June 17, 2016

North Carolina Department of Environmental Quality
Division of Waste Management, Pre-Regulatory Landfill Unit
1646 Mail Service Center
Raleigh, North Carolina 27699

Attn: Mr. Zi-Qiang Chen
Project Manager

Re: **Potable Well Sampling Report**
Bunn Dump
Bunn, Franklin County, North Carolina
ID# NONCD0000312 – Task Order 312WS-3

Dear Mr. Chen:

URS Corporation – North Carolina (URS) is pleased to provide the results of potable well sampling performed in the vicinity of the Bunn Dump (the Site) in Bunn, North Carolina. This report describes the details for potable well sampling conducted in accordance with the May 17, 2016 authorization associated with Task Order 312WS-3 by the North Carolina Department of Environmental Quality (NCDEQ) Pre-Regulatory Landfill Unit (the Unit).

On April 7, 2016, URS was able to access and collect water samples from a residential potable well located near the Site at 516 Howard Tant Road in Bunn. One field duplicate sample was also collected from this potable well during the sampling event. As shown on **Table 1**, lead exceeded the EPA Maximum Contaminant Level (MCL) and North Carolina 2L (NC 2L) groundwater standard. Therefore, URS returned to the residence on May 24, 2016, to recollect a water sample from the residential potable well located at 516 Howard Tant Road. One field duplicate sample was also collected. Permission to sample the well from the property owner was obtained by the Unit. Field procedures were performed in accordance with the URS *Standard Operating Procedures/Quality Assurance Manual* (SOP/QAM), dated June 21, 2010. Field notes from the sampling event are included as **Attachment 1**. A site map showing the location of the potable well is provided on **Figure 1**.

Water samples were collected into laboratory-supplied containers and submitted to the laboratory for the analysis of volatile organic compounds (VOCs) by SW-846 8260B, 1,4-dioxane by SW-846 8260B Select Ion Monitoring (SIM), semi-volatile organic compounds (SVOCs) by SW-846 8270D, metals by Environmental Protection Agency (EPA) Methods 200.8 and 245.1, nitrate and sulfate by EPA Method 300/SW-846 9056A, and ammonia by EPA Method 350.1. Samples collected in the field were placed on ice in an insulated cooler and transported to the laboratory via courier as expeditiously as possible. A chain-of-custody record accompanied the shipment of samples to the laboratory. The analytical laboratory report is included as **Attachment 2**.

URS Corporation – North Carolina
1600 Perimeter Park Drive, Suite 400
Morrisville, NC 27560
Tel: 919-461-1100
Fax: 919-461-1415

URS has conducted a completeness check for the analytical results reported by SGS Accutest for the Site. All documentation required by the project was included in the laboratory report. The reported detection limits for undiluted samples were less than standards that are greater than the practical quantitation limit. Samples were analyzed in accordance with laboratory protocols and analytical methods. Samples were prepared and analyzed within EPA-established holding times. Quality control results that did not meet laboratory specifications are discussed in the Case Narrative of the laboratory report, and the effect on reported sample results discussed. Sample results are flagged in the laboratory report due to trace analyte concentrations (J-flag). Potable well sample results, as reported by the laboratory, are presented in **Table 1** and shown on **Figure 1**. Laboratory data are usable for the samples collected for their intended purpose.

Sample results were compared to EPA MCL and NC 2L groundwater standards. Analytical results from the confirmatory water sample collected at 516 Howard Tant Road indicated that lead concentrations did not exceeded either of the applicable standards. Results are summarized for the two sampling events (April and May 2016) in **Table 1.**

If you have any questions or require additional information, please do not hesitate to contact me at 919-461-1423.

Sincerely,
URS CORPORATION-NORTH CAROLINA

Margaret Ness
Project Manager

Attachments:

Table 1 – Summary of Potable Well Analytical Results
Figure 1 – Site Map
Attachment 1 – Field Notes
Attachment 2 – Laboratory Report

Table 1
Summary of Potable Well Analytical Results
Bunn Dump, NONCD0000312

Client Sample ID:	**NC 2L**	**MCL**	**WELL-516 TANT**	**WELL-516 TANT-RE**	**DUP-1[(1)]**
Date Sampled:			**4/7/2016**	**5/24/2016**	**5/24/2016**
Analytes:					
Volatiles (SW-846 8260B Full Scan)					
1,2-Dichlorobenzene	0.02	0.6	ND	0.00042 J	0.00047 J
Chloroform	0.070	0.08	ND	ND	ND
Toluene	0.600	1	0.00022 JB	ND	ND
Volatiles (SW-846 8260B SIM)					
1,4-Dioxane	0.003	NG	ND	ND	ND
Semivolatiles (SW-846 8270D)	NA	NA	ND	ND	ND
Metals (EPA 200.8 and 245.1)					
Antimony	0.001 (I)	0.006	0.0048	ND	ND
Arsenic	0.010	0.01	0.0024	0.00029 J	ND
Beryllium	0.004 (I)	0.004	0.0014	0.00038 J	0.00038 J
Chromium	0.010	0.1	0.0067	0.00017 J	0.00017 J
Copper	1	1.3	0.557	0.0106	0.0105
Iron	0.300	NG	**0.386**	0.0024 J	0.0025 J
Lead	0.015	0.015	**0.541**	0.00075	0.00065
Manganese	0.050	NG	0.0029	0.00048 J	0.00048 J
Mercury	0.001	0.002	ND	ND	ND
Nickel	0.100	NG	0.0042	0.00013 J	0.00017 J
Selenium	0.020	0.05	0.00017 J	0.00012 J	ND
Silver	0.020	NG	**0.0036**	ND	ND
Thallium	0.0002 (I)	0.002	ND	0.000015 J	ND
Zinc	1	NG	0.575	0.191	0.195
Miscellaneous Chemistry (EPA 300 and 350.1)					
Ammonia (EPA 350.1)	1.5 (I)	NG	ND	0.044 J	ND
Nitrate (EPA 300)	10	10	0.25	0.18	0.19
Sulfate (EPA 300)	250	NG	0.61 J	ND	ND

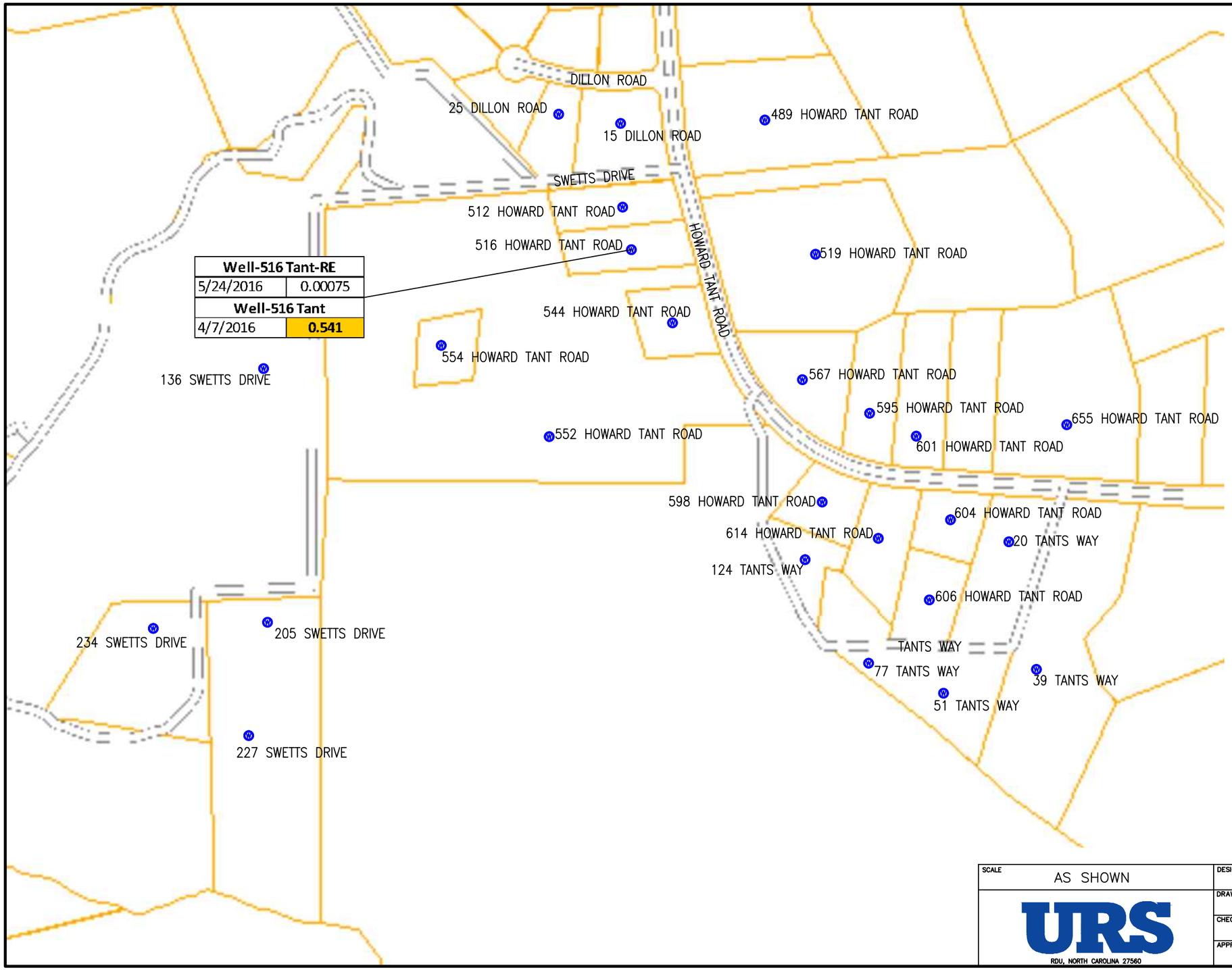
Notes:

I - NC Interim Maximum Allow Concentration (IMAC) established under 15A NCAC 2L.0202
MCL - EPA National Primary Drinking Water Standard Maximum Contaminant Level
NC 2L - 15A NCAC 02L .0202, effective April 1, 2013
[(1)] DUP-1 is a field duplicate of WELL-516 TANT-RE

EPA - Environmental Protection Agency
J - Estimated value
NA - Not applicable
ND - Not detected
NG - No goal established
SIM - Selective Ion Monitoring
SW-846 - *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods* (EPA)

This table presents the results of all detected analytes. All results are reported in milligrams per liter (mg/L).

Bold and outlined results indicate the concentration is greater than the MCL, or the NC 2L groundwater standard in absence of the MCL.



Well-516 Tant-RE	
5/24/2016	0.00075
Well-516 Tant	
4/7/2016	**0.541**

LEGEND

PROPERTY LINES

POTABLE WELL LOCATION

EXCEEDS THE MCL STANDARD FOR LEAD OF 0.015 mg/L

NOTE:
SAMPLE RESULTS ARE REPORTED IN MILLIGRAMS PER LITER (mg/L)

0 300
APPROX. SCALE, ft.

SCALE	DESIGNED BY	DATE	Sample Results Bunn Dump NONCD0000312		
AS SHOWN					
URS RDU, NORTH CAROLINA 27560	DRAWN BY TSH	DATE 16JUN16			
	CHECKED BY JA	DATE 16JUN16	CONTRACT NO. 60492494	DRAWING NO. FIGURE-1	REV.
	APPROVED BY CS	DATE 16JUN16			

Daily Activity Log

Project Name: Bunn Dump
Task Order: 312WS-3
Field Personnel: J. Abbassi; J. Corbin
Project Manager: M. Ness / C. Slusher
Date: 5/24/16
Weather: Sunny 70F
Daily Objective: WSW Sampling

0915 WRS arrives onsite at 516 Howard Tant Rd. Property owner answers door. Will sample from spigot on well in front yard (same location as original sampling)
0920 Conduct calibration check of field equipment
0925 Begin sampling activities and purging of well.
0950 Collect sample "Well-516 Tant-RE" and field duplicate sample (DUP-1 @ 0955)
1010 Complete sampling activities.
1015 WRS offsite.

Water Sample Collection Field Sheet

Project Name: Bunn Dump

Task No: 312WS-3

Sample ID: Well-516 Tank - RE

Date/Time Collected: 5/24/16 @ 0950

Sample Method: spigot

Personnel: J Abbassi, J Corbin

SAMPLE MEDIA: Groundwater **Potable Well** Surface Water

SAMPLE CONTAINERS, PRESERVATIVES, ANALYSIS

Sample Container	Preservative	Analysis
see proposal		

WELL PURGING DATA

Date: 5/24/16

Time Started: 0925

Time Completed: 1010

Well Depth (ft. BTOC)

Depth to Water (ft BTOC)

Actual Purge (liters)

Purge rate (liters/min)

FIELD MEASUREMENTS

Time	Amount Purged (Liters)	Depth to Water (ft)	pH	Temperature (°C)	Conductivity (mS/cm)	Turbidity (NTUs)	~~Comments~~ DO	ORP
0940	–	–	6.24	17.98	0.086	1.68	6.25	117.6
0943	–	–	6.20	17.30	0.069	0.90	6.77	128.7
0946	–	–	6.10	18.30	0.069	0.86	6.13	140.5

FIELD EQUIPMENT AND CALIBRATION

	Make/Model	Serial No	Calibration
Water Level Probe			
Pump			
Water Quality Meter			
Turbidity Meter			

GENERAL COMMENTS

DUP-1 @ 0955

5/24

DAILY INSTRUMENT CALIBRATION CHECK SHEET (CONT.)

	MANUFACTURER	MODEL # & SERIAL #	FACTORY CALIBRATION DATE	DETECTION LIMIT	PARAMETERS CALIBRATED	SUMMARY OF FIELD CALIBRATIONS (what methods, manufacturer's specifications, type of calibration gas, expiration date, etc.)
0920	VSI	08L100230	–	–	pH, COND	pH 6.96 ± .20 COND 1459 ± 20% ORP 200.8 ± 20%
	Lamotte	5368-4004	–	–	Turbidity	1.07 ± .20
1125	VSI		–	–	pH	4.01 ± .20
	Lamotte		–	–	Turb.	0.91 ± .20
1235	VSI		–	–	pH	6.92 ± .20
	Lamotte		–	–	Turb	0.96 ± .20

Notes:
Field instruments must be calibrated in accordance with manufacturer specifications.
Bump calibration tests should be completed before, during, and after field evaluation to confirm calibration.
If field conditions change (e.g. barometric, temperature, humidity changes), recalibration should be completed and documented.
All field calibrations need to be documented, otherwise, the data could be rejected by NCDENR.

SGS ACCUTEST IS PART OF SGS, THE WORLD'S LEADING INSPECTION, VERIFICATION, TESTING AND CERTIFICATION COMPANY.

e-Hardcopy 2.0
Automated Report

Technical Report for

AECOM, INC.

Bunn Dump; Howard Tant Rd, Bunn, NC

60492494.20000

SGS Accutest Job Number: FA34217

Sampling Date: 05/24/16

Report to:

AECOM, INC.
1600 Perimeter Park Drive Suite 400
Morrisville, NC 27560
ncchemists@urs.com

ATTN: Martha Meyers-Lee

Total number of pages in report: **167**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Norm Farmer
Technical Director

Client Service contact: Heather Wandrey 407-425-6700

Certifications: FL (E83510), LA (03051), KS (E-10327), IA (366), IL (200063), NC (573), NJ (FL002), SC (96038001) DoD ELAP (L-A-B L2229), CA (2937), TX (T104704404), PA (68-03573), VA (460177), AK, AR, GA, KY, MA, NV, OK, UT, WA

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Test results relate only to samples analyzed.

SGS Accutest is the sole authority for authorizing edits or modifications to this document.
Unauthorized modification of this report is strictly prohibited.

Table of Contents

-1-

Section 1: Sample Summary **3**
Section 2: Case Narrative/Conformance Summary **4**
Section 3: Summary of Hits **9**
Section 4: Sample Results **10**
4.1: FA34217-1: WELL-516 TANT-RE 11
4.2: FA34217-2: DUP-1 19
Section 5: Misc. Forms **27**
5.1: Certification Exceptions 28
5.2: Chain of Custody 29
5.3: Analyst Legend 32
Section 6: GC/MS Volatiles - QC Data Summaries **33**
6.1: Method Blank Summary 34
6.2: Blank Spike Summary 37
6.3: Matrix Spike/Matrix Spike Duplicate Summary 40
6.4: Instrument Performance Checks (BFB) 43
6.5: Internal Standard Area Summaries 50
6.6: Surrogate Recovery Summaries 53
6.7: Initial and Continuing Calibration Summaries 55
Section 7: GC/MS Semi-volatiles - QC Data Summaries **76**
7.1: Method Blank Summary 77
7.2: Blank Spike Summary 80
7.3: Matrix Spike/Matrix Spike Duplicate Summary 83
7.4: Instrument Performance Checks (DFTPP) 86
7.5: Internal Standard Area Summaries 91
7.6: Surrogate Recovery Summaries 94
7.7: Initial and Continuing Calibration Summaries 95
Section 8: Metals Analysis - QC Data Summaries **113**
8.1: Inst QC MA13186: Hg 114
8.2: Prep QC MP30406: Hg 125
Section 9: General Chemistry - QC Data Summaries **130**
9.1: Method Blank and Spike Results Summary 131
9.2: Matrix Spike Results Summary 132
9.3: Matrix Spike Duplicate Results Summary 133
9.4: Inst QC GN71091: Nitrogen, Nitrate,Sulfate 134
9.5: Inst QC GN71173: Nitrogen, Ammonia 137
Section 10: Misc. Forms (SGS Accutest New Jersey) **140**
10.1: Chain of Custody 141
10.2: Analyst Legend 143
Section 11: Metals Analysis - QC Data (SGS Accutest New Jersey) **144**
11.1: Inst QC MA39531: Sb,As,Be,Cd,Cr,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,Zn 145
11.2: Prep QC MP94013: Sb,As,Be,Cd,Cr,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,Zn 164

SGS Accutest

Sample Summary

AECOM, INC.

Job No: FA34217

Bunn Dump; Howard Tant Rd, Bunn, NC
Project No: 60492494.20000

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA34217-1	05/24/16	09:50	JAJC	05/25/16	AQ	Water	WELL-516 TANT-RE
FA34217-2	05/24/16	09:55	JAJC	05/25/16	AQ	Water	DUP-1

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: AECOM, INC. **Job No:** FA34217

Site: Bunn Dump; Howard Tant Rd, Bunn, NC **Report Date** 6/6/2016 3:09:51 PM

2 Samples were collected on 05/24/2016 and were received at SGS Accutest Southeast (SASE) on 05/25/2016 properly preserved, at 3.2 Deg. C and intact. These Samples received an SASE job number of FA34217. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix: AQ **Batch ID:** VA1942

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) FA34209-2MS, FA34209-2MSD were used as the QC samples indicated.

Matrix Spike Recovery(s) for 1,2-Dibromo-3-chloropropane are outside control limits. Probable cause is due to matrix interference. For method performance in a clean matrix, refer to Blank Spike.

Matrix Spike Duplicate Recovery(s) for 1,2-Dibromo-3-chloropropane, Chloroethane are outside control limits. Probable cause is due to matrix interference. For method performance in a clean matrix, refer to Blank Spike.

Volatiles by GCMS By Method SW846 8260B BY SIM

Matrix: AQ **Batch ID:** VZ1545

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) FA34114-1MS, FA34114-1MSD were used as the QC samples indicated.

Extractables by GCMS By Method SW846 8270D

Matrix: AQ **Batch ID:** OP60631

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) FA34254-1MS, FA34254-1MSD were used as the QC samples indicated.

Metals By Method EPA 200.8

Matrix: AQ **Batch ID:** N: MP94013

FA34217-1, 2 for Antimony: Analysis performed at Accutest Laboratories, Dayton, NJ.

FA34217-1, 2 for Arsenic: Analysis performed at Accutest Laboratories, Dayton, NJ.

FA34217-1, 2 for Beryllium: Analysis performed at Accutest Laboratories, Dayton, NJ.

FA34217-1, 2 for Cadmium: Analysis performed at Accutest Laboratories, Dayton, NJ.

FA34217-1, 2 for Chromium: Analysis performed at Accutest Laboratories, Dayton, NJ.

FA34217-1, 2 for Copper: Analysis performed at Accutest Laboratories, Dayton, NJ.

FA34217-1, 2 for Iron: Analysis performed at Accutest Laboratories, Dayton, NJ.

FA34217-1, 2 for Lead: Analysis performed at Accutest Laboratories, Dayton, NJ.

FA34217-1, 2 for Manganese: Analysis performed at Accutest Laboratories, Dayton, NJ.

FA34217-1, 2 for Nickel: Analysis performed at Accutest Laboratories, Dayton, NJ.

FA34217-1, 2 for Selenium: Analysis performed at Accutest Laboratories, Dayton, NJ.

Metals By Method EPA 200.8

Matrix: AQ **Batch ID:** N: MP94013

FA34217-1, 2 for Silver: Analysis performed at Accutest Laboratories, Dayton, NJ.

FA34217-1, 2 for Thallium: Analysis performed at Accutest Laboratories, Dayton, NJ.

FA34217-1, 2 for Zinc: Analysis performed at Accutest Laboratories, Dayton, NJ.

Metals By Method EPA 245.1

Matrix: AQ **Batch ID:** MP30406

All samples were digested within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) FA34217-1DUP, FA34217-1MS, FA34217-1MSD, FA34217-1SDL were used as the QC samples for metals.

Wet Chemistry By Method EPA 300/SW846 9056A

Matrix: AQ **Batch ID:** GP28007

All samples were prepped within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) FA34217-1MS, FA34217-1MSD were used as the QC samples for Nitrogen, Nitrate, Sulfate.

Wet Chemistry By Method EPA 350.1

Matrix: AQ **Batch ID:** GP28042

All samples were prepped within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) FA34217-1MS, FA34217-1MSD were used as the QC samples for Nitrogen, Ammonia.

Matrix Spike Recovery(s) for Nitrogen, Ammonia are outside control limits. Probable cause is due to matrix interference. For method performance in a clean matrix, refer to Blank Spike.

SGS Accutest (SASE) certifies that this report meets the project requirements for analytical data produced for the samples as received at SASE and as stated on the COC. SASE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the SASE Quality Manual except as noted above. This report is to be used in its entirety. SASE is not responsible for any assumptions of data quality if partial data packages are used

Narrative prepared by:

Lovelie Metzgar

Lovelie Metzgar, QA Officer

Date: June 6, 2016

Laboratory Report Glossary

Client Sample ID: Normally refers to a point of collection – a monitoring well, discharge outfall, treatment facility intake, soil core grid location and depth, or any other identification client assigns to a sample.
Lab Sample ID: Letter prefix identifies one of Accutest laboratories and the rest is a consecutive number of the job (or SDG) received. Number after dash is a sample number and it is unequivocally linked in the LIMS to the Client Sample ID (see above).
Matrix (Matrix Code):

- **AQ- Water Samples**
- **SO- Soil/Solid Samples**
- **LIQ- Non-Water Liquid Samples**
- **OIL- Oil Samples**

Matrix Type:

- **SW for Surface Water**
- **SO for Soil/Sediment**
- **GW for Ground Water**
- **DW for Drinking Water**

All available definitions are found on Chain of Custody form.

Deg. C: Degrees Celsius, measurement of temperature.
Method: Analytical and preparation methods used for the analysis, with the version or revision identified.
Date Sampled: This information is entered from Chain of Custody at the time of login for every sample.
Date Received: When the job was received by Accutest Laboratories.
Percent Solids: Applicable only to SO matrix. For other matrices this field defaults to "n/a".
Run #: Provides information how many attempts were made in the analysis of the sample. LIMS can merge information from several attempts and lists all of them, including dilution, confirmation, etc. #1 designation is assigned to the analytical run with majority of analytes reported from it, not necessarily in chronological order.
File ID: Actual instrument data acquisition file that produced the final result. Letter prefix identifies the instrument; the rest is a consecutive injection number for that instrument.
DF (Dilution Factor): Most common reasons are either to fit into the range of the calibration, or alleviate matrix interference. DF other than 1 are accompanied with a comment at the end of the sample report.
Analyzed: Date of analysis.
By: Field Technician or Analyst uniquely identified by initials.
Prep Date: Date of sample preparation. If hold time is 72 hours or less, time of preparation is also indicated.
Prep Batch: Letter prefix OP followed by a consecutive number. For VOC analysis preparation happens at the time of analysis, therefore analytical batch and preparation batch are the same. Size of prep batch is limited to 20 field samples of similar matrix and the entire batch should be completed within 12 hour time.
Analytical Batch: Letter prefix identifies the instrument and is followed by a consecutive number. Not limited by a number of samples.
Initial Weight or Initial Volume: Raw sample size used for preparation.
Final Volume: Final volume of extract. If different from method-prescribed volume, reasons are reflected in the comments at the end of the report form.
CAS Number: *Chemical Abstracts Service* (CAS), a division of the *American Chemical Society*.
Compound: Most commonly used names of chemical compounds.
Result: Depending on project requirements, this field could be set up as text, such as ND (for Non Detected) or a number. The number may be reported with a qualifier.
MDL (Method Detection Limit): This value is defined as 99% probability that analyte above this concentration is positively (qualitatively) identified.
RL (Reporting Limit): This value is supported by the low calibration standard and defines lowest point of quantitative identification of analyte.
DL (Detection Limit): The smallest analyte concentration that can be demonstrated to be different from zero or a blank concentration with 99% confidence. At the DL, the false positive rate (Type I error) is 1%.
LOD (Limit of Detection): The smallest concentration of a substance that must be present in a sample in order to be detected at the DL with 99% confidence. At the LOD, the false negative rate (Type II error) is 1%.
LOQ (Limit of Quantitation): The smallest concentration that produces a quantitative result with known and recorded precision and bias.

Units: ug/l (micrograms per liter) for aqueous samples and ug/kg (micrograms per kilogram) for solids (or ppb – parts per billion). The units could be set according to project or state-specific requirements, such as mg/l (milligrams per liter), or mg/kg (milligrams per kilogram).
Qualifiers (Q): Definitions of most often used qualifiers are found at the bottom of each result page. Applied depending on the program – state-specific (Florida A.C. 62-160), CLP-like, AFCEE, DOD QSM, etc.
Tentatively Identified Compound (TIC): Used when client requests a search for analytes that are not part of instrument calibration. Unknown peaks are compared with published spectral libraries and best match is reported as TIC.
Surrogate (S1, S2, S3 etc.): are positive controls that are used in most organics methods to ascertain preparation efficiency and matrix effect in individual samples. These chemicals mimic common method constituents but are unlikely to be found in real samples. Recoveries can be reported for every analytical run used in the analysis.
IS (Internal Standard IS1, IS2, IS3, etc): quantitative reference used to adjust for instrument performance fluctuations.
Area (of chromatographic peak): signal intensity directly related to compound concentration.
RT (Retention Time): time required for analyte to traverse the length of analytical column. Used for compound identification.
ICAL (Initial Calibration): Must pass calibration criteria established by method.
ICV (Independent Calibration Verification): Used to verify ICAL preparation and concentration of calibration points.
CCV (Continuing Calibration Verification): Used to assess calibration status of the instrument and must recover within established acceptance criteria.
MB (Method Blank): is a negative batch control. MB is an aliquot of matrix free of analyte of interest (either ASTM Type II water or appropriate solid substance) that is put through all the preparation and possible clean-up steps alongside investigative (field) samples. MB should be free of interferences above a set level.
BS (Blank Spike, Laboratory Fortified Blank - LFB, Laboratory Control Sample - LCS): is a positive control used to determine method accuracy - in clean matrix, i.e. matrix free of analytes of interest.
BSD (Blank Spike Duplicate): Used to assess recovery reproducibility - method precision – per analytical method requirement. %Recovery and Relative Percent Difference (%RPD) are compared with the established acceptance criteria.
MS and/or **MSD (Matrix Spike and Matrix Spike Duplicate):** positive batch controls which indicate matrix effect on the precision and accuracy of the method in given sample matrix. Results are expressed in %Recovery and Relative Percent Difference (%RPD), and compared with the established acceptance criteria.
DUP (Matrix Duplicate): Positive batch control, a way of assessing laboratory's precision; however, the composition of the samples is unknown and may not yield meaningful results.
REC (Recovery in Percent): expresses method accuracy.
RPD (Relative Percent Difference): expresses method precision.
Limits: Recovery limits for surrogates and spikes

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	Accutest Laboratories Southeast, Inc.	**Job No**	FA34217
Site:	URSNCM: Bunn Dump; Howard Tant Rd, Bunn, NC	**Report Date**	6/1/2016 2:21:41 PM

On 05/27/2016, 2 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS Accutest at a maximum corrected temperature of 6.5 C. Samples were intact and chemically preserved, unless noted below. A SGS Accutest Job Number of FA34217 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Metals By Method EPA 200.8

Matrix: AQ **Batch ID:** MP94013

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) FA34185-2MS, FA34185-2MSD were used as the QC samples for metals.

SGS Accutest certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS Accutest is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS Accutest indicated via signature on the report cover

Summary of Hits

Job Number: FA34217
Account: AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC
Collected: 05/24/16

3

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
FA34217-1	**WELL-516 TANT-RE**					
1,2-Dichlorobenzene		0.00042 J	0.0010	0.00027	mg/l	SW846 8260B
Arsenic [a]		0.00029 J	0.0010	0.000034	mg/l	EPA 200.8
Beryllium [a]		0.00038 J	0.00050	0.000013	mg/l	EPA 200.8
Chromium [a]		0.00017 J	0.0040	0.00010	mg/l	EPA 200.8
Copper [a]		0.0106	0.0040	0.00014	mg/l	EPA 200.8
Iron [a]		0.0024 J	0.050	0.0020	mg/l	EPA 200.8
Lead [a]		0.00075	0.00050	0.000011	mg/l	EPA 200.8
Manganese [a]		0.00048 J	0.0010	0.000095	mg/l	EPA 200.8
Nickel [a]		0.00013 J	0.0040	0.00011	mg/l	EPA 200.8
Selenium [a]		0.00012 J	0.0010	0.00012	mg/l	EPA 200.8
Thallium [a]		0.000015 J	0.00050	0.000013	mg/l	EPA 200.8
Zinc [a]		0.191	0.010	0.0012	mg/l	EPA 200.8
Nitrogen, Ammonia		0.044 J	0.10	0.030	mg/l	EPA 350.1
Nitrogen, Nitrate		0.18	0.10	0.050	mg/l	EPA 300/SW846 9056A
FA34217-2	**DUP-1**					
1,2-Dichlorobenzene		0.00047 J	0.0010	0.00027	mg/l	SW846 8260B
Beryllium [a]		0.00038 J	0.00050	0.000013	mg/l	EPA 200.8
Chromium [a]		0.00017 J	0.0040	0.00010	mg/l	EPA 200.8
Copper [a]		0.0105	0.0040	0.00014	mg/l	EPA 200.8
Iron [a]		0.0025 J	0.050	0.0020	mg/l	EPA 200.8
Lead [a]		0.00065	0.00050	0.000011	mg/l	EPA 200.8
Manganese [a]		0.00048 J	0.0010	0.000095	mg/l	EPA 200.8
Nickel [a]		0.00017 J	0.0040	0.00011	mg/l	EPA 200.8
Zinc [a]		0.195	0.010	0.0012	mg/l	EPA 200.8
Nitrogen, Nitrate		0.19	0.10	0.050	mg/l	EPA 300/SW846 9056A

(a) Analysis performed at Accutest Laboratories, Dayton, NJ.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	WELL-516 TANT-RE		
Lab Sample ID:	FA34217-1	**Date Sampled:**	05/24/16
Matrix:	AQ - Water	**Date Received:**	05/25/16
Method:	SW846 8260B BY SIM	**Percent Solids:**	n/a
Project:	Bunn Dump; Howard Tant Rd, Bunn, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z41110.D	1	05/26/16	MM	n/a	n/a	VZ1545
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	0.0010	0.00030	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	115%		74-125%
2037-26-5	Toluene-D8	100%		88-111%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WELL-516 TANT-RE		
Lab Sample ID:	FA34217-1	**Date Sampled:**	05/24/16
Matrix:	AQ - Water	**Date Received:**	05/25/16
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Bunn Dump; Howard Tant Rd, Bunn, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A0201042.D	1	05/31/16	TD	n/a	n/a	VA1942
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (SOM02.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.025	0.010	mg/l	
71-43-2	Benzene	ND	0.0010	0.00020	mg/l	
74-97-5	Bromochloromethane	ND	0.0010	0.00042	mg/l	
75-27-4	Bromodichloromethane	ND	0.0010	0.00024	mg/l	
75-25-2	Bromoform	ND	0.0010	0.00046	mg/l	
78-93-3	2-Butanone (MEK)	ND	0.0050	0.0026	mg/l	
75-15-0	Carbon Disulfide	ND	0.0020	0.00023	mg/l	
56-23-5	Carbon Tetrachloride	ND	0.0010	0.00030	mg/l	
108-90-7	Chlorobenzene	ND	0.0010	0.00020	mg/l	
75-00-3	Chloroethane	ND	0.0020	0.00063	mg/l	
67-66-3	Chloroform	ND	0.0010	0.00030	mg/l	
110-82-7	Cyclohexane	ND	0.0010	0.00026	mg/l	
124-48-1	Dibromochloromethane	ND	0.0010	0.00026	mg/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0050	0.00081	mg/l	
106-93-4	1,2-Dibromoethane	ND	0.0020	0.00033	mg/l	
75-71-8	Dichlorodifluoromethane	ND	0.0020	0.00050	mg/l	
95-50-1	1,2-Dichlorobenzene	0.00042	0.0010	0.00027	mg/l	J
541-73-1	1,3-Dichlorobenzene	ND	0.0010	0.00024	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	0.0010	0.00039	mg/l	
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00026	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00028	mg/l	
75-35-4	1,1-Dichloroethylene	ND	0.0010	0.00022	mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0010	0.00031	mg/l	
156-60-5	trans-1,2-Dichloroethylene	ND	0.0010	0.00033	mg/l	
78-87-5	1,2-Dichloropropane	ND	0.0010	0.00034	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0010	0.00026	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0010	0.00025	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00025	mg/l	
76-13-1	Freon 113	ND	0.0010	0.00032	mg/l	
591-78-6	2-Hexanone	ND	0.010	0.0020	mg/l	
98-82-8	Isopropylbenzene	ND	0.0010	0.00033	mg/l	
79-20-9	Methyl Acetate	ND	0.020	0.0050	mg/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WELL-516 TANT-RE		
Lab Sample ID:	FA34217-1	**Date Sampled:**	05/24/16
Matrix:	AQ - Water	**Date Received:**	05/25/16
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Bunn Dump; Howard Tant Rd, Bunn, NC		

VOA TCL List (SOM02.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
74-83-9	Methyl Bromide	ND	0.0020	0.00050	mg/l	
74-87-3	Methyl Chloride	ND	0.0020	0.00050	mg/l	
108-87-2	Methylcyclohexane	ND	0.0010	0.00023	mg/l	
75-09-2	Methylene Chloride	ND	0.0050	0.0020	mg/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	0.0050	0.0014	mg/l	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0010	0.00020	mg/l	
100-42-5	Styrene	ND	0.0010	0.00024	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0010	0.00033	mg/l	
127-18-4	Tetrachloroethylene	ND	0.0010	0.00030	mg/l	
108-88-3	Toluene	ND	0.0010	0.00020	mg/l	
87-61-6	1,2,3-Trichlorobenzene	ND	0.0020	0.00051	mg/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0020	0.00050	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00020	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00037	mg/l	
79-01-6	Trichloroethylene	ND	0.0010	0.00027	mg/l	
75-69-4	Trichlorofluoromethane	ND	0.0020	0.00050	mg/l	
75-01-4	Vinyl Chloride	ND	0.0010	0.00031	mg/l	
	m,p-Xylene	ND	0.0020	0.00030	mg/l	
95-47-6	o-Xylene	ND	0.0010	0.00026	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		83-118%
17060-07-0	1,2-Dichloroethane-D4	102%		79-125%
2037-26-5	Toluene-D8	102%		85-112%
460-00-4	4-Bromofluorobenzene	102%		83-118%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WELL-516 TANT-RE		
Lab Sample ID:	FA34217-1	**Date Sampled:**	05/24/16
Matrix:	AQ - Water	**Date Received:**	05/25/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Bunn Dump; Howard Tant Rd, Bunn, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X046682.D	1	06/01/16	MV	05/31/16	OP60631	SX2054
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

ABN TCL (SOM01.1) List

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	0.010	0.0025	mg/l	
59-50-7	4-Chloro-3-methyl Phenol	ND	0.0050	0.00074	mg/l	
95-57-8	2-Chlorophenol	ND	0.0050	0.00064	mg/l	
120-83-2	2,4-Dichlorophenol	ND	0.0050	0.00063	mg/l	
105-67-9	2,4-Dimethylphenol	ND	0.0050	0.00070	mg/l	
51-28-5	2,4-Dinitrophenol	ND	0.025	0.0050	mg/l	
534-52-1	4,6-Dinitro-o-cresol	ND	0.010	0.0020	mg/l	
95-48-7	2-Methylphenol	ND	0.0050	0.00058	mg/l	
	3&4-Methylphenol	ND	0.0050	0.0011	mg/l	
88-75-5	2-Nitrophenol	ND	0.0050	0.00062	mg/l	
100-02-7	4-Nitrophenol	ND	0.025	0.0050	mg/l	
87-86-5	Pentachlorophenol	ND	0.025	0.0050	mg/l	
108-95-2	Phenol	ND	0.0050	0.00050	mg/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	0.0050	0.00091	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	0.0050	0.0010	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	0.0050	0.00086	mg/l	
83-32-9	Acenaphthene	ND	0.0050	0.00056	mg/l	
208-96-8	Acenaphthylene	ND	0.0050	0.00058	mg/l	
98-86-2	Acetophenone	ND	0.0050	0.00071	mg/l	
120-12-7	Anthracene	ND	0.0050	0.00061	mg/l	
1912-24-9	Atrazine	ND	0.0050	0.00063	mg/l	
100-52-7	Benzaldehyde	ND	0.025	0.0050	mg/l	
56-55-3	Benzo(a)anthracene	ND	0.0050	0.00050	mg/l	
50-32-8	Benzo(a)pyrene	ND	0.0050	0.00050	mg/l	
205-99-2	Benzo(b)fluoranthene	ND	0.0050	0.00054	mg/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.0050	0.00050	mg/l	
207-08-9	Benzo(k)fluoranthene	ND	0.0050	0.00063	mg/l	
92-52-4	1,1'-Biphenyl	ND	0.0050	0.00050	mg/l	
101-55-3	4-Bromophenyl Phenyl Ether	ND	0.0050	0.00050	mg/l	
85-68-7	Butyl Benzyl Phthalate	ND	0.0050	0.0010	mg/l	
86-74-8	Carbazole	ND	0.0050	0.00056	mg/l	
106-47-8	4-Chloroaniline	ND	0.0050	0.00072	mg/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WELL-516 TANT-RE		
Lab Sample ID:	FA34217-1	**Date Sampled:**	05/24/16
Matrix:	AQ - Water	**Date Received:**	05/25/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Bunn Dump; Howard Tant Rd, Bunn, NC		

ABN TCL (SOM01.1) List

CAS No.	Compound	Result	RL	MDL	Units	Q
111-91-1	bis(2-Chloroethoxy)methane	ND	0.0050	0.00068	mg/l	
111-44-4	bis(2-Chloroethyl)ether	ND	0.0050	0.00069	mg/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.0050	0.00069	mg/l	
91-58-7	2-Chloronaphthalene	ND	0.0050	0.00050	mg/l	
7005-72-3	4-Chlorophenyl Phenyl Ether	ND	0.0050	0.00058	mg/l	
218-01-9	Chrysene	ND	0.0050	0.00053	mg/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.0050	0.00076	mg/l	
132-64-9	Dibenzofuran	ND	0.0050	0.00067	mg/l	
91-94-1	3,3'-Dichlorobenzidine	ND	0.0050	0.00050	mg/l	
84-66-2	Diethyl Phthalate	ND	0.0050	0.0010	mg/l	
131-11-3	Dimethyl Phthalate	ND	0.0050	0.0010	mg/l	
84-74-2	Di-n-butyl Phthalate	ND	0.0050	0.0010	mg/l	
117-84-0	Di-n-octyl Phthalate	ND	0.0050	0.0010	mg/l	
121-14-2	2,4-Dinitrotoluene	ND	0.0050	0.00063	mg/l	
606-20-2	2,6-Dinitrotoluene	ND	0.0050	0.00058	mg/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	0.0050	0.0010	mg/l	
206-44-0	Fluoranthene	ND	0.0050	0.00050	mg/l	
86-73-7	Fluorene	ND	0.0050	0.00065	mg/l	
118-74-1	Hexachlorobenzene	ND	0.0050	0.00055	mg/l	
87-68-3	Hexachlorobutadiene	ND	0.0050	0.00051	mg/l	
77-47-4	Hexachlorocyclopentadiene	ND	0.0050	0.0010	mg/l	
67-72-1	Hexachloroethane	ND	0.0050	0.00051	mg/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.0050	0.00050	mg/l	
78-59-1	Isophorone	ND	0.0050	0.00067	mg/l	
91-57-6	2-Methylnaphthalene	ND	0.0050	0.00056	mg/l	
91-20-3	Naphthalene	ND	0.0050	0.00050	mg/l	
88-74-4	2-Nitroaniline	ND	0.0050	0.00070	mg/l	
99-09-2	3-Nitroaniline	ND	0.0050	0.00075	mg/l	
100-01-6	4-Nitroaniline	ND	0.0050	0.00072	mg/l	
98-95-3	Nitrobenzene	ND	0.0050	0.00066	mg/l	
621-64-7	N-Nitrosodi-n-propylamine	ND	0.0050	0.00058	mg/l	
86-30-6	N-Nitrosodiphenylamine	ND	0.0050	0.00070	mg/l	
85-01-8	Phenanthrene	ND	0.0050	0.00060	mg/l	
129-00-0	Pyrene	ND	0.0050	0.00055	mg/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	0.0050	0.00050	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	28%		14-67%
4165-62-2	Phenol-d5	19%		10-50%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WELL-516 TANT-RE		
Lab Sample ID:	FA34217-1	**Date Sampled:**	05/24/16
Matrix:	AQ - Water	**Date Received:**	05/25/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Bunn Dump; Howard Tant Rd, Bunn, NC		

ABN TCL (SOM01.1) List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
118-79-6	2,4,6-Tribromophenol	58%		33-118%
4165-60-0	Nitrobenzene-d5	53%		42-108%
321-60-8	2-Fluorobiphenyl	58%		40-106%
1718-51-0	Terphenyl-d14	76%		39-121%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WELL-516 TANT-RE		
Lab Sample ID:	FA34217-1	**Date Sampled:**	05/24/16
Matrix:	AQ - Water	**Date Received:**	05/25/16
		Percent Solids:	n/a
Project:	Bunn Dump; Howard Tant Rd, Bunn, NC		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony [a]	ND	0.0020	0.00026	mg/l	1	05/31/16	05/31/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Arsenic [a]	0.00029 J	0.0010	0.000034	mg/l	1	05/31/16	05/31/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Beryllium [a]	0.00038 J	0.00050	0.000013	mg/l	1	05/31/16	05/31/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Cadmium [a]	ND	0.00050	0.00012	mg/l	1	05/31/16	05/31/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Chromium [a]	0.00017 J	0.0040	0.00010	mg/l	1	05/31/16	05/31/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Copper [a]	0.0106	0.0040	0.00014	mg/l	1	05/31/16	05/31/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Iron [a]	0.0024 J	0.050	0.0020	mg/l	1	05/31/16	05/31/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Lead [a]	0.00075	0.00050	0.000011	mg/l	1	05/31/16	05/31/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Manganese [a]	0.00048 J	0.0010	0.000095	mg/l	1	05/31/16	05/31/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Mercury	ND	0.00050	0.000030	mg/l	1	05/27/16	05/27/16	JL	EPA 245.1 [1]	EPA 245.1 [3]
Nickel [a]	0.00013 J	0.0040	0.00011	mg/l	1	05/31/16	05/31/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Selenium [a]	0.00012 J	0.0010	0.00012	mg/l	1	05/31/16	05/31/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Silver [a]	ND	0.0020	0.000041	mg/l	1	05/31/16	05/31/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Thallium [a]	0.000015 J	0.00050	0.000013	mg/l	1	05/31/16	05/31/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Zinc [a]	0.191	0.010	0.0012	mg/l	1	05/31/16	05/31/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]

(1) Instrument QC Batch: MA13186
(2) Instrument QC Batch: N:MA39531
(3) Prep QC Batch: MP30406
(4) Prep QC Batch: N:MP94013

(a) Analysis performed at Accutest Laboratories, Dayton, NJ.

RL = Reporting Limit
MDL = Method Detection Limit
ND = Not detected
J = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	WELL-516 TANT-RE		
Lab Sample ID:	FA34217-1	**Date Sampled:**	05/24/16
Matrix:	AQ - Water	**Date Received:**	05/25/16
		Percent Solids:	n/a
Project:	Bunn Dump; Howard Tant Rd, Bunn, NC		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Nitrogen, Ammonia	0.044 J	0.10	0.030	mg/l	1	06/03/16 14:26	KH	EPA 350.1
Nitrogen, Nitrate	0.18	0.10	0.050	mg/l	1	05/25/16 14:34	LJ	EPA 300/SW846 9056A
Sulfate	ND	2.0	0.60	mg/l	1	05/25/16 14:34	LJ	EPA 300/SW846 9056A

RL = Reporting Limit
MDL = Method Detection Limit

ND = Not detected
J = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	DUP-1		
Lab Sample ID:	FA34217-2	**Date Sampled:**	05/24/16
Matrix:	AQ - Water	**Date Received:**	05/25/16
Method:	SW846 8260B BY SIM	**Percent Solids:**	n/a
Project:	Bunn Dump; Howard Tant Rd, Bunn, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z41111.D	1	05/26/16	MM	n/a	n/a	VZ1545
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	0.0010	0.00030	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	117%		74-125%
2037-26-5	Toluene-D8	101%		88-111%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP-1		
Lab Sample ID:	FA34217-2	**Date Sampled:**	05/24/16
Matrix:	AQ - Water	**Date Received:**	05/25/16
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Bunn Dump; Howard Tant Rd, Bunn, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A0201043.D	1	05/31/16	TD	n/a	n/a	VA1942
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (SOM02.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.025	0.010	mg/l	
71-43-2	Benzene	ND	0.0010	0.00020	mg/l	
74-97-5	Bromochloromethane	ND	0.0010	0.00042	mg/l	
75-27-4	Bromodichloromethane	ND	0.0010	0.00024	mg/l	
75-25-2	Bromoform	ND	0.0010	0.00046	mg/l	
78-93-3	2-Butanone (MEK)	ND	0.0050	0.0026	mg/l	
75-15-0	Carbon Disulfide	ND	0.0020	0.00023	mg/l	
56-23-5	Carbon Tetrachloride	ND	0.0010	0.00030	mg/l	
108-90-7	Chlorobenzene	ND	0.0010	0.00020	mg/l	
75-00-3	Chloroethane	ND	0.0020	0.00063	mg/l	
67-66-3	Chloroform	ND	0.0010	0.00030	mg/l	
110-82-7	Cyclohexane	ND	0.0010	0.00026	mg/l	
124-48-1	Dibromochloromethane	ND	0.0010	0.00026	mg/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0050	0.00081	mg/l	
106-93-4	1,2-Dibromoethane	ND	0.0020	0.00033	mg/l	
75-71-8	Dichlorodifluoromethane	ND	0.0020	0.00050	mg/l	
95-50-1	1,2-Dichlorobenzene	0.00047	0.0010	0.00027	mg/l	J
541-73-1	1,3-Dichlorobenzene	ND	0.0010	0.00024	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	0.0010	0.00039	mg/l	
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00026	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00028	mg/l	
75-35-4	1,1-Dichloroethylene	ND	0.0010	0.00022	mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0010	0.00031	mg/l	
156-60-5	trans-1,2-Dichloroethylene	ND	0.0010	0.00033	mg/l	
78-87-5	1,2-Dichloropropane	ND	0.0010	0.00034	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0010	0.00026	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0010	0.00025	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00025	mg/l	
76-13-1	Freon 113	ND	0.0010	0.00032	mg/l	
591-78-6	2-Hexanone	ND	0.010	0.0020	mg/l	
98-82-8	Isopropylbenzene	ND	0.0010	0.00033	mg/l	
79-20-9	Methyl Acetate	ND	0.020	0.0050	mg/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP-1		
Lab Sample ID:	FA34217-2	**Date Sampled:**	05/24/16
Matrix:	AQ - Water	**Date Received:**	05/25/16
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Bunn Dump; Howard Tant Rd, Bunn, NC		

VOA TCL List (SOM02.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
74-83-9	Methyl Bromide	ND	0.0020	0.00050	mg/l	
74-87-3	Methyl Chloride	ND	0.0020	0.00050	mg/l	
108-87-2	Methylcyclohexane	ND	0.0010	0.00023	mg/l	
75-09-2	Methylene Chloride	ND	0.0050	0.0020	mg/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	0.0050	0.0014	mg/l	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0010	0.00020	mg/l	
100-42-5	Styrene	ND	0.0010	0.00024	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0010	0.00033	mg/l	
127-18-4	Tetrachloroethylene	ND	0.0010	0.00030	mg/l	
108-88-3	Toluene	ND	0.0010	0.00020	mg/l	
87-61-6	1,2,3-Trichlorobenzene	ND	0.0020	0.00051	mg/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0020	0.00050	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00020	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00037	mg/l	
79-01-6	Trichloroethylene	ND	0.0010	0.00027	mg/l	
75-69-4	Trichlorofluoromethane	ND	0.0020	0.00050	mg/l	
75-01-4	Vinyl Chloride	ND	0.0010	0.00031	mg/l	
	m,p-Xylene	ND	0.0020	0.00030	mg/l	
95-47-6	o-Xylene	ND	0.0010	0.00026	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		83-118%
17060-07-0	1,2-Dichloroethane-D4	104%		79-125%
2037-26-5	Toluene-D8	103%		85-112%
460-00-4	4-Bromofluorobenzene	100%		83-118%

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E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP-1		
Lab Sample ID:	FA34217-2	**Date Sampled:**	05/24/16
Matrix:	AQ - Water	**Date Received:**	05/25/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Bunn Dump; Howard Tant Rd, Bunn, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X046683.D	1	06/01/16	MV	05/31/16	OP60631	SX2054
Run #2							

	Initial Volume	Final Volume
Run #1	1020 ml	1.0 ml
Run #2		

ABN TCL (SOM01.1) List

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	0.0098	0.0025	mg/l	
59-50-7	4-Chloro-3-methyl Phenol	ND	0.0049	0.00073	mg/l	
95-57-8	2-Chlorophenol	ND	0.0049	0.00063	mg/l	
120-83-2	2,4-Dichlorophenol	ND	0.0049	0.00062	mg/l	
105-67-9	2,4-Dimethylphenol	ND	0.0049	0.00068	mg/l	
51-28-5	2,4-Dinitrophenol	ND	0.025	0.0049	mg/l	
534-52-1	4,6-Dinitro-o-cresol	ND	0.0098	0.0020	mg/l	
95-48-7	2-Methylphenol	ND	0.0049	0.00057	mg/l	
	3&4-Methylphenol	ND	0.0049	0.0010	mg/l	
88-75-5	2-Nitrophenol	ND	0.0049	0.00061	mg/l	
100-02-7	4-Nitrophenol	ND	0.025	0.0049	mg/l	
87-86-5	Pentachlorophenol	ND	0.025	0.0049	mg/l	
108-95-2	Phenol	ND	0.0049	0.00049	mg/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	0.0049	0.00089	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	0.0049	0.00098	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	0.0049	0.00085	mg/l	
83-32-9	Acenaphthene	ND	0.0049	0.00055	mg/l	
208-96-8	Acenaphthylene	ND	0.0049	0.00056	mg/l	
98-86-2	Acetophenone	ND	0.0049	0.00070	mg/l	
120-12-7	Anthracene	ND	0.0049	0.00060	mg/l	
1912-24-9	Atrazine	ND	0.0049	0.00062	mg/l	
100-52-7	Benzaldehyde	ND	0.025	0.0049	mg/l	
56-55-3	Benzo(a)anthracene	ND	0.0049	0.00049	mg/l	
50-32-8	Benzo(a)pyrene	ND	0.0049	0.00049	mg/l	
205-99-2	Benzo(b)fluoranthene	ND	0.0049	0.00053	mg/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.0049	0.00049	mg/l	
207-08-9	Benzo(k)fluoranthene	ND	0.0049	0.00062	mg/l	
92-52-4	1,1'-Biphenyl	ND	0.0049	0.00049	mg/l	
101-55-3	4-Bromophenyl Phenyl Ether	ND	0.0049	0.00049	mg/l	
85-68-7	Butyl Benzyl Phthalate	ND	0.0049	0.00098	mg/l	
86-74-8	Carbazole	ND	0.0049	0.00055	mg/l	
106-47-8	4-Chloroaniline	ND	0.0049	0.00070	mg/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP-1		
Lab Sample ID:	FA34217-2	**Date Sampled:**	05/24/16
Matrix:	AQ - Water	**Date Received:**	05/25/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Bunn Dump; Howard Tant Rd, Bunn, NC		

ABN TCL (SOM01.1) List

CAS No.	Compound	Result	RL	MDL	Units	Q
111-91-1	bis(2-Chloroethoxy)methane	ND	0.0049	0.00066	mg/l	
111-44-4	bis(2-Chloroethyl)ether	ND	0.0049	0.00068	mg/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.0049	0.00067	mg/l	
91-58-7	2-Chloronaphthalene	ND	0.0049	0.00049	mg/l	
7005-72-3	4-Chlorophenyl Phenyl Ether	ND	0.0049	0.00057	mg/l	
218-01-9	Chrysene	ND	0.0049	0.00052	mg/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.0049	0.00074	mg/l	
132-64-9	Dibenzofuran	ND	0.0049	0.00066	mg/l	
91-94-1	3,3'-Dichlorobenzidine	ND	0.0049	0.00049	mg/l	
84-66-2	Diethyl Phthalate	ND	0.0049	0.00098	mg/l	
131-11-3	Dimethyl Phthalate	ND	0.0049	0.00098	mg/l	
84-74-2	Di-n-butyl Phthalate	ND	0.0049	0.00098	mg/l	
117-84-0	Di-n-octyl Phthalate	ND	0.0049	0.00098	mg/l	
121-14-2	2,4-Dinitrotoluene	ND	0.0049	0.00062	mg/l	
606-20-2	2,6-Dinitrotoluene	ND	0.0049	0.00057	mg/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	0.0049	0.00098	mg/l	
206-44-0	Fluoranthene	ND	0.0049	0.00049	mg/l	
86-73-7	Fluorene	ND	0.0049	0.00064	mg/l	
118-74-1	Hexachlorobenzene	ND	0.0049	0.00054	mg/l	
87-68-3	Hexachlorobutadiene	ND	0.0049	0.00050	mg/l	
77-47-4	Hexachlorocyclopentadiene	ND	0.0049	0.00098	mg/l	
67-72-1	Hexachloroethane	ND	0.0049	0.00050	mg/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.0049	0.00049	mg/l	
78-59-1	Isophorone	ND	0.0049	0.00066	mg/l	
91-57-6	2-Methylnaphthalene	ND	0.0049	0.00055	mg/l	
91-20-3	Naphthalene	ND	0.0049	0.00049	mg/l	
88-74-4	2-Nitroaniline	ND	0.0049	0.00069	mg/l	
99-09-2	3-Nitroaniline	ND	0.0049	0.00074	mg/l	
100-01-6	4-Nitroaniline	ND	0.0049	0.00070	mg/l	
98-95-3	Nitrobenzene	ND	0.0049	0.00064	mg/l	
621-64-7	N-Nitrosodi-n-propylamine	ND	0.0049	0.00057	mg/l	
86-30-6	N-Nitrosodiphenylamine	ND	0.0049	0.00068	mg/l	
85-01-8	Phenanthrene	ND	0.0049	0.00058	mg/l	
129-00-0	Pyrene	ND	0.0049	0.00054	mg/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	0.0049	0.00049	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	34%		14-67%
4165-62-2	Phenol-d5	23%		10-50%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP-1		
Lab Sample ID:	FA34217-2	**Date Sampled:**	05/24/16
Matrix:	AQ - Water	**Date Received:**	05/25/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Bunn Dump; Howard Tant Rd, Bunn, NC		

ABN TCL (SOM01.1) List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
118-79-6	2,4,6-Tribromophenol	63%		33-118%
4165-60-0	Nitrobenzene-d5	65%		42-108%
321-60-8	2-Fluorobiphenyl	66%		40-106%
1718-51-0	Terphenyl-d14	85%		39-121%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: DUP-1
Lab Sample ID: FA34217-2
Matrix: AQ - Water
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Date Sampled: 05/24/16
Date Received: 05/25/16
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony [a]	ND	0.0020	0.00026	mg/l	1	05/31/16	05/31/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Arsenic [a]	ND	0.0010	0.000034	mg/l	1	05/31/16	05/31/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Beryllium [a]	0.00038 J	0.00050	0.000013	mg/l	1	05/31/16	05/31/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Cadmium [a]	ND	0.00050	0.00012	mg/l	1	05/31/16	05/31/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Chromium [a]	0.00017 J	0.0040	0.00010	mg/l	1	05/31/16	05/31/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Copper [a]	0.0105	0.0040	0.00014	mg/l	1	05/31/16	05/31/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Iron [a]	0.0025 J	0.050	0.0020	mg/l	1	05/31/16	05/31/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Lead [a]	0.00065	0.00050	0.000011	mg/l	1	05/31/16	05/31/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Manganese [a]	0.00048 J	0.0010	0.000095	mg/l	1	05/31/16	05/31/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Mercury	ND	0.00050	0.000030	mg/l	1	05/27/16	05/27/16	JL	EPA 245.1 [1]	EPA 245.1 [3]
Nickel [a]	0.00017 J	0.0040	0.00011	mg/l	1	05/31/16	05/31/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Selenium [a]	ND	0.0010	0.00012	mg/l	1	05/31/16	05/31/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Silver [a]	ND	0.0020	0.000041	mg/l	1	05/31/16	05/31/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Thallium [a]	ND	0.00050	0.000013	mg/l	1	05/31/16	05/31/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Zinc [a]	0.195	0.010	0.0012	mg/l	1	05/31/16	05/31/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]

(1) Instrument QC Batch: MA13186
(2) Instrument QC Batch: N:MA39531
(3) Prep QC Batch: MP30406
(4) Prep QC Batch: N:MP94013

(a) Analysis performed at Accutest Laboratories, Dayton, NJ.

