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Ramboll
2200 Powell Street, Suite 700
Emeryville, CA 94608
ATTN: Mr. Craig Knox

February 12, 2018

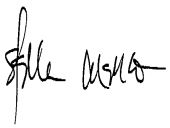
SUBJECT: **Data Validation Summary Report Revision 2**
March 2013
Soil-Gas Remediation Completion Sampling
Nevada Environmental Response Trust (NERT)
Henderson, Nevada

Dear Mr. Knox,

Enclosed is the Data Validation Summary Report Revision 1 for March 2013 Soil-Gas Remediation Completion Sampling; Nevada Environmental Response Trust (NERT); Henderson, Nevada

Please feel free to contact us if you have any questions.

Sincerely,



Stella Cuenco
Operations Manager/Senior Chemist

Data Validation Summary Report Revision 2
March 2013
Soil Gas Remediation Completion Sampling
Nevada Environmental Response Trust (NERT)
Henderson, Nevada

Prepared for

Ramboll ENVIRON
Emeryville, California

Prepared by

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February 12, 2018

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ATTACHMENT

LIST OF ACRONYMS AND ABBREVIATIONS

DQO	Data Quality Objectives
DVSR	Data Validation Summary Report
LCS	Laboratory Control Sample
LDC	Laboratory Data Consultants, Inc.
PARCC	Precision, Accuracy, Representativeness, Comparability, Completeness
PQL	Practical Quantitation Limit
QA/QC	Quality Assurance / Quality Control
QAPP	Quality Assurance Project Plan
RPD	Relative Percent Difference
RSD	Relative Standard Deviation
SDG	Sample Delivery Group
SQL	Sample Quantitation Limit
VOC	Volatile Organic Compound
ug/m^3	Micrograms per Cubic Meter
USEPA	United States Environmental Protection Agency
%D	Percent Difference
%R	Percent Recovery
%RSD	Percent Relative Standard Deviation

1.0 INTRODUCTION

This data validation summary report (DVSR) has been prepared by Laboratory Data Consultants, Inc. (LDC) to assess the validity and usability of laboratory analytical data from the Soil Gas Remediation Completion Sampling conducted at the Nevada Environmental Response Trust (NERT) site in Henderson, Nevada. The assessment was performed by ENVIRON as a part of the *Revised Phase B Quality Assurance Project Plan Tronox LLC Facility, Henderson, Nevada* dated May 2009 and included the collection and analyses of 13 environmental and quality control (QC) samples. The analyses were performed by the following methods:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) SW-846 Method TO-15

Laboratory analytical services were provided by McCambell Analytical, Inc. The samples were grouped into sample delivery groups (SDGs). The air samples are associated with quality assurance and quality control (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 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 ten percent of the analytical data were validated according to Stage 4 data validation procedures. The analytical data were evaluated for quality assurance and quality control (QA/QC) based on the following documents: *Basic Remediation Company (BRC) Standard Operating Procedures (SOP) 40 Data Review/Valdiation,* Revision 4, May 2009, *Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review*, June 2008, *Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review,* January 2010, *Contract Laboratory Program National Functional Guidelines for Polychlorinated Dioxins/Dibenzofurans Data Review*, September 2005, 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.

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 summary report evaluates and summarizes the results of QA/QC data validation for the entire sampling program. Each analytical fraction 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 4.0 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.

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, equipment blanks, field duplicates, method blanks, and laboratory control samples (LCSs).

Before conducting the PARCCS evaluation, the analytical data were validated according to the QAPP (July 2014), NFG (USEPA 2017), and EPA Method TO-15. Samples not meeting the acceptance criteria were qualified with a flag, an abbreviation indicating a deficiency with the data. The following are flags used in 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 compound or 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.

DNR Do Not Report A more appropriate result is reported from another analysis or dilution.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

The hierarchy of flags 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 II 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 to the R flag will be used.

Table III 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 Method TO-15, 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):

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

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 either an aqueous matrix in the absence of matrix interferences.

One primary sample is analyzed and accompanied by an unspiked laboratory duplicate. The data reviewer compares the reported results of the primary analysis and the laboratory duplicate, then calculates RPDs, which are used to assess laboratory precision.

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 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 matrix heterogeneity, improper sample collection or handling, inconsistent sample preparation, and 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 LCSD. In some cases, samples from multiple SDGs were within one QC batch and therefore are associated with the same laboratory QC samples. 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 and LCS/LCSD 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. It 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, equipment blanks and field blanks.

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.

Trip blanks are used to identify possible volatile organic contamination introduced into the sample during transport. A trip blank is a sample canister pressurized in the laboratory with reagent-grade air. 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 air taken through the sample collection equipment. The air 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.

Contaminants found in both the environmental sample and the blank samples are assumed to be laboratory artifacts if both values are less than the PQL.

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 PARCC 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.

The QA/QC criteria were met with the exceptions noted in the following sections for each analytical method.

2.0 VOLATILE ORGANIC COMPOUNDS

A total of 13 air samples were analyzed for VOCs by EPA Method TO-15. All VOC data were assessed to be valid since none of the 845 total results were rejected based on holding time or QC exceedances. This section discusses the QA/QC supporting documentation as defined by the PARCCS criteria and evaluated based on the DQOs.

2.1 Precision and Accuracy

2.1.1 Instrument Calibration

Initial and continuing calibration results provide a means of evaluating accuracy within a particular SDG. Percent relative standard deviation (%RSD) and percent difference (%D) are the major parameters used to measure the effectiveness of instrument calibration. %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 30 percent or the coefficient of determination (r^2) was ≥ 0.990 in the initial calibration.

Thirteen methylene chloride results were qualified as detected estimated (J-) or non-detected estimated (UJ). The %Ds in the continuing calibration verifications were outside the acceptance criteria of 30 percent. The details regarding the qualification of results are provided in Attachment A.

2.1.2 Surrogates

All surrogate %Rs met the method acceptance criteria.

2.1.3 LCS Samples

All LCS %Rs met the laboratory acceptance criteria.

2.1.4 Internal Standards

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

2.1.5 FD Samples

The field duplicate samples were evaluated for acceptable precision with RPDs for the compounds. Fourteen results were qualified as detected estimated (J) due to RPD outside of the acceptance criteria in field duplicate pair E-SG-6-030813 and E-SG-6-030813-FD. The details regarding the qualification of results are provided in Attachment B.

2.1.7 Analyte Quantitation and Target Identification

Raw data were evaluated for the Stage 4 samples. All analyte quantitation and target identifications were acceptable.

Due to the presence of the leak check compound, helium, greater than five percent of the concentration in the shroud , all results for sample E-SG-6-030813 were qualified as detected estimated (J) or non-detected estimated (UJ). The details regarding the qualification of results are provided in Attachment C.

2.2 Representativeness

2.2.1 Sample Preservation and Holding Times

The evaluation of holding times to verify compliance with the method was conducted. All samples met the 30-day analysis holding time criteria for VOCs in canisters.

2.2.2 Blanks

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

If contaminants were detected in a blank, corrective actions were made for the chemical analytical data during data validation. The corrective action consisted of amending the laboratory reported results based on the following criteria.

> Results Below or Above the Practical Quantitation Limit (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 amended.

2.2.2.1 Method Blanks

No data were qualified due to contaminants detected in the method blanks.

2.2.2.2 Trip Blanks

As a result of contamination found in the trip blanks, 13 results were qualified as detected estimated (J). The affected compounds were hexane, t-butyl alcohol, and tetrachloroethene. The details regarding the qualification of results are provided in Attachment D.

