1, 440-155148-1, 440-155316-1,  
440-155320-1, 440-155490-1, 440-155494-1,  
440-156317-1, 440-157616-1, 440-157843-1,  
440-158214-1, 440-158404-1, 440-158406-1,  
440-158607-1, 440-158656-1

| Sample Identification | Laboratory Sample Identification | Matrix | Collection Date |
|-----------------------|----------------------------------|--------|-----------------|
| ART-2                 | 440-151677-1                     | Water  | 07/05/16        |
| PC-150                | 440-151677-2                     | Water  | 07/05/16        |
| ART-8A                | 440-151677-3                     | Water  | 07/05/16        |
| ART-7B                | 440-151677-4                     | Water  | 07/05/16        |
| ART-1A                | 440-151677-5                     | Water  | 07/05/16        |
| ART-3A                | 440-151677-6                     | Water  | 07/05/16        |
| ART-9                 | 440-151677-7                     | Water  | 07/05/16        |
| ART-4                 | 440-151677-8                     | Water  | 07/05/16        |
| PC-99R2/R3            | 440-151677-9                     | Water  | 07/05/16        |
| PC-115R               | 440-151677-10                    | Water  | 07/05/16        |
| PC-116R               | 440-151677-11                    | Water  | 07/05/16        |
| PC-118                | 440-151677-12                    | Water  | 07/05/16        |
| PC-119                | 440-151677-13                    | Water  | 07/05/16        |
| PC-117                | 440-151677-14                    | Water  | 07/05/16        |
| PC-133                | 440-151677-15                    | Water  | 07/05/16        |
| PC-121                | 440-151677-16                    | Water  | 07/05/16        |
| PC-120                | 440-151677-17                    | Water  | 07/05/16        |
| ART-4MS               | 440-151677-8MS                   | Water  | 07/05/16        |
| ART-4MSD              | 440-151677-8MSD                  | Water  | 07/05/16        |
| I-O                   | 440-152035-1                     | Water  | 07/06/16        |

| <b>Sample Identification</b> | <b>Laboratory Sample Identification</b> | <b>Matrix</b> | <b>Collection Date</b> |
|------------------------------|---|---------------|------------------------|
| I-W                          | 440-152035-2                            | Water         | 07/06/16               |
| I-P                          | 440-152035-3                            | Water         | 07/06/16               |
| I-H                          | 440-152035-4                            | Water         | 07/06/16               |
| I-U                          | 440-152035-5                            | Water         | 07/06/16               |
| I-T                          | 440-152035-6                            | Water         | 07/06/16               |
| I-Q                          | 440-152035-7                            | Water         | 07/06/16               |
| I-F                          | 440-152035-8                            | Water         | 07/06/16               |
| I-C                          | 440-152035-9                            | Water         | 07/06/16               |
| I-S                          | 440-152035-10                           | Water         | 07/06/16               |
| I-L                          | 440-152035-11                           | Water         | 07/06/16               |
| I-Y                          | 440-152035-12                           | Water         | 07/06/16               |
| I-R                          | 440-152035-13                           | Water         | 07/06/16               |
| I-B                          | 440-152035-14                           | Water         | 07/06/16               |
| I-AA                         | 440-152035-15                           | Water         | 07/06/16               |
| I-AR                         | 440-152035-16                           | Water         | 07/06/16               |
| I-HMS                        | 440-152035-4MS                          | Water         | 07/06/16               |
| I-HMSD                       | 440-152035-4MSD                         | Water         | 07/06/16               |
| I-CMS                        | 440-152035-9MS                          | Water         | 07/06/16               |
| I-CMSD                       | 440-152035-9MSD                         | Water         | 07/06/16               |
| I-N                          | 440-152574-1                            | Water         | 07/12/16               |
| I-D                          | 440-152574-2                            | Water         | 07/12/16               |
| I-X                          | 440-152574-3                            | Water         | 07/12/16               |
| I-M                          | 440-152574-4                            | Water         | 07/12/16               |
| I-AB                         | 440-152574-5                            | Water         | 07/12/16               |
| I-G                          | 440-152574-6                            | Water         | 07/12/16               |
| I-E                          | 440-152574-7                            | Water         | 07/12/16               |
| I-V                          | 440-152574-8                            | Water         | 07/12/16               |
| I-I                          | 440-152574-9                            | Water         | 07/12/16               |
| I-Z                          | 440-152574-10                           | Water         | 07/12/16               |
| I-J                          | 440-152574-11                           | Water         | 07/12/16               |
| I-K                          | 440-152574-12                           | Water         | 07/12/16               |
| I-AC                         | 440-152574-13                           | Water         | 07/12/16               |
| I-AD                         | 440-152574-14                           | Water         | 07/12/16               |
| I-EMS                        | 440-152574-7MS                          | Water         | 07/12/16               |
| I-EMSD                       | 440-152574-7MSD                         | Water         | 07/12/16               |
| ART-6                        | 440-153241-14                           | Water         | 07/19/16               |
| PC-99R2/R3                   | 440-154229-1                            | Water         | 08/01/16               |
| PC-115R                      | 440-154229-2                            | Water         | 08/01/16               |
| PC-116R                      | 440-154229-3                            | Water         | 08/01/16               |
| PC-117                       | 440-154229-4                            | Water         | 08/01/16               |
| PC-118                       | 440-154229-5                            | Water         | 08/01/16               |
| PC-119                       | 440-154229-6                            | Water         | 08/01/16               |
| PC-133                       | 440-154229-7                            | Water         | 08/01/16               |

| <b>Sample Identification</b> | <b>Laboratory Sample Identification</b> | <b>Matrix</b> | <b>Collection Date</b> |
|------------------------------|---|---------------|------------------------|
| PC-120                       | 440-154229-8                            | Water         | 08/01/16               |
| PC-121                       | 440-154229-9                            | Water         | 08/01/16               |
| ART-4                        | 440-154229-10                           | Water         | 08/01/16               |
| ART-3A                       | 440-154229-11                           | Water         | 08/01/16               |
| ART-8A                       | 440-154229-12                           | Water         | 08/01/16               |
| ART-2A                       | 440-154229-13                           | Water         | 08/01/16               |
| ART-1A                       | 440-154229-14                           | Water         | 08/01/16               |
| ART-7B                       | 440-154229-15                           | Water         | 08/01/16               |
| ART-9                        | 440-154229-16                           | Water         | 08/01/16               |
| PC-150                       | 440-154229-17                           | Water         | 08/01/16               |
| ART-2AMS                     | 440-154229-13MS                         | Water         | 08/01/16               |
| ART-2AMSD                    | 440-154229-13MSD                        | Water         | 08/01/16               |
| PC-122                       | 440-154471-1                            | Water         | 08/02/16               |
| PC-58                        | 440-154471-2                            | Water         | 08/02/16               |
| PC-56                        | 440-154471-3                            | Water         | 08/02/16               |
| FB-1                         | 440-154471-4                            | Water         | 08/02/16               |
| PC-60                        | 440-154471-5                            | Water         | 08/02/16               |
| PC-59                        | 440-154471-6                            | Water         | 08/02/16               |
| PC-62                        | 440-154471-7                            | Water         | 08/02/16               |
| EB-1                         | 440-154471-8                            | Water         | 08/02/16               |
| PC-68                        | 440-154471-9                            | Water         | 08/02/16               |
| PC-86                        | 440-154471-10                           | Water         | 08/02/16               |
| PC-97                        | 440-154471-11                           | Water         | 08/02/16               |
| PC-90                        | 440-154471-12                           | Water         | 08/02/16               |
| PC-91                        | 440-154471-13                           | Water         | 08/02/16               |
| PC-94                        | 440-154471-14                           | Water         | 08/02/16               |
| PC-86MS                      | 440-154471-10MS                         | Water         | 08/02/16               |
| PC-86MSD                     | 440-154471-10MSD                        | Water         | 08/02/16               |
| ART-6                        | 440-154485-1                            | Water         | 08/02/16               |
| PC-18                        | 440-154590-1                            | Water         | 08/03/16               |
| ARP-1                        | 440-154590-2                            | Water         | 08/03/16               |
| PC-136                       | 440-154590-3                            | Water         | 08/03/16               |
| PC-53                        | 440-154590-4                            | Water         | 08/03/16               |
| EB2                          | 440-154590-5                            | Water         | 08/03/16               |
| MW-K5                        | 440-154590-6                            | Water         | 08/03/16               |
| PC-103                       | 440-154590-7                            | Water         | 08/03/16               |
| PC-98R                       | 440-154590-8                            | Water         | 08/03/16               |
| ARP-7                        | 440-154590-9                            | Water         | 08/03/16               |
| ARP-6B                       | 440-154590-10                           | Water         | 08/03/16               |
| ARP-5A                       | 440-154590-11                           | Water         | 08/03/16               |
| ARP-4A                       | 440-154590-13                           | Water         | 08/03/16               |
| MW-K4                        | 440-154590-14                           | Water         | 08/03/16               |
| PC-144                       | 440-154590-15                           | Water         | 08/03/16               |

| <b>Sample Identification</b> | <b>Laboratory Sample Identification</b> | <b>Matrix</b> | <b>Collection Date</b> |
|------------------------------|---|---------------|------------------------|
| PC-135A                      | 440-154590-16                           | Water         | 08/03/16               |
| PC-101R                      | 440-154590-17                           | Water         | 08/03/16               |
| ARP-3A                       | 440-154590-18                           | Water         | 08/03/16               |
| ARP-2A                       | 440-154590-19                           | Water         | 08/03/16               |
| PC-18MS                      | 440-154590-1MS                          | Water         | 08/03/16               |
| PC-18MSD                     | 440-154590-1MSD                         | Water         | 08/03/16               |
| ARP-2AMS                     | 440-154590-19MS                         | Water         | 08/03/16               |
| ARP-2AMSD                    | 440-154590-19MSD                        | Water         | 08/03/16               |
| PC-123**                     | 440-154938-1**                          | Water         | 08/08/16               |
| DUP6**                       | 440-154938-2**                          | Water         | 08/08/16               |
| PC-128**                     | 440-154938-3**                          | Water         | 08/08/16               |
| PC-129**                     | 440-154938-4**                          | Water         | 08/08/16               |
| PC-130**                     | 440-154938-5**                          | Water         | 08/08/16               |
| PC-131**                     | 440-154938-6**                          | Water         | 08/08/16               |
| PC-132**                     | 440-154938-7**                          | Water         | 08/08/16               |
| PC-124**                     | 440-154938-8**                          | Water         | 08/08/16               |
| PC-125**                     | 440-154938-9**                          | Water         | 08/08/16               |
| PC-126**                     | 440-154938-10**                         | Water         | 08/08/16               |
| PC-127**                     | 440-154938-11**                         | Water         | 08/08/16               |
| EB4**                        | 440-154938-12**                         | Water         | 08/08/16               |
| PC-148**                     | 440-154938-13**                         | Water         | 08/08/16               |
| PC-149**                     | 440-154938-14**                         | Water         | 08/08/16               |
| PC-54**                      | 440-154938-15**                         | Water         | 08/08/16               |
| M-48A**                      | 440-154938-16**                         | Water         | 08/08/16               |
| M-44**                       | 440-154938-17**                         | Water         | 08/08/16               |
| DUP7**                       | 440-154938-18**                         | Water         | 08/08/16               |
| PC-71**                      | 440-154938-19**                         | Water         | 08/08/16               |
| PC-72**                      | 440-154938-20**                         | Water         | 08/08/16               |
| PC-73**                      | 440-154938-21**                         | Water         | 08/08/16               |
| PC-37**                      | 440-154938-22**                         | Water         | 08/08/16               |
| PC-131MS                     | 440-154938-6MS                          | Water         | 08/08/16               |
| PC-131MSD                    | 440-154938-6MSD                         | Water         | 08/08/16               |
| M-48AMS                      | 440-154938-16MS                         | Water         | 08/08/16               |
| M-48AMSD                     | 440-154938-16MSD                        | Water         | 08/08/16               |
| M-10**                       | 440-155035-1**                          | Water         | 08/09/16               |
| M-83                         | 440-155148-1                            | Water         | 08/09/16               |
| M-80                         | 440-155148-2                            | Water         | 08/09/16               |
| M-81A                        | 440-155148-3                            | Water         | 08/09/16               |
| M-73                         | 440-155148-4                            | Water         | 08/09/16               |
| M-67                         | 440-155148-5                            | Water         | 08/09/16               |
| DUP8                         | 440-155148-6                            | Water         | 08/09/16               |
| M-74                         | 440-155148-7                            | Water         | 08/09/16               |
| EB9                          | 440-155148-8                            | Water         | 08/09/16               |

| <b>Sample Identification</b> | <b>Laboratory Sample Identification</b> | <b>Matrix</b> | <b>Collection Date</b> |
|------------------------------|---|---------------|------------------------|
| M-68                         | 440-155148-9                            | Water         | 08/09/16               |
| M-19                         | 440-155148-10                           | Water         | 08/09/16               |
| M-35                         | 440-155148-11                           | Water         | 08/09/16               |
| M-31A                        | 440-155148-12                           | Water         | 08/09/16               |
| M-52                         | 440-155148-13                           | Water         | 08/09/16               |
| M-11                         | 440-155148-14                           | Water         | 08/09/16               |
| M-12A                        | 440-155148-15                           | Water         | 08/09/16               |
| DUP9                         | 440-155148-16                           | Water         | 08/09/16               |
| M-80MS                       | 440-155148-2MS                          | Water         | 08/09/16               |
| M-80MSD                      | 440-155148-2MSD                         | Water         | 08/09/16               |
| M-25**                       | 440-155316-1**                          | Water         | 08/10/16               |
| M-37**                       | 440-155316-2**                          | Water         | 08/10/16               |
| DUP12**                      | 440-155316-3**                          | Water         | 08/10/16               |
| M-14A**                      | 440-155316-4**                          | Water         | 08/10/16               |
| M-131**                      | 440-155316-5**                          | Water         | 08/10/16               |
| M-57A**                      | 440-155316-6**                          | Water         | 08/10/16               |
| M-135**                      | 440-155316-7**                          | Water         | 08/10/16               |
| M-69**                       | 440-155316-8**                          | Water         | 08/10/16               |
| EB-10**                      | 440-155316-9**                          | Water         | 08/10/16               |
| M-79**                       | 440-155316-10**                         | Water         | 08/10/16               |
| M-70**                       | 440-155316-11**                         | Water         | 08/10/16               |
| M-71**                       | 440-155316-12**                         | Water         | 08/10/16               |
| M-72**                       | 440-155316-13**                         | Water         | 08/10/16               |
| M-65**                       | 440-155316-14**                         | Water         | 08/10/16               |
| DUP10**                      | 440-155316-15**                         | Water         | 08/10/16               |
| M-66**                       | 440-155316-16**                         | Water         | 08/10/16               |
| M-38**                       | 440-155316-17**                         | Water         | 08/10/16               |
| DUP11**                      | 440-155316-18**                         | Water         | 08/10/16               |
| M-22A**                      | 440-155316-19**                         | Water         | 08/10/16               |
| M-23**                       | 440-155316-20**                         | Water         | 08/10/16               |
| PC-55**                      | 440-155316-21**                         | Water         | 08/10/16               |
| M-64**                       | 440-155316-22**                         | Water         | 08/10/16               |
| M-57AMS                      | 440-155316-6MS                          | Water         | 08/10/16               |
| M-57AMSD                     | 440-155316-6MSD                         | Water         | 08/10/16               |
| M-66MS                       | 440-155316-16MS                         | Water         | 08/10/16               |
| M-66MSD                      | 440-155316-16MSD                        | Water         | 08/10/16               |
| M-5A**                       | 440-155320-1**                          | Water         | 08/10/16               |
| H-28A                        | 440-155490-1                            | Water         | 08/11/16               |
| M-6A                         | 440-155490-2                            | Water         | 08/11/16               |
| M-7B                         | 440-155490-3                            | Water         | 08/11/16               |
| I-O                          | 440-155494-1                            | Water         | 08/11/16               |
| I-W                          | 440-155494-2                            | Water         | 08/11/16               |
| I-P                          | 440-155494-3                            | Water         | 08/11/16               |

| <b>Sample Identification</b> | <b>Laboratory Sample Identification</b> | <b>Matrix</b> | <b>Collection Date</b> |
|------------------------------|---|---------------|------------------------|
| I-H                          | 440-155494-4                            | Water         | 08/11/16               |
| I-U                          | 440-155494-5                            | Water         | 08/11/16               |
| I-T                          | 440-155494-6                            | Water         | 08/11/16               |
| I-G                          | 440-155494-7                            | Water         | 08/11/16               |
| I-Q                          | 440-155494-8                            | Water         | 08/11/16               |
| I-F                          | 440-155494-9                            | Water         | 08/11/16               |
| I-X                          | 440-155494-10                           | Water         | 08/11/16               |
| I-N                          | 440-155494-11                           | Water         | 08/11/16               |
| I-E                          | 440-155494-12                           | Water         | 08/11/16               |
| I-M                          | 440-155494-13                           | Water         | 08/11/16               |
| I-D                          | 440-155494-14                           | Water         | 08/11/16               |
| I-C                          | 440-155494-15                           | Water         | 08/11/16               |
| I-S                          | 440-155494-16                           | Water         | 08/11/16               |
| I-L                          | 440-155494-17                           | Water         | 08/11/16               |
| I-Y                          | 440-155494-18                           | Water         | 08/11/16               |
| I-R                          | 440-155494-19                           | Water         | 08/11/16               |
| I-B                          | 440-155494-20                           | Water         | 08/11/16               |
| I-AB                         | 440-155494-21                           | Water         | 08/11/16               |
| I-AA                         | 440-155494-22                           | Water         | 08/11/16               |
| I-AR                         | 440-155494-23                           | Water         | 08/11/16               |
| DUP14                        | 440-155494-24                           | Water         | 08/11/16               |
| I-AD                         | 440-155494-25                           | Water         | 08/11/16               |
| I-K                          | 440-155494-26                           | Water         | 08/11/16               |
| I-J                          | 440-155494-27                           | Water         | 08/11/16               |
| I-Z                          | 440-155494-28                           | Water         | 08/11/16               |
| I-I                          | 440-155494-29                           | Water         | 08/11/16               |
| I-V                          | 440-155494-30                           | Water         | 08/11/16               |
| I-HMS                        | 440-155494-4MS                          | Water         | 08/11/16               |
| I-HMSD                       | 440-155494-4MSD                         | Water         | 08/11/16               |
| I-DMS                        | 440-155494-14MS                         | Water         | 08/11/16               |
| I-DMSD                       | 440-155494-14MSD                        | Water         | 08/11/16               |
| DUP14MS                      | 440-155494-24MS                         | Water         | 08/11/16               |
| DUP14MSD                     | 440-155494-24MSD                        | Water         | 08/11/16               |
| I-AC                         | 440-156317-1                            | Water         | 08/22/16               |
| PC-99R2/R3                   | 440-157616-1                            | Water         | 09/06/16               |
| PC-115R                      | 440-157616-2                            | Water         | 09/06/16               |
| PC-116R                      | 440-157616-3                            | Water         | 09/06/16               |
| PC-117                       | 440-157616-4                            | Water         | 09/06/16               |
| PC-118                       | 440-157616-5                            | Water         | 09/06/16               |
| PC-119                       | 440-157616-6                            | Water         | 09/06/16               |
| PC-120                       | 440-157616-7                            | Water         | 09/06/16               |
| PC-121                       | 440-157616-8                            | Water         | 09/06/16               |
| PC-133                       | 440-157616-9                            | Water         | 09/06/16               |



| <b>Sample Identification</b> | <b>Laboratory Sample Identification</b> | <b>Matrix</b> | <b>Collection Date</b> |
|------------------------------|---|---------------|------------------------|
| ART-1A                       | 440-157616-10                           | Water         | 09/06/16               |
| ART-2A                       | 440-157616-11                           | Water         | 09/06/16               |
| ART-3A                       | 440-157616-12                           | Water         | 09/06/16               |
| ART-4                        | 440-157616-13                           | Water         | 09/06/16               |
| ART-7B                       | 440-157616-14                           | Water         | 09/06/16               |
| ART-8A                       | 440-157616-15                           | Water         | 09/06/16               |
| ART-9                        | 440-157616-16                           | Water         | 09/06/16               |
| PC-150                       | 440-157616-17                           | Water         | 09/06/16               |
| PC-117MS                     | 440-157616-4MS                          | Water         | 09/06/16               |
| PC-117MSD                    | 440-157616-4MSD                         | Water         | 09/06/16               |
| ART-7BMS                     | 440-157616-14MS                         | Water         | 09/06/16               |
| ART-7BMSD                    | 440-157616-14MSD                        | Water         | 09/06/16               |
| I-O                          | 440-157843-1                            | Water         | 09/07/16               |
| I-W                          | 440-157843-2                            | Water         | 09/07/16               |
| I-P                          | 440-157843-3                            | Water         | 09/07/16               |
| I-H                          | 440-157843-4                            | Water         | 09/07/16               |
| I-U                          | 440-157843-5                            | Water         | 09/07/16               |
| I-T                          | 440-157843-6                            | Water         | 09/07/16               |
| I-G                          | 440-157843-7                            | Water         | 09/07/16               |
| I-Q                          | 440-157843-8                            | Water         | 09/07/16               |
| I-F                          | 440-157843-9                            | Water         | 09/07/16               |
| I-X                          | 440-157843-10                           | Water         | 09/07/16               |
| I-N                          | 440-157843-11                           | Water         | 09/07/16               |
| I-E                          | 440-157843-12                           | Water         | 09/07/16               |
| I-M                          | 440-157843-13                           | Water         | 09/07/16               |
| I-D                          | 440-157843-14                           | Water         | 09/07/16               |
| I-C                          | 440-157843-15                           | Water         | 09/07/16               |
| I-S                          | 440-157843-16                           | Water         | 09/07/16               |
| I-L                          | 440-157843-17                           | Water         | 09/07/16               |
| I-Y                          | 440-157843-18                           | Water         | 09/07/16               |
| I-R                          | 440-157843-19                           | Water         | 09/07/16               |
| I-B                          | 440-157843-20                           | Water         | 09/07/16               |
| I-AB                         | 440-157843-21                           | Water         | 09/07/16               |
| I-AA                         | 440-157843-22                           | Water         | 09/07/16               |
| I-AR                         | 440-157843-23                           | Water         | 09/07/16               |
| I-AD                         | 440-157843-24                           | Water         | 09/07/16               |
| I-AC                         | 440-157843-25                           | Water         | 09/07/16               |
| I-K                          | 440-157843-26                           | Water         | 09/07/16               |
| I-Z                          | 440-157843-27                           | Water         | 09/07/16               |
| I-I                          | 440-157843-28                           | Water         | 09/07/16               |
| I-V                          | 440-157843-29                           | Water         | 09/07/16               |
| I-FMS                        | 440-157843-9MS                          | Water         | 09/07/16               |
| I-FMSD                       | 440-157843-9MSD                         | Water         | 09/07/16               |

| Sample Identification | Laboratory Sample Identification | Matrix | Collection Date |
|-----------------------|----------------------------------|--------|-----------------|
| I-RMS                 | 440-157843-19MS                  | Water  | 09/07/16        |
| I-RMSD                | 440-157843-19MSD                 | Water  | 09/07/16        |
| I-VMS                 | 440-157843-29MS                  | Water  | 09/07/16        |
| I-VMSD                | 440-157843-29MSD                 | Water  | 09/07/16        |
| M-161D-20160912       | 440-158214-2                     | Water  | 09/12/16        |
| M-162D-20160912       | 440-158214-3                     | Water  | 09/12/16        |
| M-162D-20160912-FD    | 440-158214-4                     | Water  | 09/12/16        |
| PC-153-20160912       | 440-158214-5                     | Water  | 09/12/16        |
| PC-153-20160912-FD    | 440-158214-6                     | Water  | 09/12/16        |
| PC-152-20160912-FB    | 440-158214-7                     | Water  | 09/12/16        |
| PC-152-20160912       | 440-158214-8                     | Water  | 09/12/16        |
| PC-151-20160912       | 440-158214-9                     | Water  | 09/12/16        |
| PC-151-20160912MS     | 440-158214-9MS                   | Water  | 09/12/16        |
| PC-151-20160912MSD    | 440-158214-9MSD                  | Water  | 09/12/16        |
| M-186D-20160913-FB**  | 440-158404-2**                   | Water  | 09/13/16        |
| M-186D-20160913**     | 440-158404-3**                   | Water  | 09/13/16        |
| M-186-20160913**      | 440-158404-4**                   | Water  | 09/13/16        |
| M-148A-20160913-EB**  | 440-158404-5**                   | Water  | 09/13/16        |
| M-148A-20160913**     | 440-158404-6**                   | Water  | 09/13/16        |
| M-190-20160913**      | 440-158404-7**                   | Water  | 09/13/16        |
| M-193-20160913**      | 440-158404-8**                   | Water  | 09/13/16        |
| PC-154-20160913**     | 440-158404-10**                  | Water  | 09/13/16        |
| PC-158-20160913**     | 440-158404-11**                  | Water  | 09/13/16        |
| PC-159-20160913**     | 440-158404-12**                  | Water  | 09/13/16        |
| PC-159-20160913-FD**  | 440-158404-13**                  | Water  | 09/13/16        |
| PC-137D-20160913-EB** | 440-158404-14**                  | Water  | 09/13/16        |
| PC-137D-20160913**    | 440-158404-15**                  | Water  | 09/13/16        |
| PC-134D-20160913**    | 440-158404-16**                  | Water  | 09/13/16        |
| M-186D-20160913MS     | 440-158404-3MS                   | Water  | 09/13/16        |
| M-186D-20160913MSD    | 440-158404-3MSD                  | Water  | 09/13/16        |
| PC-159-20160913-FDMS  | 440-158404-13MS                  | Water  | 09/13/16        |
| PC-159-20160913-FDMSD | 440-158404-13MSD                 | Water  | 09/13/16        |
| I-J                   | 440-158406-12                    | Water  | 09/13/16        |
| I-JMS                 | 440-158406-12MS                  | Water  | 09/13/16        |
| I-JMSD                | 440-158406-12MSD                 | Water  | 09/13/16        |
| ART-6                 | 440-158607-5                     | Water  | 09/14/16        |
| M-145-20160914        | 440-158656-2                     | Water  | 09/14/16        |
| M-191-20160914        | 440-158656-3                     | Water  | 09/14/16        |
| M-192-20160914        | 440-158656-4                     | Water  | 09/14/16        |
| PC-157A-20160914      | 440-158656-5                     | Water  | 09/14/16        |
| PC-160-20160914       | 440-158656-6                     | Water  | 09/14/16        |
| PC-156A-20160914      | 440-158656-7                     | Water  | 09/14/16        |
| PC-156B-20160914      | 440-158656-8                     | Water  | 09/14/16        |

| <b>Sample Identification</b> | <b>Laboratory Sample Identification</b> | <b>Matrix</b> | <b>Collection Date</b> |
|------------------------------|---|---------------|------------------------|
| PC-155A-20160914             | 440-158656-9                            | Water         | 09/14/16               |
| PC-155B-20160914             | 440-158656-10                           | Water         | 09/14/16               |
| PC-157B-20160914             | 440-158656-11                           | Water         | 09/14/16               |
| M-145-20160914MS             | 440-158656-2MS                          | Water         | 09/14/16               |
| M-145-20160914MSD            | 440-158656-2MSD                         | Water         | 09/14/16               |

\*\*Indicates sample underwent Stage 4 validation

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Quality Assurance Project Plan Revision 1, Nevada Environmental Response Trust (NERT) Site, Henderson, Nevada (July 2014) and a modified outline of the USEPA National Functional Guidelines (NFG) for Inorganic Superfund Data Review (August 2014). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following methods:

Boron, Chromium, Iron, Manganese, and Sodium by Environmental Protection Agency (EPA) SW 846 Method 6020A and EPA Method 200.7

All sample results were subjected to Stage 2B data validation, which comprises an evaluation of quality control (QC) summary results. Samples appended with a double asterisk on the cover page were subjected to Stage 4 data validation, which is comprised of the QC summary forms as well as the raw data, to confirm sample quantitation and identification.

The following are definitions of the data qualifiers utilized during data validation:

- J+ (Estimated, High Bias): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated, displaying high bias, due to non-conformances discovered during data validation.
- J- (Estimated, Low Bias): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated, displaying low bias, due to non-conformances discovered during data validation.
- J (Estimated, Bias Indeterminate): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated due to non-conformances discovered during data validation. Bias is indeterminate.
- U (Non-detected): The compound or analyte was analyzed for and positively identified by the laboratory; however the compound or analyte should be considered non-detected at the reported concentration due to the presence of contaminants detected in the associated blank(s).
- UJ (Non-detected estimated): The compound or analyte was reported as not detected by the laboratory; however the reported quantitation/detection limit is estimated due to non-conformances discovered during data validation.
- DNR (Do Not Report): A more appropriate result is reported from another analysis or dilution.
- R (Rejected): The sample results were rejected due to gross non-conformances discovered during data validation. Data qualified as rejected is not usable.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## Qualification Codes and Definitions

|    |   |
|----|---|
| a  | Qualified due to low abundance (radiochemical activity)   |
| be | Qualified due to equipment blank contamination  |
| bf | Qualified due to field blank contamination  |
| bl | Qualified due to lab blank contamination  |
| bt | Qualified due to trip blank contamination   |
| bp | Qualified due to pump blank contamination (wells without dedicated pumps, when contamination is detected in the pump blank) |
| br | Qualified due to filter blank contamination (aqueous Hexavalent Chromium and Dissolved sample fractions)                    |
| c  | Qualified due to calibration problems   |
| cp | Qualified due to insufficient ingrowth (Radiochemical only)   |
| dc | Duel column confirmation %D exceeded  |
| e  | Concentration exceeded the calibration range  |
| fd | Qualified due to field duplicate imprecision  |
| h  | Qualified due to holding time exceedance  |
| i  | Qualified due to internal standard areas  |
| k  | Qualified as Estimated Maximum Possible Concentrations (dioxins and PCB congeners)  |
| l  | Qualified due to LCS recoveries   |
| ld | Qualified due to lab duplicate imprecision (matrix duplicate, MSD, LCSD)  |
| m  | Qualified due to matrix spike recoveries  |
| nb | Qualified due to negative lab blank contamination (nondetect results only)  |
| nd | Qualified due to non-detected target analyte  |
| o  | Other   |
| p  | Qualified as a false positive due to contamination during shipping  |
| pH | Sample preservation not within acceptance range   |
| q  | Qualified due to quantitation problems  |
| s  | Qualified due to surrogate recoveries   |
| sd | Serial dilution did not meet control criteria   |
| sp | Detected value reported >SQL <PQL   |
| st | Sample receipt temperature exceeded   |
| t  | Qualified due to elevated helium tracer concentrations  |
| vh | Volatile headspace detected in aqueous sample containers submitted for VOC analysis   |
| x  | Qualified due to low % solids   |
| z  | Qualified due to ICS results  |

## I. Sample Receipt and Technical Holding Times

All samples were received in good condition.

All technical holding time requirements were met.

## II. Instrument Calibration

Initial and continuing calibrations were performed as required by the methods.

The initial calibration verification (ICV) and continuing calibration verification (CCV) standards were within QC limits.

## III. ICP Interference Check Sample Analysis

The frequency of interference check sample (ICS) analysis was met. All criteria were within QC limits.

## IV. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks with the following exceptions:

| SDG                          | Blank ID        | Analyte | Maximum Concentration | Associated Samples   |
|------------------------------|-----------------|---------|-----------------------|--|
| 440-155035-1<br>440-155490-1 | PB (prep blank) | Iron    | 0.0269 mg/L           | All samples in SDG 440-155035-1<br>All samples in SDG 440-155490-1 |

Sample concentrations were compared to concentrations detected in the laboratory blanks. The sample concentrations were either not detected or were significantly greater than the concentrations found in the associated laboratory blanks.

## V. Field Blanks

Samples EB-1 (from SDG 440-154471-1), EB2 (from SDG 440-154590-1), EB4\*\* (from SDG 440-154938-1), EB9 (from SDG 440-155148-1), EB-10\*\* (from SDG 440-155316-1, M-148A-20160913-EB\*\* and PC-137D-20160913-EB\*\* (from SDG 440-158404-1) were identified as equipment blanks. No contaminants were found with the following exceptions:

| SDG          | Blank ID | Collection Date | Analyte  | Concentration | Associated Samples   |
|--------------|----------|-----------------|----------|---------------|--|
| 440-154590-1 | EB2      | 08/03/16        | Chromium | 0.0038 mg/L   | PC-18<br>ARP-1<br>PC-136<br>PC-53<br>MW-K5<br>PC-103<br>PC-98R<br>ARP-7<br>ARP-6B<br>ARP-5A<br>ARP-4A<br>MW-K4<br>PC-144<br>PC-135A<br>PC-101R<br>ARP-3A<br>ARP-2A |
| 440-155148-1 | EB9      | 08/09/16        | Chromium | 0.0037 mg/L   | M-83<br>M-80<br>M-81A<br>M-73<br>M-67<br>DUP8<br>M-74<br>M-68<br>M-19<br>M-35<br>M-31A<br>M-52<br>M-11<br>M-12A<br>DUP9  |

Samples FB-1 (from SDG 440-154471-1), PC-152-20160912-FB (from SDG 440-158214-1), and M-186D-20160913-FB\*\* (from SDG 440-158404-1) were identified as field blanks. No contaminants were found.

Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater than the concentrations found in the associated field blanks with the following exceptions:

| SDG          | Sample | Analyte  | Reported Concentration | Modified Final Concentration |
|--------------|--------|----------|------------------------|------------------------------|
| 440-154590-1 | MW-K5  | Chromium | 0.0027 mg/L            | 0.0027J mg/L                 |
| 440-154590-1 | ARP-4A | Chromium | 0.0042 mg/L            | 0.0042J mg/L                 |

## VI. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits with the following exceptions:



| SDG          | Spike ID<br>(Associated Samples)   | Analyte | MS (%R)<br>(Limits) | MSD (%R)<br>(Limits) | Flag             | A or P |
|--------------|--|---------|---------------------|----------------------|------------------|--------|
| 440-158214-1 | PC-151-20160912MS/MSD<br>(M-161D-20160912<br>M-162D-20160912<br>M-162D-20160912-FD<br>PC-153-20160912<br>PC-153-20160912-FD<br>PC-152-20160912<br>PC-151-20160912) | Boron   | -                   | 149 (70-130)         | J+ (all detects) | A      |
| 440-158214-1 | PC-151-20160912MS/MSD<br>(PC-152-20160912-FB)  | Boron   | -                   | 149 (70-130)         | NA               | -      |

For I-HMS/MSD and I-CMS/MSD (from SDG 440-152035-1), I-EMS/MSD (from SDG 440-152574-1), M-66MS/MSD (from SDG 440-155316-1), I-HMS/MSD, I-DMS/MSD and DUP14MS/MSD (from SDG 440-155494-1), I-FMS/MSD and I-VMS/MSD (from SDG 440-157843-1), no data were qualified for Chromium percent recoveries (%R) outside the QC limits since the parent sample results were greater than 4X the spike concentration.

For no data were qualified for Chromium and Sodium percent recoveries (%R) outside the QC limits since the parent sample results were greater than 4X the spike concentration.

For PC-159-20160913-FDMS/MSD (from SDG 440-158404-1), and M-145-20160914MS/MSD (from SDG 440-158656-1), no data were qualified for Boron percent recoveries (%R) outside the QC limits since the parent sample results were greater than 4X the spike concentration.

Relative percent differences (RPD) were within QC limits.

## VII. Duplicate Sample Analysis

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in these SDGs, and therefore duplicate analyses were not performed for these SDGs.

## VIII. Serial Dilution

Serial dilution was not performed for these SDGs.

## IX. Laboratory Control Samples

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## X. Field Duplicates

Samples PC-123\*\* and DUP6\*\* (from SDG 440-154938-1), samples M-44\*\* and DUP7\*\* (from SDG 440-154938-1), samples M-67 and DUP8, samples M-12A and DUP9 (from SDG 440-155148-1), samples M-37\*\* and DUP12\*\* (from SDG 440-155316-1), samples M-65\*\* and DUP10\*\* (from SDG 440-155316-1), samples M-38\*\* and DUP11\*\* (from SDG 440-155316-1), and samples I-AR and DUP14 (from SDG 440-155494-1), M-162D-20160912 and M-162D-20160912-FD (from SDG 440-158214-1), and samples PC-153-20160912 and PC-153-20160912-FD (from SDG 440-158214-1) were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

| SDG          | Analyte  | Concentration (mg/L) |        | RPD (Limits) | Flag | A or P |
|--------------|----------|----------------------|--------|--------------|------|--------|
|              |          | PC-123**             | DUP6** |              |      |        |
| 440-154938-1 | Chromium | 0.73                 | 0.73   | 0 (≤30)      | -    | -      |

| SDG          | Analyte  | Concentration (mg/L) |        | RPD (Limits) | Flag | A or P |
|--------------|----------|----------------------|--------|--------------|------|--------|
|              |          | M-44**               | DUP7** |              |      |        |
| 440-154938-1 | Chromium | 0.79                 | 0.78   | 1 (≤30)      | -    | -      |

| SDG          | Analyte  | Concentration (mg/L) |      | RPD (Limits) | Flag | A or P |
|--------------|----------|----------------------|------|--------------|------|--------|
|              |          | M-67                 | DUP8 |              |      |        |
| 440-155148-1 | Chromium | 5.6                  | 6.1  | 9 (≤30)      | -    | -      |

| SDG          | Analyte  | Concentration (mg/L) |      | RPD (Limits) | Flag | A or P |
|--------------|----------|----------------------|------|--------------|------|--------|
|              |          | M-12A                | DUP9 |              |      |        |
| 440-155148-1 | Chromium | 5.9                  | 6.0  | 2 (≤30)      | -    | -      |

| SDG          | Analyte  | Concentration (mg/L) |         | RPD (Limits) | Flag            | A or P |
|--------------|----------|----------------------|---------|--------------|-----------------|--------|
|              |          | M-37**               | DUP12** |              |                 |        |
| 440-155316-1 | Chromium | 0.027                | 0.013   | 70 (≤30)     | J (all detects) | A      |

| SDG          | Analyte  | Concentration (mg/L) |         | RPD (Limits) | Flag | A or P |
|--------------|----------|----------------------|---------|--------------|------|--------|
|              |          | M-65**               | DUP10** |              |      |        |
| 440-155316-1 | Chromium | 22                   | 20      | 10 (≤30)     | -    | -      |

| SDG          | Analyte  | Concentration (mg/L) |         | RPD (Limits) | Flag | A or P |
|--------------|----------|----------------------|---------|--------------|------|--------|
|              |          | M-38**               | DUP11** |              |      |        |
| 440-155316-1 | Chromium | 4.6                  | 4.5     | 2 (≤30)      | -    | -      |

| SDG          | Analyte  | Concentration (mg/L) |       | RPD (Limits) | Flag            | A or P |
|--------------|----------|----------------------|-------|--------------|-----------------|--------|
|              |          | I-AR                 | DUP14 |              |                 |        |
| 440-155494-1 | Chromium | 0.49                 | 2.5   | 134 (≤30)    | J (all detects) | A      |

| SDG          | Analyte  | Concentration (mg/L) |                    | RPD (Limits) | Flag | A or P |
|--------------|----------|----------------------|--------------------|--------------|------|--------|
|              |          | M-162D-20160912      | M-162D-20160912-FD |              |      |        |
| 440-158214-1 | Boron    | 0.77                 | 0.80               | 4 (≤30)      | -    | -      |
|              | Chromium | 0.020                | 0.021              | 5 (≤30)      | -    | -      |

| SDG          | Analyte | Concentration (mg/L) |                    | RPD (Limits) | Flag | A or P |
|--------------|---------|----------------------|--------------------|--------------|------|--------|
|              |         | PC-153-20160912      | PC-153-20160912-FD |              |      |        |
| 440-158214-1 | Boron   | 2.2                  | 2.2                | 0 (≤30)      | -    | -      |

## XI. Sample Result Verification

All sample result verifications were acceptable for samples which underwent Stage 4 validation. Raw data were not reviewed for Stage 2B validation.

## XII. Overall Assessment of Data

The analysis was conducted within all specifications of the methods. No results were rejected in these SDGs.

Due to MS/MSD %R and field duplicate RPD, data were qualified as estimated in eleven samples.

Due to equipment blank contamination, data were qualified as estimated in two samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the data validation all other results are considered valid and usable for all purposes.

**NERT 2016 Q3**

**Metals - Data Qualification Summary - SDGs 440-151677-1, 440-152035-1, 440-152574-1, 440-153241-1, 440-154229-1, 440-154471-1, 440-154485-1, 440-154590-1, 440-154938-1, 440-155035-1, 440-155148-1, 440-155316-1, 440-155320-1, 440-155490-1, 440-155494-1, 440-156317-1, 440-157616-1, 440-157843-1, 440-158214-1, 440-158404-1, 440-158406-1, 440-158607-1, 440-158656-1**

| SDG                          | Sample  | Analyte  | Flag             | A or P | Reason (Code)                                |
|------------------------------|---|----------|------------------|--------|--|
| 440-158214-1                 | M-161D-20160912<br>M-162D-20160912<br>M-162D-20160912-FD<br>PC-153-20160912<br>PC-153-20160912-FD<br>PC-152-20160912<br>PC-151-20160912 | Boron    | J+ (all detects) | A      | Matrix spike/Matrix spike duplicate (%R) (m) |
| 440-155316-1<br>440-155494-1 | M-37**<br>DUP12**<br>I-AR<br>DUP14  | Chromium | J (all detects)  | A      | Field duplicates (RPD) (fd)                  |

**NERT 2016 Q3**

**Metals - Laboratory Blank Data Qualification Summary - SDGs 440-151677-1, 440-152035-1, 440-152574-1, 440-153241-1, 440-154229-1, 440-154471-1, 440-154485-1, 440-154590-1, 440-154938-1, 440-155035-1, 440-155148-1, 440-155316-1, 440-155320-1, 440-155490-1, 440-155494-1, 440-156317-1, 440-157616-1, 440-157843-1, 440-158214-1, 440-158404-1, 440-158406-1, 440-158607-1, 440-158656-1**

No Sample Data Qualified in these SDGs

**NERT 2016 Q3**

**Metals - Field Blank Data Qualification Summary - SDGs 440-151677-1, 440-152035-1, 440-152574-1, 440-153241-1, 440-154229-1, 440-154471-1, 440-154485-1, 440-154590-1, 440-154938-1, 440-155035-1, 440-155148-1, 440-155316-1, 440-155320-1, 440-155490-1, 440-155494-1, 440-156317-1, 440-157616-1, 440-157843-1, 440-158214-1, 440-158404-1, 440-158406-1, 440-158607-1, 440-158656-1**

| SDG          | Sample | Analyte  | Modified Final Concentration | A or P | Code |
|--------------|--------|----------|------------------------------|--------|------|
| 440-154590-1 | MW-K5  | Chromium | 0.0027J mg/L                 | A      | be   |
| 440-154590-1 | ARP-4A | Chromium | 0.0042J mg/L                 | A      | be   |

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** NERT 2016 Q4  
**LDC Report Date:** February 24, 2017  
**Parameters:** Metals  
**Validation Level:** Stage 2B & 4  
**Laboratory:** TestAmerica, Inc.

**Sample Delivery Group (SDG):** 440-160680-1, 440-161336-1, 440-161556-1, 440-162514-1, 440-163453-1, 440-166056-1, 440-166060-1, 440-166063-1, 440-166082-1, 440-166090-1, 440-166103-1, 440-166109-1, 440-166111-1, 440-166112-1, 440-166117-1, 440-166123-1, 440-166209-1, 440-166210-1, 440-166337-1, 440-166339-1, 440-166340-1, 440-166342-1, 440-166420-1, 440-166423-1, 440-166430-1, 440-166433-1, 440-166442-1, 440-166552-1, 440-166600-1, 440-166602-1, 440-166603-1, 440-166790-1, 440-166980-1, 440-166988-1, 440-167033-1, 440-167631-1, 440-169582-1, 440-170796-1, 440-171145-1, 440-170151-1, 440-170398-1, 440-170572-1

| Sample Identification | Laboratory Sample Identification | Matrix | Collection Date |
|-----------------------|----------------------------------|--------|-----------------|
| I-AD                  | 440-160680-1                     | Water  | 10/04/16        |
| I-AC                  | 440-160680-2                     | Water  | 10/04/16        |
| I-K                   | 440-160680-3                     | Water  | 10/04/16        |
| I-J                   | 440-160680-4                     | Water  | 10/04/16        |
| I-Z                   | 440-160680-5                     | Water  | 10/04/16        |
| I-I                   | 440-160680-6                     | Water  | 10/04/16        |
| I-O                   | 440-161336-1                     | Water  | 10/10/16        |
| I-W                   | 440-161336-2                     | Water  | 10/10/16        |
| I-P                   | 440-161336-3                     | Water  | 10/10/16        |
| I-H                   | 440-161336-4                     | Water  | 10/10/16        |
| I-U                   | 440-161336-5                     | Water  | 10/10/16        |
| I-T                   | 440-161336-6                     | Water  | 10/10/16        |
| I-G                   | 440-161336-7                     | Water  | 10/10/16        |
| I-Q                   | 440-161336-8                     | Water  | 10/10/16        |

| <b>Sample Identification</b> | <b>Laboratory Sample Identification</b> | <b>Matrix</b> | <b>Collection Date</b> |
|------------------------------|---|---------------|------------------------|
| I-F                          | 440-161336-9                            | Water         | 10/10/16               |
| I-X                          | 440-161336-10                           | Water         | 10/10/16               |
| I-N                          | 440-161336-11                           | Water         | 10/10/16               |
| I-E                          | 440-161336-12                           | Water         | 10/10/16               |
| I-M                          | 440-161336-13                           | Water         | 10/10/16               |
| I-D                          | 440-161336-14                           | Water         | 10/10/16               |
| I-C                          | 440-161336-15                           | Water         | 10/10/16               |
| I-S                          | 440-161336-16                           | Water         | 10/10/16               |
| I-L                          | 440-161336-17                           | Water         | 10/10/16               |
| I-Y                          | 440-161336-18                           | Water         | 10/10/16               |
| I-R                          | 440-161336-19                           | Water         | 10/10/16               |
| I-B                          | 440-161336-20                           | Water         | 10/10/16               |
| I-AB                         | 440-161336-21                           | Water         | 10/10/16               |
| I-AA                         | 440-161336-22                           | Water         | 10/10/16               |
| I-AR                         | 440-161336-23                           | Water         | 10/10/16               |
| I-OMS                        | 440-161336-1MS                          | Water         | 10/10/16               |
| I-OMSD                       | 440-161336-1MSD                         | Water         | 10/10/16               |
| I-NMS                        | 440-161336-11MS                         | Water         | 10/10/16               |
| I-NMSD                       | 440-161336-11MSD                        | Water         | 10/10/16               |
| I-V                          | 440-161556-1                            | Water         | 10/11/16               |
| PC-99R2/R3                   | 440-162514-1                            | Water         | 10/18/16               |
| PC-115R                      | 440-162514-2                            | Water         | 10/18/16               |
| PC-116R                      | 440-162514-3                            | Water         | 10/18/16               |
| PC-117                       | 440-162514-4                            | Water         | 10/18/16               |
| PC-118                       | 440-162514-5                            | Water         | 10/18/16               |
| PC-119                       | 440-162514-6                            | Water         | 10/18/16               |
| PC-120                       | 440-162514-7                            | Water         | 10/18/16               |
| PC-121                       | 440-162514-8                            | Water         | 10/18/16               |
| PC-133                       | 440-162514-9                            | Water         | 10/18/16               |
| ART-1A                       | 440-163453-1                            | Water         | 10/26/16               |
| ART-2                        | 440-163453-2                            | Water         | 10/26/16               |
| ART-3                        | 440-163453-3                            | Water         | 10/26/16               |
| ART-4                        | 440-163453-4                            | Water         | 10/26/16               |
| ART-6                        | 440-163453-5                            | Water         | 10/26/16               |
| ART-7B                       | 440-163453-6                            | Water         | 10/26/16               |
| ART-8                        | 440-163453-7                            | Water         | 10/26/16               |
| ART-9                        | 440-163453-8                            | Water         | 10/26/16               |
| PC-150                       | 440-163453-9                            | Water         | 10/26/16               |
| ART-1AMS                     | 440-163453-1MS                          | Water         | 10/26/16               |
| ART-1AMSD                    | 440-163453-1MSD                         | Water         | 10/26/16               |
| I-AR                         | 440-166056-1                            | Water         | 11/15/16               |
| I-AA                         | 440-166056-2                            | Water         | 11/15/16               |

| <b>Sample Identification</b> | <b>Laboratory Sample Identification</b> | <b>Matrix</b> | <b>Collection Date</b> |
|------------------------------|---|---------------|------------------------|
| I-O                          | 440-166056-3                            | Water         | 11/15/16               |
| I-W                          | 440-166056-4                            | Water         | 11/15/16               |
| I-P                          | 440-166056-5                            | Water         | 11/15/16               |
| I-H                          | 440-166056-6                            | Water         | 11/15/16               |
| I-U                          | 440-166056-7                            | Water         | 11/15/16               |
| I-T                          | 440-166056-8                            | Water         | 11/15/16               |
| I-G                          | 440-166056-9                            | Water         | 11/15/16               |
| I-Q                          | 440-166056-10                           | Water         | 11/15/16               |
| I-ARMS                       | 440-166056-1MS                          | Water         | 11/15/16               |
| I-ARMSD                      | 440-166056-1MSD                         | Water         | 11/15/16               |
| I-C                          | 440-166060-1                            | Water         | 11/15/16               |
| I-S                          | 440-166060-2                            | Water         | 11/15/16               |
| I-L                          | 440-166060-3                            | Water         | 11/15/16               |
| I-Y                          | 440-166060-4                            | Water         | 11/15/16               |
| I-R                          | 440-166060-5                            | Water         | 11/15/16               |
| I-B                          | 440-166060-6                            | Water         | 11/15/16               |
| I-E                          | 440-166060-7                            | Water         | 11/15/16               |
| I-X                          | 440-166060-8                            | Water         | 11/15/16               |
| I-D                          | 440-166060-9                            | Water         | 11/15/16               |
| I-M                          | 440-166060-10                           | Water         | 11/15/16               |
| I-F                          | 440-166060-11                           | Water         | 11/15/16               |
| I-N                          | 440-166060-12                           | Water         | 11/15/16               |
| I-CMS                        | 440-166060-1MS                          | Water         | 11/15/16               |
| I-CMSD                       | 440-166060-1MSD                         | Water         | 11/15/16               |
| I-FMS                        | 440-166060-11MS                         | Water         | 11/15/16               |
| I-FMSD                       | 440-166060-11MSD                        | Water         | 11/15/16               |
| ART-1                        | 440-166063-1                            | Water         | 11/14/16               |
| ART-2                        | 440-166063-2                            | Water         | 11/14/16               |
| ART-3A                       | 440-166063-3                            | Water         | 11/14/16               |
| ART-4                        | 440-166063-4                            | Water         | 11/14/16               |
| ART-6                        | 440-166063-5                            | Water         | 11/14/16               |
| ART-7B                       | 440-166063-6                            | Water         | 11/14/16               |
| ART-8A                       | 440-166063-7                            | Water         | 11/14/16               |
| ART-9                        | 440-166063-8                            | Water         | 11/14/16               |
| PC-150                       | 440-166063-9                            | Water         | 11/14/16               |
| PC-150MS                     | 440-166063-9MS                          | Water         | 11/14/16               |
| PC-150MSD                    | 440-166063-9MSD                         | Water         | 11/14/16               |
| PC-155B-20161114             | 440-166082-1                            | Water         | 11/14/16               |
| PC-86-20161114               | 440-166082-2                            | Water         | 11/14/16               |
| PC-156B-20161114             | 440-166082-3                            | Water         | 11/14/16               |
| PC-155A-20161114             | 440-166082-4                            | Water         | 11/14/16               |
| PC-156A-20161114             | 440-166082-5                            | Water         | 11/14/16               |



| <b>Sample Identification</b> | <b>Laboratory Sample Identification</b> | <b>Matrix</b> | <b>Collection Date</b> |
|------------------------------|---|---------------|------------------------|
| PC-155A-20161114MS           | 440-166082-4MS                          | Water         | 11/14/16               |
| PC-155A-20161114MSD          | 440-166082-4MSD                         | Water         | 11/14/16               |
| PC-60-20161114               | 440-166090-1                            | Water         | 11/14/16               |
| PC-59-20161114               | 440-166090-2                            | Water         | 11/14/16               |
| PC-56-20161114               | 440-166090-3                            | Water         | 11/14/16               |
| PC-62-20161114               | 440-166090-4                            | Water         | 11/14/16               |
| PC-97-20161114               | 440-166090-5                            | Water         | 11/14/16               |
| PC-94-20161114               | 440-166090-6                            | Water         | 11/14/16               |
| PC-94-20161114-FD4           | 440-166090-7                            | Water         | 11/14/16               |
| PC-157B-20161114             | 440-166090-8                            | Water         | 11/14/16               |
| PC-94-20161114-FD4MS         | 440-166090-7MS                          | Water         | 11/14/16               |
| PC-94-20161114-FD4MSD        | 440-166090-7MSD                         | Water         | 11/14/16               |
| PC-99R2/R3                   | 440-166103-1                            | Water         | 11/14/16               |
| PC-115R                      | 440-166103-2                            | Water         | 11/14/16               |
| PC-116R                      | 440-166103-3                            | Water         | 11/14/16               |
| PC-117                       | 440-166103-4                            | Water         | 11/14/16               |
| PC-118                       | 440-166103-5                            | Water         | 11/14/16               |
| PC-119                       | 440-166103-6                            | Water         | 11/14/16               |
| PC-120                       | 440-166103-7                            | Water         | 11/14/16               |
| PC-121                       | 440-166103-8                            | Water         | 11/14/16               |
| PC-133                       | 440-166103-9                            | Water         | 11/14/16               |
| PC-133MS                     | 440-166103-9MS                          | Water         | 11/14/16               |
| PC-133MSD                    | 440-166103-9MSD                         | Water         | 11/14/16               |
| PC-98R-20161115              | 440-166109-1                            | Water         | 11/15/16               |
| PC-98R-20161115-FD6          | 440-166109-2                            | Water         | 11/15/16               |
| ARP-2A-20161115              | 440-166109-3                            | Water         | 11/15/16               |
| ARP-3A-20161115              | 440-166109-4                            | Water         | 11/15/16               |
| MW-K4-20161115               | 440-166109-5                            | Water         | 11/15/16               |
| ARP-4A-20161115              | 440-166109-6                            | Water         | 11/15/16               |
| PC-53-20161115               | 440-166111-1                            | Water         | 11/15/16               |
| ARP-7-20161115               | 440-166111-2                            | Water         | 11/15/16               |
| ARP-6B-20161115              | 440-166111-3                            | Water         | 11/15/16               |
| ARP-6B-20161115-FD5          | 440-166111-4                            | Water         | 11/15/16               |
| PC-135A-20161115             | 440-166111-5                            | Water         | 11/15/16               |
| PC-53-20161115MS             | 440-166111-1MS                          | Water         | 11/15/16               |
| PC-53-20161115MSD            | 440-166111-1MSD                         | Water         | 11/15/16               |
| PC-58-20161114               | 440-166112-1                            | Water         | 11/14/16               |
| PC-91-20161114               | 440-166112-2                            | Water         | 11/14/16               |
| PC-157A-20161114             | 440-166112-3                            | Water         | 11/14/16               |
| PC-157A-20161114-FB4         | 440-166112-4                            | Water         | 11/14/16               |
| PC-90-20161115               | 440-166117-1                            | Water         | 11/15/16               |
| ARP-1-20161115               | 440-166117-2                            | Water         | 11/15/16               |