RL = Reporting Limit
MDL = Method Detection Limit
ND = Not detected
J = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	DUP-1		
Lab Sample ID:	FA34217-2	**Date Sampled:**	05/24/16
Matrix:	AQ - Water	**Date Received:**	05/25/16
		Percent Solids:	n/a
Project:	Bunn Dump; Howard Tant Rd, Bunn, NC		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Nitrogen, Ammonia	ND	0.10	0.030	mg/l	1	06/03/16 14:37	KH	EPA 350.1
Nitrogen, Nitrate	0.19	0.10	0.050	mg/l	1	05/25/16 15:59	LJ	EPA 300/SW846 9056A
Sulfate	ND	2.0	0.60	mg/l	1	05/25/16 15:59	LJ	EPA 300/SW846 9056A

RL = Reporting Limit
MDL = Method Detection Limit

ND = Not detected
J = Indicates a result > = MDL but < RL

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- Chain of Custody
- Analyst Legend

Parameter Certification Exceptions

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

The following parameters included in this report are exceptions to NELAC certification.
The certification status of each is indicated below.

Parameter	CAS#	Method	Mat	Certification Status
Freon 113	76-13-1	**SW846 8260B**	AQ	Certified by SOP MS005

Accutest Laboratories Southeast
Chain of Custody

ACCUTEST LABORATORIES

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 • FAX: 407-425-0707
www.accutest.com

Accutest JOB # FA34217 PAGE 1 OF 1

Accutest Quote # SKIFF#

Client / Reporting Information

Company Name: URS Corporation
Address: 1600 Perimeter Park
City: Morrisville State: NC Zip: 27560
Project Contact: M. Ness E-mail:
Phone#: 919-461-1100
Sampler(s) Name(s) Printed: J Abbassi; J Corbin

Project Information

Project Name: Blunn Dump
Street
City State
Project #: 60492494
Fax #
Client Purchase Order #

Analytical Information

Accutest Sample #	Field ID / Point of Collection	DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH+ZnAc	DI WATER	MeOH	VOC (8260B)	1,4-Dioxane (8260B SIM)	SVOCs (8270D)	Metals (200.8+245.1)	AMN (350.1)	NO3+SO4 (300)
1	Well-516 Tank-RE	5/24	0950	JC	DW	11		X	X		X	X				X	X	X	X	X	X
2	DUP-1	5/24	0955	JC	DW	11		X	X		X	X				X	X	X	X	X	X

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe

LAB USE ONLY

TURNAROUND TIME (Business Days)

Approved By: / Rush Code

- [x] 10 Days Standard
- [ ] 7 Day RUSH
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] OTHER

Emergency or Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remarks

Accutest Laboratories
Raleigh, North Carolina
Service Center

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished by:	Date Time:	Received By:
1	5/24/16 15:03	2	3	5.24.16 1504	4 Fed Ex
Relinquished by: FX	Date Time:	Received By: 930	Relinquished by:	Date Time:	Received By:
5		6 5/25/16	7		8

Lab Use Only: Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved where Applicable: Y N Total # of Coolers: 1 Cooler Temperature (s) Celsius: 3.2

5.2 5

FA34217: Chain of Custody
Page 1 of 3

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: FA34217 CLIENT: UPS PROJECT: Bunn Dump

DATE/TIME RECEIVED: 5/25/16 930 {MM/DD/YY 24:00} NUMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: (FEDEX) UPS ACCUTEST COURIER DELIVERY OTHER:

AIRBILL NUMBERS: 7763 5923 8139

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

TRIP BLANK INFORMATION

- [ ] TRIP BLANK PROVIDED
- [X] TRIP BLANK NOT PROVIDED
- [ ] TRIP BLANK NOT ON COC
- [ ] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [ ] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM_____ 5-GRAM_____

NUMBER OF 5035 FIELD KITS ? _____

NUMBER OF LAB FILTERED METALS ? _____

TEMPERATURE INFORMATION

- [ ] IR THERM ID 1 CORR. FACTOR +0.0
- [ ] OBSERVED TEMPS: 3.2
- [ ] CORRECTED TEMPS: 3.2 (USED FOR LIMS)

SAMPLE INFORMATION

- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] 5035 FIELD KITS NOT RECEIVED WITHIN 48 HOURS
- [ ] BULK VOA SOIL JARS NOT RECEIVED WITHIN 48 HOURS
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] RESIDUAL CHLORINE PRESENT LOT#_____

{APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

TEST STRIP LOT#s pH 0-3 230315 pH 10-12 219813A OTHER (specify) _____

SUMMARY OF COMMENTS:

TECHNICIAN SIGNATURE/DATE 5/25/16 REVIEWER SIGNATURE/DATE JC 5-25-16

NF 11/15 RECEIPTLOG040416.xls

5.2 5

FA34217: Chain of Custody
Page 2 of 3

https:

ORIGIN ID:RZZA (919) 208-7171
TERRI RIVENBARK
ACCUTEST LABS SOUTHEAST
6308 - C ANGUS DRIVE

RALEIGH, NC 27617
UNITED STATES US

SHIP DATE: 24MAY16
ACTWGT: 50.00 LB
CAD: 9855222/INET3730

BILL SENDER

TO SAMPLE RECEIVING
ACCUTEST SE
4405 VINELAND RD.
STE. C15
ORLANDO FL 32811
(407) 425-6700 REF
INV
PO: DEPT:

5401/6323/72/F

FedEx. Express

2 of 7

MPS# 0263 7763 5923 8139
Mstr# 7763 5923 8128

0201

WED - 25 MAY 10:30A
PRIORITY OVERNIGHT

XH TIXA

32811
FL-US MCO

5.2

5

Analyst Legend

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Initials	Full Name	Analysis Type
MM	Melissa Mangual	GC/MS Volatiles
TD	Trang Diep	GC/MS Volatiles
MV	Martha Valls	GC/MS Semi-volatiles
JL	James Laureano	Metals Analysis
KH	Karla Hernandez	General Chemistry
LJ	Luis Jimenez	General Chemistry

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ1545-MB	Z41103.D	1	05/26/16	MM	n/a	n/a	VZ1545

The QC reported here applies to the following samples: **Method:** SW846 8260B BY SIM

FA34217-1, FA34217-2

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	1.0	0.30	ug/l	

CAS No.	Surrogate Recoveries		Limits
17060-07-0	1,2-Dichloroethane-D4	113%	74-125%
2037-26-5	Toluene-D8	100%	88-111%

Method Blank Summary

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VA1942-MB	A0201024.D	1	05/31/16	TD	n/a	n/a	VA1942

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA34217-1, FA34217-2

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.42	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.46	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.6	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.23	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.30	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.63	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
110-82-7	Cyclohexane	ND	1.0	0.26	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.26	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	0.81	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.33	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.27	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.39	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.28	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.22	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.33	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.26	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.25	ug/l	
76-13-1	Freon 113	ND	1.0	0.32	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.33	ug/l	
79-20-9	Methyl Acetate	ND	20	5.0	ug/l	
74-83-9	Methyl Bromide	ND	2.0	0.50	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	0.23	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	

Method Blank Summary

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VA1942-MB	A0201024.D	1	05/31/16	TD	n/a	n/a	VA1942

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA34217-1, FA34217-2

CAS No.	Compound	Result	RL	MDL	Units	Q
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.4	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.33	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.30	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.62	2.0	0.51	ug/l	J
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.37	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.27	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl Chloride	ND	1.0	0.31	ug/l	
	m,p-Xylene	ND	2.0	0.30	ug/l	
95-47-6	o-Xylene	ND	1.0	0.26	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	105%	83-118%
17060-07-0	1,2-Dichloroethane-D4	101%	79-125%
2037-26-5	Toluene-D8	103%	85-112%
460-00-4	4-Bromofluorobenzene	100%	83-118%

Blank Spike Summary

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ1545-BS	Z41102.D	1	05/26/16	MM	n/a	n/a	VZ1545

The QC reported here applies to the following samples: **Method:** SW846 8260B BY SIM

FA34217-1, FA34217-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
123-91-1	1,4-Dioxane	20	19.6	98	65-121

CAS No.	Surrogate Recoveries	BSP	Limits
17060-07-0	1,2-Dichloroethane-D4	109%	74-125%
2037-26-5	Toluene-D8	99%	88-111%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VA1942-BS	A0201023.D	1	05/31/16	TD	n/a	n/a	VA1942

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA34217-1, FA34217-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	124	99	50-147
71-43-2	Benzene	25	26.5	106	81-122
74-97-5	Bromochloromethane	25	24.5	98	76-123
75-27-4	Bromodichloromethane	25	27.4	110	79-123
75-25-2	Bromoform	25	24.5	98	66-123
78-93-3	2-Butanone (MEK)	125	132	106	56-143
75-15-0	Carbon Disulfide	25	21.7	87	66-148
56-23-5	Carbon Tetrachloride	25	28.1	112	76-136
108-90-7	Chlorobenzene	25	26.5	106	82-124
75-00-3	Chloroethane	25	29.2	117	62-144
67-66-3	Chloroform	25	27.1	108	80-124
110-82-7	Cyclohexane	25	21.8	87	73-138
124-48-1	Dibromochloromethane	25	24.3	97	78-122
96-12-8	1,2-Dibromo-3-chloropropane	25	22.1	88	64-123
106-93-4	1,2-Dibromoethane	25	27.2	109	75-120
75-71-8	Dichlorodifluoromethane	25	37.9	152	42-167
95-50-1	1,2-Dichlorobenzene	25	26.4	106	82-124
541-73-1	1,3-Dichlorobenzene	25	27.4	110	84-125
106-46-7	1,4-Dichlorobenzene	25	25.8	103	78-120
75-34-3	1,1-Dichloroethane	25	27.6	110	81-122
107-06-2	1,2-Dichloroethane	25	26.1	104	75-125
75-35-4	1,1-Dichloroethylene	25	26.2	105	78-137
156-59-2	cis-1,2-Dichloroethylene	25	26.0	104	78-120
156-60-5	trans-1,2-Dichloroethylene	25	28.4	114	76-127
78-87-5	1,2-Dichloropropane	25	26.2	105	76-124
10061-01-5	cis-1,3-Dichloropropene	25	24.2	97	75-118
10061-02-6	trans-1,3-Dichloropropene	25	25.7	103	80-120
100-41-4	Ethylbenzene	25	26.6	106	81-121
76-13-1	Freon 113	25	22.5	90	72-134
591-78-6	2-Hexanone	125	117	94	61-129
98-82-8	Isopropylbenzene	25	23.9	96	83-132
79-20-9	Methyl Acetate	125	124	99	65-126
74-83-9	Methyl Bromide	25	34.8	139	59-143
74-87-3	Methyl Chloride	25	33.1	132	50-159
108-87-2	Methylcyclohexane	25	23.6	94	76-129
75-09-2	Methylene Chloride	25	26.8	107	69-135

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VA1942-BS	A0201023.D	1	05/31/16	TD	n/a	n/a	VA1942

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA34217-1, FA34217-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
108-10-1	4-Methyl-2-pentanone (MIBK)	125	117	94	66-122
1634-04-4	Methyl Tert Butyl Ether	25	23.7	95	72-117
100-42-5	Styrene	25	23.4	94	78-119
79-34-5	1,1,2,2-Tetrachloroethane	25	26.7	107	72-120
127-18-4	Tetrachloroethylene	25	27.9	112	76-135
108-88-3	Toluene	25	26.5	106	80-120
87-61-6	1,2,3-Trichlorobenzene	25	24.4	98	68-131
120-82-1	1,2,4-Trichlorobenzene	25	23.6	94	73-129
71-55-6	1,1,1-Trichloroethane	25	26.4	106	75-130
79-00-5	1,1,2-Trichloroethane	25	27.8	111	76-119
79-01-6	Trichloroethylene	25	27.4	110	81-126
75-69-4	Trichlorofluoromethane	25	28.6	114	71-156
75-01-4	Vinyl Chloride	25	29.3	117	69-159
	m,p-Xylene	50	49.6	99	79-126
95-47-6	o-Xylene	25	23.0	92	80-127

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	102%	83-118%
17060-07-0	1,2-Dichloroethane-D4	100%	79-125%
2037-26-5	Toluene-D8	99%	85-112%
460-00-4	4-Bromofluorobenzene	97%	83-118%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA34114-1MS	Z41118.D	1	05/26/16	MM	n/a	n/a	VZ1545
FA34114-1MSD	Z41119.D	1	05/26/16	MM	n/a	n/a	VZ1545
FA34114-1	Z41108.D	1	05/26/16	MM	n/a	n/a	VZ1545

The QC reported here applies to the following samples: **Method:** SW846 8260B BY SIM

FA34217-1, FA34217-2

CAS No.	Compound	FA34114-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
123-91-1	1,4-Dioxane	ND		20	20.8	104	20	20.6	103	1	65-121/27

CAS No.	Surrogate Recoveries	MS	MSD	FA34114-1	Limits
17060-07-0	1,2-Dichloroethane-D4	119%	119%	113%	74-125%
2037-26-5	Toluene-D8	101%	101%	100%	88-111%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA34209-2MS	A0201032.D	1	05/31/16	TD	n/a	n/a	VA1942
FA34209-2MSD	A0201033.D	1	05/31/16	TD	n/a	n/a	VA1942
FA34209-2	A0201029.D	1	05/31/16	TD	n/a	n/a	VA1942

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA34217-1, FA34217-2

CAS No.	Compound	FA34209-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	25 U		125	133	106	125	137	110	3	50-147/21
71-43-2	Benzene	1.0 U		25	27.2	109	25	26.9	108	1	81-122/14
74-97-5	Bromochloromethane	1.0 U		25	24.4	98	25	24.7	99	1	76-123/14
75-27-4	Bromodichloromethane	1.0 U		25	29.0	116	25	28.2	113	3	79-123/19
75-25-2	Bromoform	1.0 U		25	25.5	102	25	24.7	99	3	66-123/21
78-93-3	2-Butanone (MEK)	5.0 U		125	127	102	125	130	104	2	56-143/18
75-15-0	Carbon Disulfide	0.32	J	25	20.7	82	25	22.4	88	8	66-148/23
56-23-5	Carbon Tetrachloride	1.0 U		25	28.9	116	25	28.2	113	2	76-136/23
108-90-7	Chlorobenzene	1.0 U		25	27.8	111	25	27.9	112	0	82-124/14
75-00-3	Chloroethane	2.0 U		25	32.6	130	25	36.8	147*	12	62-144/20
67-66-3	Chloroform	1.0 U		25	27.7	111	25	27.2	109	2	80-124/15
110-82-7	Cyclohexane	1.0 U		25	21.2	85	25	21.7	87	2	73-138/18
124-48-1	Dibromochloromethane	1.0 U		25	24.1	96	25	23.9	96	1	78-122/19
96-12-8	1,2-Dibromo-3-chloropropane	5.0 U		25	31.7	127*	25	33.0	132*	4	64-123/18
106-93-4	1,2-Dibromoethane	2.0 U		25	27.6	110	25	28.1	112	2	75-120/13
75-71-8	Dichlorodifluoromethane	2.0 U		25	33.2	133	25	37.4	150	12	42-167/19
95-50-1	1,2-Dichlorobenzene	1.0 U		25	29.1	116	25	29.7	119	2	82-124/14
541-73-1	1,3-Dichlorobenzene	1.0 U		25	28.1	112	25	28.3	113	1	84-125/14
106-46-7	1,4-Dichlorobenzene	1.0 U		25	27.0	108	25	27.2	109	1	78-120/15
75-34-3	1,1-Dichloroethane	0.55	J	25	28.7	113	25	28.6	112	0	81-122/15
107-06-2	1,2-Dichloroethane	1.0 U		25	26.6	106	25	25.5	102	4	75-125/14
75-35-4	1,1-Dichloroethylene	1.0 U		25	25.7	103	25	27.4	110	6	78-137/18
156-59-2	cis-1,2-Dichloroethylene	4.8		25	31.4	106	25	32.4	110	3	78-120/15
156-60-5	trans-1,2-Dichloroethylene	1.0 U		25	28.7	115	25	29.3	117	2	76-127/17
78-87-5	1,2-Dichloropropane	1.0 U		25	26.7	107	25	27.3	109	2	76-124/14
10061-01-5	cis-1,3-Dichloropropene	1.0 U		25	20.5	82	25	20.2	81	1	75-118/23
10061-02-6	trans-1,3-Dichloropropene	1.0 U		25	23.6	94	25	23.5	94	0	80-120/22
100-41-4	Ethylbenzene	0.37	J	25	27.4	108	25	27.7	109	1	81-121/14
76-13-1	Freon 113	1.0 U		25	22.3	89	25	23.6	94	6	72-134/20
591-78-6	2-Hexanone	10 U		125	119	95	125	125	100	5	61-129/18
98-82-8	Isopropylbenzene	1.0 U		25	24.6	98	25	25.0	100	2	83-132/15
79-20-9	Methyl Acetate	20 U		125	122	98	125	125	100	2	65-126/18
74-83-9	Methyl Bromide	2.0 U		25	28.8	115	25	32.8	131	13	59-143/19
74-87-3	Methyl Chloride	2.0 U		25	26.7	107	25	30.9	124	15	50-159/19
108-87-2	Methylcyclohexane	1.0 U		25	23.5	94	25	23.3	93	1	76-129/17
75-09-2	Methylene Chloride	5.0 U		25	27.4	110	25	27.8	111	1	69-135/16

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA34209-2MS	A0201032.D	1	05/31/16	TD	n/a	n/a	VA1942
FA34209-2MSD	A0201033.D	1	05/31/16	TD	n/a	n/a	VA1942
FA34209-2	A0201029.D	1	05/31/16	TD	n/a	n/a	VA1942

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA34217-1, FA34217-2

CAS No.	Compound	FA34209-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
108-10-1	4-Methyl-2-pentanone (MIBK)	5.4		125	124	95	125	131	100	5	66-122/16
1634-04-4	Methyl Tert Butyl Ether	1.0 U		25	22.5	90	25	24.6	98	9	72-117/14
100-42-5	Styrene	1.0 U		25	23.6	94	25	23.6	94	0	78-119/23
79-34-5	1,1,2,2-Tetrachloroethane	1.0 U		25	27.3	109	25	27.7	111	1	72-120/14
127-18-4	Tetrachloroethylene	1.0 U		25	25.9	104	25	26.4	106	2	76-135/16
108-88-3	Toluene	0.93	J	25	26.8	103	25	27.4	106	2	80-120/14
87-61-6	1,2,3-Trichlorobenzene	2.0 U		25	27.1	108	25	28.3	113	4	68-131/25
120-82-1	1,2,4-Trichlorobenzene	2.0 U		25	26.7	107	25	27.6	110	3	73-129/20
71-55-6	1,1,1-Trichloroethane	1.0 U		25	27.0	108	25	26.7	107	1	75-130/16
79-00-5	1,1,2-Trichloroethane	1.0 U		25	26.8	107	25	27.3	109	2	76-119/14
79-01-6	Trichloroethylene	1.0 U		25	28.1	112	25	27.8	111	1	81-126/15
75-69-4	Trichlorofluoromethane	2.0 U		25	25.8	103	25	28.4	114	10	71-156/21
75-01-4	Vinyl Chloride	1.0 U		25	24.8	99	25	28.7	115	15	69-159/18
	m,p-Xylene	0.38	J	50	50.9	101	50	51.2	102	1	79-126/15
95-47-6	o-Xylene	0.53	J	25	24.1	94	25	24.5	96	2	80-127/14

CAS No.	Surrogate Recoveries	MS	MSD	FA34209-2	Limits
1868-53-7	Dibromofluoromethane	103%	102%	109%	83-118%
17060-07-0	1,2-Dichloroethane-D4	101%	99%	104%	79-125%
2037-26-5	Toluene-D8	94%	96%	100%	85-112%
460-00-4	4-Bromofluorobenzene	93%	97%	85%	83-118%

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Sample: VA1934-BFB
Lab File ID: A0200785.D
Instrument ID: GCMSA
Injection Date: 05/18/16
Injection Time: 09:38

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	41693	31.8		Pass
75	30.0 - 60.0% of mass 95	66381	50.6		Pass
95	Base peak, 100% relative abundance	131301	100.0		Pass
96	5.0 - 9.0% of mass 95	8531	6.50		Pass
173	Less than 2.0% of mass 174	1621	1.23	(1.31) [a]	Pass
174	50.0 - 100.0% of mass 95	123795	94.3		Pass
175	5.0 - 9.0% of mass 174	9323	7.10	(7.53) [a]	Pass
176	95.0 - 101.0% of mass 174	119669	91.1	(96.7) [a]	Pass
177	5.0 - 9.0% of mass 176	7782	5.93	(6.50) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VA1934-IC1934	A0200787.D	05/18/16	10:30	00:52	Initial cal 2
VA1934-IC1934	A0200788.D	05/18/16	10:55	01:17	Initial cal 3
VA1934-IC1934	A0200789.D	05/18/16	11:21	01:43	Initial cal 4
VA1934-ICC1934	A0200790.D	05/18/16	11:46	02:08	Initial cal 5
VA1934-IC1934	A0200791.D	05/18/16	12:12	02:34	Initial cal 6
VA1934-IC1934	A0200792.D	05/18/16	12:37	02:59	Initial cal 7
VA1934-IC1934	A0200794.D	05/18/16	13:28	03:50	Initial cal 1
VA1934-ICV1934	A0200795.D	05/18/16	13:54	04:16	Initial cal verification 5
VA1934-BS	A0200796.D	05/18/16	14:19	04:41	Blank Spike
VA1934-MB	A0200797.D	05/18/16	14:45	05:07	Method Blank
ZZZZZZ	A0200798.D	05/18/16	15:09	05:31	(unrelated sample)
ZZZZZZ	A0200799.D	05/18/16	15:32	05:54	(unrelated sample)
ZZZZZZ	A0200800.D	05/18/16	15:55	06:17	(unrelated sample)
ZZZZZZ	A0200801.D	05/18/16	16:16	06:38	(unrelated sample)
ZZZZZZ	A0200802.D	05/18/16	16:38	07:00	(unrelated sample)
ZZZZZZ	A0200803.D	05/18/16	17:01	07:23	(unrelated sample)
ZZZZZZ	A0200804.D	05/18/16	17:22	07:44	(unrelated sample)
ZZZZZZ	A0200805.D	05/18/16	17:48	08:10	(unrelated sample)
ZZZZZZ	A0200806.D	05/18/16	18:13	08:35	(unrelated sample)
ZZZZZZ	A0200807.D	05/18/16	18:39	09:01	(unrelated sample)
FA33938-2	A0200808.D	05/18/16	19:05	09:27	(used for QC only; not part of job FA34217)
ZZZZZZ	A0200809.D	05/18/16	19:30	09:52	(unrelated sample)
ZZZZZZ	A0200810.D	05/18/16	19:56	10:18	(unrelated sample)
FA33938-2MS	A0200811.D	05/18/16	20:22	10:44	Matrix Spike

Instrument Performance Check (BFB)

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Sample: VA1934-BFB
Lab File ID: A0200785.D
Instrument ID: GCMSA
Injection Date: 05/18/16
Injection Time: 09:38

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
FA33938-2MSD	A0200812.D	05/18/16	20:46	11:08	Matrix Spike Duplicate
VA1934-ECC1934	A0200813.D	05/18/16	21:12	11:34	Ending cal 5

Instrument Performance Check (BFB)

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Sample: VA1942-BFB
Lab File ID: A0201021.D
Instrument ID: GCMSA
Injection Date: 05/31/16
Injection Time: 10:44

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	148133	34.5		Pass
75	30.0 - 60.0% of mass 95	220032	51.2		Pass
95	Base peak, 100% relative abundance	429438	100.0		Pass
96	5.0 - 9.0% of mass 95	30331	7.06		Pass
173	Less than 2.0% of mass 174	4603	1.07	(1.26) [a]	Pass
174	50.0 - 100.0% of mass 95	364757	84.9		Pass
175	5.0 - 9.0% of mass 174	28044	6.53	(7.69) [a]	Pass
176	95.0 - 101.0% of mass 174	349950	81.5	(95.9) [a]	Pass
177	5.0 - 9.0% of mass 176	23099	5.38	(6.60) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VA1942-CC1934	A0201022.D	05/31/16	11:10	00:26	Continuing cal 5
VA1942-BS	A0201023.D	05/31/16	11:37	00:53	Blank Spike
VA1942-MB	A0201024.D	05/31/16	12:07	01:23	Method Blank
ZZZZZZ	A0201025.D	05/31/16	12:34	01:50	(unrelated sample)
ZZZZZZ	A0201026.D	05/31/16	13:00	02:16	(unrelated sample)
ZZZZZZ	A0201027.D	05/31/16	13:27	02:43	(unrelated sample)
ZZZZZZ	A0201028.D	05/31/16	13:53	03:09	(unrelated sample)
FA34209-2	A0201029.D	05/31/16	14:19	03:35	(used for QC only; not part of job FA34217)
ZZZZZZ	A0201030.D	05/31/16	14:45	04:01	(unrelated sample)
ZZZZZZ	A0201031.D	05/31/16	15:11	04:27	(unrelated sample)
FA34209-2MS	A0201032.D	05/31/16	15:35	04:51	Matrix Spike
FA34209-2MSD	A0201033.D	05/31/16	15:56	05:12	Matrix Spike Duplicate
ZZZZZZ	A0201035.D	05/31/16	16:44	06:00	(unrelated sample)
ZZZZZZ	A0201036.D	05/31/16	17:06	06:22	(unrelated sample)
ZZZZZZ	A0201037.D	05/31/16	17:32	06:48	(unrelated sample)
ZZZZZZ	A0201038.D	05/31/16	17:58	07:14	(unrelated sample)
ZZZZZZ	A0201039.D	05/31/16	18:24	07:40	(unrelated sample)
ZZZZZZ	A0201040.D	05/31/16	18:49	08:05	(unrelated sample)
ZZZZZZ	A0201041.D	05/31/16	19:15	08:31	(unrelated sample)
FA34217-1	A0201042.D	05/31/16	19:41	08:57	WELL-516 TANT-RE
FA34217-2	A0201043.D	05/31/16	20:07	09:23	DUP-1
ZZZZZZ	A0201044.D	05/31/16	20:33	09:49	(unrelated sample)
ZZZZZZ	A0201045.D	05/31/16	20:59	10:15	(unrelated sample)
ZZZZZZ	A0201046.D	05/31/16	21:24	10:40	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Sample: VA1942-BFB
Lab File ID: A0201021.D
Instrument ID: GCMSA
Injection Date: 05/31/16
Injection Time: 10:44

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	A0201047.D	05/31/16	21:50	11:06	(unrelated sample)
ZZZZZZ	A0201048.D	05/31/16	22:17	11:33	(unrelated sample)
VA1942-ECC1934	A0201049.D	05/31/16	22:42	11:58	Ending cal 5

Instrument Performance Check (BFB)

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Sample: VZ1542-BFB
Lab File ID: Z41008.D
Instrument ID: GCMSZ
Injection Date: 05/23/16
Injection Time: 13:12

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	38547	24.8		Pass
75	30.0 - 60.0% of mass 95	80069	51.5		Pass
95	Base peak, 100% relative abundance	155605	100.0		Pass
96	5.0 - 9.0% of mass 95	10665	6.85		Pass
173	Less than 2.0% of mass 174	1246	0.80	(1.19) [a]	Pass
174	50.0 - 100.0% of mass 95	105064	67.5		Pass
175	5.0 - 9.0% of mass 174	8263	5.31	(7.86) [a]	Pass
176	95.0 - 101.0% of mass 174	101517	65.2	(96.6) [a]	Pass
177	5.0 - 9.0% of mass 176	6685	4.30	(6.59) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VZ1542-IC1542	Z41009.D	05/23/16	13:59	00:47	Initial cal 1
VZ1542-IC1542	Z41010.D	05/23/16	14:27	01:15	Initial cal 2
VZ1542-IC1542	Z41011.D	05/23/16	14:55	01:43	Initial cal 3
VZ1542-ICC1542	Z41012.D	05/23/16	15:23	02:11	Initial cal 4
VZ1542-IC1542	Z41013.D	05/23/16	15:51	02:39	Initial cal 5
VZ1542-IC1542	Z41014.D	05/23/16	16:19	03:07	Initial cal 6
VZ1542-IC1542	Z41015.D	05/23/16	16:47	03:35	Initial cal 7
VZ1542-ICV1542	Z41017.D	05/23/16	17:43	04:31	Initial cal verification 4
VZ1542-BS	Z41018.D	05/23/16	18:11	04:59	Blank Spike
VZ1542-MB	Z41019.D	05/23/16	18:39	05:27	Method Blank
FA34080-1	Z41020.D	05/23/16	19:07	05:55	(used for QC only; not part of job FA34217)
ZZZZZZ	Z41021.D	05/23/16	19:31	06:19	(unrelated sample)
ZZZZZZ	Z41022.D	05/23/16	19:56	06:44	(unrelated sample)
ZZZZZZ	Z41023.D	05/23/16	20:20	07:08	(unrelated sample)
ZZZZZZ	Z41025.D	05/23/16	21:09	07:57	(unrelated sample)
ZZZZZZ	Z41026.D	05/23/16	21:34	08:22	(unrelated sample)
ZZZZZZ	Z41028.D	05/23/16	22:23	09:11	(unrelated sample)
ZZZZZZ	Z41029.D	05/23/16	22:48	09:36	(unrelated sample)
ZZZZZZ	Z41030.D	05/23/16	23:13	10:01	(unrelated sample)
ZZZZZZ	Z41031.D	05/23/16	23:37	10:25	(unrelated sample)
ZZZZZZ	Z41032.D	05/24/16	00:02	10:50	(unrelated sample)
ZZZZZZ	Z41033.D	05/24/16	00:26	11:14	(unrelated sample)
ZZZZZZ	Z41034.D	05/24/16	00:50	11:38	(unrelated sample)
FA34080-1MS	Z41035.D	05/24/16	01:15	12:03	Matrix Spike

Instrument Performance Check (BFB)

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Sample: VZ1542-BFB
Lab File ID: Z41008.D
Instrument ID: GCMSZ
Injection Date: 05/23/16
Injection Time: 13:12

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
FA34080-1MSD	Z41036.D	05/24/16	01:40	12:28	Matrix Spike Duplicate
VZ1542-ECC1542	Z41037.D	05/24/16	02:04	12:52	Ending cal 4

Instrument Performance Check (BFB)

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Sample: VZ1545-BFB
Lab File ID: Z41100.D
Instrument ID: GCMSZ
Injection Date: 05/26/16
Injection Time: 08:08

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	39160	27.5		Pass
75	30.0 - 60.0% of mass 95	81435	57.2		Pass
95	Base peak, 100% relative abundance	142357	100.0		Pass
96	5.0 - 9.0% of mass 95	10246	7.20		Pass
173	Less than 2.0% of mass 174	1527	1.07	(1.65) [a]	Pass
174	50.0 - 100.0% of mass 95	92603	65.0		Pass
175	5.0 - 9.0% of mass 174	7502	5.27	(8.10) [a]	Pass
176	95.0 - 101.0% of mass 174	91267	64.1	(98.6) [a]	Pass
177	5.0 - 9.0% of mass 176	5961	4.19	(6.53) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VZ1545-CC1542	Z41101.D	05/26/16	08:35	00:27	Continuing cal 4
VZ1545-BS	Z41102.D	05/26/16	09:04	00:56	Blank Spike
VZ1545-MB	Z41103.D	05/26/16	09:32	01:24	Method Blank
ZZZZZZ	Z41104.D	05/26/16	10:00	01:52	(unrelated sample)
ZZZZZZ	Z41105.D	05/26/16	10:25	02:17	(unrelated sample)
ZZZZZZ	Z41106.D	05/26/16	10:49	02:41	(unrelated sample)
FA34114-1	Z41108.D	05/26/16	11:39	03:31	(used for QC only; not part of job FA34217)
ZZZZZZ	Z41109.D	05/26/16	12:03	03:55	(unrelated sample)
FA34217-1	Z41110.D	05/26/16	12:28	04:20	WELL-516 TANT-RE
FA34217-2	Z41111.D	05/26/16	12:53	04:45	DUP-1
ZZZZZZ	Z41112.D	05/26/16	13:18	05:10	(unrelated sample)
ZZZZZZ	Z41113.D	05/26/16	13:42	05:34	(unrelated sample)
ZZZZZZ	Z41114.D	05/26/16	14:07	05:59	(unrelated sample)
ZZZZZZ	Z41115.D	05/26/16	14:32	06:24	(unrelated sample)
ZZZZZZ	Z41116.D	05/26/16	14:56	06:48	(unrelated sample)
ZZZZZZ	Z41117.D	05/26/16	15:21	07:13	(unrelated sample)
FA34114-1MS	Z41118.D	05/26/16	15:45	07:37	Matrix Spike
FA34114-1MSD	Z41119.D	05/26/16	16:10	08:02	Matrix Spike Duplicate
VZ1545-ECC1542	Z41120.D	05/26/16	16:34	08:26	Ending cal 4

Volatile Internal Standard Area Summary

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Check Std:	VA1942-CC1934	**Injection Date:**	05/31/16
Lab File ID:	A0201022.D	**Injection Time:**	11:10
Instrument ID:	GCMSA	**Method:**	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
Initial Cal [a]	807142	7.38	634011	10.43	340150	12.79	71207	5.06
Check Std [b]	908695	7.38	723596	10.43	384722	12.79	81014	5.06
Upper Limit [c]	1817390	7.88	1447192	10.93	769444	13.29	162028	5.56
Lower Limit [d]	454348	6.88	361798	9.93	192361	12.29	40507	4.56

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
VA1942-BS	911261	7.38	707651	10.43	373062	12.79	82296	5.05
VA1942-MB	795265	7.38	577687	10.43	286664	12.79	90986	5.05
ZZZZZZ	760127	7.38	538669	10.43	270444	12.79	73214	5.06
ZZZZZZ	736659	7.38	529125	10.43	260525	12.79	73303	5.05
ZZZZZZ	710733	7.38	506716	10.43	252720	12.79	70602	5.06
ZZZZZZ	680759	7.38	481542	10.43	238896	12.79	61383	5.06
FA34209-2	690446	7.38	510141	10.43	287485	12.79	69755	5.05
ZZZZZZ	715745	7.38	518791	10.43	250186	12.79	68376	5.05
ZZZZZZ	674638	7.38	491964	10.43	241876	12.79	67113	5.05
FA34209-2MS	791297	7.38	639867	10.43	346183	12.79	82174	5.06
FA34209-2MSD	872583	7.38	678806	10.43	359869	12.79	91247	5.06
ZZZZZZ	758042	7.38	580930	10.43	339680	12.79	87465	5.05
ZZZZZZ	873282	7.38	642485	10.43	360362	12.79	93077	5.05
ZZZZZZ	969930	7.38	708478	10.43	385119	12.79	104781	5.05
ZZZZZZ	1009026	7.38	732499	10.43	362879	12.79	115009	5.05
ZZZZZZ	920300	7.38	674110	10.43	333721	12.79	98614	5.05
ZZZZZZ	823627	7.38	608388	10.43	299983	12.79	87635	5.05
ZZZZZZ	782264	7.38	573869	10.43	290368	12.79	78559	5.05
FA34217-1	746491	7.38	547667	10.43	268383	12.79	75950	5.04
FA34217-2	721595	7.38	533619	10.43	262536	12.79	70914	5.05
ZZZZZZ	701391	7.38	511148	10.43	252944	12.79	73039	5.05
ZZZZZZ	682755	7.38	504426	10.43	245634	12.79	59358	5.04
ZZZZZZ	660593	7.38	490925	10.43	241829	12.79	65038	5.05
ZZZZZZ	655149	7.38	484084	10.43	235897	12.79	57594	5.06
ZZZZZZ	624938	7.38	461675	10.43	232305	12.79	55481	5.05
VA1942-ECC1934	783313	7.38	631707	10.43	334787	12.79	66150	5.05

IS 1 = Fluorobenzene
IS 2 = Chlorobenzene-D5
IS 3 = 1,4-Dichlorobenzene-d4
IS 4 = Tert Butyl Alcohol-D10

(a) Initial Cal is: VA1934-ICC1934 A0200790.D 05/18/16 11:46

Volatile Internal Standard Area Summary

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Check Std:	VA1942-CC1934	**Injection Date:**	05/31/16
Lab File ID:	A0201022.D	**Injection Time:**	11:10
Instrument ID:	GCMSA	**Method:**	SW846 8260B

Lab	IS 1		IS 2		IS 3		IS 4	
Sample ID	**AREA**	**RT**	**AREA**	**RT**	**AREA**	**RT**	**AREA**	**RT**

(b) Check Std Limit = -50 to + 100% of initial cal area.
(c) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(d) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Internal Standard Area Summary

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Check Std:	VZ1545-CC1542	**Injection Date:**	05/26/16
Lab File ID:	Z41101.D	**Injection Time:**	08:35
Instrument ID:	GCMSZ	**Method:**	SW846 8260B BY SIM

	IS 1 AREA	RT	IS 2 AREA	RT
Initial Cal [a]	693295	3.68	46465	4.26
Check Std [b]	538211	3.68	40149	4.26
Upper Limit [c]	1076422	4.18	80298	4.76
Lower Limit [d]	269106	3.18	20075	3.76

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT
VZ1545-BS	574493	3.69	40203	4.26
VZ1545-MB	559085	3.68	37709	4.27
ZZZZZZ	515464	3.68	36846	4.26
ZZZZZZ	523861	3.68	36252	4.26
ZZZZZZ	590653	3.68	66579	4.26
FA34114-1	534216	3.68	36072	4.26
ZZZZZZ	520743	3.68	34759	4.26
FA34217-1	493985	3.68	31944	4.26
FA34217-2	497059	3.68	33429	4.26
ZZZZZZ	492809	3.68	33503	4.26
ZZZZZZ	491316	3.68	32667	4.26
ZZZZZZ	488332	3.68	32495	4.26
ZZZZZZ	465887	3.68	31912	4.26
ZZZZZZ	468880	3.68	32039	4.26
ZZZZZZ	477040	3.68	33641	4.26
FA34114-1MS	489066	3.67	34328	4.26
FA34114-1MSD	483216	3.68	35332	4.26
VZ1545-ECC1542	478551	3.68	34381	4.26

IS 1 = Fluorobenzene
IS 2 = 1,4-Dioxane-d8

(a) Initial Cal is: VZ1542-ICC1542 Z41012.D 05/23/16 15:23
(b) Check Std Limit = -50 to + 100% of initial cal area.
(c) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(d) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Surrogate Recovery Summary

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Method: SW846 8260B BY SIM **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2
FA34217-1	Z41110.D	115	100
FA34217-2	Z41111.D	117	101
FA34114-1MS	Z41118.D	119	101
FA34114-1MSD	Z41119.D	119	101
VZ1545-BS	Z41102.D	109	99
VZ1545-MB	Z41103.D	113	100

Surrogate Compounds	Recovery Limits
S1 = 1,2-Dichloroethane-D4	74-125%
S2 = Toluene-D8	88-111%

Volatile Surrogate Recovery Summary

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Method: SW846 8260B **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
FA34217-1	A0201042.D	107	102	102	102
FA34217-2	A0201043.D	106	104	103	100
FA34209-2MS	A0201032.D	103	101	94	93
FA34209-2MSD	A0201033.D	102	99	96	97
VA1942-BS	A0201023.D	102	100	99	97
VA1942-MB	A0201024.D	105	101	103	100

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	83-118%
S2 = 1,2-Dichloroethane-D4	79-125%
S3 = Toluene-D8	85-112%
S4 = 4-Bromofluorobenzene	83-118%

Initial Calibration Summary

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Sample: VA1934-ICC1934
Lab FileID: A0200790.D

Response Factor Report MSVOA10

```
Method       : C:\msdchem\1\METHODS\051816oxy.m (RTE Integrator)
Title        : SW-846 Method 5030B/8260B & EPA 624
Last Update  : Wed May 18 14:45:22 2016
Response via : Initial Calibration

Calibration Files
1   =A0200794.D  2   =A0200787.D  3   =A0200788.D  4   =A0200789.D
5   =A0200790.D  6   =A0200791.D  7   =A0200792.D

   Compound             1     2     3     4     5     6     7     Avg   %RSD
-------------------------------------------------------------------------------

1) I   Fluorobenzene         ----------------ISTD---------------------
2)  Dichlorodifluorom 0.272 0.195 0.255 0.254 0.254 0.267 0.261 0.251  10.24
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9995
              Response Ratio = 0.00000 + 0.26185 *A

3)P Chloromethane     0.682 0.443 0.506 0.519 0.526 0.545 0.539 0.537  13.44
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9997
              Response Ratio = 0.00000 + 0.53871 *A

4)C Vinyl Chloride    0.363 0.245 0.313 0.328 0.337 0.348 0.345 0.326  11.97
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9997
              Response Ratio = 0.00000 + 0.34457 *A

5)  Bromomethane      0.186 0.117 0.150 0.130 0.127 0.126 0.122 0.137  17.66
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9991
              Response Ratio = 0.00000 + 0.12389 *A

6)  Chloroethane      0.244 0.134 0.173 0.159 0.152 0.143 0.127 0.162  24.28
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9905
              Response Ratio = 0.00000 + 0.13550 *A

7)  Trichlorofluorome 0.204 0.259 0.373 0.395 0.415 0.445 0.443 0.362  26.01
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9993
              Response Ratio = 0.00000 + 0.43828 *A

8)  Ethyl Ether       0.323 0.204 0.259 0.256 0.264 0.267 0.271 0.263  13.19
9)  1,2-Dichlorotrifl 0.407 0.250 0.319 0.313 0.319 0.315 0.312 0.319  14.33
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9998
              Response Ratio = 0.00000 + 0.31347 *A

10)C 1,1-Dichloroethen 0.614 0.417 0.516 0.527 0.537 0.550 0.551 0.530  11.10
11)  Freon 113         0.316 0.224 0.289 0.292 0.286 0.297 0.292 0.285  10.07
12)  Carbon Disulfide  0.902 0.619 0.760 0.772 0.788 0.784 0.776 0.771  10.70
13)  Iodomethane       0.512 0.369 0.462 0.464 0.470 0.483 0.479 0.463   9.62
14)  Methylene Chlorid 1.311 0.742 0.618 0.587 0.569 0.559 0.545 0.704  39.14
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9998
              Response Ratio = 0.00000 + 0.55316 *A

15)  Acetone           0.137 0.100 0.108 0.108 0.102 0.105 0.099 0.109  11.80
16)  Methyl acetate    0.325 0.225 0.273 0.276 0.268 0.269 0.264 0.272  10.76
17)  trans-1,2-Dichlor 0.507 0.344 0.413 0.423 0.417 0.419 0.413 0.420  11.31
18)  Hexane            0.470 0.278 0.328 0.338 0.328 0.327 0.322 0.341  17.51
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9997
              Response Ratio = 0.00000 + 0.32440 *A

19)  Methyl Tert Butyl 0.723 0.479 0.571 0.583 0.591 0.601 0.608 0.594  12.06
```

```
20)  Di-isopropyl ethe 1.298 0.864 1.193 1.268 1.328 1.391 1.423 1.252  14.96
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9992
              Response Ratio = 0.00000 + 1.39727 *A

21)P 1,1-Dichloroethan 0.570 0.432 0.528 0.537 0.539 0.551 0.554 0.530   8.54
22)  Acrylonitrile     0.138 0.105 0.118 0.129 0.130 0.136 0.134 0.127   9.19
23)  ETBE              0.844 0.579 0.801 0.886 0.927 0.985 0.999 0.860  16.63
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9992
              Response Ratio = 0.00000 + 0.98255 *A

24)  Vinyl acetate     0.644 0.553 0.725 0.816 0.828 0.876 0.850 0.756  15.90
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9973
              Response Ratio = 0.00000 + 0.83860 *A

25)  cis-1,2-Dichloroe 0.281 0.207 0.256 0.271 0.273 0.286 0.288 0.266  10.56
26)  2,2-Dichloropropa 0.200 0.146 0.169 0.169 0.172 0.168 0.160 0.169   9.65
27)  Bromochloromethan 0.143 0.122 0.152 0.152 0.153 0.157 0.151 0.147   8.15
28)  Cyclohexane       0.536 0.374 0.538 0.610 0.638 0.677 0.676 0.578  18.52
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9993
              Response Ratio = 0.00000 + 0.66906 *A

29)C Chloroform        0.485 0.365 0.462 0.471 0.473 0.476 0.473 0.458   9.07
30)  Tetrahydrofuran   0.153 0.060 0.080 0.088 0.090 0.096 0.099 0.095  30.06
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9985
              Response Ratio = 0.00000 + 0.09661 *A

31)S Dibromofluorometh 0.288 0.288 0.289 0.290 0.284 0.282 0.278 0.286   1.58
32)  Carbon Tetrachlor 0.318 0.235 0.319 0.324 0.337 0.348 0.354 0.319  12.53
33)  1,1,1-Trichloroet 0.378 0.276 0.348 0.354 0.355 0.361 0.360 0.348   9.47
34)  2-Butanone        0.152 0.116 0.133 0.146 0.146 0.161 0.155 0.144  10.47
35)  1,1-Dichloroprope 0.305 0.226 0.308 0.341 0.343 0.360 0.360 0.320  14.78
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9996
              Response Ratio = 0.00000 + 0.35709 *A

36)  tert-Butyl Format 0.104 0.094 0.127 0.143 0.156 0.175 0.184 0.141  24.19
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9995
              Response Ratio = 0.00000 + 0.13730 *A + 0.00239 *A^2

37)  Benzene           1.043 0.737 0.921 0.961 0.965 0.977 0.978 0.940  10.26
38)  TAME              0.539 0.423 0.538 0.598 0.620 0.655 0.656 0.576  14.39
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9995
              Response Ratio = 0.00000 + 0.64904 *A

39)S 1,2-Dichloroethan 0.366 0.372 0.364 0.364 0.364 0.365 0.366 0.366   0.74
40)  1,2-Dichloroethan 0.562 0.370 0.430 0.447 0.439 0.455 0.452 0.451  12.62
41)  Trichloroethene   0.276 0.223 0.283 0.274 0.277 0.287 0.282 0.272   8.03
42)  Methylcyclohexane 0.420 0.270 0.373 0.429 0.440 0.456 0.451 0.405  16.22
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9996
              Response Ratio = 0.00000 + 0.44966 *A

43)  Dibromomethane    0.187 0.131 0.148 0.158 0.159 0.166 0.166 0.159  10.89
44)C 1,2-Dichloropropa 0.282 0.225 0.274 0.290 0.290 0.307 0.308 0.282   9.99
45)  Bromodichlorometh 0.278 0.224 0.277 0.308 0.312 0.328 0.331 0.294  12.76
46)  2-Chloroethyl vin 0.087 0.076 0.113 0.141 0.153 0.164 0.164 0.128  28.32
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9990
              Response Ratio = 0.00000 + 0.16152 *A

47)  cis-1,3-Dichlorop 0.215 0.191 0.259 0.316 0.343 0.377 0.383 0.298  25.87
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9982
              Response Ratio = 0.00000 + 0.37416 *A
```

Initial Calibration Summary

Job Number: FA34217 **Sample:** VA1934-ICC1934
Account: URSNCM AECOM, INC. **Lab FileID:** A0200790.D
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

```
48) I   Chlorobenzene-d5      ----------------ISTD---------------------
49)S Toluene-d8        1.191 1.177 1.174 1.143 1.159 1.156 1.165 1.166   1.35
50)C Toluene           1.425 1.006 1.253 1.288 1.292 1.343 1.338 1.278  10.33
51)  2-Nitropropane    0.069 0.059 0.075 0.085 0.090 0.101 0.105 0.083  20.36
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9970
              Response Ratio = 0.00000 + 0.10159 *A

52)  4-Methyl-2-pentan 0.346 0.330 0.389 0.436 0.441 0.486 0.472 0.414  14.67
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9987
              Response Ratio = 0.00000 + 0.47136 *A

53)  trans-1,3-Dichlor 0.187 0.186 0.270 0.348 0.363 0.403 0.423 0.312  31.50
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9973
              Response Ratio = 0.00000 + 0.40779 *A

54)  Tetrachloroethene 0.417 0.323 0.366 0.382 0.391 0.385 0.384 0.378   7.56
55)  1,1,2-Trichloroet 0.254 0.181 0.212 0.221 0.225 0.231 0.233 0.223  10.02
56)  Dibromochlorometh 0.248 0.201 0.263 0.291 0.302 0.327 0.335 0.281  16.84
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9986
              Response Ratio = 0.00000 + 0.32781 *A

57)  1,3-Dichloropropa 0.440 0.340 0.406 0.438 0.452 0.470 0.479 0.432  10.91
58)  1,2-Dibromoethane 0.229 0.193 0.255 0.269 0.273 0.287 0.293 0.257  13.76
59)  2-hexanone        0.203 0.240 0.286 0.308 0.306 0.335 0.323 0.286  16.69
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9988
              Response Ratio = 0.00000 + 0.32372 *A

60)  1-Chlorohexane    0.273 0.231 0.347 0.406 0.435 0.467 0.471 0.376  25.27
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9990
              Response Ratio = 0.00000 + 0.46316 *A

61)C Ethylbenzene      1.604 1.090 1.437 1.492 1.524 1.567 1.566 1.469  11.98
62)P Chlorobenzene     0.964 0.735 0.876 0.883 0.879 0.904 0.909 0.879   7.98
63)  1,1,1,2-Tetrachlo 0.295 0.238 0.308 0.322 0.330 0.348 0.354 0.314  12.43
64)  m,p-Xylene        0.958 0.743 1.037 1.129 1.153 1.206 1.206 1.062  15.73
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9996
              Response Ratio = 0.00000 + 1.19693 *A

65)  o-Xylene          0.850 0.645 0.901 1.091 1.145 1.238 1.241 1.016  22.02
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9990
              Response Ratio = 0.00000 + 1.22296 *A

66)  Styrene           0.562 0.498 0.737 0.881 0.904 0.959 0.979 0.789  24.57
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9992
              Response Ratio = 0.00000 + 0.96064 *A

67)P Bromoform         0.105 0.099 0.139 0.161 0.170 0.184 0.195 0.150  24.94
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9973
              Response Ratio = 0.00000 + 0.18768 *A

68)  Isopropylbenzene  0.938 0.808 1.221 1.416 1.488 1.572 1.582 1.289  24.14
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9994
              Response Ratio = 0.00000 + 1.56116 *A


69) I   1,4-Dichlorobenzene-d ----------------ISTD---------------------
70)S 4-Bromofluorobenz 0.834 0.791 0.785 0.793 0.806 0.827 0.866 0.815   3.59
71)  n-Propylbenzene   2.034 1.493 2.023 2.221 2.273 2.386 2.439 2.124  15.10
```

```
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9993
              Response Ratio = 0.00000 + 2.39714 *A

72)  Bromobenzene      0.744 0.574 0.729 0.729 0.734 0.748 0.768 0.718   9.03
73)P 1,1,2,2-Tetrachlo 0.763 0.554 0.659 0.686 0.680 0.692 0.709 0.677   9.38
74)  1,3,5-Trimethylbe 1.763 1.466 2.093 2.446 2.508 2.634 2.716 2.232  21.20
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9992
              Response Ratio = 0.00000 + 2.65830 *A

75)  2-Chlorotoluene   2.039 1.493 2.023 2.221 2.273 2.386 2.439 2.125  15.08
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9993
              Response Ratio = 0.00000 + 2.39714 *A

76)  trans-1,4-Dichlor 0.011 0.004 0.010 0.027 0.037 0.038 0.055 0.026  71.98
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9923
              Response Ratio = 0.00000 + 0.01457 *A + 0.01976 *A^2

77)  1,2,3-Trichloropr 0.217 0.162 0.180 0.186 0.190 0.193 0.200 0.190   8.94
78)  Cyclohexanone     0.023 0.014 0.020 0.023 0.023 0.027 0.027 0.022  19.17
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9970
              Response Ratio = 0.00000 + 0.02645 *A

79)  4-Chlorotoluene   1.647 1.315 1.727 1.997 2.039 2.152 2.200 1.868  17.08
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9993
              Response Ratio = 0.00000 + 2.15977 *A

80)  tert-Butylbenzene 1.131 0.886 1.197 1.373 1.451 1.516 1.560 1.302  18.61
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9991
              Response Ratio = 0.00000 + 1.52754 *A

81)  1,2,4-Trimethylbe 1.826 1.511 2.195 2.438 2.551 2.650 2.709 2.268  19.90
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9994
              Response Ratio = 0.00000 + 2.66274 *A

82)  sec-Butylbenzene  2.718 1.936 2.763 3.161 3.279 3.406 3.475 2.963  18.24
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9994
              Response Ratio = 0.00000 + 3.41912 *A

83)  4-Isopropyltoluen 2.111 1.483 2.289 2.686 2.799 2.943 3.015 2.475  22.20
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9992
              Response Ratio = 0.00000 + 2.95640 *A

84)  1,3-Dichlorobenze 1.311 1.093 1.365 1.415 1.437 1.494 1.530 1.378  10.57
85)  1,4-Dichlorobenze 1.793 1.218 1.480 1.503 1.491 1.531 1.554 1.510  11.12
86)  n-Butylbenzene    1.375 0.817 1.248 1.471 1.547 1.655 1.688 1.400  21.37
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9989
              Response Ratio = 0.00000 + 1.65359 *A

87)  Benzyl Chloride   0.084 0.092 0.138 0.196 0.212 0.257 0.273 0.179  42.52
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9986
              Response Ratio = 0.00000 + 0.17850 *A + 0.04876 *A^2

88)  1,2-Dichlorobenze 1.387 0.993 1.304 1.387 1.389 1.458 1.468 1.341  12.13
89)  1,2-Dibromo-3-Chl 0.107 0.070 0.086 0.099 0.099 0.111 0.118 0.099  16.61
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9958
              Response Ratio = 0.00000 + 0.11357 *A

90)  Hexachlorobutadie 1.039 0.423 0.506 0.548 0.553 0.581 0.606 0.608  32.73
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9983
              Response Ratio = 0.00000 + 0.59118 *A
```