2.2.2.3 Equipment Blanks

As a result of contamination found in the equipment blanks, 14 results in samples E-SG-2-030713 and E-SG-3-030713 were qualified as detected estimated (J). The affected compounds were 2-butanone, 2-hexanone, acetone, carbon tetrachloride, dichlorodifluoromethane, ethyl acetate, hexane, and vinyl acetate. The details regarding the qualification of results are provided in Attachment D.

2.3 Comparability

The laboratory used standard analytical methods for all of the analyses. In all cases, the Sample Quantitation Limits (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 data is regarded as acceptable.

2.4 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.

3.0 VARIANCES IN ANALYTICAL PERFORMANCE

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

4.0 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.

4.1 Precision and Accuracy

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

All calibration, field duplicate, and analyte quantitation %Ds, RPDs, and difference met acceptance criteria with the exceptions noted in Sections 2.1.1, 2.1.6, and 2.1.7.

4.2 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.

4.3 Comparability

Sampling frequency requirements were met in obtaining necessary field blanks and field duplicates. The laboratory used standard analytical methods for the analyses. The analytical results were reported in correct standard units. Sample preservation, and sample integrity criteria were met. All holding times were within QC criteria. The overall comparability is considered acceptable.

4.4 Completeness

Of the 845 total analytes reported, none of the sample results were rejected. The completeness for the SDGs is as follows:

Parameter	Total Analytes	No. of Rejects	% Completeness
VOCs	845	0	100
Total	**845**	**0**	**100**

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

5.0 CONCLUSIONS AND RECOMMENDATIONS

The analytical data quality assessment for the water sample laboratory analytical results generated during the Soil Gas Remediation Completion Sampling at the Nevada Environmental Response Trust (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) 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.

6.0 REFERENCES

NDEP Data Verification and Validation Requirements - Supplement established for the BMI Plant Sites and Common Areas Projects, Henderson, Nevada, April, 13, 2009,

Basic Remediation Company (BRC) Standard Operating Procedures, SOP-40 Data Review/Valdiation, Revision 4, May 2009,

*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 2008. *Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review*, June 2008.

California Environmental Protection Agency, Department of Toxic Substances Control, Los Angeles Regional Water Quality Control Board, San Francisco Regional Water Quality Control Board, Advisory Active Soil Gas Investigations, July 2015

TABLES

Table I. Sample Cross-Reference

LDC Number	SDG	Client Sample ID	Lab Sample ID	Matrix	Sample Date	QC Type	Validation Level	VOC (TO-15)
29449A	1303287	TRIP BLANK	1303287-001	air	3/7/2013	TB	Stage 2B	X
29449A	1303287	E-SG-3-030713-EB	1303287-002	air	3/7/2013		Stage 2B	X
29449A	1303287	E-SG-2-030713	1303287-003	air	3/7/2013		Stage 2B	X
29449A	1303287	E-SG-3-030713	1303287-004	air	3/7/2013		Stage 2B	X
29449A	1303287	E-SG-6-030813	1303287-005	air	3/8/2013	FD	Stage 2B	X
29449A	1303287	E-SG-6-030813-FD	1303287-006	air	3/8/2013	FD	Stage 2B	X
29449A	1303287	E-SG-7-030813	1303287-007	air	3/8/2013		Stage 2B	X
29449A	1303287	E-SG-9-030813	1303287-008	air	3/8/2013		Stage 2B	X
29449A	1303287	E-SG-1-030813	1303287-009	air	3/8/2013		Stage 2B	X
29449B	1303408	TRIP BLANK	1303408-001	air	3/13/2013	TB	Stage 2B	X
29449B	1303408	E-SG-8-031313	1303408-002	air	3/13/2013		Stage 4	X
29449B	1303408	E-SG-4-031313	1303408-003	air	3/13/2013		Stage 4	X
29449B	1303408	E-SG-5-031313	1303408-004	air	3/13/2013		Stage 2B	X

Table II. Qualification Codes and Definitions

Reason Code	Explanation
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	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 problem
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

Table III. Overall Qualified Results

SDG	Client Sample ID	Method	Client Analyte ID	Analyte	Lab Result	Lab Qualifier	Units	SQL	PQL	Validation Qualifier	Validation Reason Code
1303287	TRIP BLANK-030713	EPA TO-15	78-93-3	2-Butanone (MEK)	1.5	J	ug/m3	0.032	60	J	sp
1303287	TRIP BLANK-030713	EPA TO-15	71-43-2	Benzene	0.055	J	ug/m3	0.046	0.16	J	sp
1303287	TRIP BLANK-030713	EPA TO-15	75-09-2	Methylene chloride	0.078	U	ug/m3	0.078	0.7	UJ	c
1303287	E-SG-3-030713-EB	EPA TO-15	95-63-6	1,2,4-Trimethylbenzene	0.22	J	ug/m3	0.11	1	J	sp
1303287	E-SG-3-030713-EB	EPA TO-15	78-93-3	2-Butanone (MEK)	5.5	J	ug/m3	0.032	60	J	sp
1303287	E-SG-3-030713-EB	EPA TO-15	591-78-6	2-Hexanone	0.64	J	ug/m3	0.22	84	J	sp
1303287	E-SG-3-030713-EB	EPA TO-15	108-10-1	4-Methyl-2-pentanone (MIBK)	0.58	J	ug/m3	0.052	0.84	J	sp
1303287	E-SG-3-030713-EB	EPA TO-15	67-64-1	Acetone	13	J	ug/m3	0.48	24	J	sp
1303287	E-SG-3-030713-EB	EPA TO-15	110-82-7	Cyclohexane	0.32	J	ug/m3	0.18	70	J	sp
1303287	E-SG-3-030713-EB	EPA TO-15	100-41-4	Ethylbenzene	0.27	J	ug/m3	0.062	0.88	J	sp
1303287	E-SG-3-030713-EB	EPA TO-15	110-54-3	Hexane	16	J	ug/m3	0.72	72	J	bt,sp
1303287	E-SG-3-030713-EB	EPA TO-15	75-09-2	Methylene chloride	0.078	U	ug/m3	0.078	0.7	UJ	c
1303287	E-SG-3-030713-EB	EPA TO-15	127-18-4	Tetrachloroethene	0.35		ug/m3	0.34	0.34	J	bt
1303287	E-SG-3-030713-EB	EPA TO-15	108-05-4	Vinyl acetate	4.8	J	ug/m3	0.1	72	J	sp
1303287	E-SG-2-030713	EPA TO-15	108-05-4	Vinyl acetate	5.3	J	ug/m3	0.1	75	J	be,sp
1303287	E-SG-3-030713	EPA TO-15	95-63-6	1,2,4-Trimethylbenzene	0.68	J	ug/m3	0.11	1	J	sp
1303287	E-SG-3-030713	EPA TO-15	78-93-3	2-Butanone (MEK)	8.6	J	ug/m3	0.032	60	J	be,sp
1303287	E-SG-3-030713	EPA TO-15	591-78-6	2-Hexanone	1.2	J	ug/m3	0.22	84	J	be,sp
1303287	E-SG-3-030713	EPA TO-15	67-64-1	Acetone	25		ug/m3	0.48	24	J	be
1303287	E-SG-3-030713	EPA TO-15	156-59-2	cis-1,2-Dichloroethene	0.32	J	ug/m3	0.068	0.8	J	sp
1303287	E-SG-3-030713	EPA TO-15	75-71-8	Dichlorodifluoromethane	2.6		ug/m3	0.096	1	J	be
1303287	E-SG-3-030713	EPA TO-15	141-78-6	Ethyl acetate	2.7		ug/m3	0.096	1.8	J	be
1303287	E-SG-3-030713	EPA TO-15	100-41-4	Ethylbenzene	0.85	J	ug/m3	0.062	0.88	J	sp
1303287	E-SG-3-030713	EPA TO-15	142-82-5	Heptane	2.4	J	ug/m3	0.074	84	J	sp
1303287	E-SG-3-030713	EPA TO-15	110-54-3	Hexane	3.4	J	ug/m3	0.72	72	J	be,bt,sp
1303287	E-SG-3-030713	EPA TO-15	75-09-2	Methylene chloride	14		ug/m3	0.078	0.7	J-	c
1303287	E-SG-3-030713	EPA TO-15	100-42-5	Styrene	0.098	J	ug/m3	0.05	0.86	J	sp
1303287	E-SG-3-030713	EPA TO-15	75-65-0	tert-Butyl alcohol	3.1	J	ug/m3	0.17	12	J	sp
1303287	E-SG-2-030713	EPA TO-15	95-63-6	1,2,4-Trimethylbenzene	0.91	J	ug/m3	0.12	1	J	sp
1303287	E-SG-2-030713	EPA TO-15	78-93-3	2-Butanone (MEK)	6.3	J	ug/m3	0.034	63	J	be,sp
1303287	E-SG-2-030713	EPA TO-15	67-64-1	Acetone	18	J	ug/m3	0.5	25	J	be,sp
1303287	E-SG-2-030713	EPA TO-15	56-23-5	Carbon tetrachloride	0.42		ug/m3	0.071	0.34	J	be
1303287	E-SG-2-030713	EPA TO-15	75-71-8	Dichlorodifluoromethane	2.2		ug/m3	0.1	1	J	be
1303287	E-SG-2-030713	EPA TO-15	141-78-6	Ethyl acetate	2.1		ug/m3	0.1	1.9	J	be
1303287	E-SG-2-030713	EPA TO-15	100-41-4	Ethylbenzene	0.66	J	ug/m3	0.065	0.92	J	sp
1303287	E-SG-2-030713	EPA TO-15	87-68-3	Hexachlorobutadiene	2.1	J	ug/m3	0.14	2.3	J	sp
1303287	E-SG-2-030713	EPA TO-15	110-54-3	Hexane	3.1	J	ug/m3	0.75	75	J	be,bt,sp