| <b>Sample Identification</b> | <b>Laboratory Sample Identification</b> | <b>Matrix</b> | <b>Collection Date</b> |
|------------------------------|---|---------------|------------------------|
| PC-18-20161115               | 440-166117-3                            | Water         | 11/15/16               |
| PC-103-20161115              | 440-166123-1                            | Water         | 11/15/16               |
| MW-K5-20161115               | 440-166123-2                            | Water         | 11/15/16               |
| ARP-5A-20161115              | 440-166123-3                            | Water         | 11/15/16               |
| PC-101R-20161115             | 440-166123-4                            | Water         | 11/15/16               |
| MW-K5-20161115MS             | 440-166123-2MS                          | Water         | 11/15/16               |
| MW-K5-20161115MSD            | 440-166123-2MSD                         | Water         | 11/15/16               |
| PC-55-20161115-EB5           | 440-166209-1                            | Water         | 11/15/16               |
| PC-136-20161115              | 440-166209-2                            | Water         | 11/15/16               |
| PC-55-20161115               | 440-166209-3                            | Water         | 11/15/16               |
| PC-136-20161115-FB5          | 440-166209-4                            | Water         | 11/15/16               |
| PC-134D-20161115-EB4         | 440-166209-5                            | Water         | 11/15/16               |
| PC-137D-20161115             | 440-166209-6                            | Water         | 11/15/16               |
| PC-134D-20161115             | 440-166209-7                            | Water         | 11/15/16               |
| I-AD                         | 440-166210-1                            | Water         | 11/16/16               |
| I-AC                         | 440-166210-2                            | Water         | 11/16/16               |
| I-K                          | 440-166210-3                            | Water         | 11/16/16               |
| I-J                          | 440-166210-4                            | Water         | 11/16/16               |
| I-Z                          | 440-166210-5                            | Water         | 11/16/16               |
| I-I                          | 440-166210-6                            | Water         | 11/16/16               |
| I-V                          | 440-166210-7                            | Water         | 11/16/16               |
| I-ACMS                       | 440-166210-2MS                          | Water         | 11/16/16               |
| I-ACMSD                      | 440-166210-2MSD                         | Water         | 11/16/16               |
| PC-144-20161116              | 440-166337-1                            | Water         | 11/16/16               |
| PC-144-20161116-FB6          | 440-166337-2                            | Water         | 11/16/16               |
| PC-124-20161116              | 440-166337-3                            | Water         | 11/16/16               |
| PC-126-20161116              | 440-166337-4                            | Water         | 11/16/16               |
| PC-130-20161116              | 440-166337-5                            | Water         | 11/16/16               |
| PC-144-20161116MS            | 440-166337-1MS                          | Water         | 11/16/16               |
| PC-144-20161116MSD           | 440-166337-1MSD                         | Water         | 11/16/16               |
| PC-123-20161116              | 440-166339-1                            | Water         | 11/16/16               |
| PC-127-20161116              | 440-166339-2                            | Water         | 11/16/16               |
| PC-131-20161116              | 440-166339-3                            | Water         | 11/16/16               |
| PC-151-20161116              | 440-166339-4                            | Water         | 11/16/16               |
| PC-149-20161116              | 440-166340-1                            | Water         | 11/16/16               |
| PC-149-20161116-EB6          | 440-166340-2                            | Water         | 11/16/16               |
| PC-160-20161116              | 440-166340-3                            | Water         | 11/16/16               |
| PC-158-20161116              | 440-166340-4                            | Water         | 11/16/16               |
| PC-154-20161116              | 440-166340-5                            | Water         | 11/16/16               |
| PC-153-20161116              | 440-166340-6                            | Water         | 11/16/16               |
| PC-149-20161116-EB6MS        | 440-166340-2MS                          | Water         | 11/16/16               |
| PC-149-20161116-EB6MSD       | 440-166340-2MSD                         | Water         | 11/16/16               |

| <b>Sample Identification</b> | <b>Laboratory Sample Identification</b> | <b>Matrix</b> | <b>Collection Date</b> |
|------------------------------|---|---------------|------------------------|
| PC-148-20161116              | 440-166342-1                            | Water         | 11/16/16               |
| PC-148-20161116-FD7          | 440-166342-2                            | Water         | 11/16/16               |
| PC-159-20161116              | 440-166342-3                            | Water         | 11/16/16               |
| PC-125-20161116              | 440-166342-4                            | Water         | 11/16/16               |
| PC-128-20161116              | 440-166342-5                            | Water         | 11/16/16               |
| PC-132-20161116              | 440-166342-6                            | Water         | 11/16/16               |
| PC-132-20161116MS            | 440-166342-6MS                          | Water         | 11/16/16               |
| PC-132-20161116MSD           | 440-166342-6MSD                         | Water         | 11/16/16               |
| M-66-20161117                | 440-166420-1                            | Water         | 11/17/16               |
| M-65-20161117                | 440-166420-2                            | Water         | 11/17/16               |
| M-64-20161117                | 440-166420-3                            | Water         | 11/17/16               |
| M-25-20161117                | 440-166420-4                            | Water         | 11/17/16               |
| M-22A-20161117-FB7           | 440-166420-5                            | Water         | 11/17/16               |
| M-22A-20161117               | 440-166420-6                            | Water         | 11/17/16               |
| M-22A-20161117-FB7MS         | 440-166420-5MS                          | Water         | 11/17/16               |
| M-22A-20161117-FB7MSD        | 440-166420-5MSD                         | Water         | 11/17/16               |
| PC-54-20161117               | 440-166423-1                            | Water         | 11/17/16               |
| PC-129-20161117              | 440-166423-2                            | Water         | 11/17/16               |
| M-192-20161117               | 440-166423-3                            | Water         | 11/17/16               |
| M-192-20161117-FD8           | 440-166423-4                            | Water         | 11/17/16               |
| PC-71-20161117               | 440-166423-5                            | Water         | 11/17/16               |
| PC-72-20161117               | 440-166423-6                            | Water         | 11/17/16               |
| PC-152-20161117              | 440-166423-7                            | Water         | 11/17/16               |
| M-189-20161117               | 440-166423-8                            | Water         | 11/17/16               |
| M-192-20161117MS             | 440-166423-3MS                          | Water         | 11/17/16               |
| M-192-20161117MSD            | 440-166423-3MSD                         | Water         | 11/17/16               |
| M-14A-20161117               | 440-166430-1                            | Water         | 11/17/16               |
| M-38-20161117                | 440-166430-2                            | Water         | 11/17/16               |
| M-38-20161117-EB8            | 440-166430-3                            | Water         | 11/17/16               |
| PC-151-20161116-EB7          | 440-166433-1                            | Water         | 11/16/16               |
| PC-122-20161116              | 440-166433-2                            | Water         | 11/16/16               |
| PC-122-20161116MS            | 440-166433-2MS                          | Water         | 11/16/16               |
| PC-122-20161116MSD           | 440-166433-2MSD                         | Water         | 11/16/16               |
| I-AB                         | 440-166442-1                            | Water         | 11/17/16               |
| M-79-20161117                | 440-166552-1                            | Water         | 11/17/16               |
| M-69-20161117                | 440-166552-2                            | Water         | 11/17/16               |
| M-193-20161117               | 440-166552-3                            | Water         | 11/17/16               |
| M-71-20161117                | 440-166552-4                            | Water         | 11/17/16               |
| M-57A-20161118               | 440-166600-1                            | Water         | 11/18/16               |
| M-72-20161118                | 440-166600-2                            | Water         | 11/18/16               |
| M-70-20161118                | 440-166600-3                            | Water         | 11/18/16               |
| M-161D-20161118              | 440-166600-4                            | Water         | 11/18/16               |

| <b>Sample Identification</b> | <b>Laboratory Sample Identification</b> | <b>Matrix</b> | <b>Collection Date</b> |
|------------------------------|---|---------------|------------------------|
| M-80-20161118                | 440-166602-1                            | Water         | 11/18/16               |
| M-73-20161118                | 440-166602-2                            | Water         | 11/18/16               |
| M-67-20161118                | 440-166602-3                            | Water         | 11/18/16               |
| M-80-20161118MS              | 440-166602-1MS                          | Water         | 11/18/16               |
| M-80-20161118MSD             | 440-166602-1MSD                         | Water         | 11/18/16               |
| M-81A-20161118               | 440-166603-1                            | Water         | 11/18/16               |
| M-74-20161118                | 440-166603-2                            | Water         | 11/18/16               |
| M-68-20161118                | 440-166603-3                            | Water         | 11/18/16               |
| M-19-20161118                | 440-166603-4                            | Water         | 11/18/16               |
| M-35-20161118                | 440-166603-5                            | Water         | 11/18/16               |
| PC-37-20161121               | 440-166790-1                            | Water         | 11/21/16               |
| PC-73-20161121               | 440-166790-2                            | Water         | 11/21/16               |
| M-135-20161121               | 440-166790-3                            | Water         | 11/21/16               |
| M-135-20161121-FB9           | 440-166790-4                            | Water         | 11/21/16               |
| M-11-20161121                | 440-166790-5                            | Water         | 11/21/16               |
| M-11-20161121-FD9            | 440-166790-6                            | Water         | 11/21/16               |
| M-37-20161122                | 440-166980-1                            | Water         | 11/22/16               |
| M-162D-20161122              | 440-166980-2                            | Water         | 11/22/16               |
| M-48A-20161122               | 440-166980-3                            | Water         | 11/22/16               |
| M-23-20161122                | 440-166980-4                            | Water         | 11/22/16               |
| M-23-20161122-EB9            | 440-166980-5                            | Water         | 11/22/16               |
| M-83-20161121                | 440-166988-1                            | Water         | 11/21/16               |
| M-10-20161122                | 440-166988-2                            | Water         | 11/22/16               |
| M-10-20161122-FB8            | 440-166988-3                            | Water         | 11/22/16               |
| M-190-20161122               | 440-166988-4                            | Water         | 11/22/16               |
| M-52-20161122                | 440-166988-5                            | Water         | 11/22/16               |
| M-186D-20161122              | 440-166988-6                            | Water         | 11/22/16               |
| M-12A-20161122               | 440-166988-7                            | Water         | 11/22/16               |
| M-190-20161122MS             | 440-166988-4MS                          | Water         | 11/22/16               |
| M-190-20161122MSD            | 440-166988-4MSD                         | Water         | 11/22/16               |
| M-191-20161122               | 440-167033-1                            | Water         | 11/22/16               |
| M-31A-20161130               | 440-167631-1                            | Water         | 11/30/16               |
| ART-1-121516**               | 440-169582-1**                          | Water         | 12/15/16               |
| ART-2-121516**               | 440-169582-2**                          | Water         | 12/15/16               |
| ART-3-121516**               | 440-169582-3**                          | Water         | 12/15/16               |
| ART-4-121516**               | 440-169582-4**                          | Water         | 12/15/16               |
| ART-6-121516**               | 440-169582-5**                          | Water         | 12/15/16               |
| ART-7A-121516**              | 440-169582-6**                          | Water         | 12/15/16               |
| ART-8A-121516**              | 440-169582-7**                          | Water         | 12/15/16               |
| ART-9-121516**               | 440-169582-8**                          | Water         | 12/15/16               |
| PC-150-121516**              | 440-169582-9**                          | Water         | 12/15/16               |
| ART-1-121516-FB**            | 440-169582-10**                         | Water         | 12/15/16               |

| <b>Sample Identification</b> | <b>Laboratory Sample Identification</b> | <b>Matrix</b> | <b>Collection Date</b> |
|------------------------------|---|---------------|------------------------|
| ART-9-121516-FD**            | 440-169582-11**                         | Water         | 12/15/16               |
| PC-117-121516**              | 440-169582-12**                         | Water         | 12/15/16               |
| PC-118-121516**              | 440-169582-13**                         | Water         | 12/15/16               |
| PC-119-121516**              | 440-169582-14**                         | Water         | 12/15/16               |
| PC-120-121516**              | 440-169582-15**                         | Water         | 12/15/16               |
| PC-121-121516**              | 440-169582-16**                         | Water         | 12/15/16               |
| PC-150-121516MS              | 440-169582-9MS                          | Water         | 12/15/16               |
| PC-150-121516MSD             | 440-169582-9MSD                         | Water         | 12/15/16               |
| I-AC-122116                  | 440-170796-1                            | Water         | 12/22/16               |
| M-10-20161227**              | 440-171145-1**                          | Water         | 12/27/16               |
| PC-99R2/R3-121916            | 440-170151-1                            | Water         | 12/19/16               |
| PC-115R-121916               | 440-170151-2                            | Water         | 12/19/16               |
| PC-116R-121916               | 440-170151-3                            | Water         | 12/19/16               |
| PC-133-121916                | 440-170151-4                            | Water         | 12/19/16               |
| PC-116R-121916-FD            | 440-170151-5                            | Water         | 12/19/16               |
| PC-133-121916-EB             | 440-170151-6                            | Water         | 12/19/16               |
| PC-116R-121916MS             | 440-170151-3MS                          | Water         | 12/19/16               |
| PC-116R-121916MSD            | 440-170151-3MSD                         | Water         | 12/19/16               |
| I-AR-122016**                | 440-170398-1**                          | Water         | 12/20/16               |
| I-AA-122016**                | 440-170398-2**                          | Water         | 12/20/16               |
| I-B-122016**                 | 440-170398-3**                          | Water         | 12/20/16               |
| I-R-122016**                 | 440-170398-4**                          | Water         | 12/20/16               |
| I-Y-122016**                 | 440-170398-5**                          | Water         | 12/20/16               |
| I-L-122016**                 | 440-170398-6**                          | Water         | 12/20/16               |
| I-S-122016**                 | 440-170398-7**                          | Water         | 12/20/16               |
| I-C-122016**                 | 440-170398-8**                          | Water         | 12/20/16               |
| I-D-122016**                 | 440-170398-9**                          | Water         | 12/20/16               |
| I-M-122016**                 | 440-170398-10**                         | Water         | 12/20/16               |
| I-E-122016**                 | 440-170398-11**                         | Water         | 12/20/16               |
| I-N-122016**                 | 440-170398-12**                         | Water         | 12/20/16               |
| I-X-122016**                 | 440-170398-13**                         | Water         | 12/20/16               |
| I-F-122016**                 | 440-170398-14**                         | Water         | 12/20/16               |
| I-Q-122016**                 | 440-170398-15**                         | Water         | 12/20/16               |
| I-G-122016**                 | 440-170398-16**                         | Water         | 12/20/16               |
| I-T-122016**                 | 440-170398-17**                         | Water         | 12/20/16               |
| I-U-122016**                 | 440-170398-18**                         | Water         | 12/20/16               |
| I-H-122016**                 | 440-170398-19**                         | Water         | 12/20/16               |
| I-P-122016**                 | 440-170398-20**                         | Water         | 12/20/16               |
| I-O-122016**                 | 440-170398-21**                         | Water         | 12/20/16               |
| I-X-122016-EB**              | 440-170398-22**                         | Water         | 12/20/16               |
| I-B-122016MS                 | 440-170398-3MS                          | Water         | 12/20/16               |
| I-B-122016MSD                | 440-170398-3MSD                         | Water         | 12/20/16               |

| <b>Sample Identification</b> | <b>Laboratory Sample Identification</b> | <b>Matrix</b> | <b>Collection Date</b> |
|------------------------------|---|---------------|------------------------|
| I-X-122016MS                 | 440-170398-13MS                         | Water         | 12/20/16               |
| I-X-122016MSD                | 440-170398-13MSD                        | Water         | 12/20/16               |
| I-AB-122116                  | 440-170572-1                            | Water         | 12/21/16               |
| I-W-122116                   | 440-170572-2                            | Water         | 12/21/16               |
| I-V-122116                   | 440-170572-3                            | Water         | 12/21/16               |
| I-I-122116                   | 440-170572-4                            | Water         | 12/21/16               |
| I-Z-122116                   | 440-170572-5                            | Water         | 12/21/16               |
| I-J-122116                   | 440-170572-6                            | Water         | 12/21/16               |
| I-K-122116                   | 440-170572-7                            | Water         | 12/21/16               |
| I-AD-122116                  | 440-170572-8                            | Water         | 12/21/16               |
| I-W-122116-FD                | 440-170572-9                            | Water         | 12/21/16               |
| I-V-122116MS                 | 440-170572-3MS                          | Water         | 12/21/16               |
| I-V-122116MSD                | 440-170572-3MSD                         | Water         | 12/21/16               |

\*\*Indicates sample underwent Stage 4 validation

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Quality Assurance Project Plan Revision 1, Nevada Environmental Response Trust Site, Henderson, Nevada (July 2014) and a modified outline of the USEPA National Functional Guidelines (NFG) for Inorganic Superfund Data Review (August 2014). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Boron, Chromium, Iron, and Manganese by Environmental Protection Agency (EPA) Method 200.7

All sample results were subjected to Stage 2B data validation, which comprises an evaluation of quality control (QC) summary results. Samples appended with a double asterisk on the cover page were subjected to Stage 4 data validation, which is comprised of the QC summary forms as well as the raw data, to confirm sample quantitation and identification.

The following are definitions of the data qualifiers utilized during data validation:

- J+ (Estimated, High Bias): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated, displaying high bias, due to non-conformances discovered during data validation.
- J- (Estimated, Low Bias): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated, displaying low bias, due to non-conformances discovered during data validation.
- J (Estimated, Bias Indeterminate): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated due to non-conformances discovered during data validation. Bias is indeterminate.
- U (Non-detected): The compound or analyte was analyzed for and positively identified by the laboratory; however the compound or analyte should be considered non-detect at the reported concentration due to the presence of contaminants detected in the associated blank(s).
- UJ (Non-detected estimated): The compound or analyte was reported as not detected by the laboratory; however the reported quantitation/detection limit is estimated due to non-conformances discovered during data validation.
- R (Rejected): The sample results were rejected due to gross non-conformances discovered during data validation. Data qualified as rejected is not usable.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.
- DNR (Do Not Report): A more appropriate result is reported from another analysis or dilution.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.



## Qualification Codes and Definitions

|    |   |
|----|---|
| a  | Qualified due to low abundance (radiochemical activity)   |
| be | Qualified due to equipment blank contamination  |
| bf | Qualified due to field blank contamination  |
| bl | Qualified due to lab blank contamination  |
| bt | Qualified due to trip blank contamination   |
| bp | Qualified due to pump blank contamination (wells without dedicated pumps, when contamination is detected in the pump blank) |
| br | Qualified due to filter blank contamination (aqueous Hexavalent Chromium and Dissolved sample fractions)                    |
| c  | Qualified due to calibration problems   |
| cp | Qualified due to insufficient ingrowth (Radiochemical only)   |
| dc | Duel column confirmation %D exceeded  |
| e  | Concentration exceeded the calibration range  |
| fd | Qualified due to field duplicate imprecision  |
| h  | Qualified due to holding time exceedance  |
| i  | Qualified due to internal standard areas  |
| k  | Qualified as Estimated Maximum Possible Concentrations (dioxins and PCB congeners)  |
| l  | Qualified due to LCS recoveries   |
| ld | Qualified due to lab duplicate imprecision (matrix duplicate, MSD, LCSD)  |
| m  | Qualified due to matrix spike recoveries  |
| nb | Qualified due to negative lab blank contamination (nondetect results only)  |
| nd | Qualified due to non-detected target analyte  |
| o  | Other   |
| p  | Qualified as a false positive due to contamination during shipping  |
| pH | Sample preservation not within acceptance range   |
| q  | Qualified due to quantitation problems  |
| s  | Qualified due to surrogate recoveries   |
| sd | Serial dilution did not meet control criteria   |
| sp | Detected value reported >SQL <PQL   |
| st | Sample receipt temperature exceeded   |
| t  | Qualified due to elevated helium tracer concentrations  |
| vh | Volatile headspace detected in aqueous sample containers submitted for VOC analysis   |
| x  | Qualified due to low % solids   |
| z  | Qualified due to ICS results  |

## I. Sample Receipt and Technical Holding Times

All samples were received in good condition.

All technical holding time requirements were met.

## II. Instrument Calibration

Initial and continuing calibrations were performed as required by the method.

The initial calibration verification (ICV) and continuing calibration verification (CCV) standards were within QC limits.

## III. ICP Interference Check Sample Analysis

The frequency of interference check sample (ICS) analysis was met. All criteria were within QC limits.

## IV. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks with the following exceptions:

| SDG                          | Blank ID        | Analyte  | Maximum Concentration | Associated Samples  |
|------------------------------|-----------------|----------|-----------------------|---|
| 440-170796-1<br>440-170572-1 | PB (prep blank) | Chromium | 0.00425 mg/L          | I-AC-122116<br>I-V-122116<br>I-I-122116<br>I-Z-122116<br>I-J-122116<br>I-K-122116 |

Sample concentrations were compared to concentrations detected in the laboratory blanks. The sample concentrations were either not detected or were significantly greater than the concentrations found in the associated laboratory blanks.

## V. Field Blanks

Samples PC-55-20161115-EB5, and PC-134D-20161115-EB4 (both from SDG 440-166209-1), PC-149-20161116-EB6, (from SDG 440-166340-1), M-38-20161117-EB8 (from SDG 440-166430-1), PC-151-20161116-EB7 (from SDG 440-166433-1), M-23-20161122-EB9 (from SDG 440-166980-1), PC-133-121916-EB (from SDG 440-170151-1), and I-X-122016-EB\*\* (from SDG 440-170398-1) were identified as equipment blanks. No contaminants were found with the following exceptions:

| SDG          | Blank ID          | Collection Date | Analyte  | Concentration | Associated Samples |
|--------------|-------------------|-----------------|----------|---------------|--------------------|
| 440-166430-1 | M-38-20161117-EB8 | 11/17/16        | Chromium | 0.0063 mg/L   | M-38-20161117      |

Samples PC-157A-20161114-FB4 (from SDG 440-166112-1), PC-136-20161115-FB5 (from SDG 440-166209-1), PC-144-20161116-FB6 (from SDG 440-166337-1), M-22A-20161117-FB7 (from SDG 440-166420-1), M-135-20161121-FB9 (from SDG 440-166790-1), M-10-20161122-FB8 (from SDG 440-166988-1), and ART-1-121516-FB\*\* (from SDG 440-169582-1) were identified as field blanks. No contaminants were found.

Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater than the concentrations found in the associated field blanks.

### VI. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample.

For I-OMS/MSD, and I-NMS/MSD (both from SDG 440-161336-1), I-CMS/MSD, and I-FMS/MSD (both from SDG 440-166060-1), PC-150MS/MSD (from SDG 440-166063-1), I-X-122016MS/MSD (from SDG 440-170398-1), and I-V-122116MS/MSD (from SDG 440-170572-1), no data were qualified for Chromium percent recoveries (%R) outside the QC limits since the parent sample results were greater than 4X the spike concentration.

Relative percent differences (RPD) were within QC limits.

### VII. Duplicate Sample Analysis

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in these SDGs, and therefore duplicate analyses were not performed for these SDGs.

### VIII. Serial Dilution

Serial dilution was not performed for these SDGs.

### IX. Laboratory Control Samples

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## X. Field Duplicates

Samples PC-94-20161114 and PC-94-20161114-FD4 (from SDG 440-166090-1), samples PC-98R-20161115 and PC-98R-20161115-FD6 (from SDG 440-166109-1), samples ARP-6B-20161115 and ARP-6B-20161115-FD5 from SDG 440-166111-1), samples PC-148-20161116 and PC-148-20161116-FD7 (from SDG 440-166342-1), samples M-192-20161117 and M-192-20161117-FD8 (from SDG 440-166423-1), samples M-11-20161121 and M-11-20161121-FD9 (from SDG 440-166790-1), samples ART-9-121516\*\* and ART-9-121516-FD\*\* (from SDG 440-169582-1), samples PC-116R-121916 and PC-116R-121916-FD (from SDG 440-170151-1), and samples I-W-122116 and I-W-122116-FD (from SDG 440-170572-1) were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

| SDG          | Analyte  | Concentration (mg/L) |                    | RPD (Limits) | Flag | A or P |
|--------------|----------|----------------------|--------------------|--------------|------|--------|
|              |          | PC-94-20161114       | PC-94-20161114-FD4 |              |      |        |
| 440-166090-1 | Chromium | 0.083                | 0.079              | 5 (≤30)      | -    | -      |

| SDG          | Analyte  | Concentration (mg/L) |                     | RPD (Limits) | Flag | A or P |
|--------------|----------|----------------------|---------------------|--------------|------|--------|
|              |          | PC-98R-20161115      | PC-98R-20161115-FD6 |              |      |        |
| 440-166109-1 | Chromium | 0.0077               | 0.0071              | 8 (≤30)      | -    | -      |

| SDG          | Analyte  | Concentration (mg/L) |                     | RPD (Limits) | Flag | A or P |
|--------------|----------|----------------------|---------------------|--------------|------|--------|
|              |          | ARP-6B-20161115      | ARP-6B-20161115-FD5 |              |      |        |
| 440-166111-1 | Chromium | 0.42                 | 0.42                | 0 (≤30)      | -    | -      |

| SDG          | Analyte  | Concentration (mg/L) |                     | RPD (Limits) | Flag | A or P |
|--------------|----------|----------------------|---------------------|--------------|------|--------|
|              |          | PC-148-20161116      | PC-148-20161116-FD7 |              |      |        |
| 440-166342-1 | Chromium | 0.014                | 0.013               | 7 (≤30)      | -    | -      |

| SDG          | Analyte  | Concentration (mg/L) |                    | RPD (Limits) | Flag | A or P |
|--------------|----------|----------------------|--------------------|--------------|------|--------|
|              |          | M-192-20161117       | M-192-20161117-FD8 |              |      |        |
| 440-166423-1 | Chromium | 0.52                 | 0.53               | 2 (≤30)      | -    | -      |

| SDG          | Analyte  | Concentration (mg/L) |                   | RPD (Limits) | Flag | A or P |
|--------------|----------|----------------------|-------------------|--------------|------|--------|
|              |          | M-11-20161121        | M-11-20161121-FD9 |              |      |        |
| 440-166790-1 | Chromium | 1.1                  | 1.3               | 17 (≤30)     | -    | -      |

| SDG          | Analyte  | Concentration (mg/L) |                   | RPD (Limits) | Flag | A or P |
|--------------|----------|----------------------|-------------------|--------------|------|--------|
|              |          | ART-9-121516**       | ART-9-121516-FD** |              |      |        |
| 440-169582-1 | Chromium | 1.0                  | 0.90              | 11 (≤30)     | -    | -      |

| SDG          | Analyte  | Concentration (mg/L) |               | RPD (Limits) | Flag | A or P |
|--------------|----------|----------------------|---------------|--------------|------|--------|
|              |          | I-W-122116           | I-W-122116-FD |              |      |        |
| 440-170572-1 | Chromium | 17                   | 20            | 16 (≤30)     | -    | -      |

## XI. Sample Result Verification

All sample result verifications were acceptable for samples which underwent Stage 4 validation. Raw data were reviewed for Stage 2B validation.

## XII. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

The quality control criteria reviewed were met and are considered acceptable. Based upon the data validation all results are considered valid and usable for all purposes.

**NERT 2016 Q4**

**Metals - Data Qualification Summary - SDGs 440-160680-1, 440-161336-1, 440-161556-1, 440-162514-1, 440-163453-1, 440-166056-1, 440-166060-1, 440-166063-1, 440-166082-1, 440-166090-1, 440-166103-1, 440-166109-1, 440-166111-1, 440-166112-1, 440-166117-1, 440-166123-1, 440-166209-1, 440-166210-1, 440-166337-1, 440-166339-1, 440-166340-1, 440-166342-1, 440-166420-1, 440-166423-1, 440-166430-1, 440-166433-1, 440-16642-1, 440-166552-1, 440-166600-1, 440-166602-1, 440-166603-1, 440-166790-1, 440-166980-1, 440-166988-1, 440-167033-1, 440-167631-1, 440-169582-1, 440-170796-1, 440-171145-1, 440-170151-1, 440-170398-1, 440-170572-1**

No Sample Data Qualified in this SDG

**NERT 2016 Q4**

**Metals - Laboratory Blank Data Qualification Summary - SDGs 440-160680-1, 440-161336-1, 440-161556-1, 440-162514-1, 440-163453-1, 440-166056-1, 440-166060-1, 440-166063-1, 440-166082-1, 440-166090-1, 440-166103-1, 440-166109-1, 440-166111-1, 440-166112-1, 440-166117-1, 440-166123-1, 440-166209-1, 440-166210-1, 440-166337-1, 440-166339-1, 440-166340-1, 440-166342-1, 440-166420-1, 440-166423-1, 440-166430-1, 440-166433-1, 440-16642-1, 440-166552-1, 440-166600-1, 440-166602-1, 440-166603-1, 440-166790-1, 440-166980-1, 440-166988-1, 440-167033-1, 440-167631-1, 440-169582-1, 440-170796-1, 440-171145-1, 440-170151-1, 440-170398-1, 440-170572-1**

No Sample Data Qualified in these SDGs

**NERT 2016 Q4**

**Metals - Field Blank Data Qualification Summary - SDGs 440-160680-1, 440-161336-1, 440-161556-1, 440-162514-1, 440-163453-1, 440-166056-1, 440-166060-1, 440-166063-1, 440-166082-1, 440-166090-1, 440-166103-1, 440-166109-1, 440-166111-1, 440-166112-1, 440-166117-1, 440-166123-1, 440-166209-1, 440-166210-1, 440-166337-1, 440-166339-1, 440-166340-1, 440-166342-1, 440-166420-1, 440-166423-1, 440-166430-1, 440-166433-1, 440-16642-1, 440-166552-1, 440-166600-1, 440-166602-1, 440-166603-1, 440-166790-1, 440-166980-1, 440-166988-1, 440-167033-1, 440-167631-1, 440-169582-1, 440-170796-1, 440-171145-1, 440-170151-1, 440-170398-1, 440-170572-1**

No Sample Data Qualified in these SDGs

**ATTACHMENT D**  
**WET CHEMISTRY DATA VALIDATION REPORT**

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** NERT 2016 Q3

**LDC Report Date:** June 29, 2017

**Parameters:** Wet Chemistry

**Validation Level:** Stage 2B & 4

**Laboratory:** TestAmerica, Inc./SilverState Analytical Laboratories

**Sample Delivery Group (SDG):** 440-151677-1, 440-151794-1/16070065, 440-152035-1, 440-152574-1, 440-153307-1/16070511, 440-153241-1, 440-153408-1, 440-152845-1/16070262, 440-152846-1/16070119, 440-154229-1, 440-154365-1/16080017, 440-154471-1, 440-154485-1, 440-154590-1, 440-154938-1, 440-154944-1/16080276, 440-155035-1, 440-155148-1, 440-155186-1/16080317, 440-155316-1, 440-155320-1, 440-155320-2, 440-155334-1/16080415, 440-155490-1, 440-155494-1, 440-156239-1/16080089, 440-156317-1, 440-156610-1, 440-157616-1, 440-157843-1, 440-157936-1/16080416, 440-158103-1/16080663, 440-158214-1, 440-158404-1, 440-158406-1, 440-158478-1/16090425, 440-158607-1, 440-158652-1/16090503, 440-158656-1, 440-159190-1, 440-159527-1/16090165, 440-159532-1/16090237

| Sample Identification | Laboratory Sample Identification | Matrix | Collection Date |
|-----------------------|----------------------------------|--------|-----------------|
| ART-2                 | 440-151677-1                     | Water  | 07/05/16        |
| PC-150                | 440-151677-2                     | Water  | 07/05/16        |
| ART-8A                | 440-151677-3                     | Water  | 07/05/16        |
| ART-7B                | 440-151677-4                     | Water  | 07/05/16        |
| ART-1A                | 440-151677-5                     | Water  | 07/05/16        |
| ART-3A                | 440-151677-6                     | Water  | 07/05/16        |
| ART-9                 | 440-151677-7                     | Water  | 07/05/16        |
| ART-4                 | 440-151677-8                     | Water  | 07/05/16        |
| PC-99R2/R3            | 440-151677-9                     | Water  | 07/05/16        |
| PC-115R               | 440-151677-10                    | Water  | 07/05/16        |
| PC-116R               | 440-151677-11                    | Water  | 07/05/16        |
| PC-118                | 440-151677-12                    | Water  | 07/05/16        |
| PC-119                | 440-151677-13                    | Water  | 07/05/16        |
| PC-117                | 440-151677-14                    | Water  | 07/05/16        |



| <b>Sample Identification</b> | <b>Laboratory Sample Identification</b> | <b>Matrix</b> | <b>Collection Date</b> |
|------------------------------|---|---------------|------------------------|
| PC-133                       | 440-151677-15                           | Water         | 07/05/16               |
| PC-121                       | 440-151677-16                           | Water         | 07/05/16               |
| PC-120                       | 440-151677-17                           | Water         | 07/05/16               |
| PC-116RDUP                   | 440-151677-11DUP                        | Water         | 07/05/16               |
| ART-2                        | 440-151794-1/16070065-01                | Water         | 07/05/16               |
| PC-150                       | 440-151794-2/16070065-02                | Water         | 07/05/16               |
| ART-8A                       | 440-151794-3/16070065-03                | Water         | 07/05/16               |
| ART-7B                       | 440-151794-4/16070065-04                | Water         | 07/05/16               |
| ART-1A                       | 440-151794-5/16070065-05                | Water         | 07/05/16               |
| ART-3A                       | 440-151794-6/16070065-06                | Water         | 07/05/16               |
| ART-9                        | 440-151794-7/16070065-07                | Water         | 07/05/16               |
| ART-4                        | 440-151794-8/16070065-08                | Water         | 07/05/16               |
| PC-99R2/R3                   | 440-151794-9/16070065-09                | Water         | 07/05/16               |
| PC-115R                      | 440-151794-10/16070065-10               | Water         | 07/05/16               |
| PC-116R                      | 440-151794-11/16070065-11               | Water         | 07/05/16               |
| PC-118                       | 440-151794-12/16070065-12               | Water         | 07/05/16               |
| PC-119                       | 440-151794-13/16070065-13               | Water         | 07/05/16               |
| PC-117                       | 440-151794-14/16070065-14               | Water         | 07/05/16               |
| PC-133                       | 440-151794-15/16070065-15               | Water         | 07/05/16               |
| PC-121                       | 440-151794-16/16070065-16               | Water         | 07/05/16               |
| PC-120                       | 440-151794-17/16070065-17               | Water         | 07/05/16               |
| ART-2MS                      | 440-151794-1/16070065-01MS              | Water         | 07/05/16               |
| ART-2MSD                     | 440-151794-1/16070065-01MSD             | Water         | 07/05/16               |
| PC-117MS                     | 440-151794-14/16070065-14MS             | Water         | 07/05/16               |
| PC-117MSD                    | 440-151794-14/16070065-14MSD            | Water         | 07/05/16               |
| I-O                          | 440-152035-1                            | Water         | 07/06/16               |
| I-W                          | 440-152035-2                            | Water         | 07/06/16               |
| I-P                          | 440-152035-3                            | Water         | 07/06/16               |
| I-H                          | 440-152035-4                            | Water         | 07/06/16               |
| I-U                          | 440-152035-5                            | Water         | 07/06/16               |
| I-T                          | 440-152035-6                            | Water         | 07/06/16               |
| I-Q                          | 440-152035-7                            | Water         | 07/06/16               |
| I-F                          | 440-152035-8                            | Water         | 07/06/16               |
| I-C                          | 440-152035-9                            | Water         | 07/06/16               |
| I-S                          | 440-152035-10                           | Water         | 07/06/16               |
| I-L                          | 440-152035-11                           | Water         | 07/06/16               |
| I-Y                          | 440-152035-12                           | Water         | 07/06/16               |
| I-R                          | 440-152035-13                           | Water         | 07/06/16               |
| I-B                          | 440-152035-14                           | Water         | 07/06/16               |
| I-AA                         | 440-152035-15                           | Water         | 07/06/16               |
| I-AR                         | 440-152035-16                           | Water         | 07/06/16               |
| I-FDUP                       | 440-152035-8DUP                         | Water         | 07/06/16               |
| I-N                          | 440-152574-1                            | Water         | 07/12/16               |

| <b>Sample Identification</b> | <b>Laboratory Sample Identification</b> | <b>Matrix</b> | <b>Collection Date</b> |
|------------------------------|---|---------------|------------------------|
| I-D                          | 440-152574-2                            | Water         | 07/12/16               |
| I-X                          | 440-152574-3                            | Water         | 07/12/16               |
| I-M                          | 440-152574-4                            | Water         | 07/12/16               |
| I-AB                         | 440-152574-5                            | Water         | 07/12/16               |
| I-G                          | 440-152574-6                            | Water         | 07/12/16               |
| I-E                          | 440-152574-7                            | Water         | 07/12/16               |
| I-V                          | 440-152574-8                            | Water         | 07/12/16               |
| I-I                          | 440-152574-9                            | Water         | 07/12/16               |
| I-Z                          | 440-152574-10                           | Water         | 07/12/16               |
| I-J                          | 440-152574-11                           | Water         | 07/12/16               |
| I-K                          | 440-152574-12                           | Water         | 07/12/16               |
| I-AC                         | 440-152574-13                           | Water         | 07/12/16               |
| I-AD                         | 440-152574-14                           | Water         | 07/12/16               |
| I-NDUP                       | 440-152574-1DUP                         | Water         | 07/12/16               |
| I-JDUP                       | 440-152574-11DUP                        | Water         | 07/12/16               |
| ART-6                        | 440-153307-1/16070511-01                | Water         | 07/19/16               |
| M-83                         | 440-153241-1                            | Water         | 07/19/16               |
| PC-58                        | 440-153241-2                            | Water         | 07/19/16               |
| PC-56                        | 440-153241-3                            | Water         | 07/19/16               |
| PC-60                        | 440-153241-4                            | Water         | 07/19/16               |
| PC-59                        | 440-153241-5                            | Water         | 07/19/16               |
| PC-62                        | 440-153241-6                            | Water         | 07/19/16               |
| PC-68                        | 440-153241-7                            | Water         | 07/19/16               |
| PC-86                        | 440-153241-8                            | Water         | 07/19/16               |
| PC-91                        | 440-153241-9                            | Water         | 07/19/16               |
| PC-90                        | 440-153241-10                           | Water         | 07/19/16               |
| PC-97                        | 440-153241-11                           | Water         | 07/19/16               |
| MEB-1                        | 440-153241-12                           | Water         | 07/19/16               |
| PC-122                       | 440-153241-13                           | Water         | 07/19/16               |
| ART-6                        | 440-153241-14                           | Water         | 07/19/16               |
| PC-101R                      | 440-153241-15                           | Water         | 07/19/16               |
| M-83DUP                      | 440-153241-1DUP                         | Water         | 07/19/16               |
| PC-97DUP                     | 440-153241-11DUP                        | Water         | 07/19/16               |
| MEB-1MS                      | 440-153241-12MS                         | Water         | 07/19/16               |
| MEB-1MSD                     | 440-153241-12MSD                        | Water         | 07/19/16               |
| PC-18                        | 440-153408-1                            | Water         | 07/20/16               |
| ARP-1                        | 440-153408-2                            | Water         | 07/20/16               |
| PC-53                        | 440-153408-3                            | Water         | 07/20/16               |
| MW-K5                        | 440-153408-4                            | Water         | 07/20/16               |
| ARP-7                        | 440-153408-5                            | Water         | 07/20/16               |
| ARP-6B                       | 440-153408-6                            | Water         | 07/20/16               |
| ARP-5A                       | 440-153408-7                            | Water         | 07/20/16               |
| ARP-4A                       | 440-153408-8                            | Water         | 07/20/16               |

| <b>Sample Identification</b> | <b>Laboratory Sample Identification</b> | <b>Matrix</b> | <b>Collection Date</b> |
|------------------------------|---|---------------|------------------------|
| MW-K4                        | 440-153408-9                            | Water         | 07/20/16               |
| ARP-3A                       | 440-153408-10                           | Water         | 07/20/16               |
| ARP-2A                       | 440-153408-11                           | Water         | 07/20/16               |
| PC-103                       | 440-153408-12                           | Water         | 07/20/16               |
| PC-98R                       | 440-153408-13                           | Water         | 07/20/16               |
| PC-55                        | 440-153408-14                           | Water         | 07/20/16               |
| PC-18DUP                     | 440-153408-1DUP                         | Water         | 07/20/16               |
| ARP-2ADUP                    | 440-153408-11DUP                        | Water         | 07/20/16               |
| I-N                          | 440-152845-1/16070262-01                | Water         | 07/12/16               |
| I-D                          | 440-152845-2/16070262-02                | Water         | 07/12/16               |
| I-X                          | 440-152845-3/16070262-03                | Water         | 07/12/16               |
| I-M                          | 440-152845-4/16070262-04                | Water         | 07/12/16               |
| I-AB                         | 440-152845-5/16070262-05                | Water         | 07/12/16               |
| I-G                          | 440-152845-6/16070262-06                | Water         | 07/12/16               |
| I-E                          | 440-152845-7/16070262-07                | Water         | 07/12/16               |
| I-V                          | 440-152845-8/16070262-08                | Water         | 07/12/16               |
| I-I                          | 440-152845-9/16070262-09                | Water         | 07/12/16               |
| I-J                          | 440-152845-10/16070262-10               | Water         | 07/12/16               |
| I-Z                          | 440-152845-11/16070262-11               | Water         | 07/12/16               |
| I-K                          | 440-152845-12/16070262-12               | Water         | 07/12/16               |
| I-AC                         | 440-152845-13/16070262-13               | Water         | 07/12/16               |
| I-AD                         | 440-152845-14/16070262-14               | Water         | 07/12/16               |
| I-EMS                        | 440-152845-7/16070262-07MS              | Water         | 07/12/16               |
| I-EMSD                       | 440-152845-7/16070262-07MSD             | Water         | 07/12/16               |
| I-O                          | 440-152846-1/16070119-01                | Water         | 07/06/16               |
| I-W                          | 440-152846-2/16070119-02                | Water         | 07/06/16               |
| I-P                          | 440-152846-3/16070119-03                | Water         | 07/06/16               |
| I-H                          | 440-152846-4/16070119-04                | Water         | 07/06/16               |
| I-U                          | 440-152846-5/16070119-05                | Water         | 07/06/16               |
| I-T                          | 440-152846-6/16070119-06                | Water         | 07/06/16               |
| I-Q                          | 440-152846-7/16070119-07                | Water         | 07/06/16               |
| I-F                          | 440-152846-8/16070119-08                | Water         | 07/06/16               |
| I-C                          | 440-152846-9/16070119-09                | Water         | 07/06/16               |
| I-S                          | 440-152846-10/16070119-10               | Water         | 07/06/16               |
| I-L                          | 440-152846-11/16070119-11               | Water         | 07/06/16               |
| I-Y                          | 440-152846-12/16070119-12               | Water         | 07/06/16               |
| I-R                          | 440-152846-13/16070119-13               | Water         | 07/06/16               |
| I-B                          | 440-152846-14/16070119-14               | Water         | 07/06/16               |
| I-AA                         | 440-152846-15/16070119-15               | Water         | 07/06/16               |
| I-AR                         | 440-152846-16/16070119-16               | Water         | 07/06/16               |
| I-HMS                        | 440-152846-4/16070119-04MS              | Water         | 07/06/16               |
| I-HMSD                       | 440-152846-4/16070119-04MSD             | Water         | 07/06/16               |
| PC-99R2/R3                   | 440-154229-1                            | Water         | 08/01/16               |

| <b>Sample Identification</b> | <b>Laboratory Sample Identification</b> | <b>Matrix</b> | <b>Collection Date</b> |
|------------------------------|---|---------------|------------------------|
| PC-115R                      | 440-154229-2                            | Water         | 08/01/16               |
| PC-116R                      | 440-154229-3                            | Water         | 08/01/16               |
| PC-117                       | 440-154229-4                            | Water         | 08/01/16               |
| PC-118                       | 440-154229-5                            | Water         | 08/01/16               |
| PC-119                       | 440-154229-6                            | Water         | 08/01/16               |
| PC-133                       | 440-154229-7                            | Water         | 08/01/16               |
| PC-120                       | 440-154229-8                            | Water         | 08/01/16               |
| PC-121                       | 440-154229-9                            | Water         | 08/01/16               |
| ART-4                        | 440-154229-10                           | Water         | 08/01/16               |
| ART-3A                       | 440-154229-11                           | Water         | 08/01/16               |
| ART-8A                       | 440-154229-12                           | Water         | 08/01/16               |
| ART-2A                       | 440-154229-13                           | Water         | 08/01/16               |
| ART-1A                       | 440-154229-14                           | Water         | 08/01/16               |
| ART-7B                       | 440-154229-15                           | Water         | 08/01/16               |
| ART-9                        | 440-154229-16                           | Water         | 08/01/16               |
| PC-150                       | 440-154229-17                           | Water         | 08/01/16               |
| PC-99R2/R3DUP                | 440-154229-1DUP                         | Water         | 08/01/16               |
| PC-120MS                     | 440-154229-8MS                          | Water         | 08/01/16               |
| PC-120MSD                    | 440-154229-8MSD                         | Water         | 08/01/16               |
| ART-3ADUP                    | 440-154229-11DUP                        | Water         | 08/01/16               |
| PC-99R2/R3                   | 440-154365-1/16080017-01                | Water         | 08/01/16               |
| PC-115R                      | 440-154365-2/16080017-02                | Water         | 08/01/16               |
| PC-116R                      | 440-154365-3/16080017-03                | Water         | 08/01/16               |
| PC-117                       | 440-154365-4/16080017-04                | Water         | 08/01/16               |
| PC-118                       | 440-154365-5/16080017-05                | Water         | 08/01/16               |
| PC-119                       | 440-154365-6/16080017-06                | Water         | 08/01/16               |
| PC-133                       | 440-154365-7/16080017-07                | Water         | 08/01/16               |
| PC-120                       | 440-154365-8/16080017-08                | Water         | 08/01/16               |
| PC-121                       | 440-154365-9/16080017-09                | Water         | 08/01/16               |
| ART-4                        | 440-154365-10/16080017-10               | Water         | 08/01/16               |
| ART-3A                       | 440-154365-11/16080017-11               | Water         | 08/01/16               |
| ART-8A                       | 440-154365-12/16080017-12               | Water         | 08/01/16               |
| ART-2A                       | 440-154365-13/16080017-13               | Water         | 08/01/16               |
| ART-1A                       | 440-154365-14/16080017-14               | Water         | 08/01/16               |
| ART-7B                       | 440-154365-15/16080017-15               | Water         | 08/01/16               |
| ART-9                        | 440-154365-16/16080017-16               | Water         | 08/01/16               |
| PC-150                       | 440-154365-17/16080017-17               | Water         | 08/01/16               |
| PC-99R2/R3MS                 | 440-154365-1/16080017-01MS              | Water         | 08/01/16               |
| PC-99R2/R3MSD                | 440-154365-1/16080017-01MSD             | Water         | 08/01/16               |
| PC-150MS                     | 440-154365-17/16080017-17MS             | Water         | 08/01/16               |
| PC-150MSD                    | 440-154365-17/16080017-17MSD            | Water         | 08/01/16               |
| PC-122                       | 440-154471-1                            | Water         | 08/02/16               |
| PC-58                        | 440-154471-2                            | Water         | 08/02/16               |

| <b>Sample Identification</b> | <b>Laboratory Sample Identification</b> | <b>Matrix</b> | <b>Collection Date</b> |
|------------------------------|---|---------------|------------------------|
| PC-56                        | 440-154471-3                            | Water         | 08/02/16               |
| FB-1                         | 440-154471-4                            | Water         | 08/02/16               |
| PC-60                        | 440-154471-5                            | Water         | 08/02/16               |
| PC-59                        | 440-154471-6                            | Water         | 08/02/16               |
| PC-62                        | 440-154471-7                            | Water         | 08/02/16               |
| EB-1                         | 440-154471-8                            | Water         | 08/02/16               |
| PC-68                        | 440-154471-9                            | Water         | 08/02/16               |
| PC-86                        | 440-154471-10                           | Water         | 08/02/16               |
| PC-97                        | 440-154471-11                           | Water         | 08/02/16               |
| PC-90                        | 440-154471-12                           | Water         | 08/02/16               |
| PC-91                        | 440-154471-13                           | Water         | 08/02/16               |
| PC-94                        | 440-154471-14                           | Water         | 08/02/16               |
| PC-86DUP                     | 440-154471-10DUP                        | Water         | 08/02/16               |
| FB-1MS                       | 440-154471-4MS                          | Water         | 08/02/16               |
| FB-1MSD                      | 440-154471-4MSD                         | Water         | 08/02/16               |
| ART-6                        | 440-154485-1                            | Water         | 08/02/16               |
| ART-6DUP                     | 440-154485-1DUP                         | Water         | 08/02/16               |
| PC-18                        | 440-154590-1                            | Water         | 08/03/16               |
| ARP-1                        | 440-154590-2                            | Water         | 08/03/16               |
| PC-136                       | 440-154590-3                            | Water         | 08/03/16               |
| PC-53                        | 440-154590-4                            | Water         | 08/03/16               |
| EB2                          | 440-154590-5                            | Water         | 08/03/16               |
| MW-K5                        | 440-154590-6                            | Water         | 08/03/16               |
| PC-103                       | 440-154590-7                            | Water         | 08/03/16               |
| PC-98R                       | 440-154590-8                            | Water         | 08/03/16               |
| ARP-7                        | 440-154590-9                            | Water         | 08/03/16               |
| ARP-6B                       | 440-154590-10                           | Water         | 08/03/16               |
| ARP-5A                       | 440-154590-11                           | Water         | 08/03/16               |
| MEB-1                        | 440-154590-12                           | Water         | 08/03/16               |
| ARP-4A                       | 440-154590-13                           | Water         | 08/03/16               |
| MW-K4                        | 440-154590-14                           | Water         | 08/03/16               |
| PC-144                       | 440-154590-15                           | Water         | 08/03/16               |
| PC-135A                      | 440-154590-16                           | Water         | 08/03/16               |
| PC-101R                      | 440-154590-17                           | Water         | 08/03/16               |
| ARP-3A                       | 440-154590-18                           | Water         | 08/03/16               |
| ARP-2A                       | 440-154590-19                           | Water         | 08/03/16               |
| PC-18DUP                     | 440-154590-1DUP                         | Water         | 08/03/16               |
| EB2MS                        | 440-154590-5MS                          | Water         | 08/03/16               |
| EB2MSD                       | 440-154590-5MSD                         | Water         | 08/03/16               |
| ARP-5ADUP                    | 440-154590-11DUP                        | Water         | 08/03/16               |
| PC-123**                     | 440-154938-1**                          | Water         | 08/08/16               |
| DUP6**                       | 440-154938-2**                          | Water         | 08/08/16               |
| PC-128**                     | 440-154938-3**                          | Water         | 08/08/16               |

| <b>Sample Identification</b> | <b>Laboratory Sample Identification</b> | <b>Matrix</b> | <b>Collection Date</b> |
|------------------------------|---|---------------|------------------------|
| PC-129**                     | 440-154938-4**                          | Water         | 08/08/16               |
| PC-130**                     | 440-154938-5**                          | Water         | 08/08/16               |
| PC-131**                     | 440-154938-6**                          | Water         | 08/08/16               |
| PC-132**                     | 440-154938-7**                          | Water         | 08/08/16               |
| PC-124**                     | 440-154938-8**                          | Water         | 08/08/16               |
| PC-125**                     | 440-154938-9**                          | Water         | 08/08/16               |
| PC-126**                     | 440-154938-10**                         | Water         | 08/08/16               |
| PC-127**                     | 440-154938-11**                         | Water         | 08/08/16               |
| EB4**                        | 440-154938-12**                         | Water         | 08/08/16               |
| PC-148**                     | 440-154938-13**                         | Water         | 08/08/16               |
| PC-149**                     | 440-154938-14**                         | Water         | 08/08/16               |
| PC-54**                      | 440-154938-15**                         | Water         | 08/08/16               |
| M-48A**                      | 440-154938-16**                         | Water         | 08/08/16               |
| M-44**                       | 440-154938-17**                         | Water         | 08/08/16               |
| DUP7**                       | 440-154938-18**                         | Water         | 08/08/16               |
| PC-71**                      | 440-154938-19**                         | Water         | 08/08/16               |
| PC-72**                      | 440-154938-20**                         | Water         | 08/08/16               |
| PC-73**                      | 440-154938-21**                         | Water         | 08/08/16               |
| PC-37**                      | 440-154938-22**                         | Water         | 08/08/16               |
| PC-123DUP                    | 440-154938-1DUP                         | Water         | 08/08/16               |
| PC-127DUP                    | 440-154938-11DUP                        | Water         | 08/08/16               |
| EB4MS                        | 440-154938-12MS                         | Water         | 08/08/16               |
| EB4MSD                       | 440-154938-12MSD                        | Water         | 08/08/16               |
| M-44                         | 440-154944-1/16080276-01                | Water         | 08/08/16               |
| Dup-7                        | 440-154944-2/16080276-02                | Water         | 08/08/16               |
| M-44MS                       | 440-154944-1/16080276-01MS              | Water         | 08/08/16               |
| M-44MSD                      | 440-154944-1/16080276-01MSD             | Water         | 08/08/16               |
| M-10**                       | 440-155035-1**                          | Water         | 08/09/16               |
| M-83                         | 440-155148-1                            | Water         | 08/09/16               |
| M-80                         | 440-155148-2                            | Water         | 08/09/16               |
| M-81A                        | 440-155148-3                            | Water         | 08/09/16               |
| M-73                         | 440-155148-4                            | Water         | 08/09/16               |
| M-67                         | 440-155148-5                            | Water         | 08/09/16               |
| DUP8                         | 440-155148-6                            | Water         | 08/09/16               |
| M-74                         | 440-155148-7                            | Water         | 08/09/16               |
| EB9                          | 440-155148-8                            | Water         | 08/09/16               |
| M-68                         | 440-155148-9                            | Water         | 08/09/16               |
| M-19                         | 440-155148-10                           | Water         | 08/09/16               |
| M-35                         | 440-155148-11                           | Water         | 08/09/16               |
| M-31A                        | 440-155148-12                           | Water         | 08/09/16               |
| M-52                         | 440-155148-13                           | Water         | 08/09/16               |
| M-11                         | 440-155148-14                           | Water         | 08/09/16               |
| M-12A                        | 440-155148-15                           | Water         | 08/09/16               |

| <b>Sample Identification</b> | <b>Laboratory Sample Identification</b> | <b>Matrix</b> | <b>Collection Date</b> |
|------------------------------|---|---------------|------------------------|
| DUP9                         | 440-155148-16                           | Water         | 08/09/16               |
| M-83DUP                      | 440-155148-1DUP                         | Water         | 08/09/16               |
| EB9MS                        | 440-155148-8MS                          | Water         | 08/09/16               |
| EB9MSD                       | 440-155148-8MSD                         | Water         | 08/09/16               |
| M-35DUP                      | 440-155148-11DUP                        | Water         | 08/09/16               |
| DUP9MS                       | 440-155148-16MS                         | Water         | 08/09/16               |
| DUP9MSD                      | 440-155148-16MSD                        | Water         | 08/09/16               |
| M-80                         | 440-155186-1/16080317-01                | Water         | 08/09/16               |
| M-11                         | 440-155186-2/16080317-02                | Water         | 08/09/16               |
| M-12A                        | 440-155186-3/16080317-03                | Water         | 08/09/16               |
| DUP9                         | 440-155186-4/16080317-04                | Water         | 08/09/16               |
| M-25                         | 440-155316-1**                          | Water         | 08/10/16               |
| M-37                         | 440-155316-2**                          | Water         | 08/10/16               |
| DUP12                        | 440-155316-3**                          | Water         | 08/10/16               |
| M-14A                        | 440-155316-4**                          | Water         | 08/10/16               |
| M-131                        | 440-155316-5**                          | Water         | 08/10/16               |
| M-57A                        | 440-155316-6**                          | Water         | 08/10/16               |
| M-135                        | 440-155316-7**                          | Water         | 08/10/16               |
| M-69                         | 440-155316-8**                          | Water         | 08/10/16               |
| EB-10                        | 440-155316-9**                          | Water         | 08/10/16               |
| M-79                         | 440-155316-10**                         | Water         | 08/10/16               |
| M-70                         | 440-155316-11**                         | Water         | 08/10/16               |
| M-71                         | 440-155316-12**                         | Water         | 08/10/16               |
| M-72                         | 440-155316-13**                         | Water         | 08/10/16               |
| M-65                         | 440-155316-14**                         | Water         | 08/10/16               |
| DUP10                        | 440-155316-15**                         | Water         | 08/10/16               |
| M-66                         | 440-155316-16**                         | Water         | 08/10/16               |
| M-38                         | 440-155316-17**                         | Water         | 08/10/16               |
| DUP11                        | 440-155316-18**                         | Water         | 08/10/16               |
| M-22A                        | 440-155316-19**                         | Water         | 08/10/16               |
| M-23                         | 440-155316-20**                         | Water         | 08/10/16               |
| PC-55                        | 440-155316-21**                         | Water         | 08/10/16               |
| M-64                         | 440-155316-22**                         | Water         | 08/10/16               |
| M-25DUP                      | 440-155316-1DUP                         | Water         | 08/10/16               |
| EB-10MS                      | 440-155316-9MS                          | Water         | 08/10/16               |
| EB-10MSD                     | 440-155316-9MSD                         | Water         | 08/10/16               |
| M-70DUP                      | 440-155316-11DUP                        | Water         | 08/10/16               |
| M-22AMS                      | 440-155316-19MS                         | Water         | 08/10/16               |
| M-22AMSD                     | 440-155316-19MSD                        | Water         | 08/10/16               |
| M-5A**                       | 440-155320-1**                          | Water         | 08/10/16               |
| M-5ADUP                      | 440-155320-1DUP                         | Water         | 08/10/16               |
| M-37                         | 440-155334-1/16080415-01                | Water         | 08/10/16               |
| DUP-12                       | 440-155334-2/16080415-02                | Water         | 08/10/16               |