Initial Calibration Summary

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Sample: VA1934-ICC1934
Lab FileID: A0200790.D

```
 91)  1,2,4-Trichlorobe 1.093 0.606 0.819 0.934 0.979 1.048 1.075 0.936  18.57
             ---- Linear regr., Force(0,0) ----  Coefficient =  0.9986
               Response Ratio = 0.00000 + 1.05132 *A

 92)  Naphthalene       1.324 0.877 1.315 1.661 1.799 1.957 2.015 1.564  26.29
             ---- Linear regr., Force(0,0) ----  Coefficient =  0.9981
               Response Ratio = 0.00000 + 1.95988 *A

 93)  1,2,3-Trichlorobe 1.084 0.575 0.756 0.853 0.894 0.924 0.942 0.861  18.64
             ---- Linear regr., Force(0,0) ----  Coefficient =  0.9993
               Response Ratio = 0.00000 + 0.92760 *A


 94) I   Tert Butyl Alcohol-d1 ----------------ISTD---------------------
 95)  Ethanol           0.141 0.230 0.176 0.167 0.166 0.173 0.184 0.177  15.38
             ---- Linear regr., Force(0,0) ----  Coefficient =  0.9972
               Response Ratio = 0.00000 + 0.17864 *A

 96)  acrolein          3.059 1.994 2.566 2.589 2.911 2.819 2.821 2.680  13.01
 97)  Tert Butyl Alcoho 1.689 1.216 1.430 1.325 1.335 1.303 1.328 1.375  11.06
 98)  tert Amyl alcohol 0.598 0.509 0.727 0.759 0.837 0.901 0.948 0.754  21.07
             ---- Linear regr., Force(0,0) ----  Coefficient =  0.9974
               Response Ratio = 0.00000 + 0.91571 *A

 99)  1,4-Dioxane       0.086 0.059 0.078 0.088 0.094 0.100 0.106 0.087  17.61
             ---- Linear regr., Force(0,0) ----  Coefficient =  0.9975
               Response Ratio = 0.00000 + 0.10195 *A

100)  3,3-Dimethyl-1-bu 0.578 0.579 0.708 0.896 1.039 1.430 1.512 0.963  39.99
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9962
               Response Ratio = 0.00000 + 0.83115 *A + 0.03545 *A^2

 ------------------------------------------------------------------------------
 (#) = Out of Range

           051816oxy.m        Thu May 19 14:04:37 2016
```

Initial Calibration Verification

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Sample: VA1934-ICV1934
Lab FileID: A0200795.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\051816\A0200795.D Vial: 13
Acq On : 18 May 2016 1:54 pm Operator: TRANGD
Sample : ICV1934-5 Inst : MSVOA10
Misc : MS33887,VA1934,,,,, Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\051816oxy.m (RTE Integrator)
Title : SW-846 Method 5030B/8260B & EPA 624
Last Update : Wed May 18 14:45:22 2016
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	104	0.00	7.38
		Amount	Calc.	%Drift			
2	Dichlorodifluoromethane	40.000	38.785	3.0	104	0.00	2.61
3 P	Chloromethane	40.000	39.026	2.4	103	0.00	2.82
4 C	Vinyl Chloride	40.000	38.516	3.7	102	0.00	2.95
5	Bromomethane	40.000	42.018	-5.0	106	0.00	3.34
6	Chloroethane	40.000	45.608	-14.0	105	0.00	3.48
7	Trichlorofluoromethane	40.000	38.638	3.4	106	0.00	3.65
		AvgRF	CCRF	%Dev			
8	Ethyl Ether	0.263	0.258	1.9	101	0.00	3.94
		Amount	Calc.	%Drift			
9	1,2-Dichlorotrifluoroetha	40.000	39.760	0.6	101	0.00	4.17
		AvgRF	CCRF	%Dev			
10 C	1,1-Dichloroethene	0.530	0.532	-0.4	102	0.00	4.18
11	Freon 113	0.285	0.288	-1.1	104	0.00	4.23
12	Carbon Disulfide	0.771	0.765	0.8	101	0.00	4.24
13	Iodomethane	0.463	0.463	0.0	102	0.00	4.35
		Amount	Calc.	%Drift			
14	Methylene Chloride	40.000	41.241	-3.1	104	0.00	4.79
		AvgRF	CCRF	%Dev			
15	Acetone	0.109	0.105	3.7	106	0.00	4.84
16	Methyl acetate	0.272	0.273	-0.4	106	0.00	4.95
17	trans-1,2-Dichloroethene	0.420	0.423	-0.7	105	0.00	4.95
		Amount	Calc.	%Drift			
18	Hexane	40.000	40.035	-0.1	103	0.00	5.01
		AvgRF	CCRF	%Dev			
19	Methyl Tert Butyl Ether	0.594	0.602	-1.3	106	0.00	5.04
		Amount	Calc.	%Drift			
20	Di-isopropyl ether	40.000	38.810	3.0	106	0.00	5.41
		AvgRF	CCRF	%Dev			
21 P	1,1-Dichloroethane	0.530	0.549	-3.6	105	0.00	5.59
22	Acrylonitrile	0.127	0.137	-7.9	109	0.00	5.65

Initial Calibration Verification

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Sample: VA1934-ICV1934
Lab FileID: A0200795.D

			Amount	Calc.	%Drift			
23		ETBE	40.000	38.490	3.8	106	0.00	5.79
24		Vinyl acetate	200.000	192.242	3.9	101	0.00	5.81
			AvgRF	CCRF	%Dev			
25		cis-1,2-Dichloroethene	0.266	0.280	-5.3	106	0.00	6.13
26		2,2-Dichloropropane	0.169	0.168	0.6	101	0.00	6.25
27		Bromochloromethane	0.147	0.150	-2.0	102	0.00	6.34
			Amount	Calc.	%Drift			
28		Cyclohexane	40.000	39.208	2.0	106	0.00	6.35
			AvgRF	CCRF	%Dev			
29	C	Chloroform	0.458	0.477	-4.1	105	0.00	6.40
			Amount	Calc.	%Drift			
30		Tetrahydrofuran	40.000	39.232	1.9	109	0.00	6.57
			AvgRF	CCRF	%Dev			
31	S	Dibromofluoromethane	0.286	0.288	-0.7	105	0.00	6.58
32		Carbon Tetrachloride	0.319	0.336	-5.3	103	0.00	6.56
33		1,1,1-Trichloroethane	0.348	0.348	0.0	102	0.00	6.62
34		2-Butanone	0.144	0.157	-9.0	112	0.00	6.70
			Amount	Calc.	%Drift			
35		1,1-Dichloropropene	40.000	40.384	-1.0	109	0.00	6.73
36		tert-Butyl Formate	400.000	290.453	27.4#	73	0.00	6.83
			AvgRF	CCRF	%Dev			
37		Benzene	0.940	0.972	-3.4	104	0.00	6.99
			Amount	Calc.	%Drift			
38		TAME	40.000	38.547	3.6	104	0.00	7.06
			AvgRF	CCRF	%Dev			
39	S	1,2-Dichloroethane-d4	0.366	0.365	0.3	104	0.00	7.12
40		1,2-Dichloroethane	0.451	0.443	1.8	104	0.00	7.18
41		Trichloroethene	0.272	0.283	-4.0	106	0.00	7.54
			Amount	Calc.	%Drift			
42		Methylcyclohexane	40.000	39.338	1.7	104	0.00	7.54
			AvgRF	CCRF	%Dev			
43		Dibromomethane	0.159	0.163	-2.5	106	0.00	7.97
44	C	1,2-Dichloropropane	0.282	0.294	-4.3	105	0.00	8.06
45		Bromodichloromethane	0.294	0.315	-7.1	105	0.00	8.11
			Amount	Calc.	%Drift			
46		2-Chloroethyl vinyl ether	200.000	202.753	-1.4	111	0.00	8.63
47		cis-1,3-Dichloropropene	40.000	36.150	9.6	102	0.00	8.72
			AvgRF	CCRF	%Dev			
48	I	Chlorobenzene-d5	1.000	1.000	0.0	102	0.00	10.43
49	S	Toluene-d8	1.166	1.169	-0.3	103	0.00	8.90
50	C	Toluene	1.278	1.315	-2.9	104	0.00	8.95
			Amount	Calc.	%Drift			
51		2-Nitropropane	200.000	178.561	10.7	103	0.00	9.18

Initial Calibration Verification

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Sample: VA1934-ICV1934
Lab FileID: A0200795.D

52		4-Methyl-2-pentanone	200.000	196.802	1.6	107	0.00	9.29
53		trans-1,3-Dichloropropene	40.000	35.599	11.0	102	0.00	9.34
		----------	AvgRF	CCRF	%Dev	----------		
54		Tetrachloroethene	0.378	0.414	-9.5	108	0.00	9.34
55		1,1,2-Trichloroethane	0.223	0.231	-3.6	105	0.00	9.51
		----------	Amount	Calc.	%Drift	----------		
56		Dibromochloromethane	40.000	36.493	8.8	101	0.00	9.69
		----------	AvgRF	CCRF	%Dev	----------		
57		1,3-Dichloropropane	0.432	0.461	-6.7	104	0.00	9.79
58		1,2-Dibromoethane	0.257	0.281	-9.3	105	0.00	9.95
		----------	Amount	Calc.	%Drift	----------		
59		2-hexanone	200.000	198.234	0.9	107	0.00	10.10
60		1-Chlorohexane	40.000	38.086	4.8	104	0.00	10.39
		----------	AvgRF	CCRF	%Dev	----------		
61	C	Ethylbenzene	1.469	1.543	-5.0	103	0.00	10.45
62	P	Chlorobenzene	0.879	0.901	-2.5	105	0.00	10.45
63		1,1,1,2-Tetrachloroethane	0.314	0.336	-7.0	104	0.00	10.51
		----------	Amount	Calc.	%Drift	----------		
64		m,p-Xylene	80.000	79.175	1.0	105	0.00	10.59
65		o-Xylene	40.000	38.423	3.9	105	0.00	11.03
66		Styrene	40.000	38.110	4.7	104	0.00	11.08
67	P	Bromoform	40.000	34.542	13.6	98	0.00	11.14
68		Isopropylbenzene	40.000	38.462	3.8	103	0.00	11.33
		----------	AvgRF	CCRF	%Dev	----------		
69	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	101	0.00	12.79
70	S	4-Bromofluorobenzene	0.815	0.819	-0.5	103	0.00	11.64
		----------	Amount	Calc.	%Drift	----------		
71		n-Propylbenzene	40.000	38.296	4.3	102	0.00	11.94
		----------	AvgRF	CCRF	%Dev	----------		
72		Bromobenzene	0.718	0.739	-2.9	102	0.00	11.77
73	P	1,1,2,2-Tetrachloroethane	0.677	0.683	-0.9	102	0.00	11.82
		----------	Amount	Calc.	%Drift	----------		
74		1,3,5-Trimethylbenzene	40.000	38.083	4.8	102	0.00	11.94
75		2-Chlorotoluene	40.000	38.296	4.3	102	0.00	11.94
76		trans-1,4-Dichloro-2-Bute	40.000	28.901	27.7#	52	0.00	12.01
		----------	AvgRF	CCRF	%Dev	----------		
77		1,2,3-Trichloropropane	0.190	0.195	-2.6	103	0.00	11.98
		----------	Amount	Calc.	%Drift	----------		
78		Cyclohexanone	200.000	165.882	17.1	96	0.00	12.05
79		4-Chlorotoluene	40.000	38.617	3.5	103	0.00	12.10
80		tert-Butylbenzene	40.000	36.687	8.3	98	0.00	12.27
81		1,2,4-Trimethylbenzene	40.000	38.000	5.0	100	0.00	12.34
82		sec-Butylbenzene	40.000	38.542	3.6	102	0.00	12.46
83		4-Isopropyltoluene	40.000	37.620	6.0	100	0.00	12.59
		----------	AvgRF	CCRF	%Dev	----------		
84		1,3-Dichlorobenzene	1.378	1.437	-4.3	101	0.00	12.72

Initial Calibration Verification

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Sample: VA1934-ICV1934
Lab FileID: A0200795.D

85	1,4-Dichlorobenzene	1.510	1.483	1.8	101	0.00	12.80
	----------	Amount	Calc.	%Drift		----------	
86	n-Butylbenzene	40.000	37.448	6.4	101	0.00	13.03
87	Benzyl Chloride	40.000	38.164	4.6	98	0.00	13.05
	----------	AvgRF	CCRF	%Dev		----------	
88	1,2-Dichlorobenzene	1.341	1.400	-4.4	102	0.00	13.24
	----------	Amount	Calc.	%Drift		----------	
89	1,2-Dibromo-3-Chloropropa	40.000	35.267	11.8	103	0.00	14.00
90	Hexachlorobutadiene	40.000	37.930	5.2	103	0.00	14.55
91	1,2,4-Trichlorobenzene	40.000	37.122	7.2	101	0.00	14.60
92	Naphthalene	40.000	36.796	8.0	101	0.00	14.88
93	1,2,3-Trichlorobenzene	40.000	37.790	5.5	99	0.00	15.04
	----------	AvgRF	CCRF	%Dev		----------	
94 I	Tert Butyl Alcohol-d10	1.000	1.000	0.0	113	0.00	5.06
	----------	Amount	Calc.	%Drift		----------	
95	Ethanol	800.000	688.516	13.9	105	-0.01	4.09
	----------	AvgRF	CCRF	%Dev		----------	
96	acrolein	2.680	2.450	8.6	95	0.00	4.54
97	Tert Butyl Alcohol	1.375	1.447	-5.2	123	0.00	5.13
	----------	Amount	Calc.	%Drift		----------	
98	tert Amyl alcohol	400.000	327.766	18.1	102	0.00	7.23
99	1,4-Dioxane	800.000	712.208	11.0	110	0.00	8.29
100	3,3-Dimethyl-1-butanol	2000.000	1840.352	8.0	110	0.00	10.05

(#) = Out of Range SPCC's out = 0 CCC's out = 0
A0200790.D 051816oxy.m Thu May 19 13:59:03 2016

6.7.2

6

Continuing Calibration Summary

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Sample: VA1942-CC1934
Lab FileID: A0201022.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\053116\A0201022.D Vial: 3
Acq On : 31 May 2016 11:10 am Operator: trangd
Sample : CC1934-5 Inst : MSVOA10
Misc : MS34014,VA1942,,,,, Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\051816oxy.m (RTE Integrator)
Title : SW-846 Method 5030B/8260B & EPA 624
Last Update : Wed May 18 14:45:22 2016
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	113	0.00	7.38
		Amount	Calc.	%Drift			
2	Dichlorodifluoromethane	40.000	49.912	-24.8#	145	0.00	2.60
3 P	Chloromethane	40.000	44.783	-12.0	129	0.00	2.83
4 C	Vinyl Chloride	40.000	39.023	2.4	112	0.00	2.95
5	Bromomethane	40.000	48.727	-21.8#	134	0.00	3.33
6	Chloroethane	40.000	47.864	-19.7	120	0.00	3.48
7	Trichlorofluoromethane	40.000	43.187	-8.0	128	0.00	3.66
		AvgRF	CCRF	%Dev			
8	Ethyl Ether	0.263	0.254	3.4	108	0.00	3.95
		Amount	Calc.	%Drift			
9	1,2-Dichlorotrifluoroetha	40.000	39.676	0.8	110	0.00	4.17
		AvgRF	CCRF	%Dev			
10 C	1,1-Dichloroethene	0.530	0.542	-2.3	114	0.00	4.18
11	Freon 113	0.285	0.287	-0.7	113	0.00	4.23
12	Carbon Disulfide	0.771	0.736	4.5	105	0.00	4.24
13	Iodomethane	0.463	0.457	1.3	109	0.00	4.35
		Amount	Calc.	%Drift			
14	Methylene Chloride	40.000	42.561	-6.4	117	0.00	4.79
		AvgRF	CCRF	%Dev			
15	Acetone	0.109	0.111	-1.8	123	0.00	4.84
16	Methyl acetate	0.272	0.279	-2.6	117	0.00	4.95
17	trans-1,2-Dichloroethene	0.420	0.426	-1.4	115	0.00	4.95
		Amount	Calc.	%Drift			
18	Hexane	40.000	40.643	-1.6	113	0.00	5.01
		AvgRF	CCRF	%Dev			
19	Methyl Tert Butyl Ether	0.594	0.590	0.7	112	0.00	5.05
		Amount	Calc.	%Drift			
20	Di-isopropyl ether	40.000	39.226	1.9	116	0.00	5.42
		AvgRF	CCRF	%Dev			
21 P	1,1-Dichloroethane	0.530	0.576	-8.7	120	0.00	5.59
22	Acrylonitrile	0.127	0.140	-10.2	121	0.00	5.65

Continuing Calibration Summary

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Sample: VA1942-CC1934
Lab FileID: A0201022.D

			Amount	Calc.	%Drift			
23		ETBE	40.000	39.265	1.8	117	0.00	5.79
24		Vinyl acetate	200.000	239.666	-19.8	137	0.00	5.81
			AvgRF	CCRF	%Dev			
25		cis-1,2-Dichloroethene	0.266	0.290	-9.0	120	0.00	6.14
26		2,2-Dichloropropane	0.169	0.186	-10.1	122	0.00	6.25
27		Bromochloromethane	0.147	0.159	-8.2	117	0.00	6.34
			Amount	Calc.	%Drift			
28		Cyclohexane	40.000	39.519	1.2	117	0.00	6.35
			AvgRF	CCRF	%Dev			
29	C	Chloroform	0.458	0.501	-9.4	119	0.00	6.39
			Amount	Calc.	%Drift			
30		Tetrahydrofuran	40.000	40.689	-1.7	123	0.00	6.57
			AvgRF	CCRF	%Dev			
31	S	Dibromofluoromethane	0.286	0.287	-0.3	114	0.00	6.58
32		Carbon Tetrachloride	0.319	0.378	-18.5	126	0.00	6.56
33		1,1,1-Trichloroethane	0.348	0.388	-11.5	123	0.00	6.62
34		2-Butanone	0.144	0.162	-12.5	125	0.00	6.70
			Amount	Calc.	%Drift			
35		1,1-Dichloropropene	40.000	41.125	-2.8	121	0.00	6.73
36		tert-Butyl Formate	400.000	521.622	-30.4#	152	0.00	6.83
			AvgRF	CCRF	%Dev			
37		Benzene	0.940	1.031	-9.7	120	0.00	6.98
			Amount	Calc.	%Drift			
38		TAME	40.000	39.998	0.0	118	0.00	7.06
			AvgRF	CCRF	%Dev			
39	S	1,2-Dichloroethane-d4	0.366	0.370	-1.1	114	0.00	7.12
40		1,2-Dichloroethane	0.451	0.473	-4.9	121	0.00	7.18
41		Trichloroethene	0.272	0.294	-8.1	119	0.00	7.54
			Amount	Calc.	%Drift			
42		Methylcyclohexane	40.000	40.716	-1.8	117	0.00	7.54
			AvgRF	CCRF	%Dev			
43		Dibromomethane	0.159	0.174	-9.4	123	0.00	7.97
44	C	1,2-Dichloropropane	0.282	0.309	-9.6	120	0.00	8.06
45		Bromodichloromethane	0.294	0.341	-16.0	123	0.00	8.11
			Amount	Calc.	%Drift			
46		2-Chloroethyl vinyl ether	200.000	206.669	-3.3	123	0.00	8.63
47		cis-1,3-Dichloropropene	40.000	41.528	-3.8	128	0.00	8.71
			AvgRF	CCRF	%Dev			
48	I	Chlorobenzene-d5	1.000	1.000	0.0	114	0.00	10.43
49	S	Toluene-d8	1.166	1.138	2.4	112	0.00	8.90
50	C	Toluene	1.278	1.355	-6.0	120	0.00	8.95
			Amount	Calc.	%Drift			
51		2-Nitropropane	200.000	203.505	-1.8	131	0.00	9.18

Continuing Calibration Summary

Job Number: FA34217 **Sample:** VA1942-CC1934
Account: URSNCM AECOM, INC. **Lab FileID:** A0201022.D
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

52		4-Methyl-2-pentanone	200.000	202.003	-1.0	123	0.00	9.29
53		trans-1,3-Dichloropropene	40.000	40.351	-0.9	129	0.00	9.34
		----------	AvgRF	CCRF	%Dev	----------		
54		Tetrachloroethene	0.378	0.386	-2.1	113	0.00	9.34
55		1,1,2-Trichloroethane	0.223	0.239	-7.2	121	0.00	9.51
		----------	Amount	Calc.	%Drift	----------		
56		Dibromochloromethane	40.000	40.074	-0.2	124	0.00	9.70
		----------	AvgRF	CCRF	%Dev	----------		
57		1,3-Dichloropropane	0.432	0.466	-7.9	118	0.00	9.79
58		1,2-Dibromoethane	0.257	0.291	-13.2	122	0.00	9.95
		----------	Amount	Calc.	%Drift	----------		
59		2-hexanone	200.000	201.765	-0.9	122	0.00	10.10
60		1-Chlorohexane	40.000	37.946	5.1	115	0.00	10.39
		----------	AvgRF	CCRF	%Dev	----------		
61	C	Ethylbenzene	1.469	1.554	-5.8	116	0.00	10.45
62	P	Chlorobenzene	0.879	0.919	-4.6	119	0.00	10.45
63		1,1,1,2-Tetrachloroethane	0.314	0.355	-13.1	123	0.00	10.51
		----------	Amount	Calc.	%Drift	----------		
64		m,p-Xylene	80.000	79.452	0.7	118	0.00	10.59
65		o-Xylene	40.000	38.194	4.5	116	0.00	11.02
66		Styrene	40.000	38.515	3.7	117	0.00	11.08
67	P	Bromoform	40.000	42.313	-5.8	134	0.00	11.13
68		Isopropylbenzene	40.000	38.888	2.8	116	0.00	11.33
		----------	AvgRF	CCRF	%Dev	----------		
69	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	113	0.00	12.79
70	S	4-Bromofluorobenzene	0.815	0.787	3.4	110	0.00	11.64
		----------	Amount	Calc.	%Drift	----------		
71		n-Propylbenzene	40.000	39.470	1.3	118	0.00	11.94
		----------	AvgRF	CCRF	%Dev	----------		
72		Bromobenzene	0.718	0.765	-6.5	118	0.00	11.77
73	P	1,1,2,2-Tetrachloroethane	0.677	0.725	-7.1	121	0.00	11.82
		----------	Amount	Calc.	%Drift	----------		
74		1,3,5-Trimethylbenzene	40.000	38.770	3.1	116	0.00	11.93
75		2-Chlorotoluene	40.000	39.470	1.3	118	0.00	11.94
76		trans-1,4-Dichloro-2-Bute	40.000	90.693	-126.7#	352	0.00	12.01
		----------	AvgRF	CCRF	%Dev	----------		
77		1,2,3-Trichloropropane	0.190	0.199	-4.7	118	0.00	11.98
		----------	Amount	Calc.	%Drift	----------		
78		Cyclohexanone	200.000	197.002	1.5	128	0.00	12.05
79		4-Chlorotoluene	40.000	39.304	1.7	118	0.00	12.10
80		tert-Butylbenzene	40.000	38.878	2.8	116	0.00	12.27
81		1,2,4-Trimethylbenzene	40.000	39.621	0.9	117	0.00	12.34
82		sec-Butylbenzene	40.000	39.641	0.9	117	0.00	12.46
83		4-Isopropyltoluene	40.000	39.347	1.6	118	0.00	12.59
		----------	AvgRF	CCRF	%Dev	----------		
84		1,3-Dichlorobenzene	1.378	1.489	-8.1	117	0.00	12.72

Continuing Calibration Summary

Job Number: FA34217 **Sample:** VA1942-CC1934
Account: URSNCM AECOM, INC. **Lab FileID:** A0201022.D
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

85	1,4-Dichlorobenzene	1.510	1.558	-3.2	118	0.00	12.80
	----------	Amount	Calc.	%Drift	----------		
86	n-Butylbenzene	40.000	38.801	3.0	117	0.00	13.03
87	Benzyl Chloride	40.000	47.307	-18.3	142	0.00	13.05
	----------	AvgRF	CCRF	%Dev	----------		
88	1,2-Dichlorobenzene	1.341	1.456	-8.6	119	0.00	13.24
	----------	Amount	Calc.	%Drift	----------		
89	1,2-Dibromo-3-Chloropropa	40.000	38.215	4.5	125	0.00	14.00
90	Hexachlorobutadiene	40.000	39.130	2.2	118	0.00	14.55
91	1,2,4-Trichlorobenzene	40.000	39.858	0.4	121	0.00	14.60
92	Naphthalene	40.000	37.969	5.1	117	0.00	14.88
93	1,2,3-Trichlorobenzene	40.000	39.700	0.7	116	0.00	15.04
	----------	AvgRF	CCRF	%Dev	----------		
94 I	Tert Butyl Alcohol-d10	1.000	1.000	0.0	114	0.00	5.06
	----------	Amount	Calc.	%Drift	----------		
95	Ethanol	800.000	778.859	2.6	119	0.00	4.10
	----------	AvgRF	CCRF	%Dev	----------		
96	acrolein	2.680	2.809	-4.8	110	0.00	4.54
97	Tert Butyl Alcohol	1.375	1.392	-1.2	119	0.00	5.13
	----------	Amount	Calc.	%Drift	----------		
98	tert Amyl alcohol	400.000	402.463	-0.6	125	0.00	7.23
99	1,4-Dioxane	800.000	774.145	3.2	120	0.00	8.29
100	3,3-Dimethyl-1-butanol	2000.000	2091.507	-4.6	129	0.00	10.05

(#) = Out of Range SPCC's out = 0 CCC's out = 0
A0200790.D 051816oxy.m Tue May 31 14:16:35 2016

6.7.3

6

Continuing Calibration Summary

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Sample: VA1942-ECC1934
Lab FileID: A0201049.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\053116\A0201049.D Vial: 24
Acq On : 31 May 2016 10:42 pm Operator: trangd
Sample : ECC1934-5 Inst : MSVOA10
Misc : MS34033,VA1942,,,,, Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\051816oxy.m (RTE Integrator)
Title : SW-846 Method 5030B/8260B & EPA 624
Last Update : Wed May 18 14:45:22 2016
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 50% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	97	0.00	7.38
		Amount	Calc.	%Drift			
2	Dichlorodifluoromethane	40.000	52.615	-31.5	132	0.00	2.60
3 P	Chloromethane	40.000	46.256	-15.6	115	0.00	2.82
4 C	Vinyl Chloride	40.000	42.128	-5.3	104	0.00	2.95
5	Bromomethane	40.000	50.406	-26.0	120	0.00	3.33
6	Chloroethane	40.000	50.935	-27.3	110	0.00	3.48
7	Trichlorofluoromethane	40.000	42.984	-7.5	110	0.00	3.65
		AvgRF	CCRF	%Dev			
8	Ethyl Ether	0.263	0.251	4.6	92	0.00	3.95
		Amount	Calc.	%Drift			
9	1,2-Dichlorotrifluoroetha	40.000	40.230	-0.6	96	0.00	4.17
		AvgRF	CCRF	%Dev			
10 C	1,1-Dichloroethene	0.530	0.548	-3.4	99	0.00	4.18
11	Freon 113	0.285	0.283	0.7	96	0.00	4.22
12	Carbon Disulfide	0.771	0.732	5.1	90	0.00	4.24
13	Iodomethane	0.463	0.451	2.6	93	0.00	4.35
		Amount	Calc.	%Drift			
14	Methylene Chloride	40.000	43.141	-7.9	102	0.00	4.79
		AvgRF	CCRF	%Dev			
15	Acetone	0.109	0.110	-0.9	104	0.00	4.84
16	Methyl acetate	0.272	0.279	-2.6	101	0.00	4.95
17	trans-1,2-Dichloroethene	0.420	0.426	-1.4	99	0.00	4.95
		Amount	Calc.	%Drift			
18	Hexane	40.000	38.698	3.3	93	0.00	5.01
		AvgRF	CCRF	%Dev			
19	Methyl Tert Butyl Ether	0.594	0.570	4.0	94	0.00	5.05
		Amount	Calc.	%Drift			
20	Di-isopropyl ether	40.000	37.638	5.9	96	0.00	5.41
		AvgRF	CCRF	%Dev			
21 P	1,1-Dichloroethane	0.530	0.579	-9.2	104	0.00	5.59
22	Acrylonitrile	0.127	0.140	-10.2	105	0.00	5.65

Continuing Calibration Summary

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Sample: VA1942-ECC1934
Lab FileID: A0201049.D

			Amount	Calc.	%Drift			
23		ETBE	40.000	37.879	5.3	97	0.00	5.79
24		Vinyl acetate	200.000	215.944	-8.0	106	0.00	5.81
			AvgRF	CCRF	%Dev			
25		cis-1,2-Dichloroethene	0.266	0.285	-7.1	101	0.00	6.13
26		2,2-Dichloropropane	0.169	0.166	1.8	94	0.00	6.24
27		Bromochloromethane	0.147	0.160	-8.8	101	0.00	6.34
			Amount	Calc.	%Drift			
28		Cyclohexane	40.000	38.613	3.5	98	0.00	6.35
			AvgRF	CCRF	%Dev			
29	C	Chloroform	0.458	0.502	-9.6	103	0.00	6.39
			Amount	Calc.	%Drift			
30		Tetrahydrofuran	40.000	38.082	4.8	99	0.00	6.57
			AvgRF	CCRF	%Dev			
31	S	Dibromofluoromethane	0.286	0.286	0.0	97	0.00	6.58
32		Carbon Tetrachloride	0.319	0.373	-16.9	107	0.00	6.56
33		1,1,1-Trichloroethane	0.348	0.381	-9.5	104	0.00	6.62
34		2-Butanone	0.144	0.157	-9.0	104	0.00	6.70
			Amount	Calc.	%Drift			
35		1,1-Dichloropropene	40.000	40.434	-1.1	102	0.00	6.73
36		tert-Butyl Formate	400.000	472.958	-18.2	117	0.00	6.83
			AvgRF	CCRF	%Dev			
37		Benzene	0.940	1.037	-10.3	104	0.00	6.99
			Amount	Calc.	%Drift			
38		TAME	40.000	38.974	2.6	99	0.00	7.06
			AvgRF	CCRF	%Dev			
39	S	1,2-Dichloroethane-d4	0.366	0.370	-1.1	99	0.00	7.12
40		1,2-Dichloroethane	0.451	0.477	-5.8	106	0.00	7.18
41		Trichloroethene	0.272	0.303	-11.4	106	0.00	7.54
			Amount	Calc.	%Drift			
42		Methylcyclohexane	40.000	39.249	1.9	97	0.00	7.54
			AvgRF	CCRF	%Dev			
43		Dibromomethane	0.159	0.175	-10.1	107	0.00	7.97
44	C	1,2-Dichloropropane	0.282	0.308	-9.2	103	0.00	8.06
45		Bromodichloromethane	0.294	0.342	-16.3	107	0.00	8.11
			Amount	Calc.	%Drift			
46		2-Chloroethyl vinyl ether	200.000	198.784	0.6	102	0.00	8.63
47		cis-1,3-Dichloropropene	40.000	39.165	2.1	104	0.00	8.71
			AvgRF	CCRF	%Dev			
48	I	Chlorobenzene-d5	1.000	1.000	0.0	100	0.00	10.43
49	S	Toluene-d8	1.166	1.125	3.5	97	0.00	8.90
50	C	Toluene	1.278	1.365	-6.8	105	0.00	8.95
			Amount	Calc.	%Drift			
51		2-Nitropropane	200.000	191.396	4.3	108	0.00	9.18

Continuing Calibration Summary

Job Number: FA34217 **Sample:** VA1942-ECC1934
Account: URSNCM AECOM, INC. **Lab FileID:** A0201049.D
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

52		4-Methyl-2-pentanone	200.000	204.072	-2.0	109	0.00	9.29
53		trans-1,3-Dichloropropene	40.000	38.384	4.0	107	0.00	9.34
		----------	AvgRF	CCRF	%Dev	----------		
54		Tetrachloroethene	0.378	0.496	-31.2	126	0.00	9.34
55		1,1,2-Trichloroethane	0.223	0.242	-8.5	107	0.00	9.51
		----------	Amount	Calc.	%Drift	----------		
56		Dibromochloromethane	40.000	39.214	2.0	106	0.00	9.69
		----------	AvgRF	CCRF	%Dev	----------		
57		1,3-Dichloropropane	0.432	0.458	-6.0	101	0.00	9.79
58		1,2-Dibromoethane	0.257	0.280	-8.9	102	0.00	9.95
		----------	Amount	Calc.	%Drift	----------		
59		2-hexanone	200.000	203.028	-1.5	107	0.00	10.10
60		1-Chlorohexane	40.000	36.991	7.5	98	0.00	10.39
		----------	AvgRF	CCRF	%Dev	----------		
61	C	Ethylbenzene	1.469	1.593	-8.4	104	0.00	10.45
62	P	Chlorobenzene	0.879	0.933	-6.1	106	0.00	10.45
63		1,1,1,2-Tetrachloroethane	0.314	0.356	-13.4	107	0.00	10.51
		----------	Amount	Calc.	%Drift	----------		
64		m,p-Xylene	80.000	80.001	-0.0	103	0.00	10.59
65		o-Xylene	40.000	38.107	4.7	101	0.00	11.02
66		Styrene	40.000	38.946	2.6	103	0.00	11.08
67	P	Bromoform	40.000	40.722	-1.8	112	0.00	11.14
68		Isopropylbenzene	40.000	38.779	3.1	101	0.00	11.33
		----------	AvgRF	CCRF	%Dev	----------		
69	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	98	0.00	12.79
70	S	4-Bromofluorobenzene	0.815	0.773	5.2	94	0.00	11.64
		----------	Amount	Calc.	%Drift	----------		
71		n-Propylbenzene	40.000	40.174	-0.4	104	0.00	11.94
		----------	AvgRF	CCRF	%Dev	----------		
72		Bromobenzene	0.718	0.775	-7.9	104	0.00	11.77
73	P	1,1,2,2-Tetrachloroethane	0.677	0.718	-6.1	104	0.00	11.82
		----------	Amount	Calc.	%Drift	----------		
74		1,3,5-Trimethylbenzene	40.000	39.226	1.9	102	0.00	11.93
75		2-Chlorotoluene	40.000	40.174	-0.4	104	0.00	11.94
76		trans-1,4-Dichloro-2-Bute	40.000	81.768	-104.4#	257	0.00	12.01
		----------	AvgRF	CCRF	%Dev	----------		
77		1,2,3-Trichloropropane	0.190	0.202	-6.3	105	0.00	11.98
		----------	Amount	Calc.	%Drift	----------		
78		Cyclohexanone	200.000	169.650	15.2	96	0.00	12.05
79		4-Chlorotoluene	40.000	39.414	1.5	103	0.00	12.10
80		tert-Butylbenzene	40.000	39.657	0.9	103	0.00	12.27
81		1,2,4-Trimethylbenzene	40.000	39.550	1.1	102	0.00	12.34
82		sec-Butylbenzene	40.000	40.212	-0.5	103	0.00	12.46
83		4-Isopropyltoluene	40.000	38.993	2.5	101	0.00	12.59
		----------	AvgRF	CCRF	%Dev	----------		
84		1,3-Dichlorobenzene	1.378	1.501	-8.9	103	0.00	12.72

Continuing Calibration Summary

Job Number: FA34217 **Sample:** VA1942-ECC1934
Account: URSNCM AECOM, INC. **Lab FileID:** A0201049.D
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

85	1,4-Dichlorobenzene	1.510	1.560	-3.3	103	0.00	12.80
	----------	Amount	Calc.	%Drift	----------		
86	n-Butylbenzene	40.000	38.667	3.3	102	0.00	13.03
87	Benzyl Chloride	40.000	38.406	4.0	96	0.00	13.05
	----------	AvgRF	CCRF	%Dev	----------		
88	1,2-Dichlorobenzene	1.341	1.464	-9.2	104	0.00	13.24
	----------	Amount	Calc.	%Drift	----------		
89	1,2-Dibromo-3-Chloropropa	40.000	37.547	6.1	106	0.00	14.00
90	Hexachlorobutadiene	40.000	37.856	5.4	100	0.00	14.55
91	1,2,4-Trichlorobenzene	40.000	38.479	3.8	102	0.00	14.60
92	Naphthalene	40.000	36.879	7.8	99	0.00	14.88
93	1,2,3-Trichlorobenzene	40.000	39.003	2.5	100	0.00	15.04
	----------	AvgRF	CCRF	%Dev	----------		
94 I	Tert Butyl Alcohol-d10	1.000	1.000	0.0	93	0.00	5.05
	----------	Amount	Calc.	%Drift	----------		
95	Ethanol	800.000	767.166	4.1	96	0.00	4.09
	----------	AvgRF	CCRF	%Dev	----------		
96	acrolein	2.680	2.970	-10.8	95	0.00	4.54
97	Tert Butyl Alcohol	1.375	1.412	-2.7	98	0.00	5.13
	----------	Amount	Calc.	%Drift	----------		
98	tert Amyl alcohol	400.000	385.421	3.6	98	0.00	7.23
99	1,4-Dioxane	800.000	757.121	5.4	96	0.00	8.30
100	3,3-Dimethyl-1-butanol	2000.000	2187.123	-9.4	112	0.00	10.05

(#) = Out of Range SPCC's out = 0 CCC's out = 0
A0200790.D 051816oxy.m Wed Jun 01 10:42:38 2016

6.7.4

6

Initial Calibration Summary

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Sample: VZ1542-ICC1542
Lab FileID: Z41012.D

```
                         Response Factor Report  MSVOA15

 Method       : C:\msdchem\1\METHODS\simm052316.m (RTE Integrator)
 Title        : 1,4-Dioxane by SIM
 Last Update  : Tue May 24 07:28:21 2016
 Response via : Initial Calibration

 Calibration Files
 1   =Z41009.D    2   =Z41010.D    10  =Z41011.D    40  =Z41012.D
 80  =Z41013.D    140 =Z41014.D    200 =Z41015.D

    Compound             1     2     10    40    80    140   200   Avg   %RSD
 ---------------------------------------------------------------------------

 1) I   Fluorobenzene         ----------------ISTD---------------------
 2)S 1,2-Dichloroethan 0.521 0.524 0.526 0.524 0.523 0.520 0.514 0.522   0.76
 3)S Toluene-d8        1.019 0.970 0.967 0.958 0.969 0.986 0.993 0.980   2.11

 4) I   1,4-Dioxane-d8        ----------------ISTD---------------------
 5)  1,4-Dioxane       1.702 1.379 1.501 1.465 1.469 1.473 1.495 1.498   6.59
---------------------------------------------------------------------------
(#) = Out of Range

          simm052316.m        Tue May 24 08:06:33 2016
```

Initial Calibration Verification

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Sample: VZ1542-ICV1542
Lab FileID: Z41017.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\052316\Z41017.D            Vial: 9
Acq On    : 23 May 2016   5:43 pm                     Operator: melissam
Sample    : icv1542-4                                 Inst    : MSVOA15
Misc      : MS33967,VZ1542,,,,,                       Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\msdchem\1\METHODS\simm052316.m (RTE Integrator)
Title        : 1,4-Dioxane by SIM
Last Update  : Tue May 24 07:28:21 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Fluorobenzene	1.000	1.000	0.0	100	0.00	3.68
2	S	1,2-Dichloroethane-d4	0.522	0.530	-1.5	101	0.00	3.48
3	S	Toluene-d8	0.980	0.946	3.5	99	0.00	4.57
4	I	1,4-Dioxane-d8	1.000	1.000	0.0	98	0.00	4.26
5		1,4-Dioxane	1.498	1.533	-2.3	102	0.00	4.27

(#) = Out of Range SPCC's out = 0 CCC's out = 0
Z41012.D simm052316.m Tue May 24 08:06:18 2016

Continuing Calibration Summary

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC
Sample: VZ1545-CC1542
Lab FileID: Z41101.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\052616\Z41101.D            Vial: 1
Acq On    : 26 May 2016   8:35 am                    Operator: melissam
Sample    : cc1542-4                                 Inst    : MSVOA15
Misc      : MS33630,VZ1545,,,,,                      Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\msdchem\1\METHODS\simm052316.m (RTE Integrator)
Title        : 1,4-Dioxane by SIM
Last Update  : Tue May 24 07:28:21 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Fluorobenzene	1.000	1.000	0.0	78	0.00	3.68
2	S	1,2-Dichloroethane-d4	0.522	0.564	-8.0	84	0.00	3.49
3	S	Toluene-d8	0.980	0.976	0.4	79	0.00	4.57
4	I	1,4-Dioxane-d8	1.000	1.000	0.0	86	0.00	4.26
5		1,4-Dioxane	1.498	1.499	-0.1	88	0.00	4.28

(#) = Out of Range SPCC's out = 0 CCC's out = 0
Z41012.D simm052316.m Thu May 26 13:36:06 2016

Continuing Calibration Summary

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC
Sample: VZ1545-ECC1542
Lab FileID: Z41120.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\052616\Z41120.D            Vial: 19
Acq On    : 26 May 2016   4:34 pm                    Operator: melissam
Sample    : ECC1542-4                                Inst    : MSVOA15
Misc      : MS34001,VZ1545,,,,,                      Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\msdchem\1\METHODS\simm052316.m (RTE Integrator)
Title        : 1,4-Dioxane by SIM
Last Update  : Tue May 24 07:28:21 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  50%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Fluorobenzene	1.000	1.000	0.0	69	0.00	3.68
2	S	1,2-Dichloroethane-d4	0.522	0.631	-20.9	83	0.00	3.49
3	S	Toluene-d8	0.980	0.984	-0.4	71	0.00	4.57
4	I	1,4-Dioxane-d8	1.000	1.000	0.0	74	0.00	4.26
5		1,4-Dioxane	1.498	1.518	-1.3	77	0.00	4.28

(#) = Out of Range SPCC's out = 0 CCC's out = 0
Z41012.D simm052316.m Fri May 27 07:57:48 2016

6.7.8

6

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (DFTPP)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP60631-MB	X046646.D	1	05/31/16	MV	05/31/16	OP60631	SX2054

The QC reported here applies to the following samples: **Method:** SW846 8270D

FA34217-1, FA34217-2

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	10	2.5	ug/l	
59-50-7	4-Chloro-3-methyl Phenol	ND	5.0	0.74	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.64	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.0	0.63	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	0.70	ug/l	
51-28-5	2,4-Dinitrophenol	ND	25	5.0	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.0	ug/l	
95-48-7	2-Methylphenol	ND	5.0	0.58	ug/l	
	3&4-Methylphenol	ND	5.0	1.1	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	0.62	ug/l	
100-02-7	4-Nitrophenol	ND	25	5.0	ug/l	
87-86-5	Pentachlorophenol	ND	25	5.0	ug/l	
108-95-2	Phenol	ND	5.0	0.50	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.0	0.91	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.0	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	0.86	ug/l	
83-32-9	Acenaphthene	ND	5.0	0.56	ug/l	
208-96-8	Acenaphthylene	ND	5.0	0.58	ug/l	
98-86-2	Acetophenone	ND	5.0	0.71	ug/l	
120-12-7	Anthracene	ND	5.0	0.61	ug/l	
1912-24-9	Atrazine	ND	5.0	0.63	ug/l	
100-52-7	Benzaldehyde	ND	25	5.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	0.50	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	0.50	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	0.54	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	0.50	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	0.63	ug/l	
92-52-4	1,1'-Biphenyl	ND	5.0	0.50	ug/l	
101-55-3	4-Bromophenyl Phenyl Ether	ND	5.0	0.50	ug/l	
85-68-7	Butyl Benzyl Phthalate	ND	5.0	1.0	ug/l	
86-74-8	Carbazole	ND	5.0	0.56	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.72	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	0.68	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	0.69	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.69	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	0.50	ug/l	

Method Blank Summary

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP60631-MB	X046646.D	1	05/31/16	MV	05/31/16	OP60631	SX2054

The QC reported here applies to the following samples: **Method:** SW846 8270D

FA34217-1, FA34217-2

CAS No.	Compound	Result	RL	MDL	Units	Q
7005-72-3	4-Chlorophenyl Phenyl Ether	ND	5.0	0.58	ug/l	
218-01-9	Chrysene	ND	5.0	0.53	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	0.76	ug/l	
132-64-9	Dibenzofuran	ND	5.0	0.67	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.50	ug/l	
84-66-2	Diethyl Phthalate	ND	5.0	1.0	ug/l	
131-11-3	Dimethyl Phthalate	ND	5.0	1.0	ug/l	
84-74-2	Di-n-butyl Phthalate	ND	5.0	1.0	ug/l	
117-84-0	Di-n-octyl Phthalate	ND	5.0	1.0	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	5.0	0.63	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	5.0	0.58	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	5.0	1.0	ug/l	
206-44-0	Fluoranthene	ND	5.0	0.50	ug/l	
86-73-7	Fluorene	ND	5.0	0.65	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.55	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.51	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	5.0	1.0	ug/l	
67-72-1	Hexachloroethane	ND	5.0	0.51	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	0.50	ug/l	
78-59-1	Isophorone	ND	5.0	0.67	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	0.56	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	0.70	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	0.75	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	0.72	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.66	ug/l	
621-64-7	N-Nitrosodi-n-propylamine	ND	5.0	0.58	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.70	ug/l	
85-01-8	Phenanthrene	ND	5.0	0.60	ug/l	
129-00-0	Pyrene	ND	5.0	0.55	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	5.0	0.50	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	49%	14-67%

Method Blank Summary

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP60631-MB	X046646.D	1	05/31/16	MV	05/31/16	OP60631	SX2054

The QC reported here applies to the following samples: **Method:** SW846 8270D

FA34217-1, FA34217-2

CAS No.	Surrogate Recoveries		Limits
4165-62-2	Phenol-d5	34%	10-50%
118-79-6	2,4,6-Tribromophenol	76%	33-118%
4165-60-0	Nitrobenzene-d5	82%	42-108%
321-60-8	2-Fluorobiphenyl	81%	40-106%
1718-51-0	Terphenyl-d14	86%	39-121%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile [a]		0	ug/l	

(a) No TICs detected.

