March 9, 2016

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

Attn: Ms. Katie Tatum
Project Manager

Re: **Potable Well Sampling Report**
Grifton Dump
Grifton, Pitt County, North Carolina
ID# NONCD0000500 – Task Order 500MON

Dear Ms. Tatum:

URS Corporation – North Carolina (URS) is pleased to provide the results of potable well sampling performed in the vicinity of the Grifton Dump (the Site) in Grifton, North Carolina. This report describes the details for potable well sampling conducted in accordance with the January 29, 2016 authorization associated with Task Order 500MON by the North Carolina Department of Environmental Quality (NCDEQ) Pre-Regulatory Landfill Unit (the Unit).

On February 11, 2016, URS was able to access and collect a water sample from two potable wells located near the Site at 802 and 803 Wiley Gaskins Road in Grifton, NC. One field duplicate sample was also collected during the sampling event. Permission to sample wells 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 photo log is provided in **Attachment 2**. A site map showing the location of the potable wells 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 3**.

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. 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. Water sample results, as reported by the laboratory, are presented in **Table 1**. Laboratory data are usable for the samples collected for their intended purpose.

Sample results were compared to EPA Maximum Contaminant Levels (MCL) and North Carolina 2L (NC 2L) groundwater standards. There were no exceedances of applicable standards. Results are summarized for the sampling event in **Table 1.**

If you have any questions or require additional information, please do not hesitate to contact me at 919-461-1341.

Sincerely,
URS CORPORATION-NORTH CAROLINA

Carlin Slusher
Project Manager

Attachments:

Table 1 – Summary of Potable Well Analytical Results
Figure 1 – Site Map
Attachment 1 – Field Notes
Attachment 2 – Photo Log
Attachment 3 – Laboratory Report

Table 1
Summary of Potable Well Analytical Results
Grifton Dump, NONCD0000500

Client Sample ID:	**NC 2L**	**MCL**	**WELL-802 WILEY**	**DUP-4**	**WELL-803 WILEY**
Date Sampled:			**2/11/2016**	**2/11/2016**	**2/11/2016**
Analytes:				**DUP (1)**	
Volatiles (SW-846 8260B Full Scan)	NA	NA	ND	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	0.00014 J	0.00013 J	0.00012 J
Arsenic	0.010	0.01	0.00013 J	0.00014 J	0.00016 J
Copper	1	1.3	0.0218	0.0247	0.0105
Iron	0.300	NG	0.0253 J	0.0254 J	0.0486 J
Lead	0.015	0.015	0.0027	0.0026	0.00048 J
Manganese	0.050	NG	0.0014	0.0014	0.0013
Nickel	0.100	NG	0.00037 J	0.00041 J	0.00010 J
Zinc	1	NG	0.148	0.151	0.0376
Miscellaneous Chemistry (EPA 300 and 350.1)					
Ammonia (EPA 350.1)	1.5 (I)	NG	0.11	0.10	0.096 J

Notes:

MCL - EPA National Primary Drinking Water Standard Maximum Contaminant Level

I - Interim Maximum Allowable Concentration established under 15A NCAC 02L.0202

NC 2L - 15A NCAC 02L .0202, effective April 1, 2013

(1) DUP-4 is a field duplicate of WELL-802 WILEY

J - Estimated Value

EPA - Environmental Protection Agency

MDL - Method Detection Limit

NA - Not applicable

ND - Analyzed for but not detected at the MDL

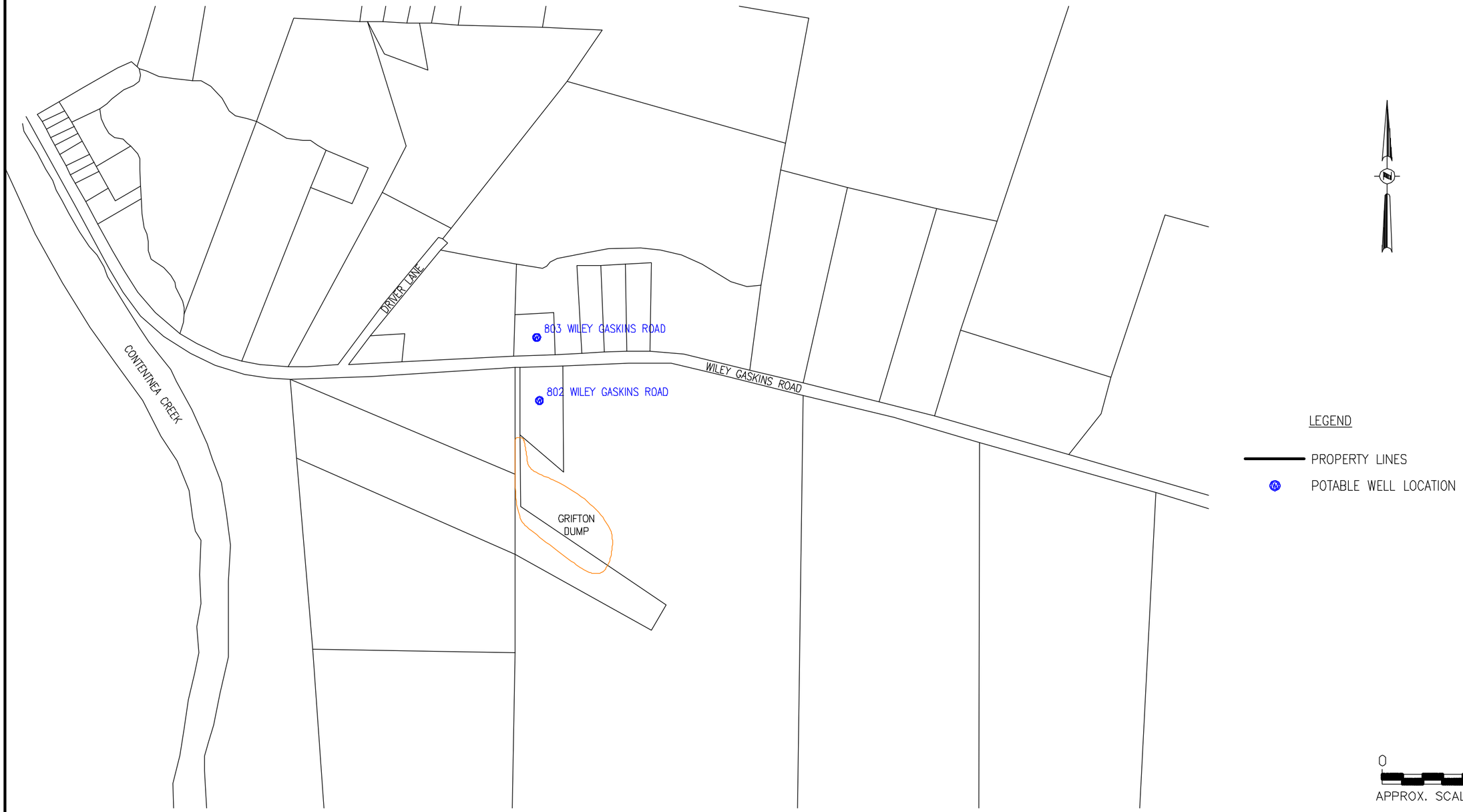
NG - No goal established

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 reports in milligrams per liter (mg/L).

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



SCALE	DESIGNED BY	DATE	Site Map Grifton Dump NONCD0000500		
AS SHOWN	DRAWN BY TSH	DATE 26JAN16			
URS RDU, NORTH CAROLINA 27560	CHECKED BY CS	DATE 26JAN16	CONTRACT NO. 60482357	DRAWING NO. FIGURE-1	REV.
	APPROVED BY CS	DATE 26JAN16			

Daily Activity Log

Project Name: Grifton Dump

Task Order: 500MON

Field Personnel: J. Wilke, J. Mobassi

Project Manager: C. Slusher

Date: 2/11/16

Weather:

Daily Objective: Potable Well Sampling

1430 Arrive @ 802 Wiley Gaskins. No answer, open spigot. See attached sheets for sampling details.

1500 Complete sampling activities. Mob to 803 Wiley Gaskins road. Property owner shows us the well house. Begin sampling. See attached sheets for details.

1530 Complete activities, depart site to meet w/ accutest Courier.

Water Sample Collection Field Sheet

Project Name: Grifton Dump

Task No: 500MON

Sample ID: Well - 803 Wiley

Date/Time Collected: 2/11/16 1520

Personnel: J. Lyke
T. Abbassi

Sample Method: Spigot

SAMPLE MEDIA: Groundwater Potable Well Surface Water

SAMPLE CONTAINERS, PRESERVATIVES, ANALYSIS

Sample Container	Preservative	Analysis

WELL PURGING DATA

Date: 2/11/16

Time Started: 1505

Time Completed: 1530

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)	~~Salinity~~ DO	ORP
1510	—	—	11.07	15.59	0.300	0	4.52	-116.7
1513	—	—	11.10	15.80	0.303	0	2.24	-111.2
1516	—	—	11.34	16.84	0.369	0	2.33	-118.2

FIELD EQUIPMENT AND CALIBRATION

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

GENERAL COMMENTS

Water Sample Collection Field Sheet

Project Name: Grifton Dump

Task No: 500MON

Sample ID: Well - 802 Wiley

Date/Time Collected: 2/11/16 1450

Personnel: J. Wilke, J. Abbass.

Sample Method: Spigot

SAMPLE MEDIA: Groundwater | Potable Well | Surface Water

SAMPLE CONTAINERS, PRESERVATIVES, ANALYSIS

Sample Container	Preservative	Analysis

WELL PURGING DATA

Date: 2/11/16

Time Started: 1430

Time Completed: 1500

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
1440			7.79	10.99	0.397	0 ~~40.37~~	10.37	95.1
1443			7.98	11.02	0.390	0	7.44	-0.2
1446			8.02	11.21	0.399	0	7.21	-18
1449			8.08	11.18	0.396	0	7.84	-21

FIELD EQUIPMENT AND CALIBRATION

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

GENERAL COMMENTS

Dup - 4 1500

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.)	
YSI	556 05J13666	NA	NA	pH, Cond, ORP	pH 4 = 3.56 cal to 4 7 = 6.24 cal to 7 10 = 11.17 cal to 10 cond 1.412 ORP 200.9	2/11/16 1430
					pH 4 = 5.96 7 = 8.36 10 = 12.82 cond = ±2% ORP = ±2%	1530
Turbidimeter	2020	NA	NA	Turb.	1 = 1 10 = 10	

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.

Site Name: Grifton Dump	Site ID: NONCD0000500

Photo 1: Water supply well for 802 Wiley Gaskins Road

Photo 2: Water supply well for 803 Wiley Gaskins Road

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.

Grifton Dump; NC

60482357

SGS Accutest Job Number: FA31365

Sampling Date: 02/11/16

Report to:

AECOM, Inc
1600 Perimeter Park Dr Suite 400
Morrisville, NC 27560
ncchemists@urs.com

ATTN: Martha Meyers-Lee

Total number of pages in report: 174

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.

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SGS Accutest

Sample Summary

AECOM, INC.

Job No: FA31365

Grifton Dump; NC
Project No: 60482357

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA31365-1	02/11/16	14:50	JAJW	02/12/16	AQ	Water	WELL-802 WILEY
FA31365-2	02/11/16	15:20	JAJW	02/12/16	AQ	Water	WELL-803 WILEY
FA31365-3	02/11/16	15:00	JAJW	02/12/16	AQ	Water	DUP-4
FA31365-4	02/11/16	00:00	JAJW	02/12/16	AQ	Trip Blank Water	TRIP BLANK

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: AECOM, INC. **Job No:** FA31365

Site: Grifton Dump; NC **Report Date** 2/29/2016 12:12:15 PM

3 Samples and 1 Trip Blank were collected on 02/11/2016 and were received at Accutest SE on 02/12/2016 properly preserved, at 3.2 Deg. C and intact. These Samples received an Accutest job number of FA31365. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

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:** VB4508

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) FA31556-1MS, FA31556-1MSD were used as the QC samples indicated.

Blank Spike Recovery(s) for Acetone are outside control limits. Recovery is biased high. Analyte is non-detect in associated samples; therefore data is not adversely affected.

FA31365-1 for Acetone: Associated BS recovery outside control limits.

FA31365-2 for Acetone: Associated BS recovery outside control limits.

FA31365-3 for Acetone: Associated BS recovery outside control limits.

FA31365-4 for Acetone: Associated BS recovery outside control limits.

Volatiles by GCMS By Method SW846 8260B BY SIM

Matrix: AQ **Batch ID:** VZ1492

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) FA31335-2MS, FA31335-2MSD were used as the QC samples indicated.

Sample(s) FA31335-2MS has surrogates outside control limits. Probable cause is due to matrix interference.

Extractables by GCMS By Method SW846 8270D

Matrix: AQ **Batch ID:** OP59358

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) FA31335-2MS, FA31335-2MSD were used as the QC samples indicated.

Matrix Spike Recovery(s) for 2,4-Dinitrophenol, 4,6-Dinitro-o-cresol, 4-Nitrophenol 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 2,4-Dinitrophenol, 4,6-Dinitro-o-cresol, 4-Nitrophenol, bis(2-Chloroethoxy)methane are outside control limits. Probable cause is due to matrix interference. For method performance in a clean matrix, refer to Blank Spike.

Metals By Method EPA 200.8

Matrix: AQ **Batch ID:** N: MP92060

FA31365-1 for Antimony: Analysis performed at Accutest Laboratories, Dayton, NJ.

FA31365-1 for Arsenic: Analysis performed at Accutest Laboratories, Dayton, NJ.

FA31365-1 for Beryllium: Analysis performed at Accutest Laboratories, Dayton, NJ.

FA31365-1 for Cadmium: Analysis performed at Accutest Laboratories, Dayton, NJ.

FA31365-1 for Chromium: Analysis performed at Accutest Laboratories, Dayton, NJ.

Metals By Method EPA 200.8

Matrix: AQ **Batch ID:** N: MP92060

FA31365-1 for Copper: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA31365-1 for Iron: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA31365-1 for Lead: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA31365-1 for Manganese: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA31365-1 for Nickel: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA31365-1 for Selenium: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA31365-1 for Silver: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA31365-1 for Thallium: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA31365-1 for Zinc: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA31365-2 for Antimony: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA31365-2 for Arsenic: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA31365-2 for Beryllium: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA31365-2 for Cadmium: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA31365-2 for Chromium: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA31365-2 for Copper: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA31365-2 for Iron: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA31365-2 for Lead: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA31365-2 for Manganese: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA31365-2 for Nickel: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA31365-2 for Selenium: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA31365-2 for Silver: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA31365-2 for Thallium: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA31365-2 for Zinc: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA31365-3 for Antimony: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA31365-3 for Arsenic: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA31365-3 for Beryllium: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA31365-3 for Cadmium: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA31365-3 for Chromium: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA31365-3 for Copper: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA31365-3 for Iron: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA31365-3 for Lead: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA31365-3 for Manganese: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA31365-3 for Nickel: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA31365-3 for Selenium: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA31365-3 for Silver: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA31365-3 for Thallium: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA31365-3 for Zinc: Analysis performed at Accutest Laboratories, Dayton, NJ.

Metals By Method EPA 245.1

Matrix: AQ **Batch ID:** MP30033

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) FA31572-1MS, FA31572-1MSD, FA31572-1SDL, FA31572-1DUP were used as the QC samples for metals.

RPD(s) for Duplicate for Mercury are outside control limits for sample MP30033-D1. RPD acceptable due to low duplicate and sample concentrations.

RPD(s) for Serial Dilution for Mercury are outside control limits for sample MP30033-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

Wet Chemistry By Method EPA 300/SW846 9056A

Matrix: AQ **Batch ID:** GP27417

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) FA31296-2MS, FA31296-2MSD were used as the QC samples for Nitrogen, Nitrate, Sulfate.

Wet Chemistry By Method EPA 350.1

Matrix: AQ **Batch ID:** GP27448

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) FA31335-1MSD, FA31335-1MS were used as the QC samples for Nitrogen, Ammonia.

Matrix Spike Recovery(s) for Nitrogen, Ammonia are outside control limits. Spike recovery indicates possible matrix interference. For method performance in a clean matrix, refer to Blank Spike.

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

Narrative prepared by:

Lovelie Metzgar

Date: February 29, 2016

Lovelie Metzgar, QA Officer

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**	FA31365
Site:	URSNCM: Grifton Dump; NC	**Report Date**	2/18/2016 11:42:13 A

On 02/16/2016, 3 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at Accutest Laboratories at a maximum corrected temperature of 2.5 C. Samples were intact and chemically preserved, unless noted below. An Accutest Job Number of FA31365 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:** MP92060

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) FA31327-2MS, FA31327-2MSD were used as the QC samples for metals.

Accutest certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting Accutest's 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.