| <b>Sample Identification</b> | <b>Laboratory Sample Identification</b> | <b>Matrix</b> | <b>Collection Date</b> |
|------------------------------|---|---------------|------------------------|
| M-38                         | 440-155334-3/16080415-03                | Water         | 08/10/16               |
| DUP11                        | 440-155334-4/16080415-04                | Water         | 08/10/16               |
| H-28A                        | 440-155490-1                            | Water         | 08/11/16               |
| M-6A                         | 440-155490-2                            | Water         | 08/11/16               |
| M-7B                         | 440-155490-3                            | Water         | 08/11/16               |
| M-7BDUP                      | 440-155490-3DUP                         | Water         | 08/11/16               |
| I-O                          | 440-155494-1                            | Water         | 08/11/16               |
| I-W                          | 440-155494-2                            | Water         | 08/11/16               |
| I-P                          | 440-155494-3                            | Water         | 08/11/16               |
| I-H                          | 440-155494-4                            | Water         | 08/11/16               |
| I-U                          | 440-155494-5                            | Water         | 08/11/16               |
| I-T                          | 440-155494-6                            | Water         | 08/11/16               |
| I-G                          | 440-155494-7                            | Water         | 08/11/16               |
| I-Q                          | 440-155494-8                            | Water         | 08/11/16               |
| I-F                          | 440-155494-9                            | Water         | 08/11/16               |
| I-X                          | 440-155494-10                           | Water         | 08/11/16               |
| I-N                          | 440-155494-11                           | Water         | 08/11/16               |
| I-E                          | 440-155494-12                           | Water         | 08/11/16               |
| I-M                          | 440-155494-13                           | Water         | 08/11/16               |
| I-D                          | 440-155494-14                           | Water         | 08/11/16               |
| I-C                          | 440-155494-15                           | Water         | 08/11/16               |
| I-S                          | 440-155494-16                           | Water         | 08/11/16               |
| I-L                          | 440-155494-17                           | Water         | 08/11/16               |
| I-Y                          | 440-155494-18                           | Water         | 08/11/16               |
| I-R                          | 440-155494-19                           | Water         | 08/11/16               |
| I-B                          | 440-155494-20                           | Water         | 08/11/16               |
| I-AB                         | 440-155494-21                           | Water         | 08/11/16               |
| I-AA                         | 440-155494-22                           | Water         | 08/11/16               |
| I-AR                         | 440-155494-23                           | Water         | 08/11/16               |
| DUP14                        | 440-155494-24                           | Water         | 08/11/16               |
| I-AD                         | 440-155494-25                           | Water         | 08/11/16               |
| I-K                          | 440-155494-26                           | Water         | 08/11/16               |
| I-J                          | 440-155494-27                           | Water         | 08/11/16               |
| I-Z                          | 440-155494-28                           | Water         | 08/11/16               |
| I-I                          | 440-155494-29                           | Water         | 08/11/16               |
| I-V                          | 440-155494-30                           | Water         | 08/11/16               |
| I-ODUP                       | 440-155494-1DUP                         | Water         | 08/11/16               |
| I-NDUP                       | 440-155494-11DUP                        | Water         | 08/11/16               |
| I-ABDUP                      | 440-155494-21DUP                        | Water         | 08/11/16               |
| ART-6                        | 440-156239-1/16080089-01                | Water         | 08/02/16               |
| I-AC                         | 440-156317-1                            | Water         | 08/22/16               |
| M-48A                        | 440-156610-1                            | Water         | 08/24/16               |
| M-48AMS                      | 440-156610-1MS                          | Water         | 08/24/16               |



| <b>Sample Identification</b> | <b>Laboratory Sample Identification</b> | <b>Matrix</b> | <b>Collection Date</b> |
|------------------------------|---|---------------|------------------------|
| M-48AMSD                     | 440-156610-1MSD                         | Water         | 08/24/16               |
| PC-99R2/R3                   | 440-157616-1                            | Water         | 09/06/16               |
| PC-115R                      | 440-157616-2                            | Water         | 09/06/16               |
| PC-116R                      | 440-157616-3                            | Water         | 09/06/16               |
| PC-117                       | 440-157616-4                            | Water         | 09/06/16               |
| PC-118                       | 440-157616-5                            | Water         | 09/06/16               |
| PC-119                       | 440-157616-6                            | Water         | 09/06/16               |
| PC-120                       | 440-157616-7                            | Water         | 09/06/16               |
| PC-121                       | 440-157616-8                            | Water         | 09/06/16               |
| PC-133                       | 440-157616-9                            | Water         | 09/06/16               |
| ART-1A                       | 440-157616-10                           | Water         | 09/06/16               |
| ART-2A                       | 440-157616-11                           | Water         | 09/06/16               |
| ART-3A                       | 440-157616-12                           | Water         | 09/06/16               |
| ART-4                        | 440-157616-13                           | Water         | 09/06/16               |
| ART-7B                       | 440-157616-14                           | Water         | 09/06/16               |
| ART-8A                       | 440-157616-15                           | Water         | 09/06/16               |
| ART-9                        | 440-157616-16                           | Water         | 09/06/16               |
| PC-150                       | 440-157616-17                           | Water         | 09/06/16               |
| PC-99R2/R3DUP                | 440-157616-1DUP                         | Water         | 09/06/16               |
| ART-2ADUP                    | 440-157616-11DUP                        | Water         | 09/06/16               |
| I-O                          | 440-157843-1                            | Water         | 09/07/16               |
| I-W                          | 440-157843-2                            | Water         | 09/07/16               |
| I-P                          | 440-157843-3                            | Water         | 09/07/16               |
| I-H                          | 440-157843-4                            | Water         | 09/07/16               |
| I-U                          | 440-157843-5                            | Water         | 09/07/16               |
| I-T                          | 440-157843-6                            | Water         | 09/07/16               |
| I-G                          | 440-157843-7                            | Water         | 09/07/16               |
| I-Q                          | 440-157843-8                            | Water         | 09/07/16               |
| I-F                          | 440-157843-9                            | Water         | 09/07/16               |
| I-X                          | 440-157843-10                           | Water         | 09/07/16               |
| I-N                          | 440-157843-11                           | Water         | 09/07/16               |
| I-E                          | 440-157843-12                           | Water         | 09/07/16               |
| I-M                          | 440-157843-13                           | Water         | 09/07/16               |
| I-D                          | 440-157843-14                           | Water         | 09/07/16               |
| I-C                          | 440-157843-15                           | Water         | 09/07/16               |
| I-S                          | 440-157843-16                           | Water         | 09/07/16               |
| I-L                          | 440-157843-17                           | Water         | 09/07/16               |
| I-Y                          | 440-157843-18                           | Water         | 09/07/16               |
| I-R                          | 440-157843-19                           | Water         | 09/07/16               |
| I-B                          | 440-157843-20                           | Water         | 09/07/16               |
| I-AB                         | 440-157843-21                           | Water         | 09/07/16               |
| I-AA                         | 440-157843-22                           | Water         | 09/07/16               |
| I-AR                         | 440-157843-23                           | Water         | 09/07/16               |

| <b>Sample Identification</b> | <b>Laboratory Sample Identification</b> | <b>Matrix</b> | <b>Collection Date</b> |
|------------------------------|---|---------------|------------------------|
| I-AD                         | 440-157843-24                           | Water         | 09/07/16               |
| I-AC                         | 440-157843-25                           | Water         | 09/07/16               |
| I-K                          | 440-157843-26                           | Water         | 09/07/16               |
| I-Z                          | 440-157843-27                           | Water         | 09/07/16               |
| I-I                          | 440-157843-28                           | Water         | 09/07/16               |
| I-V                          | 440-157843-29                           | Water         | 09/07/16               |
| I-OMS                        | 440-157843-1MS                          | Water         | 09/07/16               |
| I-OMSD                       | 440-157843-1MSD                         | Water         | 09/07/16               |
| I-ODUP                       | 440-157843-1DUP                         | Water         | 09/07/16               |
| I-NDUP                       | 440-157843-11DUP                        | Water         | 09/07/16               |
| I-SMS                        | 440-157843-16MS                         | Water         | 09/07/16               |
| I-SMSD                       | 440-157843-16MSD                        | Water         | 09/07/16               |
| I-ABDUP                      | 440-157843-21DUP                        | Water         | 09/07/16               |
| I-O**                        | 440-157936-1/16080416-01**              | Water         | 08/11/16               |
| I-W**                        | 440-157936-2/16080416-02**              | Water         | 08/11/16               |
| I-P**                        | 440-157936-3/16080416-03**              | Water         | 08/11/16               |
| I-H**                        | 440-157936-4/16080416-04**              | Water         | 08/11/16               |
| I-U**                        | 440-157936-5/16080416-05**              | Water         | 08/11/16               |
| I-T**                        | 440-157936-6/16080416-06**              | Water         | 08/11/16               |
| I-G**                        | 440-157936-7/16080416-07**              | Water         | 08/11/16               |
| I-Q**                        | 440-157936-8/16080416-08**              | Water         | 08/11/16               |
| I-F**                        | 440-157936-9/16080416-09**              | Water         | 08/11/16               |
| I-X**                        | 440-157936-10/16080416-10**             | Water         | 08/11/16               |
| I-N**                        | 440-157936-11/16080416-30**             | Water         | 08/11/16               |
| I-E**                        | 440-157936-12/16080416-11**             | Water         | 08/11/16               |
| I-M**                        | 440-157936-13/16080416-12**             | Water         | 08/11/16               |
| I-D**                        | 440-157936-14/16080416-13**             | Water         | 08/11/16               |
| I-C**                        | 440-157936-15/16080416-14**             | Water         | 08/11/16               |
| I-S**                        | 440-157936-16/16080416-15**             | Water         | 08/11/16               |
| I-L**                        | 440-157936-17/16080416-16**             | Water         | 08/11/16               |
| I-Y**                        | 440-157936-18/16080416-17**             | Water         | 08/11/16               |
| I-R**                        | 440-157936-19/16080416-18**             | Water         | 08/11/16               |
| I-B**                        | 440-157936-20/16080416-19**             | Water         | 08/11/16               |
| I-AB**                       | 440-157936-21/16080416-20**             | Water         | 08/11/16               |
| I-AA**                       | 440-157936-22/16080416-21**             | Water         | 08/11/16               |
| I-AR**                       | 440-157936-23/16080416-22**             | Water         | 08/11/16               |
| DUP14**                      | 440-157936-24/16080416-23**             | Water         | 08/11/16               |
| I-AD**                       | 440-157936-25/16080416-24**             | Water         | 08/11/16               |
| I-K**                        | 440-157936-26/16080416-25**             | Water         | 08/11/16               |
| I-J**                        | 440-157936-27/16080416-26**             | Water         | 08/11/16               |
| I-Z**                        | 440-157936-28/16080416-27**             | Water         | 08/11/16               |
| I-I**                        | 440-157936-29/16080416-28**             | Water         | 08/11/16               |
| I-V**                        | 440-157936-30/16080416-29**             | Water         | 08/11/16               |

| <b>Sample Identification</b> | <b>Laboratory Sample Identification</b> | <b>Matrix</b> | <b>Collection Date</b> |
|------------------------------|---|---------------|------------------------|
| I-OMS                        | 440-157936-1MS                          | Water         | 08/11/16               |
| I-OMSD                       | 440-157936-1MSD                         | Water         | 08/11/16               |
| I-CMS                        | 440-157936-15MS                         | Water         | 08/11/16               |
| I-CMSD                       | 440-157936-15MSD                        | Water         | 08/11/16               |
| I-KMS                        | 440-157936-26MS                         | Water         | 08/11/16               |
| I-KMSD                       | 440-157936-26MSD                        | Water         | 08/11/16               |
| I-AC                         | 440-158103-1/16080663-01                | Water         | 08/22/16               |
| M-161D-20160912              | 440-158214-2                            | Water         | 09/12/16               |
| M-162D-20160912              | 440-158214-3                            | Water         | 09/12/16               |
| M-162D-20160912-FD           | 440-158214-4                            | Water         | 09/12/16               |
| PC-153-20160912              | 440-158214-5                            | Water         | 09/12/16               |
| PC-153-20160912-FD           | 440-158214-6                            | Water         | 09/12/16               |
| PC-152-20160912-FB           | 440-158214-7                            | Water         | 09/12/16               |
| PC-152-20160912              | 440-158214-8                            | Water         | 09/12/16               |
| PC-151-20160912              | 440-158214-9                            | Water         | 09/12/16               |
| M-186D-20160913-FB**         | 440-158404-2**                          | Water         | 09/13/16               |
| M-186D-20160913**            | 440-158404-3**                          | Water         | 09/13/16               |
| M-186-20160913**             | 440-158404-4**                          | Water         | 09/13/16               |
| M-148A-20160913-EB**         | 440-158404-5**                          | Water         | 09/13/16               |
| M-148A-20160913**            | 440-158404-6**                          | Water         | 09/13/16               |
| M-190-20160913**             | 440-158404-7**                          | Water         | 09/13/16               |
| M-193-20160913**             | 440-158404-8**                          | Water         | 09/13/16               |
| PC-154-20160913**            | 440-158404-10**                         | Water         | 09/13/16               |
| PC-158-20160913**            | 440-158404-11**                         | Water         | 09/13/16               |
| PC-159-20160913**            | 440-158404-12**                         | Water         | 09/13/16               |
| PC-159-20160913-FD**         | 440-158404-13**                         | Water         | 09/13/16               |
| PC-137D-20160913-EB**        | 440-158404-14**                         | Water         | 09/13/16               |
| PC-137D-20160913**           | 440-158404-15**                         | Water         | 09/13/16               |
| PC-134D-20160913**           | 440-158404-16**                         | Water         | 09/13/16               |
| M-186D-20160913MS            | 440-158404-3MS                          | Water         | 09/13/16               |
| M-186D-20160913MSD           | 440-158404-3MSD                         | Water         | 09/13/16               |
| M-186D-20160913DUP           | 440-158404-3DUP                         | Water         | 09/13/16               |
| PC-159-20160913-FDDUP        | 440-158404-13DUP                        | Water         | 09/13/16               |
| PC-137D-20160913MS           | 440-158404-15MS                         | Water         | 09/13/16               |
| PC-137D-20160913MSD          | 440-158404-15MSD                        | Water         | 09/13/16               |
| PC-56                        | 440-158406-1                            | Water         | 09/13/16               |
| PC-60                        | 440-158406-2                            | Water         | 09/13/16               |
| PC-58                        | 440-158406-3                            | Water         | 09/13/16               |
| PC-59                        | 440-158406-4                            | Water         | 09/13/16               |
| PC-62                        | 440-158406-5                            | Water         | 09/13/16               |
| PC-68                        | 440-158406-6                            | Water         | 09/13/16               |
| PC-86                        | 440-158406-7                            | Water         | 09/13/16               |
| PC-91                        | 440-158406-8                            | Water         | 09/13/16               |

| <b>Sample Identification</b> | <b>Laboratory Sample Identification</b> | <b>Matrix</b> | <b>Collection Date</b> |
|------------------------------|---|---------------|------------------------|
| PC-90                        | 440-158406-9                            | Water         | 09/13/16               |
| PC-97                        | 440-158406-10                           | Water         | 09/13/16               |
| M-83                         | 440-158406-11                           | Water         | 09/13/16               |
| I-J                          | 440-158406-12                           | Water         | 09/13/16               |
| PC-56DUP                     | 440-158406-1DUP                         | Water         | 09/13/16               |
| M-83DUP                      | 440-158406-11DUP                        | Water         | 09/13/16               |
| I-JDUP                       | 440-158406-12DUP                        | Water         | 09/13/16               |
| I-J                          | 440-158478-1/16090425-01                | Water         | 09/13/16               |
| PC-18                        | 440-158607-1                            | Water         | 09/14/16               |
| PC-55                        | 440-158607-2                            | Water         | 09/14/16               |
| PC-122                       | 440-158607-3                            | Water         | 09/14/16               |
| PC-101R                      | 440-158607-4                            | Water         | 09/14/16               |
| ART-6                        | 440-158607-5                            | Water         | 09/14/16               |
| MEB-1                        | 440-158607-6                            | Water         | 09/14/16               |
| ART-6                        | 440-158652-1/16090503-01                | Water         | 09/14/16               |
| ART-6MS                      | 440-158652-1/16090503-01MS              | Water         | 09/14/16               |
| ART-6MSD                     | 440-158652-1/16090503-01MSD             | Water         | 09/14/16               |
| M-145-20160914               | 440-158656-2                            | Water         | 09/14/16               |
| M-191-20160914               | 440-158656-3                            | Water         | 09/14/16               |
| M-192-20160914               | 440-158656-4                            | Water         | 09/14/16               |
| PC-157A-20160914             | 440-158656-5                            | Water         | 09/14/16               |
| PC-160-20160914              | 440-158656-6                            | Water         | 09/14/16               |
| PC-156A-20160914             | 440-158656-7                            | Water         | 09/14/16               |
| PC-156B-20160914             | 440-158656-8                            | Water         | 09/14/16               |
| PC-155A-20160914             | 440-158656-9                            | Water         | 09/14/16               |
| PC-155B-20160914             | 440-158656-10                           | Water         | 09/14/16               |
| PC-157B-20160914             | 440-158656-11                           | Water         | 09/14/16               |
| M-145-20160914MS             | 440-158656-2MS                          | Water         | 09/14/16               |
| M-145-20160914MSD            | 440-158656-2MSD                         | Water         | 09/14/16               |
| PC-155B-20160914DUP          | 440-158656-10DUP                        | Water         | 09/14/16               |
| ARP-1                        | 440-159190-1                            | Water         | 09/20/16               |
| PC-53                        | 440-159190-2                            | Water         | 09/20/16               |
| MW-K5                        | 440-159190-3                            | Water         | 09/20/16               |
| ARP-7                        | 440-159190-4                            | Water         | 09/20/16               |
| ARP-6B                       | 440-159190-5                            | Water         | 09/20/16               |
| ARP-5A                       | 440-159190-6                            | Water         | 09/20/16               |
| ARP-4A                       | 440-159190-7                            | Water         | 09/20/16               |
| MW-K4                        | 440-159190-8                            | Water         | 09/20/16               |
| ARP-3A                       | 440-159190-9                            | Water         | 09/20/16               |
| ARP-2A                       | 440-159190-10                           | Water         | 09/20/16               |
| PC-103                       | 440-159190-11                           | Water         | 09/20/16               |
| PC-98R                       | 440-159190-12                           | Water         | 09/20/16               |
| PC-53DUP                     | 440-159190-2DUP                         | Water         | 09/20/16               |

| <b>Sample Identification</b> | <b>Laboratory Sample Identification</b> | <b>Matrix</b> | <b>Collection Date</b> |
|------------------------------|---|---------------|------------------------|
| PC-98RDUP                    | 440-159190-12DUP                        | Water         | 09/20/16               |
| PC-99R2/R3                   | 440-159527-1/16090165-01                | Water         | 09/06/16               |
| PC-115R                      | 440-159527-2/16090165-02                | Water         | 09/06/16               |
| PC-116R                      | 440-159527-3/16090165-03                | Water         | 09/06/16               |
| PC-117                       | 440-159527-4/16090165-04                | Water         | 09/06/16               |
| PC-118                       | 440-159527-5/16090165-05                | Water         | 09/06/16               |
| PC-119                       | 440-159527-6/16090165-06                | Water         | 09/06/16               |
| PC-120                       | 440-159527-7/16090165-07                | Water         | 09/06/16               |
| PC-121                       | 440-159527-8/16090165-08                | Water         | 09/06/16               |
| PC-133                       | 440-159527-9/16090165-09                | Water         | 09/06/16               |
| ART-1A                       | 440-159527-10/16090165-10               | Water         | 09/06/16               |
| ART-2A                       | 440-159527-11/16090165-11               | Water         | 09/06/16               |
| ART-3A                       | 440-159527-12/16090165-12               | Water         | 09/06/16               |
| ART-4                        | 440-159527-13/16090165-13               | Water         | 09/06/16               |
| ART-7B                       | 440-159527-14/16090165-14               | Water         | 09/06/16               |
| ART-8A                       | 440-159527-15/16090165-15               | Water         | 09/06/16               |
| ART-9                        | 440-159527-16/16090165-16               | Water         | 09/06/16               |
| PC-150                       | 440-159527-17/16090165-17               | Water         | 09/06/16               |
| PC-99R2/R3MS                 | 440-159527-1/16090165-01MS              | Water         | 09/06/16               |
| PC-99R2/R3MSD                | 440-159527-1/16090165-01MSD             | Water         | 09/06/16               |
| I-O                          | 440-159532-1/16090237-01                | Water         | 09/07/16               |
| I-W                          | 440-159532-2/16090237-02                | Water         | 09/07/16               |
| I-P                          | 440-159532-3/16090237-03                | Water         | 09/07/16               |
| I-H                          | 440-159532-4/16090237-04                | Water         | 09/07/16               |
| I-U                          | 440-159532-5/16090237-05                | Water         | 09/07/16               |
| I-T                          | 440-159532-6/16090237-06                | Water         | 09/07/16               |
| I-G                          | 440-159532-7/16090237-07                | Water         | 09/07/16               |
| I-Q                          | 440-159532-8/16090237-08                | Water         | 09/07/16               |
| I-F                          | 440-159532-9/16090237-09                | Water         | 09/07/16               |
| I-X                          | 440-159532-10/16090237-10               | Water         | 09/07/16               |
| I-N                          | 440-159532-11/16090237-11               | Water         | 09/07/16               |
| I-E                          | 440-159532-12/16090237-12               | Water         | 09/07/16               |
| I-M                          | 440-159532-13/16090237-13               | Water         | 09/07/16               |
| I-D                          | 440-159532-14/16090237-14               | Water         | 09/07/16               |
| I-C                          | 440-159532-15/16090237-15               | Water         | 09/07/16               |
| I-S                          | 440-159532-16/16090237-16               | Water         | 09/07/16               |
| I-L                          | 440-159532-17/16090237-17               | Water         | 09/07/16               |
| I-Y                          | 440-159532-18/16090237-18               | Water         | 09/07/16               |
| I-R                          | 440-159532-19/16090237-19               | Water         | 09/07/16               |
| I-B                          | 440-159532-20/16090237-20               | Water         | 09/07/16               |
| I-AB                         | 440-159532-21/16090237-21               | Water         | 09/07/16               |
| I-AA                         | 440-159532-22/16090237-22               | Water         | 09/07/16               |
| I-AR                         | 440-159532-23/16090237-23               | Water         | 09/07/16               |

| <b>Sample Identification</b> | <b>Laboratory Sample Identification</b> | <b>Matrix</b> | <b>Collection Date</b> |
|------------------------------|---|---------------|------------------------|
| I-AD                         | 440-159532-24/16090237-24               | Water         | 09/07/16               |
| I-AC                         | 440-159532-25/16090237-25               | Water         | 09/07/16               |
| I-K                          | 440-159532-26/16090237-26               | Water         | 09/07/16               |
| I-Z                          | 440-159532-27/16090237-27               | Water         | 09/07/16               |
| I-I                          | 440-159532-28/16090237-28               | Water         | 09/07/16               |
| I-V                          | 440-159532-29/16090237-29               | Water         | 09/07/16               |
| I-HMS                        | 440-159532-4/16090237-04MS              | Water         | 09/07/16               |
| I-HMSD                       | 440-159532-4/16090237-04MSD             | Water         | 09/07/16               |
| I-CMS                        | 440-159532-15/16090237-15MS             | Water         | 09/07/16               |
| I-CMSD                       | 440-159532-15/16090237-15MSD            | Water         | 09/07/16               |
| I-VMS                        | 440-159532-29/16090237-29MS             | Water         | 09/07/16               |
| I-VMSD                       | 440-159532-29/16090237-29MSD            | Water         | 09/07/16               |

\*\*Indicates sample underwent Stage 4 validation

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Quality Assurance Project Plan Revision 1, Nevada Environmental Response Trust (NERT) Site, Henderson, Nevada (July 2014) and a modified outline of the USEPA National Functional Guidelines (NFG) for Inorganic Superfund Data Review (August 2014). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following methods:

Perchlorate by Environmental Protection Agency (EPA) Method 314.0

pH by Field Test

Total Dissolved Solids by Standard Method 2540C

Chloride, Nitrate as Nitrogen, Nitrite as Nitrogen, Nitrate/Nitrite as Nitrogen and Sulfate by EPA Method 300.0

Hexavalent Chromium by EPA Method 218.6

Ammonia as Nitrogen by EPA Method 350.1

Chlorate by EPA Method 300.1B

Total Inorganic Nitrogen by Calculation Method

Conductivity by Standard Method 2510B

Total Recoverable Phenolics by EPA Method 420.1

Total Organic Carbon by Standard Method 5310C

Toxic Organic Halides by EPA SW 846 Method 9020B

All sample results were subjected to Stage 2B data validation, which comprises an evaluation of quality control (QC) summary results. Samples appended with a double asterisk on the cover page were subjected to Stage 4 data validation, which is comprised of the QC summary forms as well as the raw data, to confirm sample quantitation and identification.

The following are definitions of the data qualifiers utilized during data validation:

- J+ (Estimated, High Bias): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated, displaying high bias, due to non-conformances discovered during data validation.
- J- (Estimated, Low Bias): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated, displaying low bias, due to non-conformances discovered during data validation.
- J (Estimated, Bias Indeterminate): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated due to non-conformances discovered during data validation. Bias is indeterminate.
- U (Non-detected): The compound or analyte was analyzed for and positively identified by the laboratory; however the compound or analyte should be considered non-detected at the reported concentration due to the presence of contaminants detected in the associated blank(s).
- UJ (Non-detected estimated): The compound or analyte was reported as not detected by the laboratory; however the reported quantitation/detection limit is estimated due to non-conformances discovered during data validation.
- DNR (Do Not Report): A more appropriate result is reported from another analysis or dilution.
- R (Rejected): The sample results were rejected due to gross non-conformances discovered during data validation. Data qualified as rejected is not usable.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.



## Qualification Codes and Definitions

|    |   |
|----|---|
| a  | Qualified due to low abundance (radiochemical activity)   |
| be | Qualified due to equipment blank contamination  |
| bf | Qualified due to field blank contamination  |
| bl | Qualified due to lab blank contamination  |
| bt | Qualified due to trip blank contamination   |
| bp | Qualified due to pump blank contamination (wells without dedicated pumps, when contamination is detected in the pump blank) |
| br | Qualified due to filter blank contamination (aqueous Hexavalent Chromium and Dissolved sample fractions)                    |
| c  | Qualified due to calibration problems   |
| cp | Qualified due to insufficient ingrowth (Radiochemical only)   |
| dc | Duel column confirmation %D exceeded  |
| e  | Concentration exceeded the calibration range  |
| fd | Qualified due to field duplicate imprecision  |
| h  | Qualified due to holding time exceedance  |
| i  | Qualified due to internal standard areas  |
| k  | Qualified as Estimated Maximum Possible Concentrations (dioxins and PCB congeners)  |
| l  | Qualified due to LCS recoveries   |
| ld | Qualified due to lab duplicate imprecision (matrix duplicate, MSD, LCSD)  |
| m  | Qualified due to matrix spike recoveries  |
| nb | Qualified due to negative lab blank contamination (nondetect results only)  |
| nd | Qualified due to non-detected target analyte  |
| o  | Other   |
| p  | Qualified as a false positive due to contamination during shipping  |
| pH | Sample preservation not within acceptance range   |
| q  | Qualified due to quantitation problems  |
| s  | Qualified due to surrogate recoveries   |
| sd | Serial dilution did not meet control criteria   |
| sp | Detected value reported >SQL <PQL   |
| st | Sample receipt temperature exceeded   |
| t  | Qualified due to elevated helium tracer concentrations  |
| vh | Volatile headspace detected in aqueous sample containers submitted for VOC analysis   |
| x  | Qualified due to low % solids   |
| z  | Qualified due to ICS results  |

## I. Sample Receipt and Technical Holding Times

All samples were received in good condition.

All technical holding time requirements were met with the following exceptions:

| SDG                   | Sample                          | Analyte               | Total Time From Sample Collection Until Analysis | Required Holding Time From Sample Collection Until Analysis | Flag             | A or P |
|-----------------------|---------------------------------|-----------------------|--|---|------------------|--------|
| 440-155148-1          | M-11                            | Nitrate as N          | 61.85 hours                                      | 48 hours  | J- (all detects) | P      |
| 440-155148-1          | M-12A                           | Nitrate as N          | 61.43 hours                                      | 48 hours  | J- (all detects) | P      |
| 440-155148-1          | DUP9                            | Nitrate as N          | 61.67 hours                                      | 48 hours  | J- (all detects) | P      |
| 440-155320-2          | M-5A**                          | Toxic organic halides | 36 days  | 28 days   | J- (all detects) | P      |
| 440-155334-1/16080415 | M-37<br>DUP-12<br>M-38<br>DUP11 | Hexavalent chromium   | 13 days  | 24 hours  | J- (all detects) | P      |

## II. Initial Calibration

All criteria for the initial calibration of each method were met.

## III. Continuing Calibration

Continuing calibration frequency and analysis criteria were met for each method when applicable.

## IV. Laboratory Blanks

Laboratory blanks were analyzed as required by the methods. No contaminants were found in the laboratory blanks with the following exceptions:

| SDG          | Blank ID | Analyte              | Maximum Concentration | Associated Samples  |
|--------------|----------|----------------------|-----------------------|---|
| 440-155148-1 | ICB/CCB  | Perchlorate          | 0.508 ug/L            | M-83<br>M-80<br>M-81A<br>M-73<br>M-67<br>DUP8<br>M-74<br>M-68<br>M-19<br>M-35<br>M-31A<br>M-52<br>M-11<br>M-12A<br>DUP9 |
| 440-155320-1 | ICB/CCB  | Total organic carbon | 0.0745 mg/L           | M-5A**  |

Sample concentrations were compared to concentrations detected in the laboratory blanks. The sample concentrations were either not detected or were significantly greater than the concentrations found in the associated laboratory blanks.

## V. Field Blanks

Samples MEB-1 (from SDG 440-153241-1), EB-1 (from SDG 440-154471-1), EB2 and MEB-1 (both from SDG 440-154590-1), EB4 (from SDG 440-154938-1), EB9 (from SDG 440-155148-1), EB-10\*\* (from SDG 440-155316-1), M-148A-20160913-EB\*\* and PC-137D-20160913-EB\*\* (both from SDG 440-158404-1), and MEB-1 (from SDG 440-158607-1) were identified as equipment blanks. No contaminants were found with the following exceptions:

| SDG          | Blank ID | Collection Date | Analyte     | Concentration | Associated Samples   |
|--------------|----------|-----------------|-------------|---------------|--|
| 440-153241-1 | MEB-1    | 07/19/16        | Perchlorate | 1.2 ug/L      | M-83<br>PC-58<br>PC-56<br>PC-60<br>PC-59<br>PC-62<br>PC-68<br>PC-86<br>PC-91<br>PC-90<br>PC-97<br>PC-122<br>ART-6<br>PC-101R |

| SDG          | Blank ID | Collection Date | Analyte     | Concentration | Associated Samples  |
|--------------|----------|-----------------|-------------|---------------|---|
| 440-155148-1 | EB9      | 08/09/16        | Perchlorate | 1.2 ug/L      | M-83<br>M-80<br>M-81A<br>M-73<br>M-67<br>DUP8<br>M-74<br>M-68<br>M-19<br>M-35<br>M-31A<br>M-52<br>M-11<br>M-12A<br>DUP9   |
| 440-155316-1 | EB-10    | 08/10/16        | Perchlorate | 1.1 ug/L      | M-25<br>M-37<br>DUP12<br>M-14A<br>M-131<br>M-57A<br>M-135<br>M-69<br>M-79<br>M-70<br>M-71<br>M-72<br>M-65<br>DUP10<br>M-66<br>M-38<br>DUP11<br>M-22A<br>M-23<br>PC-55<br>M-64 |
| 440-158607-1 | MEB-1    | 09/14/16        | Perchlorate | 0.54 ug/L     | PC-18<br>PC-55<br>PC-122<br>PC-101R<br>ART-6  |

Samples FB-1 (from SDG 440-154471-1), PC-152-20160912-FB (from SDG 440-158214-1), and M-186D-20160913-FB\*\* (from SDG 440-158404-1) were identified as field blanks. No contaminants were found.

Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater than the concentrations found in the associated field blanks.

## VI. Surrogates

Surrogates were added to all chlorate samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits with the following exceptions:

| SDG          | Spike ID<br>(Associated Samples)                | Analyte      | MS (%R)<br>(Limits) | MSD (%R)<br>(Limits) | Flag             | A or P |
|--------------|---|--------------|---------------------|----------------------|------------------|--------|
| 440-155316-1 | M-22AMS/MSD<br>(M-25<br>M-37<br>DUP12<br>M-22A) | Nitrate as N | 23 (80-120)         | 12 (80-120)          | J- (all detects) | A      |
| 440-158656-1 | M-145-20160914MS/MSD<br>(M-145-20160914)        | Perchlorate  | 197 (80-120)        | 191 (80-120)         | J+ (all detects) | A      |

For M-48AMS/MSD (from SDG 440-156610-1), no data were qualified for Nitrate as N percent recoveries (%R) outside the QC limits since the parent sample results were greater than 4X the spike concentration.

For I-OMS/MSD and I-SMS/MSD (both from SDG 440-157843-1), no data were qualified for Perchlorate percent recoveries (%R) outside the QC limits since the parent sample results were greater than 4X the spike concentration.

For M-186D-20160913MS/MSD (from SDG 440-158404-1), no data were qualified for Perchlorate and Chlorate percent recoveries (%R) outside the QC limits since the parent sample results were greater than 4X the spike concentration.

Relative percent differences (RPD) were within QC limits.

## VIII. Duplicate Sample Analysis

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

## IX. Laboratory Control Samples

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the methods. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## X. Field Duplicates

Samples PC-123\*\* and DUP6\*\* (from SDG 440-154938-1), samples M-44\*\* and DUP7\*\* (from SDG 440-154938-1), samples M-44 and Dup-7 (from SDG 440-154944-1/16080276), samples M-67 and DUP8 (from SDG 440-155148-1), samples M-12A and DUP9 (from SDG 440-155148-1), samples M-12A and DUP9 (from SDG 440-155186-1/16080317), samples M-37\*\* and DUP12\*\* (from SDG 440-155316-1), samples M-65\*\* and DUP10\*\* (from SDG 440-155316-1), samples M-38\*\* and DUP11\*\* (from SDG 440-155316-1), samples M-37\*\* and DUP-12\*\* (from SDG 440-155334-1/16080415), samples M-38 and DUP11 (from SDG 440-155334-1/16080415), samples I-AR and DUP14 (from SDG 440-155494-1), I-AR\*\* and DUP14\*\* (from SDG 440-157936-1/160804016), samples M-162D-20160912 and M-162D-20160912-FD (from SDG 440-158214-1), samples PC-153-20160912 and PC-153-20160912-FD (from SDG 440-158214-1), samples PC-159-20160913\*\* and PC-159-20160913-FD\*\* (from SDG 440-158404-1) were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

| SDG          | Analyte                | Concentration (ug/L) |             | RPD (Limits) | Flag | A or P |
|--------------|------------------------|----------------------|-------------|--------------|------|--------|
|              |                        | PC-123**             | DUP6**      |              |      |        |
| 440-154938-1 | Perchlorate            | 230000 ug/L          | 210000 ug/L | 9 (≤30)      | -    | -      |
|              | pH                     | 7.41 SU              | 7.40 SU     | 0 (≤30)      | -    | -      |
|              | Total dissolved solids | 6500 mg/L            | 6600 mg/L   | 2 (≤30)      | -    | -      |

| SDG          | Analyte                | Concentration (ug/L) |             | RPD (Limits) | Flag | A or P |
|--------------|------------------------|----------------------|-------------|--------------|------|--------|
|              |                        | M-44**               | DUP7**      |              |      |        |
| 440-154938-1 | Perchlorate            | 660000 ug/L          | 630000 ug/L | 5 (≤30)      | -    | -      |
|              | pH                     | 7.33 SU              | 7.28 SU     | 1 (≤30)      | -    | -      |
|              | Total dissolved solids | 8700 mg/L            | 8800 mg/L   | 1 (≤30)      | -    | -      |

| SDG                   | Analyte             | Concentration (ug/L) |       | RPD (Limits) | Flag | A or P |
|-----------------------|---------------------|----------------------|-------|--------------|------|--------|
|                       |                     | M-44                 | Dup-7 |              |      |        |
| 440-154944-1/16080276 | Hexavalent chromium | 810                  | 920   | 13 (≤30)     | -    | -      |

| SDG          | Analyte                | Concentration (ug/L) |             | RPD (Limits) | Flag | A or P |
|--------------|------------------------|----------------------|-------------|--------------|------|--------|
|              |                        | M-67                 | DUP8        |              |      |        |
| 440-155148-1 | Perchlorate            | 250000 ug/L          | 250000 ug/L | 0 (≤30)      | -    | -      |
|              | pH                     | 7.20 SU              | 7.20 SU     | 0 (≤30)      | -    | -      |
|              | Total dissolved solids | 6100 mg/L            | 6100 mg/L   | 0 (≤30)      | -    | -      |

| SDG          | Analyte                | Concentration (ug/L) |              | RPD (Limits) | Flag | A or P |
|--------------|------------------------|----------------------|--------------|--------------|------|--------|
|              |                        | M-12A                | DUP9         |              |      |        |
| 440-155148-1 | Perchlorate            | 150000 ug/L          | 160000 ug/L  | 6 (≤30)      | -    | -      |
|              | pH                     | 7.97 SU              | 7.96 SU      | 0 (≤30)      | -    | -      |
|              | Nitrate as N           | 7.0 mg/L             | 6.9 mg/L     | 1 (≤30)      | -    | -      |
|              | Chlorate               | 1300000 ug/L         | 1300000 ug/L | 0 (≤30)      | -    | -      |
|              | Total dissolved solids | 5800 mg/L            | 5700 mg/L    | 2 (≤30)      | -    | -      |

| SDG                   | Analyte             | Concentration (ug/L) |      | RPD (Limits) | Flag | A or P |
|-----------------------|---------------------|----------------------|------|--------------|------|--------|
|                       |                     | M-12A                | DUP9 |              |      |        |
| 440-155186-1/16080317 | Hexavalent chromium | 8000                 | 8100 | 1 (≤30)      | -    | -      |

| SDG          | Analyte                | Concentration (ug/L) |             | RPD (Limits) | Flag | A or P |
|--------------|------------------------|----------------------|-------------|--------------|------|--------|
|              |                        | M-37**               | DUP12**     |              |      |        |
| 440-155316-1 | Perchlorate            | 740000 ug/L          | 770000 ug/L | 4 (≤30)      | -    | -      |
|              | Nitrate as N           | 140 mg/L             | 140 mg/L    | 0 (≤30)      | -    | -      |
|              | Chlorate               | 9000 ug/L            | 8500 ug/L   | 6 (≤30)      | -    | -      |
|              | pH                     | 6.81 SU              | 6.81 SU     | 0 (≤30)      | -    | -      |
|              | Total dissolved solids | 4600 mg/L            | 4500 mg/L   | 2 (≤30)      | -    | -      |

| SDG          | Analyte                | Concentration (ug/L) |             | RPD (Limits) | Flag | A or P |
|--------------|------------------------|----------------------|-------------|--------------|------|--------|
|              |                        | M-65**               | DUP10**     |              |      |        |
| 440-155316-1 | Perchlorate            | 910000 ug/L          | 940000 ug/L | 3 (≤30)      | -    | -      |
|              | pH                     | 7.12 SU              | 7.12 SU     | 0 (≤30)      | -    | -      |
|              | Total dissolved solids | 12000 mg/L           | 12000 mg/L  | 0 (≤30)      | -    | -      |

| SDG          | Analyte                | Concentration (ug/L) |             | RPD (Limits) | Flag | A or P |
|--------------|------------------------|----------------------|-------------|--------------|------|--------|
|              |                        | M-38**               | DUP11**     |              |      |        |
| 440-155316-1 | Perchlorate            | 300000 ug/L          | 310000 ug/L | 3 (≤30)      | -    | -      |
|              | pH                     | 7.46 SU              | 7.49 SU     | 0 (≤30)      | -    | -      |
|              | Total dissolved solids | 5000 mg/L            | 4900 mg/L   | 2 (≤30)      | -    | -      |

| SDG                   | Analyte             | Concentration (ug/L) |        | RPD (Limits) | Flag | A or P |
|-----------------------|---------------------|----------------------|--------|--------------|------|--------|
|                       |                     | M-37                 | DUP-12 |              |      |        |
| 440-155334-1/16080415 | Hexavalent chromium | 12                   | 12     | 0 (≤30)      | -    | -      |

| SDG                   | Analyte             | Concentration (ug/L) |       | RPD (Limits) | Flag | A or P |
|-----------------------|---------------------|----------------------|-------|--------------|------|--------|
|                       |                     | M-38                 | DUP11 |              |      |        |
| 440-155334-1/16080415 | Hexavalent chromium | 6700                 | 7600  | 13 (≤30)     | -    | -      |

| SDG          | Analyte                | Concentration (ug/L) |              | RPD (Limits) | Flag | A or P |
|--------------|------------------------|----------------------|--------------|--------------|------|--------|
|              |                        | I-AR                 | DUP14        |              |      |        |
| 440-155494-1 | Perchlorate            | 1800000 ug/L         | 1700000 ug/L | 6 (≤30)      | -    | -      |
|              | pH                     | 7.10 SU              | 7.06 SU      | 1 (≤30)      | -    | -      |
|              | Total dissolved solids | 6200 mg/L            | 6200 mg/L    | 0 (≤30)      | -    | -      |



| SDG                   | Analyte             | Concentration (ug/L) |         | RPD (Limits) | Flag | A or P |
|-----------------------|---------------------|----------------------|---------|--------------|------|--------|
|                       |                     | I-AR**               | DUP14** |              |      |        |
| 440-157936-1/16080416 | Hexavalent chromium | 48.0                 | 56      | 15 (≤30)     | -    | -      |

| SDG          | Analyte                | Concentration (ug/L) |                    | RPD (Limits) | Flag | A or P |
|--------------|------------------------|----------------------|--------------------|--------------|------|--------|
|              |                        | M-162D-20160912      | M-162D-20160912-FD |              |      |        |
| 440-158214-1 | Perchlorate            | 2.0                  | 2.0                | 0 (≤30)      | -    | -      |
|              | Total dissolved solids | 520000               | 520000             | 0 (≤30)      | -    | -      |

| SDG          | Analyte                | Concentration (ug/L) |                    | RPD (Limits) | Flag | A or P |
|--------------|------------------------|----------------------|--------------------|--------------|------|--------|
|              |                        | PC-153-20160912      | PC-153-20160912-FD |              |      |        |
| 440-158214-1 | Perchlorate            | 4200                 | 4200               | 0 (≤30)      | -    | -      |
|              | Total dissolved solids | 5800000              | 5900000            | 2 (≤30)      | -    | -      |

| SDG          | Analyte                | Concentration (ug/L) |                      | RPD (Limits) | Flag | A or P |
|--------------|------------------------|----------------------|----------------------|--------------|------|--------|
|              |                        | PC-159-20160913**    | PC-159-20160913-FD** |              |      |        |
| 440-158404-1 | Perchlorate            | 41000                | 40000                | 2 (≤30)      | -    | -      |
|              | Chlorate               | 6400                 | 6300                 | 2 (≤30)      | -    | -      |
|              | Total dissolved solids | 5000000              | 5100000              | 2 (≤30)      | -    | -      |

## XI. Sample Result Verification

All sample result verifications were acceptable for samples which underwent Stage 4 validation. Raw data were not reviewed for Stage 2B validation.

## XII. Overall Assessment of Data

The analysis was conducted within all specifications of the methods. No results were rejected in these SDGs.

Due to technical holding time and MS/MSD %R, data were qualified as estimated in thirteen samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the data validation all other results are considered valid and usable for all purposes.

**NERT 2016 Q3**

**Wet Chemistry - Data Qualification Summary - SDGs 440-151677-1, 440-151794-1/16070065, 440-152035-1, 440-152574-1, 440-153307-1/16070511, 440-153241-1, 440-153408-1, 440-152845-1/16070262, 440-152846-1/16070119, 440-154229-1, 440-154365-1/16080017, 440-154471-1, 440-154485-1, 440-154590-1, 440-154938-1, 440-154944-1/16080276, 440-155035-1, 440-155148-1, 440-155186-1/16080317, 440-155316-1, 440-155320-1, 440-155320-2, 440-155334-1/16080415, 440-155490-1, 440-155494-1, 440-156239-1/16080089, 440-156317-1, 440-156610-1, 440-157616-1, 440-157843-1, 440-157936-1/16080416, 440-158103-1/16080663, 440-158214-1, 440-158404-1, 440-158406-1, 440-158478-1/16090425, 440-158607-1, 440-158652-1/16090503, 440-158656-1, 440-159190-1, 440-159527-1/16090165, 440-159532-1/16090237**

| SDG                   | Sample                          | Analyte               | Flag             | A or P | Reason (Code)                                |
|-----------------------|---------------------------------|-----------------------|------------------|--------|--|
| 440-155148-1          | M-11<br>M-12A<br>DUP9           | Nitrate as N          | J- (all detects) | P      | Technical holding times (h)                  |
| 440-155320-2          | M-5A**                          | Toxic organic halides | J- (all detects) | P      | Technical holding times (h)                  |
| 440-155334-1/16080415 | M-37<br>DUP-12<br>M-38<br>DUP11 | Hexavalent chromium   | J- (all detects) | P      | Technical holding times (h)                  |
| 440-155316-1          | M-25<br>M-37<br>DUP12<br>M-22A  | Nitrate as N          | J- (all detects) | A      | Matrix spike/Matrix spike duplicate (%R) (m) |
| 440-158656-1          | M-145-20160914                  | Perchlorate           | J+ (all detects) | A      | Matrix spike/Matrix spike duplicate (%R) (m) |

**NERT 2016 Q3**

**Wet Chemistry - Laboratory Blank Data Qualification Summary – SDGs 440-151677-1, 440-151794-1/16070065, 440-152035-1, 440-152574-1, 440-153307-1/16070511, 440-153241-1, 440-153408-1, 440-152845-1/16070262, 440-152846-1/16070119, 440-154229-1, 440-154365-1/16080017, 440-154471-1, 440-154485-1, 440-154590-1, 440-154938-1, 440-154944-1/16080276, 440-155035-1, 440-155148-1, 440-155186-1/16080317, 440-155316-1, 440-155320-1, 440-155320-2, 440-155334-1/16080415, 440-155490-1, 440-155494-1, 440-156239-1/16080089, 440-156317-1, 440-156610-1, 440-157616-1, 440-157843-1, 440-157936-1/16080416, 440-158103-1/16080663, 440-158214-1, 440-158404-1, 440-158406-1, 440-158478-1/16090425, 440-158607-1, 440-158652-1/16090503, 440-158656-1, 440-159190-1, 440-159527-1/16090165, 440-159532-1/16090237**

No Sample Data Qualified in these SDGs

**NERT 2016 Q3**

**Wet Chemistry - Field Blank Data Qualification Summary - SDGs 440-151677-1, 440-151794-1/16070065, 440-152035-1, 440-152574-1, 440-153307-1/16070511, 440-153241-1, 440-153408-1, 440-152845-1/16070262, 440-152846-1/16070119, 440-154229-1, 440-154365-1/16080017, 440-154471-1, 440-154485-1, 440-154590-1, 440-154938-1, 440-154944-1/16080276, 440-155035-1, 440-155148-1, 440-155186-1/16080317, 440-155316-1, 440-155320-1, 440-155320-2, 440-155334-1/16080415, 440-155490-1, 440-155494-1, 440-156239-1/16080089, 440-156317-1, 440-156610-1, 440-157616-1, 440-157843-1, 440-157936-1/16080416, 440-158103-1/16080663, 440-158214-1, 440-158404-1, 440-158406-1, 440-158478-1/16090425, 440-158607-1, 440-158652-1/16090503, 440-158656-1, 440-159190-1, 440-159527-1/16090165, 440-159532-1/16090237**

No Sample Data Qualified in these SDGs

LDC #: 37696A6  
 SDG #: 440-151677-1  
 Laboratory: Test America, Inc.

**VALIDATION COMPLETENESS WORKSHEET**  
 Stage 2B

Date: 1/3/17  
 Page: 1 of 2  
 Reviewer: JB  
 2nd Reviewer: Q

*Field Test*  
**METHOD:** Perchlorate (EPA Method 314.0), pH (SM4500 H+B), TDS (SM2540C)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

|       | Validation Area                        |     | Comments                |
|-------|--|-----|-------------------------|
| I.    | Sample receipt/Technical holding times | A/A |                         |
| II    | Initial calibration                    | A   |                         |
| III.  | Calibration verification               | A   |                         |
| IV    | Laboratory Blanks                      | A   |                         |
| V     | Field blanks                           | N   |                         |
| VI.   | Matrix Spike/Matrix Spike Duplicates   | N   | C.S.                    |
| VII.  | Duplicate sample analysis              | A   | 18                      |
| VIII. | Laboratory control samples             | A   | LC SID <del>TRIAL</del> |
| IX.   | Field duplicates                       | N   |                         |
| X.    | Sample result verification             | N   |                         |
| XI    | Overall assessment of data             | A   |                         |

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB=Source blank  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

|    | Client ID  | Lab ID           | Matrix | Date     |
|----|------------|------------------|--------|----------|
| 1  | ART-2      | 440-151677-1     | Water  | 07/05/16 |
| 2  | PC-150     | 440-151677-2     | Water  | 07/05/16 |
| 3  | ART-8A     | 440-151677-3     | Water  | 07/05/16 |
| 4  | ART-7B     | 440-151677-4     | Water  | 07/05/16 |
| 5  | ART-1A     | 440-151677-5     | Water  | 07/05/16 |
| 6  | ART-3A     | 440-151677-6     | Water  | 07/05/16 |
| 7  | ART-9      | 440-151677-7     | Water  | 07/05/16 |
| 8  | ART-4      | 440-151677-8     | Water  | 07/05/16 |
| 9  | PC-99R2/R3 | 440-151677-9     | Water  | 07/05/16 |
| 10 | PC-115R    | 440-151677-10    | Water  | 07/05/16 |
| 11 | PC-116R    | 440-151677-11    | Water  | 07/05/16 |
| 12 | PC-118     | 440-151677-12    | Water  | 07/05/16 |
| 13 | PC-119     | 440-151677-13    | Water  | 07/05/16 |
| 14 | PC-117     | 440-151677-14    | Water  | 07/05/16 |
| 15 | PC-133     | 440-151677-15    | Water  | 07/05/16 |
| 16 | PC-121     | 440-151677-16    | Water  | 07/05/16 |
| 17 | PC-120     | 440-151677-17    | Water  | 07/05/16 |
| 18 | PC-116RDUP | 440-151677-11DUP | Water  | 07/05/16 |

LDC #: 37696A6

# VALIDATION COMPLETENESS WORKSHEET

Date: 1/3/17

SDG #: 440-151677-1

Stage 2B

Page: 2 of 2

Laboratory: Test America, Inc.

Reviewer: UB

2nd Reviewer: U

**METHOD:** Perchlorate (EPA Method 314.0), pH (SM4500 H+B), TDS (SM2540C)

|    | Client ID | Lab ID | Matrix | Date |
|----|-----------|--------|--------|------|
| 19 |           |        |        |      |
| 20 |           |        |        |      |
| 21 |           |        |        |      |
| 22 |           |        |        |      |
| 23 |           |        |        |      |

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



**METHOD:** Hexavalent Chromium (EPA Method 218.6)

Soil samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

|       | Validation Area                        |       | Comments        |
|-------|--|-------|-----------------|
| I.    | Sample receipt/Technical holding times | A / A |                 |
| II    | Initial calibration                    | A     |                 |
| III.  | Calibration verification               | A     |                 |
| IV    | Laboratory Blanks                      | A     |                 |
| V     | Field blanks                           | N     |                 |
| VI.   | Matrix Spike/Matrix Spike Duplicates   | A     | (18,19) (20,21) |
| VII.  | Duplicate sample analysis              | N     |                 |
| VIII. | Laboratory control samples             | A     | LCS             |
| IX.   | Field duplicates                       | N     |                 |
| X.    | Sample result verification             | N     |                 |
| XI    | Overall assessment of data             | A     |                 |

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB=Source blank  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

|    | Client ID  | SUBID          | Lab ID         | Matrix | Date     |
|----|------------|----------------|----------------|--------|----------|
| 1  | ART-2      | 16070065-01    | 440-151794-1   | Water  | 07/05/16 |
| 2  | PC-150     | 16070065-02    | 440-151794-2   | Water  | 07/05/16 |
| 3  | ART-8A     | 16070065-03    | 440-151794-3   | Water  | 07/05/16 |
| 4  | ART-7B     | 16070065-04    | 440-151794-4   | Water  | 07/05/16 |
| 5  | ART-1A     | 16070065-05    | 440-151794-5   | Water  | 07/05/16 |
| 6  | ART-3A     | 16070065-06    | 440-151794-6   | Water  | 07/05/16 |
| 7  | ART-9      | 16070065-07    | 440-151794-7   | Water  | 07/05/16 |
| 8  | ART-4      | 16070065-08    | 440-151794-8   | Water  | 07/05/16 |
| 9  | PC-99R2/R3 | 16090065-09    | 440-151794-9   | Water  | 07/05/16 |
| 10 | PC-115R    | 16090065-10    | 440-151794-10  | Water  | 07/05/16 |
| 11 | PC-116R    | 16090065-11    | 440-151794-11  | Water  | 07/05/16 |
| 12 | PC-118     | 16090065-12    | 440-151794-12  | Water  | 07/05/16 |
| 13 | PC-119     | 16090065-13    | 440-151794-13  | Water  | 07/05/16 |
| 14 | PC-117     | 16090065-14    | 440-151794-14  | Water  | 07/05/16 |
| 15 | PC-133     | 16090065-15    | 440-151794-15  | Water  | 07/05/16 |
| 16 | PC-121     | 16090065-16    | 440-151794-16  | Water  | 07/05/16 |
| 17 | PC-120     | 16090065-17    | 440-151794-17  | Water  | 07/05/16 |
| 18 | ART-2MS    | 16090065-01 MS | 440-151794-1MS | Water  | 07/05/16 |



**METHOD:** Hexavalent Chromium (EPA Method 218.6)

|    | Client ID | SUB ID         | Lab ID           | Matrix | Date     |
|----|-----------|----------------|------------------|--------|----------|
| 19 | ART-2MSD  | 16090065-01MSD | 440-151794-1MSD  | Water  | 07/05/16 |
| 20 | PC-117MS  | 16090065-14MS  | 440-151794-14MS  | Water  | 07/05/16 |
| 21 | PC-117MSD | 16090065-14MSD | 440-151794-14MSD | Water  | 07/05/16 |
| 22 |           |                |                  |        |          |
| 23 |           |                |                  |        |          |
| 24 |           |                |                  |        |          |
| 25 |           |                |                  |        |          |
| 26 |           |                |                  |        |          |

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

LDC #: 37696C6

**VALIDATION COMPLETENESS WORKSHEET**

Date: 1/31/17

SDG #: 440-152035-1

Stage 2B

Page: 1 of 2

Laboratory: Test America, Inc.

Reviewer: JB

2nd Reviewer: a

Field Test

**METHOD:** Perchlorate (EPA Method 314.0), pH (SM4500-H+B), TDS (SM2540C)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

|       | Validation Area                        |       | Comments  |
|-------|--|-------|-----------|
| I.    | Sample receipt/Technical holding times | A / A |           |
| II    | Initial calibration                    | A     |           |
| III.  | Calibration verification               | A     |           |
| IV    | Laboratory Blanks                      | A     |           |
| V     | Field blanks                           | N     |           |
| VI.   | Matrix Spike/Matrix Spike Duplicates   | N     | C.S.      |
| VII.  | Duplicate sample analysis              | A     | 17        |
| VIII. | Laboratory control samples             | A     | LCS TABLE |
| IX.   | Field duplicates                       | N     |           |
| X.    | Sample result verification             | N     |           |
| XI    | Overall assessment of data             | A     |           |

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

|    | Client ID | Lab ID          | Matrix | Date     |
|----|-----------|-----------------|--------|----------|
| 1  | I-O       | 440-152035-1    | Water  | 07/06/16 |
| 2  | I-W       | 440-152035-2    | Water  | 07/06/16 |
| 3  | I-P       | 440-152035-3    | Water  | 07/06/16 |
| 4  | I-H       | 440-152035-4    | Water  | 07/06/16 |
| 5  | I-U       | 440-152035-5    | Water  | 07/06/16 |
| 6  | I-T       | 440-152035-6    | Water  | 07/06/16 |
| 7  | I-Q       | 440-152035-7    | Water  | 07/06/16 |
| 8  | I-F       | 440-152035-8    | Water  | 07/06/16 |
| 9  | I-C       | 440-152035-9    | Water  | 07/06/16 |
| 10 | I-S       | 440-152035-10   | Water  | 07/06/16 |
| 11 | I-L       | 440-152035-11   | Water  | 07/06/16 |
| 12 | I-Y       | 440-152035-12   | Water  | 07/06/16 |
| 13 | I-R       | 440-152035-13   | Water  | 07/06/16 |
| 14 | I-B       | 440-152035-14   | Water  | 07/06/16 |
| 15 | I-AA      | 440-152035-15   | Water  | 07/06/16 |
| 16 | I-AR      | 440-152035-16   | Water  | 07/06/16 |
| 17 | I-FDUP    | 440-152035-8DUP | Water  | 07/06/16 |
| 18 |           |                 |        |          |

LDC #: 37696C6

# VALIDATION COMPLETENESS WORKSHEET

Date: 1/31/17

SDG #: 440-152035-1

Stage 2B

Page: 2 of 2

Laboratory: Test America, Inc.

Reviewer: J3

2nd Reviewer: [Signature]

**METHOD:** Perchlorate (EPA Method 314.0), pH (SM4500 H+B), TDS (SM2540C)

|    | Client ID | Lab ID | Matrix | Date |
|----|-----------|--------|--------|------|
| 19 |           |        |        |      |
| 20 |           |        |        |      |
| 21 |           |        |        |      |
| 22 |           |        |        |      |

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**VALIDATION FINDINGS WORKSHEET**  
**Sample Specific Analysis Reference**

All circled methods are applicable to each sample.

| Sample ID | Parameter  |
|-----------|--|
| 1-16      | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
| 0e        | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
| 17        | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |

Comments: \_\_\_\_\_

LDC #: 37696D6

**VALIDATION COMPLETENESS WORKSHEET**

Date: 1/31/17

SDG #: 440-152574-1

Stage 2B

Page: 1 of 2

Laboratory: Test America, Inc.