Table III. Overall Qualified Results

SDG	Client Sample ID	Method	Client Analyte ID	Analyte	Lab Result	Lab Qualifier	Units	SQL	PQL	Validation Qualifier	Validation Reason Code
1303287	E-SG-2-030713	EPA TO-15	75-09-2	Methylene chloride	19		ug/m3	0.082	0.73	J-	c
1303287	E-SG-2-030713	EPA TO-15	75-65-0	tert-Butyl alcohol	2.9	J	ug/m3	0.18	13	J	sp
1303287	E-SG-1-030813	EPA TO-15	78-93-3	2-Butanone (MEK)	3.9	J	ug/m3	0.032	60	J	sp
1303287	E-SG-1-030813	EPA TO-15	591-78-6	2-Hexanone	0.54	J	ug/m3	0.22	84	J	sp
1303287	E-SG-3-030713	EPA TO-15	108-05-4	Vinyl acetate	6.3	J	ug/m3	0.1	72	J	be,sp
1303287	E-SG-6-030813	EPA TO-15	67-66-3	Chloroform	780		ug/m3	0.36	1.2	J	t
1303287	E-SG-6-030813	EPA TO-15	630-20-6	1,1,1,2-Tetrachloroethane	1.1		ug/m3	0.19	0.41	J	t
1303287	E-SG-6-030813	EPA TO-15	71-55-6	1,1,1-Trichloroethane	1	J	ug/m3	0.11	1.3	J	sp,t
1303287	E-SG-6-030813	EPA TO-15	79-34-5	1,1,2,2-Tetrachloroethane	1.1		ug/m3	0.087	0.41	J	t
1303287	E-SG-6-030813	EPA TO-15	79-00-5	1,1,2-Trichloroethane	1.1		ug/m3	0.12	0.34	J	t
1303287	E-SG-6-030813	EPA TO-15	75-34-3	1,1-Dichloroethane	1.3		ug/m3	0.99	0.99	J	t
1303287	E-SG-6-030813	EPA TO-15	75-35-4	1,1-Dichloroethene	0.048	U	ug/m3	0.048	0.24	UJ	t
1303287	E-SG-6-030813	EPA TO-15	120-82-1	1,2,4-Trichlorobenzene	1.2	J	ug/m3	0.27	1.8	J	sp,t
1303287	E-SG-6-030813	EPA TO-15	95-63-6	1,2,4-Trimethylbenzene	1.5		ug/m3	0.13	1.2	J	t
1303287	E-SG-6-030813	EPA TO-15	96-12-8	Dibromochloropropane	1.7		ug/m3	0.24	0.6	J	t
1303287	E-SG-6-030813	EPA TO-15	106-93-4	1,2-Dibromoethane (EDB)	1.4		ug/m3	0.12	0.48	J	t
1303287	E-SG-6-030813	EPA TO-15	76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	1.4	J	ug/m3	0.19	1.7	J	sp,t
1303287	E-SG-6-030813	EPA TO-15	95-50-1	1,2-Dichlorobenzene	1.5	J	ug/m3	0.18	1.5	J	sp,t
1303287	E-SG-6-030813	EPA TO-15	107-06-2	1,2-Dichloroethane	0.87		ug/m3	0.11	0.24	J	t
1303287	E-SG-6-030813	EPA TO-15	78-87-5	1,2-Dichloropropane	1		ug/m3	0.13	0.29	J	t
1303287	E-SG-6-030813	EPA TO-15	108-67-8	1,3,5-Trimethylbenzene	1.2		ug/m3	0.18	1.2	J	t
1303287	E-SG-6-030813	EPA TO-15	106-99-0	1,3-Butadiene	0.34	U	ug/m3	0.34	0.53	UJ	t
1303287	E-SG-6-030813	EPA TO-15	541-73-1	1,3-Dichlorobenzene	0.13	U	ug/m3	0.13	1.5	UJ	t
1303287	E-SG-6-030813	EPA TO-15	106-46-7	1,4-Dichlorobenzene	1.3		ug/m3	0.22	0.36	J	t
1303287	E-SG-6-030813	EPA TO-15	123-91-1	1,4-Dioxane	0.64	J	ug/m3	0.12	0.89	J	sp,t
1303287	E-SG-6-030813	EPA TO-15	78-93-3	2-Butanone (MEK)	9.9	J	ug/m3	0.039	72	J	sp,t
1303287	E-SG-6-030813	EPA TO-15	591-78-6	2-Hexanone	2.3	J	ug/m3	0.27	100	J	sp,t
1303287	E-SG-6-030813	EPA TO-15	622-96-8	4-Ethyltoluene	1.2	U	ug/m3	1.2	1.2	UJ	t
1303287	E-SG-6-030813	EPA TO-15	108-10-1	4-Methyl-2-pentanone (MIBK)	2.8		ug/m3	0.063	1	J	fd,t
1303287	E-SG-6-030813	EPA TO-15	67-64-1	Acetone	67		ug/m3	0.58	29	J	t
1303287	E-SG-6-030813	EPA TO-15	107-13-1	Acrylonitrile	0.12	U	ug/m3	0.12	0.53	UJ	t
1303287	E-SG-6-030813	EPA TO-15	71-43-2	Benzene	2.6		ug/m3	0.055	0.19	J	fd,t
1303287	E-SG-6-030813	EPA TO-15	100-44-7	Benzyl chloride	0.43	J	ug/m3	0.082	1.3	J	sp,t
1303287	E-SG-6-030813	EPA TO-15	75-27-4	Bromodichloromethane	1.7		ug/m3	0.12	0.43	J	t
1303287	E-SG-6-030813	EPA TO-15	75-25-2	Bromoform	2.7	U	ug/m3	2.7	2.7	UJ	t
1303287	E-SG-6-030813	EPA TO-15	74-83-9	Bromomethane	0.84	J	ug/m3	0.24	0.94	J	sp,t
1303287	E-SG-6-030813	EPA TO-15	75-15-0	Carbon disulfide	0.051	U	ug/m3	0.051	0.77	UJ	t