Accutest Laboratories 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 Accutest Laboratories indicated via signature on the report cover

Summary of Hits

Job Number: FA31365
Account: AECOM, INC.
Project: Grifton Dump; NC
Collected: 02/11/16

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
FA31365-1	**WELL-802 WILEY**					
Antimony [a]		0.00014 J	0.0020	0.000056	mg/l	EPA 200.8
Arsenic [a]		0.00013 J	0.0010	0.000048	mg/l	EPA 200.8
Copper [a]		0.0218	0.0040	0.00013	mg/l	EPA 200.8
Iron [a]		0.0253 J	0.050	0.00065	mg/l	EPA 200.8
Lead [a]		0.0027	0.00050	0.0000066	mg/l	EPA 200.8
Manganese [a]		0.0014	0.0010	0.00012	mg/l	EPA 200.8
Nickel [a]		0.00037 J	0.0040	0.000097	mg/l	EPA 200.8
Zinc [a]		0.148	0.010	0.0019	mg/l	EPA 200.8
Nitrogen, Ammonia		0.11	0.10	0.030	mg/l	EPA 350.1
FA31365-2	**WELL-803 WILEY**					
Antimony [a]		0.00012 J	0.0020	0.000056	mg/l	EPA 200.8
Arsenic [a]		0.00016 J	0.0010	0.000048	mg/l	EPA 200.8
Copper [a]		0.0105	0.0040	0.00013	mg/l	EPA 200.8
Iron [a]		0.0486 J	0.050	0.00065	mg/l	EPA 200.8
Lead [a]		0.00048 J	0.00050	0.0000066	mg/l	EPA 200.8
Manganese [a]		0.0013	0.0010	0.00012	mg/l	EPA 200.8
Nickel [a]		0.00010 J	0.0040	0.000097	mg/l	EPA 200.8
Zinc [a]		0.0376	0.010	0.0019	mg/l	EPA 200.8
Nitrogen, Ammonia		0.096 J	0.10	0.030	mg/l	EPA 350.1
FA31365-3	**DUP-4**					
Antimony [a]		0.00013 J	0.0020	0.000056	mg/l	EPA 200.8
Arsenic [a]		0.00014 J	0.0010	0.000048	mg/l	EPA 200.8
Copper [a]		0.0247	0.0040	0.00013	mg/l	EPA 200.8
Iron [a]		0.0254 J	0.050	0.00065	mg/l	EPA 200.8
Lead [a]		0.0026	0.00050	0.0000066	mg/l	EPA 200.8
Manganese [a]		0.0014	0.0010	0.00012	mg/l	EPA 200.8
Nickel [a]		0.00041 J	0.0040	0.000097	mg/l	EPA 200.8
Zinc [a]		0.151	0.010	0.0019	mg/l	EPA 200.8
Nitrogen, Ammonia		0.10	0.10	0.030	mg/l	EPA 350.1
FA31365-4	**TRIP BLANK**					

No hits reported in this sample.

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

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	WELL-802 WILEY		
Lab Sample ID:	FA31365-1	**Date Sampled:**	02/11/16
Matrix:	AQ - Water	**Date Received:**	02/12/16
Method:	SW846 8260B BY SIM	**Percent Solids:**	n/a
Project:	Grifton Dump; NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z39705.D	1	02/16/16	MM	n/a	n/a	VZ1492
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	106%		74-125%
2037-26-5	Toluene-D8	102%		88-111%

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-802 WILEY		
Lab Sample ID:	FA31365-1	**Date Sampled:**	02/11/16
Matrix:	AQ - Water	**Date Received:**	02/12/16
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Grifton Dump; NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B111612.D	1	02/22/16	MM	n/a	n/a	VB4508
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 [a]	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
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-802 WILEY		
Lab Sample ID:	FA31365-1	**Date Sampled:**	02/11/16
Matrix:	AQ - Water	**Date Received:**	02/12/16
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Grifton Dump; 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	100%		83-118%
17060-07-0	1,2-Dichloroethane-D4	99%		79-125%
2037-26-5	Toluene-D8	99%		85-112%
460-00-4	4-Bromofluorobenzene	101%		83-118%

(a) Associated BS recovery outside control limits.

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-802 WILEY		
Lab Sample ID:	FA31365-1	**Date Sampled:**	02/11/16
Matrix:	AQ - Water	**Date Received:**	02/12/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Grifton Dump; NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L0685678.D	1	02/16/16	MV	02/16/16	OP59358	SL3792
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
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-802 WILEY		
Lab Sample ID:	FA31365-1	**Date Sampled:**	02/11/16
Matrix:	AQ - Water	**Date Received:**	02/12/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Grifton Dump; 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	32%		14-67%
4165-62-2	Phenol-d5	23%		10-50%

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-802 WILEY		
Lab Sample ID:	FA31365-1	**Date Sampled:**	02/11/16
Matrix:	AQ - Water	**Date Received:**	02/12/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Grifton Dump; NC		

ABN TCL (SOM01.1) List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
118-79-6	2,4,6-Tribromophenol	77%		33-118%
4165-60-0	Nitrobenzene-d5	59%		42-108%
321-60-8	2-Fluorobiphenyl	66%		40-106%
1718-51-0	Terphenyl-d14	80%		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-802 WILEY		
Lab Sample ID:	FA31365-1	**Date Sampled:**	02/11/16
Matrix:	AQ - Water	**Date Received:**	02/12/16
		Percent Solids:	n/a
Project:	Grifton Dump; NC		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony [a]	0.00014 J	0.0020	0.000056	mg/l	1	02/16/16	02/17/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Arsenic [a]	0.00013 J	0.0010	0.000048	mg/l	1	02/16/16	02/17/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Beryllium [a]	ND	0.00050	0.000074	mg/l	1	02/16/16	02/17/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Cadmium [a]	ND	0.00050	0.000060	mg/l	1	02/16/16	02/17/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Chromium [a]	ND	0.0040	0.000083	mg/l	1	02/16/16	02/17/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Copper [a]	0.0218	0.0040	0.00013	mg/l	1	02/16/16	02/17/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Iron [a]	0.0253 J	0.050	0.00065	mg/l	1	02/16/16	02/17/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Lead [a]	0.0027	0.00050	0.0000066	mg/l	1	02/16/16	02/17/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Manganese [a]	0.0014	0.0010	0.00012	mg/l	1	02/16/16	02/17/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Mercury	ND	0.00050	0.000030	mg/l	1	02/26/16	02/26/16	JL	EPA 245.1 [1]	EPA 245.1 [3]
Nickel [a]	0.00037 J	0.0040	0.000097	mg/l	1	02/16/16	02/17/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Selenium [a]	ND	0.0010	0.000076	mg/l	1	02/16/16	02/17/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Silver [a]	ND	0.0020	0.000019	mg/l	1	02/16/16	02/17/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Thallium [a]	ND	0.00050	0.000026	mg/l	1	02/16/16	02/17/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Zinc [a]	0.148	0.010	0.0019	mg/l	1	02/16/16	02/17/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]

(1) Instrument QC Batch: MA12991
(2) Instrument QC Batch: N:MA38749
(3) Prep QC Batch: MP30033
(4) Prep QC Batch: N:MP92060

(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-802 WILEY		
Lab Sample ID:	FA31365-1	**Date Sampled:**	02/11/16
Matrix:	AQ - Water	**Date Received:**	02/12/16
		Percent Solids:	n/a
Project:	Grifton Dump; NC		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Nitrogen, Ammonia	0.11	0.10	0.030	mg/l	1	02/18/16 16:00	JK	EPA 350.1
Nitrogen, Nitrate	ND	0.10	0.050	mg/l	1	02/12/16 13:02	DM	EPA 300/SW846 9056A
Sulfate	ND	2.0	0.60	mg/l	1	02/12/16 13:02	DM	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:	WELL-803 WILEY		
Lab Sample ID:	FA31365-2	**Date Sampled:**	02/11/16
Matrix:	AQ - Water	**Date Received:**	02/12/16
Method:	SW846 8260B BY SIM	**Percent Solids:**	n/a
Project:	Grifton Dump; NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z39706.D	1	02/16/16	MM	n/a	n/a	VZ1492
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	88%		74-125%
2037-26-5	Toluene-D8	92%		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-803 WILEY		
Lab Sample ID:	FA31365-2	**Date Sampled:**	02/11/16
Matrix:	AQ - Water	**Date Received:**	02/12/16
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Grifton Dump; NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B111613.D	1	02/22/16	MM	n/a	n/a	VB4508
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 [a]	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
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-803 WILEY		
Lab Sample ID:	FA31365-2	**Date Sampled:**	02/11/16
Matrix:	AQ - Water	**Date Received:**	02/12/16
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Grifton Dump; 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	99%		83-118%
17060-07-0	1,2-Dichloroethane-D4	101%		79-125%
2037-26-5	Toluene-D8	100%		85-112%
460-00-4	4-Bromofluorobenzene	100%		83-118%

(a) Associated BS recovery outside control limits.

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-803 WILEY		
Lab Sample ID:	FA31365-2	**Date Sampled:**	02/11/16
Matrix:	AQ - Water	**Date Received:**	02/12/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Grifton Dump; NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L0685679.D	1	02/16/16	MV	02/16/16	OP59358	SL3792
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2		

ABN TCL (SOM01.1) List

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	0.0094	0.0024	mg/l	
59-50-7	4-Chloro-3-methyl Phenol	ND	0.0047	0.00070	mg/l	
95-57-8	2-Chlorophenol	ND	0.0047	0.00060	mg/l	
120-83-2	2,4-Dichlorophenol	ND	0.0047	0.00060	mg/l	
105-67-9	2,4-Dimethylphenol	ND	0.0047	0.00066	mg/l	
51-28-5	2,4-Dinitrophenol	ND	0.024	0.0047	mg/l	
534-52-1	4,6-Dinitro-o-cresol	ND	0.0094	0.0019	mg/l	
95-48-7	2-Methylphenol	ND	0.0047	0.00055	mg/l	
	3&4-Methylphenol	ND	0.0047	0.00099	mg/l	
88-75-5	2-Nitrophenol	ND	0.0047	0.00058	mg/l	
100-02-7	4-Nitrophenol	ND	0.024	0.0047	mg/l	
87-86-5	Pentachlorophenol	ND	0.024	0.0047	mg/l	
108-95-2	Phenol	ND	0.0047	0.00047	mg/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	0.0047	0.00086	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	0.0047	0.00094	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	0.0047	0.00081	mg/l	
83-32-9	Acenaphthene	ND	0.0047	0.00053	mg/l	
208-96-8	Acenaphthylene	ND	0.0047	0.00054	mg/l	
98-86-2	Acetophenone	ND	0.0047	0.00067	mg/l	
120-12-7	Anthracene	ND	0.0047	0.00058	mg/l	
1912-24-9	Atrazine	ND	0.0047	0.00060	mg/l	
100-52-7	Benzaldehyde	ND	0.024	0.0047	mg/l	
56-55-3	Benzo(a)anthracene	ND	0.0047	0.00047	mg/l	
50-32-8	Benzo(a)pyrene	ND	0.0047	0.00047	mg/l	
205-99-2	Benzo(b)fluoranthene	ND	0.0047	0.00051	mg/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.0047	0.00047	mg/l	
207-08-9	Benzo(k)fluoranthene	ND	0.0047	0.00059	mg/l	
92-52-4	1,1'-Biphenyl	ND	0.0047	0.00047	mg/l	
101-55-3	4-Bromophenyl Phenyl Ether	ND	0.0047	0.00047	mg/l	
85-68-7	Butyl Benzyl Phthalate	ND	0.0047	0.00094	mg/l	
86-74-8	Carbazole	ND	0.0047	0.00053	mg/l	
106-47-8	4-Chloroaniline	ND	0.0047	0.00067	mg/l	

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-803 WILEY		
Lab Sample ID:	FA31365-2	**Date Sampled:**	02/11/16
Matrix:	AQ - Water	**Date Received:**	02/12/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Grifton Dump; NC		

ABN TCL (SOM01.1) List

CAS No.	Compound	Result	RL	MDL	Units	Q
111-91-1	bis(2-Chloroethoxy)methane	ND	0.0047	0.00064	mg/l	
111-44-4	bis(2-Chloroethyl)ether	ND	0.0047	0.00065	mg/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.0047	0.00065	mg/l	
91-58-7	2-Chloronaphthalene	ND	0.0047	0.00047	mg/l	
7005-72-3	4-Chlorophenyl Phenyl Ether	ND	0.0047	0.00055	mg/l	
218-01-9	Chrysene	ND	0.0047	0.00050	mg/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.0047	0.00072	mg/l	
132-64-9	Dibenzofuran	ND	0.0047	0.00063	mg/l	
91-94-1	3,3'-Dichlorobenzidine	ND	0.0047	0.00047	mg/l	
84-66-2	Diethyl Phthalate	ND	0.0047	0.00094	mg/l	
131-11-3	Dimethyl Phthalate	ND	0.0047	0.00094	mg/l	
84-74-2	Di-n-butyl Phthalate	ND	0.0047	0.00094	mg/l	
117-84-0	Di-n-octyl Phthalate	ND	0.0047	0.00094	mg/l	
121-14-2	2,4-Dinitrotoluene	ND	0.0047	0.00059	mg/l	
606-20-2	2,6-Dinitrotoluene	ND	0.0047	0.00055	mg/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	0.0047	0.00094	mg/l	
206-44-0	Fluoranthene	ND	0.0047	0.00047	mg/l	
86-73-7	Fluorene	ND	0.0047	0.00061	mg/l	
118-74-1	Hexachlorobenzene	ND	0.0047	0.00052	mg/l	
87-68-3	Hexachlorobutadiene	ND	0.0047	0.00048	mg/l	
77-47-4	Hexachlorocyclopentadiene	ND	0.0047	0.00094	mg/l	
67-72-1	Hexachloroethane	ND	0.0047	0.00048	mg/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.0047	0.00047	mg/l	
78-59-1	Isophorone	ND	0.0047	0.00063	mg/l	
91-57-6	2-Methylnaphthalene	ND	0.0047	0.00053	mg/l	
91-20-3	Naphthalene	ND	0.0047	0.00047	mg/l	
88-74-4	2-Nitroaniline	ND	0.0047	0.00066	mg/l	
99-09-2	3-Nitroaniline	ND	0.0047	0.00071	mg/l	
100-01-6	4-Nitroaniline	ND	0.0047	0.00068	mg/l	
98-95-3	Nitrobenzene	ND	0.0047	0.00062	mg/l	
621-64-7	N-Nitrosodi-n-propylamine	ND	0.0047	0.00055	mg/l	
86-30-6	N-Nitrosodiphenylamine	ND	0.0047	0.00066	mg/l	
85-01-8	Phenanthrene	ND	0.0047	0.00056	mg/l	
129-00-0	Pyrene	ND	0.0047	0.00052	mg/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	0.0047	0.00047	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	33%		14-67%
4165-62-2	Phenol-d5	24%		10-50%

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-803 WILEY		
Lab Sample ID:	FA31365-2	**Date Sampled:**	02/11/16
Matrix:	AQ - Water	**Date Received:**	02/12/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Grifton Dump; NC		

ABN TCL (SOM01.1) List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
118-79-6	2,4,6-Tribromophenol	83%		33-118%
4165-60-0	Nitrobenzene-d5	66%		42-108%
321-60-8	2-Fluorobiphenyl	74%		40-106%
1718-51-0	Terphenyl-d14	77%		39-121%

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-803 WILEY		
Lab Sample ID:	FA31365-2	**Date Sampled:**	02/11/16
Matrix:	AQ - Water	**Date Received:**	02/12/16
		Percent Solids:	n/a
Project:	Grifton Dump; NC		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony [a]	0.00012 J	0.0020	0.000056	mg/l	1	02/16/16	02/17/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Arsenic [a]	0.00016 J	0.0010	0.000048	mg/l	1	02/16/16	02/17/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Beryllium [a]	ND	0.00050	0.000074	mg/l	1	02/16/16	02/17/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Cadmium [a]	ND	0.00050	0.000060	mg/l	1	02/16/16	02/17/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Chromium [a]	ND	0.0040	0.000083	mg/l	1	02/16/16	02/17/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Copper [a]	0.0105	0.0040	0.00013	mg/l	1	02/16/16	02/17/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Iron [a]	0.0486 J	0.050	0.00065	mg/l	1	02/16/16	02/17/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Lead [a]	0.00048 J	0.00050	0.000006	mg/l	1	02/16/16	02/17/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Manganese [a]	0.0013	0.0010	0.00012	mg/l	1	02/16/16	02/17/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Mercury	ND	0.00050	0.000030	mg/l	1	02/26/16	02/26/16	JL	EPA 245.1 [1]	EPA 245.1 [3]
Nickel [a]	0.00010 J	0.0040	0.000097	mg/l	1	02/16/16	02/17/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Selenium [a]	ND	0.0010	0.000076	mg/l	1	02/16/16	02/17/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Silver [a]	ND	0.0020	0.000019	mg/l	1	02/16/16	02/17/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Thallium [a]	ND	0.00050	0.000026	mg/l	1	02/16/16	02/17/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Zinc [a]	0.0376	0.010	0.0019	mg/l	1	02/16/16	02/17/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]

(1) Instrument QC Batch: MA12991
(2) Instrument QC Batch: N:MA38749
(3) Prep QC Batch: MP30033
(4) Prep QC Batch: N:MP92060

(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-803 WILEY		
Lab Sample ID:	FA31365-2	**Date Sampled:**	02/11/16
Matrix:	AQ - Water	**Date Received:**	02/12/16
		Percent Solids:	n/a
Project:	Grifton Dump; NC		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Nitrogen, Ammonia	0.096 J	0.10	0.030	mg/l	1	02/18/16 16:01	JK	EPA 350.1
Nitrogen, Nitrate	ND	0.10	0.050	mg/l	1	02/12/16 13:19	DM	EPA 300/SW846 9056A
Sulfate	ND	2.0	0.60	mg/l	1	02/12/16 13:19	DM	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-4		
Lab Sample ID:	FA31365-3	**Date Sampled:**	02/11/16
Matrix:	AQ - Water	**Date Received:**	02/12/16
Method:	SW846 8260B BY SIM	**Percent Solids:**	n/a
Project:	Grifton Dump; NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z39707.D	1	02/16/16	MM	n/a	n/a	VZ1492
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	106%		74-125%
2037-26-5	Toluene-D8	104%		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-4		
Lab Sample ID:	FA31365-3	**Date Sampled:**	02/11/16
Matrix:	AQ - Water	**Date Received:**	02/12/16
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Grifton Dump; NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B111614.D	1	02/22/16	MM	n/a	n/a	VB4508
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 [a]	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
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-4		
Lab Sample ID:	FA31365-3	**Date Sampled:**	02/11/16
Matrix:	AQ - Water	**Date Received:**	02/12/16
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Grifton Dump; 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	96%		83-118%
17060-07-0	1,2-Dichloroethane-D4	96%		79-125%
2037-26-5	Toluene-D8	99%		85-112%
460-00-4	4-Bromofluorobenzene	101%		83-118%

(a) Associated BS recovery outside control limits.