Blank Spike Summary

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP60631-BS	X046689.D	1	06/01/16	MV	05/31/16	OP60631	SX2054

The QC reported here applies to the following samples: **Method:** SW846 8270D

FA34217-1, FA34217-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
105-60-2	Caprolactam	50	9.1	18	11-68
59-50-7	4-Chloro-3-methyl Phenol	50	35.0	70	54-103
95-57-8	2-Chlorophenol	50	32.9	66	52-98
120-83-2	2,4-Dichlorophenol	50	36.8	74	53-103
105-67-9	2,4-Dimethylphenol	50	31.7	63	43-90
51-28-5	2,4-Dinitrophenol	100	59.8	60	44-112
534-52-1	4,6-Dinitro-o-cresol	100	70.7	71	66-121
95-48-7	2-Methylphenol	50	29.4	59	43-90
	3&4-Methylphenol	100	55.2	55	36-88
88-75-5	2-Nitrophenol	50	35.1	70	53-102
100-02-7	4-Nitrophenol	100	33.1	33	18-62
87-86-5	Pentachlorophenol	100	79.3	79	61-115
108-95-2	Phenol	50	17.2	34	19-56
58-90-2	2,3,4,6-Tetrachlorophenol	50	34.7	69	62-110
95-95-4	2,4,5-Trichlorophenol	50	36.6	73	62-109
88-06-2	2,4,6-Trichlorophenol	50	34.9	70	59-107
83-32-9	Acenaphthene	50	36.8	74	61-107
208-96-8	Acenaphthylene	50	36.1	72	60-104
98-86-2	Acetophenone	50	35.3	71	53-106
120-12-7	Anthracene	50	37.5	75	65-108
1912-24-9	Atrazine	50	37.4	75	62-114
100-52-7	Benzaldehyde	50	32.7	65	36-129
56-55-3	Benzo(a)anthracene	50	35.6	71	66-111
50-32-8	Benzo(a)pyrene	50	36.3	73	62-107
205-99-2	Benzo(b)fluoranthene	50	36.8	74	65-114
191-24-2	Benzo(g,h,i)perylene	50	34.4	69	66-116
207-08-9	Benzo(k)fluoranthene	50	35.4	71	65-114
92-52-4	1,1'-Biphenyl	50	35.7	71	57-104
101-55-3	4-Bromophenyl Phenyl Ether	50	38.5	77	65-109
85-68-7	Butyl Benzyl Phthalate	50	37.4	75	65-112
86-74-8	Carbazole	50	39.3	79	59-113
106-47-8	4-Chloroaniline	50	36.0	72	49-105
111-91-1	bis(2-Chloroethoxy)methane	50	34.3	69	51-102
111-44-4	bis(2-Chloroethyl)ether	50	34.2	68	53-100
108-60-1	bis(2-Chloroisopropyl)ether	50	38.0	76	45-106
91-58-7	2-Chloronaphthalene	50	35.9	72	57-103

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP60631-BS	X046689.D	1	06/01/16	MV	05/31/16	OP60631	SX2054

The QC reported here applies to the following samples: **Method:** SW846 8270D

FA34217-1, FA34217-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
7005-72-3	4-Chlorophenyl Phenyl Ether	50	37.2	74	62-105
218-01-9	Chrysene	50	35.8	72	66-111
53-70-3	Dibenzo(a,h)anthracene	50	36.4	73	66-119
132-64-9	Dibenzofuran	50	38.0	76	61-106
91-94-1	3,3'-Dichlorobenzidine	50	37.2	74	46-117
84-66-2	Diethyl Phthalate	50	38.1	76	64-108
131-11-3	Dimethyl Phthalate	50	36.6	73	63-106
84-74-2	Di-n-butyl Phthalate	50	39.1	78	65-107
117-84-0	Di-n-octyl Phthalate	50	39.9	80	62-118
121-14-2	2,4-Dinitrotoluene	50	36.5	73	61-110
606-20-2	2,6-Dinitrotoluene	50	34.2	68	63-108
117-81-7	bis(2-Ethylhexyl)phthalate	50	39.2	78	61-117
206-44-0	Fluoranthene	50	36.2	72	63-106
86-73-7	Fluorene	50	37.1	74	62-108
118-74-1	Hexachlorobenzene	50	36.4	73	63-108
87-68-3	Hexachlorobutadiene	50	32.7	65	42-102
77-47-4	Hexachlorocyclopentadiene	50	27.7	55	39-102
67-72-1	Hexachloroethane	50	30.0	60	42-100
193-39-5	Indeno(1,2,3-cd)pyrene	50	35.5	71	64-119
78-59-1	Isophorone	50	34.8	70	43-87
91-57-6	2-Methylnaphthalene	50	37.8	76	51-102
91-20-3	Naphthalene	50	34.1	68	47-100
88-74-4	2-Nitroaniline	50	38.5	77	54-128
99-09-2	3-Nitroaniline	50	36.7	73	56-106
100-01-6	4-Nitroaniline	50	38.6	77	55-120
98-95-3	Nitrobenzene	50	33.8	68	50-104
621-64-7	N-Nitrosodi-n-propylamine	50	35.4	71	52-104
86-30-6	N-Nitrosodiphenylamine	50	37.8	76	64-108
85-01-8	Phenanthrene	50	36.9	74	66-110
129-00-0	Pyrene	50	37.1	74	64-113
95-94-3	1,2,4,5-Tetrachlorobenzene	50	33.9	68	47-111

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	44%	14-67%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP60631-BS	X046689.D	1	06/01/16	MV	05/31/16	OP60631	SX2054

The QC reported here applies to the following samples: **Method:** SW846 8270D

FA34217-1, FA34217-2

CAS No.	Surrogate Recoveries	BSP	Limits
4165-62-2	Phenol-d5	31%	10-50%
118-79-6	2,4,6-Tribromophenol	74%	33-118%
4165-60-0	Nitrobenzene-d5	70%	42-108%
321-60-8	2-Fluorobiphenyl	73%	40-106%
1718-51-0	Terphenyl-d14	75%	39-121%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP60631-MS	X046685.D	1	06/01/16	MV	05/31/16	OP60631	SX2054
OP60631-MSD	X046686.D	1	06/01/16	MV	05/31/16	OP60631	SX2054
FA34254-1	X046684.D	1	06/01/16	MV	05/31/16	OP60631	SX2054

The QC reported here applies to the following samples: **Method:** SW846 8270D

FA34217-1, FA34217-2

CAS No.	Compound	FA34254-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
105-60-2	Caprolactam	ND		104	32.3	31	104	37.8	36	16	11-68/39
59-50-7	4-Chloro-3-methyl Phenol	ND		104	72.8	70	104	87.9	84	19	54-103/23
95-57-8	2-Chlorophenol	ND		104	64.8	62	104	76.0	73	16	52-98/25
120-83-2	2,4-Dichlorophenol	ND		104	71.2	68	104	84.5	81	17	53-103/26
105-67-9	2,4-Dimethylphenol	ND		104	59.6	57	104	73.8	71	21	43-90/27
51-28-5	2,4-Dinitrophenol	ND		208	137	66	208	163	78	17	44-112/25
534-52-1	4,6-Dinitro-o-cresol	ND		208	157	75	208	184	88	16	66-121/23
95-48-7	2-Methylphenol	ND		104	60.9	58	104	73.4	70	19	43-90/28
	3&4-Methylphenol	ND		208	120	58	208	145	70	19	36-88/28
88-75-5	2-Nitrophenol	ND		104	68.3	66	104	81.2	78	17	53-102/29
100-02-7	4-Nitrophenol	ND		208	106	51	208	125	60	16	18-62/33
87-86-5	Pentachlorophenol	ND		208	178	85	208	207	99	15	61-115/26
108-95-2	Phenol	ND		104	45.0	43	104	50.7	49	12	19-56/35
58-90-2	2,3,4,6-Tetrachlorophenol	ND		104	74.0	71	104	86.5	83	16	62-110/22
95-95-4	2,4,5-Trichlorophenol	ND		104	75.4	72	104	90.8	87	19	62-109/22
88-06-2	2,4,6-Trichlorophenol	ND		104	72.9	70	104	87.4	84	18	59-107/23
83-32-9	Acenaphthene	ND		104	75.0	72	104	87.6	84	15	61-107/22
208-96-8	Acenaphthylene	ND		104	73.6	71	104	86.5	83	16	60-104/22
98-86-2	Acetophenone	ND		104	66.7	64	104	80.0	77	18	53-106/27
120-12-7	Anthracene	ND		104	78.7	76	104	91.0	87	14	65-108/20
1912-24-9	Atrazine	ND		104	79.9	77	104	90.1	86	12	62-114/24
100-52-7	Benzaldehyde	ND		104	59.0	57	104	71.4	69	19	36-129/29
56-55-3	Benzo(a)anthracene	ND		104	76.3	73	104	89.4	86	16	66-111/22
50-32-8	Benzo(a)pyrene	ND		104	78.5	75	104	93.0	89	17	62-107/23
205-99-2	Benzo(b)fluoranthene	ND		104	80.9	78	104	90.3	87	11	65-114/23
191-24-2	Benzo(g,h,i)perylene	ND		104	75.7	73	104	86.4	83	13	66-116/23
207-08-9	Benzo(k)fluoranthene	ND		104	80.2	77	104	93.6	90	15	65-114/24
92-52-4	1,1'-Biphenyl	ND		104	70.1	67	104	84.3	81	18	57-104/23
101-55-3	4-Bromophenyl Phenyl Ether	ND		104	82.7	79	104	95.2	91	14	65-109/23
85-68-7	Butyl Benzyl Phthalate	ND		104	81.7	78	104	95.6	92	16	65-112/24
86-74-8	Carbazole	ND		104	83.4	80	104	95.4	92	13	59-113/21
106-47-8	4-Chloroaniline	ND		104	71.7	69	104	82.0	79	13	49-105/27
111-91-1	bis(2-Chloroethoxy)methane	ND		104	65.5	63	104	79.4	76	19	51-102/28
111-44-4	bis(2-Chloroethyl)ether	ND		104	67.4	65	104	79.2	76	16	53-100/27
108-60-1	bis(2-Chloroisopropyl)ether	ND		104	71.3	68	104	84.9	82	17	45-106/26
91-58-7	2-Chloronaphthalene	ND		104	70.2	67	104	84.1	81	18	57-103/23

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP60631-MS	X046685.D	1	06/01/16	MV	05/31/16	OP60631	SX2054
OP60631-MSD	X046686.D	1	06/01/16	MV	05/31/16	OP60631	SX2054
FA34254-1	X046684.D	1	06/01/16	MV	05/31/16	OP60631	SX2054

The QC reported here applies to the following samples: **Method:** SW846 8270D

FA34217-1, FA34217-2

7.3.1

7

CAS No.	Compound	FA34254-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
7005-72-3	4-Chlorophenyl Phenyl Ether	ND		104	74.7	72	104	89.4	86	18	62-105/20
218-01-9	Chrysene	ND		104	76.2	73	104	89.2	86	16	66-111/22
53-70-3	Dibenzo(a,h)anthracene	ND		104	76.7	74	104	90.2	87	16	66-119/24
132-64-9	Dibenzofuran	ND		104	77.4	74	104	92.0	88	17	61-106/21
91-94-1	3,3'-Dichlorobenzidine	ND		104	63.9	61	104	77.5	74	19	46-117/29
84-66-2	Diethyl Phthalate	ND		104	81.5	78	104	91.1	87	11	64-108/21
131-11-3	Dimethyl Phthalate	ND		104	78.2	75	104	91.2	88	15	63-106/22
84-74-2	Di-n-butyl Phthalate	ND		104	83.4	80	104	95.4	92	13	65-107/21
117-84-0	Di-n-octyl Phthalate	ND		104	86.5	83	104	101	97	15	62-118/24
121-14-2	2,4-Dinitrotoluene	ND		104	77.7	75	104	90.5	87	15	61-110/21
606-20-2	2,6-Dinitrotoluene	ND		104	74.1	71	104	87.5	84	17	63-108/21
117-81-7	bis(2-Ethylhexyl)phthalate	ND		104	84.4	81	104	99.7	96	17	61-117/23
206-44-0	Fluoranthene	ND		104	77.2	74	104	88.7	85	14	63-106/21
86-73-7	Fluorene	ND		104	75.6	73	104	89.3	86	17	62-108/20
118-74-1	Hexachlorobenzene	ND		104	76.4	73	104	88.8	85	15	63-108/22
87-68-3	Hexachlorobutadiene	ND		104	61.7	59	104	75.5	72	20	42-102/28
77-47-4	Hexachlorocyclopentadiene	ND		104	51.5	49	104	67.0	64	26	39-102/29
67-72-1	Hexachloroethane	ND		104	56.2	54	104	68.5	66	20	42-100/29
193-39-5	Indeno(1,2,3-cd)pyrene	ND		104	79.4	76	104	92.2	89	15	64-119/24
78-59-1	Isophorone	ND		104	67.3	65	104	83.0	80	21	43-87/25
91-57-6	2-Methylnaphthalene	ND		104	71.4	69	104	86.5	83	19	51-102/26
91-20-3	Naphthalene	ND		104	66.5	64	104	79.1	76	17	47-100/29
88-74-4	2-Nitroaniline	ND		104	85.0	82	104	96.8	93	13	54-128/24
99-09-2	3-Nitroaniline	ND		104	74.8	72	104	88.4	85	17	56-106/27
100-01-6	4-Nitroaniline	ND		104	84.0	81	104	93.9	90	11	55-120/24
98-95-3	Nitrobenzene	ND		104	67.8	65	104	79.6	76	16	50-104/28
621-64-7	N-Nitrosodi-n-propylamine	ND		104	66.6	64	104	79.6	76	18	52-104/25
86-30-6	N-Nitrosodiphenylamine	ND		104	80.3	77	104	92.2	89	14	64-108/23
85-01-8	Phenanthrene	ND		104	78.0	75	104	90.4	87	15	66-110/21
129-00-0	Pyrene	ND		104	79.5	76	104	92.7	89	15	64-113/23
95-94-3	1,2,4,5-Tetrachlorobenzene	ND		104	65.4	63	104	81.4	78	22	47-111/27

CAS No.	Surrogate Recoveries	MS	MSD	FA34254-1	Limits
367-12-4	2-Fluorophenol	50%	56%	30%	14-67%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP60631-MS	X046685.D	1	06/01/16	MV	05/31/16	OP60631	SX2054
OP60631-MSD	X046686.D	1	06/01/16	MV	05/31/16	OP60631	SX2054
FA34254-1	X046684.D	1	06/01/16	MV	05/31/16	OP60631	SX2054

The QC reported here applies to the following samples: **Method:** SW846 8270D

FA34217-1, FA34217-2

CAS No.	Surrogate Recoveries	MS	MSD	FA34254-1	Limits
4165-62-2	Phenol-d5	39%	46%	20%	10-50%
118-79-6	2,4,6-Tribromophenol	76%	88%	72%	33-118%
4165-60-0	Nitrobenzene-d5	66%	77%	58%	42-108%
321-60-8	2-Fluorobiphenyl	67%	81%	64%	40-106%
1718-51-0	Terphenyl-d14	77%	88%	78%	39-121%

* = Outside of Control Limits.

Instrument Performance Check (DFTPP)

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Sample: SX2052-DFTPP
Lab File ID: X046538.D
Instrument ID: GCMSX
Injection Date: 05/26/16
Injection Time: 10:02

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	62250	49.6		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	45113	35.9		Pass
70	Less than 2.0% of mass 69	268	0.21	(0.59) [a]	Pass
127	40.0 - 60.0% of mass 198	71616	57.0		Pass
197	Less than 1.0% of mass 198	366	0.29		Pass
198	Base peak, 100% relative abundance	125616	100.0		Pass
199	5.0 - 9.0% of mass 198	8598	6.84		Pass
275	10.0 - 30.0% of mass 198	20795	16.6		Pass
365	1.0 - 100.0% of mass 198	1980	1.58		Pass
441	Present, but less than mass 443	1555	1.24	(13.5) [b]	Pass
442	40.0 - 100.0% of mass 198	58125	46.3		Pass
443	17.0 - 23.0% of mass 442	11517	9.17	(19.8) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
SX2052-IC2052	X046541.D	05/26/16	11:12	01:10	Initial cal 5
SX2052-IC2052	X046542.D	05/26/16	11:36	01:34	Initial cal 10
SX2052-IC2052	X046543.D	05/26/16	12:00	01:58	Initial cal 25
SX2052-ICC2052	X046544.D	05/26/16	12:24	02:22	Initial cal 50
SX2052-IC2052	X046545.D	05/26/16	12:48	02:46	Initial cal 60
SX2052-IC2052	X046546.D	05/26/16	13:11	03:09	Initial cal 75
SX2052-IC2052	X046547.D	05/26/16	13:35	03:33	Initial cal 100
SX2052-ICV2052	X046548.D	05/26/16	13:59	03:57	Initial cal verification 50
SX2052-ICV2052	X046549.D	05/26/16	14:23	04:21	Initial cal verification 50
ZZZZZZ	X046555.D	05/26/16	16:48	06:46	(unrelated sample)
ZZZZZZ	X046556.D	05/26/16	17:11	07:09	(unrelated sample)
ZZZZZZ	X046557.D	05/26/16	17:35	07:33	(unrelated sample)
ZZZZZZ	X046558.D	05/26/16	17:59	07:57	(unrelated sample)
ZZZZZZ	X046559.D	05/26/16	18:23	08:21	(unrelated sample)
ZZZZZZ	X046560.D	05/26/16	18:47	08:45	(unrelated sample)
ZZZZZZ	X046561.D	05/26/16	19:11	09:09	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Sample: SX2054-DFTPP
Lab File ID: X046641.D
Instrument ID: GCMSX
Injection Date: 05/31/16
Injection Time: 14:06

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	57027	48.2		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	40010	33.8		Pass
70	Less than 2.0% of mass 69	210	0.18	(0.52) [a]	Pass
127	40.0 - 60.0% of mass 198	66392	56.1		Pass
197	Less than 1.0% of mass 198	112	0.09		Pass
198	Base peak, 100% relative abundance	118328	100.0		Pass
199	5.0 - 9.0% of mass 198	7976	6.74		Pass
275	10.0 - 30.0% of mass 198	19433	16.4		Pass
365	1.0 - 100.0% of mass 198	1957	1.65		Pass
441	Present, but less than mass 443	2420	2.05	(22.6) [b]	Pass
442	40.0 - 100.0% of mass 198	56261	47.5		Pass
443	17.0 - 23.0% of mass 442	10726	9.06	(19.1) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
SX2054-CC2052	X046643.D	05/31/16	15:02	00:56	Continuing cal 50
OP60598-BS	X046644.D	05/31/16	15:26	01:20	Blank Spike
OP60631-MB	X046646.D	05/31/16	16:15	02:09	Method Blank
ZZZZZZ	X046647.D	05/31/16	16:39	02:33	(unrelated sample)
OP60632-BS	X046648.D	05/31/16	17:03	02:57	Blank Spike
OP60632-MB	X046649.D	05/31/16	17:27	03:21	Method Blank
ZZZZZZ	X046650.D	05/31/16	17:51	03:45	(unrelated sample)
ZZZZZZ	X046651.D	05/31/16	18:14	04:08	(unrelated sample)
ZZZZZZ	X046652.D	05/31/16	18:38	04:32	(unrelated sample)
FA34121-4	X046653.D	05/31/16	19:02	04:56	(used for QC only; not part of job FA34217)
OP60632-MS	X046654.D	05/31/16	19:26	05:20	Matrix Spike
OP60632-MSD	X046655.D	05/31/16	19:49	05:43	Matrix Spike Duplicate
ZZZZZZ	X046656.D	05/31/16	20:13	06:07	(unrelated sample)
ZZZZZZ	X046657.D	05/31/16	20:37	06:31	(unrelated sample)
ZZZZZZ	X046658.D	05/31/16	21:01	06:55	(unrelated sample)
ZZZZZZ	X046659.D	05/31/16	21:24	07:18	(unrelated sample)
ZZZZZZ	X046660.D	05/31/16	21:48	07:42	(unrelated sample)
ZZZZZZ	X046661.D	05/31/16	22:12	08:06	(unrelated sample)
ZZZZZZ	X046662.D	05/31/16	22:35	08:29	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Sample: SX2054-DFTPP
Lab File ID: X046641.D
Instrument ID: GCMSX
Injection Date: 05/31/16
Injection Time: 14:06

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	X046663.D	05/31/16	22:59	08:53	(unrelated sample)
ZZZZZZ	X046665.D	05/31/16	23:46	09:40	(unrelated sample)
ZZZZZZ	X046666.D	06/01/16	00:10	10:04	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Sample: SX2054-DFTPP
Lab File ID: X046667.D
Instrument ID: GCMSX
Injection Date: 06/01/16
Injection Time: 00:32

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	79309	54.8		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	55683	38.5		Pass
70	Less than 2.0% of mass 69	230	0.16	(0.41) [a]	Pass
127	40.0 - 60.0% of mass 198	83725	57.9		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	144619	100.0		Pass
199	5.0 - 9.0% of mass 198	9193	6.36		Pass
275	10.0 - 30.0% of mass 198	23124	16.0		Pass
365	1.0 - 100.0% of mass 198	1813	1.25		Pass
441	Present, but less than mass 443	4239	2.93	(34.8) [b]	Pass
442	40.0 - 100.0% of mass 198	64512	44.6		Pass
443	17.0 - 23.0% of mass 442	12178	8.42	(18.9) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
SX2054-CC2052	X046668.D	06/01/16	00:48	00:16	Continuing cal 50
ZZZZZZ	X046669.D	06/01/16	01:12	00:40	(unrelated sample)
ZZZZZZ	X046670.D	06/01/16	01:36	01:04	(unrelated sample)
ZZZZZZ	X046671.D	06/01/16	01:59	01:27	(unrelated sample)
ZZZZZZ	X046672.D	06/01/16	02:23	01:51	(unrelated sample)
ZZZZZZ	X046674.D	06/01/16	03:10	02:38	(unrelated sample)
ZZZZZZ	X046675.D	06/01/16	03:34	03:02	(unrelated sample)
ZZZZZZ	X046676.D	06/01/16	03:57	03:25	(unrelated sample)
ZZZZZZ	X046677.D	06/01/16	04:21	03:49	(unrelated sample)
ZZZZZZ	X046678.D	06/01/16	04:44	04:12	(unrelated sample)
ZZZZZZ	X046680.D	06/01/16	05:32	05:00	(unrelated sample)
ZZZZZZ	X046681.D	06/01/16	05:55	05:23	(unrelated sample)
FA34217-1	X046682.D	06/01/16	06:19	05:47	WELL-516 TANT-RE
FA34217-2	X046683.D	06/01/16	06:42	06:10	DUP-1
FA34254-1	X046684.D	06/01/16	07:06	06:34	(used for QC only; not part of job FA34217)
OP60631-MS	X046685.D	06/01/16	07:30	06:58	Matrix Spike
OP60631-MSD	X046686.D	06/01/16	07:53	07:21	Matrix Spike Duplicate
ZZZZZZ	X046687.D	06/01/16	08:17	07:45	(unrelated sample)
ZZZZZZ	X046688.D	06/01/16	08:41	08:09	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Sample: SX2054-DFTPP
Lab File ID: X046667.D
Instrument ID: GCMSX
Injection Date: 06/01/16
Injection Time: 00:32

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
OP60631-BS	X046689.D	06/01/16	09:05	08:33	Blank Spike
ZZZZZZ	X046690.D	06/01/16	09:28	08:56	(unrelated sample)
ZZZZZZ	X046691.D	06/01/16	09:52	09:20	(unrelated sample)
ZZZZZZ	X046692.D	06/01/16	10:16	09:44	(unrelated sample)
ZZZZZZ	X046693.D	06/01/16	10:40	10:08	(unrelated sample)
ZZZZZZ	X046694.D	06/01/16	11:04	10:32	(unrelated sample)
ZZZZZZ	X046695.D	06/01/16	11:28	10:56	(unrelated sample)
ZZZZZZ	X046696.D	06/01/16	11:52	11:20	(unrelated sample)
SX2054-ECC2052	X046697.D	06/01/16	12:15	11:43	Ending cal 50

Semivolatile Internal Standard Area Summary

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Check Std:	SX2054-CC2052	**Injection Date:**	05/31/16
Lab File ID:	X046643.D	**Injection Time:**	15:02
Instrument ID:	GCMSX	**Method:**	SW846 8270D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Initial Cal [a]	249505	5.22	911117	6.64	432962	8.67	628238	10.37	503593	13.49	413470	15.40
Check Std [b]	265663	5.17	963017	6.59	471849	8.62	695054	10.32	565292	13.44	439749	15.34
Upper Limit [c]	531326	5.67	1926034	7.09	943698	9.12	1390108	10.82	1130584	13.94	879498	15.84
Lower Limit [d]	132832	4.67	481509	6.09	235925	8.12	347527	9.82	282646	12.94	219875	14.84

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP60598-BS	392877	5.17	1370542	6.59	641252	8.62	896110	10.33	683740	13.45	539365	15.35
OP60631-MB	275940	5.17	1012992	6.59	497197	8.62	724490	10.32	586541	13.44	445103	15.34
ZZZZZZ	274136	5.17	1001443	6.59	490858	8.62	697880	10.31	576634	13.44	438680	15.34
OP60632-BS	247795	5.17	898043	6.59	418457	8.62	597256	10.32	459573	13.44	358915	15.34
OP60632-MB	277597	5.17	1045098	6.59	503614	8.62	704254	10.31	554272	13.43	415410	15.34
ZZZZZZ	262800	5.17	1013027	6.59	488799	8.62	710746	10.31	560682	13.43	426445	15.34
ZZZZZZ	261388	5.17	955189	6.59	469593	8.62	672790	10.31	504601	13.43	369827	15.34
ZZZZZZ	268588	5.17	981857	6.59	437574	8.62	615723	10.31	520908	13.43	407632	15.34
FA34121-4	253326	5.17	945387	6.59	438630	8.62	638223	10.31	499445	13.43	373734	15.34
OP60632-MS	303009	5.17	1062905	6.59	505038	8.62	716363	10.31	561020	13.44	436959	15.34
OP60632-MSD	332289	5.17	1181756	6.59	552917	8.62	787951	10.32	609143	13.44	477419	15.34
ZZZZZZ	254444	5.17	924070	6.59	437516	8.62	620588	10.31	473102	13.43	359767	15.33
ZZZZZZ	243706	5.17	878704	6.59	416287	8.62	597952	10.31	457612	13.43	336012	15.33
ZZZZZZ	249439	5.17	911273	6.59	434719	8.62	621534	10.31	469941	13.43	354789	15.33
ZZZZZZ	237349	5.17	883566	6.59	412373	8.62	591013	10.31	459163	13.43	338485	15.33
ZZZZZZ	249147	5.17	903452	6.59	429521	8.62	609978	10.31	478832	13.43	345229	15.33
ZZZZZZ	249251	5.17	910082	6.59	426554	8.62	612523	10.31	469639	13.43	342144	15.33
ZZZZZZ	260977	5.17	955990	6.59	461504	8.62	666187	10.31	507250	13.43	380265	15.33
ZZZZZZ	226523	5.17	843120	6.59	399253	8.62	576391	10.31	444417	13.43	330053	15.33
ZZZZZZ	275254	5.17	967263	6.59	498069	8.62	712240	10.31	563019	13.43	424034	15.33
ZZZZZZ	272631	5.17	1020853	6.59	503126	8.62	732878	10.31	569263	13.43	417925	15.33

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Initial Cal is: SX2052-ICC2052 X046544.D 05/26/16 12:24
(b) Check Std Limit = -50 to + 100% of initial cal area.
(c) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(d) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Internal Standard Area Summary

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Check Std:	SX2054-CC2052	**Injection Date:**	06/01/16
Lab File ID:	X046668.D	**Injection Time:**	00:48
Instrument ID:	GCMSX	**Method:**	SW846 8270D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Initial Cal [a]	249505	5.22	911117	6.64	432962	8.67	628238	10.37	503593	13.49	413470	15.40
Check Std [b]	228889	5.17	839499	6.59	413323	8.62	616595	10.31	479049	13.43	363276	15.34
Upper Limit [c]	457778	5.67	1678998	7.09	826646	9.12	1233190	10.81	958098	13.93	726552	15.84
Lower Limit [d]	114445	4.67	419750	6.09	206662	8.12	308298	9.81	239525	12.93	181638	14.84

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
ZZZZZZ	245347	5.17	882340	6.59	419845	8.62	594432	10.31	477309	13.43	356794	15.33
ZZZZZZ	240667	5.17	871364	6.59	417990	8.62	593361	10.31	451548	13.43	337506	15.33
ZZZZZZ	246278	5.17	894437	6.59	438073	8.62	626160	10.31	488360	13.43	357980	15.33
ZZZZZZ	233150	5.17	854843	6.59	411302	8.62	583619	10.31	436931	13.43	332607	15.33
ZZZZZZ	196378	5.17	731971	6.59	350679	8.62	512444	10.31	399812	13.43	284564	15.33
ZZZZZZ	219864	5.17	817771	6.59	382481	8.62	542557	10.31	438088	13.43	323085	15.33
ZZZZZZ	235420	5.17	863508	6.59	412260	8.62	589235	10.31	453042	13.43	332954	15.33
ZZZZZZ	223466	5.17	834820	6.59	401998	8.62	569723	10.31	454487	13.43	327470	15.33
ZZZZZZ	171290	5.19	578022	6.60	372491	8.62	544829	10.31	450248	13.43	346524	15.33
ZZZZZZ	276178	5.17	1016323	6.59	504364	8.62	737317	10.31	573457	13.43	429909	15.33
ZZZZZZ	249411	5.17	929873	6.59	456838	8.62	653394	10.31	512028	13.43	372309	15.33
FA34217-1	278762	5.17	1047106	6.59	515746	8.62	739775	10.31	572768	13.43	421860	15.33
FA34217-2	284210	5.17	1048430	6.59	519102	8.62	753879	10.31	581064	13.43	423495	15.33
FA34254-1	288953	5.17	1061664	6.59	515129	8.62	747773	10.31	584456	13.43	424135	15.33
OP60631-MS	285045	5.17	1035830	6.59	490880	8.62	700604	10.31	554323	13.43	407946	15.34
OP60631-MSD	261893	5.17	954789	6.59	458597	8.62	658807	10.31	511723	13.43	381575	15.34
ZZZZZZ	257595	5.17	952785	6.59	452128	8.62	649911	10.31	520208	13.43	382649	15.34
ZZZZZZ	283665	5.17	1069314	6.59	524993	8.62	755344	10.31	592855	13.43	431053	15.33
OP60631-BS	244037	5.17	903351	6.59	438878	8.62	634921	10.31	499919	13.43	376272	15.33
ZZZZZZ	274786	5.17	1025556	6.59	498509	8.62	724378	10.31	553274	13.43	406009	15.33
ZZZZZZ	288700	5.17	1070548	6.59	521893	8.62	755174	10.31	581835	13.43	429576	15.33
ZZZZZZ	267453	5.17	1022428	6.59	502913	8.62	730866	10.31	559919	13.43	405679	15.33
ZZZZZZ	244838	5.17	877167	6.59	417637	8.62	582906	10.31	402323	13.43	260061	15.33
ZZZZZZ	242107	5.17	877320	6.59	422212	8.62	598464	10.31	453651	13.43	335953	15.33
ZZZZZZ	224648	5.17	781991	6.59	349608	8.62	462748	10.32	432197	13.43	334549	15.33
ZZZZZZ	225497	5.17	854512	6.59	417041	8.62	610274	10.31	471124	13.43	334767	15.33
SX2054-ECC2052	246226	5.17	917562	6.59	443525	8.62	670023	10.31	522722	13.43	392108	15.34

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12

Semivolatile Internal Standard Area Summary

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Check Std:	SX2054-CC2052	**Injection Date:**	06/01/16
Lab File ID:	X046668.D	**Injection Time:**	00:48
Instrument ID:	GCMSX	**Method:**	SW846 8270D

Lab	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
Sample ID	**AREA**	**RT**	**AREA**	**RT**	**AREA**	**RT**	**AREA**	**RT**	**AREA**	**RT**	**AREA**	**RT**

IS 6 = Perylene-d12

(a) Initial Cal is: SX2052-ICC2052 X046544.D 05/26/16 12:24
(b) Check Std Limit = -50 to + 100% of initial cal area.
(c) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(d) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Surrogate Recovery Summary

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Method: SW846 8270D **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
FA34217-1	X046682.D	28	19	58	53	58	76
FA34217-2	X046683.D	34	23	63	65	66	85
OP60631-BS	X046689.D	44	31	74	70	73	75
OP60631-MB	X046646.D	49	34	76	82	81	86
OP60631-MS	X046685.D	50	39	76	66	67	77
OP60631-MSD	X046686.D	56	46	88	77	81	88

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	14-67%
S2 = Phenol-d5	10-50%
S3 = 2,4,6-Tribromophenol	33-118%
S4 = Nitrobenzene-d5	42-108%
S5 = 2-Fluorobiphenyl	40-106%
S6 = Terphenyl-d14	39-121%

Initial Calibration Summary

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Sample: SX2052-ICC2052
Lab FileID: X046544.D

Response Factor Report MSBNA05

Method : C:\msdchem\1\METHODS\8270d00526.m (RTE Integrator)
Title : SW846 8270D OR EPA 625
Last Update : Thu May 26 14:57:57 2016
Response via : Initial Calibration

Calibration Files
5 =x046541.D 10 =x046542.D 25 =x046543.D 50 =x046544.D
60 =x046545.D 75 =x046546.D 100 =x046547.D

Compound	5	10	25	50	60	75	100	Avg	%RSD
1) I 1,4-Dichlorobenzene-d	----------ISTD----------								
2) 1,4-Dioxane	0.626	0.608	0.559	0.627	0.596	0.642	0.585	0.606	4.72
3) N-nitrosodimethyl	0.759	0.848	0.743	0.796	0.827	0.811	0.806	0.799	4.60
4) Pyridine	1.505	1.489	1.523	1.436	1.564	1.523	1.531	1.510	2.66
5)P Benzaldehyde	1.159	1.191	1.132	0.970	0.928	0.855	0.763	1.000	16.45
---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9994									
Response Ratio = 0.00000 + 1.19147 *A + -0.17343 *A^2									
6) Aniline	2.005	2.112	2.023	2.034	2.075	2.044	2.062	2.051	1.74
7)S 2-Fluorophenol	1.380	1.452	1.401	1.411	1.425	1.407	1.381	1.408	1.79
8)P bis(2-Chloroethyl	1.306	1.325	1.320	1.300	1.336	1.293	1.269	1.307	1.70
9)S Phenol-d5	1.537	1.630	1.532	1.501	1.520	1.486	1.450	1.522	3.70
10)P Phenol	1.590	1.694	1.580	1.584	1.587	1.558	1.508	1.586	3.51
11)P 2-Chlorophenol	1.564	1.555	1.524	1.483	1.531	1.510	1.482	1.522	2.12
12) 1,3-Dichlorobenze	1.642	1.714	1.614	1.596	1.657	1.613	1.571	1.629	2.87
13) 1,4-Dichlorobenze	1.635	1.675	1.595	1.620	1.626	1.590	1.533	1.611	2.74
14) 1,2-Dichlorobenze	1.570	1.629	1.540	1.504	1.532	1.479	1.437	1.527	4.10
15) Benzyl alcohol	0.922	0.919	0.926	0.939	0.952	0.933	0.929	0.932	1.20
16)P bis(2-chloroisopr	2.677	2.737	2.467	2.389	2.447	2.369	2.241	2.475	7.08
17)P 2-Methylphenol	1.264	1.308	1.228	1.215	1.218	1.186	1.150	1.224	4.18
18)P Acetophenone	1.792	1.813	1.719	1.704	1.714	1.691	1.660	1.728	3.19
19)P Hexachloroethane	0.624	0.636	0.606	0.587	0.595	0.571	0.546	0.595	5.16
20)P N-Nitroso-di-n-pr	0.730	0.752	0.731	0.725	0.728	0.711	0.685	0.723	2.86
21)P 3&4-Methylphenol	1.244	1.338	1.278	1.265	1.271	1.223	1.174	1.256	4.05
22) I Naphthalene-d8	----------ISTD----------								
23)S Nitrobenzene-d5	0.324	0.329	0.321	0.319	0.332	0.324	0.322	0.324	1.40
24)P Nitrobenzene	0.326	0.324	0.313	0.305	0.317	0.320	0.308	0.316	2.51
25)P Isophorone	0.622	0.616	0.589	0.580	0.601	0.599	0.585	0.599	2.63
26)P 2-Nitrophenol	0.197	0.206	0.216	0.210	0.218	0.218	0.219	0.212	3.82
27)P 2,4-Dimethylpheno	0.320	0.316	0.316	0.313	0.318	0.315	0.307	0.315	1.33
28) O,O,O-Triethylpho	0.138	0.142	0.133	0.135	0.134	0.135	0.135	0.136	2.18
29)P bis(2-Chloroethox	0.418	0.436	0.416	0.401	0.406	0.424	0.399	0.414	3.23
30) Benzoic Acid	0.207	0.222	0.242	0.254	0.268	0.275	0.271	0.248	10.53
31)P 2,4-Dichloropheno	0.284	0.297	0.286	0.291	0.295	0.296	0.290	0.291	1.73
32) 1,2,4-Trichlorobe	0.307	0.309	0.305	0.290	0.299	0.294	0.292	0.299	2.60
33) alpha-Terpineol								0.000	-1.00
34)P Naphthalene	1.071	1.096	1.040	1.014	1.025	1.004	0.947	1.028	4.68
35)P 4-Chloroaniline	0.461	0.475	0.455	0.439	0.452	0.433	0.414	0.447	4.48
36) 2,6-Dichloropheno	0.284	0.295	0.292	0.275	0.284	0.277	0.269	0.282	3.32
37)P Hexachlorobutadie	0.138	0.144	0.135	0.135	0.137	0.138	0.138	0.138	2.19
38)P Caprolactam	0.102	0.107	0.101	0.108	0.111	0.111	0.112	0.107	3.96
39)P 4-Chloro-3-methyl	0.264	0.261	0.263	0.265	0.274	0.270	0.268	0.266	1.72
40)P 2-Methylnaphthale	0.711	0.712	0.702	0.683	0.692	0.684	0.659	0.692	2.71
41) 1-Methylnaphthale	0.639	0.658	0.642	0.624	0.646	0.635	0.608	0.636	2.53
42)P 1,2,4,5-Tetrachlo	0.253	0.260	0.259	0.246	0.249	0.253	0.251	0.253	2.01

Initial Calibration Summary

Job Number: FA34217 **Sample:** SX2052-ICC2052
Account: URSNCM AECOM, INC. **Lab FileID:** X046544.D
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

```
43) I   Acenaphthene-d10      ----------------ISTD---------------------
44)P Hexachlorocyclope 0.224 0.264 0.287 0.300 0.327 0.327 0.330 0.294  13.41
45)P 2,4,6-Trichloroph 0.353 0.383 0.373 0.374 0.405 0.382 0.384 0.379   4.13
46)P 2,4,5-Trichloroph 0.366 0.389 0.386 0.390 0.405 0.399 0.403 0.391   3.36
47)S 2-Fluorobiphenyl  1.399 1.419 1.358 1.321 1.356 1.341 1.291 1.355   3.23
48)P 1,1'-Biphenyl     1.675 1.675 1.558 1.487 1.522 1.459 1.365 1.534   7.38
49)P 2-Chloronaphthale 1.225 1.249 1.182 1.157 1.195 1.154 1.096 1.180   4.28
50)P 2-Nitroaniline    0.332 0.327 0.328 0.335 0.360 0.351 0.341 0.339   3.59
51)  p-Dinitrobenzene  0.177 0.188 0.194 0.208 0.214 0.215 0.215 0.202   7.56
52)P Acenaphthylene    2.037 2.092 2.026 1.966 2.059 1.975 1.896 2.007   3.30
53)P Dimethylphthalate 1.300 1.352 1.292 1.298 1.333 1.283 1.252 1.302   2.52
54)  m-Dinitrobenzene  0.191 0.221 0.218 0.223 0.237 0.232 0.232 0.222   6.83
55)P 2,6-Dinitrotoluen 0.311 0.303 0.303 0.307 0.325 0.312 0.318 0.311   2.59
56)  o-Dinitrobenzene  0.229 0.223 0.213 0.217 0.227 0.222 0.216 0.221   2.71
57)P Acenaphthene      1.235 1.277 1.241 1.193 1.239 1.181 1.157 1.217   3.44
58)P 3-Nitroaniline    0.370 0.398 0.393 0.399 0.417 0.410 0.413 0.400   3.95
59)P 2,4-Dinitrophenol 0.032 0.068 0.113 0.150 0.164 0.177 0.191 0.128  46.52
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9981
              Response Ratio = 0.00000 + 0.10692 *A + 0.03460 *A^2

60)P Dibenzofuran      1.679 1.677 1.636 1.614 1.675 1.615 1.580 1.640   2.36
61)P 2,4-Dinitrotoluen 0.381 0.389 0.390 0.409 0.419 0.423 0.414 0.403   4.05
62)P 4-Nitrophenol     0.120 0.136 0.140 0.149 0.155 0.151 0.151 0.143   8.49
63)  2,3,5,6-Tetrachlo 0.273 0.263 0.270 0.280 0.288 0.291 0.292 0.280   3.98
64)P 2,3,4,6-Tetrachlo 0.278 0.266 0.267 0.269 0.281 0.278 0.284 0.275   2.66
65)P Fluorene          1.328 1.365 1.307 1.243 1.284 1.244 1.190 1.280   4.63
66)P 4-Chlorophenyl-ph 0.559 0.570 0.524 0.516 0.551 0.535 0.520 0.539   3.89
67)P Diethylphthalate  1.334 1.354 1.287 1.225 1.275 1.232 1.180 1.270   4.88
68)  Thionazin         0.294 0.282 0.265 0.263 0.273 0.266 0.251 0.271   5.16
69)P 4-Nitroaniline    0.381 0.396 0.378 0.370 0.396 0.389 0.379 0.384   2.56

70) I   Phenanthrene-d10      ----------------ISTD---------------------
71)P 4,6-Dinitro-2-met 0.075 0.092 0.121 0.136 0.142 0.149 0.148 0.123  23.71
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9980
              Response Ratio = 0.00000 + 0.12445 *A + 0.01024 *A^2

72)P n-Nitrosodiphenyl 0.639 0.661 0.608 0.593 0.599 0.587 0.549 0.605   6.00
73)  Diphenylamine     0.766 0.793 0.729 0.711 0.718 0.705 0.659 0.726   6.00
74)  1,2-Diphenylhydra 0.897 0.920 0.848 0.820 0.832 0.820 0.756 0.842   6.43
75)S 2,4,6-Tribromophe 0.079 0.082 0.089 0.090 0.089 0.092 0.092 0.088   5.73
76)  Sulfotep          0.139 0.139 0.132 0.126 0.130 0.127 0.118 0.130   5.73
77)  Phorate           0.495 0.533 0.483 0.474 0.473 0.457 0.414 0.476   7.67
78)P 4-Bromophenyl-phe 0.190 0.196 0.185 0.178 0.186 0.184 0.172 0.184   4.22
79)P Hexachlorobenzene 0.176 0.183 0.179 0.180 0.186 0.192 0.188 0.184   3.20
80)  Dimethoate        0.354 0.381 0.350 0.362 0.364 0.357 0.341 0.358   3.51
81)  Simazine          0.082 0.076 0.079 0.076 0.076 0.075 0.073 0.077   3.73
82)P Atrazine          0.206 0.205 0.199 0.196 0.198 0.195 0.185 0.198   3.50
83)P Pentachlorophenol 0.092 0.099 0.112 0.123 0.127 0.130 0.132 0.116  13.64
84)P Phenanthrene      1.198 1.276 1.201 1.135 1.140 1.135 1.046 1.162   6.20
85)P Anthracene        1.218 1.262 1.227 1.163 1.169 1.135 1.056 1.176   5.82
86)  Disulfoton        0.429 0.469 0.427 0.418 0.425 0.415 0.381 0.423   6.13
87)P Carbazole         1.227 1.299 1.212 1.180 1.180 1.162 1.068 1.190   5.91
88)  Methyl Parathion  0.270 0.296 0.310 0.318 0.322 0.324 0.310 0.307   6.18
89)P Di-n-butylphthala 1.460 1.526 1.491 1.482 1.496 1.483 1.383 1.474   3.03
90)  Ethyl Parathion   0.159 0.171 0.169 0.182 0.185 0.183 0.173 0.175   5.36
91)P Fluoranthene      1.151 1.186 1.155 1.140 1.144 1.133 1.056 1.138   3.49

92) I   Chrysene-d12          ----------------ISTD---------------------
93)  Benzidine         0.882 0.901 0.878 0.758 0.730 0.685 0.606 0.777  14.58
```

Initial Calibration Summary

Job Number: FA34217 **Sample:** SX2052-ICC2052
Account: URSNCM AECOM, INC. **Lab FileID:** X046544.D
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

94)	P	Pyrene	1.414	1.529	1.488	1.435	1.481	1.437	1.394	1.454	3.24
95)	S	Terphenyl-d14	0.814	0.819	0.824	0.806	0.834	0.822	0.814	0.819	1.07
96)		Famphur	0.407	0.459	0.464	0.461	0.486	0.482	0.469	0.461	5.62
97)	P	Butylbenzylphthal	0.768	0.813	0.802	0.805	0.864	0.836	0.833	0.817	3.73
98)	P	3,3'-Dichlorobenz	0.372	0.416	0.418	0.409	0.425	0.419	0.398	0.408	4.47
99)	P	Benzo[a]anthracen	1.143	1.177	1.168	1.145	1.193	1.181	1.167	1.168	1.57
100)	P	Chrysene	1.136	1.159	1.108	1.072	1.120	1.088	1.082	1.109	2.83
101)	P	bis(2-Ethylhexyl)	0.940	1.003	1.008	1.028	1.075	1.060	1.038	1.022	4.37
102)	I	Perylene-d12	----------ISTD----------								
103)	P	Di-n-octylphthala	1.902	2.045	2.111	2.126	2.342	2.318	2.322	2.167	7.71
104)	P	Benzo[b]fluoranth	1.199	1.146	1.191	1.196	1.278	1.281	1.305	1.228	4.83
105)	P	Benzo[k]fluoranth	1.173	1.298	1.244	1.154	1.234	1.195	1.136	1.205	4.72
106)	P	Benzo[a]pyrene	1.095	1.181	1.173	1.155	1.210	1.202	1.176	1.170	3.25
107)	P	Indeno[1,2,3-cd]p	0.809	0.889	0.874	0.925	0.966	0.963	0.986	0.916	6.88
108)	P	Dibenz[a,h]anthra	0.813	0.954	0.922	0.944	1.003	0.992	0.994	0.946	6.96
109)	P	Benzo[g,h,i]peryl	1.028	1.033	1.054	1.022	1.075	1.042	1.041	1.042	1.71

(#) = Out of Range

8270d00526.m Fri May 27 15:01:49 2016

7.7.1

7

Initial Calibration Verification

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC
Sample: SX2052-ICV2052
Lab FileID: X046548.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\sx2052\x046548.D          Vial: 10
Acq On    : 26 May 2016   1:59 pm                   Operator: marthav
Sample    : icv2052-50                              Inst    : MSBNA05
Misc      : op60454,sx2052,1000,,,1,1,water         Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\msdchem\1\METHODS\8270d00526.m (RTE Integrator)
Title        : SW846 8270D OR EPA 625
Last Update  : Thu May 26 14:57:57 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	102	0.00	5.22
2		1,4-Dioxane	50.000	44.022	12.0	87	-0.01	2.08
3		N-nitrosodimethylamine	50.000	47.050	5.9	97	-0.01	2.45
4		Pyridine		----------NA----------				
		----------	Amount	Calc.	%Drift		----------	
5	P	Benzaldehyde	50.000	52.117	-4.2	106	0.00	4.75
		----------	Amount	Calc.	%Drift		----------	
6		Aniline		----------NA----------				
7	S	2-Fluorophenol		----------NA----------				
8	P	bis(2-Chloroethyl)ether	50.000	47.190	5.6	97	0.00	5.00
9	S	Phenol-d5		----------NA----------				
10	P	Phenol	50.000	47.567	4.9	98	0.00	4.96
11	P	2-Chlorophenol	50.000	47.976	4.0	101	0.00	5.04
12		1,3-Dichlorobenzene	50.000	47.713	4.6	100	0.00	5.18
13		1,4-Dichlorobenzene	50.000	47.844	4.3	97	0.00	5.24
14		1,2-Dichlorobenzene	50.000	48.688	2.6	101	0.00	5.44
15		Benzyl alcohol		----------NA----------				
16	P	bis(2-chloroisopropyl)eth	50.000	49.054	1.9	104	0.00	5.60
17	P	2-Methylphenol	50.000	45.504	9.0	94	0.00	5.60
18	P	Acetophenone	50.000	45.766	8.5	95	0.00	5.70
19	P	Hexachloroethane	50.000	46.371	7.3	96	0.00	5.78
20	P	N-Nitroso-di-n-propylamin	50.000	45.514	9.0	93	0.00	5.75
21	P	3&4-Methylphenol	100.000	89.334	10.7	101	0.00	5.76
22	I	Naphthalene-d8	40.000	40.000	0.0	99	0.00	6.64
23	S	Nitrobenzene-d5		----------NA----------				
24	P	Nitrobenzene	50.000	46.665	6.7	96	0.00	5.88
25	P	Isophorone	50.000	45.584	8.8	94	0.00	6.15
26	P	2-Nitrophenol	50.000	48.878	2.2	98	0.00	6.25
27	P	2,4-Dimethylphenol	50.000	42.786	14.4	86	0.00	6.34
28		O,O,O-Triethylphosphoroth		----------NA----------				
29	P	bis(2-Chloroethoxy)methan	50.000	44.813	10.4	92	0.00	6.44
30		Benzoic Acid	100.000	102.159	-2.2	99	0.04	6.53
31	P	2,4-Dichlorophenol	50.000	47.734	4.5	95	0.00	6.52
32		1,2,4-Trichlorobenzene	50.000	47.393	5.2	97	0.00	6.60
33		alpha-Terpineol		----------NA----------				
34	P	Naphthalene	50.000	47.357	5.3	95	0.00	6.66
35	P	4-Chloroaniline		----------NA----------				
36		2,6-Dichlorophenol	50.000	47.771	4.5	97	0.00	6.78
37	P	Hexachlorobutadiene	50.000	48.535	2.9	99	0.00	6.89

Initial Calibration Verification

Job Number: FA34217 **Sample:** SX2052-ICV2052
Account: URSNCM AECOM, INC. **Lab FileID:** X046548.D
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

38	P	Caprolactam	50.000	46.419	7.2	92	0.00	7.14
39	P	4-Chloro-3-methylphenol	50.000	45.286	9.4	91	0.00	7.37
40	P	2-Methylnaphthalene		----------NA----------				
41		1-Methylnaphthalene	50.000	49.294	1.4	100	0.00	7.58
42	P	1,2,4,5-Tetrachlorobenzen	50.000	46.172	7.7	94	0.00	7.70
43	I	Acenaphthene-d10	40.000	40.000	0.0	100	0.00	8.67
44	P	Hexachlorocyclopentadiene	50.000	50.635	-1.3	100	0.00	7.73
45	P	2,4,6-Trichlorophenol	50.000	46.596	6.8	95	0.00	7.83
46	P	2,4,5-Trichlorophenol	50.000	48.356	3.3	97	0.00	7.88
47	S	2-Fluorobiphenyl		----------NA----------				
48	P	1,1'-Biphenyl	50.000	45.656	8.7	94	0.00	8.02
49	P	2-Chloronaphthalene	50.000	47.661	4.7	97	0.00	8.01
50	P	2-Nitroaniline		----------NA----------				
51		p-Dinitrobenzene		----------NA----------				
52	P	Acenaphthylene	50.000	47.575	4.8	97	0.00	8.49
53	P	Dimethylphthalate	50.000	47.467	5.1	95	0.00	8.46
54		m-Dinitrobenzene		----------NA----------				
55	P	2,6-Dinitrotoluene	50.000	44.728	10.5	91	0.00	8.52
56		o-Dinitrobenzene		----------NA----------				
57	P	Acenaphthene	50.000	47.720	4.6	98	0.00	8.71
58	P	3-Nitroaniline		----------NA----------				
		----------	Amount	Calc.	%Drift		----------	
59	P	2,4-Dinitrophenol	100.000	82.455	17.5	84	0.00	8.79
		----------	Amount	Calc.	%Drift		----------	
60	P	Dibenzofuran		----------NA----------				
61	P	2,4-Dinitrotoluene	50.000	46.677	6.6	92	0.01	8.97
62	P	4-Nitrophenol	100.000	97.745	2.3	100	0.00	8.93
63		2,3,5,6-Tetrachlorophenol		----------NA----------				
64	P	2,3,4,6-Tetrachlorophenol	50.000	43.091	13.8	88	0.00	9.11
65	P	Fluorene	50.000	45.993	8.0	95	0.01	9.29
66	P	4-Chlorophenyl-phenylethe	50.000	46.305	7.4	97	0.01	9.32
67	P	Diethylphthalate	50.000	46.023	8.0	96	0.02	9.29
68		Thionazin		----------NA----------				
69	P	4-Nitroaniline		----------NA----------				
70	I	Phenanthrene-d10	40.000	40.000	0.0	98	0.00	10.37
		----------	Amount	Calc.	%Drift		----------	
71	P	4,6-Dinitro-2-methylpheno	100.000	98.177	1.8	101	-0.02	9.43
		----------	Amount	Calc.	%Drift		----------	
72	P	n-Nitrosodiphenylamine	50.000	45.829	8.3	76	0.00	9.48
73		Diphenylamine		----------NA----------				
74		1,2-Diphenylhydrazine	50.000	46.757	6.5	94	-0.01	9.50
75	S	2,4,6-Tribromophenol		----------NA----------				
76		Sulfotep		----------NA----------				
77		Phorate		----------NA----------				
78	P	4-Bromophenyl-phenylether	50.000	48.620	2.8	99	0.00	9.88
79	P	Hexachlorobenzene	50.000	46.546	6.9	93	0.00	10.03
80		Dimethoate		----------NA----------				
81		Simazine		----------NA----------				
82	P	Atrazine	50.000	47.050	5.9	93	0.00	10.17
83	P	Pentachlorophenol	100.000	101.188	-1.2	90	0.00	10.25
84	P	Phenanthrene	50.000	46.677	6.6	94	0.00	10.39
85	P	Anthracene	50.000	47.690	4.6	94	0.00	10.44

7.7.2

7

Initial Calibration Verification

Job Number: FA34217 **Sample:** SX2052-ICV2052
Account: URSNCM AECOM, INC. **Lab FileID:** X046548.D
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

86		Disulfoton		----------NA----------				
87	P	Carbazole		----------NA----------				
88		Methyl Parathion		----------NA----------				
89	P	Di-n-butylphthalate	50.000	49.149	1.7	96	0.02	11.21
90		Ethyl Parathion		----------NA----------				
91	P	Fluoranthene	50.000	46.318	7.4	91	0.01	11.78
92	I	Chrysene-d12	40.000	40.000	0.0	99	0.00	13.49
93		Benzidine		----------NA----------				
94	P	Pyrene	50.000	46.278	7.4	93	0.00	12.03
95	S	Terphenyl-d14		----------NA----------				
96		Famphur		----------NA----------				
97	P	Butylbenzylphthalate	50.000	45.698	8.6	92	0.00	12.95
98	P	3,3'-Dichlorobenzidine		----------NA----------				
99	P	Benzo[a]anthracene	50.000	45.256	9.5	91	0.00	13.47
100	P	Chrysene	50.000	46.256	7.5	95	0.00	13.53
101	P	bis(2-Ethylhexyl)phthalat	50.000	47.508	5.0	93	0.00	13.73
102	I	Perylene-d12	40.000	40.000	0.0	93	0.00	15.40
103	P	Di-n-octylphthalate	50.000	46.799	6.4	89	0.00	14.56
104	P	Benzo[b]fluoranthene	50.000	47.896	4.2	91	0.00	14.90
105	P	Benzo[k]fluoranthene	50.000	44.985	10.0	87	0.00	14.93
106	P	Benzo[a]pyrene	50.000	47.455	5.1	89	0.00	15.32
107	P	Indeno[1,2,3-cd]pyrene	50.000	48.281	3.4	89	0.00	16.73
108	P	Dibenz[a,h]anthracene	50.000	48.691	2.6	91	0.00	16.78
109	P	Benzo[g,h,i]perylene	50.000	47.311	5.4	90	0.00	17.03

(#) = Out of Range SPCC's out = 0 CCC's out = 0
x046544.D 8270d00526.m Fri May 27 16:06:42 2016

7.7.2

7

Initial Calibration Verification

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Sample: SX2052-ICV2052
Lab FileID: X046549.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\sx2052\x046549.D          Vial: 11
Acq On    : 26 May 2016   2:23 pm                   Operator: marthav
Sample    : icv2052-50                              Inst    : MSBNA05
Misc      : op60454,sx2052,1000,,,1,1,water         Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\msdchem\1\METHODS\8270d00526.m (RTE Integrator)
Title        : SW846 8270D OR EPA 625
Last Update  : Thu May 26 14:57:57 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	104	0.00	5.22
2		1,4-Dioxane		----------NA----------				
3		N-nitrosodimethylamine		----------NA----------				
4		Pyridine	50.000	43.274	13.5	94	-0.02	2.44
		----------	Amount	Calc.	%Drift	----------		
5	P	Benzaldehyde		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
6		Aniline	50.000	45.508	9.0	95	0.00	4.92
7	S	2-Fluorophenol		----------NA----------				
8	P	bis(2-Chloroethyl)ether		----------NA----------				
9	S	Phenol-d5		----------NA----------				
10	P	Phenol		----------NA----------				
11	P	2-Chlorophenol		----------NA----------				
12		1,3-Dichlorobenzene		----------NA----------				
13		1,4-Dichlorobenzene		----------NA----------				
14		1,2-Dichlorobenzene		----------NA----------				
15		Benzyl alcohol	50.000	46.528	6.9	96	0.00	5.42
16	P	bis(2-chloroisopropyl)eth		----------NA----------				
17	P	2-Methylphenol		----------NA----------				
18	P	Acetophenone		----------NA----------				
19	P	Hexachloroethane		----------NA----------				
20	P	N-Nitroso-di-n-propylamin		----------NA----------				
21	P	3&4-Methylphenol		----------NA----------				
22	I	Naphthalene-d8	40.000	40.000	0.0	105	0.00	6.64
23	S	Nitrobenzene-d5		----------NA----------				
24	P	Nitrobenzene		----------NA----------				
25	P	Isophorone		----------NA----------				
26	P	2-Nitrophenol		----------NA----------				
27	P	2,4-Dimethylphenol		----------NA----------				
28		O,O,O-Triethylphosphoroth	50.000	48.511	3.0	102	0.00	6.46
29	P	bis(2-Chloroethoxy)methan		----------NA----------				
30		Benzoic Acid		----------NA----------				
31	P	2,4-Dichlorophenol		----------NA----------				
32		1,2,4-Trichlorobenzene		----------NA----------				
33		alpha-Terpineol		----------NA----------				
34	P	Naphthalene		----------NA----------				
35	P	4-Chloroaniline	50.000	49.492	1.0	105	0.00	6.78
36		2,6-Dichlorophenol		----------NA----------				
37	P	Hexachlorobutadiene		----------NA----------				

Initial Calibration Verification

Job Number: FA34217 **Sample:** SX2052-ICV2052
Account: URSNCM AECOM, INC. **Lab FileID:** X046549.D
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

38	P	Caprolactam		----------NA----------				
39	P	4-Chloro-3-methylphenol		----------NA----------				
40	P	2-Methylnaphthalene	50.000	46.168	7.7	98	0.00	7.45
41		1-Methylnaphthalene		----------NA----------				
42	P	1,2,4,5-Tetrachlorobenzen		----------NA----------				
43	I	Acenaphthene-d10	40.000	40.000	0.0	106	0.00	8.67
44	P	Hexachlorocyclopentadiene		----------NA----------				
45	P	2,4,6-Trichlorophenol		----------NA----------				
46	P	2,4,5-Trichlorophenol		----------NA----------				
47	S	2-Fluorobiphenyl		----------NA----------				
48	P	1,1'-Biphenyl		----------NA----------				
49	P	2-Chloronaphthalene		----------NA----------				
50	P	2-Nitroaniline	50.000	50.381	-0.8	108	0.00	8.19
51		p-Dinitrobenzene		----------NA----------				
52	P	Acenaphthylene		----------NA----------				
53	P	Dimethylphthalate		----------NA----------				
54		m-Dinitrobenzene	50.000	45.494	9.0	96	0.00	8.45
55	P	2,6-Dinitrotoluene		----------NA----------				
56		o-Dinitrobenzene		----------NA----------				
57	P	Acenaphthene		----------NA----------				
58	P	3-Nitroaniline	50.000	47.708	4.6	101	0.00	8.67
		----------	Amount	Calc.	%Drift	----------		
59	P	2,4-Dinitrophenol		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
60	P	Dibenzofuran	50.000	46.548	6.9	100	0.00	8.89
61	P	2,4-Dinitrotoluene		----------NA----------				
62	P	4-Nitrophenol		----------NA----------				
63		2,3,5,6-Tetrachlorophenol		----------NA----------				
64	P	2,3,4,6-Tetrachlorophenol		----------NA----------				
65	P	Fluorene		----------NA----------				
66	P	4-Chlorophenyl-phenylethe		----------NA----------				
67	P	Diethylphthalate		----------NA----------				
68		Thionazin	50.000	50.343	-0.7	110	0.02	9.38
69	P	4-Nitroaniline	50.000	49.346	1.3	109	0.00	9.39
70	I	Phenanthrene-d10	40.000	40.000	0.0	108	0.00	10.37
		----------	Amount	Calc.	%Drift	----------		
71	P	4,6-Dinitro-2-methylpheno		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
72	P	n-Nitrosodiphenylamine	60.000	57.482	4.2	106	0.00	9.48
73		Diphenylamine	50.000	47.902	4.2	106	0.00	9.48
74		1,2-Diphenylhydrazine		----------NA----------				
75	S	2,4,6-Tribromophenol		----------NA----------				
76		Sulfotep	50.000	49.874	0.3	112	0.00	9.82
77		Phorate	50.000	49.125	1.8	107	0.00	9.88
78	P	4-Bromophenyl-phenylether		----------NA----------				
79	P	Hexachlorobenzene		----------NA----------				
80		Dimethoate	50.000	48.302	3.4	104	0.00	10.07
81		Simazine		----------NA----------				
82	P	Atrazine		----------NA----------				
83	P	Pentachlorophenol		----------NA----------				
84	P	Phenanthrene		----------NA----------				
85	P	Anthracene		----------NA----------				
86		Disulfoton	50.000	49.234	1.5	108	0.00	10.49
87	P	Carbazole	50.000	47.370	5.3	104	0.00	10.66