Table III. Overall Qualified Results

SDG	Client Sample ID	Method	Client Analyte ID	Analyte	Lab Result	Lab Qualifier	Units	SQL	PQL	Validation Qualifier	Validation Reason Code
1303287	E-SG-6-030813	EPA TO-15	56-23-5	Carbon tetrachloride	18		ug/m3	0.082	0.39	J	t
1303287	E-SG-6-030813	EPA TO-15	108-90-7	Chlorobenzene	2.3		ug/m3	0.084	1.1	J	fd,t
1303287	E-SG-6-030813	EPA TO-15	75-00-3	Chloroethane	0.092	U	ug/m3	0.092	0.65	UJ	t
1303287	E-SG-6-030813	EPA TO-15	74-87-3	Chloromethane	0.027	U	ug/m3	0.027	0.51	UJ	t
1303287	E-SG-6-030813	EPA TO-15	156-59-2	cis-1,2-Dichloroethene	0.89	J	ug/m3	0.082	0.96	J	sp,t
1303287	E-SG-6-030813	EPA TO-15	10061-01-5	cis-1,3-Dichloropropene	0.75		ug/m3	0.096	0.29	J	t
1303287	E-SG-6-030813	EPA TO-15	110-82-7	Cyclohexane	4.7	J	ug/m3	0.21	84	J	sp,t
1303287	E-SG-6-030813	EPA TO-15	124-48-1	Dibromochloromethane	1.2	J	ug/m3	0.13	2.1	J	sp,t
1303287	E-SG-6-030813	EPA TO-15	75-71-8	Dichlorodifluoromethane	1.5		ug/m3	0.12	1.2	J	t
1303287	E-SG-6-030813	EPA TO-15	108-20-3	Diisopropyl ether (DIPE)	0.07	U	ug/m3	0.07	1	UJ	t
1303287	E-SG-6-030813	EPA TO-15	141-78-6	Ethyl acetate	3.5		ug/m3	0.12	2.2	J	t
1303287	E-SG-6-030813	EPA TO-15	637-92-3	Ethyl tert-butyl ether	0.82	J	ug/m3	0.1	1	J	sp,t
1303287	E-SG-6-030813	EPA TO-15	100-41-4	Ethylbenzene	1.5		ug/m3	0.075	1.1	J	t
1303287	E-SG-6-030813	EPA TO-15	76-13-1	Freon-113	1.9	U	ug/m3	1.9	1.9	UJ	t
1303287	E-SG-6-030813	EPA TO-15	142-82-5	Heptane	2.4	J	ug/m3	0.089	100	J	sp,t
1303287	E-SG-6-030813	EPA TO-15	87-68-3	Hexachlorobutadiene	1.1	J	ug/m3	0.17	2.7	J	sp,t
1303287	E-SG-6-030813	EPA TO-15	75-09-2	Methylene chloride	2.9		ug/m3	0.094	0.84	J	c,t
1303287	E-SG-6-030813	EPA TO-15	1634-04-4	Methyl tert-butyl ether (MTBE)	0.89	U	ug/m3	0.89	0.89	UJ	t
1303287	E-SG-6-030813	EPA TO-15	91-20-3	Naphthalene	5.2		ug/m3	0.51	0.63	J	fd,t
1303287	E-SG-6-030813	EPA TO-15	100-42-5	Styrene	0.74	J	ug/m3	0.06	1	J	sp,t
1303287	E-SG-6-030813	EPA TO-15	75-65-0	tert-Butyl alcohol	4.8	J	ug/m3	0.2	15	J	sp,t
1303287	E-SG-6-030813	EPA TO-15	994-05-8	tert-Amyl methyl ether (TAME)	0.78	J	ug/m3	0.092	1	J	sp,t
1303287	E-SG-6-030813	EPA TO-15	127-18-4	Tetrachloroethene	17		ug/m3	0.41	0.41	J	t
1303287	E-SG-6-030813	EPA TO-15	109-99-9	Tetrahydrofuran	1.4	U	ug/m3	1.4	1.4	UJ	t
1303287	E-SG-6-030813	EPA TO-15	108-88-3	Toluene	4.2		ug/m3	0.1	0.92	J	fd,t
1303287	E-SG-6-030813	EPA TO-15	156-60-5	trans-1,2-Dichloroethene	0.94	J	ug/m3	0.077	0.96	J	sp,t
1303287	E-SG-6-030813	EPA TO-15	10061-02-6	trans-1,3-Dichloropropene	0.68		ug/m3	0.29	0.29	J	t
1303287	E-SG-6-030813	EPA TO-15	79-01-6	Trichloroethene	2.2		ug/m3	0.15	1.3	J	t
1303287	E-SG-6-030813	EPA TO-15	75-69-4	Trichlorofluoromethane	3.8		ug/m3	1.4	1.4	J	fd,t
1303287	E-SG-6-030813	EPA TO-15	108-05-4	Vinyl acetate	10	J	ug/m3	0.12	87	J	sp,t
1303287	E-SG-6-030813	EPA TO-15	75-01-4	Vinyl chloride	0.4		ug/m3	0.14	0.14	J	t
1303287	E-SG-6-030813	EPA TO-15	1330-20-7	Xylenes, Total	6.2		ug/m3	3.1	3.1	J	t
1303287	E-SG-6-030813	EPA TO-15	110-54-3	Hexane	6100		ug/m3	36	3600	J	fd,t
1303287	E-SG-6-030813-FD	EPA TO-15	71-55-6	1,1,1-Trichloroethane	0.12	J	ug/m3	0.092	1.1	J	sp
1303287	E-SG-6-030813-FD	EPA TO-15	79-34-5	1,1,2,2-Tetrachloroethane	0.14	J	ug/m3	0.072	0.34	J	sp
1303287	E-SG-6-030813-FD	EPA TO-15	79-00-5	1,1,2-Trichloroethane	0.19	J	ug/m3	0.1	0.28	J	sp
1303287	E-SG-6-030813-FD	EPA TO-15	120-82-1	1,2,4-Trichlorobenzene	0.47	J	ug/m3	0.22	1.5	J	sp