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-4		
Lab Sample ID:	FA31365-3	**Date Sampled:**	02/11/16
Matrix:	AQ - Water	**Date Received:**	02/12/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Grifton Dump; NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L0685680.D	1	02/16/16	MV	02/16/16	OP59358	SL3792
Run #2							

	Initial Volume	Final Volume
Run #1	1010 ml	1.0 ml
Run #2		

ABN TCL (SOM01.1) List

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	0.0099	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	0.00063	mg/l	
120-83-2	2,4-Dichlorophenol	ND	0.0050	0.00062	mg/l	
105-67-9	2,4-Dimethylphenol	ND	0.0050	0.00069	mg/l	
51-28-5	2,4-Dinitrophenol	ND	0.025	0.0050	mg/l	
534-52-1	4,6-Dinitro-o-cresol	ND	0.0099	0.0020	mg/l	
95-48-7	2-Methylphenol	ND	0.0050	0.00057	mg/l	
	3&4-Methylphenol	ND	0.0050	0.0010	mg/l	
88-75-5	2-Nitrophenol	ND	0.0050	0.00061	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	0.00090	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	0.0050	0.00099	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	0.0050	0.00085	mg/l	
83-32-9	Acenaphthene	ND	0.0050	0.00055	mg/l	
208-96-8	Acenaphthylene	ND	0.0050	0.00057	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	0.00062	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	0.00053	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	0.00062	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	0.00099	mg/l	
86-74-8	Carbazole	ND	0.0050	0.00056	mg/l	
106-47-8	4-Chloroaniline	ND	0.0050	0.00071	mg/l	

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-4		
Lab Sample ID:	FA31365-3	**Date Sampled:**	02/11/16
Matrix:	AQ - Water	**Date Received:**	02/12/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Grifton Dump; NC		

ABN TCL (SOM01.1) List

CAS No.	Compound	Result	RL	MDL	Units	Q
111-91-1	bis(2-Chloroethoxy)methane	ND	0.0050	0.00067	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	0.00068	mg/l	
91-58-7	2-Chloronaphthalene	ND	0.0050	0.00050	mg/l	
7005-72-3	4-Chlorophenyl Phenyl Ether	ND	0.0050	0.00057	mg/l	
218-01-9	Chrysene	ND	0.0050	0.00052	mg/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.0050	0.00075	mg/l	
132-64-9	Dibenzofuran	ND	0.0050	0.00066	mg/l	
91-94-1	3,3'-Dichlorobenzidine	ND	0.0050	0.00050	mg/l	
84-66-2	Diethyl Phthalate	ND	0.0050	0.00099	mg/l	
131-11-3	Dimethyl Phthalate	ND	0.0050	0.00099	mg/l	
84-74-2	Di-n-butyl Phthalate	ND	0.0050	0.00099	mg/l	
117-84-0	Di-n-octyl Phthalate	ND	0.0050	0.00099	mg/l	
121-14-2	2,4-Dinitrotoluene	ND	0.0050	0.00062	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	0.00099	mg/l	
206-44-0	Fluoranthene	ND	0.0050	0.00050	mg/l	
86-73-7	Fluorene	ND	0.0050	0.00064	mg/l	
118-74-1	Hexachlorobenzene	ND	0.0050	0.00054	mg/l	
87-68-3	Hexachlorobutadiene	ND	0.0050	0.00051	mg/l	
77-47-4	Hexachlorocyclopentadiene	ND	0.0050	0.00099	mg/l	
67-72-1	Hexachloroethane	ND	0.0050	0.00050	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	0.00066	mg/l	
91-57-6	2-Methylnaphthalene	ND	0.0050	0.00055	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	0.00074	mg/l	
100-01-6	4-Nitroaniline	ND	0.0050	0.00071	mg/l	
98-95-3	Nitrobenzene	ND	0.0050	0.00065	mg/l	
621-64-7	N-Nitrosodi-n-propylamine	ND	0.0050	0.00058	mg/l	
86-30-6	N-Nitrosodiphenylamine	ND	0.0050	0.00069	mg/l	
85-01-8	Phenanthrene	ND	0.0050	0.00059	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	34%		14-67%
4165-62-2	Phenol-d5	22%		10-50%

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-4		
Lab Sample ID:	FA31365-3	**Date Sampled:**	02/11/16
Matrix:	AQ - Water	**Date Received:**	02/12/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Grifton Dump; NC		

ABN TCL (SOM01.1) List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
118-79-6	2,4,6-Tribromophenol	79%		33-118%
4165-60-0	Nitrobenzene-d5	64%		42-108%
321-60-8	2-Fluorobiphenyl	72%		40-106%
1718-51-0	Terphenyl-d14	80%		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-4
Lab Sample ID: FA31365-3
Matrix: AQ - Water
Project: Grifton Dump; NC

Date Sampled: 02/11/16
Date Received: 02/12/16
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony [a]	0.00013 J	0.0020	0.000056	mg/l	1	02/16/16	02/17/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Arsenic [a]	0.00014 J	0.0010	0.000048	mg/l	1	02/16/16	02/17/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Beryllium [a]	ND	0.00050	0.000074	mg/l	1	02/16/16	02/17/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Cadmium [a]	ND	0.00050	0.000060	mg/l	1	02/16/16	02/17/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Chromium [a]	ND	0.0040	0.000083	mg/l	1	02/16/16	02/17/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Copper [a]	0.0247	0.0040	0.00013	mg/l	1	02/16/16	02/17/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Iron [a]	0.0254 J	0.050	0.00065	mg/l	1	02/16/16	02/17/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Lead [a]	0.0026	0.00050	0.0000066	mg/l	1	02/16/16	02/17/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Manganese [a]	0.0014	0.0010	0.00012	mg/l	1	02/16/16	02/17/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Mercury	ND	0.00050	0.000030	mg/l	1	02/26/16	02/26/16	JL	EPA 245.1 [1]	EPA 245.1 [3]
Nickel [a]	0.00041 J	0.0040	0.000097	mg/l	1	02/16/16	02/17/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Selenium [a]	ND	0.0010	0.000076	mg/l	1	02/16/16	02/17/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Silver [a]	ND	0.0020	0.000019	mg/l	1	02/16/16	02/17/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Thallium [a]	ND	0.00050	0.000026	mg/l	1	02/16/16	02/17/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]
Zinc [a]	0.151	0.010	0.0019	mg/l	1	02/16/16	02/17/16	ANJ	EPA 200.8 [2]	EPA 200.8 [4]

(1) Instrument QC Batch: MA12991
(2) Instrument QC Batch: N:MA38749
(3) Prep QC Batch: MP30033
(4) Prep QC Batch: N:MP92060

(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-4		
Lab Sample ID:	FA31365-3	**Date Sampled:**	02/11/16
Matrix:	AQ - Water	**Date Received:**	02/12/16
		Percent Solids:	n/a
Project:	Grifton Dump; NC		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Nitrogen, Ammonia	0.10	0.10	0.030	mg/l	1	02/18/16 16:02	JK	EPA 350.1
Nitrogen, Nitrate	ND	0.10	0.050	mg/l	1	02/12/16 13:36	DM	EPA 300/SW846 9056A
Sulfate	ND	2.0	0.60	mg/l	1	02/12/16 13:36	DM	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:	TRIP BLANK		
Lab Sample ID:	FA31365-4	**Date Sampled:**	02/11/16
Matrix:	AQ - Trip Blank Water	**Date Received:**	02/12/16
Method:	SW846 8260B BY SIM	**Percent Solids:**	n/a
Project:	Grifton Dump; NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z39708.D	1	02/16/16	MM	n/a	n/a	VZ1492
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	106%		74-125%
2037-26-5	Toluene-D8	104%		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		
Lab Sample ID:	FA31365-4	**Date Sampled:**	02/11/16
Matrix:	AQ - Trip Blank Water	**Date Received:**	02/12/16
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Grifton Dump; NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B111615.D	1	02/22/16	MM	n/a	n/a	VB4508
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 [a]	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
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:	TRIP BLANK		
Lab Sample ID:	FA31365-4	**Date Sampled:**	02/11/16
Matrix:	AQ - Trip Blank Water	**Date Received:**	02/12/16
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Grifton Dump; 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	99%		83-118%
17060-07-0	1,2-Dichloroethane-D4	99%		79-125%
2037-26-5	Toluene-D8	99%		85-112%
460-00-4	4-Bromofluorobenzene	100%		83-118%

(a) Associated BS recovery outside control limits.

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: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; 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 # FA31365 PAGE 1 OF 1

Accutest Quote # | SKIFF#

Client / Reporting Information

Company Name: URS Corporation
Address: 1600 Perimeter Park Dr
City: Morrisville State: NC Zip: 27560
Project Contact: Carlin Slusher E-mail:
Phone#: 919-461-1100
Sampler(s) Name(s) (Printed): J Abbassi, JJ Wilke

Project Information

Project Name: Grifton Dump
Street:
City: State:
Project #: 60482357
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	NaOCH	VOCs 8260B	1,4-Dioxane 8260B SIM	SVOCs 8270D	Metals 200.8+245.1	Nitrate+Sulfate EPA 300	Ammonia EPA 350.1					
1	Well-802 Wiley	2/11/16		DW	DW	11		X	X		X	X				X	X	X	X	X	X					
2	Well-803 Wiley	↓		↓	↓	↓		↓	↓		↓	↓				↓	↓	↓	↓	↓	↓					
3	DUP-4	↓		↓	↓	↓		↓	↓		↓	↓				↓	↓	↓	↓	↓	↓					
4	Trip Blank	–	–	–	–	6			↓							↓	↓									

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	2/11 14:00	2	3	2/11/16 17:02	4 FedEx
Relinquished by: 5 FX	Date Time: 2-12-16	Received By: 6 J. Coyle (ABR) 09:30	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

FA31365: Chain of Custody
Page 1 of 3

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: FA31365 CLIENT: WRS CORP PROJECT: GAILTON DUMP

DATE/TIME RECEIVED: 2-12-16 09:30 {MM/DD/YY 24:00} NUMBER OF COOLERS RECEIVED: 1

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

AIRBILL NUMBERS: 7756 2623 4035

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

TEMPERATURE INFORMATION

- [ ] IR THERM ID 1 CORR. FACTOR -0.4
- [ ] OBSERVED TEMPS: 3.6
- [ ] CORRECTED TEMPS: 3.2 (USED FOR LIMS)

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

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}

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM 5-GRAM

NUMBER OF 5035 FIELD KITS ?

NUMBER OF LAB FILTERED METALS ?

TEST STRIP LOT#s pH 0-3 204413A pH 10-12 219813A OTHER (specify)

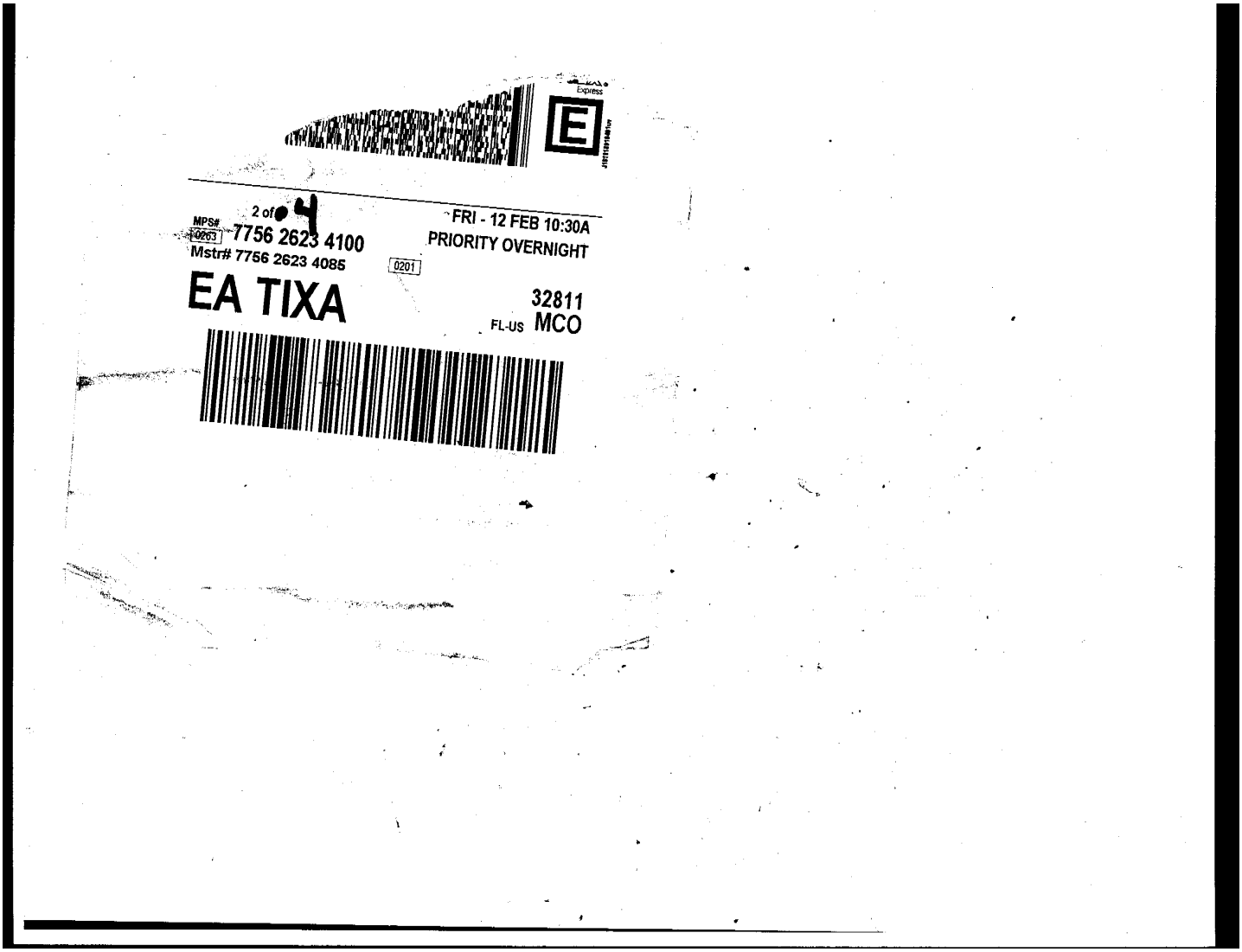
SUMMARY OF COMMENTS:

TECHNICIAN SIGNATURE/DATE 2-12-16 REVIEWER SIGNATURE/DATE 2/12/16

NF 11/15 receipt confirmation 111015.xls

5.2 5

FA31365: Chain of Custody
Page 2 of 3



FA31365: Chain of Custody
Page 3 of 3

Analyst Legend

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Initials	Full Name	Analysis Type
MM	Melissa Mangual	GC/MS Volatiles
MV	Martha Valls	GC/MS Semi-volatiles
JL	James Laureano	Metals Analysis
DM	Douglas Martin	General Chemistry
JK	Jenna Kravitz	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: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ1492-MB	Z39692.D	1	02/16/16	MM	n/a	n/a	VZ1492

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

FA31365-1, FA31365-2, FA31365-3, FA31365-4

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	110%	74-125%
2037-26-5	Toluene-D8	102%	88-111%

Method Blank Summary

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VB4508-MB	B111606.D	1	02/22/16	MM	n/a	n/a	VB4508

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

FA31365-1, FA31365-2, FA31365-3, FA31365-4

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	2.9	5.0	2.0	ug/l	J

Method Blank Summary

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VB4508-MB	B111606.D	1	02/22/16	MM	n/a	n/a	VB4508

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

FA31365-1, FA31365-2, FA31365-3, FA31365-4

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	ND	2.0	0.51	ug/l	
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	98%	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	106%	83-118%

Blank Spike Summary

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ1492-BS	Z39691.D	1	02/16/16	MM	n/a	n/a	VZ1492

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

FA31365-1, FA31365-2, FA31365-3, FA31365-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
123-91-1	1,4-Dioxane	20	18.3	92	65-121

CAS No.	Surrogate Recoveries	BSP	Limits
17060-07-0	1,2-Dichloroethane-D4	96%	74-125%
2037-26-5	Toluene-D8	91%	88-111%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VB4508-BS	B111605.D	1	02/22/16	MM	n/a	n/a	VB4508

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

FA31365-1, FA31365-2, FA31365-3, FA31365-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	195	156*	50-147
71-43-2	Benzene	25	24.9	100	81-122
74-97-5	Bromochloromethane	25	25.3	101	76-123
75-27-4	Bromodichloromethane	25	26.0	104	79-123
75-25-2	Bromoform	25	26.9	108	66-123
78-93-3	2-Butanone (MEK)	125	134	107	56-143
75-15-0	Carbon Disulfide	25	27.9	112	66-148
56-23-5	Carbon Tetrachloride	25	27.3	109	76-136
108-90-7	Chlorobenzene	25	25.1	100	82-124
75-00-3	Chloroethane	25	21.1	84	62-144
67-66-3	Chloroform	25	25.6	102	80-124
110-82-7	Cyclohexane	25	25.9	104	73-138
124-48-1	Dibromochloromethane	25	25.0	100	78-122
96-12-8	1,2-Dibromo-3-chloropropane	25	24.5	98	64-123
106-93-4	1,2-Dibromoethane	25	24.9	100	75-120
75-71-8	Dichlorodifluoromethane	25	21.0	84	42-167
95-50-1	1,2-Dichlorobenzene	25	25.3	101	82-124
541-73-1	1,3-Dichlorobenzene	25	25.5	102	84-125
106-46-7	1,4-Dichlorobenzene	25	24.7	99	78-120
75-34-3	1,1-Dichloroethane	25	26.0	104	81-122
107-06-2	1,2-Dichloroethane	25	23.6	94	75-125
75-35-4	1,1-Dichloroethylene	25	26.7	107	78-137
156-59-2	cis-1,2-Dichloroethylene	25	24.9	100	78-120
156-60-5	trans-1,2-Dichloroethylene	25	27.2	109	76-127
78-87-5	1,2-Dichloropropane	25	23.4	94	76-124
10061-01-5	cis-1,3-Dichloropropene	25	24.6	98	75-118
10061-02-6	trans-1,3-Dichloropropene	25	26.9	108	80-120
100-41-4	Ethylbenzene	25	25.2	101	81-121
76-13-1	Freon 113	25	25.8	103	72-134
591-78-6	2-Hexanone	125	157	126	61-129
98-82-8	Isopropylbenzene	25	25.9	104	83-132
79-20-9	Methyl Acetate	125	135	108	65-126
74-83-9	Methyl Bromide	25	20.8	83	59-143
74-87-3	Methyl Chloride	25	18.1	72	50-159
108-87-2	Methylcyclohexane	25	27.1	108	76-129
75-09-2	Methylene Chloride	25	28.6	114	69-135

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VB4508-BS	B111605.D	1	02/22/16	MM	n/a	n/a	VB4508

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

FA31365-1, FA31365-2, FA31365-3, FA31365-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
108-10-1	4-Methyl-2-pentanone (MIBK)	125	143	114	66-122
1634-04-4	Methyl Tert Butyl Ether	25	27.8	111	72-117
100-42-5	Styrene	25	24.0	96	78-119
79-34-5	1,1,2,2-Tetrachloroethane	25	24.0	96	72-120
127-18-4	Tetrachloroethylene	25	27.5	110	76-135
108-88-3	Toluene	25	23.6	94	80-120
87-61-6	1,2,3-Trichlorobenzene	25	27.6	110	68-131
120-82-1	1,2,4-Trichlorobenzene	25	26.3	105	73-129
71-55-6	1,1,1-Trichloroethane	25	27.2	109	75-130
79-00-5	1,1,2-Trichloroethane	25	24.1	96	76-119
79-01-6	Trichloroethylene	25	24.8	99	81-126
75-69-4	Trichlorofluoromethane	25	23.0	92	71-156
75-01-4	Vinyl Chloride	25	19.4	78	69-159
	m,p-Xylene	50	50.7	101	79-126
95-47-6	o-Xylene	25	24.3	97	80-127

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	106%	83-118%
17060-07-0	1,2-Dichloroethane-D4	101%	79-125%
2037-26-5	Toluene-D8	97%	85-112%
460-00-4	4-Bromofluorobenzene	103%	83-118%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA31335-2MS	Z39712.D	1	02/16/16	MM	n/a	n/a	VZ1492
FA31335-2MSD	Z39713.D	1	02/16/16	MM	n/a	n/a	VZ1492
FA31335-2	Z39693.D	1	02/16/16	MM	n/a	n/a	VZ1492

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

FA31365-1, FA31365-2, FA31365-3, FA31365-4

CAS No.	Compound	FA31335-2 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	18.0	90	20	16.8	84	7	65-121/27

CAS No.	Surrogate Recoveries	MS	MSD	FA31335-2	Limits
17060-07-0	1,2-Dichloroethane-D4	103%	82%	105%	74-125%
2037-26-5	Toluene-D8	129%*	99%	101%	88-111%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA31556-1MS	B111628.D	1	02/22/16	MM	n/a	n/a	VB4508
FA31556-1MSD	B111629.D	1	02/22/16	MM	n/a	n/a	VB4508
FA31556-1	B111622.D	1	02/22/16	MM	n/a	n/a	VB4508

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

FA31365-1, FA31365-2, FA31365-3, FA31365-4

CAS No.	Compound	FA31556-1 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	10.6	I	125	138	102	125	139	103	1	50-147/21
71-43-2	Benzene	1.0 U		25	24.7	99	25	25.0	100	1	81-122/14
74-97-5	Bromochloromethane	1.0 U		25	24.8	99	25	24.7	99	0	76-123/14
75-27-4	Bromodichloromethane	1.0 U		25	23.8	95	25	22.9	92	4	79-123/19
75-25-2	Bromoform	1.0 U		25	22.4	90	25	20.4	82	9	66-123/21
78-93-3	2-Butanone (MEK)	5.0 U		125	114	91	125	118	94	3	56-143/18
75-15-0	Carbon Disulfide	2.0 U		25	22.2	89	25	20.7	83	7	66-148/23
56-23-5	Carbon Tetrachloride	1.0 U		25	26.0	104	25	23.4	94	11	76-136/23
108-90-7	Chlorobenzene	1.0 U		25	24.8	99	25	24.4	98	2	82-124/14
75-00-3	Chloroethane	2.0 U		25	23.0	92	25	21.9	88	5	62-144/20
67-66-3	Chloroform	1.0 U		25	24.4	98	25	24.7	99	1	80-124/15
110-82-7	Cyclohexane	1.0 U		25	27.8	111	25	26.6	106	4	73-138/18
124-48-1	Dibromochloromethane	1.0 U		25	23.7	95	25	21.8	87	8	78-122/19
96-12-8	1,2-Dibromo-3-chloropropane	5.0 U		25	21.5	86	25	22.1	88	3	64-123/18
106-93-4	1,2-Dibromoethane	2.0 U		25	23.2	93	25	23.1	92	0	75-120/13
75-71-8	Dichlorodifluoromethane	2.0 U		25	19.1	76	25	18.7	75	2	42-167/19
95-50-1	1,2-Dichlorobenzene	1.0 U		25	24.9	100	25	24.4	98	2	82-124/14
541-73-1	1,3-Dichlorobenzene	1.0 U		25	24.8	99	25	25.2	101	2	84-125/14
106-46-7	1,4-Dichlorobenzene	1.0 U		25	24.6	98	25	24.4	98	1	78-120/15
75-34-3	1,1-Dichloroethane	1.0 U		25	25.3	101	25	25.9	104	2	81-122/15
107-06-2	1,2-Dichloroethane	1.0 U		25	22.3	89	25	22.4	90	0	75-125/14
75-35-4	1,1-Dichloroethylene	1.0 U		25	25.9	104	25	26.1	104	1	78-137/18
156-59-2	cis-1,2-Dichloroethylene	1.0 U		25	23.8	95	25	24.0	96	1	78-120/15
156-60-5	trans-1,2-Dichloroethylene	1.0 U		25	26.3	105	25	26.2	105	0	76-127/17
78-87-5	1,2-Dichloropropane	1.0 U		25	23.0	92	25	24.5	98	6	76-124/14
10061-01-5	cis-1,3-Dichloropropene	1.0 U		25	20.8	83	25	19.9	80	4	75-118/23
10061-02-6	trans-1,3-Dichloropropene	1.0 U		25	21.6	86	25	20.5	82	5	80-120/22
100-41-4	Ethylbenzene	1.0		25	26.7	103	25	26.7	103	0	81-121/14
76-13-1	Freon 113	1.0 U		25	25.1	100	25	24.2	97	4	72-134/20
591-78-6	2-Hexanone	10 U		125	132	106	125	138	110	4	61-129/18
98-82-8	Isopropylbenzene	1.0 U		25	26.7	107	25	26.2	105	2	83-132/15
79-20-9	Methyl Acetate	20 U		125	117	94	125	116	93	1	65-126/18
74-83-9	Methyl Bromide	2.0 U		25	22.6	90	25	21.1	84	7	59-143/19
74-87-3	Methyl Chloride	2.0 U		25	19.7	79	25	19.2	77	3	50-159/19
108-87-2	Methylcyclohexane	1.0 U		25	26.9	108	25	26.1	104	3	76-129/17
75-09-2	Methylene Chloride	5.0 U		25	25.4	102	25	24.6	98	3	69-135/16

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA31556-1MS	B111628.D	1	02/22/16	MM	n/a	n/a	VB4508
FA31556-1MSD	B111629.D	1	02/22/16	MM	n/a	n/a	VB4508
FA31556-1	B111622.D	1	02/22/16	MM	n/a	n/a	VB4508

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

FA31365-1, FA31365-2, FA31365-3, FA31365-4

CAS No.	Compound	FA31556-1 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)	5.0	U	125	137	110	125	131	105	4	66-122/16
1634-04-4	Methyl Tert Butyl Ether	1.0	U	25	24.7	99	25	24.7	99	0	72-117/14
100-42-5	Styrene	1.0	U	25	25.1	100	25	24.5	98	2	78-119/23
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	25	23.4	94	25	22.7	91	3	72-120/14
127-18-4	Tetrachloroethylene	1.0	U	25	24.5	98	25	24.6	98	0	76-135/16
108-88-3	Toluene	1.0	U	25	24.6	98	25	24.6	98	0	80-120/14
87-61-6	1,2,3-Trichlorobenzene	2.0	U	25	23.3	93	25	24.9	100	7	68-131/25
120-82-1	1,2,4-Trichlorobenzene	2.0	U	25	23.1	92	25	24.2	97	5	73-129/20
71-55-6	1,1,1-Trichloroethane	1.0	U	25	25.9	104	25	25.9	104	0	75-130/16
79-00-5	1,1,2-Trichloroethane	1.0	U	25	22.5	90	25	22.5	90	0	76-119/14
79-01-6	Trichloroethylene	1.0	U	25	24.3	97	25	25.7	103	6	81-126/15
75-69-4	Trichlorofluoromethane	2.0	U	25	24.1	96	25	22.9	92	5	71-156/21
75-01-4	Vinyl Chloride	1.0	U	25	21.1	84	25	20.6	82	2	69-159/18
	m,p-Xylene	2.0	U	50	51.7	103	50	51.8	104	0	79-126/15
95-47-6	o-Xylene	1.0	U	25	26.0	104	25	25.3	101	3	80-127/14

CAS No.	Surrogate Recoveries	MS	MSD	FA31556-1	Limits
1868-53-7	Dibromofluoromethane	100%	100%	97%	83-118%
17060-07-0	1,2-Dichloroethane-D4	95%	95%	95%	79-125%
2037-26-5	Toluene-D8	97%	96%	101%	85-112%
460-00-4	4-Bromofluorobenzene	102%	99%	97%	83-118%

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample: VB4505-BFB
Lab File ID: B111536.D
Instrument ID: GCMSB
Injection Date: 02/17/16
Injection Time: 17:27

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	68499	24.9		Pass
75	30.0 - 60.0% of mass 95	123251	44.7		Pass
95	Base peak, 100% relative abundance	275435	100.0		Pass
96	5.0 - 9.0% of mass 95	20421	7.41		Pass
173	Less than 2.0% of mass 174	538	0.20	(0.22) [a]	Pass
174	50.0 - 100.0% of mass 95	243392	88.4		Pass
175	5.0 - 9.0% of mass 174	17747	6.44	(7.29) [a]	Pass
176	95.0 - 101.0% of mass 174	235093	85.4	(96.6) [a]	Pass
177	5.0 - 9.0% of mass 176	16249	5.90	(6.91) [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
VB4505-IC4505	B111537.D	02/17/16	17:54	00:27	Initial cal 1
VB4505-IC4505	B111538.D	02/17/16	18:20	00:53	Initial cal 2
VB4505-IC4505	B111539.D	02/17/16	18:47	01:20	Initial cal 3
VB4505-IC4505	B111540.D	02/17/16	19:13	01:46	Initial cal 4
VB4505-ICC4505	B111541.D	02/17/16	19:39	02:12	Initial cal 5
VB4505-IC4505	B111542.D	02/17/16	20:05	02:38	Initial cal 6
VB4505-IC4505	B111543.D	02/17/16	20:31	03:04	Initial cal 7

Instrument Performance Check (BFB)

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample: VB4506-BFB
Lab File ID: B111547.D
Instrument ID: GCMSB
Injection Date: 02/18/16
Injection Time: 07:57

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	82472	23.3		Pass
75	30.0 - 60.0% of mass 95	156651	44.3		Pass
95	Base peak, 100% relative abundance	353408	100.0		Pass
96	5.0 - 9.0% of mass 95	25848	7.31		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 100.0% of mass 95	324117	91.7		Pass
175	5.0 - 9.0% of mass 174	23965	6.78	(7.39) [a]	Pass
176	95.0 - 101.0% of mass 174	315883	89.4	(97.5) [a]	Pass
177	5.0 - 9.0% of mass 176	20219	5.72	(6.40) [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
VB4506-CC4505	B111548.D	02/18/16	08:50	00:53	Continuing cal 5
VB4505-ICV4505	B111549.D	02/18/16	09:18	01:21	Initial cal verification 5
VB4506-BS	B111550.D	02/18/16	09:54	01:57	Blank Spike
VB4506-MB	B111551.D	02/18/16	10:21	02:24	Method Blank
FA31357-1	B111552.D	02/18/16	11:10	03:13	(used for QC only; not part of job FA31365)
ZZZZZZ	B111553.D	02/18/16	11:36	03:39	(unrelated sample)
ZZZZZZ	B111554.D	02/18/16	12:02	04:05	(unrelated sample)
ZZZZZZ	B111555.D	02/18/16	12:29	04:32	(unrelated sample)
ZZZZZZ	B111556.D	02/18/16	12:55	04:58	(unrelated sample)
ZZZZZZ	B111557.D	02/18/16	13:21	05:24	(unrelated sample)
ZZZZZZ	B111558.D	02/18/16	13:48	05:51	(unrelated sample)
ZZZZZZ	B111559.D	02/18/16	14:14	06:17	(unrelated sample)
ZZZZZZ	B111560.D	02/18/16	14:40	06:43	(unrelated sample)
ZZZZZZ	B111561.D	02/18/16	15:06	07:09	(unrelated sample)
ZZZZZZ	B111562.D	02/18/16	15:33	07:36	(unrelated sample)
FA31357-1MS	B111563.D	02/18/16	15:59	08:02	Matrix Spike
FA31357-1MSD	B111564.D	02/18/16	16:25	08:28	Matrix Spike Duplicate
ZZZZZZ	B111565.D	02/18/16	16:52	08:55	(unrelated sample)
ZZZZZZ	B111566.D	02/18/16	17:18	09:21	(unrelated sample)
ZZZZZZ	B111567.D	02/18/16	17:44	09:47	(unrelated sample)
ZZZZZZ	B111568.D	02/18/16	18:10	10:13	(unrelated sample)
ZZZZZZ	B111569.D	02/18/16	18:36	10:39	(unrelated sample)
ZZZZZZ	B111570.D	02/18/16	19:03	11:06	(unrelated sample)
ZZZZZZ	B111571.D	02/18/16	19:29	11:32	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample: VB4506-BFB
Lab File ID: B111547.D
Instrument ID: GCMSB
Injection Date: 02/18/16
Injection Time: 07:57