Initial Calibration Verification

Job Number: FA34217 **Sample:** SX2052-ICV2052
Account: URSNCM AECOM, INC. **Lab FileID:** X046549.D
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

88		Methyl Parathion	50.000	49.240	1.5	103	0.01	10.92
89	P	Di-n-butylphthalate		----------NA----------				
90		Ethyl Parathion	50.000	49.330	1.3	103	0.02	11.40
91	P	Fluoranthene		----------NA----------				
92	I	Chrysene-d12	40.000	40.000	0.0	112	0.00	13.49
93		Benzidine	50.000	57.183	-14.4	132	0.00	11.99
94	P	Pyrene		----------NA----------				
95	S	Terphenyl-d14		----------NA----------				
96		Famphur	50.000	43.395	13.2	98	0.00	12.88
97	P	Butylbenzylphthalate		----------NA----------				
98	P	3,3'-Dichlorobenzidine	50.000	46.012	8.0	103	0.00	13.51
99	P	Benzo[a]anthracene		----------NA----------				
100	P	Chrysene		----------NA----------				
101	P	bis(2-Ethylhexyl)phthalat		----------NA----------				
102	I	Perylene-d12	40.000	40.000	0.0	106	0.00	15.41
103	P	Di-n-octylphthalate		----------NA----------				
104	P	Benzo[b]fluoranthene		----------NA----------				
105	P	Benzo[k]fluoranthene		----------NA----------				
106	P	Benzo[a]pyrene		----------NA----------				
107	P	Indeno[1,2,3-cd]pyrene		----------NA----------				
108	P	Dibenz[a,h]anthracene		----------NA----------				
109	P	Benzo[g,h,i]perylene		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
x046544.D 8270d00526.m Fri May 27 11:44:33 2016

7.7.3

7

Continuing Calibration Summary

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Sample: SX2054-CC2052
Lab FileID: X046643.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\sx2054\x046643.D          Vial: 2
Acq On    : 31 May 2016   3:02 pm                   Operator: marthav
Sample    : cc2052-50                               Inst    : MSBNA05
Misc      : op60454,sx2054,1000,,,1,1,water         Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\msdchem\1\METHODS\8270d00526.m (RTE Integrator)
Title        : SW846 8270D OR EPA 625
Last Update  : Thu May 26 14:57:57 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	106	0.00	5.17
2		1,4-Dioxane	0.606	0.606	0.0	103	0.00	2.03
3		N-nitrosodimethylamine	0.799	0.794	0.6	106	-0.01	2.40
4		Pyridine	1.510	1.439	4.7	107	-0.01	2.39
		----------	Amount	Calc.	%Drift		----------	
5	P	Benzaldehyde	50.000	56.702	-13.4	118	0.00	4.71
		----------	AvgRF	CCRF	%Dev		----------	
6		Aniline	2.051	1.909	6.9	100	0.00	4.87
7	S	2-Fluorophenol	1.408	1.340	4.8	101	-0.01	3.90
8	P	bis(2-Chloroethyl)ether	1.307	1.241	5.0	102	0.00	4.96
9	S	Phenol-d5	1.522	1.406	7.6	100	0.00	4.92
10	P	Phenol	1.586	1.534	3.3	103	0.00	4.93
11	P	2-Chlorophenol	1.522	1.421	6.6	102	0.00	4.99
12		1,3-Dichlorobenzene	1.629	1.538	5.6	103	0.00	5.13
13		1,4-Dichlorobenzene	1.611	1.524	5.4	100	0.00	5.19
14		1,2-Dichlorobenzene	1.527	1.436	6.0	102	0.00	5.39
15		Benzyl alcohol	0.932	0.868	6.9	98	0.00	5.38
16	P	bis(2-chloroisopropyl)eth	2.475	2.456	0.8	109	0.00	5.55
17	P	2-Methylphenol	1.224	1.157	5.5	101	0.00	5.56
18	P	Acetophenone	1.728	1.662	3.8	104	0.00	5.66
19	P	Hexachloroethane	0.595	0.597	-0.3	108	0.00	5.73
20	P	N-Nitroso-di-n-propylamin	0.723	0.677	6.4	99	0.00	5.70
21	P	3&4-Methylphenol	1.256	1.177	6.3	99	0.00	5.73
22	I	Naphthalene-d8	1.000	1.000	0.0	106	0.00	6.59
23	S	Nitrobenzene-d5	0.324	0.314	3.1	104	0.00	5.82
24	P	Nitrobenzene	0.316	0.304	3.8	105	0.00	5.84
25	P	Isophorone	0.599	0.572	4.5	104	0.00	6.10
26	P	2-Nitrophenol	0.212	0.206	2.8	104	0.00	6.20
27	P	2,4-Dimethylphenol	0.315	0.305	3.2	103	0.00	6.30
28		O,O,O-Triethylphosphoroth	0.136	0.131	3.7	103	0.00	6.42
29	P	bis(2-Chloroethoxy)methan	0.414	0.397	4.1	105	0.00	6.39
30		Benzoic Acid	0.248	0.236	4.8	98	0.00	6.45
31	P	2,4-Dichlorophenol	0.291	0.283	2.7	103	0.00	6.48
32		1,2,4-Trichlorobenzene	0.299	0.283	5.4	103	0.00	6.55
33		alpha-Terpineol		----------NA----------				
34	P	Naphthalene	1.028	0.972	5.4	101	0.00	6.61
35	P	4-Chloroaniline	0.447	0.427	4.5	103	0.00	6.73
36		2,6-Dichlorophenol	0.282	0.276	2.1	106	0.00	6.74
37	P	Hexachlorobutadiene	0.138	0.137	0.7	107	0.00	6.85

Continuing Calibration Summary

Job Number: FA34217 **Sample:** SX2054-CC2052
Account: URSNCM AECOM, INC. **Lab FileID:** X046643.D
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

38	P	Caprolactam	0.107	0.102	4.7	99	0.00	7.10
39	P	4-Chloro-3-methylphenol	0.266	0.267	-0.4	106	0.00	7.34
40	P	2-Methylnaphthalene	0.692	0.663	4.2	103	0.00	7.40
41		1-Methylnaphthalene	0.636	0.606	4.7	103	0.00	7.53
42	P	1,2,4,5-Tetrachlorobenzen	0.253	0.250	1.2	107	0.00	7.65
43	I	Acenaphthene-d10	1.000	1.000	0.0	109	0.00	8.62
44	P	Hexachlorocyclopentadiene	0.294	0.304	-3.4	111	0.00	7.68
45	P	2,4,6-Trichlorophenol	0.379	0.359	5.3	104	0.00	7.79
46	P	2,4,5-Trichlorophenol	0.391	0.381	2.6	106	0.00	7.84
47	S	2-Fluorobiphenyl	1.355	1.264	6.7	104	0.00	7.88
48	P	1,1'-Biphenyl	1.534	1.421	7.4	104	0.00	7.97
49	P	2-Chloronaphthalene	1.180	1.107	6.2	104	0.00	7.96
50	P	2-Nitroaniline	0.339	0.334	1.5	108	0.00	8.14
51		p-Dinitrobenzene	0.202	0.196	3.0	103	0.00	8.28
52	P	Acenaphthylene	2.007	1.888	5.9	105	0.00	8.44
53	P	Dimethylphthalate	1.302	1.213	6.8	102	0.00	8.42
54		m-Dinitrobenzene	0.222	0.212	4.5	104	0.00	8.41
55	P	2,6-Dinitrotoluene	0.311	0.287	7.7	102	0.00	8.48
56		o-Dinitrobenzene	0.221	0.222	-0.5	111	0.00	8.54
57	P	Acenaphthene	1.217	1.134	6.8	104	0.00	8.66
58	P	3-Nitroaniline	0.400	0.380	5.0	104	0.00	8.63
		----------	Amount	Calc.	%Drift	----------		
59	P	2,4-Dinitrophenol	50.000	43.327	13.3	91	0.00	8.75
		----------	AvgRF	CCRF	%Dev	----------		
60	P	Dibenzofuran	1.640	1.539	6.2	104	0.00	8.85
61	P	2,4-Dinitrotoluene	0.403	0.388	3.7	103	0.00	8.92
62	P	4-Nitrophenol	0.143	0.152	-6.3	111	0.00	8.90
63		2,3,5,6-Tetrachlorophenol	0.280	0.275	1.8	107	0.00	9.01
64	P	2,3,4,6-Tetrachlorophenol	0.275	0.261	5.1	106	0.00	9.06
65	P	Fluorene	1.280	1.218	4.8	107	0.00	9.24
66	P	4-Chlorophenyl-phenylethe	0.539	0.510	5.4	108	0.00	9.28
67	P	Diethylphthalate	1.270	1.201	5.4	107	0.00	9.25
68		Thionazin	0.271	0.256	5.5	106	0.00	9.34
69	P	4-Nitroaniline	0.384	0.362	5.7	106	0.00	9.35
70	I	Phenanthrene-d10	1.000	1.000	0.0	111	0.00	10.32
		----------	Amount	Calc.	%Drift	----------		
71	P	4,6-Dinitro-2-methylpheno	50.000	45.786	8.4	101	0.00	9.39
		----------	AvgRF	CCRF	%Dev	----------		
72	P	n-Nitrosodiphenylamine	0.605	0.568	6.1	106	0.00	9.43
73		Diphenylamine	0.726	0.682	6.1	106	0.00	9.43
74		1,2-Diphenylhydrazine	0.842	0.782	7.1	106	0.00	9.45
75	S	2,4,6-Tribromophenol	0.088	0.084	4.5	103	0.00	9.55
76		Sulfotep	0.130	0.128	1.5	112	0.00	9.77
77		Phorate	0.476	0.445	6.5	104	0.00	9.83
78	P	4-Bromophenyl-phenylether	0.184	0.174	5.4	108	0.00	9.84
79	P	Hexachlorobenzene	0.184	0.178	3.3	109	0.00	9.98
80		Dimethoate	0.358	0.336	6.1	103	0.00	10.03
81		Simazine	0.077	0.069	10.4	100	0.00	10.07
82	P	Atrazine	0.198	0.188	5.1	106	0.00	10.13
83	P	Pentachlorophenol	0.116	0.120	-3.4	108	0.00	10.21
84	P	Phenanthrene	1.162	1.103	5.1	107	0.00	10.35
85	P	Anthracene	1.176	1.115	5.2	106	0.00	10.40
86		Disulfoton	0.423	0.398	5.9	106	0.00	10.44
87	P	Carbazole	1.190	1.103	7.3	103	0.00	10.62

Continuing Calibration Summary

Job Number: FA34217 **Sample:** SX2054-CC2052
Account: URSNCM AECOM, INC. **Lab FileID:** X046643.D
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

88		Methyl Parathion	0.307	0.303	1.3	105	0.00	10.87
89	P	Di-n-butylphthalate	1.474	1.416	3.9	106	0.00	11.16
90		Ethyl Parathion	0.175	0.171	2.3	104	0.00	11.35
91	P	Fluoranthene	1.138	1.082	4.9	105	0.00	11.74
92	I	Chrysene-d12	1.000	1.000	0.0	112	0.00	13.44
93		Benzidine	0.777	0.754	3.0	112	0.00	11.94
94	P	Pyrene	1.454	1.327	8.7	104	0.00	11.99
95	S	Terphenyl-d14	0.819	0.747	8.8	104	0.00	12.25
96		Famphur	0.461	0.444	3.7	108	0.00	12.84
97	P	Butylbenzylphthalate	0.817	0.763	6.6	106	0.00	12.91
98	P	3,3'-Dichlorobenzidine	0.408	0.386	5.4	106	0.00	13.46
99	P	Benzo[a]anthracene	1.168	1.052	9.9	103	0.00	13.42
100	P	Chrysene	1.109	0.978	11.8	102	0.00	13.48
101	P	bis(2-Ethylhexyl)phthalat	1.022	0.961	6.0	105	0.00	13.68
102	I	Perylene-d12	1.000	1.000	0.0	106	0.00	15.34
103	P	Di-n-octylphthalate	2.167	2.134	1.5	107	0.00	14.51
104	P	Benzo[b]fluoranthene	1.228	1.171	4.6	104	0.00	14.84
105	P	Benzo[k]fluoranthene	1.205	1.100	8.7	101	0.00	14.87
106	P	Benzo[a]pyrene	1.170	1.118	4.4	103	0.00	15.26
107	P	Indeno[1,2,3-cd]pyrene	0.916	0.882	3.7	101	0.00	16.67
108	P	Dibenz[a,h]anthracene	0.946	0.897	5.2	101	0.00	16.72
109	P	Benzo[g,h,i]perylene	1.042	0.956	8.3	100	0.01	16.97

(#) = Out of Range SPCC's out = 0 CCC's out = 0
x046544.D 8270d00526.m Wed Jun 01 08:54:08 2016

7.7.4

7

Continuing Calibration Summary

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Sample: SX2054-CC2052
Lab FileID: X046668.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\sx2054\x046668.D Vial: 27
Acq On : 1 Jun 2016 12:48 am Operator: marthav
Sample : cc2052-50 Inst : MSBNA05
Misc : op60454,sx2054,1000,,,1,1,water Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\msdchem\1\METHODS\8270d00526.m (RTE Integrator)
Title : SW846 8270D OR EPA 625
Last Update : Thu May 26 14:57:57 2016
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	92	0.00	5.17
2		1,4-Dioxane	0.606	0.517	14.7	76	-0.01	2.02
3		N-nitrosodimethylamine	0.799	0.773	3.3	89	-0.02	2.40
4		Pyridine	1.510	1.361	9.9	87	-0.02	2.39
		----------	Amount	Calc.	%Drift		----------	
5	P	Benzaldehyde	50.000	49.238	1.5	91	0.00	4.70
		----------	AvgRF	CCRF	%Dev		----------	
6		Aniline	2.051	1.890	7.8	85	0.00	4.87
7	S	2-Fluorophenol	1.408	1.308	7.1	85	-0.02	3.89
8	P	bis(2-Chloroethyl)ether	1.307	1.212	7.3	86	0.00	4.95
9	S	Phenol-d5	1.522	1.403	7.8	86	-0.01	4.91
10	P	Phenol	1.586	1.544	2.6	89	-0.01	4.92
11	P	2-Chlorophenol	1.522	1.418	6.8	88	0.00	4.99
12		1,3-Dichlorobenzene	1.629	1.534	5.8	88	0.00	5.13
13		1,4-Dichlorobenzene	1.611	1.526	5.3	86	0.00	5.18
14		1,2-Dichlorobenzene	1.527	1.447	5.2	88	0.00	5.39
15		Benzyl alcohol	0.932	0.864	7.3	84	0.00	5.38
16	P	bis(2-chloroisopropyl)eth	2.475	2.465	0.4	95	0.00	5.55
17	P	2-Methylphenol	1.224	1.152	5.9	87	0.00	5.55
18	P	Acetophenone	1.728	1.623	6.1	87	0.00	5.65
19	P	Hexachloroethane	0.595	0.585	1.7	91	0.00	5.72
20	P	N-Nitroso-di-n-propylamin	0.723	0.677	6.4	86	0.00	5.70
21	P	3&4-Methylphenol	1.256	1.184	5.7	86	0.00	5.72
22	I	Naphthalene-d8	1.000	1.000	0.0	92	0.00	6.59
23	S	Nitrobenzene-d5	0.324	0.307	5.2	89	0.00	5.81
24	P	Nitrobenzene	0.316	0.303	4.1	91	0.00	5.83
25	P	Isophorone	0.599	0.567	5.3	90	0.00	6.10
26	P	2-Nitrophenol	0.212	0.201	5.2	88	0.00	6.20
27	P	2,4-Dimethylphenol	0.315	0.307	2.5	90	0.00	6.30
28		O,O,O-Triethylphosphoroth	0.136	0.130	4.4	89	0.00	6.41
29	P	bis(2-Chloroethoxy)methan	0.414	0.377	8.9	87	0.00	6.39
30		Benzoic Acid	0.248	0.225	9.3	82	0.00	6.45
31	P	2,4-Dichlorophenol	0.291	0.279	4.1	88	0.00	6.47
32		1,2,4-Trichlorobenzene	0.299	0.285	4.7	91	0.00	6.55
33		alpha-Terpineol		----------NA----------				
34	P	Naphthalene	1.028	0.978	4.9	89	0.00	6.61
35	P	4-Chloroaniline	0.447	0.427	4.5	89	0.00	6.73
36		2,6-Dichlorophenol	0.282	0.269	4.6	90	0.00	6.73
37	P	Hexachlorobutadiene	0.138	0.135	2.2	92	0.00	6.84

Continuing Calibration Summary

Job Number: FA34217 **Sample:** SX2054-CC2052
Account: URSNCM AECOM, INC. **Lab FileID:** X046668.D
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

38	P	Caprolactam	0.107	0.097	9.3	82	0.00	7.09
39	P	4-Chloro-3-methylphenol	0.266	0.261	1.9	91	0.00	7.34
40	P	2-Methylnaphthalene	0.692	0.672	2.9	91	0.00	7.40
41		1-Methylnaphthalene	0.636	0.605	4.9	89	0.00	7.52
42	P	1,2,4,5-Tetrachlorobenzen	0.253	0.243	4.0	91	0.00	7.65
43	I	Acenaphthene-d10	1.000	1.000	0.0	95	0.00	8.62
44	P	Hexachlorocyclopentadiene	0.294	0.279	5.1	89	0.00	7.68
45	P	2,4,6-Trichlorophenol	0.379	0.353	6.9	90	0.00	7.79
46	P	2,4,5-Trichlorophenol	0.391	0.376	3.8	92	0.00	7.84
47	S	2-Fluorobiphenyl	1.355	1.256	7.3	91	0.00	7.88
48	P	1,1'-Biphenyl	1.534	1.435	6.5	92	0.00	7.97
49	P	2-Chloronaphthalene	1.180	1.109	6.0	91	0.00	7.96
50	P	2-Nitroaniline	0.339	0.321	5.3	91	0.00	8.14
51		p-Dinitrobenzene	0.202	0.184	8.9	85	0.00	8.27
52	P	Acenaphthylene	2.007	1.916	4.5	93	0.00	8.44
53	P	Dimethylphthalate	1.302	1.231	5.5	91	0.00	8.42
54		m-Dinitrobenzene	0.222	0.209	5.9	89	0.00	8.40
55	P	2,6-Dinitrotoluene	0.311	0.292	6.1	91	0.00	8.47
56		o-Dinitrobenzene	0.221	0.210	5.0	93	0.00	8.54
57	P	Acenaphthene	1.217	1.134	6.8	91	0.00	8.66
58	P	3-Nitroaniline	0.400	0.373	6.8	89	0.00	8.62
		----------	Amount	Calc.	%Drift	----------		
59	P	2,4-Dinitrophenol	50.000	41.893	16.2	77	0.00	8.74
		----------	AvgRF	CCRF	%Dev	----------		
60	P	Dibenzofuran	1.640	1.546	5.7	91	0.00	8.84
61	P	2,4-Dinitrotoluene	0.403	0.383	5.0	90	0.00	8.92
62	P	4-Nitrophenol	0.143	0.145	-1.4	93	0.00	8.89
63		2,3,5,6-Tetrachlorophenol	0.280	0.266	5.0	91	0.00	9.01
64	P	2,3,4,6-Tetrachlorophenol	0.275	0.253	8.0	90	0.00	9.06
65	P	Fluorene	1.280	1.221	4.6	94	0.00	9.24
66	P	4-Chlorophenyl-phenylethe	0.539	0.512	5.0	95	0.00	9.27
67	P	Diethylphthalate	1.270	1.218	4.1	95	0.00	9.25
68		Thionazin	0.271	0.262	3.3	95	0.00	9.34
69	P	4-Nitroaniline	0.384	0.351	8.6	91	0.00	9.34
70	I	Phenanthrene-d10	1.000	1.000	0.0	98	0.00	10.31
		----------	Amount	Calc.	%Drift	----------		
71	P	4,6-Dinitro-2-methylpheno	50.000	42.448	15.1	83	0.00	9.39
		----------	AvgRF	CCRF	%Dev	----------		
72	P	n-Nitrosodiphenylamine	0.605	0.558	7.8	92	0.00	9.43
73		Diphenylamine	0.726	0.669	7.9	92	0.00	9.43
74		1,2-Diphenylhydrazine	0.842	0.778	7.6	93	0.00	9.45
75	S	2,4,6-Tribromophenol	0.088	0.078	11.4	85	0.00	9.55
76		Sulfotep	0.130	0.127	2.3	99	0.00	9.77
77		Phorate	0.476	0.451	5.3	93	0.00	9.83
78	P	4-Bromophenyl-phenylether	0.184	0.167	9.2	92	0.00	9.83
79	P	Hexachlorobenzene	0.184	0.172	6.5	94	0.00	9.98
80		Dimethoate	0.358	0.326	8.9	88	0.00	10.02
81		Simazine	0.077	0.068	11.7	88	0.00	10.07
82	P	Atrazine	0.198	0.187	5.6	94	0.00	10.12
83	P	Pentachlorophenol	0.116	0.109	6.0	87	-0.01	10.20
84	P	Phenanthrene	1.162	1.072	7.7	93	0.00	10.34
85	P	Anthracene	1.176	1.118	4.9	94	0.00	10.39
86		Disulfoton	0.423	0.388	8.3	91	0.00	10.44
87	P	Carbazole	1.190	1.098	7.7	91	0.00	10.61

Continuing Calibration Summary

Job Number: FA34217 **Sample:** SX2054-CC2052
Account: URSNCM AECOM, INC. **Lab FileID:** X046668.D
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

88		Methyl Parathion	0.307	0.295	3.9	91	0.00	10.87
89	P	Di-n-butylphthalate	1.474	1.403	4.8	93	0.00	11.16
90		Ethyl Parathion	0.175	0.164	6.3	89	0.00	11.35
91	P	Fluoranthene	1.138	1.051	7.6	91	0.00	11.73
92	I	Chrysene-d12	1.000	1.000	0.0	95	-0.01	13.43
93		Benzidine	0.777	0.748	3.7	94	0.00	11.93
94	P	Pyrene	1.454	1.372	5.6	91	0.00	11.98
95	S	Terphenyl-d14	0.819	0.763	6.8	90	0.00	12.24
96		Famphur	0.461	0.465	-0.9	96	0.00	12.83
97	P	Butylbenzylphthalate	0.817	0.765	6.4	90	0.00	12.90
98	P	3,3'-Dichlorobenzidine	0.408	0.368	9.8	86	-0.01	13.45
99	P	Benzo[a]anthracene	1.168	1.072	8.2	89	0.00	13.42
100	P	Chrysene	1.109	1.009	9.0	90	-0.01	13.46
101	P	bis(2-Ethylhexyl)phthalat	1.022	0.975	4.6	90	0.00	13.67
102	I	Perylene-d12	1.000	1.000	0.0	88	0.00	15.34
103	P	Di-n-octylphthalate	2.167	2.200	-1.5	91	0.00	14.50
104	P	Benzo[b]fluoranthene	1.228	1.198	2.4	88	0.00	14.83
105	P	Benzo[k]fluoranthene	1.205	1.050	12.9	80	0.00	14.87
106	P	Benzo[a]pyrene	1.170	1.095	6.4	83	0.00	15.26
107	P	Indeno[1,2,3-cd]pyrene	0.916	0.836	8.7	79	0.00	16.66
108	P	Dibenz[a,h]anthracene	0.946	0.863	8.8	80	0.00	16.71
109	P	Benzo[g,h,i]perylene	1.042	0.908	12.9	78	0.00	16.95

(#) = Out of Range SPCC's out = 0 CCC's out = 0
x046544.D 8270d00526.m Wed Jun 01 14:13:27 2016

7.7.5

7

Continuing Calibration Summary

Job Number: FA34217
Account: URSNCM AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Sample: SX2054-ECC2052
Lab FileID: X046697.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\sx2054\x046697.D Vial: 27
Acq On : 1 Jun 2016 12:15 pm Operator: marthav
Sample : ecc2052-50 Inst : MSBNA05
Misc : op60454,sx2054,1000,,,1,1,water Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\msdchem\1\METHODS\8270d00526.m (RTE Integrator)
Title : SW846 8270D OR EPA 625
Last Update : Thu May 26 14:57:57 2016
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 50% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	99	0.00	5.17
2		1,4-Dioxane	0.606	0.547	9.7	86	-0.01	2.02
3		N-nitrosodimethylamine	0.799	0.756	5.4	94	-0.02	2.40
4		Pyridine	1.510	1.409	6.7	97	-0.02	2.39
		----------	Amount	Calc.	%Drift		----------	
5	P	Benzaldehyde	50.000	46.023	8.0	93	0.00	4.70
		----------	AvgRF	CCRF	%Dev		----------	
6		Aniline	2.051	1.921	6.3	93	0.00	4.87
7	S	2-Fluorophenol	1.408	1.321	6.2	92	-0.02	3.89
8	P	bis(2-Chloroethyl)ether	1.307	1.238	5.3	94	0.00	4.95
9	S	Phenol-d5	1.522	1.424	6.4	94	-0.01	4.91
10	P	Phenol	1.586	1.533	3.3	95	-0.01	4.92
11	P	2-Chlorophenol	1.522	1.413	7.2	94	0.00	4.99
12		1,3-Dichlorobenzene	1.629	1.557	4.4	96	0.00	5.13
13		1,4-Dichlorobenzene	1.611	1.555	3.5	95	0.00	5.19
14		1,2-Dichlorobenzene	1.527	1.466	4.0	96	0.00	5.39
15		Benzyl alcohol	0.932	0.887	4.8	93	0.00	5.37
16	P	bis(2-chloroisopropyl)eth	2.475	2.429	1.9	100	0.00	5.55
17	P	2-Methylphenol	1.224	1.187	3.0	96	0.00	5.55
18	P	Acetophenone	1.728	1.663	3.8	96	0.00	5.65
19	P	Hexachloroethane	0.595	0.576	3.2	97	0.00	5.72
20	P	N-Nitroso-di-n-propylamin	0.723	0.688	4.8	94	0.00	5.70
21	P	3&4-Methylphenol	1.256	1.183	5.8	92	0.00	5.73
22	I	Naphthalene-d8	1.000	1.000	0.0	101	0.00	6.59
23	S	Nitrobenzene-d5	0.324	0.302	6.8	96	0.00	5.81
24	P	Nitrobenzene	0.316	0.302	4.4	100	0.00	5.83
25	P	Isophorone	0.599	0.563	6.0	98	0.00	6.10
26	P	2-Nitrophenol	0.212	0.201	5.2	96	0.00	6.20
27	P	2,4-Dimethylphenol	0.315	0.302	4.1	97	0.00	6.30
28		O,O,O-Triethylphosphoroth	0.136	0.127	6.6	95	0.00	6.41
29	P	bis(2-Chloroethoxy)methan	0.414	0.371	10.4	93	0.00	6.39
30		Benzoic Acid	0.248	0.228	8.1	90	0.00	6.45
31	P	2,4-Dichlorophenol	0.291	0.280	3.8	97	0.00	6.47
32		1,2,4-Trichlorobenzene	0.299	0.285	4.7	99	0.00	6.55
33		alpha-Terpineol		----------NA----------				
34	P	Naphthalene	1.028	0.965	6.1	96	0.00	6.61
35	P	4-Chloroaniline	0.447	0.420	6.0	96	0.00	6.73
36		2,6-Dichlorophenol	0.282	0.268	5.0	98	0.00	6.73
37	P	Hexachlorobutadiene	0.138	0.136	1.4	101	0.00	6.84

Continuing Calibration Summary

Job Number: FA34217 **Sample:** SX2054-ECC2052
Account: URSNCM AECOM, INC. **Lab FileID:** X046697.D
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

38	P	Caprolactam	0.107	0.099	7.5	92	0.00	7.09
39	P	4-Chloro-3-methylphenol	0.266	0.256	3.8	97	0.00	7.34
40	P	2-Methylnaphthalene	0.692	0.664	4.0	98	0.00	7.40
41		1-Methylnaphthalene	0.636	0.602	5.3	97	0.00	7.52
42	P	1,2,4,5-Tetrachlorobenzen	0.253	0.241	4.7	99	0.00	7.65
43	I	Acenaphthene-d10	1.000	1.000	0.0	102	0.00	8.62
44	P	Hexachlorocyclopentadiene	0.294	0.265	9.9	91	0.00	7.68
45	P	2,4,6-Trichlorophenol	0.379	0.354	6.6	97	0.00	7.78
46	P	2,4,5-Trichlorophenol	0.391	0.372	4.9	98	0.00	7.84
47	S	2-Fluorobiphenyl	1.355	1.293	4.6	100	0.00	7.87
48	P	1,1'-Biphenyl	1.534	1.459	4.9	101	0.00	7.97
49	P	2-Chloronaphthalene	1.180	1.128	4.4	100	0.00	7.96
50	P	2-Nitroaniline	0.339	0.327	3.5	100	0.00	8.14
51		p-Dinitrobenzene	0.202	0.191	5.4	94	0.00	8.27
52	P	Acenaphthylene	2.007	1.923	4.2	100	0.00	8.44
53	P	Dimethylphthalate	1.302	1.241	4.7	98	0.00	8.42
54		m-Dinitrobenzene	0.222	0.211	5.0	97	0.00	8.41
55	P	2,6-Dinitrotoluene	0.311	0.297	4.5	99	0.00	8.47
56		o-Dinitrobenzene	0.221	0.221	0.0	104	0.00	8.54
57	P	Acenaphthene	1.217	1.148	5.7	99	0.00	8.66
58	P	3-Nitroaniline	0.400	0.369	7.8	95	0.00	8.62
		----------	Amount	Calc.	%Drift		----------	
59	P	2,4-Dinitrophenol	50.000	39.139	21.7	75	0.00	8.74
		----------	AvgRF	CCRF	%Dev		----------	
60	P	Dibenzofuran	1.640	1.563	4.7	99	0.00	8.84
61	P	2,4-Dinitrotoluene	0.403	0.376	6.7	94	0.00	8.92
62	P	4-Nitrophenol	0.143	0.146	-2.1	101	0.00	8.89
63		2,3,5,6-Tetrachlorophenol	0.280	0.268	4.3	98	0.00	9.01
64	P	2,3,4,6-Tetrachlorophenol	0.275	0.260	5.5	99	0.00	9.06
65	P	Fluorene	1.280	1.232	3.8	102	0.00	9.24
66	P	4-Chlorophenyl-phenylethe	0.539	0.503	6.7	100	0.00	9.27
67	P	Diethylphthalate	1.270	1.230	3.1	103	0.00	9.24
68		Thionazin	0.271	0.259	4.4	101	0.00	9.34
69	P	4-Nitroaniline	0.384	0.360	6.3	100	0.00	9.34
70	I	Phenanthrene-d10	1.000	1.000	0.0	107	0.00	10.31
		----------	Amount	Calc.	%Drift		----------	
71	P	4,6-Dinitro-2-methylpheno	50.000	42.486	15.0	90	0.00	9.39
		----------	AvgRF	CCRF	%Dev		----------	
72	P	n-Nitrosodiphenylamine	0.605	0.565	6.6	102	0.00	9.43
73		Diphenylamine	0.726	0.678	6.6	102	0.00	9.43
74		1,2-Diphenylhydrazine	0.842	0.768	8.8	100	0.00	9.45
75	S	2,4,6-Tribromophenol	0.088	0.083	5.7	99	0.00	9.55
76		Sulfotep	0.130	0.127	2.3	108	0.00	9.77
77		Phorate	0.476	0.439	7.8	99	0.00	9.83
78	P	4-Bromophenyl-phenylether	0.184	0.172	6.5	103	0.00	9.83
79	P	Hexachlorobenzene	0.184	0.169	8.2	100	0.00	9.98
80		Dimethoate	0.358	0.328	8.4	97	0.00	10.02
81		Simazine	0.077	0.066	14.3	92	0.00	10.07
82	P	Atrazine	0.198	0.180	9.1	98	0.00	10.12
83	P	Pentachlorophenol	0.116	0.115	0.9	100	-0.01	10.20
84	P	Phenanthrene	1.162	1.073	7.7	101	0.00	10.34
85	P	Anthracene	1.176	1.082	8.0	99	0.00	10.39
86		Disulfoton	0.423	0.388	8.3	99	0.00	10.44
87	P	Carbazole	1.190	1.083	9.0	98	0.00	10.61

Continuing Calibration Summary

Job Number: FA34217 **Sample:** SX2054-ECC2052
Account: URSNCM AECOM, INC. **Lab FileID:** X046697.D
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

88		Methyl Parathion	0.307	0.294	4.2	99	0.00	10.87
89	P	Di-n-butylphthalate	1.474	1.396	5.3	100	0.00	11.16
90		Ethyl Parathion	0.175	0.168	4.0	99	0.00	11.35
91	P	Fluoranthene	1.138	1.056	7.2	99	0.00	11.73
92	I	Chrysene-d12	1.000	1.000	0.0	104	-0.01	13.43
93		Benzidine	0.777	0.706	9.1	97	0.00	11.94
94	P	Pyrene	1.454	1.350	7.2	98	0.00	11.98
95	S	Terphenyl-d14	0.819	0.752	8.2	97	0.00	12.24
96		Famphur	0.461	0.434	5.9	98	0.00	12.83
97	P	Butylbenzylphthalate	0.817	0.772	5.5	100	0.00	12.90
98	P	3,3'-Dichlorobenzidine	0.408	0.370	9.3	94	-0.01	13.45
99	P	Benzo[a]anthracene	1.168	1.059	9.3	96	0.00	13.42
100	P	Chrysene	1.109	0.980	11.6	95	-0.01	13.46
101	P	bis(2-Ethylhexyl)phthalat	1.022	0.979	4.2	99	0.00	13.67
102	I	Perylene-d12	1.000	1.000	0.0	95	0.00	15.34
103	P	Di-n-octylphthalate	2.167	2.224	-2.6	99	0.00	14.50
104	P	Benzo[b]fluoranthene	1.228	1.135	7.6	90	-0.01	14.83
105	P	Benzo[k]fluoranthene	1.205	1.140	5.4	94	0.00	14.87
106	P	Benzo[a]pyrene	1.170	1.095	6.4	90	0.00	15.26
107	P	Indeno[1,2,3-cd]pyrene	0.916	0.849	7.3	87	0.00	16.67
108	P	Dibenz[a,h]anthracene	0.946	0.865	8.6	87	0.00	16.71
109	P	Benzo[g,h,i]perylene	1.042	0.915	12.2	85	0.00	16.96

(#) = Out of Range SPCC's out = 0 CCC's out = 0
x046544.D 8270d00526.m Wed Jun 01 14:13:11 2016

7.7.6

7

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

SGS Accutest Instrument Runlog
Inorganics Analyses

Login Number: FA34217
Account: URSNCM - AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

File ID: H40527W2.CSV Date Analyzed: 05/27/16 Methods: EPA 245.1
Analyst: JL Run ID: MA13186
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:43	MA13186-STD1	1		STD1
10:44	MA13186-STD2	1		STD2
10:46	MA13186-STD3	1		STD3
10:47	MA13186-STD4	1		STD4
10:49	MA13186-STD5	1		STD5
10:50	MA13186-STD6	1		STD6
10:52	MA13186-HSTD1	1		
10:54	MA13186-ICV1	1		
10:56	MA13186-ICB1	1		
10:58	MA13186-CRI1	1		
10:59	MA13186-CCV1	1		
11:00	MA13186-CCB1	1		
11:02	MP30405-MB1	1		
11:03	MP30405-B1	1		
11:05	FA34184-1	1		(sample used for QC only; not part of login FA34217)
11:06	MP30405-D1	1		
11:08	MP30405-SD1	5		
11:09	MP30405-S1	1		
11:10	MP30405-S2	1		
11:12	ZZZZZZ	1		
11:14	ZZZZZZ	1		
11:15	ZZZZZZ	1		
11:16	MA13186-CCV2	1		
11:18	MA13186-CCB2	1		
11:19	ZZZZZZ	1		
11:21	ZZZZZZ	1		
11:22	ZZZZZZ	1		
11:23	ZZZZZZ	1		
11:24	ZZZZZZ	1		
11:26	ZZZZZZ	1		
11:27	MP30406-MB1	1		
11:28	MP30406-B1	1		
11:30	FA34217-1	1		

SGS Accutest Instrument Runlog
Inorganics Analyses

Login Number: FA34217
Account: URSNCM - AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

File ID: H40527W2.CSV Date Analyzed: 05/27/16 Methods: EPA 245.1
Analyst: JL Run ID: MA13186
Parameters: Hg

	Time	Sample Description	Dilution Factor	PS Recov	Comments
	11:31	MP30406-D1	1		
	11:33	MA13186-CCV3	1		
	11:34	MA13186-CCB3	1		
	11:36	MP30406-SD1	5		
	11:37	MP30406-S1	1		
	11:38	MP30406-S2	1		
	11:40	FA34217-2	1		
---------->	Last reportable sample/prep for job FA34217				
	11:42	ZZZZZZ	1		
	11:43	ZZZZZZ	1		
	11:46	MA13186-CCV4	1		
	11:47	MA13186-CCB4	1		
	12:43	MA13186-CCV5	1		
	12:44	MA13186-CCB5	1		
	12:52	MA13186-CCV6	1		
	12:53	MA13186-CCB6	1		
	13:09	MA13186-CCV7	1		
	13:10	MA13186-CCB7	1		
	13:26	MA13186-CCV8	1		
	13:28	MA13186-CCB8	1		
	13:34	MA13186-CRI2	1		
	13:35	MA13186-CCV9	1		
	13:37	MA13186-CCB9	1		
---------->	Last reportable CCB for job FA34217				

Refer to raw data for calibration curve and standards.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FA34217
Account: URSNCM - AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

File ID: H40527W2.CSV Date Analyzed: 05/27/16 Methods: EPA 245.1
QC Limits: result < RL Run ID: MA13186 Units: ug/l

Time:			10:56		11:00		11:18		11:34	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.50	.03	-0.022	<0.50	-0.0091	<0.50	0.0071	<0.50	0.012	<0.50

(*) Outside of QC limits
(anr) Analyte not requested

8.1.1
8

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FA34217
Account: URSNCM - AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

File ID: H40527W2.CSV Date Analyzed: 05/27/16 Methods: EPA 245.1
QC Limits: result < RL Run ID: MA13186 Units: ug/l

Time:			11:47		12:44		12:53		13:10	
Sample ID:			CCB4		CCB5		CCB6		CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.50	.03	0.015	<0.50	0.0036	<0.50	0.027	<0.50	0.0095	<0.50

(*) Outside of QC limits
(anr) Analyte not requested

8.1.1
8

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FA34217
Account: URSNCM - AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

File ID: H40527W2.CSV Date Analyzed: 05/27/16 Methods: EPA 245.1
QC Limits: result < RL Run ID: MA13186 Units: ug/l

Time:			13:28		13:37	
Sample ID:			CCB8		CCB9	
Metal	RL	IDL	raw	final	raw	final
Mercury	0.50	.03	0.0084	<0.50	0.013	<0.50

(*) Outside of QC limits
(anr) Analyte not requested

8.1.1
8

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FA34217
Account: URSNCM - AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

File ID: H40527W2.CSV Date Analyzed: 05/27/16 Methods: EPA 245.1
QC Limits: 90 to 110 % Recovery Run ID: MA13186 Units: ug/l

Time:		10:54			10:59			11:16	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	3	3.1	103.3	3	3.1	103.3	3	3.1	103.3

(*) Outside of QC limits
(anr) Analyte not requested

8.1.2
8

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FA34217
Account: URSNCM - AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

File ID: H40527W2.CSV Date Analyzed: 05/27/16 Methods: EPA 245.1
QC Limits: 90 to 110 % Recovery Run ID: MA13186 Units: ug/l

Time:		11:33			11:46			12:43	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	3	3.1	103.3	3	3.1	103.3	3.0	3.0	100.0

(*) Outside of QC limits
(anr) Analyte not requested

8.1.2
8

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FA34217
Account: URSNCM - AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

File ID: H40527W2.CSV Date Analyzed: 05/27/16 Methods: EPA 245.1
QC Limits: 90 to 110 % Recovery Run ID: MA13186 Units: ug/l

Time:		12:52			13:09			13:26	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	3.0	3.0	100.0	3.0	3.0	100.0	3.0	3.0	100.0

(*) Outside of QC limits
(anr) Analyte not requested

8.1.2
8

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FA34217
Account: URSNCM - AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

File ID: H40527W2.CSV Date Analyzed: 05/27/16 Methods: EPA 245.1
QC Limits: 90 to 110 % Recovery Run ID: MA13186 Units: ug/l

Time:		13:35	
Sample ID:	CCV	CCV9	
Metal	True	Results	% Rec
Mercury	3.0	3.0	100.0

(*) Outside of QC limits
(anr) Analyte not requested

8.1.2
8

HIGH STANDARD CHECK SUMMARY

Login Number: FA34217
Account: URSNCM - AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

File ID: H40527W2.CSV Date Analyzed: 05/27/16 Methods: EPA 245.1
QC Limits: 95 to 105 % Recovery Run ID: MA13186 Units: ug/l

Time:		10:52	
Sample ID:	HSTD	HSTD1	
Metal	True	Results	% Rec
Mercury	6.0	6.0	100.0

(*) Outside of QC limits
(anr) Analyte not requested

8.1.3

8

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: FA34217
Account: URSNCM - AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

File ID: H40527W2.CSV Date Analyzed: 05/27/16 Methods: EPA 245.1
QC Limits: 80 to 120 % Recovery Run ID: MA13186 Units: ug/l

Time:			10:58		13:34	
Sample ID:	CRI	CRIA	CRI1		CRI2	
Metal	True	True	Results	% Rec	Results	% Rec
Mercury	0.20		0.18	90.0	0.19	95.0

(*) Outside of QC limits
(anr) Analyte not requested

8.1.4

8

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FA34217
Account: URSNCM - AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

QC Batch ID: MP30406
Matrix Type: AQUEOUS

Methods: EPA 245.1
Units: ug/l

Prep Date: 05/27/16

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.50	.03	.03	0.022	<0.50

Associated samples MP30406: FA34217-1, FA34217-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

8.2.1
8

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA34217
Account: URSNCM - AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

QC Batch ID: MP30406
Matrix Type: AQUEOUS

Methods: EPA 245.1
Units: ug/l

Prep Date: 05/27/16 05/27/16

Metal	FA34217-1 Original	DUP	RPD	QC Limits	FA34217-1 Original	MS	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	0.0	0.0	NC	0-10	0.0	3.1	3	103.3	70-130

Associated samples MP30406: FA34217-1, FA34217-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

8.2.2
8

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA34217
Account: URSNCM - AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

QC Batch ID: MP30406 Methods: EPA 245.1
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 05/27/16

Metal	FA34217-1 Original	MSD	Spikelot HGFLWS1	% Rec	MSD RPD	QC Limit
Mercury	0.0	3.1	3	103.3	0.0	

Associated samples MP30406: FA34217-1, FA34217-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

8.2.2
8

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FA34217
Account: URSNCM - AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

QC Batch ID: MP30406
Matrix Type: AQUEOUS

Methods: EPA 245.1
Units: ug/l

Prep Date: 05/27/16

Metal	BSP Result	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	3.0	3	100.0	85-115

Associated samples MP30406: FA34217-1, FA34217-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

8.2.3

8

SERIAL DILUTION RESULTS SUMMARY

Login Number: FA34217
Account: URSNCM - AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

QC Batch ID: MP30406
Matrix Type: AQUEOUS

Methods: EPA 245.1
Units: ug/l

Prep Date: 05/27/16

Metal	FA34217-1 Original	SDL 1:5	%DIF	QC Limits
Mercury	0.00	0.00	NC	0-10

Associated samples MP30406: FA34217-1, FA34217-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

8.2.4

8

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA34217
Account: URSNCM - AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Bromide	GP28007/GN71091	0.50	0.0	mg/l	12.5	13.1	104.8	90-110%
Chloride	GP28007/GN71091	2.0	0.0	mg/l	50	51.6	103.2	90-110%
Fluoride	GP28007/GN71091	0.20	0.0	mg/l	2.5	2.65	106.0	90-110%
Nitrogen, Ammonia	GP28042/GN71173	0.10	0.0	mg/l	2.5	2.45	98.0	90-110%
Nitrogen, Nitrate	GP28007/GN71091	0.10	0.0	mg/l	2.5	2.48	99.2	90-110%
Nitrogen, Nitrite	GP28007/GN71091	0.10	0.0	mg/l	2.5	2.72	108.8	90-110%
Sulfate	GP28007/GN71091	2.0	0.0	mg/l	50	52.1	104.2	90-110%

Associated Samples:
Batch GP28007: FA34217-1, FA34217-2
Batch GP28042: FA34217-1, FA34217-2
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA34217
Account: URSNCM - AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Bromide	GP28007/GN71091	FA34217-1	mg/l	0.0	12.5	13.4	107.2	90-110%
Chloride	GP28007/GN71091	FA34217-1	mg/l	2.5	50	55.4	105.8	90-110%
Fluoride	GP28007/GN71091	FA34217-1	mg/l	0.29	2.5	3.1	112.4N(a)	90-110%
Nitrogen, Ammonia	GP28042/GN71173	FA34217-1	mg/l	0.044	2.5	2.2	86.2N	90-110%
Nitrogen, Nitrate	GP28007/GN71091	FA34217-1	mg/l	0.18	2.5	2.7	100.8	90-110%
Nitrogen, Nitrite	GP28007/GN71091	FA34217-1	mg/l	0.0	2.5	2.8	112.0N(a)	90-110%
Sulfate	GP28007/GN71091	FA34217-1	mg/l	0.46	50	53.7	107.4	90-110%

Associated Samples:
Batch GP28007: FA34217-1, FA34217-2
Batch GP28042: FA34217-1, FA34217-2
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(a) Spike recovery indicates possible matrix interference.

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA34217
Account: URSNCM - AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Bromide	GP28007/GN71091	FA34217-1	mg/l	0.0	12.5	13.3	0.7	20%
Chloride	GP28007/GN71091	FA34217-1	mg/l	2.5	50	55.2	0.4	20%
Fluoride	GP28007/GN71091	FA34217-1	mg/l	0.29	2.5	3.1	0.0	20%
Nitrogen, Ammonia	GP28042/GN71173	FA34217-1	mg/l	0.044	2.5	2.3	4.4	20%
Nitrogen, Nitrate	GP28007/GN71091	FA34217-1	mg/l	0.18	2.5	2.7	0.0	20%
Nitrogen, Nitrite	GP28007/GN71091	FA34217-1	mg/l	0.0	2.5	2.8	0.0	20%
Sulfate	GP28007/GN71091	FA34217-1	mg/l	0.46	50	53.6	0.2	20%

Associated Samples:
Batch GP28007: FA34217-1, FA34217-2
Batch GP28042: FA34217-1, FA34217-2
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

SGS Accutest Instrument Runlog
Inorganics Analyses

Login Number: FA34217
Account: URSNCM - AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

File ID: 316052501.TXT Date Analyzed: 05/25/16 Methods: EPA 300/SW846 9056A
Analyst: LJ Run ID: GN71091
Parameters: Nitrogen, Nitrate,Sulfate

Time	Sample Description	Dilution Factor	PS Recov	Comments
08:55	GN71091-CCV1	1		
09:12	GP28007-MB1	1		
09:29	GP28007-B1	1		
10:21	ZZZZZZ	1		
10:37	ZZZZZZ	1		
10:54	ZZZZZZ	5		
11:11	ZZZZZZ	10		
11:28	ZZZZZZ	5		
11:45	ZZZZZZ	1		
12:02	GN71091-CCV2	1		
12:19	GN71091-CCB1	1		
12:36	ZZZZZZ	1		
12:52	ZZZZZZ	1		
13:09	ZZZZZZ	1		
13:26	ZZZZZZ	5		
14:00	ZZZZZZ	5		
14:34	FA34217-1	1		
14:51	GP28007-S1	1		
15:08	GP28007-S2	1		
15:25	GN71091-CCV3	1		
15:42	GN71091-CCB2	1		
15:59	FA34217-2	1		
16:16	ZZZZZZ	1		
16:33	ZZZZZZ	1		
16:50	ZZZZZZ	1		
17:06	FA34225-1	1		(sample used for QC only; not part of login FA34217)
17:23	GP28007-S3	1		
17:40	GP28007-S4	1		
17:57	ZZZZZZ	1		
18:14	ZZZZZZ	1		
18:31	ZZZZZZ	1		
18:48	GN71091-CCV4	1		
19:05	GN71091-CCB3	1		

SGS Accutest Instrument Runlog
Inorganics Analyses

Login Number: FA34217
Account: URSNCM - AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

File ID: 316052501.TXT Date Analyzed: 05/25/16 Methods: EPA 300/SW846 9056A
Analyst: LJ Run ID: GN71091
Parameters: Nitrogen, Nitrate,Sulfate

Time	Sample Description	Dilution Factor	PS Recov	Comments
22:11	GN71091-CCV5	1		
22:28	GN71091-CCB4	1		
23:53	ZZZZZZ	5		
00:10	FA34186-2	5		(sample used for QC only; not part of login FA34217)
00:27	GP27996-S3	5		
00:44	GP27996-S4	5		
01:34	GN71091-CCV6	1		
01:51	GN71091-CCB5	1		
04:24	GN71091-CCV7	1		
04:41	GN71091-CCB6	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: FA34217
Account: URSNCM - AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

File ID: 316052501.TXT Date Analyzed: 05/25/16 Methods: EPA 300/SW846 9056A
Run ID: GN71091 Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN71091-CCV1	Nitrogen, Nitrate	2.4	0.10	0.050	2.5	96.0	90-110
GN71091-CCV1	Sulfate	48.8	2.0	0.60	50	97.6	90-110
GN71091-CCV2	Nitrogen, Nitrate	2.3	0.10	0.050	2.5	92.0	90-110
GN71091-CCV2	Sulfate	48.9	2.0	0.60	50	97.8	90-110
GN71091-CCB1	Nitrogen, Nitrate	0.050 U	0.10	0.050			
GN71091-CCB1	Sulfate	0.60 U	2.0	0.60			
GN71091-CCV3	Nitrogen, Nitrate	2.3	0.10	0.050	2.5	92.0	90-110
GN71091-CCV3	Sulfate	48.9	2.0	0.60	50	97.8	90-110
GN71091-CCB2	Nitrogen, Nitrate	0.050 U	0.10	0.050			
GN71091-CCB2	Sulfate	0.60 U	2.0	0.60			
GN71091-CCV4	Nitrogen, Nitrate	2.3	0.10	0.050	2.5	92.0	90-110
GN71091-CCV4	Sulfate	49.2	2.0	0.60	50	98.4	90-110
GN71091-CCB3	Nitrogen, Nitrate	0.050 U	0.10	0.050			
GN71091-CCB3	Sulfate	0.60 U	2.0	0.60			
GN71091-CCV5	Nitrogen, Nitrate	2.3	0.10	0.050	2.5	92.0	90-110
GN71091-CCV5	Sulfate	49.0	2.0	0.60	50	98.0	90-110
GN71091-CCB4	Nitrogen, Nitrate	0.050 U	0.10	0.050			
GN71091-CCB4	Sulfate	0.60 U	2.0	0.60			
GN71091-CCV6	Nitrogen, Nitrate	2.3	0.10	0.050	2.5	92.0	90-110
GN71091-CCV6	Sulfate	49.0	2.0	0.60	50	98.0	90-110
GN71091-CCB5	Nitrogen, Nitrate	0.050 U	0.10	0.050			
GN71091-CCB5	Sulfate	0.60 U	2.0	0.60			
GN71091-CCV7	Nitrogen, Nitrate	2.8	0.10	0.050	2.5	112.0!	90-110
GN71091-CCV7	Sulfate	52.9	2.0	0.60	50	105.8	90-110
GN71091-CCB6	Nitrogen, Nitrate	0.050 U	0.10	0.050			
GN71091-CCB6	Sulfate	0.60 U	2.0	0.60			

(!) Outside of QC limits

SGS Accutest Instrument Runlog
Inorganics Analyses

Login Number: FA34217
Account: URSNCM - AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

File ID: B06032016AMN1.CSV Date Analyzed: 06/03/16 Methods: EPA 350.1
Analyst: KH Run ID: GN71173
Parameters: Nitrogen, Ammonia

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:02	GN71173-ICV1	1		
14:04	GN71173-CCV1	1		
14:05	GN71173-CCB1	1		
14:06	GP28042-MB1	1		
14:07	GP28042-B1	1		
14:13	ZZZZZZ	1		
14:14	ZZZZZZ	1		
14:15	ZZZZZZ	1		
14:17	GN71173-CCV2	1		
14:18	GN71173-CCB2	1		
14:19	ZZZZZZ	1		
14:20	ZZZZZZ	1		
14:21	ZZZZZZ	1		
14:23	ZZZZZZ	1		
14:24	GP28042-S3	1		
14:25	GP28042-S4	1		
14:26	FA34217-1	1		
14:27	ZZZZZZ	1		
14:28	ZZZZZZ	1		
14:29	ZZZZZZ	1		
14:30	GN71173-CCV3	1		
14:32	GN71173-CCB3	1		
14:33	ZZZZZZ	1		
14:34	ZZZZZZ	1		
14:35	ZZZZZZ	1		
14:36	ZZZZZZ	1		
14:37	FA34217-2	1		
14:38	ZZZZZZ	1		
14:44	GN71173-CCV4	1		
14:45	GN71173-CCB4	1		
14:49	ZZZZZZ	2		
14:50	GP28042-S1	20		
14:51	GP28042-S2	20		

SGS Accutest Instrument Runlog
Inorganics Analyses

Login Number: FA34217
Account: URSNCM - AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

File ID: B06032016AMN1.CSV Date Analyzed: 06/03/16 Methods: EPA 350.1
Analyst: KH Run ID: GN71173
Parameters: Nitrogen, Ammonia

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:52	FA34175-2	20		(sample used for QC only; not part of login FA34217)
14:55	GN71173-CCV5	1		
14:56	GN71173-CCB5	1		
15:02	GN71173-CCV6	1		
15:03	GN71173-CCB6	1		
15:04	GP28042-S1	20		
15:05	GP28042-S2	20		
15:06	FA34175-2	20		(sample used for QC only; not part of login FA34217)
15:09	GN71173-CCV7	1		
15:10	GN71173-CCB7	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: FA34217
Account: URSNCM - AECOM, INC.
Project: Bunn Dump; Howard Tant Rd, Bunn, NC

File ID: B06032016AMN1.CSV Date Analyzed: 06/03/16 Methods: EPA 350.1
Run ID: GN71173 Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN71173-ICV1	Nitrogen, Ammonia	2.5	0.10	0.030	2.5	100.0	90-110
GN71173-CCV1	Nitrogen, Ammonia	2.6	0.10	0.030	2.5	104.0	90-110
GN71173-CCB1	Nitrogen, Ammonia	-0.030	0.10	0.030			
GN71173-CCV2	Nitrogen, Ammonia	2.6	0.10	0.030	2.5	104.0	90-110
GN71173-CCB2	Nitrogen, Ammonia	0.030 U	0.10	0.030			
GN71173-CCV3	Nitrogen, Ammonia	2.6	0.10	0.030	2.5	104.0	90-110
GN71173-CCB3	Nitrogen, Ammonia	0.030 U	0.10	0.030			
GN71173-CCV4	Nitrogen, Ammonia	2.5	0.10	0.030	2.5	100.0	90-110
GN71173-CCB4	Nitrogen, Ammonia	0.030 U	0.10	0.030			
GN71173-CCV5	Nitrogen, Ammonia	2.5	0.10	0.030	2.5	100.0	90-110
GN71173-CCB5	Nitrogen, Ammonia	0.030 U	0.10	0.030			
GN71173-CCV6	Nitrogen, Ammonia	2.6	0.10	0.030	2.5	104.0	90-110
GN71173-CCB6	Nitrogen, Ammonia	0.030 U	0.10	0.030			
GN71173-CCV7	Nitrogen, Ammonia	2.6	0.10	0.030	2.5	104.0	90-110
GN71173-CCB7	Nitrogen, Ammonia	0.030 U	0.10	0.030			