Reviewer: UB2nd Reviewer: [Signature]

Field Test

**METHOD:** Perchlorate (EPA Method 314.0), pH (SM4500-H+B), TDS (SM2540C)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

|       | Validation Area                        |     | Comments |
|-------|--|-----|----------|
| I.    | Sample receipt/Technical holding times | A/A |          |
| II    | Initial calibration                    | A   |          |
| III.  | Calibration verification               | A   |          |
| IV    | Laboratory Blanks                      | A   |          |
| V     | Field blanks                           | N   |          |
| VI.   | Matrix Spike/Matrix Spike Duplicates   | N   | C.S.     |
| VII.  | Duplicate sample analysis              | A   | 15.16    |
| VIII. | Laboratory control samples             | A   | LCS +ABL |
| IX.   | Field duplicates                       | N   |          |
| X.    | Sample result verification             | N   |          |
| XI    | Overall assessment of data             | A   |          |

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

|    | Client ID | Lab ID           | Matrix | Date     |
|----|-----------|------------------|--------|----------|
| 1  | I-N       | 440-152574-1     | Water  | 07/12/16 |
| 2  | I-D       | 440-152574-2     | Water  | 07/12/16 |
| 3  | I-X       | 440-152574-3     | Water  | 07/12/16 |
| 4  | I-M       | 440-152574-4     | Water  | 07/12/16 |
| 5  | I-AB      | 440-152574-5     | Water  | 07/12/16 |
| 6  | I-G       | 440-152574-6     | Water  | 07/12/16 |
| 7  | I-E       | 440-152574-7     | Water  | 07/12/16 |
| 8  | I-V       | 440-152574-8     | Water  | 07/12/16 |
| 9  | I-I       | 440-152574-9     | Water  | 07/12/16 |
| 10 | I-Z       | 440-152574-10    | Water  | 07/12/16 |
| 11 | I-J       | 440-152574-11    | Water  | 07/12/16 |
| 12 | I-K       | 440-152574-12    | Water  | 07/12/16 |
| 13 | I-AC      | 440-152574-13    | Water  | 07/12/16 |
| 14 | I-AD      | 440-152574-14    | Water  | 07/12/16 |
| 15 | I-NDUP    | 440-152574-1DUP  | Water  | 07/12/16 |
| 16 | I-JDUP    | 440-152574-11DUP | Water  | 07/12/16 |
| 17 |           |                  |        |          |
| 18 |           |                  |        |          |

LDC #: 37696D6

# VALIDATION COMPLETENESS WORKSHEET

Date: 1/3/17

SDG #: 440-152574-1

Stage 2B

Page: 2 of 2

Laboratory: Test America, Inc.

Reviewer: UB

2nd Reviewer: [Signature]

**METHOD:** Perchlorate (EPA Method 314.0), pH (SM4500 H+B), TDS (SM2540C)

|    | Client ID | Lab ID | Matrix | Date |
|----|-----------|--------|--------|------|
| 19 |           |        |        |      |
| 20 |           |        |        |      |
| 21 |           |        |        |      |

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



**METHOD:** Hexavalent Chromium (EPA Method 218.6)

Sil samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

|       | Validation Area                        |     | Comments  |
|-------|--|-----|---|
| I.    | Sample receipt/Technical holding times | A/A |   |
| II    | Initial calibration                    | A   |   |
| III.  | Calibration verification               | A   |   |
| IV    | Laboratory Blanks                      | A   |   |
| V     | Field blanks                           | N   |   |
| VI.   | Matrix Spike/Matrix Spike Duplicates   | A   | 440-152845-7 MSID / 16070262-07 MSID / 1-E MSID |
| VII.  | Duplicate sample analysis              | N   |   |
| VIII. | Laboratory control samples             | A   | LCS   |
| IX.   | Field duplicates                       | N   |   |
| X.    | Sample result verification             | N   |   |
| XI    | Overall assessment of data             | A   |   |

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB=Source blank  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

|    | Client ID | SUBID       | Lab ID       | Matrix | Date     |
|----|-----------|-------------|--------------|--------|----------|
| 1  | ART-6     | 16070511-01 | 440-153307-1 | Water  | 07/19/16 |
| 2  |           |             |              |        |          |
| 3  |           |             |              |        |          |
| 4  |           |             |              |        |          |
| 5  |           |             |              |        |          |
| 6  |           |             |              |        |          |
| 7  |           |             |              |        |          |
| 8  |           |             |              |        |          |
| 9  |           |             |              |        |          |
| 10 |           |             |              |        |          |
| 11 |           |             |              |        |          |
| 12 |           |             |              |        |          |
| 13 |           |             |              |        |          |
| 14 |           |             |              |        |          |
| 15 |           |             |              |        |          |

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



LDC #: 37696F6  
 SDG #: 440-153241-1  
 Laboratory: Test America, Inc.

**VALIDATION COMPLETENESS WORKSHEET**  
 Stage 2B

Date: 1/31/17  
 Page: 1 of 2  
 Reviewer: JS  
 2nd Reviewer: a

**METHOD:** Perchlorate (EPA Method 314.0), pH (SM4500-H+B), TDS (SM2540C)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

|       | Validation Area                        |     | Comments  |
|-------|--|-----|-----------|
| I.    | Sample receipt/Technical holding times | A/A |           |
| II    | Initial calibration                    | A   |           |
| III.  | Calibration verification               | A   |           |
| IV    | Laboratory Blanks                      | A   |           |
| V     | Field blanks                           | SW  | EB=12     |
| VI.   | Matrix Spike/Matrix Spike Duplicates   | A   | (18,19)   |
| VII.  | Duplicate sample analysis              | A   | (16,17)   |
| VIII. | Laboratory control samples             | A   | LCS / MRL |
| IX.   | Field duplicates                       | N   |           |
| X.    | Sample result verification             | N   |           |
| XI    | Overall assessment of data             | A   |           |

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet  
 ND = No compounds detected  
 R = Rinsate  
 FB = Field blank  
 D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank  
 SB=Source blank  
 OTHER:

|    | Client ID | Lab ID           | Matrix | Date     |
|----|-----------|------------------|--------|----------|
| 1  | M-83      | 440-153241-1     | Water  | 07/19/16 |
| 2  | PC-58     | 440-153241-2     | Water  | 07/19/16 |
| 3  | PC-56     | 440-153241-3     | Water  | 07/19/16 |
| 4  | PC-60     | 440-153241-4     | Water  | 07/19/16 |
| 5  | PC-59     | 440-153241-5     | Water  | 07/19/16 |
| 6  | PC-62     | 440-153241-6     | Water  | 07/19/16 |
| 7  | PC-68     | 440-153241-7     | Water  | 07/19/16 |
| 8  | PC-86     | 440-153241-8     | Water  | 07/19/16 |
| 9  | PC-91     | 440-153241-9     | Water  | 07/19/16 |
| 10 | PC-90     | 440-153241-10    | Water  | 07/19/16 |
| 11 | PC-97     | 440-153241-11    | Water  | 07/19/16 |
| 12 | MEB-1     | 440-153241-12    | Water  | 07/19/16 |
| 13 | PC-122    | 440-153241-13    | Water  | 07/19/16 |
| 14 | ART-6     | 440-153241-14    | Water  | 07/19/16 |
| 15 | PC-101R   | 440-153241-15    | Water  | 07/19/16 |
| 16 | M-83DUP   | 440-153241-1DUP  | Water  | 07/19/16 |
| 17 | PC-97DUP  | 440-153241-11DUP | Water  | 07/19/16 |
| 18 | MEB-1MS   | 440-153241-12MS  | Water  | 07/19/16 |

LDC #: 37696F6

# VALIDATION COMPLETENESS WORKSHEET

Date: 1/31/17

SDG #: 440-153241-1

Stage 2B

Page: 2 of 2

Laboratory: Test America, Inc.

Reviewer: JB

2nd Reviewer: [Signature]

**METHOD:** Perchlorate (EPA Method 314.0), pH (SM4500 H+B), TDS (SM2540C)

|    | Client ID | Lab ID           | Matrix | Date     |
|----|-----------|------------------|--------|----------|
| 19 | MEB-1MSD  | 440-153241-12MSD | Water  | 07/19/16 |
| 20 |           |                  |        |          |
| 21 |           |                  |        |          |
| 22 |           |                  |        |          |
| 23 |           |                  |        |          |
| 24 |           |                  |        |          |

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**VALIDATION FINDINGS WORKSHEET**  
**Sample Specific Analysis Reference**

All circled methods are applicable to each sample.

| Sample ID | Parameter  |
|-----------|--|
| 1-15      | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
| QC        | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
| 18, 19    | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
| 16, 17    | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |

Comments: \_\_\_\_\_

**VALIDATION FINDINGS WORKSHEET**  
**Field Blanks**

**METHOD:** Inorganics, EPA Method See Cover

**Blank units:** ug/L **Associated sample units:** ug/L

**Sampling date:** 7/19/16 **Soil factor applied:** NA

**Field blank type:** (circle one) Field Blank / Rinsate / Other: EB

**Associated Samples:** All 1-11, 13-15

| Analyte     | Blank ID | Action Limit | Sample Identification |  |  |  |  |  |  |  |
|-------------|----------|--------------|-----------------------|--|--|--|--|--|--|--|
|             | 12       |              |                       |  |  |  |  |  |  |  |
| Perchlorate | 1.2      |              |                       |  |  |  |  |  |  |  |
|             |          |              |                       |  |  |  |  |  |  |  |
|             |          |              |                       |  |  |  |  |  |  |  |
|             |          |              |                       |  |  |  |  |  |  |  |
|             |          |              |                       |  |  |  |  |  |  |  |
|             |          |              |                       |  |  |  |  |  |  |  |

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:  
 Samples with analyte concentrations within five times the associated field blank concentration are listed above, these sample results were qualified as not detected, "U".

LDC #: 37696G6  
 SDG #: 440-153408-1  
 Laboratory: Test America, Inc.

**VALIDATION COMPLETENESS WORKSHEET**  
 Stage 2B

Date: 1/3/17  
 Page: 1 of 2  
 Reviewer: VJ  
 2nd Reviewer: [Signature]

**METHOD:** Perchlorate (EPA Method 314.0), pH (SM4500 H+B), TDS (SM2540C)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

|       | Validation Area                        |       | Comments |
|-------|--|-------|----------|
| I.    | Sample receipt/Technical holding times | A / A |          |
| II    | Initial calibration                    | A     |          |
| III.  | Calibration verification               | A     |          |
| IV    | Laboratory Blanks                      | A     |          |
| V     | Field blanks                           | N     |          |
| VI.   | Matrix Spike/Matrix Spike Duplicates   | N     | C.S.     |
| VII.  | Duplicate sample analysis              | A     | (15, 16) |
| VIII. | Laboratory control samples             | A     | LCS 7mkt |
| IX.   | Field duplicates                       | N     |          |
| X.    | Sample result verification             | N     |          |
| XI    | Overall assessment of data             | A     |          |

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB=Source blank  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

|    | Client ID | Lab ID           | Matrix | Date     |
|----|-----------|------------------|--------|----------|
| 1  | PC-18     | 440-153408-1     | Water  | 07/20/16 |
| 2  | ARP-1     | 440-153408-2     | Water  | 07/20/16 |
| 3  | PC-53     | 440-153408-3     | Water  | 07/20/16 |
| 4  | MW-K5     | 440-153408-4     | Water  | 07/20/16 |
| 5  | ARP-7     | 440-153408-5     | Water  | 07/20/16 |
| 6  | ARP-6B    | 440-153408-6     | Water  | 07/20/16 |
| 7  | ARP-5A    | 440-153408-7     | Water  | 07/20/16 |
| 8  | ARP-4A    | 440-153408-8     | Water  | 07/20/16 |
| 9  | MW-K4     | 440-153408-9     | Water  | 07/20/16 |
| 10 | ARP-3A    | 440-153408-10    | Water  | 07/20/16 |
| 11 | ARP-2A    | 440-153408-11    | Water  | 07/20/16 |
| 12 | PC-103    | 440-153408-12    | Water  | 07/20/16 |
| 13 | PC-98R    | 440-153408-13    | Water  | 07/20/16 |
| 14 | PC-55     | 440-153408-14    | Water  | 07/20/16 |
| 15 | PC-18DUP  | 440-153408-1DUP  | Water  | 07/20/16 |
| 16 | ARP-2ADUP | 440-153408-11DUP | Water  | 07/20/16 |
| 17 |           |                  |        |          |
| 18 |           |                  |        |          |

LDC #: 37696G6

# VALIDATION COMPLETENESS WORKSHEET

SDG #: 440-153408-1

Stage 2B

Laboratory: Test America, Inc.

Date: 1/3/17

Page: 2 of 2

Reviewer: JB

2nd Reviewer: [Signature]

**METHOD:** Perchlorate (EPA Method 314.0), pH (SM4500 H+B), TDS (SM2540C)

|    | Client ID | Lab ID | Matrix | Date |
|----|-----------|--------|--------|------|
| 19 |           |        |        |      |
| 20 |           |        |        |      |
| 21 |           |        |        |      |

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**VALIDATION FINDINGS WORKSHEET**  
**Sample Specific Analysis Reference**

All circled methods are applicable to each sample.

| Sample ID | Parameter  |
|-----------|--|
| 1-14      | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
| Dc        | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
| 15,16     | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |

Comments: \_\_\_\_\_

**METHOD:** Hexavalent Chromium (EPA Method 218.6)

Sil samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

|       | Validation Area                        |     | Comments   |
|-------|--|-----|--|
| I.    | Sample receipt/Technical holding times | A/A |  |
| II    | Initial calibration                    | A   |  |
| III.  | Calibration verification               | A   |  |
| IV    | Laboratory Blanks                      | A   |  |
| V     | Field blanks                           | N   |  |
| VI.   | Matrix Spike/Matrix Spike Duplicates   | A   | (15,16) / 440-152845-14ms ID / 16070262-14ms ID / PC-17ms ID |
| VII.  | Duplicate sample analysis              | N   |  |
| VIII. | Laboratory control samples             | A   | LCS  |
| IX.   | Field duplicates                       | N   |  |
| X.    | Sample result verification             | N   |  |
| XI    | Overall assessment of data             | A   |  |

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet  
 ND = No compounds detected  
 R = Rinsate  
 FB = Field blank  
 D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank  
 SB=Source blank  
 OTHER:

|    | Client ID | SUB ID                      | Lab ID          | Matrix | Date     |
|----|-----------|-----------------------------|-----------------|--------|----------|
| 1  | I-N       | 16070262-01                 | 440-152845-1    | Water  | 07/12/16 |
| 2  | I-D       | 16070262-02                 | 440-152845-2    | Water  | 07/12/16 |
| 3  | I-X       | 16070262-03                 | 440-152845-3    | Water  | 07/12/16 |
| 4  | I-M       | 16070262-04                 | 440-152845-4    | Water  | 07/12/16 |
| 5  | I-AB      | 16070262-05                 | 440-152845-5    | Water  | 07/12/16 |
| 6  | I-G       | 16070262-06                 | 440-152845-6    | Water  | 07/12/16 |
| 7  | I-E       | 16070262-07                 | 440-152845-7    | Water  | 07/12/16 |
| 8  | I-V       | 16070262-08                 | 440-152845-8    | Water  | 07/12/16 |
| 9  | I-I       | 16070262-09                 | 440-152845-9    | Water  | 07/12/16 |
| 10 | I-J       | 16070262-10                 | 440-152845-10   | Water  | 07/12/16 |
| 11 | I-Z       | 16070262-11                 | 440-152845-11   | Water  | 07/12/16 |
| 12 | I-K       | 16070262-12                 | 440-152845-12   | Water  | 07/12/16 |
| 13 | I-AC      | 16070262-13                 | 440-152845-13   | Water  | 07/12/16 |
| 14 | I-AD      | 16070262-14                 | 440-152845-14   | Water  | 07/12/16 |
| 15 | I-EMS     | 16070262- <del>14</del> ms  | 440-152845-7ms  | water  | 7/12/16  |
| 16 | I-EMSD    | 16070262- <del>14</del> msD | 440-152845-7msD | water  | 7/12/16  |
| 17 |           |                             |                 |        |          |

Notes:



**METHOD:** Hexavalent Chromium (EPA Method 218.6)

Sil samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

|       | Validation Area                        |     | Comments  |
|-------|--|-----|---|
| I.    | Sample receipt/Technical holding times | A/A |   |
| II    | Initial calibration                    | A   |   |
| III.  | Calibration verification               | A   |   |
| IV    | Laboratory Blanks                      | A   |   |
| V     | Field blanks                           | N   |   |
| VI.   | Matrix Spike/Matrix Spike Duplicates   | A   | (7, 18) 440-151799-1MSID / 16070065-2MSID / ART-2 MSID<br>440-151799-14MSID / 16070065-14MSID / PC-117-MSID |
| VII.  | Duplicate sample analysis              | N   |   |
| VIII. | Laboratory control samples             | A   | LCS   |
| IX.   | Field duplicates                       | N   |   |
| X.    | Sample result verification             | N   |   |
| XI    | Overall assessment of data             | A   |   |

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB=Source blank  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

|    | Client ID | SUBID         | Lab ID          | Matrix | Date     |
|----|-----------|---------------|-----------------|--------|----------|
| 1  | I-O       | 16070119-01   | 440-152846-1    | Water  | 07/06/16 |
| 2  | I-W       | 16070119-02   | 440-152846-2    | Water  | 07/06/16 |
| 3  | I-P       | 16070119-03   | 440-152846-3    | Water  | 07/06/16 |
| 4  | I-H       | 16070119-04   | 440-152846-4    | Water  | 07/06/16 |
| 5  | I-U       | 16070119-05   | 440-152846-5    | Water  | 07/06/16 |
| 6  | I-T       | 16070119-06   | 440-152846-6    | Water  | 07/06/16 |
| 7  | I-Q       | 16070119-07   | 440-152846-7    | Water  | 07/06/16 |
| 8  | I-F       | 16070119-08   | 440-152846-8    | Water  | 07/06/16 |
| 9  | I-C       | 16070119-09   | 440-152846-9    | Water  | 07/06/16 |
| 10 | I-S       | 16070119-10   | 440-152846-10   | Water  | 07/06/16 |
| 11 | I-L       | 16070119-11   | 440-152846-11   | Water  | 07/06/16 |
| 12 | I-Y       | 16070119-12   | 440-152846-12   | Water  | 07/06/16 |
| 13 | I-R       | 16070119-13   | 440-152846-13   | Water  | 07/06/16 |
| 14 | I-B       | 16070119-14   | 440-152846-14   | Water  | 07/06/16 |
| 15 | I-AA      | 16070119-15   | 440-152846-15   | Water  | 07/06/16 |
| 16 | I-AR      | 16070119-16   | 440-152846-16   | Water  | 07/06/16 |
| 17 | I-HMS     | 16070119-4MS  | 440-152846-4MS  | Water  | 07/06/16 |
| 18 | I-HMSD    | 16070119-4MSD | 440-152846-4MSD | Water  | 07/06/16 |

LDC #: 3769616      **VALIDATION COMPLETENESS WORKSHEET**

SDG #: 440-152846-1/16070119      Stage 2B

Laboratory: Test America, Inc./SilverState Analytical Laboratories

Date: 1/3/17

Page: 2 of 2

Reviewer: B

2nd Reviewer: a

**METHOD:** Hexavalent Chromium (EPA Method 218.6)

|    | Client ID | Lab ID | Matrix | Date |
|----|-----------|--------|--------|------|
| 19 |           |        |        |      |
| 20 |           |        |        |      |
| 21 |           |        |        |      |
| 22 |           |        |        |      |
| 23 |           |        |        |      |

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

LDC #: 37696J6  
 SDG #: 440-154229-1  
 Laboratory: Test America, Inc.

**VALIDATION COMPLETENESS WORKSHEET**  
 Stage 2B

Date: 1/3/17  
 Page: 1 of 2  
 Reviewer: JB  
 2nd Reviewer: a

**METHOD:** Perchlorate (EPA Method 314.0), pH (SM4500 H+B), TDS (SM2540C)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

|       | Validation Area                        |       | Comments |
|-------|--|-------|----------|
| I.    | Sample receipt/Technical holding times | A / A |          |
| II    | Initial calibration                    | A     |          |
| III.  | Calibration verification               | A     |          |
| IV    | Laboratory Blanks                      | A     |          |
| V     | Field blanks                           | N     |          |
| VI.   | Matrix Spike/Matrix Spike Duplicates   | A     | (19, 20) |
| VII.  | Duplicate sample analysis              | A     | 18, 21   |
| VIII. | Laboratory control samples             | A     | LCS PART |
| IX.   | Field duplicates                       | N     |          |
| X.    | Sample result verification             | N     |          |
| XI    | Overall assessment of data             | A     |          |

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet  
 ND = No compounds detected  
 R = Rinsate  
 FB = Field blank  
 D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank  
 SB=Source blank  
 OTHER:

|    | Client ID     | Lab ID          | Matrix | Date     |
|----|---------------|-----------------|--------|----------|
| 1  | PC-99R2/R3    | 440-154229-1    | Water  | 08/01/16 |
| 2  | PC-115R       | 440-154229-2    | Water  | 08/01/16 |
| 3  | PC-116R       | 440-154229-3    | Water  | 08/01/16 |
| 4  | PC-117        | 440-154229-4    | Water  | 08/01/16 |
| 5  | PC-118        | 440-154229-5    | Water  | 08/01/16 |
| 6  | PC-119        | 440-154229-6    | Water  | 08/01/16 |
| 7  | PC-133        | 440-154229-7    | Water  | 08/01/16 |
| 8  | PC-120        | 440-154229-8    | Water  | 08/01/16 |
| 9  | PC-121        | 440-154229-9    | Water  | 08/01/16 |
| 10 | ART-4         | 440-154229-10   | Water  | 08/01/16 |
| 11 | ART-3A        | 440-154229-11   | Water  | 08/01/16 |
| 12 | ART-8A        | 440-154229-12   | Water  | 08/01/16 |
| 13 | ART-2A        | 440-154229-13   | Water  | 08/01/16 |
| 14 | ART-1A        | 440-154229-14   | Water  | 08/01/16 |
| 15 | ART-7B        | 440-154229-15   | Water  | 08/01/16 |
| 16 | ART-9         | 440-154229-16   | Water  | 08/01/16 |
| 17 | PC-150        | 440-154229-17   | Water  | 08/01/16 |
| 18 | PC-99R2/R3DUP | 440-154229-1DUP | Water  | 08/01/16 |

LDC #: 37696J6  
SDG #: 440-154229-1  
Laboratory: Test America, Inc.

**VALIDATION COMPLETENESS WORKSHEET**  
Stage 2B

Date: 1/31/17  
Page: 2 of 2  
Reviewer: CB  
2nd Reviewer: [Signature]

**METHOD:** Perchlorate (EPA Method 314.0), pH (SM4500 H+B), TDS (SM2540C)

|    | Client ID | Lab ID           | Matrix | Date     |
|----|-----------|------------------|--------|----------|
| 19 | PC-120MS  | 440-154229-8MS   | Water  | 08/01/16 |
| 20 | PC-120MSD | 440-154229-8MSD  | Water  | 08/01/16 |
| 21 | ART-3ADUP | 440-154229-11DUP | Water  | 08/01/16 |
| 22 |           |                  |        |          |
| 23 |           |                  |        |          |
| 24 |           |                  |        |          |
| 25 |           |                  |        |          |
| 26 |           |                  |        |          |

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**VALIDATION FINDINGS WORKSHEET**  
**Sample Specific Analysis Reference**

All circled methods are applicable to each sample.

| Sample ID | Parameter  |
|-----------|--|
| 1-17      | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
| QC        | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
| 18,21     | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
| 19,20     | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |

Comments: \_\_\_\_\_

**METHOD:** Hexavalent Chromium (EPA Method 218.6)

Sil samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

|       | Validation Area                        |     | Comments       |
|-------|--|-----|----------------|
| I.    | Sample receipt/Technical holding times | A/A |                |
| II    | Initial calibration                    | A   |                |
| III.  | Calibration verification               | A   |                |
| IV    | Laboratory Blanks                      | A   |                |
| V     | Field blanks                           | N   |                |
| VI.   | Matrix Spike/Matrix Spike Duplicates   | A   | (18,19)(20,21) |
| VII.  | Duplicate sample analysis              | N   |                |
| VIII. | Laboratory control samples             | A   | LES            |
| IX.   | Field duplicates                       | N   |                |
| X.    | Sample result verification             | N   |                |
| XI    | Overall assessment of data             | A   |                |

Note: A = Acceptable ND = No compounds detected D = Duplicate SB=Source blank  
 N = Not provided/applicable R = Rinsate TB = Trip blank OTHER:  
 SW = See worksheet FB = Field blank EB = Equipment blank

|    | Client ID    | SUBID         | Lab ID         | Matrix | Date     |
|----|--------------|---------------|----------------|--------|----------|
| 1  | PC-99R2/R3   | 16080017-01   | 440-154365-1   | Water  | 08/01/16 |
| 2  | PC-115R      | 16080017-02   | 440-154365-2   | Water  | 08/01/16 |
| 3  | PC-116R      | 16080017-03   | 440-154365-3   | Water  | 08/01/16 |
| 4  | PC-117       | 16080017-04   | 440-154365-4   | Water  | 08/01/16 |
| 5  | PC-118       | 16080017-05   | 440-154365-5   | Water  | 08/01/16 |
| 6  | PC-119       | 16080017-06   | 440-154365-6   | Water  | 08/01/16 |
| 7  | PC-133       | 16080017-07   | 440-154365-7   | Water  | 08/01/16 |
| 8  | PC-120       | 16080017-08   | 440-154365-8   | Water  | 08/01/16 |
| 9  | PC-121       | 16080017-09   | 440-154365-9   | Water  | 08/01/16 |
| 10 | ART-4        | 16080017-10   | 440-154365-10  | Water  | 08/01/16 |
| 11 | ART-3A       | 16080017-11   | 440-154365-11  | Water  | 08/01/16 |
| 12 | ART-8A       | 16080017-12   | 440-154365-12  | Water  | 08/01/16 |
| 13 | ART-2A       | 16080017-13   | 440-154365-13  | Water  | 08/01/16 |
| 14 | ART-1A       | 16080017-14   | 440-154365-14  | Water  | 08/01/16 |
| 15 | ART-7B       | 16080017-15   | 440-154365-15  | Water  | 08/01/16 |
| 16 | ART-9        | 16080017-16   | 440-154365-16  | Water  | 08/01/16 |
| 17 | PC-150       | 16080017-17   | 440-154365-17  | Water  | 08/01/16 |
| 18 | PC-99R2/R3MS | 16080017-01MS | 440-154365-1MS | Water  | 08/01/16 |

**METHOD:** Hexavalent Chromium (EPA Method 218.6)

|    | Client ID     | SUBID          | Lab ID           | Matrix | Date     |
|----|---------------|----------------|------------------|--------|----------|
| 19 | PC-99R2/R3MSD | 16080017-01MSD | 440-154365-1MSD  | Water  | 08/01/16 |
| 20 | PC-150MS      | 16080017-17MS  | 440-154365-17MS  | Water  | 08/01/16 |
| 21 | PC-150MSD     | 16080017-17MSD | 440-154365-17MSD | Water  | 08/01/16 |
| 22 |               |                |                  |        |          |
| 23 |               |                |                  |        |          |
| 24 |               |                |                  |        |          |
| 25 |               |                |                  |        |          |
| 26 |               |                |                  |        |          |

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

LDC #: 37696L6  
 SDG #: 440-154471-1  
 Laboratory: Test America, Inc.

**VALIDATION COMPLETENESS WORKSHEET**  
 Stage 2B

Date: 1/3/17  
 Page: 1 of 2  
 Reviewer: JB  
 2nd Reviewer: CW

**METHOD:** <sup>Field Test</sup> Perchlorate (EPA Method 314.0), pH (SM4500-H+B), TDS (SM2540C)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

|       | Validation Area                        |      | Comments   |
|-------|--|------|------------|
| I.    | Sample receipt/Technical holding times | A, A |            |
| II    | Initial calibration                    | A    |            |
| III.  | Calibration verification               | A    |            |
| IV    | Laboratory Blanks                      | A    |            |
| V     | Field blanks                           | ND   | FB=4, EB=8 |
| VI.   | Matrix Spike/Matrix Spike Duplicates   | A    | (16,17)    |
| VII.  | Duplicate sample analysis              | A    | 15         |
| VIII. | Laboratory control samples             | A    | LCS +ARL   |
| IX.   | Field duplicates                       | N    |            |
| X.    | Sample result verification             | N    |            |
| XI    | Overall assessment of data             | A    |            |

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet  
 ND = No compounds detected  
 R = Rinsate  
 FB = Field blank  
 D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank  
 SB=Source blank  
 OTHER:

|    | Client ID | Lab ID           | Matrix | Date     |
|----|-----------|------------------|--------|----------|
| 1  | PC-122    | 440-154471-1     | Water  | 08/02/16 |
| 2  | PC-58     | 440-154471-2     | Water  | 08/02/16 |
| 3  | PC-56     | 440-154471-3     | Water  | 08/02/16 |
| 4  | FB-1      | 440-154471-4     | Water  | 08/02/16 |
| 5  | PC-60     | 440-154471-5     | Water  | 08/02/16 |
| 6  | PC-59     | 440-154471-6     | Water  | 08/02/16 |
| 7  | PC-62     | 440-154471-7     | Water  | 08/02/16 |
| 8  | EB-1      | 440-154471-8     | Water  | 08/02/16 |
| 9  | PC-68     | 440-154471-9     | Water  | 08/02/16 |
| 10 | PC-86     | 440-154471-10    | Water  | 08/02/16 |
| 11 | PC-97     | 440-154471-11    | Water  | 08/02/16 |
| 12 | PC-90     | 440-154471-12    | Water  | 08/02/16 |
| 13 | PC-91     | 440-154471-13    | Water  | 08/02/16 |
| 14 | PC-94     | 440-154471-14    | Water  | 08/02/16 |
| 15 | PC-86DUP  | 440-154471-10DUP | Water  | 08/02/16 |
| 16 | FB-1ms    | 440-154471-4MS   | Water  | 8/2/16   |
| 17 | FB-1MSD   | 440-154471-4MSD  | Water  | 8/2/16   |
| 18 |           |                  |        |          |



LDC #: 37696L6

# VALIDATION COMPLETENESS WORKSHEET

Date: 1/3/17

SDG #: 440-154471-1

Stage 2B

Page: 2 of 2

Laboratory: Test America, Inc.

Reviewer: JB

2nd Reviewer: W

**METHOD:** Perchlorate (EPA Method 314.0), pH (SM4500 H+B), TDS (SM2540C)

|    | Client ID | Lab ID | Matrix | Date |
|----|-----------|--------|--------|------|
| 19 |           |        |        |      |
| 20 |           |        |        |      |

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



LDC #: 37696M6

**VALIDATION COMPLETENESS WORKSHEET**

Date: 11/3/17

SDG #: 440-154485-1

Stage 2B

Page: 1 of 1

Laboratory: Test America, Inc.

Reviewer: VB

2nd Reviewer: [Signature]

**METHOD:** Perchlorate (EPA Method 314.0), pH (SM4500 H+B), TDS (SM2540C)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

|       | Validation Area                        |       | Comments   |
|-------|--|-------|------------|
| I.    | Sample receipt/Technical holding times | A / A |            |
| II    | Initial calibration                    | A     |            |
| III.  | Calibration verification               | A     |            |
| IV    | Laboratory Blanks                      | A     |            |
| V     | Field blanks                           | N     |            |
| VI.   | Matrix Spike/Matrix Spike Duplicates   | N     | C.S.       |
| VII.  | Duplicate sample analysis              | A     | 2          |
| VIII. | Laboratory control samples             | A     | LC5 + PART |
| IX.   | Field duplicates                       | N     |            |
| X.    | Sample result verification             | N     |            |
| XI    | Overall assessment of data             | A     |            |

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinstate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

|    | Client ID | Lab ID          | Matrix | Date     |
|----|-----------|-----------------|--------|----------|
| 1  | ART-6     | 440-154485-1    | Water  | 08/02/16 |
| 2  | ART-6DUP  | 440-154485-1DUP | Water  | 08/02/16 |
| 3  |           |                 |        |          |
| 4  |           |                 |        |          |
| 5  |           |                 |        |          |
| 6  |           |                 |        |          |
| 7  |           |                 |        |          |
| 8  |           |                 |        |          |
| 9  |           |                 |        |          |
| 10 |           |                 |        |          |
| 11 |           |                 |        |          |
| 12 |           |                 |        |          |
| 13 |           |                 |        |          |
| 14 |           |                 |        |          |
| 15 |           |                 |        |          |

Notes:

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**VALIDATION FINDINGS WORKSHEET**  
**Sample Specific Analysis Reference**

All circled methods are applicable to each sample.

| Sample ID | Parameter  |
|-----------|--|
| 1         | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
| 0c        | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
| 2         | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |

Comments: \_\_\_\_\_

LDC #: 37696N6  
 SDG #: 440-154590-1  
 Laboratory: Test America, Inc.

**VALIDATION COMPLETENESS WORKSHEET**  
 Stage 2B

Date: 1/31/17  
 Page: 1 of 2  
 Reviewer: JS  
 2nd Reviewer: a

**METHOD:** <sup>Field Test</sup> Perchlorate (EPA Method 314.0), pH (SM4500 H+B), TDS (SM2540C)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

|       | Validation Area                        |     | Comments   |
|-------|--|-----|------------|
| I.    | Sample receipt/Technical holding times | A/A |            |
| II    | Initial calibration                    | A   |            |
| III.  | Calibration verification               | A   |            |
| IV    | Laboratory Blanks                      | A   |            |
| V     | Field blanks                           | ND  | EB = 5, 12 |
| VI.   | Matrix Spike/Matrix Spike Duplicates   | A   | (21, 22)   |
| VII.  | Duplicate sample analysis              | A   | 20, 23     |
| VIII. | Laboratory control samples             | A   | LCS        |
| IX.   | Field duplicates                       | N   |            |
| X.    | Sample result verification             | N   |            |
| XI    | Overall assessment of data             | A   |            |

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB=Source blank  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

|    | Client ID | Lab ID        | Matrix | Date     |
|----|-----------|---------------|--------|----------|
| 1  | PC-18     | 440-154590-1  | Water  | 08/03/16 |
| 2  | ARP-1     | 440-154590-2  | Water  | 08/03/16 |
| 3  | PC-136    | 440-154590-3  | Water  | 08/03/16 |
| 4  | PC-53     | 440-154590-4  | Water  | 08/03/16 |
| 5  | EB2       | 440-154590-5  | Water  | 08/03/16 |
| 6  | MW-K5     | 440-154590-6  | Water  | 08/03/16 |
| 7  | PC-103    | 440-154590-7  | Water  | 08/03/16 |
| 8  | PC-98R    | 440-154590-8  | Water  | 08/03/16 |
| 9  | ARP-7     | 440-154590-9  | Water  | 08/03/16 |
| 10 | ARP-6B    | 440-154590-10 | Water  | 08/03/16 |
| 11 | ARP-5A    | 440-154590-11 | Water  | 08/03/16 |
| 12 | MEB-1     | 440-154590-12 | Water  | 08/03/16 |
| 13 | ARP-4A    | 440-154590-13 | Water  | 08/03/16 |
| 14 | MW-K4     | 440-154590-14 | Water  | 08/03/16 |
| 15 | PC-144    | 440-154590-15 | Water  | 08/03/16 |
| 16 | PC-135A   | 440-154590-16 | Water  | 08/03/16 |
| 17 | PC-101R   | 440-154590-17 | Water  | 08/03/16 |
| 18 | ARP-3A    | 440-154590-18 | Water  | 08/03/16 |

LDC #: 37696N6

# VALIDATION COMPLETENESS WORKSHEET

Date: 1/3/17

SDG #: 440-154590-1

Stage 2B

Page: 2 of 2

Laboratory: Test America, Inc.

Reviewer: JB

2nd Reviewer: [Signature]

**METHOD:** Perchlorate (EPA Method 314.0), pH (SM4500 H+B), TDS (SM2540C)

|    | Client ID | Lab ID           | Matrix | Date     |
|----|-----------|------------------|--------|----------|
| 19 | ARP-2A    | 440-154590-19    | Water  | 08/03/16 |
| 20 | PC-18DUP  | 440-154590-1DUP  | Water  | 08/03/16 |
| 21 | EB2MS     | 440-154590-5MS   | Water  | 08/03/16 |
| 22 | EB2MSD    | 440-154590-5MSD  | Water  | 08/03/16 |
| 23 | ARP-5ADUP | 440-154590-11DUP | Water  | 08/03/16 |
| 24 |           |                  |        |          |
| 25 |           |                  |        |          |
| 26 |           |                  |        |          |
| 27 |           |                  |        |          |
| 28 |           |                  |        |          |

Notes:

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**VALIDATION FINDINGS WORKSHEET**  
**Sample Specific Analysis Reference**

All circled methods are applicable to each sample.

| Sample ID | Parameter  |
|-----------|--|
| 11,13-19  | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
| 12        | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
| QC        | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
| 20,23     | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
| (21,22)   | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |

Comments: \_\_\_\_\_

LDC #: 3769606  
 SDG #: 440-154938-1  
 Laboratory: Test America, Inc.

**VALIDATION COMPLETENESS WORKSHEET**  
 Stage 4

Date: 1/3/17  
 Page: 1 of 2  
 Reviewer: JG  
 2nd Reviewer: [Signature]

*Field Test*  
**METHOD:** Perchlorate (EPA Method 314.0), pH (SM4500 H+B), TDS (SM2540C)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

|       | Validation Area                        |     | Comments        |
|-------|--|-----|-----------------|
| I.    | Sample receipt/Technical holding times | A/A |                 |
| II    | Initial calibration                    | A   |                 |
| III.  | Calibration verification               | A   |                 |
| IV    | Laboratory Blanks                      | A   |                 |
| V     | Field blanks                           | ND  | EB = #12        |
| VI.   | Matrix Spike/Matrix Spike Duplicates   | A   | (25, 26)        |
| VII.  | Duplicate sample analysis              | A   | 23, 24          |
| VIII. | Laboratory control samples             | A   | LCS + mRL       |
| IX.   | Field duplicates                       | SW  | (1, 2) (17, 18) |
| X.    | Sample result verification             | A   |                 |
| XI    | Overall assessment of data             | A   |                 |

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet  
 ND = No compounds detected  
 R = Rinsate  
 FB = Field blank  
 D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank  
 SB=Source blank  
 OTHER:

|    | Client ID | Lab ID        | Matrix | Date     |
|----|-----------|---------------|--------|----------|
| 1  | PC-123    | 440-154938-1  | Water  | 08/08/16 |
| 2  | DUP6      | 440-154938-2  | Water  | 08/08/16 |
| 3  | PC-128    | 440-154938-3  | Water  | 08/08/16 |
| 4  | PC-129    | 440-154938-4  | Water  | 08/08/16 |
| 5  | PC-130    | 440-154938-5  | Water  | 08/08/16 |
| 6  | PC-131    | 440-154938-6  | Water  | 08/08/16 |
| 7  | PC-132    | 440-154938-7  | Water  | 08/08/16 |
| 8  | PC-124    | 440-154938-8  | Water  | 08/08/16 |
| 9  | PC-125    | 440-154938-9  | Water  | 08/08/16 |
| 10 | PC-126    | 440-154938-10 | Water  | 08/08/16 |
| 11 | PC-127    | 440-154938-11 | Water  | 08/08/16 |
| 12 | EB4       | 440-154938-12 | Water  | 08/08/16 |
| 13 | PC-148    | 440-154938-13 | Water  | 08/08/16 |
| 14 | PC-149    | 440-154938-14 | Water  | 08/08/16 |
| 15 | PC-54     | 440-154938-15 | Water  | 08/08/16 |
| 16 | M-48A     | 440-154938-16 | Water  | 08/08/16 |
| 17 | M-44      | 440-154938-17 | Water  | 08/08/16 |
| 18 | DUP7      | 440-154938-18 | Water  | 08/08/16 |



LDC #: 3769606

# VALIDATION COMPLETENESS WORKSHEET

Date: 1/3/17

SDG #: 440-154938-1

Stage 4

Page: 2 of 2

Laboratory: Test America, Inc.

Reviewer: JS

2nd Reviewer: [Signature]

**METHOD:** Perchlorate (EPA Method 314.0), pH (SM4500 H+B), TDS (SM2540C)

|    | Client ID | Lab ID           | Matrix | Date     |
|----|-----------|------------------|--------|----------|
| 19 | PC-71     | 440-154938-19    | Water  | 08/08/16 |
| 20 | PC-72     | 440-154938-20    | Water  | 08/08/16 |
| 21 | PC-73     | 440-154938-21    | Water  | 08/08/16 |
| 22 | PC-37     | 440-154938-22    | Water  | 08/08/16 |
| 23 | PC-123DUP | 440-154938-1DUP  | Water  | 08/08/16 |
| 24 | PC-127DUP | 440-154938-11DUP | Water  | 08/08/16 |
| 25 | EB4MS     | 440-154938-12MS  | Water  | 08/08/16 |
| 26 | EB4MSD    | 440-154938-12MSD | Water  | 08/08/16 |
| 27 |           |                  |        |          |
| 28 |           |                  |        |          |
| 29 |           |                  |        |          |
| 30 |           |                  |        |          |
| 31 |           |                  |        |          |

Notes:

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Method: Inorganics (EPA Method See Cover)

| Validation Area   | Yes | No | NA | Findings/Comments |
|---|-----|----|----|-------------------|
| <b>I. Technical holding times</b>   |     |    |    |                   |
| All technical holding times were met.   | ✓   |    |    |                   |
| Cooler temperature criteria was met.  | ✓   |    |    |                   |
| <b>II. Calibration</b>  |     |    |    |                   |
| Were all instruments calibrated daily, each set-up time?  | ✓   |    |    |                   |
| Were the proper number of standards used?   | ✓   |    |    |                   |
| Were all initial calibration correlation coefficients $\geq 0.995$ ?  | ✓   |    |    |                   |
| Were all initial and continuing calibration verification %Rs within the 90-110% QC limits?  | ✓   |    |    |                   |
| Were titrant checks performed as required? (Level IV only)  |     |    | ✓  |                   |
| Were balance checks performed as required? (Level IV only)  | ✓   |    |    |                   |
| <b>III. Blanks</b>  |     |    |    |                   |
| Was a method blank associated with every sample in this SDG?  | ✓   |    |    |                   |
| Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.  |     | ✓  |    |                   |
| <b>IV. Matrix spike/Matrix spike duplicates and Duplicates</b>  |     |    |    |                   |
| Were a matrix spike (MS) and duplicate (DUP) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD or MS/DUP. Soil / Water.   | ✓   |    |    |                   |
| Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the 75-125 QC limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.   | ✓   |    |    |                   |
| Were the MS/MSD or duplicate relative percent differences (RPD) $\leq 20\%$ for waters and $\leq 35\%$ for soil samples? A control limit of $\leq \text{CRDL}$ ( $\leq 2\text{X CRDL}$ for soil) was used for samples that were $\leq 5\text{X}$ the CRDL, including when only one of the duplicate sample values were $\leq 5\text{X}$ the CRDL. | ✓   |    |    |                   |
| <b>V. Laboratory control samples</b>  |     |    |    |                   |
| Was an LCS analyzed for this SDG?   | ✓   |    |    |                   |
| Was an LCS analyzed per extraction batch?   | ✓   |    |    |                   |
| Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the 80-120% (85-115% for Method 300.0) QC limits?   | ✓   |    |    |                   |
| <b>VI. Regional Quality Assurance and Quality Control</b>   |     |    |    |                   |
| Were performance evaluation (PE) samples performed?   |     |    | ✓  |                   |
| Were the performance evaluation (PE) samples within the acceptance limits?  |     |    | ✓  |                   |

**VALIDATION FINDINGS CHECKLIST**

| Validation Area   | Yes | No | NA | Findings/Comments |
|---|-----|----|----|-------------------|
| <b>VII. Sample Result Verification</b>  |     |    |    |                   |
| Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation? | ✓   |    |    |                   |
| Were detection limits < RL?   | ✓   |    |    |                   |
| <b>VIII. Overall assessment of data</b>   |     |    |    |                   |
| Overall assessment of data was found to be acceptable.  | ✓   |    |    |                   |
| <b>IX. Field duplicates</b>   |     |    |    |                   |
| Field duplicate pairs were identified in this SDG.  | ✓   |    |    |                   |
| Target analytes were detected in the field duplicates.  | ✓   |    |    |                   |
| <b>X. Field blanks</b>  |     |    |    |                   |
| Field blanks were identified in this SDG.   | ✓   |    |    |                   |
| Target analytes were detected in the field blanks.  |     | ✓  |    |                   |

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates**

Inorganics, Method See Cover

| Analyte            | Concentration (varies) |        | RPD ( $\leq 30$ ) |  |
|--------------------|------------------------|--------|-------------------|--|
|                    | 1                      | 2      |                   |  |
| Perchlorate (ug/L) | 230000                 | 210000 | 9                 |  |
| pH (SU)            | 7.41                   | 7.40   | 0                 |  |
| TDS (mg/L)         | 6500                   | 6600   | 2                 |  |

| Analyte            | Concentration (varies) |        | RPD ( $\leq 30$ ) |  |
|--------------------|------------------------|--------|-------------------|--|
|                    | 17                     | 18     |                   |  |
| Perchlorate (ug/L) | 660000                 | 630000 | 5                 |  |
| pH (SU)            | 7.33                   | 7.28   | 1                 |  |
| TDS (mg/L)         | 8700                   | 8800   | 1                 |  |

LDC #: 376960

**Validation Findings Worksheet  
Initial and Continuing Calibration Calculation Verification**

Page: 1 of 1  
 Reviewer: JB  
 2nd Reviewer: a

Method: Inorganics, Method See Cover

The correlation coefficient (r) for the calibration of ClO<sub>4</sub><sup>-</sup> was recalculated. Calibration date: 8/6/16

An initial or continuing calibration verification percent recovery (%R) was recalculated for each type of analysis using the following formula:

$$\%R = \frac{\text{Found} \times 100}{\text{True}}$$

Where, Found = concentration of each analyte measured in the analysis of the ICV or CCV solution  
 True = concentration of each analyte in the ICV or CCV source

| Type of analysis   | Analyte          | Standard | Conc. (ug/l)                    | Area                                     | Recalculated        | Reported            | Acceptable (Y/N) |
|--|------------------|----------|---------------------------------|--|---------------------|---------------------|------------------|
|  |                  |          |                                 |  | r or r <sup>2</sup> | r or r <sup>2</sup> |                  |
| Initial Calibration Verification                         | ClO <sub>4</sub> | s1       | 1                               | 133642.000                               | 1.0000              | 1.0000              | Y                |
|  |                  | s2       | 2                               | 309322.000                               |                     |                     |                  |
|  |                  | s3       | 4                               | 639683.000                               |                     |                     |                  |
|  |                  | s4       | 10                              | 1494698.000                              |                     |                     |                  |
|  |                  | s5       | 25                              | 4038235.000                              |                     |                     |                  |
|  |                  | s6       | 50                              | 8313356.000                              |                     |                     |                  |
|  |                  | s7       | 100                             | 17835745.000                             |                     |                     |                  |
| <sup>6/2</sup><br>Calibration verification               | ClO <sub>4</sub> | ICV      | $\frac{\text{FOUND}}{49.7182}$  | $\frac{\text{TRUE}}{50.0 \mu\text{g/L}}$ | 99%                 | 99%                 | Y                |
| <sup>7/29 (8/25 13:10)</sup><br>Calibration verification | ClO <sub>4</sub> | CCV      | $\frac{\text{FOUND}}{22.25169}$ | $\frac{\text{TRUE}}{25.0 \mu\text{g/L}}$ | 89%                 | 89%                 | Y                |
| Calibration verification                                 |                  |          |                                 |  |                     |                     |                  |

Comments: Refer to Calibration Verification findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

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**VALIDATION FINDINGS WORKSHEET**  
**Level IV Recalculation Worksheet**

**METHOD:** Inorganics, Method See Cover

Percent recoveries (%R) for a laboratory control sample and a matrix spike sample were recalculated using the following formula:

$$\%R = \frac{\text{Found}}{\text{True}} \times 100$$
 Where, Found = concentration of each analyte measured in the analysis of the sample. For the matrix spike calculation, Found = SSR (spiked sample result) - SR (sample result).  
True = concentration of each analyte in the source.

A sample and duplicate relative percent difference (RPD) was recalculated using the following formula:

$$RPD = \frac{|S-D|}{(S+D)/2} \times 100$$
 Where, S = Original sample concentration  
D = Duplicate sample concentration

| Sample ID | Type of Analysis                          | Element                       | Found / S (units)                 | True / D (units)       | Recalculated | Reported | Acceptable (Y/N) |
|-----------|---|-------------------------------|-----------------------------------|------------------------|--------------|----------|------------------|
|           |   |                               |                                   |                        | %R / RPD     | %R / RPD |                  |
| LCS       | Laboratory control sample<br>440-34868312 | TDS                           | 988 mg/L                          | 1000 mg/L              | 99%          | 99%      | Y                |
| MS        | Matrix spike sample<br>440-154938-12MS    | ClO <sub>4</sub> <sup>-</sup> | SR=ND<br>(SSR-SR)<br>22.2188 µg/L | 25.0 µg/L              | 89%          | 89%      | Y                |
| MSD       | Duplicate sample<br>440-154938-12MSD      | ClO <sub>4</sub> <sup>-</sup> | 24.2548 µg/L                      | Found:<br>22.2188 µg/L | 9% RPD       | 9% RPD   | Y                |

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**VALIDATION FINDINGS WORKSHEET**  
Sample Calculation Verification

**METHOD:** Inorganics, Method See Cover

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

- Y N N/A Have results been reported and calculated correctly?
- Y N N/A Are results within the calibrated range of the instruments?
- Y N N/A Are all detection limits below the CRQL?

Compound (analyte) results for TDS reported with a positive detect were recalculated and verified using the following equation:

Concentration =

Recalculation:

$$\frac{(A - B)_g}{\text{Sample vol}}$$

$$\# 22 = \frac{76.3159 - 76.3188g}{10mL} = 0.0771g/mL \times 1000 \times 1000 = 7710mg/L$$

| #     | Sample ID | Analyte                       | Reported Concentration ( ) | Calculated Concentration ( ) | Acceptable (Y/N) |
|-------|-----------|-------------------------------|----------------------------|------------------------------|------------------|
|       | 1         | ClO <sub>4</sub> <sup>-</sup> | 230000 µg/L                | 230000 µg/L                  | Y                |
|       | 2         | ClO <sub>4</sub> <sup>-</sup> | 210000 µg/L                | 210000 µg/L                  | Y                |
|       | 3         | ClO <sub>4</sub> <sup>-</sup> | 200000 µg/L                | 200000 µg/L                  | Y                |
|       | 4         | ClO <sub>4</sub> <sup>-</sup> | 270000 µg/L                | 270000 µg/L                  | Y                |
|       | 5         | ClO <sub>4</sub> <sup>-</sup> | 310000 µg/L                | 310000 µg/L                  | Y                |
|       | 6         | ClO <sub>4</sub> <sup>-</sup> | 1200 µg/L                  | 1200 µg/L                    | Y                |
|       | 7         | ClO <sub>4</sub> <sup>-</sup> | 42 µg/L                    | 42 µg/L                      | Y                |
|       | 8         | ClO <sub>4</sub> <sup>-</sup> | 7100 µg/L                  | 7100 µg/L                    | Y                |
|       | 9         | ClO <sub>4</sub> <sup>-</sup> | 6400 µg/L                  | 6400 µg/L                    | Y                |
|       | 10        | ClO <sub>4</sub> <sup>-</sup> | 21000 µg/L                 | 21000 µg/L                   | Y                |
|       | 11        | ClO <sub>4</sub> <sup>-</sup> | 210000 µg/L                | 210000 µg/L                  | X                |
|       | 12        | pH                            | 8.01 SU                    | 8.01 SU                      | Y                |
|       | 13        | TDS                           | 7000 mg/L                  | 7000 mg/L                    | Y                |
|       | 14        | TDS                           | 4500 mg/L                  | 4500 mg/L                    | Y                |
|       | 15        | TDS                           | 5300 mg/L                  | 5300 mg/L                    | Y                |
|       | 16        | TDS                           | 5200 mg/L                  | 5200 mg/L                    | Y                |
|       | 17        | TDS                           | 8700 mg/L                  | 8700 mg/L                    | Y                |
|       | 18        | TDS                           | 8800 mg/L                  | 8800 mg/L                    | X                |
|       | 19        | TDS                           | 7800 mg/L                  | 7800 mg/L                    | Y                |
|       | 20        | TDS                           | 7400 mg/L                  | 7400 mg/L                    | Y                |
| Note: | 21        | TDS                           | 8400 mg/L                  | 8400 mg/L                    | Y                |
|       | 22        | TDS                           | 7700 mg/L                  | 7700 mg/L                    | Y                |



**METHOD:** Hexavalent Chromium (EPA Method 218.6)

Sil samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

|       | Validation Area                        |       | Comments |
|-------|--|-------|----------|
| I.    | Sample receipt/Technical holding times | A / A |          |
| II    | Initial calibration                    | A     |          |
| III.  | Calibration verification               | A     |          |
| IV    | Laboratory Blanks                      | A     |          |
| V     | Field blanks                           | N     |          |
| VI.   | Matrix Spike/Matrix Spike Duplicates   | A     | (3,4)    |
| VII.  | Duplicate sample analysis              | N     |          |
| VIII. | Laboratory control samples             | A     | LOS      |
| IX.   | Field duplicates                       | SW    | (1,2)    |
| X.    | Sample result verification             | N     |          |
| XI    | Overall assessment of data             | A     |          |

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

|    | Client ID | SUB ID          | Lab ID          | Matrix | Date     |
|----|-----------|-----------------|-----------------|--------|----------|
| 1  | M-44      | 16080276-01     | 440-154944-1    | Water  | 08/08/16 |
| 2  | Dup-7     | 16080276-02     | 440-154944-2    | Water  | 08/08/16 |
| 3  | M-44MS    | 16080276-01 MS  | 440-154944-1MS  | Water  | 08/08/16 |
| 4  | M-44MSD   | 16080276-01 MSD | 440-154944-1MSD | Water  | 08/08/16 |
| 5  |           |                 |                 |        |          |
| 6  |           |                 |                 |        |          |
| 7  |           |                 |                 |        |          |
| 8  |           |                 |                 |        |          |
| 9  |           |                 |                 |        |          |
| 10 |           |                 |                 |        |          |
| 11 |           |                 |                 |        |          |
| 12 |           |                 |                 |        |          |
| 13 |           |                 |                 |        |          |
| 14 |           |                 |                 |        |          |
| 15 |           |                 |                 |        |          |

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

LDC#: 37696P6

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates**

Page: 1 of 1  
Reviewer: JB  
2nd Reviewer: [Signature]

Inorganics, Method See Cover

| Analyte             | Concentration (ug/L) |     | RPD ( $\leq 30$ ) |  |
|---------------------|----------------------|-----|-------------------|--|
|                     | 1                    | 2   |                   |  |
| Hexavalent Chromium | 810                  | 920 | 13                |  |

\\LDCFILESERVER\Validation\FIELD DUPLICATES\FD\_inorganic\37696P6.wpd

LDC #: 37696Q6  
 SDG #: 440-155035-1  
 Laboratory: Test America, Inc.