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VB4506-ECC4505	B111572.D	02/18/16	19:55	11:58	Ending cal 5

Instrument Performance Check (BFB)

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample: VB4508-BFB
Lab File ID: B111603.D
Instrument ID: GCMSB
Injection Date: 02/22/16
Injection Time: 07:39

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	66725	23.0		Pass
75	30.0 - 60.0% of mass 95	126784	43.8		Pass
95	Base peak, 100% relative abundance	289685	100.0		Pass
96	5.0 - 9.0% of mass 95	22363	7.72		Pass
173	Less than 2.0% of mass 174	551	0.19	(0.21) [a]	Pass
174	50.0 - 100.0% of mass 95	262357	90.6		Pass
175	5.0 - 9.0% of mass 174	19153	6.61	(7.30) [a]	Pass
176	95.0 - 101.0% of mass 174	256192	88.4	(97.7) [a]	Pass
177	5.0 - 9.0% of mass 176	17381	6.00	(6.78) [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
VB4508-CC4505	B111604.D	02/22/16	08:06	00:27	Continuing cal 5
VB4508-BS	B111605.D	02/22/16	09:24	01:45	Blank Spike
VB4508-MB	B111606.D	02/22/16	09:50	02:11	Method Blank
ZZZZZZ	B111607.D	02/22/16	10:16	02:37	(unrelated sample)
ZZZZZZ	B111608.D	02/22/16	10:43	03:04	(unrelated sample)
ZZZZZZ	B111609.D	02/22/16	11:10	03:31	(unrelated sample)
ZZZZZZ	B111611.D	02/22/16	12:03	04:24	(unrelated sample)
FA31365-1	B111612.D	02/22/16	12:29	04:50	WELL-802 WILEY
FA31365-2	B111613.D	02/22/16	12:56	05:17	WELL-803 WILEY
FA31365-3	B111614.D	02/22/16	13:22	05:43	DUP-4
FA31365-4	B111615.D	02/22/16	13:49	06:10	TRIP BLANK
ZZZZZZ	B111616.D	02/22/16	14:15	06:36	(unrelated sample)
ZZZZZZ	B111617.D	02/22/16	14:42	07:03	(unrelated sample)
ZZZZZZ	B111618.D	02/22/16	15:08	07:29	(unrelated sample)
ZZZZZZ	B111619.D	02/22/16	15:35	07:56	(unrelated sample)
ZZZZZZ	B111620.D	02/22/16	16:01	08:22	(unrelated sample)
ZZZZZZ	B111621.D	02/22/16	16:28	08:49	(unrelated sample)
FA31556-1	B111622.D	02/22/16	16:54	09:15	(used for QC only; not part of job FA31365)
ZZZZZZ	B111623.D	02/22/16	17:20	09:41	(unrelated sample)
ZZZZZZ	B111624.D	02/22/16	17:47	10:08	(unrelated sample)
ZZZZZZ	B111625.D	02/22/16	18:13	10:34	(unrelated sample)
ZZZZZZ	B111626.D	02/22/16	18:39	11:00	(unrelated sample)
ZZZZZZ	B111627.D	02/22/16	19:05	11:26	(unrelated sample)
FA31556-1MS	B111628.D	02/22/16	19:31	11:52	Matrix Spike

Instrument Performance Check (BFB)

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample: VB4508-BFB
Lab File ID: B111603.D
Instrument ID: GCMSB
Injection Date: 02/22/16
Injection Time: 07:39

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
FA31556-1MSD	B111629.D	02/22/16	19:58	12:19	Matrix Spike Duplicate
VB4508-ECC4505	B111630.D	02/22/16	20:24	12:45	Ending cal 5

Instrument Performance Check (BFB)

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample: VZ1491-BFB
Lab File ID: Z39651.D
Instrument ID: GCMSZ
Injection Date: 02/15/16
Injection Time: 06:37

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	124299	25.5		Pass
75	30.0 - 60.0% of mass 95	282709	58.0		Pass
95	Base peak, 100% relative abundance	487189	100.0		Pass
96	5.0 - 9.0% of mass 95	29944	6.15		Pass
173	Less than 2.0% of mass 174	1420	0.29	(0.34) [a]	Pass
174	50.0 - 100.0% of mass 95	417045	85.6		Pass
175	5.0 - 9.0% of mass 174	32237	6.62	(7.73) [a]	Pass
176	95.0 - 101.0% of mass 174	409195	84.0	(98.1) [a]	Pass
177	5.0 - 9.0% of mass 176	26499	5.44	(6.48) [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
VZ1491-IC1491	Z39654.D	02/15/16	07:46	01:09	Initial cal 1
VZ1491-IC1491	Z39655.D	02/15/16	08:11	01:34	Initial cal 2
VZ1491-IC1491	Z39656.D	02/15/16	08:35	01:58	Initial cal 3
VZ1491-ICC1491	Z39657.D	02/15/16	09:00	02:23	Initial cal 4
VZ1491-IC1491	Z39658.D	02/15/16	09:25	02:48	Initial cal 5
VZ1491-IC1491	Z39659.D	02/15/16	09:49	03:12	Initial cal 6
VZ1491-IC1491	Z39660.D	02/15/16	10:14	03:37	Initial cal 7
VZ1491-ICV1491	Z39662.D	02/15/16	11:03	04:26	Initial cal verification 4
VZ1491-BS	Z39663.D	02/15/16	11:27	04:50	Blank Spike
VZ1491-MB	Z39664.D	02/15/16	11:52	05:15	Method Blank
ZZZZZZ	Z39665.D	02/15/16	12:20	05:43	(unrelated sample)
ZZZZZZ	Z39666.D	02/15/16	12:44	06:07	(unrelated sample)
ZZZZZZ	Z39667.D	02/15/16	13:09	06:32	(unrelated sample)
ZZZZZZ	Z39668.D	02/15/16	13:33	06:56	(unrelated sample)
ZZZZZZ	Z39669.D	02/15/16	13:58	07:21	(unrelated sample)
FA31344-1	Z39670.D	02/15/16	14:23	07:46	(used for QC only; not part of job FA31365)
ZZZZZZ	Z39671.D	02/15/16	14:47	08:10	(unrelated sample)
ZZZZZZ	Z39672.D	02/15/16	15:12	08:35	(unrelated sample)
ZZZZZZ	Z39673.D	02/15/16	15:36	08:59	(unrelated sample)
ZZZZZZ	Z39674.D	02/15/16	16:01	09:24	(unrelated sample)
ZZZZZZ	Z39675.D	02/15/16	16:25	09:48	(unrelated sample)
ZZZZZZ	Z39676.D	02/15/16	16:50	10:13	(unrelated sample)
ZZZZZZ	Z39677.D	02/15/16	17:14	10:37	(unrelated sample)
ZZZZZZ	Z39678.D	02/15/16	17:39	11:02	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample: VZ1491-BFB
Lab File ID: Z39651.D
Instrument ID: GCMSZ
Injection Date: 02/15/16
Injection Time: 06:37

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
FA31344-1MS	Z39679.D	02/15/16	18:03	11:26	Matrix Spike
FA31344-1MSD	Z39680.D	02/15/16	18:28	11:51	Matrix Spike Duplicate
VZ1491-ECC1491	Z39681.D	02/15/16	18:53	12:16	Ending cal 4

Instrument Performance Check (BFB)

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample: VZ1492-BFB
Lab File ID: Z39687.D
Instrument ID: GCMSZ
Injection Date: 02/16/16
Injection Time: 08:08

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	110131	23.5		Pass
75	30.0 - 60.0% of mass 95	258709	55.2		Pass
95	Base peak, 100% relative abundance	468971	100.0		Pass
96	5.0 - 9.0% of mass 95	33563	7.16		Pass
173	Less than 2.0% of mass 174	1767	0.38	(0.41) [a]	Pass
174	50.0 - 100.0% of mass 95	428459	91.4		Pass
175	5.0 - 9.0% of mass 174	32541	6.94	(7.59) [a]	Pass
176	95.0 - 101.0% of mass 174	408747	87.2	(95.4) [a]	Pass
177	5.0 - 9.0% of mass 176	23253	4.96	(5.69) [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
VZ1492-CC1491	Z39688.D	02/16/16	08:38	00:30	Continuing cal 4
VZ1492-BS	Z39691.D	02/16/16	09:54	01:46	Blank Spike
VZ1492-MB	Z39692.D	02/16/16	10:19	02:11	Method Blank
FA31335-2	Z39693.D	02/16/16	10:44	02:36	(used for QC only; not part of job FA31365)
ZZZZZZ	Z39694.D	02/16/16	11:08	03:00	(unrelated sample)
ZZZZZZ	Z39695.D	02/16/16	11:32	03:24	(unrelated sample)
ZZZZZZ	Z39696.D	02/16/16	11:57	03:49	(unrelated sample)
FA31365-1	Z39705.D	02/16/16	15:38	07:30	WELL-802 WILEY
FA31365-2	Z39706.D	02/16/16	16:02	07:54	WELL-803 WILEY
FA31365-3	Z39707.D	02/16/16	16:27	08:19	DUP-4
FA31365-4	Z39708.D	02/16/16	16:51	08:43	TRIP BLANK
ZZZZZZ	Z39709.D	02/16/16	17:16	09:08	(unrelated sample)
ZZZZZZ	Z39710.D	02/16/16	17:41	09:33	(unrelated sample)
ZZZZZZ	Z39711.D	02/16/16	18:05	09:57	(unrelated sample)
FA31335-2MS	Z39712.D	02/16/16	18:29	10:21	Matrix Spike
FA31335-2MSD	Z39713.D	02/16/16	18:54	10:46	Matrix Spike Duplicate
VZ1492-ECC1491	Z39714.D	02/16/16	19:18	11:10	Ending cal 4

Volatile Internal Standard Area Summary

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Check Std:	VB4508-CC4505	**Injection Date:**	02/22/16
Lab File ID:	B111604.D	**Injection Time:**	08:06
Instrument ID:	GCMSB	**Method:**	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
Initial Cal [a]	1822317	9.85	1520811	13.07	813679	15.62	79867	7.11
Check Std [b]	1715085	9.85	1410101	13.07	784345	15.61	88928	7.12
Upper Limit [c]	3430170	10.35	2820202	13.57	1568690	16.11	177856	7.62
Lower Limit [d]	857543	9.35	705051	12.57	392173	15.11	44464	6.62

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
VB4508-BS	1735792	9.85	1513080	13.07	802275	15.61	117652	7.11
VB4508-MB	1693635	9.85	1391129	13.07	710715	15.61	101095	7.11
ZZZZZZ	1595883	9.85	1374844	13.07	723868	15.61	73600	7.10
ZZZZZZ	1693462	9.85	1420125	13.07	724801	15.62	89829	7.11
ZZZZZZ	1695751	9.85	1390294	13.07	691995	15.62	87771	7.10
ZZZZZZ	1482963	9.85	1243830	13.07	622443	15.61	73976	7.12
FA31365-1	1418292	9.85	1184434	13.07	595490	15.62	67224	7.11
FA31365-2	1391217	9.85	1160164	13.07	581197	15.61	68367	7.11
FA31365-3	1408624	9.86	1146685	13.07	569546	15.62	65188	7.10
FA31365-4	1319344	9.85	1100179	13.07	555391	15.62	60575	7.12
ZZZZZZ	1367985	9.86	1152082	13.07	609420	15.62	57369	7.11
ZZZZZZ	1448692	9.85	1213349	13.07	650057	15.62	69691	7.11
ZZZZZZ	1440440	9.86	1180046	13.07	598676	15.62	70058	7.12
ZZZZZZ	1350947	9.85	1141992	13.07	552586	15.61	61711	7.12
ZZZZZZ	1317918	9.86	1091718	13.08	563565	15.62	60939	7.11
ZZZZZZ	1300043	9.85	1098823	13.07	537608	15.61	61662	7.12
FA31556-1	1320771	9.85	1077967	13.07	540908	15.62	61599	7.11
ZZZZZZ	1505820	9.85	1286018	13.07	740990	15.61	75921	7.11
ZZZZZZ	1646381	9.86	1349790	13.07	681483	15.62	94056	7.11
ZZZZZZ	1575637	9.85	1300908	13.07	645690	15.62	77463	7.11
ZZZZZZ	1515819	9.86	1256965	13.07	618571	15.62	72359	7.12
ZZZZZZ	1431968	9.85	1171882	13.07	586504	15.62	66879	7.11
FA31556-1MS	1562389	9.86	1332529	13.07	710057	15.62	84331	7.11
FA31556-1MSD	1656209	9.85	1395291	13.07	746164	15.61	86500	7.11
VB4508-ECC4505	1690940	9.85	1417834	13.07	769623	15.62	92169	7.11

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

(a) Initial Cal is: VB4505-ICC4505 B111541.D 02/17/16 19:39
(b) Check Std Limit = -50 to +100% of initial cal area.

Volatile Internal Standard Area Summary

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Check Std:	VB4508-CC4505	**Injection Date:**	02/22/16
Lab File ID:	B111604.D	**Injection Time:**	08:06
Instrument ID:	GCMSB	**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: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Check Std:	VZ1492-CC1491	**Injection Date:**	02/16/16
Lab File ID:	Z39688.D	**Injection Time:**	08:38
Instrument ID:	GCMSZ	**Method:**	SW846 8260B BY SIM

	IS 1 AREA	RT	IS 2 AREA	RT
Initial Cal [a]	1315171	3.74	56804	4.44
Check Std [b]	1043771	3.75	51480	4.44
Upper Limit [c]	2087542	4.25	102960	4.94
Lower Limit [d]	521886	3.25	25740	3.94

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT
VZ1492-BS	1238785	3.75	52241	4.43
VZ1492-MB	1053354	3.75	48105	4.44
FA31335-2	1027309	3.75	48911	4.43
ZZZZZZ	1043771	3.75	53543	4.44
ZZZZZZ	1036092	3.75	46373	4.43
ZZZZZZ	1019292	3.76	44698	4.44
FA31365-1	1004238	3.75	57254	4.43
FA31365-2	1288903	3.75	59362	4.44
FA31365-3	988500	3.76	46850	4.44
FA31365-4	973625	3.75	46388	4.43
ZZZZZZ	1239447	3.76	63171	4.43
ZZZZZZ	1057602	3.75	53778	4.43
ZZZZZZ	1118450	3.75	64731	4.44
FA31335-2MS	1031862	3.74	64107	4.44
FA31335-2MSD	1417179	3.75	68571	4.44
VZ1492-ECC1491	1399231	3.74	63284	4.44

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

(a) Initial Cal is: VZ1491-ICC1491 Z39657.D 02/15/16 09:00
(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: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; 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
FA31365-1	Z39705.D	106	102
FA31365-2	Z39706.D	88	92
FA31365-3	Z39707.D	106	104
FA31365-4	Z39708.D	106	104
FA31335-2MS	Z39712.D	103	129*
FA31335-2MSD	Z39713.D	82	99
VZ1492-BS	Z39691.D	96	91
VZ1492-MB	Z39692.D	110	102

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

Volatile Surrogate Recovery Summary

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; 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
FA31365-1	B111612.D	100	99	99	101
FA31365-2	B111613.D	99	101	100	100
FA31365-3	B111614.D	96	96	99	101
FA31365-4	B111615.D	99	99	99	100
FA31556-1MS	B111628.D	100	95	97	102
FA31556-1MSD	B111629.D	100	95	96	99
VB4508-BS	B111605.D	106	101	97	103
VB4508-MB	B111606.D	98	100	99	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: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample: VB4505-ICC4505
Lab FileID: B111541.D