Table III. Overall Qualified Results

SDG	Client Sample ID	Method	Client Analyte ID	Analyte	Lab Result	Lab Qualifier	Units	SQL	PQL	Validation Qualifier	Validation Reason Code
1303287	E-SG-6-030813-FD	EPA TO-15	95-63-6	1,2,4-Trimethylbenzene	0.59	J	ug/m3	0.11	1	J	sp
1303287	E-SG-6-030813-FD	EPA TO-15	96-12-8	Dibromochloropropane	0.41	J	ug/m3	0.2	0.5	J	sp
1303287	E-SG-6-030813-FD	EPA TO-15	76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	0.25	J	ug/m3	0.16	1.4	J	sp
1303287	E-SG-6-030813-FD	EPA TO-15	107-06-2	1,2-Dichloroethane	0.11	J	ug/m3	0.09	0.2	J	sp
1303287	E-SG-6-030813-FD	EPA TO-15	78-87-5	1,2-Dichloropropane	0.12	J	ug/m3	0.11	0.24	J	sp
1303287	E-SG-6-030813-FD	EPA TO-15	108-67-8	1,3,5-Trimethylbenzene	0.3	J	ug/m3	0.15	1	J	sp
1303287	E-SG-6-030813-FD	EPA TO-15	78-93-3	2-Butanone (MEK)	6.2	J	ug/m3	0.032	60	J	sp
1303287	E-SG-6-030813-FD	EPA TO-15	591-78-6	2-Hexanone	1	J	ug/m3	0.22	84	J	sp
1303287	E-SG-6-030813-FD	EPA TO-15	108-10-1	4-Methyl-2-pentanone (MIBK)	1.5		ug/m3	0.052	0.84	J	fd
1303287	E-SG-6-030813-FD	EPA TO-15	67-64-1	Acetone	9.4	J	ug/m3	0.48	24	J	sp
1303287	E-SG-6-030813-FD	EPA TO-15	71-43-2	Benzene	1.5		ug/m3	0.046	0.16	J	fd
1303287	E-SG-6-030813-FD	EPA TO-15	100-44-7	Benzyl chloride	0.14	J	ug/m3	0.068	1.1	J	sp
1303287	E-SG-6-030813-FD	EPA TO-15	74-83-9	Bromomethane	0.33	J	ug/m3	0.2	0.78	J	sp
1303287	E-SG-6-030813-FD	EPA TO-15	108-90-7	Chlorobenzene	1.3		ug/m3	0.07	0.94	J	fd
1303287	E-SG-6-030813-FD	EPA TO-15	110-82-7	Cyclohexane	0.6	J	ug/m3	0.18	70	J	sp
1303287	E-SG-6-030813-FD	EPA TO-15	141-78-6	Ethyl acetate	1.8	J	ug/m3	0.096	1.8	J	sp
1303287	E-SG-6-030813-FD	EPA TO-15	100-41-4	Ethylbenzene	0.5	J	ug/m3	0.062	0.88	J	sp
1303287	E-SG-6-030813-FD	EPA TO-15	142-82-5	Heptane	1.3	J	ug/m3	0.074	84	J	sp
1303287	E-SG-6-030813-FD	EPA TO-15	87-68-3	Hexachlorobutadiene	0.33	J	ug/m3	0.14	2.2	J	sp
1303287	E-SG-6-030813-FD	EPA TO-15	110-54-3	Hexane	6.5	J	ug/m3	0.72	72	J	bt,fd,sp
1303287	E-SG-6-030813-FD	EPA TO-15	75-09-2	Methylene chloride	0.7	U	ug/m3	0.7	0.7	UJ	c
1303287	E-SG-6-030813-FD	EPA TO-15	91-20-3	Naphthalene	1.3		ug/m3	0.42	0.52	J	fd
1303287	E-SG-6-030813-FD	EPA TO-15	75-65-0	tert-Butyl alcohol	1.2	J	ug/m3	0.17	12	J	sp
1303287	E-SG-6-030813-FD	EPA TO-15	108-88-3	Toluene	1.9		ug/m3	0.084	0.76	J	fd
1303287	E-SG-6-030813-FD	EPA TO-15	156-60-5	trans-1,2-Dichloroethene	0.069	J	ug/m3	0.064	0.8	J	sp
1303287	E-SG-6-030813-FD	EPA TO-15	79-01-6	Trichloroethene	0.98	J	ug/m3	0.12	1.1	J	sp
1303287	E-SG-6-030813-FD	EPA TO-15	75-69-4	Trichlorofluoromethane	2		ug/m3	1.1	1.1	J	fd
1303287	E-SG-6-030813-FD	EPA TO-15	108-05-4	Vinyl acetate	2.3	J	ug/m3	0.1	72	J	sp
1303287	E-SG-7-030813	EPA TO-15	95-63-6	1,2,4-Trimethylbenzene	0.94	J	ug/m3	0.11	1	J	sp
1303287	E-SG-7-030813	EPA TO-15	78-93-3	2-Butanone (MEK)	4.6	J	ug/m3	0.032	60	J	sp
1303287	E-SG-7-030813	EPA TO-15	67-64-1	Acetone	13	J	ug/m3	0.48	24	J	sp
1303287	E-SG-7-030813	EPA TO-15	108-90-7	Chlorobenzene	0.43	J	ug/m3	0.07	0.94	J	sp
1303287	E-SG-7-030813	EPA TO-15	100-41-4	Ethylbenzene	0.71	J	ug/m3	0.062	0.88	J	sp
1303287	E-SG-7-030813	EPA TO-15	142-82-5	Heptane	0.95	J	ug/m3	0.074	84	J	sp
1303287	E-SG-7-030813	EPA TO-15	110-54-3	Hexane	1.7	J	ug/m3	0.72	72	J	bt,sp
1303287	E-SG-7-030813	EPA TO-15	75-09-2	Methylene chloride	0.078	U	ug/m3	0.078	0.7	UJ	c
1303287	E-SG-7-030813	EPA TO-15	75-65-0	tert-Butyl alcohol	1.4	J	ug/m3	0.17	12	J	sp

Table III. Overall Qualified Results

SDG	Client Sample ID	Method	Client Analyte ID	Analyte	Lab Result	Lab Qualifier	Units	SQL	PQL	Validation Qualifier	Validation Reason Code
1303287	E-SG-7-030813	EPA TO-15	127-18-4	Tetrachloroethene	1.5		ug/m3	0.34	0.34	J	bt
1303287	E-SG-7-030813	EPA TO-15	108-05-4	Vinyl acetate	2.3	J	ug/m3	0.1	72	J	sp
1303287	E-SG-9-030813	EPA TO-15	95-63-6	1,2,4-Trimethylbenzene	0.44	J	ug/m3	0.11	1	J	sp
1303287	E-SG-9-030813	EPA TO-15	541-73-1	1,3-Dichlorobenzene	0.12	J	ug/m3	0.1	1.2	J	sp
1303287	E-SG-9-030813	EPA TO-15	78-93-3	2-Butanone (MEK)	3.3	J	ug/m3	0.032	60	J	sp
1303287	E-SG-9-030813	EPA TO-15	591-78-6	2-Hexanone	0.52	J	ug/m3	0.22	84	J	sp
1303287	E-SG-9-030813	EPA TO-15	67-64-1	Acetone	6.6	J	ug/m3	0.48	24	J	sp
1303287	E-SG-9-030813	EPA TO-15	75-27-4	Bromodichloromethane	0.3	J	ug/m3	0.1	0.36	J	sp
1303287	E-SG-9-030813	EPA TO-15	100-41-4	Ethylbenzene	0.62	J	ug/m3	0.062	0.88	J	sp
1303287	E-SG-9-030813	EPA TO-15	142-82-5	Heptane	1.7	J	ug/m3	0.074	84	J	sp
1303287	E-SG-9-030813	EPA TO-15	110-54-3	Hexane	1.1	J	ug/m3	0.72	72	J	bt,sp
1303287	E-SG-9-030813	EPA TO-15	75-09-2	Methylene chloride	0.078	U	ug/m3	0.078	0.7	UJ	c
1303287	E-SG-9-030813	EPA TO-15	75-65-0	tert-Butyl alcohol	0.92	J	ug/m3	0.17	12	J	sp
1303287	E-SG-9-030813	EPA TO-15	79-01-6	Trichloroethene	0.41	J	ug/m3	0.12	1.1	J	sp
1303287	E-SG-9-030813	EPA TO-15	108-05-4	Vinyl acetate	2.5	J	ug/m3	0.1	72	J	sp
1303287	E-SG-1-030813	EPA TO-15	95-63-6	1,2,4-Trimethylbenzene	0.54	J	ug/m3	0.11	1	J	sp
1303287	E-SG-1-030813	EPA TO-15	107-06-2	1,2-Dichloroethane	0.15	J	ug/m3	0.09	0.2	J	sp
1303287	E-SG-1-030813	EPA TO-15	108-10-1	4-Methyl-2-pentanone (MIBK)	0.77	J	ug/m3	0.052	0.84	J	sp
1303287	E-SG-1-030813	EPA TO-15	67-64-1	Acetone	7.6	J	ug/m3	0.48	24	J	sp
1303287	E-SG-1-030813	EPA TO-15	74-83-9	Bromomethane	0.36	J	ug/m3	0.2	0.78	J	sp
1303287	E-SG-1-030813	EPA TO-15	56-23-5	Carbon tetrachloride	0.3	J	ug/m3	0.068	0.32	J	sp
1303287	E-SG-1-030813	EPA TO-15	108-90-7	Chlorobenzene	0.12	J	ug/m3	0.07	0.94	J	sp
1303287	E-SG-1-030813	EPA TO-15	110-82-7	Cyclohexane	4.9	J	ug/m3	0.18	70	J	sp
1303287	E-SG-1-030813	EPA TO-15	142-82-5	Heptane	2.3	J	ug/m3	0.074	84	J	sp
1303287	E-SG-1-030813	EPA TO-15	110-54-3	Hexane	2.3	J	ug/m3	0.72	72	J	bt,sp
1303287	E-SG-1-030813	EPA TO-15	75-09-2	Methylene chloride	0.078	U	ug/m3	0.078	0.7	UJ	c
1303287	E-SG-1-030813	EPA TO-15	100-42-5	Styrene	0.26	J	ug/m3	0.05	0.86	J	sp
1303287	E-SG-1-030813	EPA TO-15	75-65-0	tert-Butyl alcohol	2	J	ug/m3	0.17	12	J	sp
1303287	E-SG-1-030813	EPA TO-15	127-18-4	Tetrachloroethene	1.2		ug/m3	0.34	0.34	J	bt
1303287	E-SG-1-030813	EPA TO-15	79-01-6	Trichloroethene	0.34	J	ug/m3	0.12	1.1	J	sp
1303287	E-SG-1-030813	EPA TO-15	108-05-4	Vinyl acetate	1.8	J	ug/m3	0.1	72	J	sp
1303408	TRIP BLANK-031313	EPA TO-15	78-93-3	2-Butanone (MEK)	0.76	J	ug/m3	0.032	60	J	sp
1303408	TRIP BLANK-031313	EPA TO-15	75-09-2	Methylene chloride	0.078	U	ug/m3	0.078	0.7	UJ	c
1303408	TRIP BLANK-031313	EPA TO-15	75-65-0	tert-Butyl alcohol	3.1	J	ug/m3	0.17	12	J	sp
1303408	E-SG-8-031313	EPA TO-15	108-67-8	1,3,5-Trimethylbenzene	0.67	J	ug/m3	0.15	1	J	sp
1303408	E-SG-8-031313	EPA TO-15	78-93-3	2-Butanone (MEK)	3.2	J	ug/m3	0.032	60	J	sp
1303408	E-SG-8-031313	EPA TO-15	67-64-1	Acetone	6.2	J	ug/m3	0.48	24	J	sp