(!) Outside of QC limits

Misc. Forms

Custody Documents and Other Forms

(SGS Accutest New Jersey)

Includes the following where applicable:

- Chain of Custody
- Analyst Legend

CHAIN OF CUSTODY

4405 Vineland Rd, Suite C-15, Orlando, FL 32811
TEL 407-425-6700 FAX 407-425-0707
www.sgs.com

FED-EX Tracking # 6623 7371 4850
Bottle Order Control #
SGS Accutest Quote #
SGS Accutest Job FA34217

Client / Reporting Information

Company Name: SGS Accutest
Street Address: 4405 Vineland Rd, Suite C-15
City: Orlando State: FL Zip: 32811
Project Contact: heatherw E-mail: heatherw@accutest.com
Phone #: 407-425-6700 Fax #:
Sampler(s) Name(s): JAJC Phone:

Project Information

Project Name: Bunn Dump; Howard Tant Rd, Bunn, NC
Street:
City: State:
Project #:
Client Purchase Order #:
Project Manager:

Billing Information (if different from Report to)

Company Name:
Street Address:
City: State: Zip:
Attention:

Requested Analysis (see TEST CODE sheet)

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank
EB-Equipment Blank
RB- Rinse Blank
TB-Trip Blank

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	XMETHSLMS ,FEMS ,200.8	LAB USE ONLY
1	WELL-516 TANT-RE		5/24/16	9:50:00 AM	JAJC	AQ	1			1						X	
2	DUP-1		5/24/16	9:55:00 AM	JAJC	AQ	1			1						X	FL

Turnaround Time (Business days)

Approved By (SGS Accutest PM): / Date:

- [ ] 10 Day (business)
- [ ] 5-7 Day
- [ ] 3 Day RUSH
- [ ] 2 Day RUSH
- [ ] 1 Day RUSH
- [X] other 14

Rush T/A data available VIA Lablink

Data Deliverable Information

- [ ] Commercial "A" (Level 1, Results Only)
- [ ] Commercial "B" (Level 2, Results + QC summary)
- [ ] REDT1 (Level 3)
- [ ] FULT1 (Level 4)
- [ ] DOD FULT1 (Level 4)
- [X] Other REDT1
- [ ] EDD Format

Comments / Special Instructions

ALNJ

INITIAL ASESSMENT Am 2/8

LABEL VERIFICATION KM

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	5/26/16 1700	1 FX	2 FX	5/27/16 930	2
3		3	4		4
5		5			

Custody Seal # [ ] Intact [ ] Not intact
Preserved where applicable
On Ice [ ]
Cooler Temp. 5.6°C

10.1 10

FA34217: Chain of Custody
Page 1 of 2
SGS Accutest New Jersey

SGS Accutest Sample Receipt Summary

Job Number: FA34217 **Client:** _____ **Project:** _____

Date / Time Received: 5/27/2016 9:30:00 AM **Delivery Method:** _____ **Airbill #'s:** _____

Cooler Temps (Raw Measured) °C: Cooler 1: (5.6);

Cooler Temps (Corrected) °C: Cooler 1: (6.5);

Cooler Security	Y	N		Y	N
1. Custody Seals Present:	☑	☐	3. COC Present:	☑	☐
2. Custody Seals Intact:	☑	☐	4. Smpl Dates/Time OK	☑	☐

Cooler Temperature	Y	N
1. Temp criteria achieved:	☑	☐
2. Cooler temp verification:	IR Gun	
3. Cooler media:	Ice (Bag)	
4. No. Coolers:	1	

Quality Control _Preservation	Y	N	N/A
1. Trip Blank present / cooler:	☐	☑	☐
2. Trip Blank listed on COC:	☐	☑	☐
3. Samples preserved properly:	☑	☐	
4. VOCs headspace free:	☐	☑	☐

Sample Integrity - Documentation	Y	N
1. Sample labels present on bottles:	☑	☐
2. Container labeling complete:	☑	☐
3. Sample container label / COC agree:	☑	☐

Sample Integrity - Condition	Y	N
1. Sample recvd within HT:	☑	☐
2. All containers accounted for:	☑	☐
3. Condition of sample:	Intact	

Sample Integrity - Instructions	Y	N	N/A
1. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume recvd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments

10.1

10

FA34217: Chain of Custody

Page 2 of 2

Analyst Legend

Job Number: FA34217
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: URSNCM: Bunn Dump; Howard Tant Rd, Bunn, NC

Initials	Full Name	Analysis Type
JO	Jaclyn O'Connor	Metals Analysis

Metals Analysis

QC Data Summaries

(SGS Accutest New Jersey)

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

SGS Accutest Instrument Runlog
Inorganics Analyses

Login Number: FA34217
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Bunn Dump; Howard Tant Rd, Bunn, NC

File ID: XA053116M3.CSV Date Analyzed: 05/31/16 Methods: EPA 200.8, SW846 6020A
Analyst: JO Run ID: MA39531
Parameters: Sb,As,Be,Cd,Cr,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:36	MA39531-STD1	1		STDA
15:41	MA39531-STD2	1		STDA
15:46	MA39531-STD3	1		STDA
15:51	MA39531-STD4	1		See rerun(Empty)
15:55	MA39531-STD5	1		STDC
16:00	MA39531-STD6	1		STDB
16:05	MA39531-STD7	1		STDD
16:10	MA39531-STD8	1		STDE
16:15	MA39531-STD9	1		STDF
16:19	MA39531-STD10	1		STDG
16:24	MA39531-STD11	1		STDH
16:29	MA39531-STD12	1		STDI
16:34	MA39531-STD13	1		STDJ
16:39	ZZZZZZ	1		
16:44	MA39531-ICVA1	1		
16:49	MA39531-ICV1	1		
16:53	MA39531-ICB1	1		
16:58	MA39531-CCVA1	1		
17:03	MA39531-CCB1	1		
17:08	MA39531-CRI1	1		No Zn
17:13	ZZZZZZ	1		
17:20	MA39531-ICSA1	1		
17:24	MA39531-ICSAB1	1		
17:29	ZZZZZZ	1		
17:34	MA39531-CCVA2	1		
17:39	MA39531-CCB2	1		
18:15	ZZZZZZ	1		
18:20	MA39531-CRI2	1		No Zn
18:25	MP94015-MB1	2		CRI Out, See rerun
18:37	MA39531-CRI3	1		
18:41	MP94015-MB1	2		
18:46	MP94015-B1	10		
18:51	MP94015-S1	10		

SGS Accutest Instrument Runlog
Inorganics Analyses

Login Number: FA34217
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Bunn Dump; Howard Tant Rd, Bunn, NC

File ID: XA053116M3.CSV Date Analyzed: 05/31/16 Methods: EPA 200.8, SW846 6020A
Analyst: JO Run ID: MA39531
Parameters: Sb,As,Be,Cd,Cr,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
18:56	MP94015-S2	10		
19:01	ZZZZZZ	1		
19:05	FA34232-2	2		(sample used for QC only; not part of login FA34217)
19:10	MA39531-CCVA3	1		
19:15	MA39531-CCB3	1		
19:20	MP94015-SD1	10		
19:25	ZZZZZZ	2		
19:29	ZZZZZZ	2		
19:34	ZZZZZZ	2		
19:39	ZZZZZZ	1		
19:44	MA39531-CRI4	1		
19:48	MA39531-CCVA4	1		
19:53	MA39531-CCB4	1		
19:58	MP94013-MB1	1		
20:03	MP94013-B1	1		
20:07	MP94013-B1	2		Ag
20:12	MP94013-S1	1		
20:17	MP94013-S1	2		Ag
20:22	MP94013-S2	1		
20:27	MP94013-S2	2		Ag
20:31	ZZZZZZ	1		
20:36	FA34185-2	1		(sample used for QC only; not part of login FA34217)
20:41	ZZZZZZ	1		
20:46	MA39531-CCVA5	1		
20:51	MA39531-CCB5	1		
20:55	ZZZZZZ	1		
21:00	ZZZZZZ	1		
21:05	ZZZZZZ	1		
21:10	ZZZZZZ	1		
21:14	ZZZZZZ	1		
21:19	ZZZZZZ	1		
21:24	ZZZZZZ	1		
21:29	FA34217-1	1		

SGS Accutest Instrument Runlog
Inorganics Analyses

Login Number: FA34217
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Bunn Dump; Howard Tant Rd, Bunn, NC

File ID: XA053116M3.CSV Date Analyzed: 05/31/16 Methods: EPA 200.8, SW846 6020A
Analyst: JO Run ID: MA39531
Parameters: Sb,As,Be,Cd,Cr,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,Zn

	Time	Sample Description	Dilution Factor	PS Recov	Comments
	21:34	FA34217-2	1		
---------->	Last reportable sample/prep for job FA34217				
	21:38	ZZZZZZ	1		
	21:43	MA39531-CCVA6	1		
	21:48	MA39531-CCB6	1		
---------->	Last reportable CCB for job FA34217				
	21:53	MP94014-MB1	1		
	21:57	MP94014-B1	1		
	22:02	MP94014-B1	2		
	22:07	MP94014-S1	1		
	22:12	MP94014-S1	2		
	22:17	MP94014-S2	1		
	22:21	MP94014-S2	2		
	22:26	ZZZZZZ	1		
	22:31	C45942-2	1		(sample used for QC only; not part of login FA34217)
	22:36	ZZZZZZ	1		
	22:40	MA39531-CCVA7	1		
	22:45	MA39531-CCB7	1		
	22:50	ZZZZZZ	1		
	22:55	ZZZZZZ	1		
	22:59	ZZZZZZ	1		
	23:04	ZZZZZZ	1		
	23:09	ZZZZZZ	1		
	23:14	ZZZZZZ	1		
	23:19	ZZZZZZ	1		
	23:23	ZZZZZZ	1		
	23:28	ZZZZZZ	1		
	23:33	MA39531-CCVA8	1		
	23:38	MA39531-CCB8	1		

Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: FA34217
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Bunn Dump; Howard Tant Rd, Bunn, NC

File ID: XA053116M3.CSV Date Analyzed: 05/31/16 Methods: EPA 200.8, SW846 6020A
Analyst: JO Run ID: MA39531
Parameters: Sb,As,Be,Cd,Cr,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
15:36	MA39531-STD1	100	100	100	100	100	100	100	100
15:41	MA39531-STD2	100	100	100	100	100	100	100	100
15:46	MA39531-STD3	100	100	100	100	100	100	100	100
15:51	MA39531-STD4	289.361 !	267.756 !	213.211 !	179.122 !	275.128 !	200.912 !	173.624 !	275.846 !
15:55	MA39531-STD5	98.92	98.657	99.201	97.326	99.514	100.954	99.66	99.167
16:00	MA39531-STD6	98.82	99.331	102.036	99.857	100.344	101.802	100.412	98.775
16:05	MA39531-STD7	99.1	99.096	102.508	100.246	100.19	100.719	101.029	98.837
16:10	MA39531-STD8	98.752	98.982	102.61	99.697	99.505	103.624	100.63	99.441
16:15	MA39531-STD9	98.275	98.411	101.329	98.598	99.012	101.806	100.661	98.745
16:19	MA39531-STD10	96.535	96.746	99.908	96.536	97.693	101.045	98.057	96.768
16:24	MA39531-STD11	96.38	97.72	100.555	97.753	97.594	100.756	98.014	96.461
16:29	MA39531-STD12	95.347	96.885	101.033	97.349	96.744	99.826	98.539	94.664
16:34	MA39531-STD13	94.757	96.558	101.741	98.765	96.495	100.73	98.947	95.325
16:39	ZZZZZZ	No results reported for the elements associated with this internal standard.							
16:44	MA39531-ICVA1	94.51	96.771	101.512	97.445	96.241	101.295	99.1	95.637
16:49	MA39531-ICV1	92.695	94.317	100.256	97.99	95.969	102.824	100.493	94.794
16:53	MA39531-ICB1	95.007	98.054	103.531	101.545	98.849	104.737	102.93	97.848
16:58	MA39531-CCVA1	95.129	98.092	102.313	98.212	98.589	101.788	99.439	96.35
17:03	MA39531-CCB1	92.849	94.768	102.041	98.929	95.785	102.511	100.937	94.778
17:08	MA39531-CRI1	95.305	98.017	104.087	100.983	98.577	105.771	103.09	98.371
17:13	ZZZZZZ	No results reported for the elements associated with this internal standard.							
17:20	MA39531-ICSA1	93.339	94.309	98.076	92.39	95.622	99.659	94.396	91.458
17:24	MA39531-ICSAB1	90.8	92.098	97.393	92.684	93.843	98.524	95.93	90.612
17:29	ZZZZZZ	No results reported for the elements associated with this internal standard.							
17:34	MA39531-CCVA2	85.642	90.781	98.059	94.885	93.106	99.317	95.538	92.273
17:39	MA39531-CCB2	86.913	91.216	96.657	94.612	92.984	101.309	96.802	92.35
18:15	ZZZZZZ	No results reported for the elements associated with this internal standard.							
18:20	MA39531-CRI2	90.7	93.169	99.924	97.87	95.055	101.128	98.095	94.343
18:25	MP94015-MB1	No results reported for the elements associated with this internal standard.							
18:37	MA39531-CRI3	91.086	94.884	101.562	99.375	96.271	102.804	100.664	95.632
18:41	MP94015-MB1	87.423	89.994	95.17	96.416	97.278	102.472	103.014	95.565
18:46	MP94015-B1	92.22	95.526	102.854	100.26	95.346	101.907	99.1	95.287
18:51	MP94015-S1	90.476	93.258	100.563	97.811	95.102	100.779	97.326	94.817

INTERNAL STANDARD SUMMARY

Login Number: FA34217
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Bunn Dump; Howard Tant Rd, Bunn, NC

File ID: XA053116M3.CSV Date Analyzed: 05/31/16 Methods: EPA 200.8, SW846 6020A
Analyst: JO Run ID: MA39531
Parameters: Sb,As,Be,Cd,Cr,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
18:56	MP94015-S2	88.19	91.732	100.194	97.199	93.81	100.759	98.026	93.076
19:01	ZZZZZZ	No results reported for the elements associated with this internal standard.							
19:05	FA34232-2	85.671	88.623	93.727	95.142	95.159	101.315	101.524	93.839
19:10	MA39531-CCVA3	88.973	92.601	101.143	97.333	93.919	101.172	98.824	92.136
19:15	MA39531-CCB3	90.546	93.152	100.653	97.801	95.213	101.818	99.509	94.185
19:20	MP94015-SD1	91.877	96.173	101.858	98.892	97.916	104.746	100.745	96.753
19:25	ZZZZZZ	87.748	90.343	95.453	95.904	96.65	100.884	101.117	95.297
19:29	ZZZZZZ	87.121	90.193	95.179	95.991	97.077	101.157	101.992	95.591
19:34	ZZZZZZ	87.096	90.366	95.88	96.265	99.067	103.014	103.477	96.876
19:39	ZZZZZZ	No results reported for the elements associated with this internal standard.							
19:44	MA39531-CRI4	92.305	94.912	102.427	100.078	96.604	102.994	99.697	95.927
19:48	MA39531-CCVA4	91.455	95.16	101.57	99.373	95.64	100.907	99.161	94.225
19:53	MA39531-CCB4	91.436	93.681	100.595	98.911	96.282	101.516	98.424	94.259
19:58	MP94013-MB1	94.631	96.855	103.014	100.138	98.618	103.89	101.469	97.592
20:03	MP94013-B1	92.182	94.84	101.953	98.942	96.32	102.476	98.819	95.495
20:07	MP94013-B1	90.857	94.294	100.865	98.959	95.292	102.126	99.667	94.53
20:12	MP94013-S1	89.366	93.398	99.491	97.916	93.938	101.922	98.955	93.875
20:17	MP94013-S1	87.706	91.748	98.49	96.284	93.415	100.681	97.726	92.486
20:22	MP94013-S2	88.301	92.515	99.706	97.701	94.18	101.603	97.288	93.18
20:27	MP94013-S2	88.022	92.548	99.348	97.711	93.893	102.099	98.556	93.53
20:31	ZZZZZZ	No results reported for the elements associated with this internal standard.							
20:36	FA34185-2	89.423	94.263	100.799	97.175	95.434	101.846	97.373	94.249
20:41	ZZZZZZ	No results reported for the elements associated with this internal standard.							
20:46	MA39531-CCVA5	88.737	92.33	99.87	97.748	93.598	100.491	97.243	91.875
20:51	MA39531-CCB5	90.573	93.061	100.425	98.24	95.044	102.175	99.305	93.783
20:55	ZZZZZZ	90.505	96.012	109.22	107.63	94.493	105.916	103.928	94.033
21:00	ZZZZZZ	95.578	98.022	105.204	101.478	99.041	105.999	101.626	97.363
21:05	ZZZZZZ	94.219	98.136	103.976	101.635	99.476	105.941	101.368	98.025
21:10	ZZZZZZ	91.633	95.509	103.253	100.691	96.662	104.365	100.878	95.814
21:14	ZZZZZZ	92.928	97.156	104.805	101.509	98.482	106.949	101.815	97.322
21:19	ZZZZZZ	90.986	95.27	104.035	99.673	97.581	104.633	101.558	96.04
21:24	ZZZZZZ	91.598	96.026	103.522	100.881	97.862	104.314	101.19	96.262
21:29	FA34217-1	92.406	99.264	104.945	101.722	98.997	105.516	100.572	97.493

INTERNAL STANDARD SUMMARY

Login Number: FA34217
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Bunn Dump; Howard Tant Rd, Bunn, NC

File ID: XA053116M3.CSV Date Analyzed: 05/31/16 Methods: EPA 200.8, SW846 6020A
Analyst: JO Run ID: MA39531
Parameters: Sb,As,Be,Cd,Cr,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
21:34	FA34217-2	91.743	98.47	105.016	101.594	97.533	106.139	101.976	96.409
21:38	ZZZZZZ	No results reported for the elements associated with this internal standard.							
21:43	MA39531-CCVA6	90.57	94.595	102.257	99.443	95.577	101.654	98.905	94.382
21:48	MA39531-CCB6	89.961	94.217	103.12	100.076	96.651	102.851	99.442	95.236
21:53	MP94014-MB1	91.593	95.392	104.137	101.304	98.454	106.082	102.036	97.464
21:57	MP94014-B1	90.682	95.471	104.403	100.786	96.921	105.15	99.713	96.159
22:02	MP94014-B1	89.591	94.148	102.533	98.935	95.743	103.996	99.423	95.039
22:07	MP94014-S1	88.497	94.924	102.182	99.697	95.223	102.215	99.23	94.737
22:12	MP94014-S1	89.587	94.541	102.367	99.776	96.013	103.436	99.856	95.808
22:17	MP94014-S2	89.361	95.508	104.882	100.788	96.245	104.811	99.909	96.102
22:21	MP94014-S2	90.567	95.322	102.397	99.186	95.983	103.471	99.683	96.546
22:26	ZZZZZZ	No results reported for the elements associated with this internal standard.							
22:31	C45942-2	89.458	94.777	103.364	100.672	96.574	103.916	99.802	95.288
22:36	ZZZZZZ	No results reported for the elements associated with this internal standard.							
22:40	MA39531-CCVA7	87.932	94.365	102.423	99.394	95.188	101.757	98.987	93.641
22:45	MA39531-CCB7	89.299	94.441	103.482	100.355	96.275	104.235	99.324	94.321
22:50	ZZZZZZ	89.058	94.768	106.778	103.933	94.184	104.684	100.741	93.398
22:55	ZZZZZZ	92.631	97.955	106.775	101.799	97.833	105.012	100.944	97.165
22:59	ZZZZZZ	93.016	97.696	108.532	104.917	97.068	106.775	102.067	95.588
23:04	ZZZZZZ	92.075	97.069	105.638	103.201	96.997	105.798	101.499	96.299
23:09	ZZZZZZ	91.982	97.26	104.942	102.056	97.61	105.901	101.654	95.954
23:14	ZZZZZZ	90.846	95.902	104.629	101.66	98.362	106.829	102.107	97.554
23:19	ZZZZZZ	89.994	95.659	103.601	100.856	96.878	104.568	101.041	97.128
23:23	ZZZZZZ	90.097	96.055	103.693	99.959	97.961	105.858	101.568	96.482
23:28	ZZZZZZ	No results reported for the elements associated with this internal standard.							
23:33	MA39531-CCVA8	86.44	92.863	101.309	98.364	93.79	100.38	97.679	92.355
23:38	MA39531-CCB8	86.37	92.389	101.703	98.448	94.925	103.686	98.654	92.851

! = Outside limits.

LEGEND:

Istd#	Parameter	Limits	CCV/CCB Limits
Istd#1	Lithium	60-125 %	60-125 %
Istd#2	Scandium (45-1)	60-125 %	60-125 %
Istd#3	Scandium (45-2)	60-125 %	60-125 %
Istd#4	Scandium (45-3)	60-125 %	60-125 %
Istd#5	Germanium (72-1)	60-125 %	60-125 %
Istd#6	Germanium (72-2)	60-125 %	60-125 %
Istd#7	Germanium (72-3)	60-125 %	60-125 %
Istd#8	Germanium (74-1)	60-125 %	60-125 %

INTERNAL STANDARD SUMMARY

Login Number: FA34217
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Bunn Dump; Howard Tant Rd, Bunn, NC

File ID: XA053116M3.CSV Date Analyzed: 05/31/16 Methods: EPA 200.8, SW846 6020A
Analyst: JO Run ID: MA39531
Parameters: Sb,As,Be,Cd,Cr,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,Zn

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
15:36	MA39531-STD1	100	100	100	100	100	100	100	100
15:41	MA39531-STD2	100	100	100	100	100	100	100	100
15:46	MA39531-STD3	100	100	100	100	100	100	100	100
15:51	MA39531-STD4	201.465 !	173.187 !	265.23 !	212.983 !	174.372 !	272.227 !	213.966 !	267.781 !
15:55	MA39531-STD5	100.716	99.898	99.136	100.544	97.777	98.325	100.477	97.715
16:00	MA39531-STD6	103.058	100.646	99.615	101.063	98.611	100.035	101.789	99.558
16:05	MA39531-STD7	102.27	99.807	99.416	101.228	99.456	98.225	100.965	100.119
16:10	MA39531-STD8	104.207	101.063	98.69	102.028	98.618	99.102	102.577	99.093
16:15	MA39531-STD9	103.205	100.195	98.413	101.213	97.657	98.632	101.573	99.063
16:19	MA39531-STD10	100.575	97.323	96.712	100.562	95.584	98	101.418	97.947
16:24	MA39531-STD11	100.86	98.716	97.629	99.64	95.888	98.078	101.126	98.573
16:29	MA39531-STD12	101.128	97.681	94.797	98.268	95.077	96.252	100.204	97.331
16:34	MA39531-STD13	100.794	98.084	95.061	98.033	94.071	95.939	100.255	98.266
16:39	ZZZZZZ	No results reported for the elements associated with this internal standard.							
16:44	MA39531-ICVA1	102.299	98.393	95.108	98.391	92.913	95.995	100.977	96.967
16:49	MA39531-ICV1	101.669	100.29	97.057	100.863	97.044	96.76	102.423	96.121
16:53	MA39531-ICB1	105.655	102.551	99.81	103.599	99.253	98.877	105.25	98.657
16:58	MA39531-CCVA1	103.135	98.637	96.374	99.46	93.891	96.883	101.431	97.314
17:03	MA39531-CCB1	104.117	99.965	97.305	101.879	97.05	96.219	103.337	95.501
17:08	MA39531-CRI1	105.852	102.079	99.072	104.35	98.339	98.583	105.663	97.523
17:13	ZZZZZZ	No results reported for the elements associated with this internal standard.							
17:20	MA39531-ICSA1	96.531	89.632	87.078	87.804	79.501	89.869	92.975	94.265
17:24	MA39531-ICSAB1	96.606	90.946	86.366	88.522	80.272	90.039	93.143	94.848
17:29	ZZZZZZ	No results reported for the elements associated with this internal standard.							
17:34	MA39531-CCVA2	99.481	95.575	93.169	97.277	91.703	94.404	99.911	96.24
17:39	MA39531-CCB2	101.319	96.797	95.876	100.261	94.905	96.646	102.909	96.256
18:15	ZZZZZZ	No results reported for the elements associated with this internal standard.							
18:20	MA39531-CRI2	102.282	98.803	97.115	101.354	96.447	97.225	103.534	97.262
18:25	MP94015-MB1	No results reported for the elements associated with this internal standard.							
18:37	MA39531-CRI3	103.542	100.325	96.325	102.437	97.06	97.475	104.536	97.035
18:41	MP94015-MB1	103.361	102.829	93.816	98.259	95.503	94.155	98.192	94.838
18:46	MP94015-B1	103.844	99.985	95.62	101.349	95.357	97.532	103.372	97.284
18:51	MP94015-S1	102.353	97.824	94.431	99.034	93.76	95.931	101.209	95.799

INTERNAL STANDARD SUMMARY

Login Number: FA34217
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Bunn Dump; Howard Tant Rd, Bunn, NC

File ID: XA053116M3.CSV Date Analyzed: 05/31/16 Methods: EPA 200.8, SW846 6020A
Analyst: JO Run ID: MA39531
Parameters: Sb,As,Be,Cd,Cr,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,Zn

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
18:56	MP94015-S2	102.783	97.447	94.132	98.745	93.202	95.198	100.667	96.039
19:01	ZZZZZZ	No results reported for the elements associated with this internal standard.							
19:05	FA34232-2	101.282	101.088	91.291	96.594	93.411	93.694	97.245	95.564
19:10	MA39531-CCVA3	101.024	97.738	93.088	98.727	93.088	94.678	100.773	95.636
19:15	MA39531-CCB3	103.345	100.282	96.389	102.056	96.761	96.995	103.265	96.589
19:20	MP94015-SD1	105.588	101.403	97.663	103.304	97.298	99.357	105.575	98.558
19:25	ZZZZZZ	102.042	101.078	92.575	97.207	92.712	93.864	98.29	95.119
19:29	ZZZZZZ	102.137	102.171	90.976	95.877	92.297	94.789	97.913	95.534
19:34	ZZZZZZ	105.032	102.664	92.575	97.602	93.394	94.677	98.422	96.246
19:39	ZZZZZZ	No results reported for the elements associated with this internal standard.							
19:44	MA39531-CRI4	104.009	99.947	98.055	101.942	97.235	99.091	104.09	99.452
19:48	MA39531-CCVA4	102.196	98.12	94.026	99.036	94.274	96.585	101.292	99.102
19:53	MA39531-CCB4	101.879	98.238	96.81	101.252	96.456	97.64	103.302	98.947
19:58	MP94013-MB1	106.392	101.568	98.585	102.912	97.938	99.671	104.582	99.751
20:03	MP94013-B1	102.772	99.969	96.138	101.005	94.856	96.318	102.291	97.684
20:07	MP94013-B1	103.179	100.347	95.269	100.461	95.97	97.002	102.44	98.633
20:12	MP94013-S1	103.259	98.571	93.389	98.258	92.847	95.266	101.386	96.392
20:17	MP94013-S1	101.066	97.575	92.837	97.259	92.63	95.14	101.135	95.074
20:22	MP94013-S2	101.583	97.683	92.896	97.13	92.396	95.04	100.698	97.229
20:27	MP94013-S2	102.842	98.185	93.002	98.731	93.946	95.712	101.409	97.202
20:31	ZZZZZZ	No results reported for the elements associated with this internal standard.							
20:36	FA34185-2	103.672	98.256	94.798	99.381	93.593	97.897	102.799	99.469
20:41	ZZZZZZ	No results reported for the elements associated with this internal standard.							
20:46	MA39531-CCVA5	100.905	97.288	92.338	97.688	92.738	93.997	100.589	97.874
20:51	MA39531-CCB5	103.389	99.015	96.068	101.398	96.061	97.098	102.814	97.735
20:55	ZZZZZZ	105.838	103.296	88.55	94.994	91.393	92.268	102.207	96.859
21:00	ZZZZZZ	107.482	101.07	97.178	102.445	96.668	98.69	105.928	98.872
21:05	ZZZZZZ	106.234	101.284	98.254	102.733	96.519	99.297	106.358	100.43
21:10	ZZZZZZ	105.115	100.727	95.883	100.489	95.427	98.03	104.825	99.233
21:14	ZZZZZZ	105.534	101.23	96.491	100.395	94.888	99.481	104.561	100.562
21:19	ZZZZZZ	106.385	101.118	94.718	100.239	93.548	97.612	104.448	98.18
21:24	ZZZZZZ	106.609	101.706	94.876	99.883	94.613	97.762	104.571	98.116
21:29	FA34217-1	106.893	101.329	96.497	101.212	95.299	99.05	104.477	100.148

INTERNAL STANDARD SUMMARY

Login Number: FA34217
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Bunn Dump; Howard Tant Rd, Bunn, NC

File ID: XA053116M3.CSV Date Analyzed: 05/31/16 Methods: EPA 200.8, SW846 6020A
Analyst: JO Run ID: MA39531
Parameters: Sb,As,Be,Cd,Cr,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,Zn

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
21:34	FA34217-2	106.802	101.365	96.578	101.509	95.601	98.453	105.728	100.073
21:38	ZZZZZZ	No results reported for the elements associated with this internal standard.							
21:43	MA39531-CCVA6	102.931	98.635	93.958	98.517	93	95.406	101.331	98.587
21:48	MA39531-CCB6	104.603	99.244	97.134	101.596	95.626	97.335	104.056	97.865
21:53	MP94014-MB1	107.639	101.688	97.898	103.125	96.385	97.568	105.625	97.347
21:57	MP94014-B1	106.073	99.954	95.853	100.509	94.442	96.524	103.925	97.501
22:02	MP94014-B1	104.462	99.49	96.062	100.825	94.495	96.41	103.996	96.916
22:07	MP94014-S1	105.327	99.643	93.114	98.38	93.011	95.417	102.881	96.493
22:12	MP94014-S1	104.43	99.085	95.117	99.638	94.672	96.125	103.059	97.588
22:17	MP94014-S2	106.112	99.448	94.515	99.407	93.191	96.01	103.615	97.269
22:21	MP94014-S2	105.742	99.505	96.278	100.927	93.331	97.249	103.963	98.106
22:26	ZZZZZZ	No results reported for the elements associated with this internal standard.							
22:31	C45942-2	105.77	99.569	94.781	99.189	93.806	96.204	103.289	98.009
22:36	ZZZZZZ	No results reported for the elements associated with this internal standard.							
22:40	MA39531-CCVA7	102.906	99.124	93.197	97.543	92.197	95.217	100.534	96.851
22:45	MA39531-CCB7	105.289	99.839	96.65	101.231	95.243	96.451	104.254	96.996
22:50	ZZZZZZ	105.509	100.415	89.476	94.557	89.141	93.509	101.971	95.112
22:55	ZZZZZZ	106.528	101.097	93.881	98.536	92.162	96.486	103.998	97.348
22:59	ZZZZZZ	108.081	101.694	90.743	95.656	89.64	93.721	102.662	96.437
23:04	ZZZZZZ	106.971	101.655	92.511	96.591	91.549	96.003	103.464	97.445
23:09	ZZZZZZ	106.314	101.548	95.329	99.805	93.574	97.258	104.763	97.911
23:14	ZZZZZZ	106.687	101.627	95.868	99.332	93.81	97.176	105.184	98.698
23:19	ZZZZZZ	106.593	100.749	95.679	99.741	94.591	97.099	104.742	96.993
23:23	ZZZZZZ	107.013	100.575	95.688	100.475	94.358	97.622	104.98	97.155
23:28	ZZZZZZ	No results reported for the elements associated with this internal standard.							
23:33	MA39531-CCVA8	101.381	97.389	92.329	96.405	90.791	93.394	100.101	93.958
23:38	MA39531-CCB8	104.365	99.519	94.508	100.019	93.51	95.468	102.934	94.916

! = Outside limits.

LEGEND:

Istd#	Parameter	Limits	CCV/CCB Limits
Istd#9	Germanium (74-2)	60-125 %	60-125 %
Istd#10	Germanium (74-3)	60-125 %	60-125 %
Istd#11	Rhodium (103-1)	60-125 %	60-125 %
Istd#12	Rhodium (103-2)	60-125 %	60-125 %
Istd#13	Rhodium (103-3)	60-125 %	60-125 %
Istd#14	Indium (115-1)	60-125 %	60-125 %
Istd#15	Indium (115-2)	60-125 %	60-125 %
Istd#16	Terbium (159-1)	60-125 %	60-125 %

INTERNAL STANDARD SUMMARY

Login Number: FA34217
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Bunn Dump; Howard Tant Rd, Bunn, NC

File ID: XA053116M3.CSV Date Analyzed: 05/31/16 Methods: EPA 200.8, SW846 6020A
Analyst: JO Run ID: MA39531
Parameters: Sb,As,Be,Cd,Cr,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,Zn

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
15:36	MA39531-STD1	100	100	100	100	100	100
15:41	MA39531-STD2	100	100	100	100	100	100
15:46	MA39531-STD3	100	100	100	100	100	100
15:51	MA39531-STD4	220.676 !	180.995 !	268.157 !	221.125 !	272.532 !	209.203 !
15:55	MA39531-STD5	100.473	98.367	99.021	100.499	96.754	98.281
16:00	MA39531-STD6	102.549	99.125	100.282	102.425	100.81	103.066
16:05	MA39531-STD7	103.144	99.158	100.017	102.915	104.77	105.588
16:10	MA39531-STD8	103.995	100.176	99.786	103.583	102.613	104.387
16:15	MA39531-STD9	102.506	99.324	99.239	102.349	99.639	101.864
16:19	MA39531-STD10	102.382	97.347	98.73	102.236	97.372	100.394
16:24	MA39531-STD11	102.211	98.851	99.203	102.202	98.157	99.925
16:29	MA39531-STD12	101.831	98.307	98.549	102.34	95.594	98
16:34	MA39531-STD13	102.62	98.093	99.434	102.666	94.47	96.79
16:39	ZZZZZZ	No results reported for the elements associated with this internal standard.					
16:44	MA39531-ICVA1	102.106	96.363	97.376	101.851	93.364	95.865
16:49	MA39531-ICV1	101.696	98.882	95.637	102.117	94.115	98.766
16:53	MA39531-ICB1	104.637	100.867	99.118	103.784	95.653	100.604
16:58	MA39531-CCVA1	103.013	97.594	97.715	102.873	91.454	95.69
17:03	MA39531-CCB1	102.057	98.316	95.439	102.045	93.198	98.716
17:08	MA39531-CRI1	103.896	99.301	97.755	103.825	94.896	100.631
17:13	ZZZZZZ	No results reported for the elements associated with this internal standard.					
17:20	MA39531-ICSA1	96.636	87.443	94.678	96.213	84.52	85.588
17:24	MA39531-ICSAB1	96.969	88.104	94.628	97.057	85.019	85.755
17:29	ZZZZZZ	No results reported for the elements associated with this internal standard.					
17:34	MA39531-CCVA2	102.084	96.265	96.528	102.152	90.48	95.534
17:39	MA39531-CCB2	102.927	97.153	97.252	102.153	93.759	98.849
18:15	ZZZZZZ	No results reported for the elements associated with this internal standard.					
18:20	MA39531-CRI2	102.322	97.593	97.23	102.643	94.036	98.557
18:25	MP94015-MB1	No results reported for the elements associated with this internal standard.					
18:37	MA39531-CRI3	103.643	99.219	97.969	103.671	94.121	99.179
18:41	MP94015-MB1	99.911	97.565	95.684	99.705	92.725	96.03
18:46	MP94015-B1	103.419	98.375	97.372	103.323	93.204	98.072
18:51	MP94015-S1	102.708	96.831	96.336	102.783	92.634	97.275

INTERNAL STANDARD SUMMARY

Login Number: FA34217
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Bunn Dump; Howard Tant Rd, Bunn, NC

File ID: XA053116M3.CSV Date Analyzed: 05/31/16 Methods: EPA 200.8, SW846 6020A
Analyst: JO Run ID: MA39531
Parameters: Sb,As,Be,Cd,Cr,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,Zn

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
18:56	MP94015-S2	102.18	96.918	95.665	101.248	92.713	96.926
19:01	ZZZZZZ	No results reported for the elements associated with this internal standard.					
19:05	FA34232-2	99.866	97.591	95.073	100.199	93.763	96.323
19:10	MA39531-CCVA3	102.429	97.381	96.142	102.75	90.162	95.494
19:15	MA39531-CCB3	103.292	97.803	97.521	102.685	95.08	99.08
19:20	MP94015-SD1	104.545	98.66	98.964	104.066	95.524	100.187
19:25	ZZZZZZ	99.525	96.623	96.018	99.937	94.313	96.755
19:29	ZZZZZZ	100.415	96.132	96.092	100.273	93.919	96.376
19:34	ZZZZZZ	100.895	96.814	96.114	100.767	95.532	97.507
19:39	ZZZZZZ	No results reported for the elements associated with this internal standard.					
19:44	MA39531-CRI4	105.047	98.686	100.286	104.434	101.302	103.384
19:48	MA39531-CCVA4	103.569	97.633	99.594	103.822	97.333	100.359
19:53	MA39531-CCB4	103.538	97.322	99.313	102.769	99.628	102.56
19:58	MP94013-MB1	105.152	98.582	100.001	104.411	102.21	104.763
20:03	MP94013-B1	103.418	96.973	98.22	102.831	97.624	101.9
20:07	MP94013-B1	103.065	97.603	98.468	102.804	99.486	102.333
20:12	MP94013-S1	102.286	97.055	96.564	101.975	93.582	96.969
20:17	MP94013-S1	101.87	95.904	96.574	101.627	93.753	97.836
20:22	MP94013-S2	102.071	95.302	97.718	102.289	99.501	102.04
20:27	MP94013-S2	102.801	96.474	98.033	103.261	101.311	104.33
20:31	ZZZZZZ	No results reported for the elements associated with this internal standard.					
20:36	FA34185-2	104.008	96.067	99.396	103.783	101.842	104.13
20:41	ZZZZZZ	No results reported for the elements associated with this internal standard.					
20:46	MA39531-CCVA5	102.525	96.218	98.348	102.057	96.933	99.139
20:51	MA39531-CCB5	103.032	97.197	98.748	102.91	99.616	102.804
20:55	ZZZZZZ	103.48	97.449	97.495	103.175	88.906	93.299
21:00	ZZZZZZ	105.207	98.224	98.982	105.33	101.409	104.854
21:05	ZZZZZZ	105.195	98.282	100.771	105.617	102.306	105.35
21:10	ZZZZZZ	104.67	97.586	99.563	104.691	100.772	105.133
21:14	ZZZZZZ	106.474	99.106	101.242	105.925	99.164	100.94
21:19	ZZZZZZ	104.398	98.283	98.965	103.84	92.98	96.501
21:24	ZZZZZZ	104.378	97.363	99.12	103.755	96.386	101.642
21:29	FA34217-1	105.236	97.34	100.061	105.142	103.605	105.424

INTERNAL STANDARD SUMMARY

Login Number: FA34217
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Bunn Dump; Howard Tant Rd, Bunn, NC

File ID: XA053116M3.CSV Date Analyzed: 05/31/16 Methods: EPA 200.8, SW846 6020A
Analyst: JO Run ID: MA39531
Parameters: Sb,As,Be,Cd,Cr,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,Zn

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
21:34	FA34217-2	104.804	98.228	100.245	104.643	103.28	105.822
21:38	ZZZZZZ	No results reported for the elements associated with this internal standard.					
21:43	MA39531-CCVA6	103.672	96.029	99.08	102.865	96.475	100.017
21:48	MA39531-CCB6	103.919	95.954	97.809	103.258	98.992	102.61
21:53	MP94014-MB1	104.108	96.907	97.8	104.486	99.228	104.185
21:57	MP94014-B1	104.024	95.918	97.581	103.747	97.394	102.331
22:02	MP94014-B1	103.586	95.971	97.627	103.478	97.678	102.588
22:07	MP94014-S1	102.638	96.307	96.746	102.577	95.913	99.683
22:12	MP94014-S1	103.173	96.136	97.823	102.607	97.298	100.841
22:17	MP94014-S2	104.366	96.349	97.96	103.857	99.74	102.98
22:21	MP94014-S2	103.576	95.987	98.183	103.368	96.574	98.837
22:26	ZZZZZZ	No results reported for the elements associated with this internal standard.					
22:31	C45942-2	103.045	96.491	97.517	102.59	97.698	102.343
22:36	ZZZZZZ	No results reported for the elements associated with this internal standard.					
22:40	MA39531-CCVA7	103.3	95.096	96.747	102.59	96.697	100.178
22:45	MA39531-CCB7	103.52	95.64	98.319	103.061	98.906	102.911
22:50	ZZZZZZ	101.748	94.006	95.704	101.582	90.369	94.085
22:55	ZZZZZZ	103.982	95.764	97.6	104.015	95.762	99.224
22:59	ZZZZZZ	102.102	94.999	96.616	102.907	90.515	95.03
23:04	ZZZZZZ	103.282	96.059	97.884	103.071	93.524	98.022
23:09	ZZZZZZ	104.45	96.78	97.938	104.248	97.284	101.559
23:14	ZZZZZZ	103.956	96.891	98.799	103.544	97.354	101.187
23:19	ZZZZZZ	102.907	96.066	97.416	101.973	97.468	101.025
23:23	ZZZZZZ	103.53	96.31	98.008	103.085	97.501	100.973
23:28	ZZZZZZ	No results reported for the elements associated with this internal standard.					
23:33	MA39531-CCVA8	100.783	94.338	95.114	100.832	91.416	95.198
23:38	MA39531-CCB8	100.63	94.563	95.578	100.742	93.563	98.546

! = Outside limits.

LEGEND:

Istd#	Parameter	Limits	CCV/CCB Limits
Istd#17	Terbium (159-2)	60-125 %	60-125 %
Istd#18	Terbium (159-3)	60-125 %	60-125 %
Istd#19	Holmium (165-1)	60-125 %	60-125 %
Istd#20	Holmium (165-2)	60-125 %	60-125 %
Istd#21	Bismuth (209-1)	60-125 %	60-125 %
Istd#22	Bismuth (209-2)	60-125 %	60-125 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FA34217
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Bunn Dump; Howard Tant Rd, Bunn, NC

File ID: XA053116M3.CSV Date Analyzed: 05/31/16 Methods: EPA 200.8, SW846 6020A
QC Limits: result < RL Run ID: MA39531 Units: ug/l

Time:			16:53		17:03		17:39		19:15	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	25	.32								
Antimony	2.0	.1	0.0066	<2.0	-0.012	<2.0	-0.027	<2.0	0.027	<2.0
Arsenic	0.50	.035	-0.0015	<0.50	0.0066	<0.50	-0.0056	<0.50	0.016	<0.50
Barium	1.0	.033	anr							
Beryllium	0.50	.008	0.0015	<0.50	0.0065	<0.50	0.0019	<0.50	0.0021	<0.50
Boron	25	1.5								
Cadmium	0.50	.01	0.0076	<0.50	0.0077	<0.50	0.0066	<0.50	0.0077	<0.50
Calcium	250	9.7								
Chromium	1.0	.016	-0.036	<1.0	-0.032	<1.0	-0.032	<1.0	-0.039	<1.0
Cobalt	0.50	.002	anr							
Copper	2.0	.02	-0.20	<2.0	-0.18	<2.0	-0.19	<2.0	-0.20	<2.0
Iron	25	.18	0.24	<25	0.64	<25	1.1	<25	0.59	<25
Lead	0.50	.007	0.011	<0.50	0.016	<0.50	0.022	<0.50	0.017	<0.50
Magnesium	250	.28								
Manganese	1.0	.014	0.0033	<1.0	-0.0054	<1.0	0.011	<1.0	-0.0039	<1.0
Molybdenum	1.0	.016								
Nickel	1.0	.016	0.011	<1.0	-0.0072	<1.0	0.0012	<1.0	-0.0028	<1.0
Potassium	250	3.3								
Selenium	0.50	.03	0.015	<0.50	0.040	<0.50	0.011	<0.50	0.044	<0.50
Silver	0.50	.006	-0.0048	<0.50	-0.00085	<0.50	0.00068	<0.50	-0.0075	<0.50
Sodium	250	1.4								
Strontium	5.0	.01								
Thallium	0.50	.015	0.017	<0.50	0.060	<0.50	0.043	<0.50	0.067	<0.50
Tin	5.0	.027								
Titanium	1.0	.061								
Vanadium	1.0	.062	anr							
Zinc	5.0	.11	-0.64	<5.0	-0.68	<5.0	-0.65	<5.0	-0.62	<5.0

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FA34217
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Bunn Dump; Howard Tant Rd, Bunn, NC

File ID: XA053116M3.CSV Date Analyzed: 05/31/16 Methods: EPA 200.8, SW846 6020A
QC Limits: result < RL Run ID: MA39531 Units: ug/l

Time:			19:53		20:51		21:48	
Sample ID:			CCB4		CCB5		CCB6	
Metal	RL	IDL	raw	final	raw	final	raw	final
Aluminum	25	.32						
Antimony	2.0	.1	0.014	<2.0	0.066	<2.0	0.052	<2.0
Arsenic	0.50	.035	0.024	<0.50	0.021	<1.0	0.025	<1.0
Barium	1.0	.033	anr					
Beryllium	0.50	.008	0.0063	<0.50	0.0067	<0.50	0.0075	<0.50
Boron	25	1.5						
Cadmium	0.50	.01	0.0044	<0.50	0.0089	<0.50	0.0077	<0.50
Calcium	250	9.7						
Chromium	1.0	.016	-0.039	<1.0	-0.026	<4.0	-0.036	<4.0
Cobalt	0.50	.002	anr					
Copper	2.0	.02	-0.20	<2.0	-0.20	<4.0	-0.21	<4.0
Iron	25	.18	0.57	<25	0.67	<50	0.62	<50
Lead	0.50	.007	0.0054	<0.50	0.011	<0.50	0.0042	<0.50
Magnesium	250	.28						
Manganese	1.0	.014	0.014	<1.0	0.016	<1.0	0.0072	<1.0
Molybdenum	1.0	.016						
Nickel	1.0	.016	-0.0055	<1.0	0.0099	<4.0	0.0041	<4.0
Potassium	250	3.3						
Selenium	0.50	.03	0.036	<0.50	0.059	<1.0	0.030	<1.0
Silver	0.50	.006	-0.0013	<0.50	-0.0036	<2.0	-0.0073	<2.0
Sodium	250	1.4						
Strontium	5.0	.01						
Thallium	0.50	.015	0.055	<0.50	0.040	<0.50	0.042	<0.50
Tin	5.0	.027						
Titanium	1.0	.061						
Vanadium	1.0	.062	anr					
Zinc	5.0	.11	-0.62	<5.0	-0.62	<10	-0.60	<10

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FA34217
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Bunn Dump; Howard Tant Rd, Bunn, NC

File ID: XA053116M3.CSV Date Analyzed: 05/31/16 Methods: EPA 200.8, SW846 6020A
QC Limits: 90 to 110 % Recovery Run ID: MA39531 Units: ug/l

Time:		16:44			16:49			16:58	
Sample ID:	ICVA	ICVA1		ICV	ICV1		CCVA	CCVA1	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony	60	59.7	99.5				50	52.4	104.8
Arsenic	60	58.8	98.0				50	50.5	101.0
Barium	anr								
Beryllium	60	57.3	95.5				50	51.2	102.4
Boron									
Cadmium	60	57.0	95.0				50	49.8	99.6
Calcium									
Chromium	60	57.2	95.3				50	50.2	100.4
Cobalt	anr								
Copper	60	56.3	93.8				50	49.5	99.0
Iron	5500	5290	96.2				5000	5160	103.2
Lead	60	58.1	96.8				50	51.0	102.0
Magnesium									
Manganese	60	57.4	95.7				50	50.7	101.4
Molybdenum									
Nickel	60	56.7	94.5				50	49.3	98.6
Potassium									
Selenium	60	57.5	95.8				50	50.5	101.0
Silver	60	59.5	99.2				50	51.7	103.4
Sodium									
Strontium									
Thallium	60	58.9	98.2				50	50.7	101.4
Tin									
Titanium									
Vanadium	anr								
Zinc	60	56.3	93.8				50	49.6	99.2

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FA34217
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Bunn Dump; Howard Tant Rd, Bunn, NC

File ID: XA053116M3.CSV Date Analyzed: 05/31/16 Methods: EPA 200.8, SW846 6020A
QC Limits: 90 to 110 % Recovery Run ID: MA39531 Units: ug/l

Time:		17:34			19:10			19:48	
Sample ID:	CCVA	CCVA2		CCVA	CCVA3		CCVA	CCVA4	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony	50	51.6	103.2	50	52.5	105.0	50	51.2	102.4
Arsenic	50	50.5	101.0	50	50.3	100.6	50	50.6	101.2
Barium	anr								
Beryllium	50	51.4	102.8	50	50.9	101.8	50	51.1	102.2
Boron									
Cadmium	50	50.3	100.6	50	50.1	100.2	50	50.9	101.8
Calcium									
Chromium	50	50.0	100.0	50	50.1	100.2	50	50.3	100.6
Cobalt	anr								
Copper	50	49.3	98.6	50	49.3	98.6	50	49.2	98.4
Iron	5000	5200	104.0	5000	5150	103.0	5000	5220	104.4
Lead	50	51.1	102.2	50	51.2	102.4	50	51.2	102.4
Magnesium									
Manganese	50	50.6	101.2	50	50.3	100.6	50	50.8	101.6
Molybdenum									
Nickel	50	48.7	97.4	50	48.9	97.8	50	49.1	98.2
Potassium									
Selenium	50	50.3	100.6	50	50.7	101.4	50	50.1	100.2
Silver	50	51.3	102.6	50	51.0	102.0	50	50.8	101.6
Sodium									
Strontium									
Thallium	50	50.9	101.8	50	51.1	102.2	50	50.9	101.8
Tin									
Titanium									
Vanadium	anr								
Zinc	50	50.0	100.0	50	49.6	99.2	50	49.3	98.6

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FA34217
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Bunn Dump; Howard Tant Rd, Bunn, NC

File ID: XA053116M3.CSV Date Analyzed: 05/31/16 Methods: EPA 200.8, SW846 6020A
QC Limits: 90 to 110 % Recovery Run ID: MA39531 Units: ug/l

Time:		20:46			21:43	
Sample ID:	CCVA	CCVA5		CCVA	CCVA6	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum						
Antimony	50	51.7	103.4	50	51.8	103.6
Arsenic	50	51.0	102.0	50	51.1	102.2
Barium	anr					
Beryllium	50	51.4	102.8	50	50.6	101.2
Boron						
Cadmium	50	50.1	100.2	50	50.3	100.6
Calcium						
Chromium	50	50.2	100.4	50	50.0	100.0
Cobalt	anr					
Copper	50	48.6	97.2	50	49.0	98.0
Iron	5000	5190	103.8	5000	5200	104.0
Lead	50	50.9	101.8	50	51.0	102.0
Magnesium						
Manganese	50	50.7	101.4	50	50.5	101.0
Molybdenum						
Nickel	50	49.2	98.4	50	48.7	97.4
Potassium						
Selenium	50	50.6	101.2	50	49.8	99.6
Silver	50	51.5	103.0	50	51.0	102.0
Sodium						
Strontium						
Thallium	50	50.7	101.4	50	50.9	101.8
Tin						
Titanium						
Vanadium	anr					
Zinc	50	48.7	97.4	50	48.4	96.8

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: FA34217
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Bunn Dump; Howard Tant Rd, Bunn, NC

File ID: XA053116M3.CSV Date Analyzed: 05/31/16 Methods: EPA 200.8, SW846 6020A
QC Limits: 70 to 130 % Recovery Run ID: MA39531 Units: ug/l

Time:			17:08		18:20		18:37		19:44	
Sample ID:	CRI	CRIA	CRI1		CRI2		CRI3		CRI4	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	25	25								
Antimony	2.0	0.25	2.3	115.0	2.2	110.0	2.1	105.0	2.1	105.0
Arsenic	0.50	0.50	0.54	108.0	0.47	94.0	0.46	92.0	0.49	98.0
Barium	1.0	0.50	anr							
Beryllium	0.50	0.25	0.48	96.0	0.48	96.0	0.47	94.0	0.49	98.0
Boron	25	2.5								
Cadmium	0.50	0.25	0.49	98.0	0.51	102.0	0.44	88.0	0.51	102.0
Calcium	250	125								
Chromium	1.0	2.0	0.96	96.0	1.0	100.0	0.95	95.0	0.91	91.0
Cobalt	0.50	0.25	anr							
Copper	2.0	2.0	2.0	100.0	1.9	95.0	1.8	90.0	1.8	90.0
Iron	25	25	25.6	102.4	25.8	103.2	23.2	92.8	23.4	93.6
Lead	0.50	0.25	0.51	102.0	0.48	96.0	0.47	94.0	0.46	92.0
Magnesium	250	125								
Manganese	0.50	0.25	0.52	104.0	0.56	112.0	0.50	100.0	0.53	106.0
Molybdenum	1.0	0.50								
Nickel	1.0	2.0	1.1	110.0	1.1	110.0	1.0	100.0	0.95	95.0
Potassium	250	125								
Selenium	0.50	0.50	0.59	118.0	0.57	114.0	0.51	102.0	0.53	106.0
Silver	0.50	1.0	0.52	104.0	0.48	96.0	0.48	96.0	0.50	100.0
Sodium	250	125								
Strontium	5.0	0.50								
Thallium	0.50	0.25	0.52	104.0	0.49	98.0	0.45	90.0	0.47	94.0
Tin	5.0	0.50								
Titanium	1.0	0.50								
Vanadium	1.0	2.0	anr							
Zinc	5.0	2.0	7.3	146.0*(a	6.7	134.0*(a	6.0	120.0	5.9	118.0

(*) Outside of QC limits
(anr) Analyte not requested
(a) No samples reported for this element in the area bracketed by this QC.