Response Factor Report MSVOA4

```
Method       : C:\msdchem\1\METHODS\B-FEB17.m (RTE Integrator)
Title        : EPA 624 & SWA 5030B/8260B
Last Update  : Thu Feb 18 10:25:46 2016
Response via : Initial Calibration

Calibration Files
1   =B111537.D   2   =B111538.D   3   =B111539.D   4   =B111540.D
5   =B111541.D   6   =B111542.D   7   =B111543.D

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

1) I   Fluorobenzene         ----------------ISTD---------------------
2)  Dichlorodifluorom 0.282 0.346 0.335 0.309 0.302 0.318 0.310 0.315   6.76
3)P Chloromethane     0.500 0.499 0.465 0.439 0.408 0.420 0.409 0.448   8.92
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9995
              Response Ratio = 0.00000 + 0.41324 *A

4)C Vinyl Chloride    0.363 0.396 0.376 0.340 0.321 0.332 0.312 0.348   8.83
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9983
              Response Ratio = 0.00000 + 0.32006 *A

5)  1,3-Butadiene     0.341 0.336 0.300 0.298 0.268 0.288 0.265 0.299  10.01
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9969
              Response Ratio = 0.00000 + 0.27323 *A

6)  Bromomethane      0.270 0.264 0.249 0.218 0.203 0.190 0.170 0.224  17.32
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9914
              Response Ratio = 0.00000 + 0.18095 *A

7)  Chloroethane      0.183 0.190 0.177 0.162 0.151 0.150 0.136 0.164  12.13
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9955
              Response Ratio = 0.00000 + 0.14244 *A

8)  Trichlorofluorome 0.422 0.523 0.475 0.453 0.425 0.445 0.420 0.452   8.23
9)  Ethyl Ether       0.211 0.209 0.203 0.201 0.183 0.179 0.180 0.195   7.18
10)  1,2-Dichlorotrifl 0.291 0.294 0.289 0.268 0.229 0.243 0.233 0.264  10.84
11)  Freon 113        0.275 0.301 0.291 0.284 0.268 0.301 0.290 0.287   4.30
12)C 1,1-Dichloroethen 0.361 0.415 0.399 0.401 0.383 0.421 0.401 0.397   5.10
13)  Acetone          0.070 0.060 0.057 0.057 0.057 0.057 0.055 0.059   8.47
14)  Iodomethane      0.526 0.510 0.514 0.520 0.512 0.574 0.555 0.530   4.62
15)  Acetonitrile     0.033 0.029 0.027 0.028 0.027 0.027 0.027 0.028   7.40
16)  Carbon Disulfide 0.796 0.922 0.937 0.944 0.900 0.987 0.936 0.918   6.49
17)  Methyl acetate   0.175 0.172 0.172 0.172 0.170 0.171 0.164 0.171   2.03
18)  Methylene Chlorid 0.740 0.539 0.510 0.469 0.458 0.468 0.447 0.519  19.81
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9992
              Response Ratio = 0.00000 + 0.45495 *A

19)  Methyl Tert Butyl 0.459 0.478 0.526 0.522 0.556 0.596 0.578 0.531   9.47
20)  trans-1,2-Dichlor 0.368 0.384 0.394 0.377 0.369 0.405 0.380 0.382   3.47
21)  Acrylonitrile    0.093 0.090 0.085 0.081 0.086 0.086 0.082 0.086   5.05
22)  Hexane           0.414 0.433 0.443 0.441 0.433 0.489 0.452 0.444   5.27
23)  Di-isopropyl ethe 1.214 1.246 1.253 1.206 1.211 1.207 1.135 1.210   3.15
24)  Vinyl acetate    0.655 0.682 0.647 0.634 0.619 0.566 0.506 0.616   9.75
25)P 1,1-Dichloroethan 0.422 0.479 0.484 0.456 0.455 0.476 0.449 0.460   4.67
26)  Chloroprene      0.424 0.488 0.483 0.507 0.516 0.558 0.542 0.502   8.75
27)  ETBE             0.719 0.810 0.853 0.842 0.873 0.941 0.894 0.848   8.29
28)  Ethyl Acetate    0.330 0.331 0.312 0.298 0.306 0.295 0.274 0.307   6.58
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Initial Calibration Summary

Job Number: FA31365 **Sample:** VB4505-ICC4505
Account: URSNCM AECOM, INC. **Lab FileID:** B111541.D
Project: Grifton Dump; NC

29)	2-Butanone	0.330	0.331	0.312	0.298	0.306	0.295	0.274	0.307	6.58
30)	Propionitrile	0.030	0.027	0.027	0.027	0.027	0.027	0.027	0.028	3.78
31)	2,2-Dichloropropa	0.274	0.318	0.323	0.330	0.321	0.365	0.344	0.325	8.56
32)	cis-1,2-Dichloroe	0.296	0.329	0.321	0.321	0.315	0.336	0.322	0.320	3.95
33)	Bromochloromethan	0.157	0.162	0.162	0.162	0.166	0.175	0.161	0.164	3.41
34)	Tetrahydrofuran							0.010	0.010	0.00
35)C	Chloroform	0.455	0.455	0.469	0.457	0.457	0.473	0.446	0.459	1.97
36)	tert-Butyl Format	0.112	0.134	0.145	0.160	0.159	0.159	0.148	0.145	11.93
37)S	Dibromofluorometh	0.268	0.271	0.274	0.278	0.268	0.267	0.264	0.270	1.71
38)	1,1,1-Trichloroet	0.386	0.413	0.420	0.421	0.411	0.456	0.437	0.421	5.17
39)	Cyclohexane	0.550	0.613	0.619	0.586	0.580	0.633	0.568	0.593	5.02
40)	Carbon Tetrachlor	0.363	0.385	0.400	0.399	0.390	0.439	0.419	0.400	6.12
41)	1,1-Dichloroprope	0.303	0.340	0.337	0.320	0.315	0.347	0.327	0.327	4.75
42)S	1,2-Dichloroethan	0.268	0.267	0.266	0.270	0.268	0.265	0.263	0.267	0.80
43)	TAME	0.499	0.568	0.583	0.619	0.624	0.672	0.651	0.602	9.63
44)	Benzene	0.967	1.046	1.031	1.024	0.980	1.032	0.973	1.008	3.27
45)	1,2-Dichloroethan	0.398	0.356	0.345	0.350	0.346	0.357	0.351	0.358	5.17
46)	Trichloroethene	0.255	0.271	0.264	0.270	0.260	0.280	0.269	0.267	2.98
47)	Methyl methacryla	0.395	0.361	0.327	0.394	0.393	0.395	0.344	0.373	7.71
48)	Methylcyclohexane	0.367	0.463	0.464	0.473	0.440	0.472	0.448	0.447	8.30
49)C	1,2-Dichloropropa	0.271	0.298	0.287	0.297	0.287	0.282	0.270	0.284	3.89
50)	Dibromomethane	0.126	0.141	0.147	0.146	0.148	0.150	0.148	0.144	5.69
51)	Bromodichlorometh	0.282	0.310	0.317	0.337	0.331	0.351	0.340	0.324	7.15
52)	2-Chloroethyl vin	0.119	0.144	0.140	0.146	0.137	0.131	0.125	0.135	7.51
53)	2-Nitropropane	0.045	0.046	0.051	0.059	0.058	0.061	0.060	0.054	12.40
54)	cis-1,3-Dichlorop	0.275	0.327	0.353	0.397	0.369	0.396	0.391	0.358	12.50
55)	4-Methyl-2-pentan	0.183	0.203	0.203	0.210	0.210	0.212	0.199	0.203	4.80
56) I	Chlorobenzene-d5	----------ISTD----------								
57)S	Toluene-d8	1.176	1.150	1.140	1.133	1.115	1.140	1.115	1.138	1.85
58)C	Toluene	1.301	1.402	1.373	1.314	1.251	1.314	1.236	1.313	4.56
59)	trans-1,3-Dichlor	0.289	0.319	0.345	0.353	0.369	0.384	0.375	0.348	9.68
60)	Ethyl methacrylat	0.227	0.254	0.272	0.281	0.295	0.308	0.304	0.277	10.48
61)	1,1,2-Trichloroet	0.206	0.223	0.208	0.206	0.206	0.211	0.204	0.209	3.01
62)	Tetrachloroethene	0.348	0.397	0.396	0.387	0.378	0.416	0.408	0.390	5.73
63)	2-hexanone	0.139	0.152	0.163	0.160	0.168	0.168	0.158	0.158	6.50
64)	1,3-Dichloropropa	0.367	0.404	0.413	0.392	0.401	0.397	0.378	0.393	4.05
65)	Dibromochlorometh	0.279	0.302	0.319	0.327	0.340	0.358	0.363	0.327	9.21
66)	1,2-Dibromoethane	0.245	0.259	0.266	0.267	0.276	0.287	0.284	0.269	5.38
67)	1-Chlorohexane	0.326	0.438	0.469	0.467	0.455	0.498	0.476	0.447	12.64
68)P	Chlorobenzene	0.884	0.965	0.938	0.922	0.918	0.974	0.918	0.931	3.33
69)C	Ethylbenzene	1.364	1.605	1.567	1.529	1.484	1.479	1.378	1.487	6.09
70)	1,1,1,2-Tetrachlo	0.310	0.352	0.368	0.374	0.376	0.398	0.397	0.368	8.18
71)	m,p-Xylene	1.019	1.238	1.241	1.178	1.134	1.117	0.950	1.125	9.67
72)	o-Xylene	0.951	1.219	1.270	1.245	1.213	1.214	1.121	1.176	9.30
73)	Styrene	0.679	0.882	0.995	0.997	0.990	0.990	0.932	0.924	12.57
74)P	Bromoform	0.146	0.153	0.163	0.176	0.187	0.206	0.213	0.178	14.55
75) I	1,4-Dichlorobenzene-d	----------ISTD----------								
76)	Isopropylbenzene	2.385	2.980	2.944	2.858	2.870	2.866	2.741	2.806	7.14
77)	cis-1,4-Dichloro-	0.137	0.186	0.193	0.206	0.222	0.227	0.235	0.201	16.57

---- Linear regr., Force(0,0) ---- Coefficient = 0.9991
Response Ratio = 0.00000 + 0.22992 *A

78)	Cyclohexanone		0.011	0.010	0.010	0.013	0.013	0.013	0.012	13.47
79)S	4-Bromofluorobenz	0.868	0.836	0.840	0.832	0.827	0.813	0.842	0.837	1.99
80)P	1,1,2,2-Tetrachlo	0.507	0.546	0.543	0.540	0.548	0.549	0.554	0.541	2.89
81)	trans-1,4-Dichlor	0.124	0.141	0.161	0.165	0.170	0.190	0.195	0.164	15.47

---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9994
Response Ratio = 0.00000 + 0.15996 *A + 0.01828 *A^2

Initial Calibration Summary

Job Number: FA31365 **Sample:** VB4505-ICC4505
Account: URSNCM AECOM, INC. **Lab FileID:** B111541.D
Project: Grifton Dump; NC

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 82)  n-Propylbenzene   2.913 3.478 3.439 3.375 3.186 3.292 2.956 3.234   6.99
 83)  Bromobenzene      0.776 0.811 0.789 0.798 0.800 0.831 0.827 0.804   2.48
 84)  1,2,3-Trichloropr 0.124 0.149 0.145 0.152 0.152 0.152 0.154 0.147   7.20
 85)  1,3,5-Trimethylbe 2.174 2.768 2.586 2.660 2.549 2.539 2.397 2.525   7.61
 86)  2-Chlorotoluene   2.248 2.427 2.276 2.297 2.197 2.172 2.091 2.244   4.75
 87)  4-Chlorotoluene   1.997 2.165 2.189 2.166 2.166 2.142 2.059 2.126   3.32
 88)  a-Methyl Styrene  1.109 1.354 1.401 1.490 1.518 1.578 1.518 1.424  11.12
 89)  tert-Butylbenzene 1.119 1.487 1.474 1.431 1.438 1.473 1.390 1.402   9.19
 90)  1,2,4-Trimethylbe 2.163 2.767 2.677 2.683 2.608 2.636 2.414 2.564   8.09
 91)  Pentachloroethane 0.455 0.546 0.530 0.542 0.556 0.570 0.558 0.537   7.16
 92)  sec-Butylbenzene  2.748 3.289 3.317 3.212 3.158 3.237 2.958 3.131   6.58
 93)  4-Isopropyltoluen 2.112 2.805 2.752 2.756 2.680 2.779 2.574 2.637   9.26
 94)  1,3-Dichlorobenze 1.410 1.675 1.605 1.596 1.582 1.618 1.582 1.581   5.18
 95)  1,4-Dichlorobenze 1.574 1.693 1.632 1.606 1.597 1.594 1.577 1.610   2.55
 96)  Benzyl Chloride   0.485 0.748 0.795 0.950 1.019 1.053 1.074 0.875  24.37
             ---- Linear regr., Force(0,0) ----  Coefficient =  0.9994
               Response Ratio = 0.00000 + 1.05670 *A

 97)  n-Butylbenzene    1.881 2.543 2.503 2.577 2.441 2.501 2.325 2.396  10.07
 98)  1,2-Dichlorobenze 1.208 1.421 1.414 1.441 1.425 1.473 1.451 1.405   6.33
 99)  1,2-Dibromo-3-Chl 0.057 0.045 0.051 0.057 0.065 0.068 0.072 0.059  16.20
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9995
               Response Ratio = 0.00000 + 0.05675 *A + 0.00787 *A^2

100)  1,2,4-Trichlorobe 0.714 0.759 0.781 0.789 0.859 0.913 0.925 0.820   9.77
101)  Hexachlorobutadie 0.337 0.415 0.394 0.403 0.422 0.476 0.493 0.420  12.43
102)  Naphthalene       0.912 1.104 1.118 1.235 1.329 1.440 1.435 1.225  15.83
             ---- Linear regr., Force(0,0) ----  Coefficient =  0.9987
               Response Ratio = 0.00000 + 1.41711 *A

103)  1,2,3-Trichlorobe 0.535 0.568 0.582 0.612 0.669 0.710 0.717 0.627  11.44

104) I   Tert Butyl alcohol-d1 ----------------ISTD---------------------
105)  Ethanol                 0.229 0.198 0.173 0.164 0.154 0.144 0.177  17.76
             ---- Linear regr., Force(0,0) ----  Coefficient =  0.9977
               Response Ratio = 0.00000 + 0.15031 *A

106)  Acrolein          4.489 4.421 3.782 3.840 4.049 3.449 3.275 3.901  11.71
107)  Tert-Butyl Alcoho 1.525 1.571 1.528 1.552 1.695 1.676 1.611 1.594   4.34
108)  Isobutyl alcohol  0.820 0.696 0.725 0.820 0.838 0.785 0.776 0.780   6.77
109)  Tert amyl alcohol 0.939 1.078 1.031 1.162 1.223 1.219 1.186 1.120   9.57
110)  1,4-Dioxane             0.142 0.133 0.138 0.149 0.141 0.143 0.141   3.74
111)  3,3-Dimethyl-1-bu 1.000 1.192 1.363 1.560 1.636 1.581 1.515 1.407  16.71
             ---- Linear regr., Force(0,0) ----  Coefficient =  0.9982
               Response Ratio = 0.00000 + 1.54519 *A

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

          B-FEB17.m         Thu Feb 18 15:25:20 2016
```