**VALIDATION COMPLETENESS WORKSHEET**

Stage 4

Date: 1/4/17  
 Page: 1 of 1  
 Reviewer: J3  
 2nd Reviewer: 2

**METHOD:** Ammonia-N (EPA Method 350.1), Chloride, Nitrate-N, Nitrite-N, (EPA Method 300.0), Chlorate (EPA Method 300.1B), Hexavalent Chromium (EPA Method 218.6), Nitrate/Nitrite-N (EPA Method 353.2), Perchlorate (EPA Method 314.0), pH (SM4500-HB), TDS (SM2540C), Total Inorganic Nitrogen (Calculation)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

|       | Validation Area                        |       | Comments  |
|-------|--|-------|-----------|
| I.    | Sample receipt/Technical holding times | A / A |           |
| II    | Initial calibration                    | A     |           |
| III.  | Calibration verification               | A     |           |
| IV    | Laboratory Blanks                      | A     |           |
| V     | Field blanks                           | N     |           |
| VI.   | Matrix Spike/Matrix Spike Duplicates   | N     | C.S.      |
| VII.  | Duplicate sample analysis              | N     |           |
| VIII. | Laboratory control samples             | A     | LCS + MRL |
| IX.   | Field duplicates                       | N     |           |
| X.    | Sample result verification             | A     |           |
| XI    | Overall assessment of data             | A     |           |

Note: *Surrogate Recovery*  
 A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet  
 ND = No compounds detected  
 R = Rinsate  
 FB = Field blank  
 D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank  
 SB=Source blank  
 OTHER:

|    | Client ID | Lab ID       | Matrix | Date     |
|----|-----------|--------------|--------|----------|
| 1  | M-10      | 440-155035-1 | Water  | 08/09/16 |
| 2  |           |              |        |          |
| 3  |           |              |        |          |
| 4  |           |              |        |          |
| 5  |           |              |        |          |
| 6  |           |              |        |          |
| 7  |           |              |        |          |
| 8  |           |              |        |          |
| 9  |           |              |        |          |
| 10 |           |              |        |          |
| 11 |           |              |        |          |
| 12 |           |              |        |          |
| 13 |           |              |        |          |
| 14 |           |              |        |          |

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Method: Inorganics (EPA Method See Cover)

| Validation Area   | Yes | No | NA | Findings/Comments |
|---|-----|----|----|-------------------|
| <b>I. Technical holding times</b>   |     |    |    |                   |
| All technical holding times were met.   | ✓   |    |    |                   |
| Cooler temperature criteria was met.  | ✓   |    |    |                   |
| <b>II. Calibration</b>  |     |    |    |                   |
| Were all instruments calibrated daily, each set-up time?  | ✓   |    |    |                   |
| Were the proper number of standards used?   | ✓   |    |    |                   |
| Were all initial calibration correlation coefficients $\geq 0.995$ ?  | ✓   |    |    |                   |
| Were all initial and continuing calibration verification %Rs within the 90-110% QC limits?  | ✓   |    |    |                   |
| Were titrant checks performed as required? (Level IV only)  | ✓   |    |    |                   |
| Were balance checks performed as required? (Level IV only)  | ✓   |    |    |                   |
| <b>III. Blanks</b>  |     |    |    |                   |
| Was a method blank associated with every sample in this SDG?  | ✓   |    |    |                   |
| Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.  |     | ✓  |    |                   |
| <b>IV. Matrix spike/Matrix spike duplicates and Duplicates</b>  |     |    |    |                   |
| Were a matrix spike (MS) and duplicate (DUP) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD or MS/DUP. Soil / Water.   |     |    | ✓  |                   |
| Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the 75-125 QC limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.   |     |    | ✓  |                   |
| Were the MS/MSD or duplicate relative percent differences (RPD) $\leq 20\%$ for waters and $\leq 35\%$ for soil samples? A control limit of $\leq \text{CRDL}$ ( $\leq 2\text{X CRDL}$ for soil) was used for samples that were $\leq 5\text{X}$ the CRDL, including when only one of the duplicate sample values were $\leq 5\text{X}$ the CRDL. |     |    | ✓  |                   |
| <b>V. Laboratory control samples</b>  |     |    |    |                   |
| Was an LCS analyzed for this SDG?   | ✓   |    |    |                   |
| Was an LCS analyzed per extraction batch?   | ✓   |    |    |                   |
| Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the 80-120% (85-115% for Method 300.0) QC limits?   | ✓   |    |    |                   |
| <b>VI. Regional Quality Assurance and Quality Control</b>   |     |    |    |                   |
| Were performance evaluation (PE) samples performed?   |     |    | ✓  |                   |
| Were the performance evaluation (PE) samples within the acceptance limits?  |     |    | ✓  |                   |

**VALIDATION FINDINGS CHECKLIST**

| Validation Area   | Yes | No | NA | Findings/Comments |
|---|-----|----|----|-------------------|
| <b>VII. Sample Result Verification</b>  |     |    |    |                   |
| Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation? | ✓   |    |    |                   |
| Were detection limits < RL?   | ✓   |    |    |                   |
| <b>VIII. Overall assessment of data</b>   |     |    |    |                   |
| Overall assessment of data was found to be acceptable.  | ✓   |    |    |                   |
| <b>IX. Field duplicates</b>   |     |    |    |                   |
| Field duplicate pairs were identified in this SDG.  |     |    | ✓  |                   |
| Target analytes were detected in the field duplicates.  |     |    | ✓  |                   |
| <b>X. Field blanks</b>  |     |    |    |                   |
| Field blanks were identified in this SDG.   |     |    | ✓  |                   |
| Target analytes were detected in the field blanks.  |     |    | ✓  |                   |



LDC #: 376960

**Validation Findings Worksheet**  
**Initial and Continuing Calibration Calculation Verification**

Page: 1 of 1

Reviewer: VB

2nd Reviewer: Q

Method: Inorganics, Method See Cover

The correlation coefficient (r) for the calibration of NO<sub>3</sub> was recalculated. Calibration date: 7/7/14

An initial or continuing calibration verification percent recovery (%R) was recalculated for each type of analysis using the following formula:

$$\%R = \frac{\text{Found} \times 100}{\text{True}}$$

Where,

Found = concentration of each analyte measured in the analysis of the ICV or CCV solution

True = concentration of each analyte in the ICV or CCV source

| Type of analysis         | Analyte         | Standard | Conc. (ug/L)        | Area             | Recalculated        | Reported            | Acceptable (Y/N) |
|--------------------------|-----------------|----------|---------------------|------------------|---------------------|---------------------|------------------|
|                          |                 |          |                     |                  | r or r <sup>2</sup> | r or r <sup>2</sup> |                  |
| Initial calibration      | NO <sub>3</sub> | s1       | 0.113               | 1912376          | 0.9993              | 0.9990              | Y                |
|                          |                 | s2       | 0.226               | 4315328          |                     |                     |                  |
|                          |                 | s3       | 1.13                | 18208175         |                     |                     |                  |
|                          |                 | s4       | 2.26                | 37643872         |                     |                     |                  |
|                          |                 | s5       | 3.39                | 57540329         |                     |                     |                  |
|                          |                 | s6       | 4.52                | 79818599         |                     |                     |                  |
| Calibration verification | Cr6+            | ICV      | FOUND: 49.911 ug/L  | TRUE: 50.0 ug/L  | 100%                | 100%                | Y                |
| Calibration verification | Cl-             | CCV      | FOUND: 9.5114 ug/mL | TRUE: 10.0 ug/mL | -4.9%               | -4.9%               | Y                |
| Calibration verification |                 |          |                     |                  |                     |                     |                  |

Comments: Refer to Calibration Verification findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

### VALIDATION FINDINGS WORKSHEET Level IV Recalculation Worksheet

**METHOD:** Inorganics, Method See Cover

Percent recoveries (%R) for a laboratory control sample and a matrix spike sample were recalculated using the following formula:

$$\%R = \frac{\text{Found}}{\text{True}} \times 100$$
 Where, Found = concentration of each analyte measured in the analysis of the sample. For the matrix spike calculation, Found = SSR (spiked sample result) - SR (sample result).  
True = concentration of each analyte in the source.

A sample and duplicate relative percent difference (RPD) was recalculated using the following formula:

$$RPD = \frac{|S-D|}{(S+D)/2} \times 100$$
 Where, S = Original sample concentration  
D = Duplicate sample concentration

| Sample ID | Type of Analysis          | Element          | Found / S<br>(units)    | True / D<br>(units)  | Recalculated | Reported | Acceptable<br>(Y/N) |
|-----------|---------------------------|------------------|-------------------------|----------------------|--------------|----------|---------------------|
|           |                           |                  |                         |                      | %R / RPD     | %R / RPD |                     |
| LCS       | Laboratory control sample | ClO <sub>4</sub> | 23.8784 $\mu\text{g/L}$ | 25.0 $\mu\text{g/L}$ | 96%          | 96%      | Y                   |
| N         | Matrix spike sample       |                  | (SSR-SR)                |                      |              |          |                     |
| N         | Duplicate sample          |                  |                         |                      |              |          |                     |

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



**VALIDATION FINDINGS WORKSHEET**  
Sample Calculation Verification

**METHOD:** Inorganics, Method See Cover

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

- Y N N/A Have results been reported and calculated correctly?
- Y N N/A Are results within the calibrated range of the instruments?
- Y N N/A Are all detection limits below the CRQL?

Compound (analyte) results for ClO<sub>3</sub> reported with a positive detect were recalculated and verified using the following equation:

Concentration =

Recalculation:

$$y = mx + b$$

$$6978998 = 23341.3363 x + -9092.3275 =$$

$$299.3869 \times 100 = 29938.69 \mu\text{g/L}$$

| # | Sample ID | Analyte                   | Reported Concentration ( ) | Calculated Concentration ( ) | Acceptable (Y/N) |
|---|-----------|---------------------------|----------------------------|------------------------------|------------------|
|   | 1         | ClO <sub>4</sub>          | 7400 μg/L                  | 7400 μg/L                    | Y                |
|   | 1         | NO <sub>3</sub>           | 1.1 mg/L                   | 1.1 mg/L                     | Y                |
|   | 1         | Cl                        | 220 mg/L                   | 220 mg/L                     | Y                |
|   | 1         | ClO <sub>3</sub>          | 30000 μg/L                 | 30000 μg/L                   | Y                |
|   |           | <del>NH<sub>3</sub></del> |                            |                              | Y                |
|   | 1         | Total Inorganic N         | 1.1 mg/L                   | 1.1 mg/L                     | Y                |
|   | 1         | TDS                       | 2600 mg/L                  | 2600 mg/L                    | Y                |
|   | 1         | N/N-N                     | 1.1 mg/L                   | 1.1 mg/L                     | Y                |
|   | 1         | pH                        | 6.83 SU                    | 6.83 SU                      | Y                |
|   |           |                           |                            |                              |                  |
|   |           |                           |                            |                              |                  |
|   |           |                           |                            |                              |                  |
|   |           |                           |                            |                              |                  |
|   |           |                           |                            |                              |                  |
|   |           |                           |                            |                              |                  |
|   |           |                           |                            |                              |                  |
|   |           |                           |                            |                              |                  |
|   |           |                           |                            |                              |                  |
|   |           |                           |                            |                              |                  |
|   |           |                           |                            |                              |                  |

Note: \_\_\_\_\_

LDC #: 37696R6  
 SDG #: 440-155148-1  
 Laboratory: Test America, Inc.

**VALIDATION COMPLETENESS WORKSHEET**  
 Stage 2B

Date: 1/4/17  
 Page: 1 of 2  
 Reviewer: JB  
 2nd Reviewer: [Signature]

**METHOD:** Nitrate-N, (EPA Method 300.0), Chlorate (EPA Method 300.1B), Perchlorate (EPA Method 314.0), pH (SM4500 H B), TDS (SM2540C)

Field Test

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

|       | Validation Area                        |        | Comments          |
|-------|--|--------|-------------------|
| I.    | Sample receipt/Technical holding times | A / SW |                   |
| II    | Initial calibration                    | A      |                   |
| III.  | Calibration verification               | A      |                   |
| IV    | Laboratory Blanks                      | SW     |                   |
| V     | Field blanks                           | SW     | EB=8              |
| VI.   | Matrix Spike/Matrix Spike Duplicates   | A      | (18, 19) (21, 22) |
| VII.  | Duplicate sample analysis              | N      |                   |
| VIII. | Laboratory control samples             | A      | LCS / MRL         |
| IX.   | Field duplicates                       | SW     | (5, 6) (15, 16)   |
| X.    | Sample result verification             | N      |                   |
| XI    | Overall assessment of data             | A      |                   |

Note: *Surrogate Recovery*  
 A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet  
 ND = No compounds detected  
 R = Rinsate  
 FB = Field blank  
 D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank  
 SB=Source blank  
 OTHER:

|    | Client ID | Lab ID          | Matrix | Date     |
|----|-----------|-----------------|--------|----------|
| 1  | M-83      | 440-155148-1    | Water  | 08/09/16 |
| 2  | M-80      | 440-155148-2    | Water  | 08/09/16 |
| 3  | M-81A     | 440-155148-3    | Water  | 08/09/16 |
| 4  | M-73      | 440-155148-4    | Water  | 08/09/16 |
| 5  | M-67      | 440-155148-5    | Water  | 08/09/16 |
| 6  | DUP8      | 440-155148-6    | Water  | 08/09/16 |
| 7  | M-74      | 440-155148-7    | Water  | 08/09/16 |
| 8  | EB9       | 440-155148-8    | Water  | 08/09/16 |
| 9  | M-68      | 440-155148-9    | Water  | 08/09/16 |
| 10 | M-19      | 440-155148-10   | Water  | 08/09/16 |
| 11 | M-35      | 440-155148-11   | Water  | 08/09/16 |
| 12 | M-31A     | 440-155148-12   | Water  | 08/09/16 |
| 13 | M-52      | 440-155148-13   | Water  | 08/09/16 |
| 14 | M-11      | 440-155148-14   | Water  | 08/09/16 |
| 15 | M-12A     | 440-155148-15   | Water  | 08/09/16 |
| 16 | DUP9      | 440-155148-16   | Water  | 08/09/16 |
| 17 | M-83DUP   | 440-155148-1DUP | Water  | 08/09/16 |
| 18 | EB9MS     | 440-155148-8MS  | Water  | 08/09/16 |

LDC #: 37696R6

# VALIDATION COMPLETENESS WORKSHEET

Date: 1/4/17

SDG #: 440-155148-1

Stage 2B

Page: 2 of 2

Laboratory: Test America, Inc.

Reviewer: JB

2nd Reviewer: [Signature]

**METHOD:** Nitrate-N, (EPA Method 300.0), Chlorate (EPA Method 300.1B), Perchlorate (EPA Method 314.0), pH (SM4500 H B), TDS (SM2540C)

|    | Client ID | Lab ID           | Matrix | Date     |
|----|-----------|------------------|--------|----------|
| 19 | EB9MSD    | 440-155148-8MSD  | Water  | 08/09/16 |
| 20 | M-35DUP   | 440-155148-11DUP | Water  | 08/09/16 |
| 21 | DUP9MS    | 440-155148-16MS  | Water  | 08/09/16 |
| 22 | DUP9MSD   | 440-155148-16MSD | Water  | 08/09/16 |
| 23 |           |                  |        |          |
| 24 |           |                  |        |          |
| 25 |           |                  |        |          |
| 26 |           |                  |        |          |
| 27 |           |                  |        |          |

Notes:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_





LDC #: 37696R6

### VALIDATION FINDINGS WORKSHEET

Page: 1 of 1

### Blanks

Reviewer: JB

2nd Reviewer: G

METHOD: Inorganics, Method See Cover

Conc. units: ug/L

Associated Samples: 1 - 7, 9 - 16

| Analyte | Blank ID | Blank ID       | Blank Action Limit |               |  |  |  |  |  |  |  |  |  |  |
|---------|----------|----------------|--------------------|---------------|--|--|--|--|--|--|--|--|--|--|
|         | PB       | ICB/CCB (ug/L) |                    | No Qualifiers |  |  |  |  |  |  |  |  |  |  |
| CLO4    |          | 0.508          |                    |               |  |  |  |  |  |  |  |  |  |  |
|         |          |                |                    |               |  |  |  |  |  |  |  |  |  |  |

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:  
All contaminants within five times the method blank concentration were qualified as not detected, "U".

**VALIDATION FINDINGS WORKSHEET**  
**Field Blanks**

**METHOD:** Inorganics, EPA Method See Cover

**Blank units:** ug/L **Associated sample units:** ug/L

**Sampling date:** 8/9/16 Soil factor applied NA

**Field blank type:** (circle one) Field Blank / Rinsate / Other: EB Associated Samples: AF 1-7, 9-16

| Analyte     | Blank ID | Action Limit | Sample Identification |  |  |  |  |  |  |  |
|-------------|----------|--------------|-----------------------|--|--|--|--|--|--|--|
|             | 8        |              |                       |  |  |  |  |  |  |  |
| Perchlorate | 1.2      |              |                       |  |  |  |  |  |  |  |
|             |          |              |                       |  |  |  |  |  |  |  |
|             |          |              |                       |  |  |  |  |  |  |  |
|             |          |              |                       |  |  |  |  |  |  |  |
|             |          |              |                       |  |  |  |  |  |  |  |
|             |          |              |                       |  |  |  |  |  |  |  |

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:  
Samples with analyte concentrations within five times the associated field blank concentration are listed above, these sample results were qualified as not detected, "U".

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates**

Inorganics, Method See Cover

| Analyte            | Concentration (varies) |        | RPD ( $\leq 30$ ) |  |
|--------------------|------------------------|--------|-------------------|--|
|                    | 5                      | 6      |                   |  |
| Perchlorate (ug/L) | 250000                 | 250000 | 0                 |  |
| pH (SU)            | 7.20                   | 7.20   | 0                 |  |
| TDS (mg/L)         | 6100                   | 6100   | 0                 |  |

| Analyte             | Concentration (varies) |         | RPD ( $\leq 30$ ) |  |
|---------------------|------------------------|---------|-------------------|--|
|                     | 15                     | 16      |                   |  |
| Perchlorate (ug/L)  | 150000                 | 160000  | 6                 |  |
| pH (SU)             | 7.97                   | 7.96    | 0                 |  |
| Nitrate as N (mg/L) | 7.0                    | 6.9     | 1                 |  |
| Chlorate (ug/L)     | 1300000                | 1300000 | 0                 |  |
| TDS (mg/L)          | 5800                   | 5700    | 2                 |  |

\\LDCFILESERVER\Validation\FIELD DUPLICATES\FD\_inorganic\37696R6.wpd



**METHOD:** Hexavalent Chromium (EPA Method 218.6)

Sil samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

|       | Validation Area                        |     | Comments                                       |
|-------|--|-----|--|
| I.    | Sample receipt/Technical holding times | A/A |  |
| II    | Initial calibration                    | A   |  |
| III.  | Calibration verification               | A   |  |
| IV    | Laboratory Blanks                      | A   |  |
| V     | Field blanks                           | N   |  |
| VI.   | Matrix Spike/Matrix Spike Duplicates   | A   | 440-154944-MS1D / 16080276-01 MS1D / 16-44MS1D |
| VII.  | Duplicate sample analysis              | N   |  |
| VIII. | Laboratory control samples             | A   | LCS  |
| IX.   | Field duplicates                       | SW  | (3,4)  |
| X.    | Sample result verification             | N   |  |
| XI    | Overall assessment of data             | A   |  |

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB=Source blank  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

|    | Client ID | SUBID       | Lab ID       | Matrix | Date     |
|----|-----------|-------------|--------------|--------|----------|
| 1  | M-80      | 16080317-01 | 440-155186-1 | Water  | 08/09/16 |
| 2  | M-11      | 16080317-02 | 440-155186-2 | Water  | 08/09/16 |
| 3  | M-12A     | 16080317-03 | 440-155186-3 | Water  | 08/09/16 |
| 4  | DUP9      | 16080317-04 | 440-155186-4 | Water  | 08/09/16 |
| 5  |           |             |              |        |          |
| 6  |           |             |              |        |          |
| 7  |           |             |              |        |          |
| 8  |           |             |              |        |          |
| 9  |           |             |              |        |          |
| 10 |           |             |              |        |          |
| 11 |           |             |              |        |          |
| 12 |           |             |              |        |          |
| 13 |           |             |              |        |          |
| 14 |           |             |              |        |          |
| 15 |           |             |              |        |          |

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

LDC#: 37696S6

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates**

Page: 1 of 1  
Reviewer: VB  
2nd Reviewer: AV

Inorganics, Method See Cover

| Analyte             | Concentration (ug/L) |      | RPD ( $\leq 30$ ) |  |
|---------------------|----------------------|------|-------------------|--|
|                     | 3                    | 4    |                   |  |
| Hexavalent Chromium | 8000                 | 8100 | 1                 |  |

\\LDCFILESERVER\Validation\FIELD DUPLICATES\FD\_inorganic\37696S6.wpd

LDC #: 37696T6  
 SDG #: 440-155316-1  
 Laboratory: Test America, Inc.

**VALIDATION COMPLETENESS WORKSHEET**

Stage 4

Date: 1/5/17  
 Page: 1 of 2  
 Reviewer: JB  
 2nd Reviewer: *[Signature]*  
*Field Test*

**METHOD:** Nitrate-N, (EPA Method 300.0), Chlorate (EPA Method 300.1B), Perchlorate (EPA Method 314.0), pH (SM4500 HB), TDS (SM2540C)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

|       | Validation Area                        |     | Comments                 |
|-------|--|-----|--------------------------|
| I.    | Sample receipt/Technical holding times | A A |                          |
| II    | Initial calibration                    | A   |                          |
| III.  | Calibration verification               | A   |                          |
| IV    | Laboratory Blanks                      | A   |                          |
| V     | Field blanks                           | SW  | EB=9                     |
| VI.   | Matrix Spike/Matrix Spike Duplicates   | SW  | (24, 25) (27, 28)        |
| VII.  | Duplicate sample analysis              | A   | 23, 24                   |
| VIII. | Laboratory control samples             | A   | LCS / MRL                |
| IX.   | Field duplicates                       | SW  | (2, 3) (14, 15) (17, 18) |
| X.    | Sample result verification             | A   |                          |
| XI    | Overall assessment of data             | A   |                          |

Note: *Surrogate Recovery*  
 A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet  
 ND = No compounds detected  
 R = Rinsate  
 FB = Field blank  
 D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank  
 SB=Source blank  
 OTHER:

|    | Client ID       | Lab ID        | Matrix | Date     |
|----|-----------------|---------------|--------|----------|
| 1  | M-25            | 440-155316-1  | Water  | 08/10/16 |
| 2  | M-37            | 440-155316-2  | Water  | 08/10/16 |
| 3  | DUP12           | 440-155316-3  | Water  | 08/10/16 |
| 4  | M-14A           | 440-155316-4  | Water  | 08/10/16 |
| 5  | M-131           | 440-155316-5  | Water  | 08/10/16 |
| 6  | M-57A           | 440-155316-6  | Water  | 08/10/16 |
| 7  | M-135           | 440-155316-7  | Water  | 08/10/16 |
| 8  | M-69            | 440-155316-8  | Water  | 08/10/16 |
| 9  | EB-10           | 440-155316-9  | Water  | 08/10/16 |
| 10 | M-79            | 440-155316-10 | Water  | 08/10/16 |
| 11 | M-70            | 440-155316-11 | Water  | 08/10/16 |
| 12 | M-71            | 440-155316-12 | Water  | 08/10/16 |
| 13 | M-72            | 440-155316-13 | Water  | 08/10/16 |
| 14 | <del>M-65</del> | 440-155316-14 | Water  | 08/10/16 |
| 15 | DUP10           | 440-155316-15 | Water  | 08/10/16 |
| 16 | M-66            | 440-155316-16 | Water  | 08/10/16 |
| 17 | M-38            | 440-155316-17 | Water  | 08/10/16 |
| 18 | DUP11           | 440-155316-18 | Water  | 08/10/16 |

LDC #: 37696T6  
SDG #: 440-155316-1  
Laboratory: Test America, Inc.

**VALIDATION COMPLETENESS WORKSHEET**  
Stage 4

Date: 1/5/17  
Page: 2 of 2  
Reviewer: JB  
2nd Reviewer: [Signature]

**METHOD:** Nitrate-N, (EPA Method 300.0), Chlorate (EPA Method 300.1B), Perchlorate (EPA Method 314.0), pH (SM4500 H B), TDS (SM2540C)

|    | Client ID | Lab ID           | Matrix | Date     |
|----|-----------|------------------|--------|----------|
| 19 | M-22A     | 440-155316-19    | Water  | 08/10/16 |
| 20 | M-23      | 440-155316-20    | Water  | 08/10/16 |
| 21 | PC-55     | 440-155316-21    | Water  | 08/10/16 |
| 22 | M-64      | 440-155316-22    | Water  | 08/10/16 |
| 23 | M-25DUP   | 440-155316-1DUP  | Water  | 08/10/16 |
| 24 | EB-10MS   | 440-155316-9MS   | Water  | 08/10/16 |
| 25 | EB-10MSD  | 440-155316-9MSD  | Water  | 08/10/16 |
| 26 | M-70DUP   | 440-155316-11DUP | Water  | 08/10/16 |
| 27 | M-22AMS   | 440-155316-19MS  | Water  | 08/10/16 |
| 28 | M-22AMSD  | 440-155316-19MSD | Water  | 08/10/16 |
| 29 |           |                  |        |          |
| 30 |           |                  |        |          |
| 31 |           |                  |        |          |
| 32 |           |                  |        |          |
| 33 |           |                  |        |          |

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



Method: Inorganics (EPA Method See Cover)

| Validation Area   | Yes | No | NA | Findings/Comments |
|---|-----|----|----|-------------------|
| <b>I. Technical holding times</b>   |     |    |    |                   |
| All technical holding times were met.   | ✓   |    |    |                   |
| Cooler temperature criteria was met.  | ✓   |    |    |                   |
| <b>II. Calibration</b>  |     |    |    |                   |
| Were all instruments calibrated daily, each set-up time?  | ✓   |    |    |                   |
| Were the proper number of standards used?   | ✓   |    |    |                   |
| Were all initial calibration correlation coefficients $\geq 0.995$ ?  | ✓   |    |    |                   |
| Were all initial and continuing calibration verification %Rs within the 90-110% QC limits?  | ✓   |    |    |                   |
| Were titrant checks performed as required? (Level IV only)  |     |    | ✓  |                   |
| Were balance checks performed as required? (Level IV only)  | ✓   |    |    |                   |
| <b>III. Blanks</b>  |     |    |    |                   |
| Was a method blank associated with every sample in this SDG?  | ✓   |    |    |                   |
| Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.  |     | ✓  |    |                   |
| <b>IV. Matrix spike/Matrix spike duplicates and Duplicates</b>  |     |    |    |                   |
| Were a matrix spike (MS) and duplicate (DUP) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD or MS/DUP. Soil / Water.   | ✓   |    |    |                   |
| Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the 75-125 QC limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.   |     | ✓  |    |                   |
| Were the MS/MSD or duplicate relative percent differences (RPD) $\leq 20\%$ for waters and $\leq 35\%$ for soil samples? A control limit of $\leq \text{CRDL}$ ( $\leq 2\text{X CRDL}$ for soil) was used for samples that were $\leq 5\text{X}$ the CRDL, including when only one of the duplicate sample values were $\leq 5\text{X}$ the CRDL. | ✓   |    |    |                   |
| <b>V. Laboratory control samples</b>  |     |    |    |                   |
| Was an LCS analyzed for this SDG?   | ✓   |    |    |                   |
| Was an LCS analyzed per extraction batch?   | ✓   |    |    |                   |
| Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the 80-120% (85-115% for Method 300.0) QC limits?   | ✓   |    |    |                   |
| <b>VI. Regional Quality Assurance and Quality Control</b>   |     |    |    |                   |
| Were performance evaluation (PE) samples performed?   |     |    | ✓  |                   |
| Were the performance evaluation (PE) samples within the acceptance limits?  |     |    | ✓  |                   |

**VALIDATION FINDINGS CHECKLIST**

| Validation Area   | Yes | No | NA | Findings/Comments |
|---|-----|----|----|-------------------|
| <b>VII. Sample Result Verification</b>  |     |    |    |                   |
| Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation? | ✓   |    |    |                   |
| Were detection limits < RL?   | ✓   |    |    |                   |
| <b>VIII. Overall assessment of data</b>   |     |    |    |                   |
| Overall assessment of data was found to be acceptable.  | ✓   |    |    |                   |
| <b>IX. Field duplicates</b>   |     |    |    |                   |
| Field duplicate pairs were identified in this SDG.  | ✓   |    |    |                   |
| Target analytes were detected in the field duplicates.  | ✓   |    |    |                   |
| <b>X. Field blanks</b>  |     |    |    |                   |
| Field blanks were identified in this SDG.   | ✓   |    |    |                   |
| Target analytes were detected in the field blanks.  | ✓   |    |    |                   |

**VALIDATION FINDINGS WORKSHEET**  
**Field Blanks**

**METHOD:** Inorganics, EPA Method See Cover

**Blank units:** ug/L **Associated sample units:** ug/L

**Sampling date:** 8/10/16 Soil factor applied NA

**Field blank type:** (circle one) Field Blank / Rinsate / Other: EB Associated Samples: 1 - 8, 10 - 22

| Analyte     | Blank ID | Action Limit | Sample Identification |  |  |  |  |  |  |  |
|-------------|----------|--------------|-----------------------|--|--|--|--|--|--|--|
|             | 9        |              |                       |  |  |  |  |  |  |  |
| Perchlorate | 1.1      |              |                       |  |  |  |  |  |  |  |
|             |          |              |                       |  |  |  |  |  |  |  |
|             |          |              |                       |  |  |  |  |  |  |  |
|             |          |              |                       |  |  |  |  |  |  |  |
|             |          |              |                       |  |  |  |  |  |  |  |
|             |          |              |                       |  |  |  |  |  |  |  |

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:  
Samples with analyte concentrations within five times the associated field blank concentration are listed above, these sample results were qualified as not detected, "U".





**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates**

Inorganics, Method See Cover

| Analyte            | Concentration (varies) |        | RPD ( $\leq 30$ ) |  |
|--------------------|------------------------|--------|-------------------|--|
|                    | 2                      | 3      |                   |  |
| Perchlorate (ug/L) | 740000                 | 770000 | 4                 |  |
| Nitrate (mg/L)     | 140                    | 140    | 0                 |  |
| Chlorate (ug/L)    | 9000                   | 8500   | 6                 |  |
| pH (SU)            | 6.81                   | 6.81   | 0                 |  |
| TDS (mg/L)         | 4600                   | 4500   | 2                 |  |

| Analyte            | Concentration (varies) |        | RPD ( $\leq 30$ ) |  |
|--------------------|------------------------|--------|-------------------|--|
|                    | 14                     | 15     |                   |  |
| Perchlorate (ug/L) | 910000                 | 940000 | 3                 |  |
| pH (SU)            | 7.12                   | 7.12   | 0                 |  |
| TDS (mg/L)         | 12000                  | 12000  | 0                 |  |

| Analyte            | Concentration (varies) |        | RPD ( $\leq 30$ ) |  |
|--------------------|------------------------|--------|-------------------|--|
|                    | 17                     | 18     |                   |  |
| Perchlorate (ug/L) | 300000                 | 310000 | 3                 |  |
| pH (SU)            | 7.46                   | 7.49   | 0                 |  |
| TDS (mg/L)         | 5000                   | 4900   | 2                 |  |

**Validation Findings Worksheet  
Initial and Continuing Calibration Calculation Verification**

Method: Inorganics, Method See Cover

The correlation coefficient (r) for the calibration of ClO<sub>2</sub><sup>-</sup> was recalculated. Calibration date: 6/2/16

An initial or continuing calibration verification percent recovery (%R) was recalculated for each type of analysis using the following formula:

$$\%R = \frac{\text{Found} \times 100}{\text{True}}$$

Where, Found = concentration of each analyte measured in the analysis of the ICV or CCV solution  
True = concentration of each analyte in the ICV or CCV source

| Type of analysis                 | Analyte                         | Standard | Conc. (ug/l)        | Area             | Recalculated        | Reported            | Acceptable (Y/N) |
|----------------------------------|---------------------------------|----------|---------------------|------------------|---------------------|---------------------|------------------|
|                                  |                                 |          |                     |                  | r or r <sup>2</sup> | r or r <sup>2</sup> |                  |
| Initial Calibration Verification | ClO <sub>2</sub>                | s1       | 1                   | 133642.000       | 1.0000              | 1.0000              | Y                |
|                                  |                                 | s2       | 2                   | 309322.000       |                     |                     |                  |
|                                  |                                 | s3       | 4                   | 639683.000       |                     |                     |                  |
|                                  |                                 | s4       | 10                  | 1494698.000      |                     |                     |                  |
|                                  |                                 | s5       | 25                  | 4038235.000      |                     |                     |                  |
|                                  |                                 | s6       | 50                  | 8313356.000      |                     |                     |                  |
|                                  |                                 | s7       | 100                 | 17835745.000     |                     |                     |                  |
| Calibration verification         | ClO <sub>2</sub> <sup>(3)</sup> | ICV      | FOUND: 122.387 ug/L | TRUE: 120 ug/L   | 2.0% D              | 1.9% D              | Y                |
| Calibration verification         | NO <sub>3</sub>                 | CCV      | FOUND: 2.1665 ug/mL | TRUE: 2.26 ug/mL | -4.7                | -4.1% D             | Y                |
| Calibration verification         |                                 |          |                     |                  |                     |                     |                  |

Comments: Refer to Calibration Verification findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 37696T

**VALIDATION FINDINGS WORKSHEET**  
**Level IV Recalculation Worksheet**

Page: 1 of 1  
Reviewer: JB  
2nd Reviewer: [Signature]

**METHOD:** Inorganics, Method See Cover

Percent recoveries (%R) for a laboratory control sample and a matrix spike sample were recalculated using the following formula:

$\%R = \frac{\text{Found}}{\text{True}} \times 100$       Where,      Found = concentration of each analyte measured in the analysis of the sample. For the matrix spike calculation, Found = SSR (spiked sample result) - SR (sample result).  
True = concentration of each analyte in the source.

A sample and duplicate relative percent difference (RPD) was recalculated using the following formula:

$RPD = \frac{|S-D|}{(S+D)/2} \times 100$       Where,      S = Original sample concentration  
D = Duplicate sample concentration

| Sample ID | Type of Analysis                      | Element          | Found / S<br>(units)                       | True / D<br>(units) | Recalculated | Reported | Acceptable<br>(Y/N) |
|-----------|---------------------------------------|------------------|--|---------------------|--------------|----------|---------------------|
|           |                                       |                  |  |                     | %R / RPD     | %R / RPD |                     |
| LCS       | Laboratory control sample<br>34976212 | TDS              | 1000mg/L                                   | 1000mg/L            | 101%         | 101%     | Y                   |
| MS        | Matrix spike sample                   | ClO <sub>4</sub> | SR=1.1<br>(SSR-SR) 26.3169=<br>25.2169ug/L | 25.0ug/L            | 101%         | 101%     | Y                   |
| MSD       | Duplicate sample                      | ClO <sub>4</sub> | 26.59828ug/L                               | FOUND:<br>26.3169   | 1RPD         | 1RPD     | Y                   |

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**VALIDATION FINDINGS WORKSHEET**

Sample Calculation Verification

**METHOD:** Inorganics, Method See Cover

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

- Y N N/A Have results been reported and calculated correctly?
- Y N N/A Are results within the calibrated range of the instruments?
- Y N N/A Are all detection limits below the CRQL?

Compound (analyte) results for TDS reported with a positive detect were recalculated and verified using the following equation:

Concentration =

Recalculation:

$$\frac{[A-B]}{\text{Vol}}$$

$$\pm 15 = \frac{77.6962 - 77.5723}{10} = 0.01239 \times 1000 \times 1000 = 12390 \text{ mg/L}$$

| #     | Sample ID | Analyte          | Reported Concentration ( ) | Calculated Concentration ( ) | Acceptable (Y/N) |
|-------|-----------|------------------|----------------------------|------------------------------|------------------|
|       | 1         | NO <sub>3</sub>  | 19 mg/L                    | 19 mg/L                      | Y                |
|       | 2         | NO <sub>3</sub>  | 140 mg/L                   | 140 mg/L                     | Y                |
|       | 3         | ClO <sub>3</sub> | 8500 ug/L                  | 8500 ug/L                    | Y                |
|       | 4         | ClO <sub>4</sub> | 19000 ug/L                 | 19000 ug/L                   | Y                |
|       | 5         | ClO <sub>4</sub> | 920 ug/L                   | 920 ug/L                     | Y                |
|       | 6         | ClO <sub>4</sub> | 20000 ug/L                 | 20000 ug/L                   | Y                |
|       | 7         | ClO <sub>4</sub> | 37000 ug/L                 | 37000 ug/L                   | Y                |
|       | 8         | ClO <sub>4</sub> | 210000 ug/L                | 210000 ug/L                  | Y                |
|       | 9         | pH               | 8.02 S.U.                  | 8.02 S.U.                    | Y                |
|       | 10        | ClO <sub>4</sub> | 390000 ug/L                | 390000 ug/L                  | Y                |
|       | 11        | ClO <sub>4</sub> | 760000 ug/L                | 760000 ug/L                  | Y                |
|       | 12        | TDS              | 8400 mg/L                  | 8400 mg/L                    | Y                |
|       | 13        | TDS              | 11000 mg/L                 | 11000 mg/L                   | Y                |
|       | 14        | TDS              | 12000 mg/L                 | 12000 mg/L                   | Y                |
|       | 15        | TDS              | 12000 mg/L                 | 12000 mg/L                   | Y                |
|       | 16        | TDS              | 13000 mg/L                 | 13000 mg/L                   | Y                |
|       | 17        | TDS              | 5000 mg/L                  | 5000 mg/L                    | Y                |
|       | 18        | TDS              | 4900 mg/L                  | 4900 mg/L                    | Y                |
|       | 19        | TDS              | 11000 mg/L                 | 11000 mg/L                   | Y                |
|       | 20        | ClO <sub>3</sub> | 110000 ug/L                | 110000 ug/L                  | Y                |
| Note: | 21        | TDS              | 7000 mg/L                  | 7000 mg/L                    | Y                |
|       | 22        | TDS              | 7200 mg/L                  | 7200 mg/L                    | Y                |

LDC #: 37696U6

**VALIDATION COMPLETENESS WORKSHEET**

Date: 1/4/17

SDG #: 440-155320-1

Stage 4

Page: 1 of 1

Laboratory: Test America, Inc.

Reviewer: JB

2nd Reviewer: [Signature]

**METHOD:** Chloride, Sulfate (EPA Method 300.0), Conductivity (SM2510B), Total Recoverable Phenolics (EPA Method 420.1), Perchlorate (EPA Method 314.0), pH (SM4500 H+B), TDS (SM2540C), TOC (SM5310C), TOX (EPA SW846 Method 9020B)  
 Field Test

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

|       | Validation Area                        |     | Comments    |
|-------|--|-----|-------------|
| I.    | Sample receipt/Technical holding times | A/A |             |
| II    | Initial calibration                    | A   |             |
| III.  | Calibration verification               | A   |             |
| IV    | Laboratory Blanks                      | SW  |             |
| V     | Field blanks                           | N   |             |
| VI.   | Matrix Spike/Matrix Spike Duplicates   | N   | C-S.        |
| VII.  | Duplicate sample analysis              | A   | 2           |
| VIII. | Laboratory control samples             | A   | LCS/D / MRL |
| IX.   | Field duplicates                       | N   |             |
| X.    | Sample result verification             | N   |             |
| XI    | Overall assessment of data             | A   |             |

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

|    | Client ID | Lab ID          | Matrix | Date     |
|----|-----------|-----------------|--------|----------|
| 1  | M-5A      | 440-155320-1    | Water  | 08/10/16 |
| 2  | M-5ADUP   | 440-155320-1DUP | Water  | 08/10/16 |
| 3  |           |                 |        |          |
| 4  |           |                 |        |          |
| 5  |           |                 |        |          |
| 6  |           |                 |        |          |
| 7  |           |                 |        |          |
| 8  |           |                 |        |          |
| 9  |           |                 |        |          |
| 10 |           |                 |        |          |
| 11 |           |                 |        |          |
| 12 |           |                 |        |          |
| 13 |           |                 |        |          |
| 14 |           |                 |        |          |
| 15 |           |                 |        |          |

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**VALIDATION FINDINGS WORKSHEET**  
**Sample Specific Analysis Reference**

All circled methods are applicable to each sample.

| Sample ID | Parameter   |
|-----------|---|
| 1         | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> EC Therois Tox |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                |
| Qc        | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                |
| 2         | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> EC             |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                |

Comments: \_\_\_\_\_

Method: Inorganics (EPA Method See Over)

| Validation Area   | Yes | No | NA | Findings/Comments |
|---|-----|----|----|-------------------|
| <b>I. Technical holding times</b>   |     |    |    |                   |
| All technical holding times were met.   | ✓   |    |    |                   |
| Cooler temperature criteria was met.  | ✓   |    |    |                   |
| <b>II. Calibration</b>  |     |    |    |                   |
| Were all instruments calibrated daily, each set-up time?  | ✓   |    |    |                   |
| Were the proper number of standards used?   | ✓   |    |    |                   |
| Were all initial calibration correlation coefficients $> 0.995$ ?   | ✓   |    |    |                   |
| Were all initial and continuing calibration verification %Rs within the 90-110% QC limits?  | ✓   |    |    |                   |
| Were titrant checks performed as required? (Level IV only)  | ✓   |    |    |                   |
| Were balance checks performed as required? (Level IV only)  | ✓   |    |    |                   |
| <b>III. Blanks</b>  |     |    |    |                   |
| Was a method blank associated with every sample in this SDG?  | ✓   |    |    |                   |
| Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.  | ✓   |    |    |                   |
| <b>IV. Matrix spike/Matrix spike duplicates and Duplicates</b>  |     |    |    |                   |
| Were a matrix spike (MS) and duplicate (DUP) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD or MS/DUP. Soil / Water.   |     |    | ✓  |                   |
| Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the 75-125 QC limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.   |     |    | ✓  |                   |
| Were the MS/MSD or duplicate relative percent differences (RPD) $\leq 20\%$ for waters and $\leq 35\%$ for soil samples? A control limit of $\leq \text{CRDL}$ ( $\leq 2\text{X CRDL}$ for soil) was used for samples that were $\leq 5\text{X}$ the CRDL, including when only one of the duplicate sample values were $\leq 5\text{X}$ the CRDL. |     |    | ✓  |                   |
| <b>V. Laboratory control samples</b>  |     |    |    |                   |
| Was an LCS analyzed for this SDG?   | ✓   |    |    |                   |
| Was an LCS analyzed per extraction batch?   | ✓   |    |    |                   |
| Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the 80-120% (85-115% for Method 300.0) QC limits?   | ✓   |    |    |                   |
| <b>VI. Regional Quality Assurance and Quality Control</b>   |     |    |    |                   |
| Were performance evaluation (PE) samples performed?   |     |    | ✓  |                   |
| Were the performance evaluation (PE) samples within the acceptance limits?  |     |    | ✓  |                   |



**VALIDATION FINDINGS CHECKLIST**

| Validation Area   | Yes | No | NA | Findings/Comments |
|---|-----|----|----|-------------------|
| <b>VII. Sample Result Verification</b>  |     |    |    |                   |
| Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation? | ✓   |    |    |                   |
| Were detection limits < RL?   | ✓   |    |    |                   |
| <b>VIII. Overall assessment of data</b>   |     |    |    |                   |
| Overall assessment of data was found to be acceptable.  | ✓   |    |    |                   |
| <b>IX. Field duplicates</b>   |     |    |    |                   |
| Field duplicate pairs were identified in this SDG.  |     | ✓  |    |                   |
| Target analytes were detected in the field duplicates.  |     |    | ✓  |                   |
| <b>X. Field blanks</b>  |     |    |    |                   |
| Field blanks were identified in this SDG.   |     | ✓  |    |                   |
| Target analytes were detected in the field blanks.  |     |    | ✓  |                   |

LDC #: 37696U6

### VALIDATION FINDINGS WORKSHEET

Page: 1 of 1

#### Blanks

Reviewer: JB

2nd Reviewer: a

METHOD: Inorganics, Method See Cover

Conc. units: mg/L

Associated Samples: All

| Analyte | Blank ID | Blank ID       | Blank Action Limit |               |  |  |  |  |  |  |  |  |  |  |
|---------|----------|----------------|--------------------|---------------|--|--|--|--|--|--|--|--|--|--|
|         | PB       | ICB/CCB (mg/L) |                    | No Qualifiers |  |  |  |  |  |  |  |  |  |  |
| TOC     |          | 0.0745         |                    |               |  |  |  |  |  |  |  |  |  |  |
|         |          |                |                    |               |  |  |  |  |  |  |  |  |  |  |

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:  
All contaminants within five times the method blank concentration were qualified as not detected, "U".

LDC #: 37696U

## Validation Findings Worksheet Initial and Continuing Calibration Calculation Verification

Page: 1 of 1  
 Reviewer: JS  
 2nd Reviewer: CA

Method: Inorganics, Method \_\_\_\_\_

The correlation coefficient (r) for the calibration of ClO<sub>4</sub> was recalculated. Calibration date: 8/6/16

An initial or continuing calibration verification percent recovery (%R) was recalculated for each type of analysis using the following formula:

$$\%R = \frac{\text{Found} \times 100}{\text{True}}$$

Where, Found = concentration of each analyte measured in the analysis of the ICV or CCV solution  
 True = concentration of each analyte in the ICV or CCV source

| Type of analysis                    | Analyte          | Standard | Conc. (ug/l)          | Area               | Recalculated        | Reported            | Acceptable<br>(Y/N) |
|-------------------------------------|------------------|----------|-----------------------|--------------------|---------------------|---------------------|---------------------|
|                                     |                  |          |                       |                    | r or r <sup>2</sup> | r or r <sup>2</sup> |                     |
| Initial Calibration<br>Verification | ClO <sub>4</sub> | s1       | 1                     | 133642.000         | 1.0000              | 1.0000              | Y                   |
|                                     |                  | s2       | 2                     | 309322.000         |                     |                     |                     |
|                                     |                  | s3       | 4                     | 639683.000         |                     |                     |                     |
|                                     |                  | s4       | 10                    | 1494698.000        |                     |                     |                     |
|                                     |                  | s5       | 25                    | 4038235.000        |                     |                     |                     |
|                                     |                  | s6       | 50                    | 8313356.000        |                     |                     |                     |
|                                     |                  | s7       | 100                   | 17835745.000       |                     |                     |                     |
| Calibration verification            | SO <sub>4</sub>  | ICV      | FOUND<br>9.685 ug/mL  | TRUE<br>10.0 ug/mL | -3.1                | -3.1% D             | Y                   |
| Calibration verification            | Cl <sup>-</sup>  | CCV      | FOUND<br>9.5511 ug/mL | TRUE<br>10.0 ug/mL | -4.5                | -4.5% D             |                     |
| Calibration verification            |                  |          |                       |                    |                     |                     |                     |

Comments: Refer to Calibration Verification findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

---





LDC #: 37696V6  
 SDG #: 440-155320-2  
 Laboratory: Test America, Inc.

**VALIDATION COMPLETENESS WORKSHEET**  
 Stage 2B

Date: 1/4/16  
 Page: 1 of 1  
 Reviewer: [Signature]  
 2nd Reviewer: [Signature]

**METHOD:** TOX (EPA SW846 Method 9020B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

|       | Validation Area                        |        | Comments |
|-------|--|--------|----------|
| I.    | Sample receipt/Technical holding times | A / SW |          |
| II    | Initial calibration                    | A      |          |
| III.  | Calibration verification               | A      |          |
| IV    | Laboratory Blanks                      | A      |          |
| V     | Field blanks                           | N      |          |
| VI.   | Matrix Spike/Matrix Spike Duplicates   | N      | C-S.     |
| VII.  | Duplicate sample analysis              | N      |          |
| VIII. | Laboratory control samples             | A      | LCS ID   |
| IX.   | Field duplicates                       | N      |          |
| X.    | Sample result verification             | N      |          |
| XI    | Overall assessment of data             | A      |          |

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB=Source blank  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

|    | Client ID | Lab ID       | Matrix | Date     |
|----|-----------|--------------|--------|----------|
| 1  | M-5A      | 440-155320-1 | Water  | 08/10/16 |
| 2  |           |              |        |          |
| 3  |           |              |        |          |
| 4  |           |              |        |          |
| 5  |           |              |        |          |
| 6  |           |              |        |          |
| 7  |           |              |        |          |
| 8  |           |              |        |          |
| 9  |           |              |        |          |
| 10 |           |              |        |          |
| 11 |           |              |        |          |
| 12 |           |              |        |          |
| 13 |           |              |        |          |
| 14 |           |              |        |          |
| 15 |           |              |        |          |

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



**METHOD:** Hexavalent Chromium (EPA Method 218.6)

Sil samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

|       | Validation Area                        |                    | Comments                                      |
|-------|--|--------------------|---|
| I.    | Sample receipt/Technical holding times | A / <del>RSW</del> |   |
| II    | Initial calibration                    | A                  |   |
| III.  | Calibration verification               | A                  |   |
| IV    | Laboratory Blanks                      | A                  |   |
| V     | Field blanks                           | N                  |   |
| VI.   | Matrix Spike/Matrix Spike Duplicates   | A                  | 440-154944-1msID / 16080276-01msID / m-44msID |
| VII.  | Duplicate sample analysis              | N                  |   |
| VIII. | Laboratory control samples             | A                  | LCS   |
| IX.   | Field duplicates                       | SW                 | (1,2) (3,4)                                   |
| X.    | Sample result verification             | N                  |   |
| XI.   | Overall assessment of data             | A                  |   |

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB=Source blank  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

|    | Client ID | SUB ID      | Lab ID       | Matrix | Date     |
|----|-----------|-------------|--------------|--------|----------|
| 1  | M-37      | 16080415-01 | 440-155334-1 | Water  | 08/10/16 |
| 2  | DUP-12    | 16080415-02 | 440-155334-2 | Water  | 08/10/16 |
| 3  | M-38      | 16080415-03 | 440-155334-3 | Water  | 08/10/16 |
| 4  | DUP11     | 16080415-04 | 440-155334-4 | Water  | 08/10/16 |
| 5  |           |             |              |        |          |
| 6  |           |             |              |        |          |
| 7  |           |             |              |        |          |
| 8  |           |             |              |        |          |
| 9  |           |             |              |        |          |
| 10 |           |             |              |        |          |
| 11 |           |             |              |        |          |
| 12 |           |             |              |        |          |
| 13 |           |             |              |        |          |
| 14 |           |             |              |        |          |
| 15 |           |             |              |        |          |

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_





LDC#: 37696W6

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates**

Page: 1 of 1  
Reviewer: JB  
2nd Reviewer: AN

Inorganics, Method See Cover

| Analyte             | Concentration (ug/L) |    | RPD ( $\leq 30$ ) |  |
|---------------------|----------------------|----|-------------------|--|
|                     | 1                    | 2  |                   |  |
| Hexavalent Chromium | 12                   | 12 | 0                 |  |

| Analyte             | Concentration (ug/L) |      | RPD ( $\leq 30$ ) |  |
|---------------------|----------------------|------|-------------------|--|
|                     | 3                    | 4    |                   |  |
| Hexavalent Chromium | 6700                 | 7600 | 13                |  |

\\LDCFILESERVER\Validation\FIELD DUPLICATES\FD\_inorganic\37696W6.wpd

LDC #: 37696X6  
 SDG #: 440-155490-1  
 Laboratory: Test America, Inc.

**VALIDATION COMPLETENESS WORKSHEET**  
 Stage 2B

Date: 1/4/17  
 Page: 1 of 1  
 Reviewer: JB  
 2nd Reviewer: A

**METHOD:** Chloride, Sulfate (EPA Method 300.0), Conductivity (SM2510B), Total Recoverable Phenolics (EPA Method 420.1), Perchlorate (EPA Method 314.0), pH (SM4500 H+B), TDS (SM2540C), TOC (SM5310C), TOX (EPA SW846 Method 9020B)  
*Field Test*

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

|       | Validation Area                        |     | Comments            |
|-------|--|-----|---------------------|
| I.    | Sample receipt/Technical holding times | A/A |                     |
| II    | Initial calibration                    | A   |                     |
| III.  | Calibration verification               | A   |                     |
| IV    | Laboratory Blanks                      | A   |                     |
| V     | Field blanks                           | N   |                     |
| VI.   | Matrix Spike/Matrix Spike Duplicates   | N   | C.S.                |
| VII.  | Duplicate sample analysis              | A   | 4                   |
| VIII. | Laboratory control samples             | A   | LCS <del>part</del> |
| IX.   | Field duplicates                       | N   |                     |
| X.    | Sample result verification             | N   |                     |
| XI    | Overall assessment of data             | A   |                     |

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB=Source blank  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

|    | Client ID | Lab ID          | Matrix | Date     |
|----|-----------|-----------------|--------|----------|
| 1  | H-28A     | 440-155490-1    | Water  | 08/11/16 |
| 2  | M-6A      | 440-155490-2    | Water  | 08/11/16 |
| 3  | M-7B      | 440-155490-3    | Water  | 08/11/16 |
| 4  | M-7BDUP   | 440-155490-3DUP | Water  | 08/11/16 |
| 5  |           |                 |        |          |
| 6  |           |                 |        |          |
| 7  |           |                 |        |          |
| 8  |           |                 |        |          |
| 9  |           |                 |        |          |
| 10 |           |                 |        |          |
| 11 |           |                 |        |          |
| 12 |           |                 |        |          |
| 13 |           |                 |        |          |
| 14 |           |                 |        |          |
| 15 |           |                 |        |          |

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



LDC #: 37696Y6  
 SDG #: 440-155494-1  
 Laboratory: Test America, Inc.

**VALIDATION COMPLETENESS WORKSHEET**  
 Stage 2B

Date: 1/4/17  
 Page: 1 of 2  
 Reviewer: JB  
 2nd Reviewer: a

**METHOD:** Perchlorate (EPA Method 314.0), pH (SM4500-H+B), TDS (SM2540C)  
*Field Test*

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

|       | Validation Area                        |       | Comments  |
|-------|--|-------|-----------|
| I.    | Sample receipt/Technical holding times | A / A |           |
| II    | Initial calibration                    | A     |           |
| III.  | Calibration verification               | A     |           |
| IV    | Laboratory Blanks                      | A     |           |
| V     | Field blanks                           | N     |           |
| VI.   | Matrix Spike/Matrix Spike Duplicates   | N     | C.S.      |
| VII.  | Duplicate sample analysis              | A     | (31,33)   |
| VIII. | Laboratory control samples             | A     | LCS (MRL) |
| IX.   | Field duplicates                       | SW    | (23,24)   |
| X.    | Sample result verification             | N     |           |
| XI    | Overall assessment of data             | A     |           |

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet  
 ND = No compounds detected  
 R = Rinsate  
 FB = Field blank  
 D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank  
 SB=Source blank  
 OTHER:

|    | Client ID | Lab ID        | Matrix | Date     |
|----|-----------|---------------|--------|----------|
| 1  | I-O       | 440-155494-1  | Water  | 08/11/16 |
| 2  | I-W       | 440-155494-2  | Water  | 08/11/16 |
| 3  | I-P       | 440-155494-3  | Water  | 08/11/16 |
| 4  | I-H       | 440-155494-4  | Water  | 08/11/16 |
| 5  | I-U       | 440-155494-5  | Water  | 08/11/16 |
| 6  | I-T       | 440-155494-6  | Water  | 08/11/16 |
| 7  | I-G       | 440-155494-7  | Water  | 08/11/16 |
| 8  | I-Q       | 440-155494-8  | Water  | 08/11/16 |
| 9  | I-F       | 440-155494-9  | Water  | 08/11/16 |
| 10 | I-X       | 440-155494-10 | Water  | 08/11/16 |
| 11 | I-N       | 440-155494-11 | Water  | 08/11/16 |
| 12 | I-E       | 440-155494-12 | Water  | 08/11/16 |
| 13 | I-M       | 440-155494-13 | Water  | 08/11/16 |
| 14 | I-D       | 440-155494-14 | Water  | 08/11/16 |
| 15 | I-C       | 440-155494-15 | Water  | 08/11/16 |
| 16 | I-S       | 440-155494-16 | Water  | 08/11/16 |
| 17 | I-L       | 440-155494-17 | Water  | 08/11/16 |
| 18 | I-Y       | 440-155494-18 | Water  | 08/11/16 |

LDC #: 37696Y6  
SDG #: 440-155494-1  
Laboratory: Test America, Inc.

**VALIDATION COMPLETENESS WORKSHEET**  
Stage 2B

Date: 1/4/16  
Page: 2 of 2  
Reviewer: JB  
2nd Reviewer:     

**METHOD:** Perchlorate (EPA Method 314.0), pH (SM4500 H+B), TDS (SM2540C)

|    | Client ID | Lab ID           | Matrix | Date     |
|----|-----------|------------------|--------|----------|
| 19 | I-R       | 440-155494-19    | Water  | 08/11/16 |
| 20 | I-B       | 440-155494-20    | Water  | 08/11/16 |
| 21 | I-AB      | 440-155494-21    | Water  | 08/11/16 |
| 22 | I-AA      | 440-155494-22    | Water  | 08/11/16 |
| 23 | I-AR      | 440-155494-23    | Water  | 08/11/16 |
| 24 | DUP14     | 440-155494-24    | Water  | 08/11/16 |
| 25 | I-AD      | 440-155494-25    | Water  | 08/11/16 |
| 26 | I-K       | 440-155494-26    | Water  | 08/11/16 |
| 27 | I-J       | 440-155494-27    | Water  | 08/11/16 |
| 28 | I-Z       | 440-155494-28    | Water  | 08/11/16 |
| 29 | I-I       | 440-155494-29    | Water  | 08/11/16 |
| 30 | I-V       | 440-155494-30    | Water  | 08/11/16 |
| 31 | I-ODUP    | 440-155494-1DUP  | Water  | 08/11/16 |
| 32 | I-NDUP    | 440-155494-11DUP | Water  | 08/11/16 |
| 33 | I-ABDUP   | 440-155494-21DUP | Water  | 08/11/16 |
| 34 |           |                  |        |          |
| 35 |           |                  |        |          |
| 36 |           |                  |        |          |
| 37 |           |                  |        |          |
| 38 |           |                  |        |          |

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**VALIDATION FINDINGS WORKSHEET**  
**Sample Specific Analysis Reference**

All circled methods are applicable to each sample.

| Sample ID | Parameter   |
|-----------|---|
| 1-30      | pH (TDS) Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ (ClO <sub>4</sub> ) |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>      |
| OC        | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>      |
| 31-33     | pH (TDS) Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>    |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>      |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>      |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>      |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>      |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>      |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>      |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>      |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>      |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>      |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>      |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>      |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>      |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>      |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>      |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>      |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>      |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>      |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>      |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>      |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>      |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>      |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>      |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>      |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>      |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>      |

Comments: \_\_\_\_\_

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates**

Inorganics, Method See Cover

| Analyte            | Concentration (varies) |         | RPD ( $\leq 30$ ) |  |
|--------------------|------------------------|---------|-------------------|--|
|                    | 23                     | 24      |                   |  |
| Perchlorate (ug/L) | 1800000                | 1700000 | 6                 |  |
| pH (SU)            | 7.10                   | 7.06    | 1                 |  |
| TDS (mg/L)         | 6200                   | 6200    | 0                 |  |

\\LDCFILESERVER\Validation\FIELD DUPLICATES\FD\_inorganic\37696Y6.wpd



**METHOD:** Hexavalent Chromium (EPA Method 218.6)

Sil samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

|       | Validation Area                        |       | Comments |
|-------|--|-------|----------|
| I.    | Sample receipt/Technical holding times | A / A |          |
| II    | Initial calibration                    | A     |          |
| III.  | Calibration verification               | A     |          |
| IV    | Laboratory Blanks                      | A     |          |
| V     | Field blanks                           | N     |          |
| VI.   | Matrix Spike/Matrix Spike Duplicates   | N     | C.S.     |
| VII.  | Duplicate sample analysis              | N     |          |
| VIII. | Laboratory control samples             | A     | LCS      |
| IX.   | Field duplicates                       | N     |          |
| X.    | Sample result verification             | N     |          |
| XI    | Overall assessment of data             | A     |          |

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

|    | Client ID | SUB ID      | Lab ID       | Matrix | Date     |
|----|-----------|-------------|--------------|--------|----------|
| 1  | ART-6     | 16080089-01 | 440-156239-1 | Water  | 08/02/16 |
| 2  |           |             |              |        |          |
| 3  |           |             |              |        |          |
| 4  |           |             |              |        |          |
| 5  |           |             |              |        |          |
| 6  |           |             |              |        |          |
| 7  |           |             |              |        |          |
| 8  |           |             |              |        |          |
| 9  |           |             |              |        |          |
| 10 |           |             |              |        |          |
| 11 |           |             |              |        |          |
| 12 |           |             |              |        |          |
| 13 |           |             |              |        |          |
| 14 |           |             |              |        |          |
| 15 |           |             |              |        |          |

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

LDC #: 37702A6  
 SDG #: 440-156317-1  
 Laboratory: Test America, Inc.