Table III. Overall Qualified Results

SDG	Client Sample ID	Method	Client Analyte ID	Analyte	Lab Result	Lab Qualifier	Units	SQL	PQL	Validation Qualifier	Validation Reason Code
1303408	E-SG-8-031313	EPA TO-15	108-90-7	Chlorobenzene	0.29	J	ug/m3	0.07	0.94	J	sp
1303408	E-SG-8-031313	EPA TO-15	141-78-6	Ethyl acetate	0.75	J	ug/m3	0.096	1.8	J	sp
1303408	E-SG-8-031313	EPA TO-15	100-41-4	Ethylbenzene	0.79	J	ug/m3	0.062	0.88	J	sp
1303408	E-SG-8-031313	EPA TO-15	110-54-3	Hexane	0.95	J	ug/m3	0.72	72	J	sp
1303408	E-SG-8-031313	EPA TO-15	75-09-2	Methylene chloride	0.078	U	ug/m3	0.078	0.7	UJ	c
1303408	E-SG-8-031313	EPA TO-15	75-65-0	tert-Butyl alcohol (TBA)	1.7	J	ug/m3	0.17	12	J	bt,sp
1303408	E-SG-8-031313	EPA TO-15	108-05-4	Vinyl acetate	3	J	ug/m3	0.1	72	J	sp
1303408	E-SG-4-031313	EPA TO-15	78-93-3	2-Butanone (MEK)	4.9	J	ug/m3	0.032	60	J	sp
1303408	E-SG-4-031313	EPA TO-15	142-82-5	Heptane	1.3	J	ug/m3	0.074	84	J	sp
1303408	E-SG-4-031313	EPA TO-15	110-54-3	Hexane	1.7	J	ug/m3	0.72	72	J	sp
1303408	E-SG-4-031313	EPA TO-15	75-09-2	Methylene chloride	0.078	U	ug/m3	0.078	0.7	UJ	c
1303408	E-SG-4-031313	EPA TO-15	75-65-0	tert-Butyl alcohol (TBA)	2.8	J	ug/m3	0.17	12	J	bt,sp
1303408	E-SG-4-031313	EPA TO-15	108-05-4	Vinyl acetate	3.5	J	ug/m3	0.1	72	J	sp
1303408	E-SG-5-031313	EPA TO-15	95-63-6	1,2,4-Trimethylbenzene	0.62	J	ug/m3	0.11	1	J	sp
1303408	E-SG-5-031313	EPA TO-15	78-93-3	2-Butanone (MEK)	6.2	J	ug/m3	0.032	60	J	sp
1303408	E-SG-5-031313	EPA TO-15	591-78-6	2-Hexanone	0.7	J	ug/m3	0.22	84	J	sp
1303408	E-SG-5-031313	EPA TO-15	67-64-1	Acetone	16	J	ug/m3	0.48	24	J	sp
1303408	E-SG-5-031313	EPA TO-15	100-41-4	Ethylbenzene	0.61	J	ug/m3	0.062	0.88	J	sp
1303408	E-SG-5-031313	EPA TO-15	142-82-5	Heptane	0.91	J	ug/m3	0.074	84	J	sp
1303408	E-SG-5-031313	EPA TO-15	110-54-3	Hexane	1.5	J	ug/m3	0.72	72	J	sp
1303408	E-SG-5-031313	EPA TO-15	75-09-2	Methylene chloride	0.078	U	ug/m3	0.078	0.7	UJ	c
1303408	E-SG-5-031313	EPA TO-15	75-65-0	tert-Butyl alcohol (TBA)	2.8	J	ug/m3	0.17	12	J	bt,sp
1303408	E-SG-5-031313	EPA TO-15	108-05-4	Vinyl acetate	4.5	J	ug/m3	0.1	72	J	sp

ATTACHMENT A

Qualifications based on Calibration Exceedances

Sample ID	SDG	Method	Matrix	Analyte	Result	Units	Lab Qualifiers	Validation Qualifiers	Validation Reason Code	DQI Result	DQI Limits
TRIP BLANK-030713	1303287	TO-15	Air	Methylene chloride	0.078	ug/m3	U	UJ	c	38.086	30%D CCV
E-SG-3-030713-EB	1303287	TO-15	Air	Methylene chloride	0.078	ug/m3	U	UJ	c	38.086	30%D CCV
E-SG-2-030713	1303287	TO-15	Air	Methylene chloride	19	ug/m3		J-	c	35.616	30%D CCV
E-SG-4-031313	1303408	TO-15	Air	Methylene chloride	0.078	ug/m3	U	UJ	c	38.086	30%D CCV
E-SG-3-030713	1303287	TO-15	Air	Methylene chloride	14	ug/m3		J-	c	35.616	30%D CCV
E-SG-6-030813	1303287	TO-15	Air	Methylene chloride	2.9	ug/m3		J	c,fd,t	35.616	30%D CCV
E-SG-6-030813-FD	1303287	TO-15	Air	Methylene chloride	0.7	ug/m3	U	UJ	c	35.616	30%D CCV
E-SG-7-030813	1303287	TO-15	Air	Methylene chloride	0.078	ug/m3	U	UJ	c	38.086	30%D CCV
E-SG-9-030813	1303287	TO-15	Air	Methylene chloride	0.078	ug/m3	U	UJ	c	38.086	30%D CCV
E-SG-1-030813	1303287	TO-15	Air	Methylene chloride	0.078	ug/m3	U	UJ	c	38.086	30%D CCV
TRIP BLANK-031313	1303408	TO-15	Air	Methylene chloride	0.078	ug/m3	U	UJ	c	38.086	30%D CCV
E-SG-8-031313	1303408	TO-15	Air	Methylene chloride	0.078	ug/m3	U	UJ	c	38.086	30%D CCV
E-SG-5-031313	1303408	TO-15	Air	Methylene chloride	0.078	ug/m3	U	UJ	c	38.086	30%D CCV