Initial Calibration Verification

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample: VB4505-ICV4505
Lab FileID: B111549.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\021816\B111549.D Vial: 3
Acq On : 18 Feb 2016 9:18 am Operator: WILFREDO
Sample : ICV4505-5 Inst : MSVOA4
Misc : MS33023,VB4505,,,,, Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\METHODS\B-FEB17.m (RTE Integrator)
Title : EPA 624 & SWA 5030B/8260B
Last Update : Thu Feb 18 10:25:46 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	110	0.00	9.85
2		Dichlorodifluoromethane	0.315	0.295	6.3	107	0.00	4.34
		----------	Amount	Calc.	%Drift		----------	
3	P	Chloromethane	40.000	33.485	16.3	93	0.00	4.64
4	C	Vinyl Chloride	40.000	33.154	17.1	91	-0.01	4.87
5		1,3-Butadiene		----------NA----------				
6		Bromomethane	40.000	34.952	12.6	86	-0.01	5.42
7		Chloroethane	40.000	33.704	15.7	88	0.00	5.56
		----------	AvgRF	CCRF	%Dev		----------	
8		Trichlorofluoromethane	0.452	0.376	16.8	97	0.00	5.99
9		Ethyl Ether	0.195	0.174	10.8	104	0.00	6.27
10		1,2-Dichlorotrifluoroetha	0.264	0.228	13.6	109	0.00	6.26
11		Freon 113	0.287	0.265	7.7	109	0.00	6.63
12	C	1,1-Dichloroethene	0.397	0.383	3.5	110	0.00	6.64
13		Acetone	0.059	0.063	-6.8	122	0.00	6.63
14		Iodomethane	0.530	0.545	-2.8	117	0.00	6.88
15		Acetonitrile	0.028	0.025	10.7	101	0.00	6.95
16		Carbon Disulfide	0.918	0.923	-0.5	113	0.00	7.01
17		Methyl acetate	0.171	0.173	-1.2	112	0.00	7.01
		----------	Amount	Calc.	%Drift		----------	
18		Methylene Chloride	40.000	40.757	-1.9	111	0.00	7.19
		----------	AvgRF	CCRF	%Dev		----------	
19		Methyl Tert Butyl Ether	0.531	0.576	-8.5	114	0.00	7.50
20		trans-1,2-Dichloroethene	0.382	0.380	0.5	113	0.00	7.53
21		Acrylonitrile	0.086	0.085	1.2	108	0.00	7.42
22		Hexane	0.444	0.423	4.7	107	0.00	7.82
23		Di-isopropyl ether	1.210	1.164	3.8	106	0.00	8.00
24		Vinyl acetate	0.616	0.633	-2.8	112	0.00	7.95
25	P	1,1-Dichloroethane	0.460	0.438	4.8	106	0.00	8.00
26		Chloroprene	0.502	0.453	9.8	96	0.00	8.11
27		ETBE	0.848	0.884	-4.2	111	0.00	8.40
28		Ethyl Acetate	0.307	0.303	1.3	109	0.00	8.58
29		2-Butanone	0.307	0.303	1.3	109	0.00	8.58
30		Propionitrile	0.028	0.027	3.6	108	0.00	8.62
31		2,2-Dichloropropane	0.325	0.333	-2.5	114	0.00	8.66
32		cis-1,2-Dichloroethene	0.320	0.287	10.3	100	0.00	8.62
33		Bromochloromethane	0.164	0.162	1.2	107	0.00	8.89
34		Tetrahydrofuran		----------NA----------				

Initial Calibration Verification

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample: VB4505-ICV4505
Lab FileID: B111549.D

35	C	Chloroform	0.459	0.443	3.5	106	0.00	8.93
36		tert-Butyl Formate	0.145	0.194	-33.8#	134	0.00	8.99
37	S	Dibromofluoromethane	0.270	0.264	2.2	108	0.00	9.10
38		1,1,1-Trichloroethane	0.421	0.407	3.3	109	0.00	9.22
39		Cyclohexane	0.593	0.571	3.7	108	0.00	9.32
40		Carbon Tetrachloride	0.400	0.388	3.0	109	0.00	9.41
41		1,1-Dichloropropene	0.327	0.316	3.4	110	0.00	9.36
42	S	1,2-Dichloroethane-d4	0.267	0.264	1.1	108	0.00	9.48
43		TAME	0.602	0.618	-2.7	109	0.00	9.63
44		Benzene	1.008	0.965	4.3	108	0.00	9.60
45		1,2-Dichloroethane	0.358	0.339	5.3	107	0.00	9.57
46		Trichloroethene	0.267	0.259	3.0	109	0.00	10.25
47		Methyl methacrylate	0.373	0.344	7.8	96	0.00	10.46
48		Methylcyclohexane	0.447	0.458	-2.5	114	0.00	10.51
49	C	1,2-Dichloropropane	0.284	0.267	6.0	102	0.00	10.48
50		Dibromomethane	0.144	0.142	1.4	105	0.00	10.61
51		Bromodichloromethane	0.324	0.332	-2.5	110	0.00	10.73
52		2-Chloroethyl vinyl ether	0.135	0.142	-5.2	114	0.00	10.95
53		2-Nitropropane	0.054	0.061	-13.0	116	0.00	10.91
54		cis-1,3-Dichloropropene	0.358	0.378	-5.6	112	0.00	11.18
55		4-Methyl-2-pentanone	0.203	0.216	-6.4	113	0.00	11.27
56	I	Chlorobenzene-d5	1.000	1.000	0.0	110	0.00	13.07
57	S	Toluene-d8	1.138	1.121	1.5	110	0.00	11.50
58	C	Toluene	1.313	1.259	4.1	111	0.00	11.58
59		trans-1,3-Dichloropropene	0.348	0.381	-9.5	113	0.00	11.73
60		Ethyl methacrylate	0.277	0.271	2.2	101	0.00	11.74
61		1,1,2-Trichloroethane	0.209	0.198	5.3	105	0.00	11.95
62		Tetrachloroethene	0.390	0.374	4.1	109	0.00	12.20
63		2-hexanone	0.158	0.174	-10.1	114	0.00	12.13
64		1,3-Dichloropropane	0.393	0.375	4.6	103	0.00	12.14
65		Dibromochloromethane	0.327	0.343	-4.9	111	0.00	12.42
66		1,2-Dibromoethane	0.269	0.266	1.1	106	0.00	12.60
67		1-Chlorohexane	0.447	0.482	-7.8	116	0.00	12.97
68	P	Chlorobenzene	0.931	0.895	3.9	107	0.00	13.11
69	C	Ethylbenzene	1.487	1.458	2.0	108	0.00	13.18
70		1,1,1,2-Tetrachloroethane	0.368	0.387	-5.2	113	0.00	13.17
71		m,p-Xylene	1.125	1.108	1.5	107	0.00	13.29
72		o-Xylene	1.176	1.171	0.4	106	0.00	13.74
73		Styrene	0.924	0.928	-0.4	103	0.00	13.74
74	P	Bromoform	0.178	0.200	-12.4	117	0.00	14.00
75	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	109	0.00	15.61
76		Isopropylbenzene	2.806	2.878	-2.6	109	0.00	14.12
		----------	Amount	Calc.	%Drift	----------		
77		cis-1,4-Dichloro-2-butene	40.000	36.082	9.8	102	0.00	14.14
		----------	AvgRF	CCRF	%Dev	----------		
78		Cyclohexanone	0.012	0.015	-25.0#	128	0.00	14.26
79	S	4-Bromofluorobenzene	0.837	0.868	-3.7	114	0.00	14.32
80	P	1,1,2,2-Tetrachloroethane	0.541	0.529	2.2	105	0.00	14.39
		----------	Amount	Calc.	%Drift	----------		
81		trans-1,4-Dichloro-2-Bute	40.000	43.051	-7.6	121	0.00	14.44
		----------	AvgRF	CCRF	%Dev	----------		
82		n-Propylbenzene	3.234	3.266	-1.0	112	0.00	14.57
83		Bromobenzene	0.804	0.779	3.1	106	0.00	14.55
84		1,2,3-Trichloropropane	0.147	0.155	-5.4	111	0.00	14.48

Initial Calibration Verification

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample: VB4505-ICV4505
Lab FileID: B111549.D

85	1,3,5-Trimethylbenzene	2.525	2.443	3.2	104	0.00	14.73
86	2-Chlorotoluene	2.244	2.194	2.2	109	0.00	14.73
87	4-Chlorotoluene	2.126	2.132	-0.3	107	0.00	14.83
88	a-Methyl Styrene		----------NA----------				
89	tert-Butylbenzene	1.402	1.375	1.9	104	0.00	15.12
90	1,2,4-Trimethylbenzene	2.564	2.567	-0.1	107	0.00	15.17
91	Pentachloroethane	0.537	0.546	-1.7	107	0.00	15.19
92	sec-Butylbenzene	3.131	3.154	-0.7	109	0.00	15.37
93	4-Isopropyltoluene	2.637	2.620	0.6	107	0.00	15.50
94	1,3-Dichlorobenzene	1.581	1.584	-0.2	109	0.00	15.56
95	1,4-Dichlorobenzene	1.610	1.558	3.2	106	0.00	15.64
	----------	Amount	Calc.	%Drift		----------	
96	Benzyl Chloride	40.000	42.705	-6.8	121	0.00	15.75
	----------	AvgRF	CCRF	%Dev		----------	
97	n-Butylbenzene	2.396	2.414	-0.8	108	0.00	15.95
98	1,2-Dichlorobenzene	1.405	1.435	-2.1	110	0.00	16.07
	----------	Amount	Calc.	%Drift		----------	
99	1,2-Dibromo-3-Chloropropa	40.000	42.462	-6.2	113	0.00	16.89
	----------	AvgRF	CCRF	%Dev		----------	
100	1,2,4-Trichlorobenzene	0.820	0.877	-7.0	111	0.00	17.87
101	Hexachlorobutadiene	0.420	0.430	-2.4	111	0.00	18.03
	----------	Amount	Calc.	%Drift		----------	
102	Naphthalene	40.000	41.765	-4.4	121	0.00	18.20
	----------	AvgRF	CCRF	%Dev		----------	
103	1,2,3-Trichlorobenzene	0.627	0.674	-7.5	110	0.00	18.49
104 I	Tert Butyl alcohol-d10	1.000	1.000	0.0	140	0.00	7.11
	----------	Amount	Calc.	%Drift		----------	
105	Ethanol	800.000	817.364	-2.2	132	0.00	6.06
	----------	AvgRF	CCRF	%Dev		----------	
106	Acrolein	3.901	3.947	-1.2	137	0.00	6.45
107	Tert-Butyl Alcohol	1.594	1.456	8.7	121	0.00	7.21
108	Isobutyl alcohol	0.780	0.719	7.8	120	0.00	9.25
109	Tert amyl alcohol	1.120	1.173	-4.7	135	0.00	9.41
110	1,4-Dioxane	0.141	0.162	-14.9	152	0.00	10.57
	----------	Amount	Calc.	%Drift		----------	
111	3,3-Dimethyl-1-butanol	2000.000	1813.714	9.3	120	0.00	12.29

(#) = Out of Range SPCC's out = 0 CCC's out = 0
B111541.D B-FEB17.m Thu Feb 18 15:28:14 2016

6.7.2

6

Continuing Calibration Summary

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample: VB4508-CC4505
Lab FileID: B111604.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\022216\B111604.D          Vial: 1
Acq On    : 22 Feb 2016   8:06 am                   Operator: MELISSAM
Sample    : cc4505-5                                Inst    : MSVOA4
Misc      : MS33023,VB4508,,,,,                     Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\msdchem\1\METHODS\B-FEB17.m (RTE Integrator)
Title        : EPA 624 & SWA 5030B/8260B
Last Update  : Thu Feb 18 10:25:46 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	94	0.00	9.85
2		Dichlorodifluoromethane	0.315	0.293	7.0	91	0.01	4.35
		----------	Amount	Calc.	%Drift		----------	
3	P	Chloromethane	40.000	39.042	2.4	93	0.01	4.65
4	C	Vinyl Chloride	40.000	39.124	2.2	92	0.00	4.89
5		1,3-Butadiene	40.000	35.902	10.2	86	0.00	4.92
6		Bromomethane	40.000	41.889	-4.7	88	0.00	5.43
7		Chloroethane	40.000	40.041	-0.1	89	0.00	5.57
		----------	AvgRF	CCRF	%Dev		----------	
8		Trichlorofluoromethane	0.452	0.454	-0.4	101	0.00	6.00
9		Ethyl Ether	0.195	0.197	-1.0	102	0.01	6.28
10		1,2-Dichlorotrifluoroetha	0.264	0.247	6.4	102	0.00	6.27
11		Freon 113	0.287	0.267	7.0	94	0.00	6.64
12	C	1,1-Dichloroethene	0.397	0.370	6.8	91	0.01	6.66
13		Acetone	0.059	0.064	-8.5	106	0.00	6.63
14		Iodomethane	0.530	0.520	1.9	96	0.00	6.89
15		Acetonitrile	0.028	0.027	3.6	93	0.00	6.96
16		Carbon Disulfide	0.918	0.886	3.5	93	0.01	7.03
17		Methyl acetate	0.171	0.170	0.6	94	0.00	7.01
		----------	Amount	Calc.	%Drift		----------	
18		Methylene Chloride	40.000	41.414	-3.5	97	0.00	7.20
		----------	AvgRF	CCRF	%Dev		----------	
19		Methyl Tert Butyl Ether	0.531	0.545	-2.6	92	0.00	7.51
20		trans-1,2-Dichloroethene	0.382	0.363	5.0	93	0.00	7.54
21		Acrylonitrile	0.086	0.083	3.5	91	0.00	7.43
22		Hexane	0.444	0.412	7.2	90	0.00	7.82
23		Di-isopropyl ether	1.210	1.164	3.8	90	0.00	8.01
24		Vinyl acetate	0.616	0.603	2.1	92	0.00	7.96
25	P	1,1-Dichloroethane	0.460	0.446	3.0	92	0.00	8.00
26		Chloroprene	0.502	0.502	0.0	91	0.00	8.11
27		ETBE	0.848	0.856	-0.9	92	0.00	8.40
28		Ethyl Acetate	0.307	0.303	1.3	93	0.00	8.58
29		2-Butanone	0.307	0.303	1.3	93	0.00	8.58
30		Propionitrile	0.028	0.028	0.0	97	0.00	8.62
31		2,2-Dichloropropane	0.325	0.334	-2.8	98	0.00	8.66
32		cis-1,2-Dichloroethene	0.320	0.324	-1.3	97	0.00	8.63
33		Bromochloromethane	0.164	0.165	-0.6	93	0.00	8.89
34		Tetrahydrofuran		----------NA----------				

Continuing Calibration Summary

Job Number: FA31365 **Sample:** VB4508-CC4505
Account: URSNCM AECOM, INC. **Lab FileID:** B111604.D
Project: Grifton Dump; NC

35	C	Chloroform	0.459	0.462	-0.7	95	0.00	8.93
36		tert-Butyl Formate	0.145	0.182	-25.5#	108	0.00	8.99
37	S	Dibromofluoromethane	0.270	0.274	-1.5	96	0.00	9.10
38		1,1,1-Trichloroethane	0.421	0.408	3.1	93	0.00	9.22
39		Cyclohexane	0.593	0.544	8.3	88	0.00	9.32
40		Carbon Tetrachloride	0.400	0.396	1.0	95	0.00	9.42
41		1,1-Dichloropropene	0.327	0.315	3.7	94	0.00	9.37
42	S	1,2-Dichloroethane-d4	0.267	0.255	4.5	90	0.00	9.49
43		TAME	0.602	0.640	-6.3	96	0.00	9.63
44		Benzene	1.008	0.994	1.4	95	0.00	9.60
45		1,2-Dichloroethane	0.358	0.343	4.2	93	0.00	9.57
46		Trichloroethene	0.267	0.263	1.5	95	0.00	10.25
47		Methyl methacrylate	0.373	0.367	1.6	88	0.00	10.47
48		Methylcyclohexane	0.447	0.428	4.3	91	0.00	10.51
49	C	1,2-Dichloropropane	0.284	0.279	1.8	92	0.00	10.48
50		Dibromomethane	0.144	0.148	-2.8	94	0.00	10.61
51		Bromodichloromethane	0.324	0.329	-1.5	93	0.00	10.73
52		2-Chloroethyl vinyl ether	0.135	0.141	-4.4	97	0.00	10.95
53		2-Nitropropane	0.054	0.059	-9.3	95	0.00	10.91
54		cis-1,3-Dichloropropene	0.358	0.379	-5.9	97	0.00	11.18
55		4-Methyl-2-pentanone	0.203	0.210	-3.4	94	0.00	11.27
56	I	Chlorobenzene-d5	1.000	1.000	0.0	93	0.00	13.07
57	S	Toluene-d8	1.138	1.126	1.1	94	0.00	11.51
58	C	Toluene	1.313	1.353	-3.0	100	0.00	11.58
59		trans-1,3-Dichloropropene	0.348	0.378	-8.6	95	0.00	11.73
60		Ethyl methacrylate	0.277	0.297	-7.2	93	0.00	11.74
61		1,1,2-Trichloroethane	0.209	0.216	-3.3	97	0.00	11.95
62		Tetrachloroethene	0.390	0.391	-0.3	96	0.00	12.20
63		2-hexanone	0.158	0.177	-12.0	97	0.00	12.14
64		1,3-Dichloropropane	0.393	0.409	-4.1	95	0.00	12.15
65		Dibromochloromethane	0.327	0.362	-10.7	99	0.00	12.42
66		1,2-Dibromoethane	0.269	0.285	-5.9	96	0.00	12.60
67		1-Chlorohexane	0.447	0.451	-0.9	92	0.00	12.97
68	P	Chlorobenzene	0.931	0.947	-1.7	96	0.00	13.11
69	C	Ethylbenzene	1.487	1.501	-0.9	94	0.00	13.18
70		1,1,1,2-Tetrachloroethane	0.368	0.398	-8.2	98	0.00	13.16
71		m,p-Xylene	1.125	1.177	-4.6	96	0.00	13.29
72		o-Xylene	1.176	1.228	-4.4	94	0.00	13.74
73		Styrene	0.924	0.987	-6.8	92	0.00	13.74
74	P	Bromoform	0.178	0.205	-15.2	102	0.00	14.01
75	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	96	0.00	15.61
76		Isopropylbenzene	2.806	2.815	-0.3	95	0.00	14.12
		----------	Amount	Calc.	%Drift		----------	
77		cis-1,4-Dichloro-2-butene	40.000	39.570	1.1	99	0.00	14.14
		----------	AvgRF	CCRF	%Dev		----------	
78		Cyclohexanone	0.012	0.012	0.0	89	0.00	14.26
79	S	4-Bromofluorobenzene	0.837	0.813	2.9	95	0.00	14.32
80	P	1,1,2,2-Tetrachloroethane	0.541	0.549	-1.5	97	0.00	14.39
		----------	Amount	Calc.	%Drift		----------	
81		trans-1,4-Dichloro-2-Bute	40.000	42.706	-6.8	106	0.00	14.44
		----------	AvgRF	CCRF	%Dev		----------	
82		n-Propylbenzene	3.234	3.278	-1.4	99	0.00	14.57
83		Bromobenzene	0.804	0.820	-2.0	99	0.00	14.55
84		1,2,3-Trichloropropane	0.147	0.155	-5.4	98	0.00	14.49