**VALIDATION COMPLETENESS WORKSHEET**  
 Stage 2B

Date: 12/28/16  
 Page: 1 of 1  
 Reviewer: JB  
 2nd Reviewer: a

**METHOD:** Perchlorate (EPA Method 314.0), pH (<sup>Field Test</sup> SM4500-H+B), TDS (SM2540C)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

|       | Validation Area                        |     | Comments |
|-------|--|-----|----------|
| I.    | Sample receipt/Technical holding times | A/A |          |
| II    | Initial calibration                    | A   |          |
| III.  | Calibration verification               | A   |          |
| IV    | Laboratory Blanks                      | A   |          |
| V     | Field blanks                           | N   |          |
| VI.   | Matrix Spike/Matrix Spike Duplicates   | N   | C.S.     |
| VII.  | Duplicate sample analysis              | N   |          |
| VIII. | Laboratory control samples             | A   | LCS LAB  |
| IX.   | Field duplicates                       | N   |          |
| X.    | Sample result verification             | N   |          |
| XI    | Overall assessment of data             | A   |          |

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB=Source blank  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

|    | Client ID | Lab ID       | Matrix | Date     |
|----|-----------|--------------|--------|----------|
| 1  | I-AC      | 440-156317-1 | Water  | 08/22/16 |
| 2  |           |              |        |          |
| 3  |           |              |        |          |
| 4  |           |              |        |          |
| 5  |           |              |        |          |
| 6  |           |              |        |          |
| 7  |           |              |        |          |
| 8  |           |              |        |          |
| 9  |           |              |        |          |
| 10 |           |              |        |          |
| 11 |           |              |        |          |
| 12 |           |              |        |          |
| 13 |           |              |        |          |
| 14 |           |              |        |          |
| 15 |           |              |        |          |

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



LDC #: 37702B6  
 SDG #: 440-156610-1  
 Laboratory: Test America, Inc.

**VALIDATION COMPLETENESS WORKSHEET**

Stage 2B

Date: 12/28/16  
 Page: 1 of 1  
 Reviewer: VB  
 2nd Reviewer: a

**METHOD:** Nitrate-N, (EPA Method 300.0), Chlorate (EPA Method 300.1B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

|       | Validation Area                        |         | Comments                      |
|-------|--|---------|-------------------------------|
| I.    | Sample receipt/Technical holding times | A/A     |                               |
| II    | Initial calibration                    | A       |                               |
| III.  | Calibration verification               | A       |                               |
| IV    | Laboratory Blanks                      | A       |                               |
| V     | Field blanks                           | N       |                               |
| VI.   | Matrix Spike/Matrix Spike Duplicates   | (A) 2,3 | NO <sub>3</sub> -N = 4x (2,3) |
| VII.  | Duplicate sample analysis              | N       |                               |
| VIII. | Laboratory control samples             | A       | LCS/MRL                       |
| IX.   | Field duplicates                       | N       |                               |
| X.    | Sample result verification             | N       |                               |
| XI    | Overall assessment of data             | A       |                               |

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB=Source blank  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

|    | Client ID | Lab ID          | Matrix | Date     |
|----|-----------|-----------------|--------|----------|
| 1  | M-48A     | 440-156610-1    | Water  | 08/24/16 |
| 2  | M-48AMS   | 440-156610-1MS  | Water  | 08/24/16 |
| 3  | M-48AMSD  | 440-156610-1MSD | Water  | 08/24/16 |
| 4  |           |                 |        |          |
| 5  |           |                 |        |          |
| 6  |           |                 |        |          |
| 7  |           |                 |        |          |
| 8  |           |                 |        |          |
| 9  |           |                 |        |          |
| 10 |           |                 |        |          |
| 11 |           |                 |        |          |
| 12 |           |                 |        |          |
| 13 |           |                 |        |          |
| 14 |           |                 |        |          |
| 15 |           |                 |        |          |

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**VALIDATION FINDINGS WORKSHEET**  
**Sample Specific Analysis Reference**

All circled methods are applicable to each sample.

| Sample ID | Parameter   |
|-----------|---|
| 1         | pH TDS Cl F <u>NO<sub>3</sub></u> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> <u>ClO<sub>3</sub></u> |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                              |
| 20        | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                              |
| 2,3       | pH TDS Cl F <u>NO<sub>3</sub></u> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                        |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                              |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                              |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                              |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                              |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                              |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                              |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                              |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                              |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                              |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                              |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                              |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                              |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                              |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                              |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                              |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                              |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                              |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                              |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                              |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                              |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                              |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                              |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                              |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                              |
|           | pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>                              |

Comments: \_\_\_\_\_

LDC #: 37702C6  
 SDG #: 440-157616-1  
 Laboratory: Test America, Inc.

**VALIDATION COMPLETENESS WORKSHEET**  
 Stage 2B

Date: 12/28/16  
 Page: 1 of 2  
 Reviewer: JS  
 2nd Reviewer: C

**METHOD:** <sup>Field Test</sup> Perchlorate (EPA Method 314.0), pH (~~CM4500 H+B~~), TDS (SM2540C)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

|       | Validation Area                        |     | Comments  |
|-------|--|-----|-----------|
| I.    | Sample receipt/Technical holding times | A/A |           |
| II    | Initial calibration                    | A   |           |
| III.  | Calibration verification               | A   |           |
| IV    | Laboratory Blanks                      | A   |           |
| V     | Field blanks                           | N   |           |
| VI.   | Matrix Spike/Matrix Spike Duplicates   | N   | C.S.      |
| VII.  | Duplicate sample analysis              | A   | 18, 19    |
| VIII. | Laboratory control samples             | A   | LOS (MRL) |
| IX.   | Field duplicates                       | N   |           |
| X.    | Sample result verification             | N   |           |
| XI    | Overall assessment of data             | A   |           |

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB=Source blank  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

|    | Client ID     | Lab ID          | Matrix | Date     |
|----|---------------|-----------------|--------|----------|
| 1  | PC-99R2/R3    | 440-157616-1    | Water  | 09/06/16 |
| 2  | PC-115R       | 440-157616-2    | Water  | 09/06/16 |
| 3  | PC-116R       | 440-157616-3    | Water  | 09/06/16 |
| 4  | PC-117        | 440-157616-4    | Water  | 09/06/16 |
| 5  | PC-118        | 440-157616-5    | Water  | 09/06/16 |
| 6  | PC-119        | 440-157616-6    | Water  | 09/06/16 |
| 7  | PC-120        | 440-157616-7    | Water  | 09/06/16 |
| 8  | PC-121        | 440-157616-8    | Water  | 09/06/16 |
| 9  | PC-133        | 440-157616-9    | Water  | 09/06/16 |
| 10 | ART-1A        | 440-157616-10   | Water  | 09/06/16 |
| 11 | ART-2A        | 440-157616-11   | Water  | 09/06/16 |
| 12 | ART-3A        | 440-157616-12   | Water  | 09/06/16 |
| 13 | ART-4         | 440-157616-13   | Water  | 09/06/16 |
| 14 | ART-7B        | 440-157616-14   | Water  | 09/06/16 |
| 15 | ART-8A        | 440-157616-15   | Water  | 09/06/16 |
| 16 | ART-9         | 440-157616-16   | Water  | 09/06/16 |
| 17 | PC-150        | 440-157616-17   | Water  | 09/06/16 |
| 18 | PC-99R2/R3DUP | 440-157616-1DUP | Water  | 09/06/16 |

LDC #: 37702C6

# VALIDATION COMPLETENESS WORKSHEET

Date: 12/28/14

SDG #: 440-157616-1

Stage 2B

Page: 2 of 2

Laboratory: Test America, Inc.

Reviewer: J3

2nd Reviewer: [Signature]

**METHOD:** Perchlorate (EPA Method 314.0), pH (SM4500 H+B), TDS (SM2540C)

|    | Client ID | Lab ID           | Matrix | Date     |
|----|-----------|------------------|--------|----------|
| 19 | ART-2ADUP | 440-157616-11DUP | Water  | 09/06/16 |
| 20 |           |                  |        |          |
| 21 |           |                  |        |          |
| 22 |           |                  |        |          |
| 23 |           |                  |        |          |
| 24 |           |                  |        |          |

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**VALIDATION FINDINGS WORKSHEET**  
**Sample Specific Analysis Reference**

All circled methods are applicable to each sample.

| Sample ID | Parameter  |
|-----------|--|
| 1-17      | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
| QC        | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
| 18,19     | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |

Comments: \_\_\_\_\_



LDC #: 37702D6  
 SDG #: 440-157843-1  
 Laboratory: Test America, Inc.

**VALIDATION COMPLETENESS WORKSHEET**  
 Stage 2B

Date: 12/28/14  
 Page: 1 of 2  
 Reviewer: JS  
 2nd Reviewer: [Signature]

**METHOD:** Perchlorate (EPA Method 314.0), pH (SM4500 H+B), TDS (SM2540C)  
*Field Test*

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

|       | Validation Area                        |       | Comments                    |
|-------|--|-------|-----------------------------|
| I.    | Sample receipt/Technical holding times | A / A |                             |
| II    | Initial calibration                    | A     |                             |
| III.  | Calibration verification               | A     |                             |
| IV    | Laboratory Blanks                      | A     |                             |
| V     | Field blanks                           | N     |                             |
| VI.   | Matrix Spike/Matrix Spike Duplicates   | A     | (30, 31) (34, 35) C104 = 4x |
| VII.  | Duplicate sample analysis              | A     | 32, 33, 36                  |
| VIII. | Laboratory control samples             | A     | LCS + MPLE                  |
| IX.   | Field duplicates                       | N     |                             |
| X.    | Sample result verification             | N     |                             |
| XI    | Overall assessment of data             | A     |                             |

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB=Source blank  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

|    | Client ID | Lab ID        | Matrix | Date     |
|----|-----------|---------------|--------|----------|
| 1  | I-O       | 440-157843-1  | Water  | 09/07/16 |
| 2  | I-W       | 440-157843-2  | Water  | 09/07/16 |
| 3  | I-P       | 440-157843-3  | Water  | 09/07/16 |
| 4  | I-H       | 440-157843-4  | Water  | 09/07/16 |
| 5  | I-U       | 440-157843-5  | Water  | 09/07/16 |
| 6  | I-T       | 440-157843-6  | Water  | 09/07/16 |
| 7  | I-G       | 440-157843-7  | Water  | 09/07/16 |
| 8  | I-Q       | 440-157843-8  | Water  | 09/07/16 |
| 9  | I-F       | 440-157843-9  | Water  | 09/07/16 |
| 10 | I-X       | 440-157843-10 | Water  | 09/07/16 |
| 11 | I-N       | 440-157843-11 | Water  | 09/07/16 |
| 12 | I-E       | 440-157843-12 | Water  | 09/07/16 |
| 13 | I-M       | 440-157843-13 | Water  | 09/07/16 |
| 14 | I-D       | 440-157843-14 | Water  | 09/07/16 |
| 15 | I-C       | 440-157843-15 | Water  | 09/07/16 |
| 16 | I-S       | 440-157843-16 | Water  | 09/07/16 |
| 17 | I-L       | 440-157843-17 | Water  | 09/07/16 |
| 18 | I-Y       | 440-157843-18 | Water  | 09/07/16 |

LDC #: 37702D6  
SDG #: 440-157843-1  
Laboratory: Test America, Inc.

**VALIDATION COMPLETENESS WORKSHEET**  
Stage 2B

Date: 12/28/16  
Page: 2 of 2  
Reviewer: JP  
2nd Reviewer: [Signature]

**METHOD:** Perchlorate (EPA Method 314.0), pH (SM4500 H+B), TDS (SM2540C)

|    | Client ID | Lab ID           | Matrix | Date     |
|----|-----------|------------------|--------|----------|
| 19 | I-R       | 440-157843-19    | Water  | 09/07/16 |
| 20 | I-B       | 440-157843-20    | Water  | 09/07/16 |
| 21 | I-AB      | 440-157843-21    | Water  | 09/07/16 |
| 22 | I-AA      | 440-157843-22    | Water  | 09/07/16 |
| 23 | I-AR      | 440-157843-23    | Water  | 09/07/16 |
| 24 | I-AD      | 440-157843-24    | Water  | 09/07/16 |
| 25 | I-AC      | 440-157843-25    | Water  | 09/07/16 |
| 26 | I-K       | 440-157843-26    | Water  | 09/07/16 |
| 27 | I-Z       | 440-157843-27    | Water  | 09/07/16 |
| 28 | I-I       | 440-157843-28    | Water  | 09/07/16 |
| 29 | I-V       | 440-157843-29    | Water  | 09/07/16 |
| 30 | I-OMS     | 440-157843-1MS   | Water  | 09/07/16 |
| 31 | I-OMSD    | 440-157843-1MSD  | Water  | 09/07/16 |
| 32 | I-ODUP    | 440-157843-1DUP  | Water  | 09/07/16 |
| 33 | I-NDUP    | 440-157843-11DUP | Water  | 09/07/16 |
| 34 | I-SMS     | 440-157843-16MS  | Water  | 09/07/16 |
| 35 | I-SMSD    | 440-157843-16MSD | Water  | 09/07/16 |
| 36 | I-ABDUP   | 440-157843-21DUP | Water  | 09/07/16 |
| 37 |           |                  |        |          |
| 38 |           |                  |        |          |
| 39 |           |                  |        |          |
| 40 |           |                  |        |          |
| 41 |           |                  |        |          |

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



**METHOD:** Hexavalent Chromium (EPA Method 218.6)

Sil samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

|       | Validation Area                        |     | Comments                |
|-------|--|-----|-------------------------|
| I.    | Sample receipt/Technical holding times | A/A |                         |
| II    | Initial calibration                    | A   |                         |
| III.  | Calibration verification               | A   |                         |
| IV    | Laboratory Blanks                      | A   |                         |
| V     | Field blanks                           | N   |                         |
| VI.   | Matrix Spike/Matrix Spike Duplicates   | A   | (31,32) (33,34) (35,36) |
| VII.  | Duplicate sample analysis              | N   |                         |
| VIII. | Laboratory control samples             | A   | LCS                     |
| IX.   | Field duplicates                       | SW  | (23,24)                 |
| X.    | Sample result verification             | A   |                         |
| XI    | Overall assessment of data             | A   |                         |

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

|    | Client ID | SUBLAB ID   | Lab ID        | Matrix | Date     |
|----|-----------|-------------|---------------|--------|----------|
| 1  | I-O       | 16080416-01 | 440-157936-1  | Water  | 08/11/16 |
| 2  | I-W       | 16080416-02 | 440-157936-2  | Water  | 08/11/16 |
| 3  | I-P       | 16080416-03 | 440-157936-3  | Water  | 08/11/16 |
| 4  | I-H       | 16080416-04 | 440-157936-4  | Water  | 08/11/16 |
| 5  | I-U       | 16080416-05 | 440-157936-5  | Water  | 08/11/16 |
| 6  | I-T       | 16080416-06 | 440-157936-6  | Water  | 08/11/16 |
| 7  | I-G       | 16080416-07 | 440-157936-7  | Water  | 08/11/16 |
| 8  | I-Q       | 16080416-08 | 440-157936-8  | Water  | 08/11/16 |
| 9  | I-F       | 16080416-09 | 440-157936-9  | Water  | 08/11/16 |
| 10 | I-X       | 16080416-10 | 440-157936-10 | Water  | 08/11/16 |
| 11 | I-N       | 16080416-30 | 440-157936-11 | Water  | 08/11/16 |
| 12 | I-E       | 16080416-11 | 440-157936-12 | Water  | 08/11/16 |
| 13 | I-M       | 16080416-12 | 440-157936-13 | Water  | 08/11/16 |
| 14 | I-D       | 16080416-13 | 440-157936-14 | Water  | 08/11/16 |
| 15 | I-C       | 16080416-14 | 440-157936-15 | Water  | 08/11/16 |
| 16 | I-S       | 16080416-15 | 440-157936-16 | Water  | 08/11/16 |
| 17 | I-L       | 16080416-16 | 440-157936-17 | Water  | 08/11/16 |
| 18 | I-Y       | 16080416-17 | 440-157936-18 | Water  | 08/11/16 |

**METHOD:** Hexavalent Chromium (EPA Method 218.6)

|    | Client ID | SUB LAB ID  | Lab ID           | Matrix | Date     |
|----|-----------|-------------|------------------|--------|----------|
| 19 | I-R       | 16080416-18 | 440-157936-19    | Water  | 08/11/16 |
| 20 | I-B       | 16080416-19 | 440-157936-20    | Water  | 08/11/16 |
| 21 | I-AB      | 16080416-20 | 440-157936-21    | Water  | 08/11/16 |
| 22 | I-AA      | 16080416-21 | 440-157936-22    | Water  | 08/11/16 |
| 23 | I-AR      | 16080416-22 | 440-157936-23    | Water  | 08/11/16 |
| 24 | DUP14     | 16080416-23 | 440-157936-24    | Water  | 08/11/16 |
| 25 | I-AD      | 16080416-24 | 440-157936-25    | Water  | 08/11/16 |
| 26 | I-K       | 16080416-25 | 440-157936-26    | Water  | 08/11/16 |
| 27 | I-J       | 16080416-26 | 440-157936-27    | Water  | 08/11/16 |
| 28 | I-Z       | 16080416-27 | 440-157936-28    | Water  | 08/11/16 |
| 29 | I-I       | 16080416-28 | 440-157936-29    | Water  | 08/11/16 |
| 30 | I-V       | 16080416-29 | 440-157936-30    | Water  | 08/11/16 |
| 31 | I-OMS     |             | 440-157936-1MS   | Water  | 08/11/16 |
| 32 | I-OMSD    |             | 440-157936-1MSD  | Water  | 08/11/16 |
| 33 | I-CMS     |             | 440-157936-15MS  | Water  | 08/11/16 |
| 34 | I-CMSD    |             | 440-157936-15MSD | Water  | 08/11/16 |
| 35 | I-KMS     |             | 440-157936-26MS  | Water  | 08/11/16 |
| 36 | I-KMSD    |             | 440-157936-26MSD | Water  | 08/11/16 |
| 37 |           |             |                  |        |          |
| 38 |           |             |                  |        |          |
| 39 |           |             |                  |        |          |
| 40 |           |             |                  |        |          |
| 41 |           |             |                  |        |          |

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Method: Inorganics (EPA Method See Cover)

| Validation Area  | Yes | No | NA | Findings/Comments |
|--|-----|----|----|-------------------|
| <b>I. Technical holding times</b>  |     |    |    |                   |
| All technical holding times were met.  | ✓   |    |    |                   |
| Cooler temperature criteria was met.   | ✓   |    |    |                   |
| <b>II. Calibration</b>   |     |    |    |                   |
| Were all instruments calibrated daily, each set-up time?   | ✓   |    |    |                   |
| Were the proper number of standards used?  | ✓   |    |    |                   |
| Were all initial calibration correlation coefficients > 0.995?   | ✓   |    |    |                   |
| Were all initial and continuing calibration verification %Rs within the 90-110% QC limits?   | ✓   |    |    |                   |
| Were titrant checks performed as required? (Level IV only)   |     |    | ✓  |                   |
| Were balance checks performed as required? (Level IV only)   |     |    | ✓  |                   |
| <b>III. Blanks</b>   |     |    |    |                   |
| Was a method blank associated with every sample in this SDG?   | ✓   |    |    |                   |
| Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.   |     | ✓  |    |                   |
| <b>IV. Matrix spike/Matrix spike duplicates and Duplicates</b>   |     |    |    |                   |
| Were a matrix spike (MS) and duplicate (DUP) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD or MS/DUP. Soil / Water.  | ✓   |    |    |                   |
| Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the 75-125 QC limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.  | ✓   |    |    |                   |
| Were the MS/MSD or duplicate relative percent differences (RPD) ≤ 20% for waters and ≤ 35% for soil samples? A control limit of ≤ CRDL (≤ 2X CRDL for soil) was used for samples that were ≤ 5X the CRDL, including when only one of the duplicate sample values were ≤ 5X the CRDL. | ✓   |    |    |                   |
| <b>V. Laboratory control samples</b>   |     |    |    |                   |
| Was an LCS analyzed for this SDG?  | ✓   |    |    |                   |
| Was an LCS analyzed per extraction batch?  | ✓   |    |    |                   |
| Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the 80-120% (85-115% for Method 300.0) QC limits?  | ✓   |    |    |                   |
| <b>VI. Regional Quality Assurance and Quality Control</b>  |     |    |    |                   |
| Were performance evaluation (PE) samples performed?  |     |    | ✓  |                   |
| Were the performance evaluation (PE) samples within the acceptance limits?   |     |    | ✓  |                   |

**VALIDATION FINDINGS CHECKLIST**

| Validation Area   | Yes | No | NA | Findings/Comments |
|---|-----|----|----|-------------------|
| <b>VII. Sample Result Verification</b>  |     |    |    |                   |
| Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation? | ✓   |    |    |                   |
| Were detection limits < RL?   | ✓   |    |    |                   |
| <b>VIII. Overall assessment of data</b>   |     |    |    |                   |
| Overall assessment of data was found to be acceptable.  | ✓   |    |    |                   |
| <b>IX. Field duplicates</b>   |     |    |    |                   |
| Field duplicate pairs were identified in this SDG.  | ✓   |    |    |                   |
| Target analytes were detected in the field duplicates.  | ✓   |    |    |                   |
| <b>X. Field blanks</b>  |     |    |    |                   |
| Field blanks were identified in this SDG.   |     | ✓  |    |                   |
| Target analytes were detected in the field blanks.  |     |    | ✓  |                   |

**Field Duplicates**

Inorganics, Method See Cover

| Analyte             | Concentration (ug/L) |    | RPD ( $\leq 30$ ) |  |
|---------------------|----------------------|----|-------------------|--|
|                     | 23                   | 24 |                   |  |
| Hexavalent Chromium | 48.0                 | 56 | 15                |  |

\\LDCFILESERVER\Validation\FIELD DUPLICATES\FD\_inorganic\37702E6.wpd



LDC #: 37762EL6

**Validation Findings Worksheet**  
**Initial and Continuing Calibration Calculation Verification**

Page: 1 of 1

Reviewer: VB

2nd Reviewer: CE

Method: Inorganics, Method See Cover

The correlation coefficient (r) for the calibration of Cr6+ was recalculated. Calibration date: 5/17/16

An initial or continuing calibration verification percent recovery (%R) was recalculated for each type of analysis using the following formula:

$$\%R = \frac{\text{Found} \times 100}{\text{True}}$$

Where, Found = concentration of each analyte measured in the analysis of the ICV or CCV solution  
 True = concentration of each analyte in the ICV or CCV source

| Type of analysis         | Analyte | Standard | Conc. (ug/L)                 | Area                     | Recalculated        | Reported            | Acceptable<br>(Y/N) |
|--------------------------|---------|----------|------------------------------|--------------------------|---------------------|---------------------|---------------------|
|                          |         |          |                              |                          | r or r <sup>2</sup> | r or r <sup>2</sup> |                     |
| Initial calibration      | Cr6+    | s1       | 1                            | 0.155                    | 1.0000              | 1.0000              | Y                   |
|                          |         | s2       | 5                            | 0.633                    |                     |                     |                     |
|                          |         | s3       | 10                           | 1.297                    |                     |                     |                     |
|                          |         | s4       | 25                           | 3.211                    |                     |                     |                     |
|                          |         | s5       | 50                           | 6.438                    |                     |                     |                     |
| Calibration verification | Cr6+    | ICV      | <u>FOUND</u><br>54.11938ug/L | <u>TRUE</u><br>50.00ug/L |                     | 108%                | Y                   |
| Calibration verification | Cr6+    | CCV      | <u>FOUND</u><br>52.93639ug/L | <u>TRUE</u><br>50.00ug/L |                     | 106%                | Y                   |
| Calibration verification |         |          |                              |                          |                     |                     |                     |

Comments: Refer to Calibration Verification findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

**VALIDATION FINDINGS WORKSHEET**  
**Level IV Recalculation Worksheet**

**METHOD:** Inorganics, Method See Cover

Percent recoveries (%R) for a laboratory control sample and a matrix spike sample were recalculated using the following formula:

$\%R = \frac{\text{Found}}{\text{True}} \times 100$       Where,      Found = concentration of each analyte measured in the analysis of the sample. For the matrix spike calculation, Found = SSR (spiked sample result) - SR (sample result).  
True = concentration of each analyte in the source.

A sample and duplicate relative percent difference (RPD) was recalculated using the following formula:

$RPD = \frac{|S-D|}{(S+D)/2} \times 100$       Where,      S = Original sample concentration  
D = Duplicate sample concentration

| Sample ID | Type of Analysis                      | Element | Found / S (units)   | True / D (units)       | Recalculated | Reported  | Acceptable (Y/N) |
|-----------|---------------------------------------|---------|---|------------------------|--------------|-----------|------------------|
|           |                                       |         |   |                        | %R / RPD     | %R / RPD  |                  |
| LCS       | Laboratory control sample<br>R1349    | Cr6+    | 24.80141 µg/L   | 25.00 µg/L             | 99.2%        | 99.2%     | Y                |
| MS        | Matrix spike sample<br>16080416-01AMS | Cr6+    | SR=21270<br>(SSR-SR)<br>73.63947 x 1000 -<br>21270 =<br>51769.47 µg/L | 50000 µg/L             | 104%         | 103%      | Y                |
| MSD       | Duplicate sample<br>16080416-01AMS D  | Cr6+    | 71.4968 x 1000 =<br>71496.8 µg/L                                      | Found<br>73039.47 µg/L | 2.12%        | 2.15% RPD | Y                |

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## VALIDATION FINDINGS WORKSHEET

### Sample Calculation Verification

 METHOD: Inorganics, Method See Cover

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

|                |   |
|----------------|---|
| <u>Y</u> N N/A | Have results been reported and calculated correctly?        |
| <u>Y</u> N N/A | Are results within the calibrated range of the instruments? |
| <u>Y</u> N N/A | Are all detection limits below the CRQL?                    |

 Compound (analyte) results for Cr6+ reported with a positive detect were recalculated and verified using the following equation:

Concentration =

Recalculation:

$$y = mx + b$$

$$\# 1 \quad 2.737 = 0.1287 x + 0 = 21.2665 \times 1000 = 21266.5 \mu\text{g/L}$$

| # | Sample ID        | Analyte | Reported Concentration ( $\mu\text{g/L}$ ) | Calculated Concentration ( $\mu\text{g/L}$ ) | Acceptable (Y/N) |
|---|------------------|---------|--|--|------------------|
|   | 1                | Cr6+    | 21000                                      | 21000  |                  |
|   | 2                | Cr6+    | 19000                                      | 19000  |                  |
|   | 3                | Cr6+    | 21000                                      | 21000  |                  |
|   | 4                | Cr6+    | 22000                                      | 22000  |                  |
|   | 5                | Cr6+    | 24000                                      | 24000  |                  |
|   | 6                | Cr6+    | 25000                                      | 25000  |                  |
|   | 7                | Cr6+    | 25000                                      | 25000  |                  |
|   | 8                | Cr6+    | 24000                                      | 24000  |                  |
|   | 9                | Cr6+    | 12000                                      | 12000  |                  |
|   | 10               | Cr6+    | 12000                                      | 12000  |                  |
|   | <del>11</del> 12 | Cr6+    | 10000                                      | 10000  |                  |
|   | <del>12</del> 13 | Cr6+    | 8700                                       | 8700   |                  |
|   | <del>13</del> 14 | Cr6+    | 10000                                      | 10000  |                  |
|   | <del>14</del> 15 | Cr6+    | 7500                                       | 7500   |                  |
|   | <del>15</del> 16 | Cr6+    | 1600                                       | 1600   |                  |
|   | <del>16</del> 17 | Cr6+    | 890  | 890  |                  |
|   | <del>17</del> 18 | Cr6+    | 690  | 690  |                  |
|   | <del>18</del> 19 | Cr6+    | 510  | 510  |                  |
|   | <del>19</del> 20 | Cr6+    | 93   | 93   |                  |
|   | <del>20</del> 21 | Cr6+    | 15.0                                       | 15.0   |                  |

 Note: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**VALIDATION FINDINGS WORKSHEET**  
Sample Calculation Verification

**METHOD:** Inorganics, Method See Cover

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

- Y N N/A Have results been reported and calculated correctly?
- Y N N/A Are results within the calibrated range of the instruments?
- Y N N/A Are all detection limits below the CRQL?

Compound (analyte) results for \_\_\_\_\_ reported with a positive detect were recalculated and verified using the following equation:

Concentration =

Recalculation:

*see pg 1*

| # | Sample ID    | Analyte     | Reported Concentration (ug/L) | Calculated Concentration (ug/L) | Acceptable (Y/N) |
|---|--------------|-------------|-------------------------------|---------------------------------|------------------|
|   | <u>21 22</u> | <u>Cr6+</u> | <u>60</u>                     | <u>60</u>                       |                  |
|   | <u>22 23</u> | <u>Cr6+</u> | <u>48.0</u>                   | <u>48.0</u>                     |                  |
|   | <u>23 24</u> | <u>Cr6+</u> | <u>56</u>                     | <u>56</u>                       |                  |
|   | <u>24 25</u> | <u>Cr6+</u> | <u>1200</u>                   | <u>1200</u>                     |                  |
|   | <u>25 26</u> | <u>Cr6+</u> | <u>2500</u>                   | <u>2500</u>                     |                  |
|   | <u>26 27</u> | <u>Cr6+</u> | <u>4600</u>                   | <u>4600</u>                     |                  |
|   | <u>27 28</u> | <u>Cr6+</u> | <u>11000</u>                  | <u>11000</u>                    |                  |
|   | <u>28 29</u> | <u>Cr6+</u> | <u>14000</u>                  | <u>14000</u>                    |                  |
|   | <u>29 30</u> | <u>Cr6+</u> | <u>23000</u>                  | <u>23000</u>                    |                  |
|   | <u>30 11</u> | <u>Cr6+</u> | <u>9500</u>                   | <u>9500</u>                     |                  |
|   |              |             |                               |                                 |                  |
|   |              |             |                               |                                 |                  |
|   |              |             |                               |                                 |                  |
|   |              |             |                               |                                 |                  |
|   |              |             |                               |                                 |                  |
|   |              |             |                               |                                 |                  |
|   |              |             |                               |                                 |                  |
|   |              |             |                               |                                 |                  |
|   |              |             |                               |                                 |                  |
|   |              |             |                               |                                 |                  |
|   |              |             |                               |                                 |                  |
|   |              |             |                               |                                 |                  |
|   |              |             |                               |                                 |                  |

Note: \_\_\_\_\_

**METHOD:** Hexavalent Chromium (EPA Method 218.6)

Sil samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

|       | Validation Area                        |       | Comments  |
|-------|--|-------|---|
| I.    | Sample receipt/Technical holding times | A / A |   |
| II    | Initial calibration                    | A     |   |
| III.  | Calibration verification               | A     |   |
| IV    | Laboratory Blanks                      | A     |   |
| V     | Field blanks                           | N     |   |
| VI.   | Matrix Spike/Matrix Spike Duplicates   | A     | 440-157936-1 msid / 16080416-01 A msid / 1-0 msid<br>440-157936-26 msid / 16080416-25 msid / 1-K msid |
| VII.  | Duplicate sample analysis              | N     |   |
| VIII. | Laboratory control samples             | A     | LCS   |
| IX.   | Field duplicates                       | N     |   |
| X.    | Sample result verification             | N     |   |
| XI    | Overall assessment of data             | A     |   |

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

|    | Client ID              | Lab ID       | Matrix | Date     |
|----|------------------------|--------------|--------|----------|
| 1  | I-AC <u>16080663-0</u> | 440-158103-1 | Water  | 08/22/16 |
| 2  |                        |              |        |          |
| 3  |                        |              |        |          |
| 4  |                        |              |        |          |
| 5  |                        |              |        |          |
| 6  |                        |              |        |          |
| 7  |                        |              |        |          |
| 8  |                        |              |        |          |
| 9  |                        |              |        |          |
| 10 |                        |              |        |          |
| 11 |                        |              |        |          |
| 12 |                        |              |        |          |
| 13 |                        |              |        |          |
| 14 |                        |              |        |          |
| 15 |                        |              |        |          |

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

LDC #: 37702G6  
 SDG #: 440-158214-1  
 Laboratory: Test America, Inc.

**VALIDATION COMPLETENESS WORKSHEET**  
 Stage 2B

Date: 12/29/16  
 Page: 1 of 1  
 Reviewer: VB  
 2nd Reviewer: [Signature]

**METHOD:** Chlorate (EPA Method 300.1B), Perchlorate (EPA Method 314.0), TDS (SM2540C)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

|       | Validation Area                        |     | Comments                                   |
|-------|--|-----|--|
| I.    | Sample receipt/Technical holding times | A/A |  |
| II    | Initial calibration                    | A   |  |
| III.  | Calibration verification               | A   |  |
| IV    | Laboratory Blanks                      | A   |  |
| V     | Field blanks                           | ND  | FB=6                                       |
| VI.   | Matrix Spike/Matrix Spike Duplicates   | A   | 440-158404-15 ms/D / PC-137D-20160913 ms/D |
| VII.  | Duplicate sample analysis              | N   |  |
| VIII. | Laboratory control samples             | A   | LCS / MRL                                  |
| IX.   | Field duplicates                       | SW  | (2,3) (4,5)                                |
| X.    | Sample result verification             | N   |  |
| XI    | Overall assessment of data             | A   |  |

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet  
 ND = No compounds detected  
 R = Rinsate  
 FB = Field blank  
 D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank  
 SB=Source blank  
 OTHER:

|    | Client ID          | Lab ID       | Matrix | Date     |
|----|--------------------|--------------|--------|----------|
| 1  | M-161D-20160912    | 440-158214-2 | Water  | 09/12/16 |
| 2  | M-162D-20160912    | 440-158214-3 | Water  | 09/12/16 |
| 3  | M-162D-20160912-FD | 440-158214-4 | Water  | 09/12/16 |
| 4  | PC-153-20160912    | 440-158214-5 | Water  | 09/12/16 |
| 5  | PC-153-20160912-FD | 440-158214-6 | Water  | 09/12/16 |
| 6  | PC-152-20160912-FB | 440-158214-7 | Water  | 09/12/16 |
| 7  | PC-152-20160912    | 440-158214-8 | Water  | 09/12/16 |
| 8  | PC-151-20160912    | 440-158214-9 | Water  | 09/12/16 |
| 9  |                    |              |        |          |
| 10 |                    |              |        |          |
| 11 |                    |              |        |          |
| 12 |                    |              |        |          |
| 13 |                    |              |        |          |
| 14 |                    |              |        |          |
| 15 |                    |              |        |          |

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates**

Inorganics, Method See Cover

| Analyte     | Concentration (ug/L) |        | RPD ( $\leq 30$ ) |  |
|-------------|----------------------|--------|-------------------|--|
|             | 2                    | 3      |                   |  |
| Perchlorate | 2.0                  | 2.0    | 0                 |  |
| TDS         | 520000               | 520000 | 0                 |  |

| Analyte     | Concentration (ug/L) |         | RPD ( $\leq 30$ ) |  |
|-------------|----------------------|---------|-------------------|--|
|             | 4                    | 5       |                   |  |
| Perchlorate | 4200                 | 4200    | 0                 |  |
| TDS         | 5800000              | 5900000 | 2                 |  |

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LDC #: 37702H6  
 SDG #: 440-158404-1  
 Laboratory: Test America, Inc.

**VALIDATION COMPLETENESS WORKSHEET**

Stage 4

Date: 12/30/16  
 Page: 1 of 2  
 Reviewer: VB  
 2nd Reviewer: C

**METHOD:** Chlorate (EPA Method 300.1B), Perchlorate (EPA Method 314.0), TDS (SM2540C)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

|       | Validation Area                        |     | Comments   |
|-------|--|-----|--|
| I.    | Sample receipt/Technical holding times | A/A |  |
| II    | Initial calibration                    | A   |  |
| III.  | Calibration verification               | A   |  |
| IV    | Laboratory Blanks                      | A   |  |
| V     | Field blanks                           | ND  | FB = 1 EB = 4 ; 12   |
| VI.   | Matrix Spike/Matrix Spike Duplicates   | A   | (15,16) (19,20) ClO <sub>4</sub> : ClO <sub>3</sub> = 4x (15,16) |
| VII.  | Duplicate sample analysis              | A   | 17, 18   |
| VIII. | Laboratory control samples             | A   | LOS / MRL  |
| IX.   | Field duplicates                       | SW  | (10, 11)   |
| X.    | Sample result verification             | A   |  |
| XI    | Overall assessment of data             | A   |  |

Note: *Surrogate Recovery*  
 A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet  
 ND = No compounds detected  
 R = Rinsate  
 FB = Field blank  
 D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank  
 SB=Source blank  
 OTHER:

|    | Client ID             | Lab ID           | Matrix | Date     |
|----|-----------------------|------------------|--------|----------|
| 1  | M-186D-20160913-FB    | 440-158404-2     | Water  | 09/13/16 |
| 2  | M-186D-20160913       | 440-158404-3     | Water  | 09/13/16 |
| 3  | M-186-20160913        | 440-158404-4     | Water  | 09/13/16 |
| 4  | M-148A-20160913-EB    | 440-158404-5     | Water  | 09/13/16 |
| 5  | M-148A-20160913       | 440-158404-6     | Water  | 09/13/16 |
| 6  | M-190-20160913        | 440-158404-7     | Water  | 09/13/16 |
| 7  | M-193-20160913        | 440-158404-8     | Water  | 09/13/16 |
| 8  | PC-154-20160913       | 440-158404-10    | Water  | 09/13/16 |
| 9  | PC-158-20160913       | 440-158404-11    | Water  | 09/13/16 |
| 10 | PC-159-20160913       | 440-158404-12    | Water  | 09/13/16 |
| 11 | PC-159-20160913-FD    | 440-158404-13    | Water  | 09/13/16 |
| 12 | PC-137D-20160913-EB   | 440-158404-14    | Water  | 09/13/16 |
| 13 | PC-137D-20160913      | 440-158404-15    | Water  | 09/13/16 |
| 14 | PC-134D-20160913      | 440-158404-16    | Water  | 09/13/16 |
| 15 | M-186D-20160913MS     | 440-158404-3MS   | Water  | 09/13/16 |
| 16 | M-186D-20160913MSD    | 440-158404-3MSD  | Water  | 09/13/16 |
| 17 | M-186D-20160913DUP    | 440-158404-3DUP  | Water  | 09/13/16 |
| 18 | PC-159-20160913-FDDUP | 440-158404-13DUP | Water  | 09/13/16 |

LDC #: 37702H6  
SDG #: 440-158404-1  
Laboratory: Test America, Inc.

**VALIDATION COMPLETENESS WORKSHEET**  
Stage 4

Date: 12/30/16  
Page: 2 of 2  
Reviewer: CB  
2nd Reviewer: AW

**METHOD:** Chlorate (EPA Method 300.1B), Perchlorate (EPA Method 314.0), TDS (SM2540C)

|    | Client ID           | Lab ID           | Matrix | Date     |
|----|---------------------|------------------|--------|----------|
| 19 | PC-137D-20160913MS  | 440-158404-15MS  | Water  | 09/13/16 |
| 20 | PC-137D-20160913MSD | 440-158404-15MSD | Water  | 09/13/16 |
| 21 |                     |                  |        |          |
| 22 |                     |                  |        |          |
| 23 |                     |                  |        |          |
| 24 |                     |                  |        |          |
| 25 |                     |                  |        |          |

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



Method: Inorganics (EPA Method See Cover)

| Validation Area   | Yes          | No | NA | Findings/Comments |
|---|--------------|----|----|-------------------|
| <b>I. Technical holding times</b>   |              |    |    |                   |
| All technical holding times were met.   | ✓            |    |    |                   |
| Cooler temperature criteria was met.  | ✓            |    |    |                   |
| <b>II. Calibration</b>  |              |    |    |                   |
| Were all instruments calibrated daily, each set-up time?  | ✓            |    |    |                   |
| Were the proper number of standards used?   | ✓            |    |    |                   |
| Were all initial calibration correlation coefficients $\geq 0.995$ ?  | ✓            |    |    |                   |
| Were all initial and continuing calibration verification %Rs within the 90-110% QC limits?  | ✓            |    |    |                   |
| Were titrant checks performed as required? (Level IV only)  | <del>✓</del> |    | ✓  |                   |
| Were balance checks performed as required? (Level IV only)  | ✓            |    |    |                   |
| <b>III. Blanks</b>  |              |    |    |                   |
| Was a method blank associated with every sample in this SDG?  | ✓            |    |    |                   |
| Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.  |              | ✓  |    |                   |
| <b>IV. Matrix spike/Matrix spike duplicates and Duplicates</b>  |              |    |    |                   |
| Were a matrix spike (MS) and duplicate (DUP) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD or MS/DUP. Soil / Water.   | ✓            |    |    |                   |
| Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the 75-125 QC limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.   |              | ✓  |    | 4x                |
| Were the MS/MSD or duplicate relative percent differences (RPD) $\leq 20\%$ for waters and $\leq 35\%$ for soil samples? A control limit of $\leq \text{CRDL}$ ( $\leq 2\text{X CRDL}$ for soil) was used for samples that were $\leq 5\text{X}$ the CRDL, including when only one of the duplicate sample values were $\leq 5\text{X}$ the CRDL. | ✓            |    |    |                   |
| <b>V. Laboratory control samples</b>  |              |    |    |                   |
| Was an LCS analyzed for this SDG?   | ✓            |    |    |                   |
| Was an LCS analyzed per extraction batch?   | ✓            |    |    |                   |
| Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the 80-120% (85-115% for Method 300.0) QC limits?   | ✓            |    |    |                   |
| <b>VI. Regional Quality Assurance and Quality Control</b>   |              |    |    |                   |
| Were performance evaluation (PE) samples performed?   |              |    | ✓  |                   |
| Were the performance evaluation (PE) samples within the acceptance limits?  |              |    | ✓  |                   |

**VALIDATION FINDINGS CHECKLIST**

| Validation Area   | Yes | No | NA | Findings/Comments |
|---|-----|----|----|-------------------|
| <b>VII. Sample Result Verification</b>  |     |    |    |                   |
| Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation? | ✓   |    |    |                   |
| Were detection limits < RL?   | ✓   |    |    |                   |
| <b>VIII. Overall assessment of data</b>   |     |    |    |                   |
| Overall assessment of data was found to be acceptable.  | ✓   |    |    |                   |
| <b>IX. Field duplicates</b>   |     |    |    |                   |
| Field duplicate pairs were identified in this SDG.  | ✓   |    |    |                   |
| Target analytes were detected in the field duplicates.  | ✓   |    |    |                   |
| <b>X. Field blanks</b>  |     |    |    |                   |
| Field blanks were identified in this SDG.   | ✓   |    |    |                   |
| Target analytes were detected in the field blanks.  |     | ✓  |    |                   |

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates**

Inorganics, Method See Cover

| Analyte     | Concentration (ug/L) |         | RPD ( $\leq 30$ ) |  |
|-------------|----------------------|---------|-------------------|--|
|             | 10                   | 11      |                   |  |
| Perchlorate | 41000                | 40000   | 2                 |  |
| Chlorate    | 6400                 | 6300    | 2                 |  |
| TDS         | 5000000              | 5100000 | 2                 |  |

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**Validation Findings Worksheet  
Initial and Continuing Calibration Calculation Verification**

Method: Inorganics, Method See Cover

The correlation coefficient (r) for the calibration of ClO<sub>4</sub><sup>-</sup> was recalculated. Calibration date: 8/31/16

An initial or continuing calibration verification percent recovery (%R) was recalculated for each type of analysis using the following formula:

$$\%R = \frac{\text{Found} \times 100}{\text{True}}$$

Where, Found = concentration of each analyte measured in the analysis of the ICV or CCV solution  
True = concentration of each analyte in the ICV or CCV source

| Type of analysis                                     | Analyte                       | Standard | Conc. (ug/l)             | Area                          | Recalculated        | Reported            | Acceptable<br>(Y/N) |
|--|-------------------------------|----------|--------------------------|-------------------------------|---------------------|---------------------|---------------------|
|  |                               |          |                          |                               | r or r <sup>2</sup> | r or r <sup>2</sup> |                     |
| Initial Calibration<br>Verification                  | ClO <sub>4</sub> <sup>-</sup> | s1       | 1                        | 133642.000                    | 0.9999              | 1.0000              | Y                   |
|  |                               | s2       | 2                        | 309322.000                    |                     |                     |                     |
|  |                               | s3       | 4                        | 639683.000                    |                     |                     |                     |
|  |                               | s4       | 10                       | 1494698.000                   |                     |                     |                     |
|  |                               | s5       | 25                       | 4038235.000                   |                     |                     |                     |
|  |                               | s6       | 50                       | 8313356.000                   |                     |                     |                     |
|  |                               | s7       | 100                      | 17835745.000                  |                     |                     |                     |
| Calibration verification                             | ClO <sub>4</sub> <sup>-</sup> | ICV      | <u>TRUE</u><br>50.0 ug/L | <u>FOUND</u><br>49.57 ug/L    | 99%                 | 99%                 | Y                   |
| <del>440-355732/27</del><br>Calibration verification | ClO <sub>3</sub> <sup>-</sup> | CCV      | <u>TRUE</u><br>100 ug/L  | <u>FOUND</u><br>98.22704 ug/L | -1.8%               | -1.87%              | Y                   |
| Calibration verification                             |                               |          |                          |                               |                     |                     |                     |

Comments: Refer to Calibration Verification findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

---

**VALIDATION FINDINGS WORKSHEET**  
**Level IV Recalculation Worksheet**

**METHOD:** Inorganics, Method See Cover

Percent recoveries (%R) for a laboratory control sample and a matrix spike sample were recalculated using the following formula:

$\%R = \frac{\text{Found}}{\text{True}} \times 100$       Where,      Found = concentration of each analyte measured in the analysis of the sample. For the matrix spike calculation, Found = SSR (spiked sample result) - SR (sample result).  
True = concentration of each analyte in the source.

A sample and duplicate relative percent difference (RPD) was recalculated using the following formula:

$RPD = \frac{|S-D|}{(S+D)/2} \times 100$       Where,      S = Original sample concentration  
D = Duplicate sample concentration

| Sample ID | Type of Analysis                          | Element   | Found / S (units)                                       | True / D (units)   | Recalculated | Reported | Acceptable (Y/N) |
|-----------|---|-----------|---|--|--------------|----------|------------------|
|           |   |           |   |  | %R / RPD     | %R / RPD |                  |
| LCS       | Laboratory control sample<br>440-35647212 | $ClO_4^-$ | 23.4984 $\mu g/L$                                       | 25.0 $\mu g/L$   | 94%          | 94%      | Y                |
| MS        | Matrix spike sample<br>440-158404-15MS    | $ClO_3^-$ | SR=0<br>(SSR-SR)<br>88.49362 x 2 =<br>176.987 $\mu g/L$ | 200 $\mu g/L$  | 88%          | 88%      | Y                |
| MSD       | Duplicate sample<br>440-158404-15MSD      | $ClO_3^-$ | 90.83977 x 2 =<br>181.679 $\mu g/L$                     | Found in SE<br>176.987 $\mu g/L$<br>200 $\mu g/L$<br>↳ TRUE. | 3 RPD        | 3 RPD    | Y                |

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



**VALIDATION FINDINGS WORKSHEET**  
Sample Calculation Verification

**METHOD:** Inorganics, Method See Cover

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

- Y N N/A Have results been reported and calculated correctly?
- Y N N/A Are results within the calibrated range of the instruments?
- Y N N/A Are all detection limits below the CRQL?

Compound (analyte) results for TDS reported with a positive detect were recalculated and verified using the following equation:

Concentration =

Recalculation:

$$\frac{\text{Final wt} - \text{Initial wt}}{\text{Sample vol}}$$

$$\# 14 = \frac{77.3864g - 77.3091g}{20mL} = 0.003865g/mL \times 1000 \times \frac{1000}{1000} = 3865000 \mu g/L$$

| # | Sample ID | Analyte                       | Reported Concentration (µg/L) | Calculated Concentration (µg/L) | Acceptable (Y/N) |
|---|-----------|-------------------------------|-------------------------------|---------------------------------|------------------|
|   | 2         | ClO <sub>4</sub> <sup>-</sup> | 770                           | 770                             | Y                |
|   | 3         | ClO <sub>4</sub> <sup>-</sup> | 240000                        | 240000                          | Y                |
|   | 5         | ClO <sub>4</sub> <sup>-</sup> | 4700                          | 4700                            | Y                |
|   | 6         | ClO <sub>4</sub> <sup>-</sup> | 9300                          | 9300                            | Y                |
|   | 7         | ClO <sub>3</sub> <sup>-</sup> | 160000                        | 160000                          | Y                |
|   | 8         | ClO <sub>3</sub> <sup>-</sup> | 8200                          | 8200                            | Y                |
|   | 9         | ClO <sub>3</sub> <sup>-</sup> | 9200                          | 9200                            | Y                |
|   | 10        | ClO <sub>3</sub> <sup>-</sup> | 6400                          | 6400                            | Y                |
|   | 11        | TDS                           | 5100000                       | 5100000                         | Y                |
|   | 13        | TDS                           | 4100000                       | 4100000                         | Y                |
|   | 14        | TDS                           | 3900000                       | 3900000                         | Y                |
|   |           |                               |                               |                                 |                  |
|   |           |                               |                               |                                 |                  |
|   |           |                               |                               |                                 |                  |
|   |           |                               |                               |                                 |                  |
|   |           |                               |                               |                                 |                  |
|   |           |                               |                               |                                 |                  |
|   |           |                               |                               |                                 |                  |
|   |           |                               |                               |                                 |                  |
|   |           |                               |                               |                                 |                  |
|   |           |                               |                               |                                 |                  |

Note: \_\_\_\_\_

LDC #: 3770216

## VALIDATION COMPLETENESS WORKSHEET

Date: 12/30/16

SDG #: 440-158406-1

Stage 2B

Page: 1 of 1

Laboratory: Test America, Inc.

Reviewer: *JB*2nd Reviewer: *2*

*Field Test*

**METHOD:** Perchlorate (EPA Method 314.0), pH (SM4500-H+B), TDS (SM2540C)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

|       | Validation Area                        |     | Comments   |
|-------|--|-----|------------|
| I.    | Sample receipt/Technical holding times | A/A |            |
| II    | Initial calibration                    | A   |            |
| III.  | Calibration verification               | A   |            |
| IV    | Laboratory Blanks                      | A   |            |
| V     | Field blanks                           | N   |            |
| VI.   | Matrix Spike/Matrix Spike Duplicates   | N   | C-S.       |
| VII.  | Duplicate sample analysis              | A   | 13, 14, 15 |
| VIII. | Laboratory control samples             | A   | LCS/MRL    |
| IX.   | Field duplicates                       | N   |            |
| X.    | Sample result verification             | N   |            |
| XI    | Overall assessment of data             | A   |            |

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

|    | Client ID | Lab ID           | Matrix | Date     |
|----|-----------|------------------|--------|----------|
| 1  | PC-56     | 440-158406-1     | Water  | 09/13/16 |
| 2  | PC-60     | 440-158406-2     | Water  | 09/13/16 |
| 3  | PC-58     | 440-158406-3     | Water  | 09/13/16 |
| 4  | PC-59     | 440-158406-4     | Water  | 09/13/16 |
| 5  | PC-62     | 440-158406-5     | Water  | 09/13/16 |
| 6  | PC-68     | 440-158406-6     | Water  | 09/13/16 |
| 7  | PC-86     | 440-158406-7     | Water  | 09/13/16 |
| 8  | PC-91     | 440-158406-8     | Water  | 09/13/16 |
| 9  | PC-90     | 440-158406-9     | Water  | 09/13/16 |
| 10 | PC-97     | 440-158406-10    | Water  | 09/13/16 |
| 11 | M-83      | 440-158406-11    | Water  | 09/13/16 |
| 12 | I-J       | 440-158406-12    | Water  | 09/13/16 |
| 13 | PC-56DUP  | 440-158406-1DUP  | Water  | 09/13/16 |
| 14 | M-83DUP   | 440-158406-11DUP | Water  | 09/13/16 |
| 15 | I-JDUP    | 440-158406-12DUP | Water  | 09/13/16 |
| 16 |           |                  |        |          |
| 17 |           |                  |        |          |

Notes:

**VALIDATION FINDINGS WORKSHEET**  
**Sample Specific Analysis Reference**

All circled methods are applicable to each sample.

| Sample ID | Parameter  |
|-----------|--|
| 1-12      | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
| 0c        | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
| 13-15     | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |

Comments: \_\_\_\_\_

**METHOD:** Hexavalent Chromium (EPA Method 218.6)

Sil samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

|       | Validation Area                        |       | Comments                                     |
|-------|--|-------|--|
| I.    | Sample receipt/Technical holding times | A / A |  |
| II    | Initial calibration                    | A     |  |
| III.  | Calibration verification               | A     |  |
| IV    | Laboratory Blanks                      | A     |  |
| V     | Field blanks                           | N     |  |
| VI.   | Matrix Spike/Matrix Spike Duplicates   | A     | 440-159532-15msID / 16090237-15msID / ICMSID |
| VII.  | Duplicate sample analysis              | N     |  |
| VIII. | Laboratory control samples             | A     | LOS  |
| IX.   | Field duplicates                       | N     |  |
| X.    | Sample result verification             | N     |  |
| XI    | Overall assessment of data             | A     |  |

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

|    | Client ID                  | Lab ID       | Matrix | Date     |
|----|----------------------------|--------------|--------|----------|
| 1  | I-J<br>5jbn<br>16090425-01 | 440-158478-1 | Water  | 09/13/16 |
| 2  |                            |              |        |          |
| 3  |                            |              |        |          |
| 4  |                            |              |        |          |
| 5  |                            |              |        |          |
| 6  |                            |              |        |          |
| 7  |                            |              |        |          |
| 8  |                            |              |        |          |
| 9  |                            |              |        |          |
| 10 |                            |              |        |          |
| 11 |                            |              |        |          |
| 12 |                            |              |        |          |
| 13 |                            |              |        |          |
| 14 |                            |              |        |          |
| 15 |                            |              |        |          |

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

LDC #: 37702K6  
 SDG #: 440-158607-1  
 Laboratory: Test America, Inc.

**VALIDATION COMPLETENESS WORKSHEET**

Stage 2B

Date: 12/30/16  
 Page: 1 of 1  
 Reviewer: JS  
 2nd Reviewer: CR

**METHOD:** Perchlorate (EPA Method 314.0), pH (<sup>Field Test</sup>SM4500 H+B), TDS (SM2540C)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

|       | Validation Area                        |    | Comments  |
|-------|--|----|-----------|
| I.    | Sample receipt/Technical holding times | AA |           |
| II    | Initial calibration                    | A  |           |
| III.  | Calibration verification               | A  |           |
| IV    | Laboratory Blanks                      | A  | EB=6      |
| V     | Field blanks                           | SW | EB=6      |
| VI.   | Matrix Spike/Matrix Spike Duplicates   | N  | C.S.      |
| VII.  | Duplicate sample analysis              | N  |           |
| VIII. | Laboratory control samples             | A  | LCS + MRL |
| IX.   | Field duplicates                       | N  |           |
| X.    | Sample result verification             | N  |           |
| XI    | Overall assessment of data             | A  |           |

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER: .

|    | Client ID | Lab ID       | Matrix | Date     |
|----|-----------|--------------|--------|----------|
| 1  | PC-18     | 440-158607-1 | Water  | 09/14/16 |
| 2  | PC-55     | 440-158607-2 | Water  | 09/14/16 |
| 3  | PC-122    | 440-158607-3 | Water  | 09/14/16 |
| 4  | PC-101R   | 440-158607-4 | Water  | 09/14/16 |
| 5  | ART-6     | 440-158607-5 | Water  | 09/14/16 |
| 6  | MEB-1     | 440-158607-6 | Water  | 09/14/16 |
| 7  |           |              |        |          |
| 8  |           |              |        |          |
| 9  |           |              |        |          |
| 10 |           |              |        |          |
| 11 |           |              |        |          |
| 12 |           |              |        |          |
| 13 |           |              |        |          |
| 14 |           |              |        |          |
| 15 |           |              |        |          |
| 16 |           |              |        |          |

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**VALIDATION FINDINGS WORKSHEET**  
**Field Blanks**

**METHOD:** Inorganics, EPA Method See Cover

**Blank units:** ug/L **Associated sample units:** ug/L

**Sampling date:** 9/14/16 Soil factor applied NA

**Field blank type:** (circle one) Field Blank / Rinsate / Other: EB

Associated Samples: AT 1-5

| Analyte     | Blank ID | Action Limit | Sample Identification |  |  |  |  |  |  |  |
|-------------|----------|--------------|-----------------------|--|--|--|--|--|--|--|
|             |          |              |                       |  |  |  |  |  |  |  |
| Perchlorate | 0.54     |              |                       |  |  |  |  |  |  |  |
|             |          |              |                       |  |  |  |  |  |  |  |
|             |          |              |                       |  |  |  |  |  |  |  |
|             |          |              |                       |  |  |  |  |  |  |  |
|             |          |              |                       |  |  |  |  |  |  |  |
|             |          |              |                       |  |  |  |  |  |  |  |

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:  
Samples with analyte concentrations within five times the associated field blank concentration are listed above, these sample results were qualified as not detected, "U".