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: FA34217
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Bunn Dump; Howard Tant Rd, Bunn, NC

File ID: XA053116M3.CSV Date Analyzed: 05/31/16 Methods: EPA 200.8, SW846 6020A
QC Limits: 80 to 120 % Recovery Run ID: MA39531 Units: ug/l

Time:			17:20		17:24	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	100000	100000	95100	95.1	93000	93.0
Antimony			0.040		0.016	
Arsenic		20	0.089		19.2	96.0
Barium			0.18		0.19	
Beryllium			0.029		0.020	
Boron			2.0		1.2	
Cadmium		20	0.56		18.8	94.0
Calcium	100000	100000	96200	96.2	94600	94.6
Chromium		20	1.2		20.1	100.5
Cobalt		20	0.099		18.1	90.5
Copper		20	3.1		17.7	88.5
Iron	100000	100000	88600	88.6	87600	87.6
Lead			0.24		0.25	
Magnesium	100000	100000	93700	93.7	91400	91.4
Manganese		20	0.54		19.7	98.5
Molybdenum	2000	2000	2100	105.0	2070	103.5
Nickel		20	0.85		18.2	91.0
Potassium	100000	100000	97100	97.1	95700	95.7
Selenium		20	0.066		18.0	90.0
Silver		20	0.022		18.7	93.5
Sodium	100000	100000	96700	96.7	94300	94.3
Strontium	2000	2000	2130	106.5	2120	106.0
Thallium			0.0076		0.0051	
Tin	2000	2000	1930	96.5	1900	95.0
Titanium	2000	2000	2000	100.0	1960	98.0
Vanadium		20	-0.0098		21.5	107.5
Zinc		20	0.63		17.1	85.5

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FA34217
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Bunn Dump; Howard Tant Rd, Bunn, NC

QC Batch ID: MP94013
Matrix Type: AQUEOUS

Methods: EPA 200.8
Units: ug/l

Prep Date: 05/31/16

Metal	RL	IDL	MDL	MB raw	final
Aluminum	50	.32	1.3		
Antimony	2.0	.1	.26	0.13	<2.0
Arsenic	1.0	.035	.034	0.038	<1.0
Barium	1.0	.033	.028		
Beryllium	0.50	.008	.013	0.0043	<0.50
Boron	50	1.5			
Cadmium	0.50	.01	.12	0.0065	<0.50
Calcium	250	9.7	3.7		
Chromium	4.0	.016	.1	-0.019	<4.0
Cobalt	0.50	.002	.018		
Copper	4.0	.02	.14	0.0092	<4.0
Iron	50	.18	2	2.3	<50
Lead	0.50	.007	.011	0.039	<0.50
Magnesium	250	.28	3.6		
Manganese	1.0	.014	.095	0.056	<1.0
Molybdenum	1.0	.016	.23		
Nickel	4.0	.016	.11	0.017	<4.0
Potassium	250	3.3	8.8		
Selenium	1.0	.03	.12	0.052	<1.0
Silver	2.0	.006	.041	-0.0076	<2.0
Sodium	250	1.4	2.5		
Strontium	5.0	.01	.015		
Thallium	0.50	.015	.013	0.022	<0.50
Tin	5.0	.027	.38		
Titanium	1.0	.061	.56		
Vanadium	4.0	.062	.2		
Zinc	10	.11	1.2	0.019	<10

Associated samples MP94013: FA34217-1, FA34217-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA34217
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Bunn Dump; Howard Tant Rd, Bunn, NC

QC Batch ID: MP94013
Matrix Type: AQUEOUS

Methods: EPA 200.8
Units: ug/l

Prep Date: 05/31/16

Metal	FA34185-2 Original	MS	Spikelot MPXDW7	% Rec	QC Limits
Aluminum					
Antimony	0.12	96.7	100	96.6	70-130
Arsenic	0.0	95.0	100	95.0	70-130
Barium					
Beryllium	0.014	94.8	100	94.8	70-130
Boron					
Cadmium	0.0	92.2	100	92.2	70-130
Calcium					
Chromium	0.045	94.1	100	94.1	70-130
Cobalt					
Copper	1.3	93.5	100	92.2	70-130
Iron	2110	3920	2000	90.5	70-130
Lead	0.11	93.0	100	92.9	70-130
Magnesium					
Manganese	49.1	144	100	94.9	70-130
Molybdenum					
Nickel	0.15	91.0	100	90.9	70-130
Potassium					
Selenium	0.067	182	200	91.0	70-130
Silver	0.0	95.1	100	95.1	70-130
Sodium					
Strontium					
Thallium	0.026	93.7	100	93.7	70-130
Tin					
Titanium					
Vanadium					
Zinc	26.3	118	100	91.7	70-130

Associated samples MP94013: FA34217-1, FA34217-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA34217
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Bunn Dump; Howard Tant Rd, Bunn, NC

QC Batch ID: MP94013
Matrix Type: AQUEOUS

Methods: EPA 200.8
Units: ug/l

Prep Date: 05/31/16

Metal	FA34185-2 Original	MSD	Spikelot MPXDW7	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony	0.12	95.1	100	95.0	1.7	10
Arsenic	0.0	91.9	100	91.9	3.3	10
Barium						
Beryllium	0.014	94.1	100	94.1	0.7	10
Boron						
Cadmium	0.0	90.4	100	90.4	2.0	10
Calcium						
Chromium	0.045	92.5	100	92.5	1.7	10
Cobalt						
Copper	1.3	92.4	100	91.1	1.2	11
Iron	2110	3880	2000	88.5	1.0	10
Lead	0.11	92.0	100	91.9	1.1	10
Magnesium						
Manganese	49.1	142	100	92.9	1.4	10
Molybdenum						
Nickel	0.15	89.7	100	89.6	1.4	10
Potassium						
Selenium	0.067	180	200	90.0	1.1	10
Silver	0.0	94.9	100	94.9	0.2	10
Sodium						
Strontium						
Thallium	0.026	92.9	100	92.9	0.9	10
Tin						
Titanium						
Vanadium						
Zinc	26.3	117	100	90.7	0.9	10

Associated samples MP94013: FA34217-1, FA34217-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FA34217
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Bunn Dump; Howard Tant Rd, Bunn, NC

QC Batch ID: MP94013
Matrix Type: AQUEOUS

Methods: EPA 200.8
Units: ug/l

Prep Date: 05/31/16

Metal	BSP Result	Spikelot MPXDW7	% Rec	QC Limits
Aluminum				
Antimony	98.2	100	98.2	85-115
Arsenic	94.7	100	94.7	85-115
Barium				
Beryllium	95.5	100	95.5	85-115
Boron				
Cadmium	94.5	100	94.5	85-115
Calcium				
Chromium	95.3	100	95.3	85-115
Cobalt				
Copper	93.6	100	93.6	85-115
Iron	1840	2000	92.0	85-115
Lead	96.4	100	96.4	85-115
Magnesium				
Manganese	96.1	100	96.1	85-115
Molybdenum				
Nickel	93.0	100	93.0	85-115
Potassium				
Selenium	190	200	95.0	85-115
Silver	97.3	100	97.3	85-115
Sodium				
Strontium				
Thallium	97.3	100	97.3	85-115
Tin				
Titanium				
Vanadium				
Zinc	100	100	100.0	85-115

Associated samples MP94013: FA34217-1, FA34217-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

Trip Blank Lab Report

SGS ACCUTEST IS PART OF SGS, THE WORLD'S LEADING INSPECTION, VERIFICATION, TESTING AND CERTIFICATION COMPANY.

e-Hardcopy 2.0
Automated Report

Technical Report for

AECOM, INC.

Gaston Refuse Disposal; Gaston, Northhampton County, NC

60504522.20000

SGS Accutest Job Number: FA34216

Sampling Date: 05/24/16

Report to:

AECOM, INC.

NCChemists@urs.com

ATTN: Martha Meyers

Total number of pages in report: 55

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Norm Farmer
Technical Director

Client Service contact: Heather Wandrey 407-425-6700

Certifications: FL (E83510), LA (03051), KS (E-10327), IA (366), IL (200063), NC (573), NJ (FL002), SC (96038001) DoD ELAP (L-A-B L2229), CA (2937), TX (T104704404), PA (68-03573), VA (460177), AK, AR, GA, KY, MA, NV, OK, UT, WA

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Test results relate only to samples analyzed.

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Table of Contents

-1-

Section 1: Sample Summary **3**
Section 2: Case Narrative/Conformance Summary **4**
Section 3: Summary of Hits **7**
Section 4: Sample Results **8**
4.1: FA34216-1: TRIP BLANK-GASTON & BUNN 9
Section 5: Misc. Forms **12**
5.1: Certification Exceptions 13
5.2: Chain of Custody 14
5.3: Analyst Legend 17
Section 6: GC/MS Volatiles - QC Data Summaries **18**
6.1: Method Blank Summary 19
6.2: Blank Spike Summary 22
6.3: Matrix Spike/Matrix Spike Duplicate Summary 25
6.4: Instrument Performance Checks (BFB) 28
6.5: Internal Standard Area Summaries 35
6.6: Surrogate Recovery Summaries 38
6.7: Initial and Continuing Calibration Summaries 40

SGS Accutest LabLink@13:06 01-Jun-2016

Sample Summary

AECOM, INC.

Job No: FA34216

Gaston Refuse Disposal; Gaston, Northhampton County, NC
Project No: 60504522.20000

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA34216-1	05/24/16	00:00	JAJC	05/25/16	AQ	Trip Blank Water	TRIP BLANK-GASTON & BUNN

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: AECOM, INC. **Job No:** FA34216

Site: Gaston Refuse Disposal; Gaston, Northhampton County, NC **Report Date** 6/1/2016 12:54:37 PM

1 Trip Blank was collected on 05/24/2016 and was received at SGS Accutest Southeast (SASE) on 05/25/2016 properly preserved, at 3.2 Deg. C and intact. This Sample received an SASE job number of FA34216. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix: AQ **Batch ID:** VP1576

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) FA34230-3MS, FA34230-3MSD were used as the QC samples indicated.

Volatiles by GCMS By Method SW846 8260B BY SIM

Matrix: AQ **Batch ID:** VZ1545

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) FA34114-1MS, FA34114-1MSD were used as the QC samples indicated.

SGS Accutest (SASE) certifies that this report meets the project requirements for analytical data produced for the samples as received at SASE and as stated on the COC. SASE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the SASE Quality Manual except as noted above. This report is to be used in its entirety. SASE is not responsible for any assumptions of data quality if partial data packages are used

Narrative prepared by:

Lovelie Metzgar

Lovelie Metzgar, QA Officer

Date: June 1, 2016

Laboratory Report Glossary

Client Sample ID: Normally refers to a point of collection – a monitoring well, discharge outfall, treatment facility intake, soil core grid location and depth, or any other identification client assigns to a sample.
Lab Sample ID: Letter prefix identifies one of Accutest laboratories and the rest is a consecutive number of the job (or SDG) received. Number after dash is a sample number and it is unequivocally linked in the LIMS to the Client Sample ID (see above).
Matrix (Matrix Code):

- **AQ- Water Samples**
- **SO- Soil/Solid Samples**
- **LIQ- Non-Water Liquid Samples**
- **OIL- Oil Samples**

Matrix Type:

- **SW for Surface Water**
- **SO for Soil/Sediment**
- **GW for Ground Water**
- **DW for Drinking Water**

All available definitions are found on Chain of Custody form.

Deg. C: Degrees Celsius, measurement of temperature.
Method: Analytical and preparation methods used for the analysis, with the version or revision identified.
Date Sampled: This information is entered from Chain of Custody at the time of login for every sample.
Date Received: When the job was received by Accutest Laboratories.
Percent Solids: Applicable only to SO matrix. For other matrices this field defaults to "n/a".
Run #: Provides information how many attempts were made in the analysis of the sample. LIMS can merge information from several attempts and lists all of them, including dilution, confirmation, etc. #1 designation is assigned to the analytical run with majority of analytes reported from it, not necessarily in chronological order.
File ID: Actual instrument data acquisition file that produced the final result. Letter prefix identifies the instrument; the rest is a consecutive injection number for that instrument.
DF (Dilution Factor): Most common reasons are either to fit into the range of the calibration, or alleviate matrix interference. DF other than 1 are accompanied with a comment at the end of the sample report.
Analyzed: Date of analysis.
By: Field Technician or Analyst uniquely identified by initials.
Prep Date: Date of sample preparation. If hold time is 72 hours or less, time of preparation is also indicated.
Prep Batch: Letter prefix OP followed by a consecutive number. For VOC analysis preparation happens at the time of analysis, therefore analytical batch and preparation batch are the same. Size of prep batch is limited to 20 field samples of similar matrix and the entire batch should be completed within 12 hour time.
Analytical Batch: Letter prefix identifies the instrument and is followed by a consecutive number. Not limited by a number of samples.
Initial Weight or Initial Volume: Raw sample size used for preparation.
Final Volume: Final volume of extract. If different from method-prescribed volume, reasons are reflected in the comments at the end of the report form.
CAS Number: *Chemical Abstracts Service* (CAS), a division of the *American Chemical Society*.
Compound: Most commonly used names of chemical compounds.
Result: Depending on project requirements, this field could be set up as text, such as ND (for Non Detected) or a number. The number may be reported with a qualifier.
MDL (Method Detection Limit): This value is defined as 99% probability that analyte above this concentration is positively (qualitatively) identified.
RL (Reporting Limit): This value is supported by the low calibration standard and defines lowest point of quantitative identification of analyte.
DL (Detection Limit): The smallest analyte concentration that can be demonstrated to be different from zero or a blank concentration with 99% confidence. At the DL, the false positive rate (Type I error) is 1%.
LOD (Limit of Detection): The smallest concentration of a substance that must be present in a sample in order to be detected at the DL with 99% confidence. At the LOD, the false negative rate (Type II error) is 1%.
LOQ (Limit of Quantitation): The smallest concentration that produces a quantitative result with known and recorded precision and bias.

Units: ug/l (micrograms per liter) for aqueous samples and ug/kg (micrograms per kilogram) for solids (or ppb – parts per billion). The units could be set according to project or state-specific requirements, such as mg/l (milligrams per liter), or mg/kg (milligrams per kilogram).
Qualifiers (Q): Definitions of most often used qualifiers are found at the bottom of each result page. Applied depending on the program – state-specific (Florida A.C. 62-160), CLP-like, AFCEE, DOD QSM, etc.
Tentatively Identified Compound (TIC): Used when client requests a search for analytes that are not part of instrument calibration. Unknown peaks are compared with published spectral libraries and best match is reported as TIC.
Surrogate (S1, S2, S3 etc.): are positive controls that are used in most organics methods to ascertain preparation efficiency and matrix effect in individual samples. These chemicals mimic common method constituents but are unlikely to be found in real samples. Recoveries can be reported for every analytical run used in the analysis.
IS (Internal Standard IS1, IS2, IS3, etc): quantitative reference used to adjust for instrument performance fluctuations.
Area (of chromatographic peak): signal intensity directly related to compound concentration.
RT (Retention Time): time required for analyte to traverse the length of analytical column. Used for compound identification.
ICAL (Initial Calibration): Must pass calibration criteria established by method.
ICV (Independent Calibration Verification): Used to verify ICAL preparation and concentration of calibration points.
CCV (Continuing Calibration Verification): Used to assess calibration status of the instrument and must recover within established acceptance criteria.
MB (Method Blank): is a negative batch control. MB is an aliquot of matrix free of analyte of interest (either ASTM Type II water or appropriate solid substance) that is put through all the preparation and possible clean-up steps alongside investigative (field) samples. MB should be free of interferences above a set level.
BS (Blank Spike, Laboratory Fortified Blank - LFB, Laboratory Control Sample - LCS): is a positive control used to determine method accuracy - in clean matrix, i.e. matrix free of analytes of interest.
BSD (Blank Spike Duplicate): Used to assess recovery reproducibility - method precision – per analytical method requirement. %Recovery and Relative Percent Difference (%RPD) are compared with the established acceptance criteria.
MS and/or **MSD (Matrix Spike and Matrix Spike Duplicate):** positive batch controls which indicate matrix effect on the precision and accuracy of the method in given sample matrix. Results are expressed in %Recovery and Relative Percent Difference (%RPD), and compared with the established acceptance criteria.
DUP (Matrix Duplicate): Positive batch control, a way of assessing laboratory's precision; however, the composition of the samples is unknown and may not yield meaningful results.
REC (Recovery in Percent): expresses method accuracy.
RPD (Relative Percent Difference): expresses method precision.
Limits: Recovery limits for surrogates and spikes

Summary of Hits

Job Number: FA34216
Account: AECOM, INC.
Project: Gaston Refuse Disposal; Gaston, Northhampton County, NC
Collected: 05/24/16

3

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
FA34216-1	**TRIP BLANK-GASTON & BUNN**					
Toluene		0.0013	0.0010	0.00020	mg/l	SW846 8260B

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	TRIP BLANK-GASTON & BUNN		
Lab Sample ID:	FA34216-1	**Date Sampled:**	05/24/16
Matrix:	AQ - Trip Blank Water	**Date Received:**	05/25/16
Method:	SW846 8260B BY SIM	**Percent Solids:**	n/a
Project:	Gaston Refuse Disposal; Gaston, Northhampton County, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z41105.D	1	05/26/16	MM	n/a	n/a	VZ1545
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	0.0010	0.00030	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	115%		74-125%
2037-26-5	Toluene-D8	101%		88-111%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK-GASTON & BUNN		
Lab Sample ID:	FA34216-1	**Date Sampled:**	05/24/16
Matrix:	AQ - Trip Blank Water	**Date Received:**	05/25/16
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Gaston Refuse Disposal; Gaston, Northhampton County, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P42357.D	1	05/31/16	KM	n/a	n/a	VP1576
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (SOM02.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.025	0.010	mg/l	
71-43-2	Benzene	ND	0.0010	0.00020	mg/l	
74-97-5	Bromochloromethane	ND	0.0010	0.00042	mg/l	
75-27-4	Bromodichloromethane	ND	0.0010	0.00024	mg/l	
75-25-2	Bromoform	ND	0.0010	0.00046	mg/l	
78-93-3	2-Butanone (MEK)	ND	0.0050	0.0026	mg/l	
75-15-0	Carbon Disulfide	ND	0.0020	0.00023	mg/l	
56-23-5	Carbon Tetrachloride	ND	0.0010	0.00030	mg/l	
108-90-7	Chlorobenzene	ND	0.0010	0.00020	mg/l	
75-00-3	Chloroethane	ND	0.0020	0.00063	mg/l	
67-66-3	Chloroform	ND	0.0010	0.00030	mg/l	
110-82-7	Cyclohexane	ND	0.0010	0.00026	mg/l	
124-48-1	Dibromochloromethane	ND	0.0010	0.00026	mg/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0050	0.00081	mg/l	
106-93-4	1,2-Dibromoethane	ND	0.0020	0.00033	mg/l	
75-71-8	Dichlorodifluoromethane	ND	0.0020	0.00050	mg/l	
95-50-1	1,2-Dichlorobenzene	ND	0.0010	0.00027	mg/l	
541-73-1	1,3-Dichlorobenzene	ND	0.0010	0.00024	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	0.0010	0.00039	mg/l	
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00026	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00028	mg/l	
75-35-4	1,1-Dichloroethylene	ND	0.0010	0.00022	mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0010	0.00031	mg/l	
156-60-5	trans-1,2-Dichloroethylene	ND	0.0010	0.00033	mg/l	
78-87-5	1,2-Dichloropropane	ND	0.0010	0.00034	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0010	0.00026	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0010	0.00025	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00025	mg/l	
76-13-1	Freon 113	ND	0.0010	0.00032	mg/l	
591-78-6	2-Hexanone	ND	0.010	0.0020	mg/l	
98-82-8	Isopropylbenzene	ND	0.0010	0.00033	mg/l	
79-20-9	Methyl Acetate	ND	0.020	0.0050	mg/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK-GASTON & BUNN		
Lab Sample ID:	FA34216-1	**Date Sampled:**	05/24/16
Matrix:	AQ - Trip Blank Water	**Date Received:**	05/25/16
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Gaston Refuse Disposal; Gaston, Northhampton County, NC		

VOA TCL List (SOM02.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
74-83-9	Methyl Bromide	ND	0.0020	0.00050	mg/l	
74-87-3	Methyl Chloride	ND	0.0020	0.00050	mg/l	
108-87-2	Methylcyclohexane	ND	0.0010	0.00023	mg/l	
75-09-2	Methylene Chloride	ND	0.0050	0.0020	mg/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	0.0050	0.0014	mg/l	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0010	0.00020	mg/l	
100-42-5	Styrene	ND	0.0010	0.00024	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0010	0.00033	mg/l	
127-18-4	Tetrachloroethylene	ND	0.0010	0.00030	mg/l	
108-88-3	Toluene	0.0013	0.0010	0.00020	mg/l	
87-61-6	1,2,3-Trichlorobenzene	ND	0.0020	0.00051	mg/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0020	0.00050	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00020	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00037	mg/l	
79-01-6	Trichloroethylene	ND	0.0010	0.00027	mg/l	
75-69-4	Trichlorofluoromethane	ND	0.0020	0.00050	mg/l	
75-01-4	Vinyl Chloride	ND	0.0010	0.00031	mg/l	
	m,p-Xylene	ND	0.0020	0.00030	mg/l	
95-47-6	o-Xylene	ND	0.0010	0.00026	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		83-118%
17060-07-0	1,2-Dichloroethane-D4	100%		79-125%
2037-26-5	Toluene-D8	101%		85-112%
460-00-4	4-Bromofluorobenzene	105%		83-118%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- Chain of Custody
- Analyst Legend

Parameter Certification Exceptions

Job Number: FA34216
Account: URSNCM AECOM, INC.
Project: Gaston Refuse Disposal; Gaston, Northhampton County, NC

The following parameters included in this report are exceptions to NELAC certification.
The certification status of each is indicated below.

Parameter	CAS#	Method	Mat	Certification Status
Freon 113	76-13-1	**SW846 8260B**	AQ	Certified by SOP MS005

Accutest Laboratories Southeast
Chain of Custody

ACCUTEST LABORATORIES

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 • FAX: 407-425-0707
www.accutest.com

FA34216

Accutest JOB # PAGE 1 OF 1

Accutest Quote # SKIFF#

Client / Reporting Information		Project Information	
Company Name	UPS Corporation	Project Name:	Gaston Regional Dumpard
Address	1600 Perimeter Park Dr	~~Street~~	Burn Dump
City	Morrisville State NC Zip 27560	City State	
Project Contact	M. Ness E-mail	Project #	60504522
Phone#	919-461-1100	Fax #	
Sampler(s) Name(s) (Printed)	J Abbassi	Client Purchase Order #	

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe

Accutest Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	CONTAINER INFORMATION OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH+ZnAc	DI WATER	MEOH	VOCs (8260B)	1,4-Dioxane (8260B SIM)	LAB USE ONLY
1	Trip Blank	–	–	–	–	6			X							X	X	

TURNAROUND TIME (Business Days) — Approved By: / Rush Code

- [x] 10 Days Standard
- [ ] 7 Day RUSH
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] OTHER

Emergency or Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remarks

ACCUTEST LABORATORIES SERVICE CENTER RALEIGH, NC

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished by:	Date Time:	Received By:
1	5/24/16 15:03	2	3	5-24-16 15:04	4 Fedex
Relinquished by: 5 FX	Date Time:	Received By: 6 5/25/16 0930	Relinquished by: 7	Date Time:	Received By: 8

Lab Use Only: Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved where Applicable: Y N Total # of Coolers: 1 Cooler Temperature (s) Celsius: 3.2

5.2 5

FA34216: Chain of Custody
Page 1 of 3

[redacted]

DATE/TIME RECEIVED: 5/25/16 1430 (MM/DD/YY 24:00) NUMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: (FEDEX) UPS ACCUTEST COURIER DELIVERY OTHER:

AIRBILL NUMBERS: 7763 5923 8139

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

TRIP BLANK INFORMATION

- [x] TRIP BLANK PROVIDED
- [ ] TRIP BLANK NOT PROVIDED
- [ ] TRIP BLANK NOT ON COC
- [x] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [x] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM_____ 5-GRAM_____

NUMBER OF 5035 FIELD KITS ? _____

NUMBER OF LAB FILTERED METALS ? _____

TEMPERATURE INFORMATION

- [ ] IR THERM ID 1 CORR. FACTOR +0.0
- [ ] OBSERVED TEMPS: 3.2
- [ ] CORRECTED TEMPS: 3.2 (USED FOR LIMS)

SAMPLE INFORMATION

- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] 5035 FIELD KITS NOT RECEIVED WITHIN 48 HOURS
- [ ] BULK VOA SOIL JARS NOT RECEIVED WITHIN 48 HOURS
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] RESIDUAL CHLORINE PRESENT LOT#_____

{APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

TEST STRIP LOT#s pH 0-3 230315 pH 10-12 219813A OTHER (specify) _____

SUMMARY OF COMMENTS:

TECHNICIAN SIGNATURE/DATE 5/25/16 REVIEWER SIGNATURE/DATE 5/25/16

NF 11/15 RECEIPTLOG040416.xls

5.2 5

FA34216: Chain of Custody
Page 2 of 3

ORIGIN ID:RZZA (919) 208-7171
TERRI RIVENBARK
ACCUTEST LABS SOUTHEAST
6308 - C ANGUS DRIVE

RALEIGH, NC 27617
UNITED STATES US

SHIP DATE: 24MAY16
ACTWGT: 50.00 LB
CAD: 9855222/INET3730

BILL SENDER

TO SAMPLE RECEIVING
ACCUTEST SE
4405 VINELAND RD.
STE. C15
ORLANDO FL 32811
(407) 425-6700 REF
INV
PO DEPT

5403J16323/27FF

FedEx Express

2 of 7

MPS# 0263 7763 5923 8139
Mstr# 7763 5923 8128

0201

WED - 25 MAY 10:30A
PRIORITY OVERNIGHT

XH TIXA

32811
FL-US MCO

FA34216: Chain of Custody
Page 3 of 3

Analyst Legend

Job Number: FA34216
Account: URSNCM AECOM, INC.
Project: Gaston Refuse Disposal; Gaston, Northhampton County, NC

Initials	Full Name	Analysis Type
KM	Kathleen McNatt	GC/MS Volatiles
MM	Melissa Mangual	GC/MS Volatiles

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: FA34216
Account: URSNCM AECOM, INC.
Project: Gaston Refuse Disposal; Gaston, Northhampton County, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ1545-MB	Z41103.D	1	05/26/16	MM	n/a	n/a	VZ1545

The QC reported here applies to the following samples: **Method:** SW846 8260B BY SIM

FA34216-1

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	1.0	0.30	ug/l	

CAS No.	Surrogate Recoveries		Limits
17060-07-0	1,2-Dichloroethane-D4	113%	74-125%
2037-26-5	Toluene-D8	100%	88-111%

Method Blank Summary

Job Number: FA34216
Account: URSNCM AECOM, INC.
Project: Gaston Refuse Disposal; Gaston, Northhampton County, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VP1576-MB	P42356.D	1	05/31/16	KM	n/a	n/a	VP1576

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA34216-1

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.42	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.46	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.6	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.23	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.30	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.63	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
110-82-7	Cyclohexane	ND	1.0	0.26	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.26	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	0.81	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.33	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.27	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.39	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.28	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.22	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.33	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.26	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.25	ug/l	
76-13-1	Freon 113	ND	1.0	0.32	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.33	ug/l	
79-20-9	Methyl Acetate	ND	20	5.0	ug/l	
74-83-9	Methyl Bromide	ND	2.0	0.50	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	0.23	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	

Method Blank Summary

Job Number: FA34216
Account: URSNCM AECOM, INC.
Project: Gaston Refuse Disposal; Gaston, Northhampton County, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VP1576-MB	P42356.D	1	05/31/16	KM	n/a	n/a	VP1576

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA34216-1

CAS No.	Compound	Result	RL	MDL	Units	Q
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.4	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.33	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.30	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.52	2.0	0.51	ug/l	J
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.37	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.27	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl Chloride	ND	1.0	0.31	ug/l	
	m,p-Xylene	ND	2.0	0.30	ug/l	
95-47-6	o-Xylene	ND	1.0	0.26	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	99%	83-118%
17060-07-0	1,2-Dichloroethane-D4	101%	79-125%
2037-26-5	Toluene-D8	101%	85-112%
460-00-4	4-Bromofluorobenzene	106%	83-118%

Blank Spike Summary

Job Number: FA34216
Account: URSNCM AECOM, INC.
Project: Gaston Refuse Disposal; Gaston, Northhampton County, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ1545-BS	Z41102.D	1	05/26/16	MM	n/a	n/a	VZ1545

The QC reported here applies to the following samples: **Method:** SW846 8260B BY SIM

FA34216-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
123-91-1	1,4-Dioxane	20	19.6	98	65-121

CAS No.	Surrogate Recoveries	BSP	Limits
17060-07-0	1,2-Dichloroethane-D4	109%	74-125%
2037-26-5	Toluene-D8	99%	88-111%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA34216
Account: URSNCM AECOM, INC.
Project: Gaston Refuse Disposal; Gaston, Northhampton County, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VP1576-BS	P42355.D	1	05/31/16	KM	n/a	n/a	VP1576

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA34216-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	122	98	50-147
71-43-2	Benzene	25	26.1	104	81-122
74-97-5	Bromochloromethane	25	22.2	89	76-123
75-27-4	Bromodichloromethane	25	25.7	103	79-123
75-25-2	Bromoform	25	24.2	97	66-123
78-93-3	2-Butanone (MEK)	125	123	98	56-143
75-15-0	Carbon Disulfide	25	24.6	98	66-148
56-23-5	Carbon Tetrachloride	25	27.8	111	76-136
108-90-7	Chlorobenzene	25	24.3	97	82-124
75-00-3	Chloroethane	25	30.3	121	62-144
67-66-3	Chloroform	25	26.0	104	80-124
110-82-7	Cyclohexane	25	27.3	109	73-138
124-48-1	Dibromochloromethane	25	24.7	99	78-122
96-12-8	1,2-Dibromo-3-chloropropane	25	22.2	89	64-123
106-93-4	1,2-Dibromoethane	25	24.7	99	75-120
75-71-8	Dichlorodifluoromethane	25	27.4	110	42-167
95-50-1	1,2-Dichlorobenzene	25	24.0	96	82-124
541-73-1	1,3-Dichlorobenzene	25	24.6	98	84-125
106-46-7	1,4-Dichlorobenzene	25	24.1	96	78-120
75-34-3	1,1-Dichloroethane	25	27.6	110	81-122
107-06-2	1,2-Dichloroethane	25	25.9	104	75-125
75-35-4	1,1-Dichloroethylene	25	28.9	116	78-137
156-59-2	cis-1,2-Dichloroethylene	25	25.7	103	78-120
156-60-5	trans-1,2-Dichloroethylene	25	29.4	118	76-127
78-87-5	1,2-Dichloropropane	25	26.0	104	76-124
10061-01-5	cis-1,3-Dichloropropene	25	26.5	106	75-118
10061-02-6	trans-1,3-Dichloropropene	25	26.0	104	80-120
100-41-4	Ethylbenzene	25	25.6	102	81-121
76-13-1	Freon 113	25	25.8	103	72-134
591-78-6	2-Hexanone	125	119	95	61-129
98-82-8	Isopropylbenzene	25	27.2	109	83-132
79-20-9	Methyl Acetate	125	125	100	65-126
74-83-9	Methyl Bromide	25	26.5	106	59-143
74-87-3	Methyl Chloride	25	27.3	109	50-159
108-87-2	Methylcyclohexane	25	27.8	111	76-129
75-09-2	Methylene Chloride	25	26.8	107	69-135

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA34216
Account: URSNCM AECOM, INC.
Project: Gaston Refuse Disposal; Gaston, Northhampton County, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VP1576-BS	P42355.D	1	05/31/16	KM	n/a	n/a	VP1576

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA34216-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
108-10-1	4-Methyl-2-pentanone (MIBK)	125	121	97	66-122
1634-04-4	Methyl Tert Butyl Ether	25	23.2	93	72-117
100-42-5	Styrene	25	25.0	100	78-119
79-34-5	1,1,2,2-Tetrachloroethane	25	23.8	95	72-120
127-18-4	Tetrachloroethylene	25	25.6	102	76-135
108-88-3	Toluene	25	24.6	98	80-120
87-61-6	1,2,3-Trichlorobenzene	25	22.0	88	68-131
120-82-1	1,2,4-Trichlorobenzene	25	22.7	91	73-129
71-55-6	1,1,1-Trichloroethane	25	25.6	102	75-130
79-00-5	1,1,2-Trichloroethane	25	25.2	101	76-119
79-01-6	Trichloroethylene	25	27.0	108	81-126
75-69-4	Trichlorofluoromethane	25	28.2	113	71-156
75-01-4	Vinyl Chloride	25	27.5	110	69-159
	m,p-Xylene	50	52.5	105	79-126
95-47-6	o-Xylene	25	25.4	102	80-127

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	99%	83-118%
17060-07-0	1,2-Dichloroethane-D4	102%	79-125%
2037-26-5	Toluene-D8	99%	85-112%
460-00-4	4-Bromofluorobenzene	102%	83-118%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA34216
Account: URSNCM AECOM, INC.
Project: Gaston Refuse Disposal; Gaston, Northhampton County, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA34114-1MS	Z41118.D	1	05/26/16	MM	n/a	n/a	VZ1545
FA34114-1MSD	Z41119.D	1	05/26/16	MM	n/a	n/a	VZ1545
FA34114-1	Z41108.D	1	05/26/16	MM	n/a	n/a	VZ1545

The QC reported here applies to the following samples: **Method:** SW846 8260B BY SIM

FA34216-1

CAS No.	Compound	FA34114-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
123-91-1	1,4-Dioxane	ND		20	20.8	104	20	20.6	103	1	65-121/27

CAS No.	Surrogate Recoveries	MS	MSD	FA34114-1	Limits
17060-07-0	1,2-Dichloroethane-D4	119%	119%	113%	74-125%
2037-26-5	Toluene-D8	101%	101%	100%	88-111%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA34216
Account: URSNCM AECOM, INC.
Project: Gaston Refuse Disposal; Gaston, Northhampton County, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA34230-3MS	P42378.D	50	05/31/16	KM	n/a	n/a	VP1576
FA34230-3MSD	P42379.D	50	05/31/16	KM	n/a	n/a	VP1576
FA34230-3	P42361.D	50	05/31/16	KM	n/a	n/a	VP1576

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA34216-1

CAS No.	Compound	FA34230-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		6250	5710	91	6250	5920	95	4	50-147/21
71-43-2	Benzene	ND		1250	1400	112	1250	1360	109	3	81-122/14
74-97-5	Bromochloromethane	ND		1250	1180	94	1250	1140	91	3	76-123/14
75-27-4	Bromodichloromethane	ND		1250	1270	102	1250	1160	93	9	79-123/19
75-25-2	Bromoform	ND		1250	905	72	1250	871	70	4	66-123/21
78-93-3	2-Butanone (MEK)	ND		6250	5920	95	6250	6180	99	4	56-143/18
75-15-0	Carbon Disulfide	ND		1250	920	74	1250	824	66	11	66-148/23
56-23-5	Carbon Tetrachloride	ND		1250	1240	99	1250	1140	91	8	76-136/23
108-90-7	Chlorobenzene	ND		1250	1270	102	1250	1230	98	3	82-124/14
75-00-3	Chloroethane	ND		1250	1670	134	1250	1590	127	5	62-144/20
67-66-3	Chloroform	ND		1250	1400	112	1250	1330	106	5	80-124/15
110-82-7	Cyclohexane	ND		1250	1480	118	1250	1400	112	6	73-138/18
124-48-1	Dibromochloromethane	ND		1250	1080	86	1250	1000	80	8	78-122/19
96-12-8	1,2-Dibromo-3-chloropropane	ND		1250	1160	93	1250	1110	89	4	64-123/18
106-93-4	1,2-Dibromoethane	ND		1250	1290	103	1250	1260	101	2	75-120/13
75-71-8	Dichlorodifluoromethane	ND		1250	1450	116	1250	1300	104	11	42-167/19
95-50-1	1,2-Dichlorobenzene	ND		1250	1250	100	1250	1240	99	1	82-124/14
541-73-1	1,3-Dichlorobenzene	ND		1250	1280	102	1250	1260	101	2	84-125/14
106-46-7	1,4-Dichlorobenzene	ND		1250	1250	100	1250	1230	98	2	78-120/15
75-34-3	1,1-Dichloroethane	ND		1250	1520	122	1250	1470	118	3	81-122/15
107-06-2	1,2-Dichloroethane	ND		1250	1360	109	1250	1370	110	1	75-125/14
75-35-4	1,1-Dichloroethylene	90.8		1250	1740	132	1250	1580	119	10	78-137/18
156-59-2	cis-1,2-Dichloroethylene	138		1250	1440	104	1250	1390	100	4	78-120/15
156-60-5	trans-1,2-Dichloroethylene	ND		1250	1580	126	1250	1490	119	6	76-127/17
78-87-5	1,2-Dichloropropane	ND		1250	1410	113	1250	1390	111	1	76-124/14
10061-01-5	cis-1,3-Dichloropropene	ND		1250	1190	95	1250	1080	86	10	75-118/23
10061-02-6	trans-1,3-Dichloropropene	ND		1250	1180	94	1250	1080	86	9	80-120/22
100-41-4	Ethylbenzene	ND		1250	1350	108	1250	1310	105	3	81-121/14
76-13-1	Freon 113	ND		1250	1290	103	1250	1200	96	7	72-134/20
591-78-6	2-Hexanone	ND		6250	5970	96	6250	6110	98	2	61-129/18
98-82-8	Isopropylbenzene	ND		1250	1370	110	1250	1320	106	4	83-132/15
79-20-9	Methyl Acetate	ND		6250	6510	104	6250	6640	106	2	65-126/18
74-83-9	Methyl Bromide	ND		1250	1400	112	1250	1320	106	6	59-143/19
74-87-3	Methyl Chloride	ND		1250	1460	117	1250	1430	114	2	50-159/19
108-87-2	Methylcyclohexane	ND		1250	1490	119	1250	1390	111	7	76-129/17
75-09-2	Methylene Chloride	ND		1250	1490	119	1250	1450	116	3	69-135/16

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA34216
Account: URSNCM AECOM, INC.
Project: Gaston Refuse Disposal; Gaston, Northhampton County, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA34230-3MS	P42378.D	50	05/31/16	KM	n/a	n/a	VP1576
FA34230-3MSD	P42379.D	50	05/31/16	KM	n/a	n/a	VP1576
FA34230-3	P42361.D	50	05/31/16	KM	n/a	n/a	VP1576

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA34216-1

CAS No.	Compound	FA34230-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		6250	6080	97	6250	6160	99	1	66-122/16
1634-04-4	Methyl Tert Butyl Ether	ND		1250	1250	100	1250	1210	97	3	72-117/14
100-42-5	Styrene	ND		1250	1300	104	1250	1220	98	6	78-119/23
79-34-5	1,1,2,2-Tetrachloroethane	ND		1250	1340	107	1250	1340	107	0	72-120/14
127-18-4	Tetrachloroethylene	ND		1250	1260	101	1250	1200	96	5	76-135/16
108-88-3	Toluene	ND		1250	1300	104	1250	1260	101	3	80-120/14
87-61-6	1,2,3-Trichlorobenzene	ND		1250	1060	85	1250	1130	90	6	68-131/25
120-82-1	1,2,4-Trichlorobenzene	ND		1250	1110	89	1250	1130	90	2	73-129/20
71-55-6	1,1,1-Trichloroethane	ND		1250	1330	106	1250	1280	102	4	75-130/16
79-00-5	1,1,2-Trichloroethane	ND		1250	1320	106	1250	1320	106	0	76-119/14
79-01-6	Trichloroethylene	3610		1250	4960	108	1250	4770	93	4	81-126/15
75-69-4	Trichlorofluoromethane	ND		1250	1480	118	1250	1390	111	6	71-156/21
75-01-4	Vinyl Chloride	ND		1250	1480	118	1250	1360	109	8	69-159/18
	m,p-Xylene	ND		2500	2720	109	2500	2620	105	4	79-126/15
95-47-6	o-Xylene	ND		1250	1310	105	1250	1260	101	4	80-127/14

CAS No.	Surrogate Recoveries	MS	MSD	FA34230-3	Limits
1868-53-7	Dibromofluoromethane	99%	99%	99%	83-118%
17060-07-0	1,2-Dichloroethane-D4	106%	105%	103%	79-125%
2037-26-5	Toluene-D8	99%	99%	101%	85-112%
460-00-4	4-Bromofluorobenzene	103%	104%	105%	83-118%

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: FA34216
Account: URSNCM AECOM, INC.
Project: Gaston Refuse Disposal; Gaston, Northhampton County, NC

Sample: VP1569-BFB
Lab File ID: P42200.D
Instrument ID: GCMSP
Injection Date: 05/24/16
Injection Time: 10:38

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	9338	20.6		Pass
75	30.0 - 60.0% of mass 95	21736	48.1		Pass
95	Base peak, 100% relative abundance	45221	100.0		Pass
96	5.0 - 9.0% of mass 95	3523	7.79		Pass
173	Less than 2.0% of mass 174	263	0.58	(0.62) [a]	Pass
174	50.0 - 100.0% of mass 95	42698	94.4		Pass
175	5.0 - 9.0% of mass 174	3478	7.69	(8.15) [a]	Pass
176	95.0 - 101.0% of mass 174	41730	92.3	(97.7) [a]	Pass
177	5.0 - 9.0% of mass 176	2851	6.30	(6.83) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VP1569-IC1569	P42201.D	05/24/16	10:59	00:21	Initial cal 1
VP1569-IC1569	P42202.D	05/24/16	11:25	00:47	Initial cal 2
VP1569-IC1569	P42203.D	05/24/16	11:51	01:13	Initial cal 3
VP1569-IC1569	P42204.D	05/24/16	12:16	01:38	Initial cal 4
VP1569-ICC1569	P42205.D	05/24/16	12:42	02:04	Initial cal 5
VP1569-IC1569	P42206.D	05/24/16	13:07	02:29	Initial cal 6
VP1569-IC1569	P42207.D	05/24/16	13:33	02:55	Initial cal 7
VP1569-ICV1569	P42210.D	05/24/16	14:59	04:21	Initial cal verification 5
VP1569-BS	P42211.D	05/24/16	15:27	04:49	Blank Spike
VP1569-MB	P42212.D	05/24/16	16:07	05:29	Method Blank
ZZZZZZ	P42213.D	05/24/16	16:33	05:55	(unrelated sample)
ZZZZZZ	P42214.D	05/24/16	16:58	06:20	(unrelated sample)
FA34025-1	P42215.D	05/24/16	17:24	06:46	(used for QC only; not part of job FA34216)
ZZZZZZ	P42216.D	05/24/16	18:16	07:38	(unrelated sample)
ZZZZZZ	P42217.D	05/24/16	18:41	08:03	(unrelated sample)
ZZZZZZ	P42218.D	05/24/16	19:07	08:29	(unrelated sample)
ZZZZZZ	P42219.D	05/24/16	19:32	08:54	(unrelated sample)
ZZZZZZ	P42220.D	05/24/16	19:58	09:20	(unrelated sample)
ZZZZZZ	P42221.D	05/24/16	20:23	09:45	(unrelated sample)
ZZZZZZ	P42222.D	05/24/16	20:49	10:11	(unrelated sample)
ZZZZZZ	P42223.D	05/24/16	21:15	10:37	(unrelated sample)
ZZZZZZ	P42224.D	05/24/16	21:40	11:02	(unrelated sample)
ZZZZZZ	P42225.D	05/24/16	22:06	11:28	(unrelated sample)
ZZZZZZ	P42226.D	05/24/16	22:31	11:53	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: FA34216
Account: URSNCM AECOM, INC.
Project: Gaston Refuse Disposal; Gaston, Northhampton County, NC

Sample: VP1569-BFB
Lab File ID: P42200.D
Instrument ID: GCMSP
Injection Date: 05/24/16
Injection Time: 10:38

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
FA34025-1MS	P42227.D	05/24/16	22:57	12:19	Matrix Spike
FA34025-1MSD	P42228.D	05/24/16	23:23	12:45	Matrix Spike Duplicate
VP1569-ECC1569	P42229.D	05/24/16	23:49	13:11	Ending cal 5

Instrument Performance Check (BFB)

Job Number: FA34216
Account: URSNCM AECOM, INC.
Project: Gaston Refuse Disposal; Gaston, Northhampton County, NC

Sample: VP1576-BFB
Lab File ID: P42352.D
Instrument ID: GCMSP
Injection Date: 05/31/16
Injection Time: 07:44

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	10781	21.1		Pass
75	30.0 - 60.0% of mass 95	24946	48.8		Pass
95	Base peak, 100% relative abundance	51096	100.0		Pass
96	5.0 - 9.0% of mass 95	3451	6.75		Pass
173	Less than 2.0% of mass 174	805	1.58	(1.72) [a]	Pass
174	50.0 - 100.0% of mass 95	46808	91.6		Pass
175	5.0 - 9.0% of mass 174	3742	7.32	(7.99) [a]	Pass
176	95.0 - 101.0% of mass 174	46330	90.7	(99.0) [a]	Pass
177	5.0 - 9.0% of mass 176	3042	5.95	(6.57) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VP1576-CC1569	P42353.D	05/31/16	08:04	00:20	Continuing cal 5
VP1576-BS	P42355.D	05/31/16	09:11	01:27	Blank Spike
VP1576-MB	P42356.D	05/31/16	09:46	02:02	Method Blank
FA34216-1	P42357.D	05/31/16	10:15	02:31	TRIP BLANK-GASTON & BUNN
ZZZZZZ	P42359.D	05/31/16	11:06	03:22	(unrelated sample)
ZZZZZZ	P42360.D	05/31/16	11:32	03:48	(unrelated sample)
FA34230-3	P42361.D	05/31/16	11:57	04:13	(used for QC only; not part of job FA34216)
ZZZZZZ	P42362.D	05/31/16	12:23	04:39	(unrelated sample)
ZZZZZZ	P42363.D	05/31/16	12:49	05:05	(unrelated sample)
ZZZZZZ	P42364.D	05/31/16	13:15	05:31	(unrelated sample)
ZZZZZZ	P42365.D	05/31/16	13:41	05:57	(unrelated sample)
ZZZZZZ	P42366.D	05/31/16	14:07	06:23	(unrelated sample)
ZZZZZZ	P42367.D	05/31/16	14:33	06:49	(unrelated sample)
ZZZZZZ	P42368.D	05/31/16	14:59	07:15	(unrelated sample)
ZZZZZZ	P42369.D	05/31/16	15:25	07:41	(unrelated sample)
ZZZZZZ	P42370.D	05/31/16	15:51	08:07	(unrelated sample)
ZZZZZZ	P42371.D	05/31/16	16:16	08:32	(unrelated sample)
ZZZZZZ	P42372.D	05/31/16	16:42	08:58	(unrelated sample)
ZZZZZZ	P42373.D	05/31/16	17:08	09:24	(unrelated sample)
ZZZZZZ	P42374.D	05/31/16	17:33	09:49	(unrelated sample)
ZZZZZZ	P42375.D	05/31/16	17:59	10:15	(unrelated sample)
ZZZZZZ	P42376.D	05/31/16	18:24	10:40	(unrelated sample)
ZZZZZZ	P42377.D	05/31/16	18:50	11:06	(unrelated sample)
FA34230-3MS	P42378.D	05/31/16	19:15	11:31	Matrix Spike

Instrument Performance Check (BFB)

Job Number: FA34216
Account: URSNCM AECOM, INC.
Project: Gaston Refuse Disposal; Gaston, Northhampton County, NC

Sample: VP1576-BFB
Lab File ID: P42352.D
Instrument ID: GCMSP
Injection Date: 05/31/16
Injection Time: 07:44

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
FA34230-3MSD	P42379.D	05/31/16	19:41	11:57	Matrix Spike Duplicate
VP1576-ECC1569	P42380.D	05/31/16	20:06	12:22	Ending cal 5

Instrument Performance Check (BFB)

Job Number: FA34216
Account: URSNCM AECOM, INC.
Project: Gaston Refuse Disposal; Gaston, Northhampton County, NC

Sample: VZ1542-BFB
Lab File ID: Z41008.D
Instrument ID: GCMSZ
Injection Date: 05/23/16
Injection Time: 13:12

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	38547	24.8		Pass
75	30.0 - 60.0% of mass 95	80069	51.5		Pass
95	Base peak, 100% relative abundance	155605	100.0		Pass
96	5.0 - 9.0% of mass 95	10665	6.85		Pass
173	Less than 2.0% of mass 174	1246	0.80	(1.19) [a]	Pass
174	50.0 - 100.0% of mass 95	105064	67.5		Pass
175	5.0 - 9.0% of mass 174	8263	5.31	(7.86) [a]	Pass
176	95.0 - 101.0% of mass 174	101517	65.2	(96.6) [a]	Pass
177	5.0 - 9.0% of mass 176	6685	4.30	(6.59) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VZ1542-IC1542	Z41009.D	05/23/16	13:59	00:47	Initial cal 1
VZ1542-IC1542	Z41010.D	05/23/16	14:27	01:15	Initial cal 2
VZ1542-IC1542	Z41011.D	05/23/16	14:55	01:43	Initial cal 3
VZ1542-ICC1542	Z41012.D	05/23/16	15:23	02:11	Initial cal 4
VZ1542-IC1542	Z41013.D	05/23/16	15:51	02:39	Initial cal 5
VZ1542-IC1542	Z41014.D	05/23/16	16:19	03:07	Initial cal 6
VZ1542-IC1542	Z41015.D	05/23/16	16:47	03:35	Initial cal 7
VZ1542-ICV1542	Z41017.D	05/23/16	17:43	04:31	Initial cal verification 4
VZ1542-BS	Z41018.D	05/23/16	18:11	04:59	Blank Spike
VZ1542-MB	Z41019.D	05/23/16	18:39	05:27	Method Blank
FA34080-1	Z41020.D	05/23/16	19:07	05:55	(used for QC only; not part of job FA34216)
ZZZZZZ	Z41021.D	05/23/16	19:31	06:19	(unrelated sample)
ZZZZZZ	Z41022.D	05/23/16	19:56	06:44	(unrelated sample)
ZZZZZZ	Z41023.D	05/23/16	20:20	07:08	(unrelated sample)
ZZZZZZ	Z41025.D	05/23/16	21:09	07:57	(unrelated sample)
ZZZZZZ	Z41026.D	05/23/16	21:34	08:22	(unrelated sample)
ZZZZZZ	Z41028.D	05/23/16	22:23	09:11	(unrelated sample)
ZZZZZZ	Z41029.D	05/23/16	22:48	09:36	(unrelated sample)
ZZZZZZ	Z41030.D	05/23/16	23:13	10:01	(unrelated sample)
ZZZZZZ	Z41031.D	05/23/16	23:37	10:25	(unrelated sample)
ZZZZZZ	Z41032.D	05/24/16	00:02	10:50	(unrelated sample)
ZZZZZZ	Z41033.D	05/24/16	00:26	11:14	(unrelated sample)
ZZZZZZ	Z41034.D	05/24/16	00:50	11:38	(unrelated sample)
FA34080-1MS	Z41035.D	05/24/16	01:15	12:03	Matrix Spike

Instrument Performance Check (BFB)

Job Number: FA34216
Account: URSNCM AECOM, INC.
Project: Gaston Refuse Disposal; Gaston, Northhampton County, NC

Sample: VZ1542-BFB
Lab File ID: Z41008.D
Instrument ID: GCMSZ
Injection Date: 05/23/16
Injection Time: 13:12

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
FA34080-1MSD	Z41036.D	05/24/16	01:40	12:28	Matrix Spike Duplicate
VZ1542-ECC1542	Z41037.D	05/24/16	02:04	12:52	Ending cal 4

Instrument Performance Check (BFB)

Job Number: FA34216
Account: URSNCM AECOM, INC.
Project: Gaston Refuse Disposal; Gaston, Northhampton County, NC

Sample: VZ1545-BFB
Lab File ID: Z41100.D
Instrument ID: GCMSZ
Injection Date: 05/26/16
Injection Time: 08:08

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	39160	27.5		Pass
75	30.0 - 60.0% of mass 95	81435	57.2		Pass
95	Base peak, 100% relative abundance	142357	100.0		Pass
96	5.0 - 9.0% of mass 95	10246	7.20		Pass
173	Less than 2.0% of mass 174	1527	1.07	(1.65) [a]	Pass
174	50.0 - 100.0% of mass 95	92603	65.0		Pass
175	5.0 - 9.0% of mass 174	7502	5.27	(8.10) [a]	Pass
176	95.0 - 101.0% of mass 174	91267	64.1	(98.6) [a]	Pass
177	5.0 - 9.0% of mass 176	5961	4.19	(6.53) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VZ1545-CC1542	Z41101.D	05/26/16	08:35	00:27	Continuing cal 4
VZ1545-BS	Z41102.D	05/26/16	09:04	00:56	Blank Spike
VZ1545-MB	Z41103.D	05/26/16	09:32	01:24	Method Blank
ZZZZZZ	Z41104.D	05/26/16	10:00	01:52	(unrelated sample)
FA34216-1	Z41105.D	05/26/16	10:25	02:17	TRIP BLANK-GASTON & BUNN
ZZZZZZ	Z41106.D	05/26/16	10:49	02:41	(unrelated sample)
FA34114-1	Z41108.D	05/26/16	11:39	03:31	(used for QC only; not part of job FA34216)
ZZZZZZ	Z41109.D	05/26/16	12:03	03:55	(unrelated sample)
ZZZZZZ	Z41110.D	05/26/16	12:28	04:20	(unrelated sample)
ZZZZZZ	Z41111.D	05/26/16	12:53	04:45	(unrelated sample)
ZZZZZZ	Z41112.D	05/26/16	13:18	05:10	(unrelated sample)
ZZZZZZ	Z41113.D	05/26/16	13:42	05:34	(unrelated sample)
ZZZZZZ	Z41114.D	05/26/16	14:07	05:59	(unrelated sample)
ZZZZZZ	Z41115.D	05/26/16	14:32	06:24	(unrelated sample)
ZZZZZZ	Z41116.D	05/26/16	14:56	06:48	(unrelated sample)
ZZZZZZ	Z41117.D	05/26/16	15:21	07:13	(unrelated sample)
FA34114-1MS	Z41118.D	05/26/16	15:45	07:37	Matrix Spike
FA34114-1MSD	Z41119.D	05/26/16	16:10	08:02	Matrix Spike Duplicate
VZ1545-ECC1542	Z41120.D	05/26/16	16:34	08:26	Ending cal 4

Volatile Internal Standard Area Summary

Job Number: FA34216
Account: URSNCM AECOM, INC.
Project: Gaston Refuse Disposal; Gaston, Northhampton County, NC

Check Std:	VP1576-CC1569	**Injection Date:**	05/31/16
Lab File ID:	P42353.D	**Injection Time:**	08:04
Instrument ID:	GCMSP	**Method:**	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
Initial Cal [a]	913098	7.15	741299	10.24	414283	12.60	92497	4.80
Check Std [b]	795214	7.14	678372	10.23	385200	12.59	93159	4.80
Upper Limit [c]	1590428	7.64	1356744	10.73	770400	13.09	186318	5.30
Lower Limit [d]	397607	6.64	339186	9.73	192600	12.09	46580	4.30

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
VP1576-BS	777081	7.14	649553	10.24	364242	12.59	90097	4.80
VP1576-MB	754880	7.14	625675	10.24	322088	12.60	87544	4.79
FA34216-1	734646	7.14	600475	10.23	314266	12.59	65873	4.79
ZZZZZZ	695104	7.14	584286	10.24	304700	12.59	72266	4.78
ZZZZZZ	694787	7.14	583455	10.23	306020	12.59	72632	4.80
FA34230-3	672458	7.14	557584	10.23	292770	12.59	71625	4.79
ZZZZZZ	672062	7.14	558632	10.23	286514	12.59	69563	4.80
ZZZZZZ	669610	7.14	558421	10.24	284888	12.60	69462	4.79
ZZZZZZ	650836	7.14	542926	10.23	283492	12.59	70252	4.79
ZZZZZZ	657580	7.14	540156	10.23	278650	12.59	72366	4.79
ZZZZZZ	652114	7.14	541152	10.23	273038	12.59	74878	4.79
ZZZZZZ	640737	7.14	532459	10.23	277613	12.59	73335	4.80
ZZZZZZ	643233	7.14	536554	10.23	279239	12.59	76575	4.79
ZZZZZZ	647879	7.14	543112	10.23	281595	12.59	77894	4.79
ZZZZZZ	643707	7.14	535620	10.24	278521	12.59	76550	4.79
ZZZZZZ	653155	7.14	542597	10.23	274988	12.59	75158	4.79
ZZZZZZ	633231	7.14	524312	10.23	274641	12.59	76541	4.78
ZZZZZZ	649307	7.14	543776	10.23	274359	12.59	72556	4.78
ZZZZZZ	631211	7.14	530889	10.23	272591	12.59	74785	4.79
ZZZZZZ	636617	7.14	525850	10.23	268140	12.59	71826	4.80
ZZZZZZ	627914	7.14	515799	10.24	268889	12.59	73390	4.79
ZZZZZZ	633313	7.14	516896	10.23	269022	12.59	70413	4.79
FA34230-3MS	645856	7.14	546326	10.23	296595	12.59	76746	4.79
FA34230-3MSD	675563	7.14	571617	10.23	300625	12.59	75953	4.80
VP1576-ECC1569	672358	7.14	572942	10.23	310122	12.59	75354	4.79

IS 1 = Fluorobenzene
IS 2 = Chlorobenzene-D5
IS 3 = 1,4-Dichlorobenzene-d4
IS 4 = Tert Butyl Alcohol-D10

(a) Initial Cal is: VP1569-ICC1569 P42205.D 05/24/16 12:42
(b) Check Std Limit = -50 to + 100% of initial cal area.