ATTACHMENT B

Qualifications based on Field Duplicate Exceedances

Sample ID	SDG	Method	Matrix	Analyte	Result	RL	Units	Lab Qualifiers	Validation Qualifier	Validation Reason Code	RPD	Limits
E-SG-6-030813	1303287	TO-15	Air	4-Methyl-2-pentanone (MIBK)	2.8	1	ug/m3		J	fd,t	60	50
E-SG-6-030813	1303287	TO-15	Air	Benzene	2.6	0.19	ug/m3		J	fd,t	54	50
E-SG-6-030813	1303287	TO-15	Air	Chlorobenzene	2.3	1.1	ug/m3		J	fd,t	56	50
E-SG-6-030813	1303287	TO-15	Air	Hexane	6100	3600	ug/m3		J	fd,t	200	50
E-SG-6-030813	1303287	TO-15	Air	Naphthalene	5.2	0.63	ug/m3		J	fd,t	120	50
E-SG-6-030813	1303287	TO-15	Air	Toluene	4.2	0.92	ug/m3		J	fd,t	75	50
E-SG-6-030813	1303287	TO-15	Air	Trichlorofluoromethane	3.8	1.4	ug/m3		J	fd,t	62	50
E-SG-6-030813-FD	1303287	TO-15	Air	4-Methyl-2-pentanone (MIBK)	1.5	0.84	ug/m3		J	fd	60	50
E-SG-6-030813-FD	1303287	TO-15	Air	Benzene	1.5	0.16	ug/m3		J	fd	54	50
E-SG-6-030813-FD	1303287	TO-15	Air	Chlorobenzene	1.3	0.94	ug/m3		J	fd	56	50
E-SG-6-030813-FD	1303287	TO-15	Air	Hexane	6.5	72	ug/m3	J	J	bt,fd,sp	200	50
E-SG-6-030813-FD	1303287	TO-15	Air	Naphthalene	1.3	0.52	ug/m3		J	fd	120	50
E-SG-6-030813-FD	1303287	TO-15	Air	Toluene	1.9	0.76	ug/m3		J	fd	75	50
E-SG-6-030813-FD	1303287	TO-15	Air	Trichlorofluoromethane	2	1.1	ug/m3		J	fd	62	50

ATTACHMENT C

Qualifications based on Quantitation Issues

Sample ID	SDG	Method	Matrix	Analyte	Result	Units	Lab Qualifiers	Validation Qualifiers	Validation Reason Code
E-SG-6-030813	1303287	TO-15	Air	Chloroform	780	ug/m3		J	t
E-SG-6-030813	1303287	TO-15	Air	1,1,1,2-Tetrachloroethane	1.1	ug/m3		J	t
E-SG-6-030813	1303287	TO-15	Air	1,1,1-Trichloroethane	1	ug/m3	J	J	sp,t
E-SG-6-030813	1303287	TO-15	Air	1,1,2,2-Tetrachloroethane	1.1	ug/m3		J	t
E-SG-6-030813	1303287	TO-15	Air	1,1,2-Trichloroethane	1.1	ug/m3		J	t
E-SG-6-030813	1303287	TO-15	Air	1,1-Dichloroethane	1.3	ug/m3		J	t
E-SG-6-030813	1303287	TO-15	Air	1,1-Dichloroethene	0.048	ug/m3	U	UJ	t
E-SG-6-030813	1303287	TO-15	Air	1,2,4-Trichlorobenzene	1.2	ug/m3	J	J	sp,t
E-SG-6-030813	1303287	TO-15	Air	1,2,4-Trimethylbenzene	1.5	ug/m3		J	t
E-SG-6-030813	1303287	TO-15	Air	Dibromochloropropane	1.7	ug/m3		J	t
E-SG-6-030813	1303287	TO-15	Air	1,2-Dibromoethane (EDB)	1.4	ug/m3		J	t
E-SG-6-030813	1303287	TO-15	Air	1,2-Dichloro-1,1,2,2-tetrafluoroethane	1.4	ug/m3	J	J	sp,t
E-SG-6-030813	1303287	TO-15	Air	1,2-Dichlorobenzene	1.5	ug/m3	J	J	sp,t
E-SG-6-030813	1303287	TO-15	Air	1,2-Dichloroethane	0.87	ug/m3		J	t
E-SG-6-030813	1303287	TO-15	Air	1,2-Dichloropropane	1	ug/m3		J	t
E-SG-6-030813	1303287	TO-15	Air	1,3,5-Trimethylbenzene	1.2	ug/m3		J	t
E-SG-6-030813	1303287	TO-15	Air	1,3-Butadiene	0.34	ug/m3	U	UJ	t
E-SG-6-030813	1303287	TO-15	Air	1,3-Dichlorobenzene	0.13	ug/m3	U	UJ	t
E-SG-6-030813	1303287	TO-15	Air	1,4-Dichlorobenzene	1.3	ug/m3		J	t
E-SG-6-030813	1303287	TO-15	Air	1,4-Dioxane	0.64	ug/m3	J	J	sp,t
E-SG-6-030813	1303287	TO-15	Air	2-Butanone (MEK)	9.9	ug/m3	J	J	sp,t
E-SG-6-030813	1303287	TO-15	Air	2-Hexanone	2.3	ug/m3	J	J	sp,t
E-SG-6-030813	1303287	TO-15	Air	4-Ethyltoluene	1.2	ug/m3	U	UJ	t
E-SG-6-030813	1303287	TO-15	Air	4-Methyl-2-pentanone (MIBK)	2.8	ug/m3		J	fd,t
E-SG-6-030813	1303287	TO-15	Air	Acetone	67	ug/m3		J	t
E-SG-6-030813	1303287	TO-15	Air	Acrylonitrile	0.12	ug/m3	U	UJ	t
E-SG-6-030813	1303287	TO-15	Air	Benzene	2.6	ug/m3		J	fd,t
E-SG-6-030813	1303287	TO-15	Air	Benzyl chloride	0.43	ug/m3	J	J	sp,t
E-SG-6-030813	1303287	TO-15	Air	Bromodichloromethane	1.7	ug/m3		J	t
E-SG-6-030813	1303287	TO-15	Air	Bromoform	2.7	ug/m3	U	UJ	t
E-SG-6-030813	1303287	TO-15	Air	Bromomethane	0.84	ug/m3	J	J	sp,t
E-SG-6-030813	1303287	TO-15	Air	Carbon disulfide	0.051	ug/m3	U	UJ	t
E-SG-6-030813	1303287	TO-15	Air	Carbon tetrachloride	18	ug/m3		J	t