**METHOD:** Hexavalent Chromium (EPA Method 218.6)

Sil samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

|       | Validation Area                        |       | Comments |
|-------|--|-------|----------|
| I.    | Sample receipt/Technical holding times | A / A |          |
| II    | Initial calibration                    | A     |          |
| III.  | Calibration verification               | A     |          |
| IV    | Laboratory Blanks                      | A     |          |
| V     | Field blanks                           | N     |          |
| VI.   | Matrix Spike/Matrix Spike Duplicates   | A     | (2,3)    |
| VII.  | Duplicate sample analysis              | N     |          |
| VIII. | Laboratory control samples             | A     | LCS      |
| IX.   | Field duplicates                       | N     |          |
| X.    | Sample result verification             | N     |          |
| XI    | Overall assessment of data             | A     |          |

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB=Source blank  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

|    | Client ID | Lab ID          | Matrix | Date     |
|----|-----------|-----------------|--------|----------|
| 1  | ART-6     | 440-158652-1    | Water  | 09/14/16 |
| 2  | ART-6MS   | 440-158652-1MS  | Water  | 09/14/16 |
| 3  | ART-6MSD  | 440-158652-1MSD | Water  | 09/14/16 |
| 4  |           |                 |        |          |
| 5  |           |                 |        |          |
| 6  |           |                 |        |          |
| 7  |           |                 |        |          |
| 8  |           |                 |        |          |
| 9  |           |                 |        |          |
| 10 |           |                 |        |          |
| 11 |           |                 |        |          |
| 12 |           |                 |        |          |
| 13 |           |                 |        |          |
| 14 |           |                 |        |          |
| 15 |           |                 |        |          |

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

LDC #: 37702M6  
 SDG #: 440-158656-1  
 Laboratory: Test America, Inc.

**VALIDATION COMPLETENESS WORKSHEET**  
 Stage 2B

Date: 12/30/16  
 Page: 1 of 1  
 Reviewer: J3  
 2nd Reviewer: R

**METHOD:** Chlorate (EPA Method 300.1B), Perchlorate (EPA Method 314.0), TDS (SM2540C)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

|       | Validation Area                        |            | Comments |
|-------|--|------------|----------|
| I.    | Sample receipt/Technical holding times | A/A        |          |
| II    | Initial calibration                    | A          |          |
| III.  | Calibration verification               | A          |          |
| IV    | Laboratory Blanks                      | A          |          |
| V     | Field blanks                           | N          |          |
| VI.   | Matrix Spike/Matrix Spike Duplicates   | SW (11,12) |          |
| VII.  | Duplicate sample analysis              | N          |          |
| VIII. | Laboratory control samples             | A          | LCS/MRL  |
| IX.   | Field duplicates                       | N          |          |
| X.    | Sample result verification             | N          |          |
| XI    | Overall assessment of data             | A          |          |

Note: *Surrogate Recovery*  
 A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet  
 ND = No compounds detected  
 R = Rinsate  
 FB = Field blank  
 D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank  
 SB=Source blank  
 OTHER:

|    | Client ID           | Lab ID           | Matrix | Date     |
|----|---------------------|------------------|--------|----------|
| 1  | M-145-20160914      | 440-158656-2     | Water  | 09/14/16 |
| 2  | M-191-20160914      | 440-158656-3     | Water  | 09/14/16 |
| 3  | M-192-20160914      | 440-158656-4     | Water  | 09/14/16 |
| 4  | PC-157A-20160914    | 440-158656-5     | Water  | 09/14/16 |
| 5  | PC-160-20160914     | 440-158656-6     | Water  | 09/14/16 |
| 6  | PC-156A-20160914    | 440-158656-7     | Water  | 09/14/16 |
| 7  | PC-156B-20160914    | 440-158656-8     | Water  | 09/14/16 |
| 8  | PC-155A-20160914    | 440-158656-9     | Water  | 09/14/16 |
| 9  | PC-155B-20160914    | 440-158656-10    | Water  | 09/14/16 |
| 10 | PC-157B-20160914    | 440-158656-11    | Water  | 09/14/16 |
| 11 | M-145-20160914MS    | 440-158656-2MS   | Water  | 09/14/16 |
| 12 | M-145-20160914MSD   | 440-158656-2MSD  | Water  | 09/14/16 |
| 13 | PC-155B-20160914DUP | 440-158656-10DUP | Water  | 09/14/16 |
| 14 |                     |                  |        |          |
| 15 |                     |                  |        |          |

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_







LDC #: 37702N6  
 SDG #: 440-159190-1  
 Laboratory: Test America, Inc.

**VALIDATION COMPLETENESS WORKSHEET**  
 Stage 2B

Date: 12/20/16  
 Page: 1 of 1  
 Reviewer: JBS  
 2nd Reviewer: a

**METHOD:** <sup>Field Test</sup> Perchlorate (EPA Method 314.0), pH (SM4500-H+B), TDS (SM2540C)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

|       | Validation Area                        |     | Comments  |
|-------|--|-----|-----------|
| I.    | Sample receipt/Technical holding times | A/A |           |
| II    | Initial calibration                    | A   |           |
| III.  | Calibration verification               | A   |           |
| IV    | Laboratory Blanks                      | A   |           |
| V     | Field blanks                           | N   |           |
| VI.   | Matrix Spike/Matrix Spike Duplicates   | N   | CS        |
| VII.  | Duplicate sample analysis              | A   | 13, 14    |
| VIII. | Laboratory control samples             | A   | LCS + MKL |
| IX.   | Field duplicates                       | N   |           |
| X.    | Sample result verification             | N   |           |
| XI    | Overall assessment of data             | A   |           |

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet  
 ND = No compounds detected  
 R = Rinsate  
 FB = Field blank  
 D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank  
 SB=Source blank  
 OTHER:

|    | Client ID | Lab ID           | Matrix | Date     |
|----|-----------|------------------|--------|----------|
| 1  | ARP-1     | 440-159190-1     | Water  | 09/20/16 |
| 2  | PC-53     | 440-159190-2     | Water  | 09/20/16 |
| 3  | MW-K5     | 440-159190-3     | Water  | 09/20/16 |
| 4  | ARP-7     | 440-159190-4     | Water  | 09/20/16 |
| 5  | ARP-6B    | 440-159190-5     | Water  | 09/20/16 |
| 6  | ARP-5A    | 440-159190-6     | Water  | 09/20/16 |
| 7  | ARP-4A    | 440-159190-7     | Water  | 09/20/16 |
| 8  | MW-K4     | 440-159190-8     | Water  | 09/20/16 |
| 9  | ARP-3A    | 440-159190-9     | Water  | 09/20/16 |
| 10 | ARP-2A    | 440-159190-10    | Water  | 09/20/16 |
| 11 | PC-103    | 440-159190-11    | Water  | 09/20/16 |
| 12 | PC-98R    | 440-159190-12    | Water  | 09/20/16 |
| 13 | PC-53DUP  | 440-159190-2DUP  | Water  | 09/20/16 |
| 14 | PC-98RDUP | 440-159190-12DUP | Water  | 09/20/16 |
| 15 |           |                  |        |          |
| 16 |           |                  |        |          |
| 17 |           |                  |        |          |

Notes:

**VALIDATION FINDINGS WORKSHEET**  
**Sample Specific Analysis Reference**

All circled methods are applicable to each sample.

| Sample ID | Parameter  |
|-----------|--|
| 1-12      | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
| QC        | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
| 13, 14    | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |
|           | pH TDS CI F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub> |

Comments: \_\_\_\_\_

**METHOD:** Hexavalent Chromium (EPA Method 218.6)

Sil samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

|       | Validation Area                        |           | Comments  |
|-------|--|-----------|---|
| I.    | Sample receipt/Technical holding times | A/A       |   |
| II    | Initial calibration                    | A         |   |
| III.  | Calibration verification               | A         |   |
| IV    | Laboratory Blanks                      | A         |   |
| V     | Field blanks                           | N         |   |
| VI.   | Matrix Spike/Matrix Spike Duplicates   | A (18,19) | 440-159532-4MSD / 16090237-24MSD / 1-4MSD<br>440-159532-29MSD / 16090237-29MSD / 1-4MSD |
| VII.  | Duplicate sample analysis              | N         |   |
| VIII. | Laboratory control samples             | A         | LCS   |
| IX.   | Field duplicates                       | N         |   |
| X.    | Sample result verification             | N         |   |
| XI    | Overall assessment of data             | A         |   |

Note: A = Acceptable ND = No compounds detected D = Duplicate SB=Source blank  
 N = Not provided/applicable R = Rinsate TB = Trip blank OTHER:  
 SW = See worksheet FB = Field blank EB = Equipment blank

|    | Client ID    | SUB ID       | Lab ID         | Matrix | Date     |
|----|--------------|--------------|----------------|--------|----------|
| 1  | PC-99R2/R3   | 16090165-01  | 440-159527-1   | Water  | 09/06/16 |
| 2  | PC-115R      | 16090165-02  | 440-159527-2   | Water  | 09/06/16 |
| 3  | PC-116R      | 16090165-03  | 440-159527-3   | Water  | 09/06/16 |
| 4  | PC-117       | 16090165-04  | 440-159527-4   | Water  | 09/06/16 |
| 5  | PC-118       | 16090165-05  | 440-159527-5   | Water  | 09/06/16 |
| 6  | PC-119       | 16090165-06  | 440-159527-6   | Water  | 09/06/16 |
| 7  | PC-120       | 16090165-07  | 440-159527-7   | Water  | 09/06/16 |
| 8  | PC-121       | 16090165-08  | 440-159527-8   | Water  | 09/06/16 |
| 9  | PC-133       | 16090165-09  | 440-159527-9   | Water  | 09/06/16 |
| 10 | ART-1A       | 16090165-10  | 440-159527-10  | Water  | 09/06/16 |
| 11 | ART-2A       | 16090165-11  | 440-159527-11  | Water  | 09/06/16 |
| 12 | ART-3A       | 16090165-12  | 440-159527-12  | Water  | 09/06/16 |
| 13 | ART-4        | 16090165-13  | 440-159527-13  | Water  | 09/06/16 |
| 14 | ART-7B       | 16090165-14  | 440-159527-14  | Water  | 09/06/16 |
| 15 | ART-8A       | 16090165-15  | 440-159527-15  | Water  | 09/06/16 |
| 16 | ART-9        | 16090165-16  | 440-159527-16  | Water  | 09/06/16 |
| 17 | PC-150       | 16090165-17  | 440-159527-17  | Water  | 09/06/16 |
| 18 | PC-99R2/R3MS | 16090165-ams | 440-159527-1MS | Water  | 09/06/16 |

LDC #: 3770206 **VALIDATION COMPLETENESS WORKSHEET**

SDG #: 440-159527-1/16090165 Stage 2B

Laboratory: Test America, Inc./SilverState Analytical Laboratories

Date: 12/30/16

Page: 2 of 2

Reviewer: LB

2nd Reviewer: RT

**METHOD:** Hexavalent Chromium (EPA Method 218.6)

|    | Client ID                              | Lab ID          | Matrix | Date     |
|----|--|-----------------|--------|----------|
| 19 | PC-99R2/R3MSD<br><i>16090165-01MSD</i> | 440-159527-1MSD | Water  | 09/06/16 |
| 20 |  |                 |        |          |
| 21 |  |                 |        |          |
| 22 |  |                 |        |          |
| 23 |  |                 |        |          |
| 24 |  |                 |        |          |

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**METHOD:** Hexavalent Chromium (EPA Method 218.6)

Sil samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

|       | Validation Area                        |       | Comments   |
|-------|--|-------|--|
| I.    | Sample receipt/Technical holding times | A / A |  |
| II    | Initial calibration                    | A     |  |
| III.  | Calibration verification               | A     |  |
| IV    | Laboratory Blanks                      | A     |  |
| V     | Field blanks                           | N     |  |
| VI.   | Matrix Spike/Matrix Spike Duplicates   | A     | (30,31)(32,33)(34,35) / 440-159527-1MSID / 16090165-01MSID / |
| VII.  | Duplicate sample analysis              | N     |  |
| VIII. | Laboratory control samples             | A     | LCS  |
| IX.   | Field duplicates                       | N     |  |
| X.    | Sample result verification             | N     |  |
| XI    | Overall assessment of data             | A     |  |

PC-9921  
R3MSID

Note: A = Acceptable ND = No compounds detected D = Duplicate SB=Source blank  
 N = Not provided/applicable R = Rinsate TB = Trip blank OTHER:  
 SW = See worksheet FB = Field blank EB = Equipment blank

|    | Client ID                        | Lab ID        | Matrix | Date     |
|----|----------------------------------|---------------|--------|----------|
| 1  | I-O <i>SUB ID</i><br>16090237-01 | 440-159532-1  | Water  | 09/07/16 |
| 2  | I-W<br>16090237-02               | 440-159532-2  | Water  | 09/07/16 |
| 3  | I-P<br>16090237-03               | 440-159532-3  | Water  | 09/07/16 |
| 4  | I-H<br>16090237-04               | 440-159532-4  | Water  | 09/07/16 |
| 5  | I-U<br>16090237-05               | 440-159532-5  | Water  | 09/07/16 |
| 6  | I-T<br>16090237-06               | 440-159532-6  | Water  | 09/07/16 |
| 7  | I-G<br>16090237-07               | 440-159532-7  | Water  | 09/07/16 |
| 8  | I-Q<br>16090237-08               | 440-159532-8  | Water  | 09/07/16 |
| 9  | I-F<br>16090237-09               | 440-159532-9  | Water  | 09/07/16 |
| 10 | I-X<br>16090237-10               | 440-159532-10 | Water  | 09/07/16 |
| 11 | I-N<br>16090237-11               | 440-159532-11 | Water  | 09/07/16 |
| 12 | I-E<br>16090237-12               | 440-159532-12 | Water  | 09/07/16 |
| 13 | I-M<br>16090237-13               | 440-159532-13 | Water  | 09/07/16 |
| 14 | I-D<br>16090237-14               | 440-159532-14 | Water  | 09/07/16 |
| 15 | I-C<br>16090237-15               | 440-159532-15 | Water  | 09/07/16 |
| 16 | I-S<br>16090237-16               | 440-159532-16 | Water  | 09/07/16 |
| 17 | I-L<br>16090237-17               | 440-159532-17 | Water  | 09/07/16 |
| 18 | I-Y<br>16090237-18               | 440-159532-18 | Water  | 09/07/16 |

**METHOD:** Hexavalent Chromium (EPA Method 218.6)

|    | Client ID                        | Lab ID           | Matrix | Date     |
|----|----------------------------------|------------------|--------|----------|
| 19 | I-R <i>SUB IJ</i><br>16090237-19 | 440-159532-19    | Water  | 09/07/16 |
| 20 | I-B<br>16090237-20               | 440-159532-20    | Water  | 09/07/16 |
| 21 | I-AB<br>16090237-21              | 440-159532-21    | Water  | 09/07/16 |
| 22 | I-AA<br>16090237-22              | 440-159532-22    | Water  | 09/07/16 |
| 23 | I-AR<br>16090237-23              | 440-159532-23    | Water  | 09/07/16 |
| 24 | I-AD<br>16090237-24              | 440-159532-24    | Water  | 09/07/16 |
| 25 | I-AC<br>16090237-25              | 440-159532-25    | Water  | 09/07/16 |
| 26 | I-K<br>16090237-26               | 440-159532-26    | Water  | 09/07/16 |
| 27 | I-Z<br>16090237-27               | 440-159532-27    | Water  | 09/07/16 |
| 28 | I-I<br>16090237-28               | 440-159532-28    | Water  | 09/07/16 |
| 29 | I-V<br>16090237-29               | 440-159532-29    | Water  | 09/07/16 |
| 30 | I-HMS<br>16090237-04MS           | 440-159532-4MS   | Water  | 09/07/16 |
| 31 | I-HMSD<br>16090237-04MSD         | 440-159532-4MSD  | Water  | 09/07/16 |
| 32 | I-CMS<br>16090237-15MS           | 440-159532-15MS  | Water  | 09/07/16 |
| 33 | I-CMSD<br>16090237-15MSD         | 440-159532-15MSD | Water  | 09/07/16 |
| 34 | I-VMS<br>16090237-29MS           | 440-159532-29MS  | Water  | 09/07/16 |
| 35 | I-VMSD<br>16090237-29MSD         | 440-159532-29MSD | Water  | 09/07/16 |
| 36 |                                  |                  |        |          |
| 37 |                                  |                  |        |          |
| 38 |                                  |                  |        |          |
| 39 |                                  |                  |        |          |
| 40 |                                  |                  |        |          |

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



## **ATTACHMENTS**

**ATTACHMENT A  
VOC DATA VALIDATION REPORT**

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** NERT 2016 Q4

**LDC Report Date:** March 28, 2017

**Parameters:** Wet Chemistry

**Validation Level:** Stage 2B & 4

**Laboratory:** TestAmerica, Inc./Asset Laboratories

**Sample Delivery Group (SDG):** 440-160590-1, 440-160680-1, 440-161336-1, 440-161484-1/N021214, 440-161552-1, 440-161556-1, 440-161752-1, 440-162515-1/N021299, 440-162514-1, 440-163451-1/N021393, 440-163453-1, 440-163816-1/N021226, 440-166056-1, 440-166060-1, 440-166063-1, 440-166082-1, 440-166090-1, 440-166103-1, 440-166109-1, 440-166111-1, 440-166112-1, 440-166117-1, 440-166123-1, 440-166209-1, 440-166210-1, 440-166337-1, 440-166339-1, 440-166340-1, 440-166342-1, 440-166420-1, 440-166423-1, 440-166430-1, 440-166433-1, 440-166437-1, 440-166442-1, 440-166552-1, 440-166600-1, 440-166602-1, 440-166603-1, 440-166790-1, 440-166980-1, 440-166988-1, 440-167033-1, 440-167238-1/N021682, 440-167500-1/N021701, 440-167564-1/N021725, 440-167568-1/N021724, 440-167631-1, 440-167718-1/N021707, 440-168227-1/N021751, 440-168260-1, 440-168261-1, 440-168264-1/N021752, 440-168537-1, 440-169256-1/N021841, 440-169258-1/N021869, 440-169582-1, 440-170796-1, 440-170899-1/N022324, 440-170907-1/N022351, 440-170911-1/N022336, 440-171145-1, 440-170151-1, 440-170150-1/N022233, 440-170153-1/N022300, 440-170398-1, 440-170572-1

| <b>Sample Identification</b> | <b>Laboratory Sample Identification</b> | <b>Matrix</b> | <b>Collection Date</b> |
|------------------------------|---|---------------|------------------------|
| I-AD                         | 440-160590-1                            | Water         | 10/04/16               |
| I-AC                         | 440-160590-2                            | Water         | 10/04/16               |
| I-K                          | 440-160590-3                            | Water         | 10/04/16               |
| I-J                          | 440-160590-4                            | Water         | 10/04/16               |
| I-Z                          | 440-160590-5                            | Water         | 10/04/16               |
| I-I                          | 440-160590-6                            | Water         | 10/04/16               |
| I-ACMS                       | 440-160590-2MS                          | Water         | 10/04/16               |
| I-ACMSD                      | 440-160590-2MSD                         | Water         | 10/04/16               |
| I-AD                         | 440-160680-1                            | Water         | 10/04/16               |
| I-AC                         | 440-160680-2                            | Water         | 10/04/16               |
| I-K                          | 440-160680-3                            | Water         | 10/04/16               |
| I-J                          | 440-160680-4                            | Water         | 10/04/16               |
| I-Z                          | 440-160680-5                            | Water         | 10/04/16               |
| I-I                          | 440-160680-6                            | Water         | 10/04/16               |
| I-JDUP                       | 440-160680-4DUP                         | Water         | 10/04/16               |
| I-O                          | 440-161336-1                            | Water         | 10/10/16               |
| I-W                          | 440-161336-2                            | Water         | 10/10/16               |
| I-P                          | 440-161336-3                            | Water         | 10/10/16               |
| I-H                          | 440-161336-4                            | Water         | 10/10/16               |
| I-U                          | 440-161336-5                            | Water         | 10/10/16               |
| I-T                          | 440-161336-6                            | Water         | 10/10/16               |
| I-G                          | 440-161336-7                            | Water         | 10/10/16               |
| I-Q                          | 440-161336-8                            | Water         | 10/10/16               |
| I-F                          | 440-161336-9                            | Water         | 10/10/16               |
| I-X                          | 440-161336-10                           | Water         | 10/10/16               |
| I-N                          | 440-161336-11                           | Water         | 10/10/16               |
| I-E                          | 440-161336-12                           | Water         | 10/10/16               |
| I-M                          | 440-161336-13                           | Water         | 10/10/16               |
| I-D                          | 440-161336-14                           | Water         | 10/10/16               |
| I-C                          | 440-161336-15                           | Water         | 10/10/16               |
| I-S                          | 440-161336-16                           | Water         | 10/10/16               |
| I-L                          | 440-161336-17                           | Water         | 10/10/16               |
| I-Y                          | 440-161336-18                           | Water         | 10/10/16               |
| I-R                          | 440-161336-19                           | Water         | 10/10/16               |
| I-B                          | 440-161336-20                           | Water         | 10/10/16               |
| I-AB                         | 440-161336-21                           | Water         | 10/10/16               |
| I-AA                         | 440-161336-22                           | Water         | 10/10/16               |
| I-AR                         | 440-161336-23                           | Water         | 10/10/16               |
| I-ODUP                       | 440-161336-1DUP                         | Water         | 10/10/16               |
| I-NDUP                       | 440-161336-11DUP                        | Water         | 10/10/16               |
| I-O                          | 440-161484-1/N021214-001                | Water         | 10/10/16               |
| I-W                          | 440-161484-2/N021214-002                | Water         | 10/10/16               |
| I-P                          | 440-161484-3/N021214-003                | Water         | 10/10/16               |
| I-H                          | 440-161484-4/N021214-004                | Water         | 10/10/16               |

| <b>Sample Identification</b> | <b>Laboratory Sample Identification</b> | <b>Matrix</b> | <b>Collection Date</b> |
|------------------------------|---|---------------|------------------------|
| I-U                          | 440-161484-5/N021214-005                | Water         | 10/10/16               |
| I-T                          | 440-161484-6/N021214-006                | Water         | 10/10/16               |
| I-G                          | 440-161484-7/N021214-007                | Water         | 10/10/16               |
| I-Q                          | 440-161484-8/N021214-008                | Water         | 10/10/16               |
| I-F                          | 440-161484-9/N021214-009                | Water         | 10/10/16               |
| I-X                          | 440-161484-10/N021214-010               | Water         | 10/10/16               |
| I-N                          | 440-161484-11/N021214-011               | Water         | 10/10/16               |
| I-E                          | 440-161484-12/N021214-012               | Water         | 10/10/16               |
| I-M                          | 440-161484-13/N021214-013               | Water         | 10/10/16               |
| I-D                          | 440-161484-14/N021214-014               | Water         | 10/10/16               |
| I-C                          | 440-161484-15/N021214-015               | Water         | 10/10/16               |
| I-S                          | 440-161484-16/N021214-016               | Water         | 10/10/16               |
| I-L                          | 440-161484-17/N021214-017               | Water         | 10/10/16               |
| I-Y                          | 440-161484-18/N021214-018               | Water         | 10/10/16               |
| I-R                          | 440-161484-19/N021214-019               | Water         | 10/10/16               |
| I-B                          | 440-161484-20/N021214-020               | Water         | 10/10/16               |
| I-AB                         | 440-161484-21/N021214-021               | Water         | 10/10/16               |
| I-AA                         | 440-161484-22/N021214-022               | Water         | 10/10/16               |
| I-AR                         | 440-161484-23/N021214-021               | Water         | 10/10/16               |
| I-WMS                        | 440-161484-2MS/N021214-002MS            | Water         | 10/10/16               |
| I-WMSD                       | 440-161484-2MSD/N021214-002MSD          | Water         | 10/10/16               |
| I-HMS                        | 440-161484-4MS/N021214-004MS            | Water         | 10/10/16               |
| I-HMSD                       | 440-161484-4MSD/N021214-004MSD          | Water         | 10/10/16               |
| I-QMS                        | 440-161484-8MS/N021214-008MS            | Water         | 10/10/16               |
| I-0DUP                       | 440-161484-1DUP/N021214-001DUP          | Water         | 10/10/16               |
| I-TDUP                       | 440-161484-6DUP/N021214-006DUP          | Water         | 10/10/16               |
| M-83                         | 440-161552-1                            | Water         | 10/11/16               |
| PC-58                        | 440-161552-2                            | Water         | 10/11/16               |
| PC-56                        | 440-161552-3                            | Water         | 10/11/16               |
| PC-59                        | 440-161552-4                            | Water         | 10/11/16               |
| PC-60                        | 440-161552-5                            | Water         | 10/11/16               |
| PC-62                        | 440-161552-6                            | Water         | 10/11/16               |
| PC-68                        | 440-161552-7                            | Water         | 10/11/16               |
| PC-86                        | 440-161552-8                            | Water         | 10/11/16               |
| PC-91                        | 440-161552-9                            | Water         | 10/11/16               |
| PC-90                        | 440-161552-10                           | Water         | 10/11/16               |
| PC-97                        | 440-161552-11                           | Water         | 10/11/16               |
| M-83DUP                      | 440-161552-1DUP                         | Water         | 10/11/16               |
| PC-97DUP                     | 440-161552-11DUP                        | Water         | 10/11/16               |
| I-V                          | 440-161556-1                            | Water         | 10/11/16               |
| PC-18                        | 440-161752-1                            | Water         | 10/12/16               |
| ARP-1                        | 440-161752-2                            | Water         | 10/12/16               |
| PC-122                       | 440-161752-3                            | Water         | 10/12/16               |
| PC-53                        | 440-161752-4                            | Water         | 10/12/16               |

| <b>Sample Identification</b> | <b>Laboratory Sample Identification</b> | <b>Matrix</b> | <b>Collection Date</b> |
|------------------------------|---|---------------|------------------------|
| MW-K5                        | 440-161752-5                            | Water         | 10/12/16               |
| PC-103                       | 440-161752-6                            | Water         | 10/12/16               |
| PC-98R                       | 440-161752-7                            | Water         | 10/12/16               |
| ARP-7                        | 440-161752-8                            | Water         | 10/12/16               |
| ARP-6B                       | 440-161752-9                            | Water         | 10/12/16               |
| ARP-5A                       | 440-161752-10                           | Water         | 10/12/16               |
| ARP-4A                       | 440-161752-11                           | Water         | 10/12/16               |
| MEB-1                        | 440-161752-12                           | Water         | 10/12/16               |
| MW-K4                        | 440-161752-13                           | Water         | 10/12/16               |
| ARP-3A                       | 440-161752-14                           | Water         | 10/12/16               |
| PC-101R                      | 440-161752-15                           | Water         | 10/12/16               |
| ARP-2A                       | 440-161752-16                           | Water         | 10/12/16               |
| PC-55                        | 440-161752-17                           | Water         | 10/12/16               |
| PC-18DUP                     | 440-161752-1DUP                         | Water         | 10/12/16               |
| ARP-4ADUP                    | 440-161752-11DUP                        | Water         | 10/12/16               |
| PC-99R2/R3                   | 440-162515-1/N021299-001                | Water         | 10/18/16               |
| PC-115R                      | 440-162515-2/N021299-002                | Water         | 10/18/16               |
| PC-116R                      | 440-162515-3/N021299-003                | Water         | 10/18/16               |
| PC-117                       | 440-162515-4/N021299-004                | Water         | 10/18/16               |
| PC-118                       | 440-162515-5/N021299-005                | Water         | 10/18/16               |
| PC-119                       | 440-162515-6/N021299-006                | Water         | 10/18/16               |
| PC-120                       | 440-162515-7/N021299-007                | Water         | 10/18/16               |
| PC-121                       | 440-162515-8/N021299-008                | Water         | 10/18/16               |
| PC-133                       | 440-162515-9/N021299-009                | Water         | 10/18/16               |
| PC-99R2/R3                   | 440-162514-1                            | Water         | 10/18/16               |
| PC-115R                      | 440-162514-2                            | Water         | 10/18/16               |
| PC-116R                      | 440-162514-3                            | Water         | 10/18/16               |
| PC-117                       | 440-162514-4                            | Water         | 10/18/16               |
| PC-118                       | 440-162514-5                            | Water         | 10/18/16               |
| PC-119                       | 440-162514-6                            | Water         | 10/18/16               |
| PC-120                       | 440-162514-7                            | Water         | 10/18/16               |
| PC-121                       | 440-162514-8                            | Water         | 10/18/16               |
| PC-133                       | 440-162514-9                            | Water         | 10/18/16               |
| PC-99R2/R3DUP                | 440-162514-1DUP                         | Water         | 10/18/16               |
| PC-120MS                     | 440-162514-7MS                          | Water         | 10/18/16               |
| PC-120MSD                    | 440-162514-7MSD                         | Water         | 10/18/16               |
| ART-1A                       | 440-163451-1/N021393-001                | Water         | 10/26/16               |
| ART-2                        | 440-163451-2/N021393-002                | Water         | 10/26/16               |
| ART-3                        | 440-163451-3/N021393-003                | Water         | 10/26/16               |
| ART-4                        | 440-163451-4/N021393-004                | Water         | 10/26/16               |
| ART-6                        | 440-163451-5/N021393-005                | Water         | 10/26/16               |
| ART-7B                       | 440-163451-6/N021393-006                | Water         | 10/26/16               |
| ART-8                        | 440-163451-7/N021393-007                | Water         | 10/26/16               |
| ART-9                        | 440-163451-8/N021393-008                | Water         | 10/26/16               |

| <b>Sample Identification</b> | <b>Laboratory Sample Identification</b> | <b>Matrix</b> | <b>Collection Date</b> |
|------------------------------|---|---------------|------------------------|
| PC-150                       | 440-163451-9/N021393-009                | Water         | 10/26/16               |
| ART-1A                       | 440-163453-1                            | Water         | 10/26/16               |
| ART-2                        | 440-163453-2                            | Water         | 10/26/16               |
| ART-3                        | 440-163453-3                            | Water         | 10/26/16               |
| ART-4                        | 440-163453-4                            | Water         | 10/26/16               |
| ART-6                        | 440-163453-5                            | Water         | 10/26/16               |
| ART-7B                       | 440-163453-6                            | Water         | 10/26/16               |
| ART-8                        | 440-163453-7                            | Water         | 10/26/16               |
| ART-9                        | 440-163453-8                            | Water         | 10/26/16               |
| PC-150                       | 440-163453-9                            | Water         | 10/26/16               |
| ART-1ADUP                    | 440-163453-1DUP                         | Water         | 10/26/16               |
| I-V                          | 440-163816-1/N021226-001                | Water         | 10/11/16               |
| I-AR                         | 440-166056-1                            | Water         | 11/15/16               |
| I-AA                         | 440-166056-2                            | Water         | 11/15/16               |
| I-O                          | 440-166056-3                            | Water         | 11/15/16               |
| I-W                          | 440-166056-4                            | Water         | 11/15/16               |
| I-P                          | 440-166056-5                            | Water         | 11/15/16               |
| I-H                          | 440-166056-6                            | Water         | 11/15/16               |
| I-U                          | 440-166056-7                            | Water         | 11/15/16               |
| I-T                          | 440-166056-8                            | Water         | 11/15/16               |
| I-G                          | 440-166056-9                            | Water         | 11/15/16               |
| I-Q                          | 440-166056-10                           | Water         | 11/15/16               |
| I-ARDUP                      | 440-166056-1DUP                         | Water         | 11/15/16               |
| I-AAMS                       | 440-166056-2MS                          | Water         | 11/15/16               |
| I-AAMSD                      | 440-166056-2MSD                         | Water         | 11/15/16               |
| I-TMS                        | 440-166056-8MS                          | Water         | 11/15/16               |
| I-TMSD                       | 440-166056-8MSD                         | Water         | 11/15/16               |
| I-C                          | 440-166060-1                            | Water         | 11/15/16               |
| I-S                          | 440-166060-2                            | Water         | 11/15/16               |
| I-L                          | 440-166060-3                            | Water         | 11/15/16               |
| I-Y                          | 440-166060-4                            | Water         | 11/15/16               |
| I-R                          | 440-166060-5                            | Water         | 11/15/16               |
| I-B                          | 440-166060-6                            | Water         | 11/15/16               |
| I-E                          | 440-166060-7                            | Water         | 11/15/16               |
| I-X                          | 440-166060-8                            | Water         | 11/15/16               |
| I-D                          | 440-166060-9                            | Water         | 11/15/16               |
| I-M                          | 440-166060-10                           | Water         | 11/15/16               |
| I-F                          | 440-166060-11                           | Water         | 11/15/16               |
| I-N                          | 440-166060-12                           | Water         | 11/15/16               |
| I-CMS                        | 440-166060-1MS                          | Water         | 11/15/16               |
| I-CMSD                       | 440-166060-1MSD                         | Water         | 11/15/16               |
| I-SMS                        | 440-166060-2MS                          | Water         | 11/15/16               |
| I-SMSD                       | 440-166060-2MSD                         | Water         | 11/15/16               |
| I-DDUP                       | 440-166060-9DUP                         | Water         | 11/15/16               |

| <b>Sample Identification</b> | <b>Laboratory Sample Identification</b> | <b>Matrix</b> | <b>Collection Date</b> |
|------------------------------|---|---------------|------------------------|
| I-NMS                        | 440-166060-12MS                         | Water         | 11/15/16               |
| I-NMSD                       | 440-166060-12MSD                        | Water         | 11/15/16               |
| ART-1                        | 440-166063-1                            | Water         | 11/14/16               |
| ART-2                        | 440-166063-2                            | Water         | 11/14/16               |
| ART-3A                       | 440-166063-3                            | Water         | 11/14/16               |
| ART-4                        | 440-166063-4                            | Water         | 11/14/16               |
| ART-6                        | 440-166063-5                            | Water         | 11/14/16               |
| ART-7B                       | 440-166063-6                            | Water         | 11/14/16               |
| ART-8A                       | 440-166063-7                            | Water         | 11/14/16               |
| ART-9                        | 440-166063-8                            | Water         | 11/14/16               |
| PC-150                       | 440-166063-9                            | Water         | 11/14/16               |
| ART-1DUP                     | 440-166063-1DUP                         | Water         | 11/14/16               |
| PC-155B-20161114             | 440-166082-1                            | Water         | 11/14/16               |
| PC-86-20161114               | 440-166082-2                            | Water         | 11/14/16               |
| PC-156B-20161114             | 440-166082-3                            | Water         | 11/14/16               |
| PC-155A-20161114             | 440-166082-4                            | Water         | 11/14/16               |
| PC-156A-20161114             | 440-166082-5                            | Water         | 11/14/16               |
| PC-155B-20161114DUP          | 440-166082-1DUP                         | Water         | 11/14/16               |
| PC-60-20161114               | 440-166090-1                            | Water         | 11/14/16               |
| PC-59-20161114               | 440-166090-2                            | Water         | 11/14/16               |
| PC-56-20161114               | 440-166090-3                            | Water         | 11/14/16               |
| PC-62-20161114               | 440-166090-4                            | Water         | 11/14/16               |
| PC-97-20161114               | 440-166090-5                            | Water         | 11/14/16               |
| PC-94-20161114               | 440-166090-6                            | Water         | 11/14/16               |
| PC-94-20161114-FD4           | 440-166090-7                            | Water         | 11/14/16               |
| PC-157B-20161114             | 440-166090-8                            | Water         | 11/14/16               |
| PC-59-20161114DUP            | 440-166090-2DUP                         | Water         | 11/14/16               |
| PC-62-20161114MS             | 440-166090-4MS                          | Water         | 11/14/16               |
| PC-62-20161114MSD            | 440-166090-4MSD                         | Water         | 11/14/16               |
| PC-99R2/R3                   | 440-166103-1                            | Water         | 11/14/16               |
| PC-115R                      | 440-166103-2                            | Water         | 11/14/16               |
| PC-116R                      | 440-166103-3                            | Water         | 11/14/16               |
| PC-117                       | 440-166103-4                            | Water         | 11/14/16               |
| PC-118                       | 440-166103-5                            | Water         | 11/14/16               |
| PC-119                       | 440-166103-6                            | Water         | 11/14/16               |
| PC-120                       | 440-166103-7                            | Water         | 11/14/16               |
| PC-121                       | 440-166103-8                            | Water         | 11/14/16               |
| PC-133                       | 440-166103-9                            | Water         | 11/14/16               |
| PC-99R2/R3DUP                | 440-166103-1DUP                         | Water         | 11/14/16               |
| PC-118MS                     | 440-166103-5MS                          | Water         | 11/14/16               |
| PC-118MSD                    | 440-166103-5MSD                         | Water         | 11/14/16               |
| PC-119MS                     | 440-166103-6MS                          | Water         | 11/14/16               |
| PC-119MSD                    | 440-166103-6MSD                         | Water         | 11/14/16               |
| PC-121MS                     | 440-166103-8MS                          | Water         | 11/14/16               |



| <b>Sample Identification</b> | <b>Laboratory Sample Identification</b> | <b>Matrix</b> | <b>Collection Date</b> |
|------------------------------|---|---------------|------------------------|
| PC-121MSD                    | 440-166103-8MSD                         | Water         | 11/14/16               |
| PC-98R-20161115              | 440-166109-1                            | Water         | 11/15/16               |
| PC-98R-20161115-FD6          | 440-166109-2                            | Water         | 11/15/16               |
| ARP-2A-20161115              | 440-166109-3                            | Water         | 11/15/16               |
| ARP-3A-20161115              | 440-166109-4                            | Water         | 11/15/16               |
| MW-K4-20161115               | 440-166109-5                            | Water         | 11/15/16               |
| ARP-4A-20161115              | 440-166109-6                            | Water         | 11/15/16               |
| PC-98R-20161115DUP           | 440-166109-1DUP                         | Water         | 11/15/16               |
| ARP-4A-20161115MS            | 440-166109-6MS                          | Water         | 11/15/16               |
| ARP-4A-20161115MSD           | 440-166109-6MSD                         | Water         | 11/15/16               |
| PC-53-20161115               | 440-166111-1                            | Water         | 11/15/16               |
| ARP-7-20161115               | 440-166111-2                            | Water         | 11/15/16               |
| ARP-6B-20161115              | 440-166111-3                            | Water         | 11/15/16               |
| ARP-6B-20161115-FD5          | 440-166111-4                            | Water         | 11/15/16               |
| PC-135A-20161115             | 440-166111-5                            | Water         | 11/15/16               |
| PC-135A-20161115RE           | 440-166111-5RE                          | Water         | 11/15/16               |
| PC-53-20161115DUP            | 440-166111-1DUP                         | Water         | 11/15/16               |
| PC-135A-20161115MS           | 440-166111-5MS                          | Water         | 11/15/16               |
| PC-135A-20161115MSD          | 440-166111-5MSD                         | Water         | 11/15/16               |
| PC-58-20161114               | 440-166112-1                            | Water         | 11/14/16               |
| PC-91-20161114               | 440-166112-2                            | Water         | 11/14/16               |
| PC-157A-20161114             | 440-166112-3                            | Water         | 11/14/16               |
| PC-157A-20161114-FB4         | 440-166112-4                            | Water         | 11/14/16               |
| PC-90-20161115               | 440-166117-1                            | Water         | 11/15/16               |
| ARP-1-20161115               | 440-166117-2                            | Water         | 11/15/16               |
| PC-18-20161115               | 440-166117-3                            | Water         | 11/15/16               |
| PC-103-20161115              | 440-166123-1                            | Water         | 11/15/16               |
| MW-K5-20161115               | 440-166123-2                            | Water         | 11/15/16               |
| ARP-5A-20161115              | 440-166123-3                            | Water         | 11/15/16               |
| PC-101R-20161115             | 440-166123-4                            | Water         | 11/15/16               |
| PC-103-20161115MS            | 440-166123-1MS                          | Water         | 11/15/16               |
| PC-103-20161115MSD           | 440-166123-1MSD                         | Water         | 11/15/16               |
| ARP-5A-20161115DUP           | 440-166123-3DUP                         | Water         | 11/15/16               |
| PC-55-20161115-EB5           | 440-166209-1                            | Water         | 11/15/16               |
| PC-136-20161115              | 440-166209-2                            | Water         | 11/15/16               |
| PC-55-20161115               | 440-166209-3                            | Water         | 11/15/16               |
| PC-136-20161115-FB5          | 440-166209-4                            | Water         | 11/15/16               |
| PC-134D-20161115-EB4         | 440-166209-5                            | Water         | 11/15/16               |
| PC-137D-20161115             | 440-166209-6                            | Water         | 11/15/16               |
| PC-134D-20161115             | 440-166209-7                            | Water         | 11/15/16               |
| PC-134D-20161115MS           | 440-166209-7MS                          | Water         | 11/15/16               |
| PC-134D-20161115MSD          | 440-166209-7MSD                         | Water         | 11/15/16               |
| I-AD                         | 440-166210-1                            | Water         | 11/16/16               |
| I-AC                         | 440-166210-2                            | Water         | 11/16/16               |

| <b>Sample Identification</b> | <b>Laboratory Sample Identification</b> | <b>Matrix</b> | <b>Collection Date</b> |
|------------------------------|---|---------------|------------------------|
| I-K                          | 440-166210-3                            | Water         | 11/16/16               |
| I-J                          | 440-166210-4                            | Water         | 11/16/16               |
| I-Z                          | 440-166210-5                            | Water         | 11/16/16               |
| I-I                          | 440-166210-6                            | Water         | 11/16/16               |
| I-V                          | 440-166210-7                            | Water         | 11/16/16               |
| I-ADDUP                      | 440-166210-1DUP                         | Water         | 11/16/16               |
| I-VMS                        | 440-166210-7MS                          | Water         | 11/16/16               |
| I-VMSD                       | 440-166210-7MSD                         | Water         | 11/16/16               |
| PC-144-20161116              | 440-166337-1                            | Water         | 11/16/16               |
| PC-144-20161116-FB6          | 440-166337-2                            | Water         | 11/16/16               |
| PC-124-20161116              | 440-166337-3                            | Water         | 11/16/16               |
| PC-126-20161116              | 440-166337-4                            | Water         | 11/16/16               |
| PC-130-20161116              | 440-166337-5                            | Water         | 11/16/16               |
| PC-126-20161116MS            | 440-166337-4MS                          | Water         | 11/16/16               |
| PC-126-20161116MSD           | 440-166337-4MSD                         | Water         | 11/16/16               |
| PC-126-20161116DUP           | 440-166337-4DUP                         | Water         | 11/16/16               |
| PC-123-20161116              | 440-166339-1                            | Water         | 11/16/16               |
| PC-127-20161116              | 440-166339-2                            | Water         | 11/16/16               |
| PC-131-20161116              | 440-166339-3                            | Water         | 11/16/16               |
| PC-151-20161116              | 440-166339-4                            | Water         | 11/16/16               |
| PC-131-20161116MS            | 440-166339-3MS                          | Water         | 11/16/16               |
| PC-131-20161116MSD           | 440-166339-3MSD                         | Water         | 11/16/16               |
| PC-151-20161116MS            | 440-166339-4MS                          | Water         | 11/16/16               |
| PC-151-20161116MSD           | 440-166339-4MSD                         | Water         | 11/16/16               |
| PC-149-20161116              | 440-166340-1                            | Water         | 11/16/16               |
| PC-149-20161116-EB6          | 440-166340-2                            | Water         | 11/16/16               |
| PC-160-20161116              | 440-166340-3                            | Water         | 11/16/16               |
| PC-158-20161116              | 440-166340-4                            | Water         | 11/16/16               |
| PC-154-20161116              | 440-166340-5                            | Water         | 11/16/16               |
| PC-153-20161116              | 440-166340-6                            | Water         | 11/16/16               |
| PC-149-20161116DUP           | 440-166340-1DUP                         | Water         | 11/16/16               |
| PC-160-20161116MS            | 440-166340-3MS                          | Water         | 11/16/16               |
| PC-160-20161116MSD           | 440-166340-3MSD                         | Water         | 11/16/16               |
| PC-148-20161116              | 440-166342-1                            | Water         | 11/16/16               |
| PC-148-20161116-FD7          | 440-166342-2                            | Water         | 11/16/16               |
| PC-159-20161116              | 440-166342-3                            | Water         | 11/16/16               |
| PC-125-20161116              | 440-166342-4                            | Water         | 11/16/16               |
| PC-128-20161116              | 440-166342-5                            | Water         | 11/16/16               |
| PC-132-20161116              | 440-166342-6                            | Water         | 11/16/16               |
| M-66-20161117                | 440-166420-1                            | Water         | 11/17/16               |
| M-65-20161117                | 440-166420-2                            | Water         | 11/17/16               |
| M-64-20161117                | 440-166420-3                            | Water         | 11/17/16               |
| M-25-20161117                | 440-166420-4                            | Water         | 11/17/16               |
| M-22A-20161117-FB7           | 440-166420-5                            | Water         | 11/17/16               |

| <b>Sample Identification</b> | <b>Laboratory Sample Identification</b> | <b>Matrix</b> | <b>Collection Date</b> |
|------------------------------|---|---------------|------------------------|
| M-22A-20161117               | 440-166420-6                            | Water         | 11/17/16               |
| PC-54-20161117               | 440-166423-1                            | Water         | 11/17/16               |
| PC-129-20161117              | 440-166423-2                            | Water         | 11/17/16               |
| M-192-20161117               | 440-166423-3                            | Water         | 11/17/16               |
| M-192-20161117-FD8           | 440-166423-4                            | Water         | 11/17/16               |
| PC-71-20161117               | 440-166423-5                            | Water         | 11/17/16               |
| PC-72-20161117               | 440-166423-6                            | Water         | 11/17/16               |
| PC-152-20161117              | 440-166423-7                            | Water         | 11/17/16               |
| M-189-20161117               | 440-166423-8                            | Water         | 11/17/16               |
| M-189-20161117MS             | 440-166423-8MS                          | Water         | 11/17/16               |
| M-189-20161117MSD            | 440-166423-8MSD                         | Water         | 11/17/16               |
| M-189-20161117DUP            | 440-166423-8DUP                         | Water         | 11/17/16               |
| M-14A-20161117               | 440-166430-1                            | Water         | 11/17/16               |
| M-38-20161117                | 440-166430-2                            | Water         | 11/17/16               |
| M-38-20161117-EB8            | 440-166430-3                            | Water         | 11/17/16               |
| M-14A-20161117MS             | 440-166430-1MS                          | Water         | 11/17/16               |
| M-14A-20161117MSD            | 440-166430-1MSD                         | Water         | 11/17/16               |
| M-14A-20161117DUP            | 440-166430-1DUP                         | Water         | 11/17/16               |
| PC-151-20161116-EB7          | 440-166433-1                            | Water         | 11/16/16               |
| PC-122-20161116              | 440-166433-2                            | Water         | 11/16/16               |
| PC-122-20161116MS            | 440-166433-2MS                          | Water         | 11/16/16               |
| PC-122-20161116MSD           | 440-166433-2MSD                         | Water         | 11/16/16               |
| ART-1                        | 440-166437-1                            | Water         | 11/17/16               |
| ART-2                        | 440-166437-2                            | Water         | 11/17/16               |
| ART-3A                       | 440-166437-3                            | Water         | 11/17/16               |
| ART-4                        | 440-166437-4                            | Water         | 11/17/16               |
| ART-6                        | 440-166437-5                            | Water         | 11/17/16               |
| ART-7B                       | 440-166437-6                            | Water         | 11/17/16               |
| ART-8A                       | 440-166437-7                            | Water         | 11/17/16               |
| ART-9                        | 440-166437-8                            | Water         | 11/17/16               |
| PC-150                       | 440-166437-9                            | Water         | 11/17/16               |
| PC-99R2/R3                   | 440-166437-10                           | Water         | 11/17/16               |
| PC-115R                      | 440-166437-11                           | Water         | 11/17/16               |
| PC-116R                      | 440-166437-12                           | Water         | 11/17/16               |
| PC-117                       | 440-166437-13                           | Water         | 11/17/16               |
| PC-118                       | 440-166437-14                           | Water         | 11/17/16               |
| PC-119                       | 440-166437-15                           | Water         | 11/17/16               |
| PC-120                       | 440-166437-16                           | Water         | 11/17/16               |
| PC-121                       | 440-166437-17                           | Water         | 11/17/16               |
| PC-133                       | 440-166437-19                           | Water         | 11/17/16               |
| ART-9MS                      | 440-166437-8MS                          | Water         | 11/17/16               |
| ART-9MSD                     | 440-166437-8MSD                         | Water         | 11/17/16               |
| I-AB                         | 440-166442-1                            | Water         | 11/17/16               |
| M-79-20161117                | 440-166552-1                            | Water         | 11/17/16               |

| <b>Sample Identification</b> | <b>Laboratory Sample Identification</b> | <b>Matrix</b> | <b>Collection Date</b> |
|------------------------------|---|---------------|------------------------|
| M-69-20161117                | 440-166552-2                            | Water         | 11/17/16               |
| M-193-20161117               | 440-166552-3                            | Water         | 11/17/16               |
| M-71-20161117                | 440-166552-4                            | Water         | 11/17/16               |
| M-57A-20161118               | 440-166600-1                            | Water         | 11/18/16               |
| M-72-20161118                | 440-166600-2                            | Water         | 11/18/16               |
| M-70-20161118                | 440-166600-3                            | Water         | 11/18/16               |
| M-161D-20161118              | 440-166600-4                            | Water         | 11/18/16               |
| M-161D-20161118MS            | 440-166600-4MS                          | Water         | 11/18/16               |
| M-161D-20161118MSD           | 440-166600-4MSD                         | Water         | 11/18/16               |
| M-80-20161118                | 440-166602-1                            | Water         | 11/18/16               |
| M-73-20161118                | 440-166602-2                            | Water         | 11/18/16               |
| M-67-20161118                | 440-166602-3                            | Water         | 11/18/16               |
| M-80-20161118DUP             | 440-166602-1DUP                         | Water         | 11/18/16               |
| M-67-20161118MS              | 440-166602-3MS                          | Water         | 11/18/16               |
| M-67-20161118MSD             | 440-166602-3MSD                         | Water         | 11/18/16               |
| M-81A-20161118               | 440-166603-1                            | Water         | 11/18/16               |
| M-74-20161118                | 440-166603-2                            | Water         | 11/18/16               |
| M-68-20161118                | 440-166603-3                            | Water         | 11/18/16               |
| M-19-20161118                | 440-166603-4                            | Water         | 11/18/16               |
| M-35-20161118                | 440-166603-5                            | Water         | 11/18/16               |
| PC-37-20161121               | 440-166790-1                            | Water         | 11/21/16               |
| PC-73-20161121               | 440-166790-2                            | Water         | 11/21/16               |
| M-135-20161121               | 440-166790-3                            | Water         | 11/21/16               |
| M-135-20161121-FB9           | 440-166790-4                            | Water         | 11/21/16               |
| M-11-20161121                | 440-166790-5                            | Water         | 11/21/16               |
| M-11-20161121-FD9            | 440-166790-6                            | Water         | 11/21/16               |
| M-11-20161121-FD9MS          | 440-166790-6MS                          | Water         | 11/21/16               |
| M-11-20161121-FD9MSD         | 440-166790-6MSD                         | Water         | 11/21/16               |
| M-37-20161122                | 440-166980-1                            | Water         | 11/22/16               |
| M-162D-20161122              | 440-166980-2                            | Water         | 11/22/16               |
| M-48A-20161122               | 440-166980-3                            | Water         | 11/22/16               |
| M-23-20161122                | 440-166980-4                            | Water         | 11/22/16               |
| M-23-20161122-EB9            | 440-166980-5                            | Water         | 11/22/16               |
| M-37-20161122MS              | 440-166980-1MS                          | Water         | 11/22/16               |
| M-37-20161122MSD             | 440-166980-1MSD                         | Water         | 11/22/16               |
| M-23-20161122MS              | 440-166980-4MS                          | Water         | 11/22/16               |
| M-23-20161122MSD             | 440-166980-4MSD                         | Water         | 11/22/16               |
| M-83-20161121                | 440-166988-1                            | Water         | 11/21/16               |
| M-10-20161122                | 440-166988-2                            | Water         | 11/22/16               |
| M-10-20161122-FB8            | 440-166988-3                            | Water         | 11/22/16               |
| M-190-20161122               | 440-166988-4                            | Water         | 11/22/16               |
| M-52-20161122                | 440-166988-5                            | Water         | 11/22/16               |
| M-186D-20161122              | 440-166988-6                            | Water         | 11/22/16               |
| M-12A-20161122               | 440-166988-7                            | Water         | 11/22/16               |

| <b>Sample Identification</b> | <b>Laboratory Sample Identification</b> | <b>Matrix</b> | <b>Collection Date</b> |
|------------------------------|---|---------------|------------------------|
| M-10-20161122MS              | 440-166988-2MS                          | Water         | 11/22/16               |
| M-10-20161122MSD             | 440-166988-2MSD                         | Water         | 11/22/16               |
| M-186D-20161122MS            | 440-166988-6MS                          | Water         | 11/22/16               |
| M-186D-20161122MSD           | 440-166988-6MSD                         | Water         | 11/22/16               |
| M-191-20161122               | 440-167033-1                            | Water         | 11/22/16               |
| I-AR                         | 440-167238-1/N021682-001                | Water         | 11/15/16               |
| I-AA                         | 440-167238-2/N021682-002                | Water         | 11/15/16               |
| I-O                          | 440-167238-3/N021682-003                | Water         | 11/15/16               |
| I-W                          | 440-167238-4/N021682-004                | Water         | 11/15/16               |
| I-P                          | 440-167238-5/N021682-005                | Water         | 11/15/16               |
| I-H                          | 440-167238-6/N021682-006                | Water         | 11/15/16               |
| I-U                          | 440-167238-7/N021682-007                | Water         | 11/15/16               |
| I-T                          | 440-167238-8/N021682-008                | Water         | 11/15/16               |
| I-G                          | 440-167238-9/N021682-009                | Water         | 11/15/16               |
| I-Q                          | 440-167238-10/N021682-010               | Water         | 11/15/16               |
| I-ARMS                       | 440-167238-1/N021682-001MS              | Water         | 11/15/16               |
| I-AADUP                      | 440-167238-2/N021682-002DUP             | Water         | 11/15/16               |
| I-OMS                        | 440-167238-3/N021682-003MS              | Water         | 11/15/16               |
| I-OMSD                       | 440-167238-3/N021682-003MSD             | Water         | 11/15/16               |
| I-C                          | 440-167500-1/N021701-001                | Water         | 11/15/16               |
| I-S                          | 440-167500-2/N021701-002                | Water         | 11/15/16               |
| I-L                          | 440-167500-3/N021701-003                | Water         | 11/15/16               |
| I-Y                          | 440-167500-4/N021701-004                | Water         | 11/15/16               |
| I-R                          | 440-167500-5/N021701-005                | Water         | 11/15/16               |
| I-B                          | 440-167500-6/N021701-006                | Water         | 11/15/16               |
| I-E                          | 440-167500-7/N021701-007                | Water         | 11/15/16               |
| I-X                          | 440-167500-8/N021701-008                | Water         | 11/15/16               |
| I-D                          | 440-167500-9/N021701-009                | Water         | 11/15/16               |
| I-M                          | 440-167500-10/N021701-010               | Water         | 11/15/16               |
| I-F                          | 440-167500-11/N021701-011               | Water         | 11/15/16               |
| I-N                          | 440-167500-12/N021701-012               | Water         | 11/15/16               |
| I-EMS                        | 440-167500-7/N021701-007MS              | Water         | 11/15/16               |
| I-DDUP                       | 440-167500-9/N021701-009DUP             | Water         | 11/15/16               |
| I-MMS                        | 440-167500-10/N021701-010MS             | Water         | 11/15/16               |
| I-MMSD                       | 440-167500-10/N021701-010MSD            | Water         | 11/15/16               |
| PC-99R2/R3                   | 440-167564-1/N021725-001                | Water         | 11/17/16               |
| PC-115R                      | 440-167564-2/N021725-002                | Water         | 11/17/16               |
| PC-116R                      | 440-167564-3/N021725-003                | Water         | 11/17/16               |
| PC-117                       | 440-167564-4/N021725-004                | Water         | 11/17/16               |
| PC-118                       | 440-167564-5/N021725-005                | Water         | 11/17/16               |
| PC-119                       | 440-167564-6/N021725-006                | Water         | 11/17/16               |
| PC-120                       | 440-167564-7/N021725-007                | Water         | 11/17/16               |
| PC-121                       | 440-167564-8/N021725-008                | Water         | 11/17/16               |
| PC-133                       | 440-167564-9/N021725-009                | Water         | 11/17/16               |