Volatile Internal Standard Area Summary

Job Number: FA34216
Account: URSNCM AECOM, INC.
Project: Gaston Refuse Disposal; Gaston, Northhampton County, NC

Check Std:	VP1576-CC1569	**Injection Date:**	05/31/16
Lab File ID:	P42353.D	**Injection Time:**	08:04
Instrument ID:	GCMSP	**Method:**	SW846 8260B

Lab	IS 1		IS 2		IS 3		IS 4	
Sample ID	**AREA**	**RT**	**AREA**	**RT**	**AREA**	**RT**	**AREA**	**RT**

(c) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(d) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Internal Standard Area Summary

Job Number: FA34216
Account: URSNCM AECOM, INC.
Project: Gaston Refuse Disposal; Gaston, Northhampton County, NC

Check Std:	VZ1545-CC1542	**Injection Date:**	05/26/16
Lab File ID:	Z41101.D	**Injection Time:**	08:35
Instrument ID:	GCMSZ	**Method:**	SW846 8260B BY SIM

	IS 1 AREA	RT	IS 2 AREA	RT
Initial Cal [a]	693295	3.68	46465	4.26
Check Std [b]	538211	3.68	40149	4.26
Upper Limit [c]	1076422	4.18	80298	4.76
Lower Limit [d]	269106	3.18	20075	3.76

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT
VZ1545-BS	574493	3.69	40203	4.26
VZ1545-MB	559085	3.68	37709	4.27
ZZZZZZ	515464	3.68	36846	4.26
FA34216-1	523861	3.68	36252	4.26
ZZZZZZ	590653	3.68	66579	4.26
FA34114-1	534216	3.68	36072	4.26
ZZZZZZ	520743	3.68	34759	4.26
ZZZZZZ	493985	3.68	31944	4.26
ZZZZZZ	497059	3.68	33429	4.26
ZZZZZZ	492809	3.68	33503	4.26
ZZZZZZ	491316	3.68	32667	4.26
ZZZZZZ	488332	3.68	32495	4.26
ZZZZZZ	465887	3.68	31912	4.26
ZZZZZZ	468880	3.68	32039	4.26
ZZZZZZ	477040	3.68	33641	4.26
FA34114-1MS	489066	3.67	34328	4.26
FA34114-1MSD	483216	3.68	35332	4.26
VZ1545-ECC1542	478551	3.68	34381	4.26

IS 1 = Fluorobenzene
IS 2 = 1,4-Dioxane-d8

(a) Initial Cal is: VZ1542-ICC1542 Z41012.D 05/23/16 15:23
(b) Check Std Limit = -50 to + 100% of initial cal area.
(c) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(d) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Surrogate Recovery Summary

Job Number: FA34216
Account: URSNCM AECOM, INC.
Project: Gaston Refuse Disposal; Gaston, Northhampton County, NC

Method: SW846 8260B BY SIM **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2
FA34216-1	Z41105.D	115	101
FA34114-1MS	Z41118.D	119	101
FA34114-1MSD	Z41119.D	119	101
VZ1545-BS	Z41102.D	109	99
VZ1545-MB	Z41103.D	113	100

Surrogate Compounds	Recovery Limits
S1 = 1,2-Dichloroethane-D4	74-125%
S2 = Toluene-D8	88-111%

Volatile Surrogate Recovery Summary

Job Number: FA34216
Account: URSNCM AECOM, INC.
Project: Gaston Refuse Disposal; Gaston, Northhampton County, NC

Method: SW846 8260B **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
FA34216-1	P42357.D	98	100	101	105
FA34230-3MS	P42378.D	99	106	99	103
FA34230-3MSD	P42379.D	99	105	99	104
VP1576-BS	P42355.D	99	102	99	102
VP1576-MB	P42356.D	99	101	101	106

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	83-118%
S2 = 1,2-Dichloroethane-D4	79-125%
S3 = Toluene-D8	85-112%
S4 = 4-Bromofluorobenzene	83-118%

Initial Calibration Summary

Job Number: FA34216 **Sample:** VP1569-ICC1569
Account: URSNCM AECOM, INC. **Lab FileID:** P42205.D
Project: Gaston Refuse Disposal; Gaston, Northhampton County, NC

Response Factor Report MSVOA13

Method : C:\msdchem\1\METHODS\8260P052416.M (RTE Integrator)
Title : SW-846 Method 5030B/8260B & EPA 624
Last Update : Wed May 25 08:52:03 2016
Response via : Initial Calibration

Calibration Files
1 =P42201.D 2 =P42202.D 3 =P42203.D 4 =P42204.D
5 =P42205.D 6 =P42206.D 7 =P42207.D

Compound	1	2	3	4	5	6	7	Avg	%RSD
1) I Fluorobenzene	----------ISTD----------								
2) Dichlorodifluorom	0.319	0.359	0.314	0.345	0.334	0.337	0.332	0.334	4.51
3)P Chloromethane	0.527	0.432	0.418	0.429	0.407	0.403	0.394	0.430	10.46
4)C Vinyl Chloride	0.448	0.412	0.382	0.398	0.379	0.376	0.362	0.394	7.33
5) Bromomethane	0.315	0.270	0.276	0.286	0.270	0.266	0.263	0.278	6.54
6) Chloroethane	0.275	0.246	0.241	0.260	0.252	0.241	0.214	0.247	7.57
7) Trichlorofluorome	0.505	0.496	0.431	0.476	0.478	0.476	0.465	0.475	5.00
8) Ethyl Ether	0.307	0.347	0.303	0.311	0.323	0.313	0.313	0.317	4.62
9) 1,2-Dichlorotrifl	0.267	0.334	0.295	0.337	0.320	0.326	0.332	0.316	8.11
10)C 1,1-Dichloroethen	0.326	0.398	0.373	0.424	0.406	0.405	0.422	0.394	8.69
11) Freon 113	0.220	0.288	0.235	0.282	0.282	0.264	0.274	0.263	9.91
12) Carbon Disulfide	0.750	0.904	0.807	0.879	0.878	0.840	0.857	0.845	6.18
13) Iodomethane	0.414	0.546	0.488	0.510	0.524	0.498	0.520	0.500	8.47
14) Methylene Chlorid	0.576	0.484	0.403	0.392	0.399	0.375	0.383	0.430	17.14
---- Linear regr., Force(0,0) ---- Coefficient = 0.9995									
Response Ratio = 0.00000 + 0.38301 *A									
15) Acetone	0.067	0.028	0.029	0.026	0.025	0.025	0.025	0.032	48.06
---- Linear regr., Force(0,0) ---- Coefficient = 0.9997									
Response Ratio = 0.00000 + 0.02507 *A									
16) Methyl acetate	0.032	0.048	0.042	0.043	0.046	0.045	0.046	0.043	12.05
17) trans-1,2-Dichlor	0.308	0.386	0.346	0.363	0.369	0.357	0.369	0.357	6.96
---- Linear regr., Force(0,0) ---- Coefficient = 0.9995									
Response Ratio = 0.00000 + 0.36509 *A									
18) Hexane	0.248	0.289	0.258	0.288	0.289	0.281	0.285	0.277	6.10
19) Methyl Tert Butyl	0.785	0.854	0.806	0.835	0.861	0.820	0.848	0.830	3.33
20) Di-isopropyl ethe	0.889	1.126	1.024	1.086	1.100	1.061	1.075	1.052	7.46
21)P 1,1-Dichloroethan	0.419	0.494	0.450	0.478	0.484	0.473	0.483	0.469	5.47
22) Acrylonitrile	0.125	0.106	0.099	0.103	0.102	0.104	0.105	0.106	8.15
23) ETBE	0.773	1.028	0.955	0.997	1.038	1.023	1.045	0.980	9.84
24) Vinyl acetate	0.870	0.777	0.728	0.788	0.767	0.780	0.765	0.782	5.53
25) cis-1,2-Dichloroe	0.291	0.340	0.318	0.325	0.337	0.330	0.330	0.325	5.05
26) 2,2-Dichloropropa	0.356	0.435	0.380	0.395	0.396	0.379	0.384	0.389	6.20
27) Bromochloromethan	0.151	0.188	0.176	0.182	0.191	0.181	0.189	0.180	7.58
28) Cyclohexane	0.383	0.543	0.456	0.530	0.545	0.526	0.540	0.503	12.18
29)C Chloroform	0.419	0.540	0.489	0.514	0.532	0.515	0.529	0.506	8.21
30) Tetrahydrofuran	0.137	0.093	0.091	0.081	0.083	0.083	0.084	0.093	21.42
---- Linear regr., Force(0,0) ---- Coefficient = 0.9998									
Response Ratio = 0.00000 + 0.08335 *A									
31)S Dibromofluorometh	0.251	0.256	0.255	0.251	0.261	0.262	0.264	0.257	2.10
32) Carbon Tetrachlor	0.338	0.479	0.383	0.409	0.428	0.403	0.421	0.409	10.58
33) 1,1,1-Trichloroet	0.379	0.465	0.419	0.454	0.459	0.442	0.452	0.438	6.91
34) 2-Butanone	0.168	0.119	0.135	0.131	0.132	0.128	0.130	0.135	11.51

Initial Calibration Summary

Job Number: FA34216 **Sample:** VP1569-ICC1569
Account: URSNCM AECOM, INC. **Lab FileID:** P42205.D
Project: Gaston Refuse Disposal; Gaston, Northhampton County, NC

35)	1,1-Dichloroprope	0.307	0.390	0.348	0.382	0.379	0.371	0.378	0.365	7.86
36)	Benzene	0.977	1.234	1.125	1.162	1.160	1.128	1.154	1.134	6.88
37)	TAME	0.815	0.906	0.826	0.853	0.881	0.853	0.884	0.860	3.81
38)S	1,2-Dichloroethan	0.269	0.271	0.275	0.277	0.268	0.274	0.276	0.273	1.36
39)	1,2-Dichloroethan	0.351	0.392	0.359	0.371	0.380	0.372	0.377	0.372	3.68
40)	Trichloroethene	0.249	0.326	0.283	0.304	0.306	0.295	0.303	0.295	8.18
41)	Methylcyclohexane	0.412	0.558	0.473	0.536	0.549	0.533	0.554	0.517	10.47
42)	Dibromomethane	0.135	0.188	0.173	0.172	0.182	0.178	0.183	0.173	10.29
43)C	1,2-Dichloropropa	0.246	0.309	0.281	0.293	0.305	0.294	0.301	0.290	7.38
44)	Bromodichlorometh	0.308	0.396	0.362	0.382	0.393	0.386	0.401	0.376	8.59
45)	2-Chloroethyl vin	0.135	0.175	0.175	0.185	0.184	0.192	0.197	0.177	11.43
46)	cis-1,3-Dichlorop	0.398	0.488	0.439	0.466	0.480	0.469	0.481	0.460	6.88
47) I	Chlorobenzene-d5	----------ISTD----------								
48)S	Toluene-d8	1.334	1.325	1.315	1.318	1.304	1.269	1.254	1.303	2.30
49)C	Toluene	1.725	1.813	1.622	1.684	1.691	1.614	1.607	1.679	4.41
50)	2-Nitropropane	0.080	0.102	0.091	0.099	0.103	0.098	0.098	0.096	8.14
51)	4-Methyl-2-pentan	0.382	0.313	0.367	0.368	0.374	0.361	0.352	0.360	6.30
52)	trans-1,3-Dichlor	0.424	0.536	0.483	0.503	0.530	0.513	0.524	0.502	7.73
	---- Linear regr., Force(0,0) ---- Coefficient = 0.9997									
	Response Ratio = 0.00000 + 0.52027 *A									
53)	Tetrachloroethene	0.373	0.469	0.404	0.438	0.445	0.433	0.443	0.429	7.26
54)	1,1,2-Trichloroet	0.221	0.281	0.258	0.273	0.280	0.266	0.268	0.264	7.80
55)	Dibromochlorometh	0.305	0.415	0.374	0.411	0.422	0.411	0.421	0.394	10.78
56)	1,3-Dichloropropa	0.476	0.583	0.533	0.558	0.569	0.544	0.549	0.544	6.28
57)	1,2-Dibromoethane	0.239	0.344	0.329	0.334	0.346	0.334	0.339	0.324	11.72
58)	2-hexanone	0.257	0.211	0.247	0.252	0.254	0.250	0.247	0.245	6.30
59)	1-Chlorohexane	0.481	0.588	0.488	0.546	0.538	0.525	0.525	0.527	6.84
60)C	Ethylbenzene	1.554	1.922	1.732	1.850	1.880	1.817	1.806	1.795	6.79
61)P	Chlorobenzene	1.112	1.223	1.093	1.154	1.171	1.123	1.138	1.145	3.77
62)	1,1,1,2-Tetrachlo	0.355	0.413	0.383	0.402	0.408	0.399	0.409	0.396	5.14
63)	m,p-Xylene	1.126	1.453	1.307	1.414	1.425	1.364	1.337	1.347	8.17
64)	o-Xylene	1.157	1.453	1.345	1.408	1.419	1.358	1.378	1.360	7.12
65)	Styrene	0.895	1.131	1.058	1.166	1.196	1.181	1.207	1.119	9.92
66)P	Bromoform	0.217	0.272	0.246	0.268	0.286	0.279	0.294	0.266	9.98
67)	Isopropylbenzene	1.425	1.864	1.667	1.815	1.827	1.765	1.760	1.732	8.63
68) I	1,4-Dichlorobenzene-d	----------ISTD----------								
69)S	4-Bromofluorobenz	0.793	0.785	0.794	0.776	0.777	0.774	0.779	0.782	1.05
70)	n-Propylbenzene	3.200	3.964	3.522	3.723	3.793	3.660	3.637	3.643	6.57
71)	Bromobenzene	0.765	0.960	0.855	0.898	0.919	0.910	0.943	0.893	7.34
72)P	1,1,2,2-Tetrachlo	0.606	0.774	0.680	0.710	0.734	0.703	0.720	0.704	7.41
73)	1,3,5-Trimethylbe	2.267	3.005	2.710	2.863	2.940	2.872	2.886	2.792	8.89
74)	2-Chlorotoluene	1.999	2.534	2.329	2.436	2.511	2.435	2.471	2.388	7.70
75)	trans-1,4-Dichlor	0.138	0.211	0.185	0.204	0.216	0.212	0.210	0.197	14.03
76)	1,2,3-Trichloropr	0.215	0.246	0.218	0.221	0.230	0.225	0.229	0.226	4.53
77)	Cyclohexanone	0.032	0.021	0.023	0.022	0.022	0.023	0.023	0.024	15.45
	---- Linear regr., Force(0,0) ---- Coefficient = 0.9994									
	Response Ratio = 0.00000 + 0.02297 *A									
78)	4-Chlorotoluene	1.907	2.391	2.187	2.282	2.322	2.238	2.254	2.226	6.96
79)	tert-Butylbenzene	1.175	1.516	1.374	1.467	1.489	1.455	1.468	1.420	8.22
80)	1,2,4-Trimethylbe	2.396	2.970	2.660	2.796	2.874	2.810	2.814	2.760	6.72
81)	sec-Butylbenzene	2.837	3.773	3.335	3.592	3.662	3.530	3.485	3.459	8.88
82)	4-Isopropyltoluen	3.672	3.539	3.083	3.269	3.325	3.233	3.221	3.335	6.08
83)	1,3-Dichlorobenze	1.329	1.792	1.624	1.671	1.733	1.681	1.721	1.650	9.17
84)	1,4-Dichlorobenze	1.556	1.881	1.685	1.749	1.778	1.731	1.782	1.737	5.75
85)	n-Butylbenzene	1.328	1.727	1.544	1.669	1.715	1.687	1.692	1.623	8.85
86)	Benzyl Chloride	0.300	0.403	0.363	0.371	0.405	0.398	0.406	0.378	10.22

Initial Calibration Summary

Job Number: FA34216 **Sample:** VP1569-ICC1569
Account: URSNCM AECOM, INC. **Lab FileID:** P42205.D
Project: Gaston Refuse Disposal; Gaston, Northhampton County, NC

```
87)  1,2-Dichlorobenze 1.328 1.700 1.538 1.587 1.637 1.606 1.637 1.576   7.63
88)  1,2-Dibromo-3-Chl 0.204 0.153 0.124 0.107 0.114 0.108 0.110 0.131  27.30
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9992
              Response Ratio = 0.00000 + 0.10989 *A

89)  Hexachlorobutadie 0.515 0.566 0.517 0.546 0.553 0.553 0.568 0.545   3.98
90)  1,2,4-Trichlorobe 1.040 1.202 1.092 1.130 1.168 1.151 1.193 1.139   5.07
91)  Naphthalene       1.813 2.152 1.973 1.976 2.047 2.016 2.060 2.005   5.20
92)  1,2,3-Trichlorobe 0.898 1.005 0.891 0.909 0.959 0.938 0.973 0.939   4.51

93) I   Tert Butyl Alcohol-d1 ----------------ISTD---------------------
94)  acrolein          2.134 2.049 2.117 2.077 2.161 2.125 2.026 2.098   2.32
95)  Tert Butyl Alcoho 1.286 1.535 1.345 1.286 1.331 1.208 1.259 1.321   7.91
96)  tert Amyl alcohol 0.987 1.328 1.119 1.113 1.193 1.094 1.119 1.136   9.19
97)  1,4-Dioxane       0.091 0.161 0.150 0.145 0.155 0.147 0.147 0.142  16.29
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9994
              Response Ratio = 0.00000 + 0.14779 *A

--------------------------------------------------------------------------
(#) = Out of Range

          8260P052416.M        Wed May 25 10:35:41 2016
```

6.7.1

6

Initial Calibration Verification

Job Number: FA34216 **Sample:** VP1569-ICV1569
Account: URSNCM AECOM, INC. **Lab FileID:** P42210.D
Project: Gaston Refuse Disposal; Gaston, Northhampton County, NC

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\052416\P42210.D            Vial: 10
Acq On    : 24 May 2016   2:59 pm                     Operator: katiem
Sample    : ICV1569-5                                 Inst    : MSVOA13
Misc      : MS33957,VP1569,,,,,                       Multiplr: 1.00
MS Integration Params: tiny.p

Method       : C:\msdchem\1\METHODS\8260P052416.M (RTE Integrator)
Title        : SW-846 Method 5030B/8260B & EPA 624
Last Update  : Wed May 25 08:52:03 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Fluorobenzene	1.000	1.000	0.0	103	0.00	7.14
2		Dichlorodifluoromethane	0.334	0.327	2.1	101	0.00	2.55
3	P	Chloromethane	0.430	0.404	6.0	102	0.00	2.70
4	C	Vinyl Chloride	0.394	0.370	6.1	101	0.00	2.83
5		Bromomethane	0.278	0.270	2.9	103	0.00	3.18
6		Chloroethane	0.247	0.256	-3.6	105	0.00	3.30
7		Trichlorofluoromethane	0.475	0.471	0.8	102	0.00	3.52
8		Ethyl Ether	0.317	0.323	-1.9	103	0.00	3.73
9		1,2-Dichlorotrifluoroetha	0.316	0.376	-19.0	121	-0.01	3.94
10	C	1,1-Dichloroethene	0.394	0.458	-16.2	116	0.00	3.98
11		Freon 113	0.263	0.260	1.1	95	0.00	4.05
12		Carbon Disulfide	0.845	0.866	-2.5	102	0.00	4.05
13		Iodomethane	0.500	0.521	-4.2	102	0.00	4.15
		----------	Amount	Calc.	%Drift		----------	
14		Methylene Chloride	40.000	44.044	-10.1	109	0.00	4.56
15		Acetone	200.000	186.661	6.7	97	0.00	4.58
		----------	AvgRF	CCRF	%Dev		----------	
16		Methyl acetate	0.043	0.047	-9.3	106	0.00	4.69
		----------	Amount	Calc.	%Drift		----------	
17		trans-1,2-Dichloroethene	40.000	47.909	-19.8	122	0.00	4.72
		----------	AvgRF	CCRF	%Dev		----------	
18		Hexane	0.277	0.299	-7.9	106	0.00	4.78
19		Methyl Tert Butyl Ether	0.830	0.846	-1.9	101	0.00	4.82
20		Di-isopropyl ether	1.052	1.087	-3.3	102	0.00	5.18
21	P	1,1-Dichloroethane	0.469	0.539	-14.9	115	0.00	5.33
22		Acrylonitrile	0.106	0.101	4.7	102	0.00	5.36
23		ETBE	0.980	1.002	-2.2	100	0.00	5.55
24		Vinyl acetate	0.782	0.644	17.6	87	0.00	5.54
25		cis-1,2-Dichloroethene	0.325	0.352	-8.3	108	0.00	5.88
26		2,2-Dichloropropane	0.389	0.450	-15.7	117	0.00	6.01
27		Bromochloromethane	0.180	0.182	-1.1	98	0.00	6.09
28		Cyclohexane	0.503	0.529	-5.2	100	0.00	6.13
29	C	Chloroform	0.506	0.562	-11.1	109	0.00	6.14
		----------	Amount	Calc.	%Drift		----------	
30		Tetrahydrofuran	40.000	41.308	-3.3	107	0.00	6.31
		----------	AvgRF	CCRF	%Dev		----------	

Initial Calibration Verification

Job Number: FA34216 **Sample:** VP1569-ICV1569
Account: URSNCM AECOM, INC. **Lab FileID:** P42210.D
Project: Gaston Refuse Disposal; Gaston, Northhampton County, NC

31	S	Dibromofluoromethane	0.257	0.261	-1.6	103	0.00	6.33
32		Carbon Tetrachloride	0.409	0.450	-10.0	109	0.00	6.33
33		1,1,1-Trichloroethane	0.438	0.467	-6.6	105	0.00	6.39
34		2-Butanone	0.135	0.127	5.9	99	0.00	6.42
35		1,1-Dichloropropene	0.365	0.397	-8.8	108	0.00	6.50
36		Benzene	1.134	1.242	-9.5	110	0.00	6.75
37		TAME	0.860	0.842	2.1	98	0.00	6.84
38	S	1,2-Dichloroethane-d4	0.273	0.269	1.5	103	0.00	6.87
39		1,2-Dichloroethane	0.372	0.411	-10.5	111	0.00	6.93
40		Trichloroethene	0.295	0.335	-13.6	113	0.00	7.32
41		Methylcyclohexane	0.517	0.559	-8.1	105	0.00	7.34
42		Dibromomethane	0.173	0.198	-14.5	112	0.00	7.74
43	C	1,2-Dichloropropane	0.290	0.320	-10.3	108	0.00	7.83
44		Bromodichloromethane	0.376	0.430	-14.4	113	0.00	7.88
45		2-Chloroethyl vinyl ether	0.177	0.209	-18.1	117	0.00	8.41
46		cis-1,3-Dichloropropene	0.460	0.524	-13.9	112	0.00	8.50
47	I	Chlorobenzene-d5	1.000	1.000	0.0	103	0.00	10.24
48	S	Toluene-d8	1.303	1.292	0.8	103	0.00	8.69
49	C	Toluene	1.679	1.789	-6.6	109	0.00	8.74
50		2-Nitropropane	0.096	0.102	-6.2	102	0.00	8.94
51		4-Methyl-2-pentanone	0.360	0.348	3.3	96	0.00	9.07
		----------	Amount	Calc.	%Drift		----------	
52		trans-1,3-Dichloropropene	40.000	47.152	-17.9	120	0.00	9.14
		----------	AvgRF	CCRF	%Dev		----------	
53		Tetrachloroethene	0.429	0.489	-14.0	114	0.00	9.14
54		1,1,2-Trichloroethane	0.264	0.291	-10.2	107	0.00	9.29
55		Dibromochloromethane	0.394	0.454	-15.2	111	0.00	9.49
56		1,3-Dichloropropane	0.544	0.584	-7.4	106	0.00	9.57
57		1,2-Dibromoethane	0.324	0.375	-15.7	112	0.00	9.74
58		2-hexanone	0.245	0.233	4.9	95	0.00	9.90
59		1-Chlorohexane	0.527	0.551	-4.6	106	0.00	10.20
60	C	Ethylbenzene	1.795	1.980	-10.3	109	0.00	10.26
61	P	Chlorobenzene	1.145	1.253	-9.4	111	0.00	10.25
62		1,1,1,2-Tetrachloroethane	0.396	0.450	-13.6	114	0.00	10.31
63		m,p-Xylene	1.347	1.517	-12.6	110	0.00	10.40
64		o-Xylene	1.360	1.500	-10.3	109	0.00	10.84
65		Styrene	1.119	1.264	-13.0	109	0.00	10.89
66	P	Bromoform	0.266	0.310	-16.5	112	0.00	10.94
67		Isopropylbenzene	1.732	1.976	-14.1	112	0.00	11.15
68	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	103	0.00	12.60
69	S	4-Bromofluorobenzene	0.782	0.780	0.3	103	0.00	11.45
70		n-Propylbenzene	3.643	4.136	-13.5	112	0.00	11.57
71		Bromobenzene	0.893	0.994	-11.3	111	0.00	11.57
72	P	1,1,2,2-Tetrachloroethane	0.704	0.763	-8.4	107	0.00	11.63
73		1,3,5-Trimethylbenzene	2.792	3.098	-11.0	108	0.00	11.76
74		2-Chlorotoluene	2.388	2.714	-13.7	111	0.00	11.74
75		trans-1,4-Dichloro-2-Bute	0.197	0.217	-10.2	103	0.00	11.80
76		1,2,3-Trichloropropane	0.226	0.247	-9.3	110	0.00	11.78
		----------	Amount	Calc.	%Drift		----------	
77		Cyclohexanone	200.000	192.789	3.6	104	0.00	11.83
		----------	AvgRF	CCRF	%Dev		----------	
78		4-Chlorotoluene	2.226	2.503	-12.4	111	0.00	11.91
79		tert-Butylbenzene	1.420	1.597	-12.5	110	0.00	12.09
80		1,2,4-Trimethylbenzene	2.760	3.119	-13.0	111	0.00	12.16

Initial Calibration Verification

Job Number: FA34216 **Sample:** VP1569-ICV1569
Account: URSNCM AECOM, INC. **Lab FileID:** P42210.D
Project: Gaston Refuse Disposal; Gaston, Northhampton County, NC

81	sec-Butylbenzene	3.459	4.003	-15.7	112	0.00	12.27
82	4-Isopropyltoluene	3.335	3.616	-8.4	112	0.00	12.41
83	1,3-Dichlorobenzene	1.650	1.905	-15.5	113	0.00	12.52
84	1,4-Dichlorobenzene	1.737	1.940	-11.7	112	0.00	12.61
85	n-Butylbenzene	1.623	1.830	-12.8	109	0.00	12.85
86	Benzyl Chloride	0.378	0.448	-18.5	114	0.00	12.85
87	1,2-Dichlorobenzene	1.576	1.751	-11.1	110	0.00	13.05
	----------	Amount	Calc.	%Drift		----------	
88	1,2-Dibromo-3-Chloropropa	40.000	42.901	-7.3	106	0.00	13.83
	----------	AvgRF	CCRF	%Dev		----------	
89	Hexachlorobutadiene	0.545	0.594	-9.0	110	0.00	14.41
90	1,2,4-Trichlorobenzene	1.139	1.236	-8.5	109	0.00	14.45
91	Naphthalene	2.005	2.381	-18.8	119	0.00	14.73
92	1,2,3-Trichlorobenzene	0.939	1.026	-9.3	110	0.00	14.89
93 I	Tert Butyl Alcohol-d10	1.000	1.000	0.0	107	0.00	4.80
94	acrolein	2.098	2.129	-1.5	106	0.00	4.29
95	Tert Butyl Alcohol	1.321	1.309	0.9	106	0.00	4.87
96	tert Amyl alcohol	1.136	1.218	-7.2	110	0.00	6.98
	----------	Amount	Calc.	%Drift		----------	
97	1,4-Dioxane	800.000	860.306	-7.5	110	0.00	8.06

(#) = Out of Range SPCC's out = 0 CCC's out = 0
P42205.D 8260P052416.M Wed May 25 10:35:11 2016

6.7.2

6

Continuing Calibration Summary

Job Number: FA34216 **Sample:** VP1576-CC1569
Account: URSNCM AECOM, INC. **Lab FileID:** P42353.D
Project: Gaston Refuse Disposal; Gaston, Northhampton County, NC

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\053116\P42353.D            Vial: 1
Acq On    : 31 May 2016   8:04 am                     Operator: katiem
Sample    : CC1569-5                                  Inst    : MSVOA13
Misc      : MS34012,VP1576,,,,,                       Multiplr: 1.00
MS Integration Params: tiny.p

Method       : C:\msdchem\1\METHODS\8260P052416.M (RTE Integrator)
Title        : SW-846 Method 5030B/8260B & EPA 624
Last Update  : Wed May 25 08:52:03 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Fluorobenzene	1.000	1.000	0.0	87	0.00	7.14
2		Dichlorodifluoromethane	0.334	0.312	6.6	81	0.00	2.55
3	P	Chloromethane	0.430	0.439	-2.1	94	0.00	2.71
4	C	Vinyl Chloride	0.394	0.395	-0.3	91	0.01	2.84
5		Bromomethane	0.278	0.283	-1.8	91	0.00	3.18
6		Chloroethane	0.247	0.276	-11.7	95	0.00	3.30
7		Trichlorofluoromethane	0.475	0.498	-4.8	91	0.02	3.53
8		Ethyl Ether	0.317	0.320	-0.9	86	0.00	3.73
9		1,2-Dichlorotrifluoroetha	0.316	0.332	-5.1	90	0.00	3.95
10	C	1,1-Dichloroethene	0.394	0.393	0.3	84	0.00	3.98
11		Freon 113	0.263	0.243	7.6	75	0.00	4.04
12		Carbon Disulfide	0.845	0.782	7.5	78	0.00	4.05
13		Iodomethane	0.500	0.459	8.2	76	0.00	4.15
		----------	Amount	Calc.	%Drift		----------	
14		Methylene Chloride	40.000	40.272	-0.7	84	0.00	4.55
15		Acetone	200.000	227.233	-13.6	100	0.00	4.57
		----------	AvgRF	CCRF	%Dev		----------	
16		Methyl acetate	0.043	0.044	-2.3	84	0.00	4.69
		----------	Amount	Calc.	%Drift		----------	
17		trans-1,2-Dichloroethene	40.000	38.688	3.3	83	0.00	4.72
		----------	AvgRF	CCRF	%Dev		----------	
18		Hexane	0.277	0.267	3.6	80	0.00	4.78
19		Methyl Tert Butyl Ether	0.830	0.810	2.4	82	0.00	4.82
20		Di-isopropyl ether	1.052	1.100	-4.6	87	0.00	5.17
21	P	1,1-Dichloroethane	0.469	0.465	0.9	84	0.00	5.33
22		Acrylonitrile	0.106	0.118	-11.3	101	0.00	5.36
23		ETBE	0.980	1.014	-3.5	85	0.00	5.55
24		Vinyl acetate	0.782	0.892	-14.1	101	0.00	5.53
25		cis-1,2-Dichloroethene	0.325	0.311	4.3	81	0.00	5.88
26		2,2-Dichloropropane	0.389	0.391	-0.5	86	0.00	6.01
27		Bromochloromethane	0.180	0.172	4.4	79	0.00	6.09
28		Cyclohexane	0.503	0.505	-0.4	81	0.00	6.13
29	C	Chloroform	0.506	0.496	2.0	81	0.00	6.14
		----------	Amount	Calc.	%Drift		----------	
30		Tetrahydrofuran	40.000	40.663	-1.7	89	0.00	6.31
		----------	AvgRF	CCRF	%Dev		----------	

Continuing Calibration Summary

Job Number: FA34216 **Sample:** VP1576-CC1569
Account: URSNCM AECOM, INC. **Lab FileID:** P42353.D
Project: Gaston Refuse Disposal; Gaston, Northhampton County, NC

31	S	Dibromofluoromethane	0.257	0.258	-0.4	86	0.00	6.33
32		Carbon Tetrachloride	0.409	0.384	6.1	78	0.00	6.33
33		1,1,1-Trichloroethane	0.438	0.428	2.3	81	0.00	6.39
34		2-Butanone	0.135	0.157	-16.3	103	0.00	6.41
35		1,1-Dichloropropene	0.365	0.362	0.8	83	0.00	6.49
36		Benzene	1.134	1.112	1.9	83	0.00	6.74
37		TAME	0.860	0.844	1.9	83	0.00	6.83
38	S	1,2-Dichloroethane-d4	0.273	0.284	-4.0	92	0.00	6.86
39		1,2-Dichloroethane	0.372	0.363	2.4	83	0.00	6.93
40		Trichloroethene	0.295	0.285	3.4	81	0.00	7.32
41		Methylcyclohexane	0.517	0.503	2.7	80	0.00	7.34
42		Dibromomethane	0.173	0.170	1.7	81	0.00	7.74
43	C	1,2-Dichloropropane	0.290	0.294	-1.4	84	0.00	7.83
44		Bromodichloromethane	0.376	0.372	1.1	83	0.00	7.88
45		2-Chloroethyl vinyl ether	0.177	0.203	-14.7	96	0.00	8.41
46		cis-1,3-Dichloropropene	0.460	0.464	-0.9	84	0.00	8.50
47	I	Chlorobenzene-d5	1.000	1.000	0.0	92	0.00	10.23
48	S	Toluene-d8	1.303	1.258	3.5	88	0.00	8.69
49	C	Toluene	1.679	1.539	8.3	83	0.00	8.74
50		2-Nitropropane	0.096	0.095	1.0	84	0.00	8.94
51		4-Methyl-2-pentanone	0.360	0.418	-16.1	102	0.00	9.07
		----------	Amount	Calc.	%Drift		----------	
52		trans-1,3-Dichloropropene	40.000	37.290	6.8	84	0.00	9.13
		----------	AvgRF	CCRF	%Dev		----------	
53		Tetrachloroethene	0.429	0.385	10.3	79	0.00	9.14
54		1,1,2-Trichloroethane	0.264	0.254	3.8	83	0.00	9.30
55		Dibromochloromethane	0.394	0.370	6.1	80	0.00	9.49
56		1,3-Dichloropropane	0.544	0.515	5.3	83	0.00	9.57
57		1,2-Dibromoethane	0.324	0.304	6.2	81	0.00	9.74
58		2-hexanone	0.245	0.285	-16.3	103	0.00	9.89
59		1-Chlorohexane	0.527	0.491	6.8	83	0.00	10.20
60	C	Ethylbenzene	1.795	1.721	4.1	84	0.00	10.26
61	P	Chlorobenzene	1.145	1.054	7.9	82	0.00	10.25
62		1,1,1,2-Tetrachloroethane	0.396	0.371	6.3	83	0.00	10.31
63		m,p-Xylene	1.347	1.304	3.2	84	0.00	10.40
64		o-Xylene	1.360	1.289	5.2	83	0.00	10.84
65		Styrene	1.119	1.066	4.7	82	0.00	10.88
66	P	Bromoform	0.266	0.248	6.8	79	0.00	10.93
67		Isopropylbenzene	1.732	1.666	3.8	83	0.00	11.15
68	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	93	0.00	12.59
69	S	4-Bromofluorobenzene	0.782	0.773	1.2	93	0.00	11.44
70		n-Propylbenzene	3.643	3.455	5.2	85	0.00	11.57
71		Bromobenzene	0.893	0.808	9.5	82	0.00	11.57
72	P	1,1,2,2-Tetrachloroethane	0.704	0.649	7.8	82	0.00	11.63
73		1,3,5-Trimethylbenzene	2.792	2.654	4.9	84	0.00	11.75
74		2-Chlorotoluene	2.388	2.235	6.4	83	0.00	11.74
75		trans-1,4-Dichloro-2-Bute	0.197	0.206	-4.6	89	0.00	11.80
76		1,2,3-Trichloropropane	0.226	0.202	10.6	82	0.00	11.78
		----------	Amount	Calc.	%Drift		----------	
77		Cyclohexanone	200.000	192.184	3.9	94	0.00	11.83
		----------	AvgRF	CCRF	%Dev		----------	
78		4-Chlorotoluene	2.226	2.067	7.1	83	0.00	11.91
79		tert-Butylbenzene	1.420	1.343	5.4	84	0.00	12.09
80		1,2,4-Trimethylbenzene	2.760	2.563	7.1	83	0.00	12.16

Continuing Calibration Summary

Job Number: FA34216 **Sample:** VP1576-CC1569
Account: URSNCM AECOM, INC. **Lab FileID:** P42353.D
Project: Gaston Refuse Disposal; Gaston, Northhampton County, NC

81	sec-Butylbenzene	3.459	3.255	5.9	83	0.00	12.27
82	4-Isopropyltoluene	3.335	2.953	11.5	83	0.00	12.41
83	1,3-Dichlorobenzene	1.650	1.497	9.3	80	0.00	12.52
84	1,4-Dichlorobenzene	1.737	1.555	10.5	81	0.00	12.61
85	n-Butylbenzene	1.623	1.537	5.3	83	0.00	12.85
86	Benzyl Chloride	0.378	0.378	0.0	87	0.00	12.85
87	1,2-Dichlorobenzene	1.576	1.425	9.6	81	0.00	13.05
	----------	Amount	Calc.	%Drift	----------		
88	1,2-Dibromo-3-Chloropropa	40.000	33.737	15.7	76	0.00	13.83
	----------	AvgRF	CCRF	%Dev	----------		
89	Hexachlorobutadiene	0.545	0.462	15.2	78	0.00	14.41
90	1,2,4-Trichlorobenzene	1.139	0.984	13.6	78	0.00	14.45
91	Naphthalene	2.005	1.721	14.2	78	0.00	14.73
92	1,2,3-Trichlorobenzene	0.939	0.780	16.9	76	0.00	14.89
93 I	Tert Butyl Alcohol-d10	1.000	1.000	0.0	101	0.00	4.80
94	acrolein	2.098	1.888	10.0	88	0.00	4.30
95	Tert Butyl Alcohol	1.321	1.083	18.0	82	0.00	4.87
96	tert Amyl alcohol	1.136	0.989	12.9	83	0.00	6.98
	----------	Amount	Calc.	%Drift	----------		
97	1,4-Dioxane	800.000	682.273	14.7	82	0.00	8.06

(#) = Out of Range SPCC's out = 0 CCC's out = 0
P42205.D 8260P052416.M Wed Jun 01 10:31:30 2016

6.7.3

6

Continuing Calibration Summary

Job Number: FA34216 **Sample:** VP1576-ECC1569
Account: URSNCM AECOM, INC. **Lab FileID:** P42380.D
Project: Gaston Refuse Disposal; Gaston, Northhampton County, NC

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\053116\P42380.D            Vial: 27
Acq On    : 31 May 2016   8:06 pm                    Operator: katiem
Sample    : ECC1569-5                                Inst    : MSVOA13
Misc      : MS34027,VP1576,,,,,                      Multiplr: 1.00
MS Integration Params: tiny.p

Method       : C:\msdchem\1\METHODS\8260P052416.M (RTE Integrator)
Title        : SW-846 Method 5030B/8260B & EPA 624
Last Update  : Wed May 25 08:52:03 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  50%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Fluorobenzene	1.000	1.000	0.0	74	0.00	7.14
2		Dichlorodifluoromethane	0.334	0.330	1.2	73	0.00	2.54
3	P	Chloromethane	0.430	0.494	-14.9	89	-0.01	2.69
4	C	Vinyl Chloride	0.394	0.432	-9.6	84	0.00	2.83
5		Bromomethane	0.278	0.310	-11.5	85	0.00	3.17
6		Chloroethane	0.247	0.301	-21.9	88	0.00	3.29
7		Trichlorofluoromethane	0.475	0.502	-5.7	77	0.00	3.51
8		Ethyl Ether	0.317	0.328	-3.5	75	0.00	3.73
9		1,2-Dichlorotrifluoroetha	0.316	0.342	-8.2	78	0.00	3.94
10	C	1,1-Dichloroethene	0.394	0.425	-7.9	77	-0.01	3.97
11		Freon 113	0.263	0.244	7.2	64	0.00	4.04
12		Carbon Disulfide	0.845	0.798	5.6	67	-0.01	4.04
13		Iodomethane	0.500	0.451	9.8	63	0.00	4.14
		----------	Amount	Calc.	%Drift		----------	
14		Methylene Chloride	40.000	43.524	-8.8	77	0.00	4.55
15		Acetone	200.000	245.320	-22.7	91	0.00	4.57
		----------	AvgRF	CCRF	%Dev		----------	
16		Methyl acetate	0.043	0.045	-4.7	72	0.00	4.69
		----------	Amount	Calc.	%Drift		----------	
17		trans-1,2-Dichloroethene	40.000	39.835	0.4	73	0.00	4.72
		----------	AvgRF	CCRF	%Dev		----------	
18		Hexane	0.277	0.266	4.0	68	0.00	4.78
19		Methyl Tert Butyl Ether	0.830	0.846	-1.9	72	0.00	4.82
20		Di-isopropyl ether	1.052	1.197	-13.8	80	0.00	5.17
21	P	1,1-Dichloroethane	0.469	0.491	-4.7	75	0.00	5.33
22		Acrylonitrile	0.106	0.113	-6.6	81	0.00	5.36
23		ETBE	0.980	1.065	-8.7	76	0.00	5.54
24		Vinyl acetate	0.782	0.846	-8.2	81	0.00	5.53
25		cis-1,2-Dichloroethene	0.325	0.318	2.2	69	0.00	5.88
26		2,2-Dichloropropane	0.389	0.341	12.3	63	0.00	6.00
27		Bromochloromethane	0.180	0.172	4.4	66	0.00	6.08
28		Cyclohexane	0.503	0.524	-4.2	71	0.00	6.12
29	C	Chloroform	0.506	0.519	-2.6	72	0.00	6.14
		----------	Amount	Calc.	%Drift		----------	
30		Tetrahydrofuran	40.000	44.783	-12.0	83	0.00	6.30
		----------	AvgRF	CCRF	%Dev		----------	

Continuing Calibration Summary

Job Number: FA34216 **Sample:** VP1576-ECC1569
Account: URSNCM AECOM, INC. **Lab FileID:** P42380.D
Project: Gaston Refuse Disposal; Gaston, Northhampton County, NC

31	S	Dibromofluoromethane	0.257	0.257	0.0	72	0.00	6.32
32		Carbon Tetrachloride	0.409	0.380	7.1	65	0.00	6.32
33		1,1,1-Trichloroethane	0.438	0.435	0.7	70	0.00	6.38
34		2-Butanone	0.135	0.167	-23.7	93	0.00	6.41
35		1,1-Dichloropropene	0.365	0.370	-1.4	72	0.00	6.49
36		Benzene	1.134	1.151	-1.5	73	0.00	6.74
37		TAME	0.860	0.874	-1.6	73	0.00	6.83
38	S	1,2-Dichloroethane-d4	0.273	0.286	-4.8	79	0.00	6.86
39		1,2-Dichloroethane	0.372	0.383	-3.0	74	0.00	6.93
40		Trichloroethene	0.295	0.292	1.0	70	0.00	7.31
41		Methylcyclohexane	0.517	0.506	2.1	68	0.00	7.34
42		Dibromomethane	0.173	0.176	-1.7	71	0.00	7.73
43	C	1,2-Dichloropropane	0.290	0.309	-6.6	75	0.00	7.82
44		Bromodichloromethane	0.376	0.383	-1.9	72	0.00	7.88
45		2-Chloroethyl vinyl ether	0.177	0.215	-21.5	86	0.00	8.41
46		cis-1,3-Dichloropropene	0.460	0.464	-0.9	71	0.00	8.49
47	I	Chlorobenzene-d5	1.000	1.000	0.0	77	0.00	10.23
48	S	Toluene-d8	1.303	1.276	2.1	76	0.00	8.69
49	C	Toluene	1.679	1.584	5.7	72	0.00	8.74
50		2-Nitropropane	0.096	0.103	-7.3	78	0.00	8.94
51		4-Methyl-2-pentanone	0.360	0.465	-29.2	96	0.00	9.07
		----------	Amount	Calc.	%Drift	----------		
52		trans-1,3-Dichloropropene	40.000	37.786	5.5	72	0.00	9.13
		----------	AvgRF	CCRF	%Dev	----------		
53		Tetrachloroethene	0.429	0.371	13.5	64	0.00	9.14
54		1,1,2-Trichloroethane	0.264	0.261	1.1	72	0.00	9.29
55		Dibromochloromethane	0.394	0.372	5.6	68	0.00	9.49
56		1,3-Dichloropropane	0.544	0.551	-1.3	75	0.00	9.57
57		1,2-Dibromoethane	0.324	0.309	4.6	69	0.00	9.73
58		2-hexanone	0.245	0.319	-30.2	97	0.00	9.89
59		1-Chlorohexane	0.527	0.487	7.6	70	0.00	10.20
60	C	Ethylbenzene	1.795	1.779	0.9	73	0.00	10.26
61	P	Chlorobenzene	1.145	1.078	5.9	71	0.00	10.25
62		1,1,1,2-Tetrachloroethane	0.396	0.369	6.8	70	0.00	10.31
63		m,p-Xylene	1.347	1.345	0.1	73	0.00	10.40
64		o-Xylene	1.360	1.331	2.1	73	0.00	10.84
65		Styrene	1.119	1.104	1.3	71	0.00	10.88
66	P	Bromoform	0.266	0.237	10.9	64	0.00	10.93
67		Isopropylbenzene	1.732	1.692	2.3	72	0.00	11.15
68	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	75	0.00	12.59
69	S	4-Bromofluorobenzene	0.782	0.821	-5.0	79	0.00	11.44
70		n-Propylbenzene	3.643	3.698	-1.5	73	0.00	11.56
71		Bromobenzene	0.893	0.849	4.9	69	0.00	11.56
72	P	1,1,2,2-Tetrachloroethane	0.704	0.719	-2.1	73	0.00	11.63
73		1,3,5-Trimethylbenzene	2.792	2.797	-0.2	71	0.00	11.75
74		2-Chlorotoluene	2.388	2.446	-2.4	73	0.00	11.74
75		trans-1,4-Dichloro-2-Bute	0.197	0.140	28.9	49#	0.00	11.80
76		1,2,3-Trichloropropane	0.226	0.217	4.0	71	0.00	11.78
		----------	Amount	Calc.	%Drift	----------		
77		Cyclohexanone	200.000	267.134	-33.6	105	0.00	11.83
		----------	AvgRF	CCRF	%Dev	----------		
78		4-Chlorotoluene	2.226	2.243	-0.8	72	0.00	11.91
79		tert-Butylbenzene	1.420	1.437	-1.2	72	0.00	12.09
80		1,2,4-Trimethylbenzene	2.760	2.745	0.5	71	0.00	12.15

Continuing Calibration Summary

Job Number: FA34216 **Sample:** VP1576-ECC1569
Account: URSNCM AECOM, INC. **Lab FileID:** P42380.D
Project: Gaston Refuse Disposal; Gaston, Northhampton County, NC

81	sec-Butylbenzene	3.459	3.439	0.6	70	0.00	12.27
82	4-Isopropyltoluene	3.335	3.092	7.3	70	0.00	12.41
83	1,3-Dichlorobenzene	1.650	1.575	4.5	68	0.00	12.52
84	1,4-Dichlorobenzene	1.737	1.646	5.2	69	0.00	12.61
85	n-Butylbenzene	1.623	1.617	0.4	71	0.00	12.85
86	Benzyl Chloride	0.378	0.306	19.0	57	0.00	12.85
87	1,2-Dichlorobenzene	1.576	1.511	4.1	69	0.00	13.05
	----------	Amount	Calc.	%Drift		----------	
88	1,2-Dibromo-3-Chloropropa	40.000	38.072	4.8	69	0.00	13.83
	----------	AvgRF	CCRF	%Dev		----------	
89	Hexachlorobutadiene	0.545	0.451	17.2	61	0.00	14.41
90	1,2,4-Trichlorobenzene	1.139	0.999	12.3	64	0.00	14.45
91	Naphthalene	2.005	1.828	8.8	67	0.00	14.73
92	1,2,3-Trichlorobenzene	0.939	0.802	14.6	63	0.00	14.89
93 I	Tert Butyl Alcohol-d10	1.000	1.000	0.0	81	0.00	4.79
94	acrolein	2.098	2.081	0.8	78	0.00	4.29
95	Tert Butyl Alcohol	1.321	1.205	8.8	74	0.00	4.86
96	tert Amyl alcohol	1.136	1.091	4.0	74	0.00	6.98
	----------	Amount	Calc.	%Drift		----------	
97	1,4-Dioxane	800.000	726.703	9.2	70	0.00	8.06

(#) = Out of Range SPCC's out = 0 CCC's out = 0
P42205.D 8260P052416.M Wed Jun 01 10:32:29 2016

6.7.4

6

Initial Calibration Summary

Job Number: FA34216 **Sample:** VZ1542-ICC1542
Account: URSNCM AECOM, INC. **Lab FileID:** Z41012.D
Project: Gaston Refuse Disposal; Gaston, Northhampton County, NC

```
                         Response Factor Report  MSVOA15

 Method       : C:\msdchem\1\METHODS\simm052316.m (RTE Integrator)
 Title        : 1,4-Dioxane by SIM
 Last Update  : Tue May 24 07:28:21 2016
 Response via : Initial Calibration

 Calibration Files
 1   =Z41009.D    2   =Z41010.D    10  =Z41011.D    40  =Z41012.D
 80  =Z41013.D    140 =Z41014.D    200 =Z41015.D

    Compound             1     2     10    40    80    140   200   Avg   %RSD
 ---------------------------------------------------------------------------

 1) I   Fluorobenzene         ----------------ISTD---------------------
 2)S 1,2-Dichloroethan 0.521 0.524 0.526 0.524 0.523 0.520 0.514 0.522   0.76
 3)S Toluene-d8        1.019 0.970 0.967 0.958 0.969 0.986 0.993 0.980   2.11

 4) I   1,4-Dioxane-d8        ----------------ISTD---------------------
 5)  1,4-Dioxane       1.702 1.379 1.501 1.465 1.469 1.473 1.495 1.498   6.59
---------------------------------------------------------------------------
(#) = Out of Range

          simm052316.m        Tue May 24 08:06:33 2016
```

Initial Calibration Verification

Job Number: FA34216 **Sample:** VZ1542-ICV1542
Account: URSNCM AECOM, INC. **Lab FileID:** Z41017.D
Project: Gaston Refuse Disposal; Gaston, Northhampton County, NC

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\052316\Z41017.D            Vial: 9
Acq On    : 23 May 2016   5:43 pm                     Operator: melissam
Sample    : icv1542-4                                 Inst    : MSVOA15
Misc      : MS33967,VZ1542,,,,,                       Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\msdchem\1\METHODS\simm052316.m (RTE Integrator)
Title        : 1,4-Dioxane by SIM
Last Update  : Tue May 24 07:28:21 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Fluorobenzene	1.000	1.000	0.0	100	0.00	3.68
2	S	1,2-Dichloroethane-d4	0.522	0.530	-1.5	101	0.00	3.48
3	S	Toluene-d8	0.980	0.946	3.5	99	0.00	4.57
4	I	1,4-Dioxane-d8	1.000	1.000	0.0	98	0.00	4.26
5		1,4-Dioxane	1.498	1.533	-2.3	102	0.00	4.27

(#) = Out of Range SPCC's out = 0 CCC's out = 0
Z41012.D simm052316.m Tue May 24 08:06:18 2016

Continuing Calibration Summary

Job Number: FA34216 **Sample:** VZ1545-CC1542
Account: URSNCM AECOM, INC. **Lab FileID:** Z41101.D
Project: Gaston Refuse Disposal; Gaston, Northhampton County, NC

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\052616\Z41101.D            Vial: 1
Acq On    : 26 May 2016   8:35 am                    Operator: melissam
Sample    : cc1542-4                                 Inst    : MSVOA15
Misc      : MS33630,VZ1545,,,,,                      Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\msdchem\1\METHODS\simm052316.m (RTE Integrator)
Title        : 1,4-Dioxane by SIM
Last Update  : Tue May 24 07:28:21 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Fluorobenzene	1.000	1.000	0.0	78	0.00	3.68
2	S	1,2-Dichloroethane-d4	0.522	0.564	-8.0	84	0.00	3.49
3	S	Toluene-d8	0.980	0.976	0.4	79	0.00	4.57
4	I	1,4-Dioxane-d8	1.000	1.000	0.0	86	0.00	4.26
5		1,4-Dioxane	1.498	1.499	-0.1	88	0.00	4.28

```
(#) = Out of Range              SPCC's out = 0  CCC's out = 0
 Z41012.D   simm052316.m       Thu May 26 13:36:06 2016
```

Continuing Calibration Summary

Job Number: FA34216 **Sample:** VZ1545-ECC1542
Account: URSNCM AECOM, INC. **Lab FileID:** Z41120.D
Project: Gaston Refuse Disposal; Gaston, Northhampton County, NC

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\052616\Z41120.D            Vial: 19
Acq On    : 26 May 2016   4:34 pm                     Operator: melissam
Sample    : ECC1542-4                                 Inst    : MSVOA15
Misc      : MS34001,VZ1545,,,,,                       Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\msdchem\1\METHODS\simm052316.m (RTE Integrator)
Title        : 1,4-Dioxane by SIM
Last Update  : Tue May 24 07:28:21 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  50%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Fluorobenzene	1.000	1.000	0.0	69	0.00	3.68
2	S	1,2-Dichloroethane-d4	0.522	0.631	-20.9	83	0.00	3.49
3	S	Toluene-d8	0.980	0.984	-0.4	71	0.00	4.57
4	I	1,4-Dioxane-d8	1.000	1.000	0.0	74	0.00	4.26
5		1,4-Dioxane	1.498	1.518	-1.3	77	0.00	4.28

```
(#) = Out of Range              SPCC's out = 0  CCC's out = 0
 Z41012.D   simm052316.m       Fri May 27 07:57:48 2016
```