Sample ID	SDG	Method	Matrix	Analyte	Result	Units	Lab Qualifiers	Validation Qualifiers	Validation Reason Code
E-SG-6-030813	1303287	TO-15	Air	Chlorobenzene	2.3	ug/m3		J	fd,t
E-SG-6-030813	1303287	TO-15	Air	Chloroethane	0.092	ug/m3	U	UJ	t
E-SG-6-030813	1303287	TO-15	Air	Chloromethane	0.027	ug/m3	U	UJ	t
E-SG-6-030813	1303287	TO-15	Air	cis-1,2-Dichloroethene	0.89	ug/m3	J	J	sp,t
E-SG-6-030813	1303287	TO-15	Air	cis-1,3-Dichloropropene	0.75	ug/m3		J	t
E-SG-6-030813	1303287	TO-15	Air	Cyclohexane	4.7	ug/m3	J	J	sp,t
E-SG-6-030813	1303287	TO-15	Air	Dibromochloromethane	1.2	ug/m3	J	J	sp,t
E-SG-6-030813	1303287	TO-15	Air	Dichlorodifluoromethane	1.5	ug/m3		J	t
E-SG-6-030813	1303287	TO-15	Air	Diisopropyl ether	0.07	ug/m3	U	UJ	t
E-SG-6-030813	1303287	TO-15	Air	Ethyl acetate	3.5	ug/m3		J	t
E-SG-6-030813	1303287	TO-15	Air	Ethyl tert-butyl ether	0.82	ug/m3	J	J	sp,t
E-SG-6-030813	1303287	TO-15	Air	Ethylbenzene	1.5	ug/m3		J	t
E-SG-6-030813	1303287	TO-15	Air	Freon-113	1.9	ug/m3	U	UJ	t
E-SG-6-030813	1303287	TO-15	Air	Heptane	2.4	ug/m3	J	J	sp,t
E-SG-6-030813	1303287	TO-15	Air	Hexachlorobutadiene	1.1	ug/m3	J	J	sp,t
E-SG-6-030813	1303287	TO-15	Air	Methylene chloride	2.9	ug/m3		J	c,t
E-SG-6-030813	1303287	TO-15	Air	Methyl tert-butyl ether (MTBE)	0.89	ug/m3	U	UJ	t
E-SG-6-030813	1303287	TO-15	Air	Naphthalene	5.2	ug/m3		J	fd,t
E-SG-6-030813	1303287	TO-15	Air	Styrene	0.74	ug/m3	J	J	sp,t
E-SG-6-030813	1303287	TO-15	Air	tert-Butyl alcohol	4.8	ug/m3	J	J	sp,t
E-SG-6-030813	1303287	TO-15	Air	tert-Amyl methyl ether (TAME)	0.78	ug/m3	J	J	sp,t
E-SG-6-030813	1303287	TO-15	Air	Tetrachloroethene	17	ug/m3		J	t
E-SG-6-030813	1303287	TO-15	Air	Tetrahydrofuran	1.4	ug/m3	U	UJ	t
E-SG-6-030813	1303287	TO-15	Air	Toluene	4.2	ug/m3		J	fd,t
E-SG-6-030813	1303287	TO-15	Air	trans-1,2-Dichloroethene	0.94	ug/m3	J	J	sp,t
E-SG-6-030813	1303287	TO-15	Air	trans-1,3-Dichloropropene	0.68	ug/m3		J	t
E-SG-6-030813	1303287	TO-15	Air	Trichloroethene	2.2	ug/m3		J	t
E-SG-6-030813	1303287	TO-15	Air	Trichlorofluoromethane	3.8	ug/m3		J	fd,t
E-SG-6-030813	1303287	TO-15	Air	Vinyl acetate	10	ug/m3	J	J	sp,t
E-SG-6-030813	1303287	TO-15	Air	Vinyl chloride	0.4	ug/m3		J	t
E-SG-6-030813	1303287	TO-15	Air	Xylenes, Total	6.2	ug/m3		J	t
E-SG-6-030813	1303287	TO-15	Air	Hexane	6100	ug/m3		J	fd,t

ATTACHMENT D

Qualifications based on Blank Contamination

Sample ID	SDG	Method	Matrix	Analyte	Result	Mod Results	Units	Lab Qualifiers	Validation Qualifiers	Validation Reason Code	bl Result	bt Result	be Result
E-SG-3-030713-EB	1303287	TO-15	Air	Hexane	16	16	ug/m3	J	J	bt,sp		79	
E-SG-3-030713-EB	1303287	TO-15	Air	Tetrachloroethene	0.35	0.35	ug/m3		J	bt		1.8	
E-SG-2-030713	1303287	TO-15	Air	2-Butanone (MEK)	6.3	6.3	ug/m3	J	J	be,sp			5.5
E-SG-2-030713	1303287	TO-15	Air	Acetone	18	18	ug/m3	J	J	be,sp			13
E-SG-2-030713	1303287	TO-15	Air	Carbon Tetrachloride	0.42	0.42	ug/m3		J	be			0.34
E-SG-2-030713	1303287	TO-15	Air	Dichlorodifluoromethane	2.2	2.2	ug/m3		J	be			1.8
E-SG-2-030713	1303287	TO-15	Air	Ethyl acetate	2.1	2.1	ug/m3		J	be			5.1
E-SG-2-030713	1303287	TO-15	Air	Hexane	3.1	3.1	ug/m3	J	J	be,bt,sp		79	16
E-SG-2-030713	1303287	TO-15	Air	Vinyl Acetate	5.3	5.3	ug/m3	J	J	be,sp			4.8
E-SG-3-030713	1303287	TO-15	Air	2-Butanone (MEK)	8.6	8.6	ug/m3	J	J	be,sp			5.5
E-SG-3-030713	1303287	TO-15	Air	2-Hexanone	1.2	1.2	ug/m3	J	J	be,sp			0.64
E-SG-3-030713	1303287	TO-15	Air	Acetone	25	25	ug/m3		J	be			13
E-SG-3-030713	1303287	TO-15	Air	Dichlorodifluoromethane	2.6	2.6	ug/m3		J	be			1.8
E-SG-4-031313	1303408	TO-15	Air	t-Butyl alcohol (TBA)	2.8	2.8	ug/m3	J	J	bt,sp		3.1	
E-SG-3-030713	1303287	TO-15	Air	Ethyl acetate	2.7	2.7	ug/m3		J	be			5.1
E-SG-3-030713	1303287	TO-15	Air	Hexane	3.4	3.4	ug/m3	J	J	be,bt,sp		79	16
E-SG-3-030713	1303287	TO-15	Air	Vinyl Acetate	6.3	6.3	ug/m3	J	J	be,sp			4.8
E-SG-6-030813-FD	1303287	TO-15	Air	Hexane	6.5	6.5	ug/m3	J	J	bt,fd,sp		79	
E-SG-7-030813	1303287	TO-15	Air	Hexane	1.7	1.7	ug/m3	J	J	bt,sp		79	
E-SG-7-030813	1303287	TO-15	Air	Tetrachloroethene	1.5	1.5	ug/m3		J	bt		1.8	
E-SG-9-030813	1303287	TO-15	Air	Hexane	1.1	1.1	ug/m3	J	J	bt,sp		79	
E-SG-1-030813	1303287	TO-15	Air	Hexane	2.3	2.3	ug/m3	J	J	bt,sp		79	
E-SG-1-030813	1303287	TO-15	Air	Tetrachloroethene	1.2	1.2	ug/m3		J	bt		1.8	
E-SG-8-031313	1303408	TO-15	Air	t-Butyl alcohol (TBA)	1.7	1.7	ug/m3	J	J	bt,sp		3.1	
E-SG-5-031313	1303408	TO-15	Air	t-Butyl alcohol (TBA)	2.8	2.8	ug/m3	J	J	bt,sp		3.1	