| <b>Sample Identification</b> | <b>Laboratory Sample Identification</b> | <b>Matrix</b> | <b>Collection Date</b> |
|------------------------------|---|---------------|------------------------|
| ART-1                        | 440-167564-10/N021725-010               | Water         | 11/17/16               |
| ART-2                        | 440-167564-11/N021725-011               | Water         | 11/17/16               |
| ART-3A                       | 440-167564-12/N021725-012               | Water         | 11/17/16               |
| ART-4                        | 440-167564-13/N021725-013               | Water         | 11/17/16               |
| ART-6                        | 440-167564-14/N021725-014               | Water         | 11/17/16               |
| ART-7B                       | 440-167564-15/N021725-015               | Water         | 11/17/16               |
| ART-8A                       | 440-167564-16/N021725-016               | Water         | 11/17/16               |
| ART-9                        | 440-167564-17/N021725-017               | Water         | 11/17/16               |
| PC-150                       | 440-167564-18/N021725-018               | Water         | 11/17/16               |
| PC-116RDUP                   | 440-167564-3/N021725-003DUP             | Water         | 11/17/16               |
| PC-117MS                     | 440-167564-4/N021725-004MS              | Water         | 11/17/16               |
| ART-4MS                      | 440-167564-13/N021725-004MS             | Water         | 11/17/16               |
| ART-4MSD                     | 440-167564-13/N021725-013MSD            | Water         | 11/17/16               |
| ART-8ADUP                    | 440-167564-16/N021725-016DUP            | Water         | 11/17/16               |
| M-14A-20161117               | 440-167568-1/N021724-001                | Water         | 11/17/16               |
| M-38-20161117                | 440-167568-2/N021724-002                | Water         | 11/17/16               |
| M-38-20161117-EB8            | 440-167568-3/N021724-003                | Water         | 11/17/16               |
| M-38-20161117MS              | 440-167568-2/N021724-002MS              | Water         | 11/17/16               |
| M-38-20161117MSD             | 440-167568-2/N021724-002MSD             | Water         | 11/17/16               |
| M-31A-20161130               | 440-167631-1                            | Water         | 11/30/16               |
| I-AD                         | 440-167718-1/N021707-001                | Water         | 11/16/16               |
| I-AC                         | 440-167718-2/N021707-002                | Water         | 11/16/16               |
| I-K                          | 440-167718-3/N021707-003                | Water         | 11/16/16               |
| I-J                          | 440-167718-4/N021707-004                | Water         | 11/16/16               |
| I-Z                          | 440-167718-5/N021707-005                | Water         | 11/16/16               |
| I-I                          | 440-167718-6/N021707-006                | Water         | 11/16/16               |
| I-V                          | 440-167718-7/N021707-007                | Water         | 11/16/16               |
| I-AB                         | 440-168227-1/N021751-001                | Water         | 11/17/16               |
| I-ABMS                       | 440-168227-1/N021751-001MS              | Water         | 11/17/16               |
| I-ABMSD                      | 440-168227-1/N021751-001MSD             | Water         | 11/17/16               |
| I-ABDUP                      | 440-168227-1/N021751-001DUP             | Water         | 11/17/16               |
| PC-157B-20161206             | 440-168260-1                            | Water         | 12/06/16               |
| PC-91-20161206               | 440-168260-2                            | Water         | 12/06/16               |
| PC-56-20161206               | 440-168260-3                            | Water         | 12/06/16               |
| PC-59-20161206               | 440-168260-4                            | Water         | 12/06/16               |
| PC-59-20161206-EB7           | 440-168260-5                            | Water         | 12/06/16               |
| PC-59-20161206MS             | 440-168260-4MS                          | Water         | 12/06/16               |
| PC-59-20161206MSD            | 440-168260-4MSD                         | Water         | 12/06/16               |
| PC-157A-20161206             | 440-168261-1                            | Water         | 12/06/16               |
| PC-157A-20161206-FB4         | 440-168261-2                            | Water         | 12/06/16               |
| PC-97-20161206               | 440-168261-3                            | Water         | 12/06/16               |
| PC-94-20161206               | 440-168261-4                            | Water         | 12/06/16               |
| PC-94-20161206-FD4           | 440-168261-5                            | Water         | 12/06/16               |
| PC-62-20161206               | 440-168261-6                            | Water         | 12/06/16               |

| Sample Identification | Laboratory Sample Identification | Matrix | Collection Date |
|-----------------------|----------------------------------|--------|-----------------|
| PC-58-20161206        | 440-168261-7                     | Water  | 12/06/16        |
| PC-62-20161206        | 440-168261-8                     | Water  | 12/06/16        |
| PC-122-20161206       | 440-168261-9                     | Water  | 12/06/16        |
| PC-62-20161206MS      | 440-168261-8MS                   | Water  | 12/06/16        |
| PC-62-20161206MSD     | 440-168261-8MSD                  | Water  | 12/06/16        |
| M-80-20161118         | 440-168264-1/N021752-001         | Water  | 11/18/16        |
| M-83-20161207         | 440-168537-1                     | Water  | 12/07/16        |
| M-11-20161121         | 440-169256-1/N021841-001         | Water  | 11/21/16        |
| M-11-20161121-FD9     | 440-169256-2/N021841-002         | Water  | 11/21/16        |
| M-11-20161121DUP      | 440-169256-1/N021841-001DUP      | Water  | 11/21/16        |
| M-10-20161122**       | 440-169258-1/N021869-001**       | Water  | 11/22/16        |
| M-10-20161122-FB8**   | 440-169258-2/N021869-001**       | Water  | 11/22/16        |
| M-12A-20161122**      | 440-169258-3/N021869-001**       | Water  | 11/22/16        |
| M-37-20161122**       | 440-169258-4/N021869-001**       | Water  | 11/22/16        |
| M-10-20161122MS       | 440-169258-1/N021869-001MS       | Water  | 11/22/16        |
| M-12A-20161122MS      | 440-169258-3/N021869-001MS       | Water  | 11/22/16        |
| M-12A-20161122MSD     | 440-169258-3/N021869-001MSD      | Water  | 11/22/16        |
| M-37-20161122DUP      | 440-169258-4/N021869-001DUP      | Water  | 11/22/16        |
| ART-1-121516**        | 440-169582-1**                   | Water  | 12/15/16        |
| ART-2-121516**        | 440-169582-2**                   | Water  | 12/15/16        |
| ART-3-121516**        | 440-169582-3**                   | Water  | 12/15/16        |
| ART-4-121516**        | 440-169582-4**                   | Water  | 12/15/16        |
| ART-6-121516**        | 440-169582-5**                   | Water  | 12/15/16        |
| ART-7A-121516**       | 440-169582-6**                   | Water  | 12/15/16        |
| ART-8A-121516**       | 440-169582-7**                   | Water  | 12/15/16        |
| ART-9-121516**        | 440-169582-8**                   | Water  | 12/15/16        |
| PC-150-121516**       | 440-169582-9**                   | Water  | 12/15/16        |
| ART-1-121516-FB**     | 440-169582-10**                  | Water  | 12/15/16        |
| ART-9-121516-FD**     | 440-169582-11**                  | Water  | 12/15/16        |
| PC-117-121516**       | 440-169582-12**                  | Water  | 12/15/16        |
| PC-118-121516**       | 440-169582-13**                  | Water  | 12/15/16        |
| PC-119-121516**       | 440-169582-14**                  | Water  | 12/15/16        |
| PC-120-121516**       | 440-169582-15**                  | Water  | 12/15/16        |
| PC-121-121516**       | 440-169582-16**                  | Water  | 12/15/16        |
| ART-1-121516DUP       | 440-169582-1DUP                  | Water  | 12/15/16        |
| ART-9-121516DUP       | 440-169582-11DUP                 | Water  | 12/15/16        |
| PC-118-121516MS       | 440-169582-13MS                  | Water  | 12/15/16        |
| PC-118-121516MSD      | 440-169582-13MSD                 | Water  | 12/15/16        |
| PC-121-121516MS       | 440-169582-16MS                  | Water  | 12/15/16        |
| PC-121-121516MSD      | 440-169582-16MSD                 | Water  | 12/15/16        |
| I-AC-122116           | 440-170796-1                     | Water  | 12/22/16        |
| I-AR-122016           | 440-170899-1/N022324-001         | Water  | 12/20/16        |
| I-AA-122016           | 440-170899-2/N022324-002         | Water  | 12/20/16        |
| I-B-122016            | 440-170899-3/N022324-003         | Water  | 12/20/16        |

| <b>Sample Identification</b> | <b>Laboratory Sample Identification</b> | <b>Matrix</b> | <b>Collection Date</b> |
|------------------------------|---|---------------|------------------------|
| I-R-122016                   | 440-170899-4/N022324-004                | Water         | 12/20/16               |
| I-Y-122016                   | 440-170899-5/N022324-005                | Water         | 12/20/16               |
| I-L-122016                   | 440-170899-6/N022324-006                | Water         | 12/20/16               |
| I-S-122016                   | 440-170899-7/N022324-007                | Water         | 12/20/16               |
| I-C-122016                   | 440-170899-8/N022324-008                | Water         | 12/20/16               |
| I-D-122016                   | 440-170899-9/N022324-009                | Water         | 12/20/16               |
| I-M-122016                   | 440-170899-10/N022324-010               | Water         | 12/20/16               |
| I-E-122016                   | 440-170899-11/N022324-011               | Water         | 12/20/16               |
| I-N-122016                   | 440-170899-12/N022324-012               | Water         | 12/20/16               |
| I-X-122016                   | 440-170899-13/N022324-013               | Water         | 12/20/16               |
| I-F-122016                   | 440-170899-14/N022324-014               | Water         | 12/20/16               |
| I-Q-122016                   | 440-170899-15/N022324-015               | Water         | 12/20/16               |
| I-G-122016                   | 440-170899-16/N022324-016               | Water         | 12/20/16               |
| I-T-122016                   | 440-170899-17/N022324-017               | Water         | 12/20/16               |
| I-U-122016                   | 440-170899-18/N022324-018               | Water         | 12/20/16               |
| I-H-122016                   | 440-170899-19/N022324-019               | Water         | 12/20/16               |
| I-P-122016                   | 440-170899-20/N022324-020               | Water         | 12/20/16               |
| I-O-122016                   | 440-170899-21/N022324-021               | Water         | 12/20/16               |
| I-X-122016-EB                | 440-170899-22/N022324-022               | Water         | 12/20/16               |
| I-AR-122016MS                | 440-170899-1/N022324-001MS              | Water         | 12/20/16               |
| I-AC-122216                  | 440-170907-1/N022351-001                | Water         | 12/22/16               |
| I-AB-122116                  | 440-170911-1/N02236-001                 | Water         | 12/21/16               |
| I-W-122116                   | 440-170911-2/N02236-002                 | Water         | 12/21/16               |
| I-V-122116                   | 440-170911-3/N02236-003                 | Water         | 12/21/16               |
| I-I-122116                   | 440-170911-4/N02236-004                 | Water         | 12/21/16               |
| I-Z-122116                   | 440-170911-5/N02236-005                 | Water         | 12/21/16               |
| I-J-122116                   | 440-170911-6/N02236-006                 | Water         | 12/21/16               |
| I-K-122116                   | 440-170911-7/N02236-007                 | Water         | 12/21/16               |
| I-AD-122116                  | 440-170911-8/N02236-008                 | Water         | 12/21/16               |
| I-W-122116-FD                | 440-170911-9/N02236-009                 | Water         | 12/21/16               |
| I-AB-122116MS                | 440-170911-1/N02236-001MS               | Water         | 12/21/16               |
| I-W-122116DUP                | 440-170911-2/N02236-002DUP              | Water         | 12/21/16               |
| I-V-122116MS                 | 440-170911-3/N02236-003MS               | Water         | 12/21/16               |
| I-V-122116MSD                | 440-170911-3/N02236-003MSD              | Water         | 12/21/16               |
| M-10-20161227**              | 440-171145-1**                          | Water         | 12/27/16               |
| M-10-20161227MS              | 440-171145-1MS                          | Water         | 12/27/16               |
| M-10-20161227MSD             | 440-171145-1MSD                         | Water         | 12/27/16               |
| PC-99R2/R3-121916            | 440-170151-1                            | Water         | 12/19/16               |
| PC-115R-121916               | 440-170151-2                            | Water         | 12/19/16               |
| PC-116R-121916               | 440-170151-3                            | Water         | 12/19/16               |
| PC-133-121916                | 440-170151-4                            | Water         | 12/19/16               |
| PC-116R-121916-FD            | 440-170151-5                            | Water         | 12/19/16               |
| PC-133-121916-EB             | 440-170151-6                            | Water         | 12/19/16               |
| PC-99R2/R3-121916DUP         | 440-170151-1DUP                         | Water         | 12/19/16               |



| <b>Sample Identification</b> | <b>Laboratory Sample Identification</b> | <b>Matrix</b> | <b>Collection Date</b> |
|------------------------------|---|---------------|------------------------|
| PC-133-121916MS              | 440-170151-4MS                          | Water         | 12/19/16               |
| PC-133-121916MSD             | 440-170151-4MSD                         | Water         | 12/19/16               |
| PC-116R-121916-FDMS          | 440-170151-5MS                          | Water         | 12/19/16               |
| PC-116R-121916-FDMSD         | 440-170151-5MSD                         | Water         | 12/19/16               |
| ART-4-121516                 | 440-170150-1/N022233-001                | Water         | 12/15/16               |
| ART-3-121516                 | 440-170150-2/N022233-001                | Water         | 12/15/16               |
| ART-8A-121516                | 440-170150-3/N022233-002                | Water         | 12/15/16               |
| ART-2-121516                 | 440-170150-4/N022233-003                | Water         | 12/15/16               |
| ART-1-121516                 | 440-170150-5/N022233-004                | Water         | 12/15/16               |
| ART-1-121516-FB              | 440-170150-6/N022233-005                | Water         | 12/15/16               |
| PC-150-121516                | 440-170150-7/N022233-006                | Water         | 12/15/16               |
| ART-7A-121516                | 440-170150-8/N022233-007                | Water         | 12/15/16               |
| ART-9-121516                 | 440-170150-9/N022233-008                | Water         | 12/15/16               |
| ART-9-121516-FD              | 440-170150-10/N022233-009               | Water         | 12/15/16               |
| PC-118-121516                | 440-170150-11/N022233-010               | Water         | 12/15/16               |
| PC-119-121516                | 440-170150-12/N022233-012               | Water         | 12/15/16               |
| PC-120-121516                | 440-170150-13/N022233-013               | Water         | 12/15/16               |
| PC-121-121516                | 440-170150-14/N022233-014               | Water         | 12/15/16               |
| PC-117-121516                | 440-170150-15/N022233-015               | Water         | 12/15/16               |
| ART-6-121516                 | 440-170150-16/N022233-016               | Water         | 12/15/16               |
| PC-99R2/R3-121916            | 440-170153-1/N022300-001                | Water         | 12/19/16               |
| PC-115R-121916               | 440-170153-2/N022300-002                | Water         | 12/19/16               |
| PC-116R-121916               | 440-170153-3/N022300-003                | Water         | 12/19/16               |
| PC-133-121916                | 440-170153-4/N022300-004                | Water         | 12/19/16               |
| PC-116R-121916-FD            | 440-170153-5/N022300-005                | Water         | 12/19/16               |
| PC-133-121916-EB             | 440-170153-6/N022300-006                | Water         | 12/19/16               |
| I-AR-122016**                | 440-170398-1**                          | Water         | 12/20/16               |
| I-AA-122016**                | 440-170398-2**                          | Water         | 12/20/16               |
| I-B-122016**                 | 440-170398-3**                          | Water         | 12/20/16               |
| I-R-122016**                 | 440-170398-4**                          | Water         | 12/20/16               |
| I-Y-122016**                 | 440-170398-5**                          | Water         | 12/20/16               |
| I-L-122016**                 | 440-170398-6**                          | Water         | 12/20/16               |
| I-S-122016**                 | 440-170398-7**                          | Water         | 12/20/16               |
| I-C-122016**                 | 440-170398-8**                          | Water         | 12/20/16               |
| I-D-122016**                 | 440-170398-9**                          | Water         | 12/20/16               |
| I-M-122016**                 | 440-170398-10**                         | Water         | 12/20/16               |
| I-E-122016**                 | 440-170398-11**                         | Water         | 12/20/16               |
| I-N-122016**                 | 440-170398-12**                         | Water         | 12/20/16               |
| I-X-122016**                 | 440-170398-13**                         | Water         | 12/20/16               |
| I-F-122016**                 | 440-170398-14**                         | Water         | 12/20/16               |
| I-Q-122016**                 | 440-170398-15**                         | Water         | 12/20/16               |
| I-G-122016**                 | 440-170398-16**                         | Water         | 12/20/16               |
| I-T-122016**                 | 440-170398-17**                         | Water         | 12/20/16               |
| I-U-122016**                 | 440-170398-18**                         | Water         | 12/20/16               |

| Sample Identification | Laboratory Sample Identification | Matrix | Collection Date |
|-----------------------|----------------------------------|--------|-----------------|
| I-H-122016**          | 440-170398-19**                  | Water  | 12/20/16        |
| I-P-122016**          | 440-170398-20**                  | Water  | 12/20/16        |
| I-O-122016**          | 440-170398-21**                  | Water  | 12/20/16        |
| I-X-122016-EB**       | 440-170398-22**                  | Water  | 12/20/16        |
| I-AR-122016MS         | 440-170398-1MS                   | Water  | 12/20/16        |
| I-AR-122016MSD        | 440-170398-1MSD                  | Water  | 12/20/16        |
| I-AR-122016DUP        | 440-170398-1DUP                  | Water  | 12/20/16        |
| I-C-122016MS          | 440-170398-8MS                   | Water  | 12/20/16        |
| I-C-122016MSD         | 440-170398-8MSD                  | Water  | 12/20/16        |
| I-E-122016DUP         | 440-170398-11DUP                 | Water  | 12/20/16        |
| I-G-122016MS          | 440-170398-16MS                  | Water  | 12/20/16        |
| I-G-122016MSD         | 440-170398-16MSD                 | Water  | 12/20/16        |
| I-O-122016MS          | 440-170398-21MS                  | Water  | 12/20/16        |
| I-O-122016MSD         | 440-170398-21MSD                 | Water  | 12/20/16        |
| I-AB-122116           | 440-170572-1                     | Water  | 12/21/16        |
| I-W-122116            | 440-170572-2                     | Water  | 12/21/16        |
| I-V-122116            | 440-170572-3                     | Water  | 12/21/16        |
| I-I-122116            | 440-170572-4                     | Water  | 12/21/16        |
| I-Z-122116            | 440-170572-5                     | Water  | 12/21/16        |
| I-J-122116            | 440-170572-6                     | Water  | 12/21/16        |
| I-K-122116            | 440-170572-7                     | Water  | 12/21/16        |
| I-AD-122116           | 440-170572-8                     | Water  | 12/21/16        |
| I-W-122116-FD         | 440-170572-9                     | Water  | 12/21/16        |
| I-AB-122116MS         | 440-170572-1MS                   | Water  | 12/21/16        |
| I-AB-122116MSD        | 440-170572-1MSD                  | Water  | 12/21/16        |
| I-I-122116DUP         | 440-170572-4DUP                  | Water  | 12/21/16        |
| I-AD-122116MS         | 440-170572-8MS                   | Water  | 12/21/16        |
| I-AD-122116MSD        | 440-170572-8MSD                  | Water  | 12/21/16        |
| I-W-122116-FDMS       | 440-170572-9MS                   | Water  | 12/21/16        |
| I-W-122116-FDMSD      | 440-170572-9MSD                  | Water  | 12/21/16        |

\*\*Indicates sample underwent Stage 4 validation

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Quality Assurance Project Plan Revision 1, Nevada Environmental Response Trust Site, Henderson, Nevada (July 2014) and a modified outline of the USEPA National Functional Guidelines (NFG) for Inorganic Superfund Data Review (August 2014). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following methods:

Hexavalent Chromium by Environmental Protection Agency (EPA) Method 218.6

Perchlorate by EPA Method 314.0

pH by Field Test

Total Dissolved Solids by Standard Method 2540C

Chlorate by EPA Method 300.1B

Total Inorganic Nitrogen by Calculation

Chloride, Nitrate as Nitrogen, Nitrite as Nitrogen, and Sulfate by EPA Method 300.0

Nitrate/Nitrite as Nitrogen by Calculation

Ammonia as Nitrogen by EPA 350.1

All sample results were subjected to Stage 2B data validation, which comprises an evaluation of quality control (QC) summary results. Samples appended with a double asterisk on the cover page were subjected to Stage 4 data validation, which is comprised of the QC summary forms as well as the raw data, to confirm sample quantitation and identification.

The following are definitions of the data qualifiers utilized during data validation:

- J+ (Estimated, High Bias): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated, displaying high bias, due to non-conformances discovered during data validation.
- J- (Estimated, Low Bias): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated, displaying low bias, due to non-conformances discovered during data validation.
- J (Estimated, Bias Indeterminate): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated due to non-conformances discovered during data validation. Bias is indeterminate.
- U (Non-detected): The compound or analyte was analyzed for and positively identified by the laboratory; however the compound or analyte should be considered non-detect at the reported concentration due to the presence of contaminants detected in the associated blank(s).
- UJ (Non-detected estimated): The compound or analyte was reported as not detected by the laboratory; however the reported quantitation/detection limit is estimated due to non-conformances discovered during data validation.
- R (Rejected): The sample results were rejected due to gross non-conformances discovered during data validation. Data qualified as rejected is not usable.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.
- DNR (Do Not Report): A more appropriate result is reported from another analysis or dilution.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## Qualification Codes and Definitions

|    |   |
|----|---|
| a  | Qualified due to low abundance (radiochemical activity)   |
| be | Qualified due to equipment blank contamination  |
| bf | Qualified due to field blank contamination  |
| bl | Qualified due to lab blank contamination  |
| bt | Qualified due to trip blank contamination   |
| bp | Qualified due to pump blank contamination (wells without dedicated pumps, when contamination is detected in the pump blank) |
| br | Qualified due to filter blank contamination (aqueous Hexavalent Chromium and Dissolved sample fractions)                    |
| c  | Qualified due to calibration problems   |
| cp | Qualified due to insufficient ingrowth (Radiochemical only)   |
| dc | Dual column confirmation %D exceeded  |
| e  | Concentration exceeded the calibration range  |
| fd | Qualified due to field duplicate imprecision  |
| h  | Qualified due to holding time exceedance  |
| i  | Qualified due to internal standard areas  |
| k  | Qualified as Estimated Maximum Possible Concentrations (dioxins and PCB congeners)  |
| l  | Qualified due to LCS recoveries   |
| ld | Qualified due to lab duplicate imprecision (matrix duplicate, MSD, LCSD)  |
| m  | Qualified due to matrix spike recoveries  |
| nb | Qualified due to negative lab blank contamination (nondetect results only)  |
| nd | Qualified due to non-detected target analyte  |
| o  | Other   |
| p  | Qualified as a false positive due to contamination during shipping  |
| pH | Sample preservation not within acceptance range   |
| q  | Qualified due to quantitation problems  |
| s  | Qualified due to surrogate recoveries   |
| sd | Serial dilution did not meet control criteria   |
| sp | Detected value reported >SQL <PQL   |
| st | Sample receipt temperature exceeded   |
| t  | Qualified due to elevated helium tracer concentrations  |
| vh | Volatile headspace detected in aqueous sample containers submitted for VOC analysis   |
| x  | Qualified due to low % solids   |
| z  | Qualified due to ICS results  |

## I. Sample Receipt and Technical Holding Times

All samples were received in good condition.

All technical holding time requirements were met with the following exceptions:

| SDG          | Sample               | Analyte      | Total Time From Sample Collection Until Analysis | Required Holding Time From Sample Collection Until Analysis | Flag                 | A or P |
|--------------|----------------------|--------------|--|---|----------------------|--------|
| 440-161336-1 | I-AA                 | Perchlorate  | 58 days  | 28 days   | J- (all detects)     | A      |
| 440-166988-1 | M-83-20161121        | Nitrate as N | 52.18 hours                                      | 48 hours  | J- (all detects)     | A      |
| 440-166090-1 | PC-60-20161114       | Nitrate as N | 55.05 hours                                      | 48 hours  | J- (all detects)     | A      |
| 440-166090-1 | PC-59-20161114       | Nitrate as N | 53.03 hours                                      | 48 hours  | J- (all detects)     | A      |
| 440-166090-1 | PC-56-20161114       | Nitrate as N | 55.95 hours                                      | 48 hours  | J- (all detects)     | A      |
| 440-166090-1 | PC-62-20161114       | Nitrate as N | 55.30 hours                                      | 48 hours  | UJ (all non-detects) | A      |
| 440-166090-1 | PC-97-20161114       | Nitrate as N | 55.63 hours                                      | 48 hours  | UJ (all non-detects) | A      |
| 440-166090-1 | PC-94-20161114       | Nitrate as N | 56.78 hours                                      | 48 hours  | J- (all detects)     | A      |
| 440-166090-1 | PC-94-20161114-FD4   | Nitrate as N | 57.15 hours                                      | 48 hours  | J- (all detects)     | A      |
| 440-166090-1 | PC-157B-20161114     | Nitrate as N | 55.55 hours                                      | 48 hours  | J- (all detects)     | A      |
| 440-166112-1 | PC-58-20161114       | Nitrate as N | 65.17 hours                                      | 48 hours  | J- (all detects)     | A      |
| 440-166112-1 | PC-91-20161114       | Nitrate as N | 63.25 hours                                      | 48 hours  | J- (all detects)     | A      |
| 440-166112-1 | PC-157A-20161114     | Nitrate as N | 60.97 hours                                      | 48 hours  | J- (all detects)     | A      |
| 440-166112-1 | PC-157A-20161114-FB4 | Nitrate as N | 82.95 hours                                      | 48 hours  | UJ (all non-detects) | A      |
| 440-166433-1 | PC-151-20161116-EB   | Nitrate as N | 50.20 hours                                      | 48 hours  | UJ (all non-detects) | A      |
| 440-166433-1 | PC-122-20161116      | Nitrate as N | 51.17 hours                                      | 48 hours  | J- (all detects)     | A      |

## II. Initial Calibration

All criteria for the initial calibration of each method were met.

### III. Continuing Calibration

Continuing calibration frequency and analysis criteria were met for each method when applicable with the following exceptions:

| SDG          | Date                | Lab. Reference/ID   | Analyte      | %R (Limits)   | Associated Samples               | Flag                 | A or P |
|--------------|---------------------|---------------------|--------------|---------------|----------------------------------|----------------------|--------|
| 440-166111-1 | 11/17/16<br>(12:23) | CCV (440-369576/30) | Nitrate as N | 81.5 (90-110) | PC-53-20161115<br>ARP-7-20161115 | J- (all detects)     | P      |
| 440-166111-1 | 11/17/16<br>(12:23) | CCV (440-369576/30) | Nitrate as N | 81.5 (90-110) | PC-135A-20161115                 | UJ (all non-detects) | P      |

### IV. Laboratory Blanks

Laboratory blanks were analyzed as required by the methods. No contaminants were found in the laboratory blanks.

### V. Field Blanks

Samples MEB-1 (from SDG 440-161752-1), PC-55-20161115-EB5, and PC-134D-20161115-EB4 (both from SDG 440-166209-1), PC-149-20161116-EB6 (from SDG 440-166340-1), M-38-20161117-EB8 (from SDG 440-166430-1), PC-151-20161116-EB7 (from SDG 440-166433-1), M-23-20161122-EB9 (from SDG 440-166980-1), M-38-20161117-EB8 (from SDG 440-167568-1/N021724), PC-59-20161206-EB7 (from SDG 440-168260-1), I-X-122016-EB (from SDG 440-170899-1/N022324), PC-133-121916-EB\*\* (from SDG 440-170151-1), I-X-122016-EB\*\* (from SDG 440-170398-1), and PC-133-121916-EB (from SDG 440-170153-1/N022300) were identified as equipment blanks. No contaminants were found with the following exceptions:

| SDG          | Blank ID        | Collection Date | Analyte     | Concentration | Associated Samples   |
|--------------|-----------------|-----------------|-------------|---------------|--|
| 440-161752-1 | MEB-1           | 10/12/16        | Perchlorate | 2.9 mg/L      | PC-18<br>ARP-1<br>PC-122<br>PC-53<br>MW-K5<br>PC-103<br>PC-98R<br>ARP-7<br>ARP-6B<br>ARP-5A<br>ARP-4A<br>MW-K4<br>ARP-3A<br>PC-101R<br>ARP-2A<br>PC-55 |
| 440-170398-1 | I-X-122016-EB** | 12/20/16        | Perchlorate | 2.8 mg/L      | I-X-122016**   |

Samples PC-157A-20161114-FB4 (from SDG 440-166112-1), PC-136-20161115-FB5 (from SDG 440-166209-1), PC-144-20161116-FB6 (from SDG 440-166337-1), M-22A-20161117-FB7 (from SDG 440-166420-1), M-135-20161121-FB9 (from SDG 440-166790-1), M-10-20161122-FB8 (from SDG 440-166988-1), PC-157A-20161206-FB4 (from SDG 440-168261-1), M-10-20161122-FB8\*\* (from SDG 440-169258-1/N021869), and ART-1-121516-FB\*\* (from SDG 440-169582-1) and ART-1-121516-FB (from SDG 440-170150-1/N022233) were identified as field blanks. No contaminants were found with the following exceptions:

| SDG          | Blank ID           | Collection Date | Analyte     | Concentration | Associated Samples |
|--------------|--------------------|-----------------|-------------|---------------|--------------------|
| 440-166420-1 | M-22A-20161117-FB7 | 11/17/16        | Nitrate     | 0.22 mg/L     | M-22A-20161117     |
| 440-166988-1 | M-10-20161122-FB8  | 11/22/16        | Perchlorate | 0.50 mg/L     | M-10-20161122      |

Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater than the concentrations found in the associated field blanks.

## VI. Surrogates

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits with the following exceptions:

| SDG          | Spike ID<br>(Associated Samples)  | Analyte      | MS (%R)<br>(Limits) | MSD (%R)<br>(Limits) | Flag             | A or P |
|--------------|---|--------------|---------------------|----------------------|------------------|--------|
| 440-162514-1 | PC-120MS/MSD<br>(PC-120<br>PC-121)  | Perchlorate  | 77 (80-120)         | 78 (80-120)          | J- (all detects) | A      |
| 440-166060-1 | I-CMS/MSD<br>(I-C<br>I-S<br>I-L<br>I-Y<br>I-R<br>I-B<br>I-E<br>I-X<br>I-D<br>I-M) | Nitrate as N | 67 (80-120)         | 75 (80-120)          | J- (all detects) | A      |



| SDG          | Spike ID<br>(Associated Samples)  | Analyte      | MS (%R)<br>(Limits) | MSD (%R)<br>(Limits) | Flag                                     | A or P |
|--------------|---|--------------|---------------------|----------------------|--|--------|
| 440-166060-1 | I-NMS/MSD<br>(I-F<br>I-N)   | Nitrate as N | -                   | 170 (80-120)         | J+ (all detects)                         | A      |
| 440-166060-1 | I-CMS/D<br>(ARP-6B-20161115<br>ARP-6B-20161115-FD5<br>PC-135A-20161115)   | Nitrate as N | 67 (80-120)         | 75 (80-120)          | J- (all detects)<br>UJ (all non-detects) | A      |
| 440-166111-1 | PC-135A-20161115MS/MSD<br>(PC-135A-20161115)  | Nitrate as N | -                   | 137 (80-120)         | NA                                       | -      |
| 440-166111-1 | PC-135A-20161115MS/MSD<br>(PC-53-20161115<br>ARP-7-20161115)  | Nitrate as N | -                   | 137 (80-120)         | J+ (all detects)                         | A      |
| 440-166060-1 | I-NMS/MSD<br>(All samples in SDG 440-166117-1)  | Nitrate as N | -                   | 170 (80-120)         | J+ (all detects)                         | A      |
| 440-166423-1 | M-189-20161117MS/MSD<br>(All samples in SDG 440-166423-1)   | Nitrate      | -                   | 48 (80-120)          | J- (all detects)                         | A      |
| 440-171145-1 | M-10-20161227MS/MSD<br>(All samples in SDG<br>440-171145-1)   | Nitrite as N | 156 (80-120)        | 155 (80-120)         | NA                                       | -      |
| 440-170398-1 | I-O-122016MS/MSD<br>(I-T-122016**<br>I-U-122016**<br>I-H-122016**<br>I-P-122016**<br>I-O-122016**<br>I-X-122016-EB**)                 | Nitrate as N | 78 (80-120)         | 76 (80-120)          | J- (all detects)<br>UJ (all non-detects) | A      |
| 440-170572-1 | I-AD-122116MS/MSD<br>(I-AB-122116<br>I-W-122116<br>I-V-122116<br>I-I-122116<br>I-Z-122116<br>I-J-122116<br>I-K-122116<br>I-AD-122116) | Nitrate as N | 62 (80-120)         | 65 (80-120)          | J- (all detects)                         | A      |

For PC-118MS/MSD (from SDG 440-166103-1), I-SMS/MSD (from SDG 440-166060-1), I-CMS/MSD (from SDG 440-166060-1), PC-118MS/MSD (from SDG 440-166103-1), PC-103-20161115MS/MSD (from SDG 440-166123-1), PC-160-20161116MS/MSD (from SDG 440-166340-1), 440-166340-3MS/MSD (from SDG 440-166340-1), PG-160-20161116MS/MSD (from SDG 440-166340-1), M-14A-20161117MS/MSD (from SDG 440-166430-1), M-37-20161122MS/MSD (from SDG 440-166980-1), M-23-20161122MS/MSD (from SDG 440-166980-1), M-186D-20161122MS/MSD (from SDG 440-166988-1), I-AR-122016MS/MSD (from SDG 440-170398-1), PC-133-121916MS/MSD (from SDG 440-170151-1), PC-116R-121916-FDMS/MSD (from SDG 440-170151-1), I-C-122016MS/MSD (from SDG 440-170398-1), I-AR-122016MS/MSD (from SDG 440-170398-1), and I-AB-122116MS/MSD (from SDG 440-170572-1), no data were qualified for Chlorate percent recoveries (%R) outside the QC limits since the parent sample results were greater than 4X the spike concentration.

For I-G-122016MS/MSD (from SDG 440-170398-1), no data were qualified for Nitrate as N percent recoveries (%R) outside the QC limits since the parent sample results were greater than 4X the spike concentration.

Relative percent differences (RPD) were within QC limits with the following exceptions:

| SDG          | Spike ID<br>(Associated Samples)   | Analyte | RPD<br>(Limits) | Flag                                    | A or P |
|--------------|--|---------|-----------------|---|--------|
| 440-166111-1 | PC-135A-20161115MS/MSD<br>(PC-53-20161115<br>ARP-7-20161115<br>PC-135A-20161115) | Nitrate | 33 (≤20)        | J (all detects)<br>UJ (all non-detects) | A      |
| 440-166423-1 | M-189-20161117MS/MSD<br>(All samples in SDG 440-166423-1)                        | Nitrate | 25 (≤20)        | J (all detects)                         | A      |

### VIII. Duplicates

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

### IX. Laboratory Control Samples

Laboratory control samples (LCS) were analyzed as required by the methods. Percent recoveries (%R) were within QC limits.

## X. Field Duplicates

Samples PC-94-20161114 and PC-94-20161114-FD4 (from SDG 440-166090-1), samples ARP-6B-20161115 and ARP-6B-20161115-FD5 (from SDG 440-166111-1), samples PC-98R-20161115 and PC-98R-20161115-FD6 (from SDG 440-166109-1), PC-148-20161116 and PC-148-20161116-FD7 (from SDG 440-166342-1), samples M-192-20161117 and M-192-20161117-FD8 (from SDG 440-166423-1), samples M-11-20161121 and M-11-20161121-FD9 (from SDG 440-166790-1), PC-94-20161206 and PC-94-20161206-FD4 (from SDG 440-168261-1), samples M-11-20161121 and M-11-20161121-FD9 (from SDG 440-169256-1/N021841), samples ART-9-121516\*\* and ART-9-121516-FD\*\* (from SDG 440-169582-1), I-W-122116 and I-W-122116-FD (from SDG 440-170911-1/N022336), PC-116R-121916 and PC-116R-121916-FD (from SDG 440-170151-1), ART-9-121516 and ART-9-121516-FD (from SDG 440-170150-1/N022233), PC-116R-121916 and PC-116R-121916-FD (from SDG 440-170153-1/N022300), and samples I-W-122116 and I-W-122116-FD (from SDG 440-170572-1) were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

| SDG          | Analyte                | Concentration  |                    | RPD (Limits) | Flag | A or P |
|--------------|------------------------|----------------|--------------------|--------------|------|--------|
|              |                        | PC-94-20161114 | PC-94-20161114-FD4 |              |      |        |
| 440-166090-1 | Chlorate               | 62000 ug/L     | 63000 ug/L         | 2 (≤30)      | -    | -      |
| 440-166090-1 | Nitrate as N           | 16 mg/L        | 16 mg/L            | 0 (≤30)      | -    | -      |
| 440-166090-1 | Perchlorate            | 20000 ug/L     | 20000 ug/L         | 0 (≤30)      | -    | -      |
| 440-166090-1 | Total dissolved solids | 5800 mg/L      | 5800 mg/L          | 0 (≤30)      | -    | -      |

| SDG          | Analyte                | Concentration   |                     | RPD (Limits) | Flag | A or P |
|--------------|------------------------|-----------------|---------------------|--------------|------|--------|
|              |                        | ARP-6B-20161115 | ARP-6B-20161115-FD5 |              |      |        |
| 440-166111-1 | Chlorate               | 220000 ug/L     | 230000 ug/L         | 4 (≤30)      | -    | -      |
| 440-166111-1 | Nitrate as N           | 20 mg/L         | 20 mg/L             | 0 (≤30)      | -    | -      |
| 440-166111-1 | Perchlorate            | 63000 ug/L      | 64000 ug/L          | 2 (≤30)      | -    | -      |
| 440-166111-1 | Total dissolved solids | 7100 mg/L       | 7100 mg/L           | 0 (≤30)      | -    | -      |

| SDG          | Analyte  | Concentration   |                     | RPD (Limits) | Flag | A or P |
|--------------|----------|-----------------|---------------------|--------------|------|--------|
|              |          | PC-98R-20161115 | PC-98R-20161115-FD6 |              |      |        |
| 440-166109-1 | Chlorate | 7700 ug/L       | 7900 ug/L           | 3 (≤30)      | -    | -      |

| SDG          | Analyte                | Concentration   |                     | RPD (Limits) | Flag | A or P |
|--------------|------------------------|-----------------|---------------------|--------------|------|--------|
|              |                        | PC-98R-20161115 | PC-98R-20161115-FD6 |              |      |        |
| 440-166109-1 | Nitrate as N           | 8.9 mg/L        | 8.9 mg/L            | 0 (≤30)      | -    | -      |
| 440-166109-1 | Perchlorate            | 40000 ug/L      | 40000 ug/L          | 0 (≤30)      | -    | -      |
| 440-166109-1 | Total dissolved solids | 5400 mg/L       | 5400 mg/L           | 0 (≤30)      | -    | -      |

| SDG          | Analyte                | Concentration   |                     | RPD (Limits) | Flag | A or P |
|--------------|------------------------|-----------------|---------------------|--------------|------|--------|
|              |                        | PC-148-20161116 | PC-148-20161116-FD7 |              |      |        |
| 440-166342-1 | Chlorate               | 31000 ug/L      | 31000 ug/L          | 0 (≤30)      | -    | -      |
| 440-166342-1 | Nitrate as N           | 9.8 mg/L        | 9.6 mg/L            | 2 (≤30)      | -    | -      |
| 440-166342-1 | Perchlorate            | 30000 ug/L      | 30000 ug/L          | 0 (≤30)      | -    | -      |
| 440-166342-1 | Total dissolved solids | 5700 mg/L       | 6700 mg/L           | 16 (≤30)     | -    | -      |

| SDG          | Analyte                | Concentration  |                    | RPD (Limits) | Flag             | A or P |
|--------------|------------------------|----------------|--------------------|--------------|------------------|--------|
|              |                        | M-192-20161117 | M-192-20161117-FD8 |              |                  |        |
| 440-166423-1 | Chlorate               | 310000 ug/L    | 320000 ug/L        | 3 (≤30)      | -                | -      |
| 440-166423-1 | Nitrate as N           | 1.8 mg/L       | 3.6 mg/L           | 67 (≤30)     | J+ (all detects) | A      |
| 440-166423-1 | Perchlorate            | 230000 ug/L    | 240000 ug/L        | 4 (≤30)      | -                | -      |
| 440-166423-1 | Total dissolved solids | 3100 mg/L      | 3100 mg/L          | 0 (≤30)      | -                | -      |

| SDG          | Analyte                | Concentration |                   | RPD (Limits) | Flag | A or P |
|--------------|------------------------|---------------|-------------------|--------------|------|--------|
|              |                        | M-11-20161121 | M-11-20161121-FD9 |              |      |        |
| 440-166790-1 | Chlorate               | 230000 ug/L   | 230000 ug/L       | 0 (≤30)      | -    | -      |
| 440-166790-1 | Nitrate as N           | 1.9 mg/L      | 2.3 mg/L          | 19 (≤30)     | -    | -      |
| 440-166790-1 | Perchlorate            | 24000 ug/L    | 25000 ug/L        | 4 (≤30)      | -    | -      |
| 440-166790-1 | Total dissolved solids | 2600 mg/L     | 2600 mg/L         | 0 (≤30)      | -    | -      |

| SDG          | Analyte      | Concentration  |                    | RPD (Limits) | Flag | A or P |
|--------------|--------------|----------------|--------------------|--------------|------|--------|
|              |              | PC-94-20161206 | PC-94-20161206-FD4 |              |      |        |
| 440-168261-1 | Nitrate as N | 13 mg/L        | 13 mg/L            | 0 (≤30)      | -    | -      |

| SDG                  | Analyte             | Concentration |                   | RPD (Limits) | Flag | A or P |
|----------------------|---------------------|---------------|-------------------|--------------|------|--------|
|                      |                     | M-11-20161121 | M-11-20161121-FD9 |              |      |        |
| 440-169256-1/N021841 | Hexavalent chromium | 430 ug/L      | 460 ug/L          | 7 (≤30)      | -    | -      |

| SDG          | Analyte                | Concentration (ug/L) |                   | RPD (Limits) | Flag | A or P |
|--------------|------------------------|----------------------|-------------------|--------------|------|--------|
|              |                        | ART-9-121516**       | ART-9-121516-FD** |              |      |        |
| 440-169582-1 | Chlorate               | 370000 ug/L          | 350000 ug/L       | 6 (≤30)      | -    | -      |
| 440-169582-1 | Nitrate as N           | 20 mg/L              | 19 mg/L           | 5 (≤30)      | -    | -      |
| 440-169582-1 | Perchlorate            | 220000 ug/L          | 220000 ug/L       | 0 (≤30)      | -    | -      |
| 440-169582-1 | Total dissolved solids | 6200 mg/L            | 6200 mg/L         | 0 (≤30)      | -    | -      |
| 440-169582-1 | pH                     | 7.34 SU              | 7.34 SU           | 0 (≤30)      | -    | -      |

| SDG                  | Analyte             | Concentration |               | RPD (Limits) | Flag | A or P |
|----------------------|---------------------|---------------|---------------|--------------|------|--------|
|                      |                     | I-W-122116    | I-W-122116-FD |              |      |        |
| 440-170911-1/N022336 | Hexavalent chromium | 19000 ug/L    | 19000 ug/L    | 0 (≤30)      | -    | -      |

| SDG          | Analyte                | Concentration  |                   | RPD (Limits) | Flag | A or P |
|--------------|------------------------|----------------|-------------------|--------------|------|--------|
|              |                        | PC-116R-121916 | PC-116R-121916-FD |              |      |        |
| 440-170151-1 | Chloride               | 1300 mg/L      | 1200 mg/L         | 8 (≤30)      | -    | -      |
| 440-170151-1 | Sulfate                | 1700 mg/L      | 1300 mg/L         | 27 (≤30)     | -    | -      |
| 440-170151-1 | Chlorate               | 13000 ug/L     | 12000 ug/L        | 8 (≤30)      | -    | -      |
| 440-170151-1 | Nitrate as N           | 5.2 mg/L       | 5.3 mg/L          | 2 (≤30)      | -    | -      |
| 440-170151-1 | Perchlorate            | 15000 ug/L     | 16000 ug/L        | 6 (≤30)      | -    | -      |
| 440-170151-1 | Total dissolved solids | 4100 mg/L      | 4200 mg/L         | 2 (≤30)      | -    | -      |

| SDG          | Analyte | Concentration  |                   | RPD (Limits) | Flag | A or P |
|--------------|---------|----------------|-------------------|--------------|------|--------|
|              |         | PC-116R-121916 | PC-116R-121916-FD |              |      |        |
| 440-170151-1 | pH      | 7.25 SU        | 7.32 SU           | 1 (≤30)      | -    | -      |

| SDG                  | Analyte             | Concentration |                 | RPD (Limits) | Flag | A or P |
|----------------------|---------------------|---------------|-----------------|--------------|------|--------|
|                      |                     | ART-9-121516  | ART-9-121516-FD |              |      |        |
| 440-170150-1/N022233 | Hexavalent chromium | 900 ug/L      | 890 ug/L        | 1 (≤30)      | -    | -      |

| SDG                  | Analyte             | Concentration  |                   | RPD (Limits) | Flag | A or P |
|----------------------|---------------------|----------------|-------------------|--------------|------|--------|
|                      |                     | PC-116R-121916 | PC-116R-121916-FD |              |      |        |
| 440-170153-1/N022300 | Hexavalent chromium | 0.49 ug/L      | 0.51 ug/L         | 4 (≤30)      | -    | -      |

| SDG          | Analyte                | Concentration |               | RPD (Limits) | Flag | A or P |
|--------------|------------------------|---------------|---------------|--------------|------|--------|
|              |                        | I-W-122116    | I-W-122116-FD |              |      |        |
| 440-170572-1 | Chlorate               | 3900000 ug/L  | 3800000 ug/L  | 3 (≤30)      | -    | -      |
| 440-170572-1 | Nitrate as N           | 47 mg/L       | 47 mg/L       | 0 (≤30)      | -    | -      |
| 440-170572-1 | Perchlorate            | 980000 ug/L   | 970000 ug/L   | 1 (≤30)      | -    | -      |
| 440-170572-1 | Total dissolved solids | 11000 mg/L    | 12000 mg/L    | 9 (≤30)      | -    | -      |
| 440-170572-1 | pH                     | 7.23 SU       | 7.23 SU       | 0 (≤30)      | -    | -      |

## XI. Sample Result Verification

All sample result verifications were acceptable for samples which underwent Stage 4 validation. Raw data were not reviewed for Stage 2B validation.

## XII. Overall Assessment of Data

The analysis was conducted within all specifications of the methods. No results were rejected in these SDGs.

In the case where more than one result was reported for an individual sample, the least technically acceptable results were deemed unusable as follows:

| SDG  | Sample  | Analyte  | Flag | A or P |
|--|---|--|------|--------|
| 440-166111-1<br>440-166090-1<br>440-166112-1<br>440-166433-1<br>440-166988-1 | PC-135A-20161115<br>PC-60-20161114<br>PC-59-20161114<br>PC-56-20161114<br>PC-62-20161114<br>PC-97-20161114<br>PC-94-20161114<br>PC-94-20161114-FD4<br>PC-157B-20161114<br>PC-58-20161114<br>PC-91-20161114<br>PC-157A-20161114<br>PC-157A-20161114-FB4<br>PC-151-20161116-EB7<br>PC-122-20161116<br>M-83-20161121 | Nitrate as N   | DNR  | A      |
| 440-171145-1   | M-10-20161227**   | Nitrate as N (01/04/2017)<br>Nitrite as N (01/04/2017) | DNR  | A      |

Due to technical holding time, continuing calibration %R, MS/MSD %R and RPD, data were qualified as estimated in forty-five samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the data validation all other results are considered valid and usable for all purposes.

**NERT 2016 Q4**

**Wet Chemistry - Data Qualification Summary - SDGs 440-160590-1, 440-160680-1, 440-161336-1, 440-161484-1/N021214, 440-161552-1, 440-161556-1, 440-161752-1, 440-162515-1/N021299, 440-162514-1, 440-163451-1/N021393, 440-163453-1, 440-163816-1/N021226, 440-166056-1, 440-166060-1, 440-166063-1, 440-166082-1, 440-166090-1, 440-166103-1, 440-166109-1, 440-166111-1, 440-166112-1, 440-166117-1, 440-166123-1, 440-166209-1, 440-166210-1, 440-166337-1, 440-166339-1, 440-166340-1, 440-166342-1, 440-166420-1, 440-166423-1, 440-166430-1, 440-166433-1, 440-166437-1, 440-166442-1, 440-166552-1, 440-166600-1, 440-166602-1, 440-166603-1, 440-166790-1, 440-166980-1, 440-166988-1, 440-167033-1, 440-167238-1/N021682, 440-167500-1/N021701, 440-167564-1/N021725, 440-167568-1/N021724, 440-167631-1, 440-167718-1/N021707, 440-168227-1/N021751, 440-168260-1, 440-168261-1, 440-168264-1/N021752, 440-168537-1, 440-169256-1/N021841, 440-169258-1/N021869, 440-169582-1, 440-170796-1, 440-170899-1/N022324, 440-170907-1/N022351, 440-170911-1/N022336, 440-171145-1, 440-170151-1, 440-170150-1/N022233, 440-170153-1/N022300, 440-170398-1, 440-170572-1**

| SDG                          | Sample   | Analyte      | Flag                                     | A or P | Reason (Code)                                |
|------------------------------|--|--------------|--|--------|--|
| 440-161336-1                 | I-AA   | Perchlorate  | J- (all detects)                         | A      | Technical holding time (h)                   |
| 440-166111-1                 | PC-53-20161115<br>ARP-7-20161115<br>PC-135A-20161115   | Nitrate as N | J- (all detects)<br>UJ (all non-detects) | P      | Continuing calibration (%R) (c)              |
| 440-162514-1                 | PC-120<br>PC-121   | Perchlorate  | J- (all detects)                         | A      | Matrix spike/Matrix spike duplicate (%R) (m) |
| 440-166060-1<br>440-170572-1 | I-C<br>I-S<br>I-L<br>I-Y<br>I-R<br>I-B<br>I-E<br>I-X<br>I-D<br>I-M<br>I-AB-122116<br>I-W-122116<br>I-V-122116<br>I-I-122116<br>I-Z-122116<br>I-J-122116<br>I-K-122116<br>I-AD-122116 | Nitrate as N | J- (all detects)                         | A      | Matrix spike/Matrix spike duplicate (%R) (m) |
| 440-166060-1                 | I-F<br>I-N   | Nitrate as N | J+ (all detects)                         | A      | Matrix spike/Matrix spike duplicate (%R) (m) |



| SDG  | Sample  | Analyte  | Flag                                     | A or P | Reason (Code)                                  |
|--|---|--|--|--------|--|
| 440-166060-1<br>440-170398-1   | ARP-6B-20161115<br>ARP-6B-20161115-FD5<br>PC-135A-20161115<br>I-T-122016**<br>I-U-122016**<br>I-H-122016**<br>I-P-122016**<br>I-O-122016**<br>I-X-122016-EB**   | Nitrate as N   | J- (all detects)<br>UJ (all non-detects) | A      | Matrix spike/Matrix spike duplicate (%R) (m)   |
| 440-166111-1<br>440-166060-1   | PC-53-20161115<br>ARP-7-20161115<br>PC-90-20161115<br>ARP-1-20161115<br>PC-18-20161115  | Nitrate as N   | J+ (all detects)                         | A      | Matrix spike/Matrix spike duplicate (%R) (m)   |
| 440-166423-1   | PC-54-20161117<br>PC-129-20161117<br>M-192-20161117<br>M-192-20161117-FD8<br>PC-71-20161117<br>PC-72-20161117<br>PC-152-20161117<br>M-189-20161117  | Nitrate  | J- (all detects)                         | A      | Matrix spike/Matrix spike duplicate (%R) (m)   |
| 440-166111-1   | PC-53-20161115<br>ARP-7-20161115<br>PC-135A-20161115  | Nitrate as N   | J (all detects)<br>UJ (all non-detects)  | A      | Matrix spike/Matrix spike duplicate (RPD) (ld) |
| 440-166423-1   | PC-54-20161117<br>PC-129-20161117<br>M-192-20161117<br>M-192-20161117-FD8<br>PC-71-20161117<br>PC-72-20161117<br>PC-152-20161117<br>M-189-20161117  | Nitrate  | J (all detects)                          | A      | Matrix spike/Matrix spike duplicate (RPD) (ld) |
| 440-166423-1   | M-192-20161117<br>M-192-20161117-FD8  | Nitrate as N   | J+ (all detects)                         | A      | Field duplicates (RPD) (fd)                    |
| 440-166111-1<br>440-166090-1<br>440-166112-1<br>440-166433-1<br>440-166988-1 | PC-135A-20161115<br>PC-60-20161114<br>PC-59-20161114<br>PC-56-20161114<br>PC-62-20161114<br>PC-97-20161114<br>PC-94-20161114<br>PC-94-20161114-FD4<br>PC-157B-20161114<br>PC-58-20161114<br>PC-91-20161114<br>PC-157A-20161114<br>PC-157A-20161114-FB4<br>PC-151-20161116-EB7<br>PC-122-20161116<br>M-83-20161121 | Nitrate as N   | DNR                                      | A      | Overall assessment of data (o)                 |
| 440-171145-1   | M-10-20161227**   | Nitrate as N (01/04/2017)<br>Nitrite as N (01/04/2017) | DNR                                      | A      | Overall assessment of data (o)                 |

**NERT 2016 Q4**

**Wet Chemistry - Laboratory Blank Data Qualification Summary - SDGs 440-160590-1, 440-160680-1, 440-161336-1, 440-161484-1/N021214, 440-161552-1, 440-161556-1, 440-161752-1, 440-162515-1/N021299, 440-162514-1, 440-163451-1/N021393, 440-163453-1, 440-163816-1/N021226, 440-166056-1, 440-166060-1, 440-166063-1, 440-166082-1, 440-166090-1, 440-166103-1, 440-166109-1, 440-166111-1, 440-166112-1, 440-166117-1, 440-166123-1, 440-166209-1, 440-166210-1, 440-166337-1, 440-166339-1, 440-166340-1, 440-166342-1, 440-166420-1, 440-166423-1, 440-166430-1, 440-166433-1, 440-166437-1, 440-166442-1, 440-166552-1, 440-166600-1, 440-166602-1, 440-166603-1, 440-166790-1, 440-166980-1, 440-166988-1, 440-167033-1, 440-167238-1/N021682, 440-167500-1/N021701, 440-167564-1/N021725, 440-167568-1/N021724, 440-167631-1, 440-167718-1/N021707, 440-168227-1/N021751, 440-168260-1, 440-168261-1, 440-168264-1/N021752, 440-168537-1, 440-169256-1/N021841, 440-169258-1/N021869, 440-169582-1, 440-170796-1, 440-170899-1/N022324, 440-170907-1/N022351, 440-170911-1/N022336, 440-171145-1, 440-170151-1, 440-170150-1/N022233, 440-170153-1/N022300, 440-170398-1, 440-170572-1**

No Sample Data Qualified in these SDGs

**NERT 2016 Q4**

**Wet Chemistry - Field Blank Data Qualification Summary - SDGs 440-160590-1, 440-160680-1, 440-161336-1, 440-161484-1/N021214, 440-161552-1, 440-161556-1, 440-161752-1, 440-162515-1/N021299, 440-162514-1, 440-163451-1/N021393, 440-163453-1, 440-163816-1/N021226, 440-166056-1, 440-166060-1, 440-166063-1, 440-166082-1, 440-166090-1, 440-166103-1, 440-166109-1, 440-166111-1, 440-166112-1, 440-166117-1, 440-166123-1, 440-166209-1, 440-166210-1, 440-166337-1, 440-166339-1, 440-166340-1, 440-166342-1, 440-166420-1, 440-166423-1, 440-166430-1, 440-166433-1, 440-166437-1, 440-166442-1, 440-166552-1, 440-166600-1, 440-166602-1, 440-166603-1, 440-166790-1, 440-166980-1, 440-166988-1, 440-167033-1, 440-167238-1/N021682, 440-167500-1/N021701, 440-167564-1/N021725, 440-167568-1/N021724, 440-167631-1, 440-167718-1/N021707, 440-168227-1/N021751, 440-168260-1, 440-168261-1, 440-168264-1/N021752, 440-168537-1, 440-169256-1/N021841, 440-169258-1/N021869, 440-169582-1, 440-170796-1, 440-170899-1/N022324, 440-170907-1/N022351, 440-170911-1/N022336, 440-171145-1, 440-170151-1, 440-170150-1/N022233, 440-170153-1/N022300, 440-170398-1, 440-170572-1**

No Sample Data Qualified in these SDGs