Continuing Calibration Summary

Job Number: FA31365 **Sample:** VB4508-CC4505
Account: URSNCM AECOM, INC. **Lab FileID:** B111604.D
Project: Grifton Dump; NC

85	1,3,5-Trimethylbenzene	2.525	2.504	0.8	95	0.00	14.74
86	2-Chlorotoluene	2.244	2.177	3.0	96	0.00	14.72
87	4-Chlorotoluene	2.126	2.104	1.0	94	0.00	14.83
88	a-Methyl Styrene	1.424	1.487	-4.4	94	0.00	14.99
89	tert-Butylbenzene	1.402	1.421	-1.4	95	0.00	15.12
90	1,2,4-Trimethylbenzene	2.564	2.610	-1.8	96	0.00	15.17
91	Pentachloroethane	0.537	0.576	-7.3	100	0.00	15.19
92	sec-Butylbenzene	3.131	3.181	-1.6	97	0.00	15.37
93	4-Isopropyltoluene	2.637	2.637	0.0	95	0.00	15.50
94	1,3-Dichlorobenzene	1.581	1.562	1.2	95	0.00	15.56
95	1,4-Dichlorobenzene	1.610	1.643	-2.0	99	0.00	15.64
	----------	Amount	Calc.	%Drift		----------	
96	Benzyl Chloride	40.000	42.731	-6.8	107	0.00	15.76
	----------	AvgRF	CCRF	%Dev		----------	
97	n-Butylbenzene	2.396	2.404	-0.3	95	0.00	15.95
98	1,2-Dichlorobenzene	1.405	1.463	-4.1	99	0.00	16.07
	----------	Amount	Calc.	%Drift		----------	
99	1,2-Dibromo-3-Chloropropa	40.000	42.639	-6.6	100	0.00	16.89
	----------	AvgRF	CCRF	%Dev		----------	
100	1,2,4-Trichlorobenzene	0.820	0.888	-8.3	100	0.00	17.87
101	Hexachlorobutadiene	0.420	0.440	-4.8	101	0.00	18.03
	----------	Amount	Calc.	%Drift		----------	
102	Naphthalene	40.000	38.676	3.3	99	0.00	18.20
	----------	AvgRF	CCRF	%Dev		----------	
103	1,2,3-Trichlorobenzene	0.627	0.707	-12.8	102	0.00	18.49
104 I	Tert Butyl alcohol-d10	1.000	1.000	0.0	111	0.02	7.12
	----------	Amount	Calc.	%Drift		----------	
105	Ethanol	800.000	903.403	-12.9	115	0.02	6.08
	----------	AvgRF	CCRF	%Dev		----------	
106	Acrolein	3.901	3.500	10.3	96	0.00	6.46
107	Tert-Butyl Alcohol	1.594	1.606	-0.8	105	0.00	7.21
108	Isobutyl alcohol	0.780	0.794	-1.8	105	0.00	9.26
109	Tert amyl alcohol	1.120	1.200	-7.1	109	0.00	9.41
110	1,4-Dioxane	0.141	0.159	-12.8	119	0.00	10.57
	----------	Amount	Calc.	%Drift		----------	
111	3,3-Dimethyl-1-butanol	2000.000	1981.408	0.9	104	0.00	12.29

(#) = Out of Range SPCC's out = 0 CCC's out = 0
B111541.D B-FEB17.m Tue Feb 23 13:50:13 2016

6.7.3 6

Continuing Calibration Summary

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample: VB4508-ECC4505
Lab FileID: B111630.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\022216\B111630.D          Vial: 25
Acq On    : 22 Feb 2016   8:24 pm                   Operator: MELISSAM
Sample    : ECC4505-5                               Inst    : MSVOA4
Misc      : MS33079,VB4508,,,,,                     Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\msdchem\1\METHODS\B-FEB17.m (RTE Integrator)
Title        : EPA 624 & SWA 5030B/8260B
Last Update  : Thu Feb 18 10:25:46 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	93	0.00	9.85
2		Dichlorodifluoromethane	0.315	0.294	6.7	90	0.00	4.34
		----------	Amount	Calc.	%Drift		----------	
3	P	Chloromethane	40.000	41.467	-3.7	98	0.00	4.64
4	C	Vinyl Chloride	40.000	40.997	-2.5	95	0.00	4.88
5		1,3-Butadiene	40.000	45.725	-14.3	108	0.00	4.91
6		Bromomethane	40.000	45.006	-12.5	93	0.00	5.43
7		Chloroethane	40.000	43.914	-9.8	96	0.00	5.57
		----------	AvgRF	CCRF	%Dev		----------	
8		Trichlorofluoromethane	0.452	0.448	0.9	98	0.00	5.99
9		Ethyl Ether	0.195	0.191	2.1	97	0.00	6.28
10		1,2-Dichlorotrifluoroetha	0.264	0.244	7.6	99	0.00	6.26
11		Freon 113	0.287	0.269	6.3	93	0.00	6.63
12	C	1,1-Dichloroethene	0.397	0.383	3.5	93	0.00	6.64
13		Acetone	0.059	0.060	-1.7	98	0.00	6.62
14		Iodomethane	0.530	0.541	-2.1	98	0.00	6.88
15		Acetonitrile	0.028	0.028	0.0	95	0.00	6.95
16		Carbon Disulfide	0.918	0.892	2.8	92	0.00	7.02
17		Methyl acetate	0.171	0.175	-2.3	96	0.00	7.01
		----------	Amount	Calc.	%Drift		----------	
18		Methylene Chloride	40.000	43.608	-9.0	100	0.00	7.20
		----------	AvgRF	CCRF	%Dev		----------	
19		Methyl Tert Butyl Ether	0.531	0.548	-3.2	92	0.00	7.51
20		trans-1,2-Dichloroethene	0.382	0.365	4.5	92	0.00	7.53
21		Acrylonitrile	0.086	0.084	2.3	91	0.00	7.42
22		Hexane	0.444	0.381	14.2	82	0.00	7.82
23		Di-isopropyl ether	1.210	1.216	-0.5	93	0.00	8.00
24		Vinyl acetate	0.616	0.548	11.0	82	0.00	7.95
25	P	1,1-Dichloroethane	0.460	0.470	-2.2	96	0.00	8.00
26		Chloroprene	0.502	0.512	-2.0	92	0.00	8.11
27		ETBE	0.848	0.889	-4.8	95	0.00	8.40
28		Ethyl Acetate	0.307	0.304	1.0	92	0.00	8.58
29		2-Butanone	0.307	0.304	1.0	92	0.00	8.58
30		Propionitrile	0.028	0.028	0.0	94	0.00	8.62
31		2,2-Dichloropropane	0.325	0.295	9.2	85	0.00	8.66
32		cis-1,2-Dichloroethene	0.320	0.328	-2.5	97	0.00	8.63
33		Bromochloromethane	0.164	0.169	-3.0	94	0.00	8.89
34		Tetrahydrofuran		----------NA----------				

Continuing Calibration Summary

Job Number: FA31365 **Sample:** VB4508-ECC4505
Account: URSNCM AECOM, INC. **Lab FileID:** B111630.D
Project: Grifton Dump; NC

35	C	Chloroform	0.459	0.477	-3.9	97	0.00	8.93
36		tert-Butyl Formate	0.145	0.157	-8.3	92	0.00	8.99
37	S	Dibromofluoromethane	0.270	0.272	-0.7	94	0.00	9.10
38		1,1,1-Trichloroethane	0.421	0.431	-2.4	97	0.00	9.22
39		Cyclohexane	0.593	0.564	4.9	90	0.00	9.32
40		Carbon Tetrachloride	0.400	0.405	-1.3	96	0.00	9.41
41		1,1-Dichloropropene	0.327	0.318	2.8	94	0.00	9.37
42	S	1,2-Dichloroethane-d4	0.267	0.262	1.9	91	0.00	9.49
43		TAME	0.602	0.640	-6.3	95	0.00	9.64
44		Benzene	1.008	1.022	-1.4	97	0.00	9.60
45		1,2-Dichloroethane	0.358	0.348	2.8	93	0.00	9.57
46		Trichloroethene	0.267	0.266	0.4	95	0.00	10.25
47		Methyl methacrylate	0.373	0.342	8.3	81	0.00	10.47
48		Methylcyclohexane	0.447	0.433	3.1	91	0.00	10.51
49	C	1,2-Dichloropropane	0.284	0.288	-1.4	93	0.00	10.48
50		Dibromomethane	0.144	0.150	-4.2	94	0.00	10.61
51		Bromodichloromethane	0.324	0.346	-6.8	97	0.00	10.73
52		2-Chloroethyl vinyl ether	0.135	0.139	-3.0	94	0.00	10.95
53		2-Nitropropane	0.054	0.059	-9.3	95	0.00	10.91
54		cis-1,3-Dichloropropene	0.358	0.375	-4.7	94	0.00	11.18
55		4-Methyl-2-pentanone	0.203	0.216	-6.4	95	0.00	11.27
56	I	Chlorobenzene-d5	1.000	1.000	0.0	93	0.00	13.07
57	S	Toluene-d8	1.138	1.148	-0.9	96	0.00	11.51
58	C	Toluene	1.313	1.359	-3.5	101	0.00	11.58
59		trans-1,3-Dichloropropene	0.348	0.366	-5.2	93	0.00	11.73
60		Ethyl methacrylate	0.277	0.311	-12.3	98	0.00	11.74
61		1,1,2-Trichloroethane	0.209	0.213	-1.9	97	0.00	11.95
62		Tetrachloroethene	0.390	0.564	-44.6	139	0.00	12.20
63		2-hexanone	0.158	0.173	-9.5	96	0.00	12.14
64		1,3-Dichloropropane	0.393	0.412	-4.8	96	0.00	12.15
65		Dibromochloromethane	0.327	0.355	-8.6	97	0.00	12.42
66		1,2-Dibromoethane	0.269	0.286	-6.3	97	0.00	12.60
67		1-Chlorohexane	0.447	0.467	-4.5	96	0.00	12.97
68	P	Chlorobenzene	0.931	0.957	-2.8	97	0.00	13.11
69	C	Ethylbenzene	1.487	1.525	-2.6	96	0.00	13.18
70		1,1,1,2-Tetrachloroethane	0.368	0.395	-7.3	98	0.00	13.17
71		m,p-Xylene	1.125	1.177	-4.6	97	0.00	13.29
72		o-Xylene	1.176	1.287	-9.4	99	0.00	13.74
73		Styrene	0.924	1.035	-12.0	97	0.00	13.74
74	P	Bromoform	0.178	0.191	-7.3	95	0.00	14.01
75	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	95	0.00	15.62
76		Isopropylbenzene	2.806	2.892	-3.1	95	0.00	14.12
		----------	Amount	Calc.	%Drift		----------	
77		cis-1,4-Dichloro-2-butene	40.000	20.289	49.3	50	0.00	14.14
		----------	AvgRF	CCRF	%Dev		----------	
78		Cyclohexanone	0.012	0.013	-8.3	100	0.00	14.27
79	S	4-Bromofluorobenzene	0.837	0.840	-0.4	96	0.00	14.32
80	P	1,1,2,2-Tetrachloroethane	0.541	0.544	-0.6	94	0.00	14.39
		----------	Amount	Calc.	%Drift		----------	
81		trans-1,4-Dichloro-2-Bute	40.000	23.379	41.6	55	0.00	14.44
		----------	AvgRF	CCRF	%Dev		----------	
82		n-Propylbenzene	3.234	3.381	-4.5	100	0.00	14.57
83		Bromobenzene	0.804	0.845	-5.1	100	0.00	14.55
84		1,2,3-Trichloropropane	0.147	0.152	-3.4	95	0.00	14.49

Continuing Calibration Summary

Job Number: FA31365 **Sample:** VB4508-ECC4505
Account: URSNCM AECOM, INC. **Lab FileID:** B111630.D
Project: Grifton Dump; NC

85	1,3,5-Trimethylbenzene	2.525	2.587	-2.5	96	0.00	14.74
86	2-Chlorotoluene	2.244	2.255	-0.5	97	0.00	14.73
87	4-Chlorotoluene	2.126	2.196	-3.3	96	0.00	14.83
88	a-Methyl Styrene	1.424	1.547	-8.6	96	0.00	14.99
89	tert-Butylbenzene	1.402	1.470	-4.9	97	0.00	15.12
90	1,2,4-Trimethylbenzene	2.564	2.705	-5.5	98	0.00	15.17
91	Pentachloroethane	0.537	0.316	41.2	54	0.00	15.19
92	sec-Butylbenzene	3.131	3.265	-4.3	98	0.00	15.37
93	4-Isopropyltoluene	2.637	2.762	-4.7	97	0.00	15.50
94	1,3-Dichlorobenzene	1.581	1.631	-3.2	98	0.00	15.56
95	1,4-Dichlorobenzene	1.610	1.635	-1.6	97	0.00	15.64
	----------	Amount	Calc.	%Drift		----------	
96	Benzyl Chloride	40.000	32.996	17.5	81	0.00	15.76
	----------	AvgRF	CCRF	%Dev		----------	
97	n-Butylbenzene	2.396	2.422	-1.1	94	0.00	15.95
98	1,2-Dichlorobenzene	1.405	1.473	-4.8	98	0.00	16.07
	----------	Amount	Calc.	%Drift		----------	
99	1,2-Dibromo-3-Chloropropa	40.000	38.982	2.5	89	0.00	16.89
	----------	AvgRF	CCRF	%Dev		----------	
100	1,2,4-Trichlorobenzene	0.820	0.876	-6.8	96	0.00	17.87
101	Hexachlorobutadiene	0.420	0.426	-1.4	96	0.00	18.03
	----------	Amount	Calc.	%Drift		----------	
102	Naphthalene	40.000	38.101	4.7	96	0.00	18.20
	----------	AvgRF	CCRF	%Dev		----------	
103	1,2,3-Trichlorobenzene	0.627	0.676	-7.8	96	0.00	18.49
104 I	Tert Butyl alcohol-d10	1.000	1.000	0.0	115	0.00	7.11
	----------	Amount	Calc.	%Drift		----------	
105	Ethanol	800.000	893.345	-11.7	118	0.00	6.07
	----------	AvgRF	CCRF	%Dev		----------	
106	Acrolein	3.901	3.075	21.2	88	0.00	6.45
107	Tert-Butyl Alcohol	1.594	1.663	-4.3	113	0.00	7.20
108	Isobutyl alcohol	0.780	0.765	1.9	105	0.00	9.25
109	Tert amyl alcohol	1.120	1.169	-4.4	110	0.00	9.41
110	1,4-Dioxane	0.141	0.158	-12.1	122	0.00	10.56
	----------	Amount	Calc.	%Drift		----------	
111	3,3-Dimethyl-1-butanol	2000.000	1979.724	1.0	108	0.00	12.30

(#) = Out of Range SPCC's out = 0 CCC's out = 0
B111541.D B-FEB17.m Tue Feb 23 13:50:50 2016

6.7.4

6

Initial Calibration Summary

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample: VZ1491-ICC1491
Lab FileID: Z39657.D

```
                          Response Factor Report  MSVOA15

 Method       : C:\msdchem\1\METHODS\simm021516.m (RTE Integrator)
 Title        : 1,4-Dioxane by SIM
 Last Update  : Mon Feb 15 10:41:15 2016
 Response via : Initial Calibration

 Calibration Files
 1   =Z39654.D    2   =Z39655.D    10  =Z39656.D    40  =Z39657.D
 80  =Z39658.D    140 =Z39659.D    200 =Z39660.D

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

 1) I   Fluorobenzene         ----------------ISTD---------------------
 2)S 1,2-Dichloroethan 0.650 0.644 0.638 0.633 0.623 0.610 0.604 0.629   2.78
 3)S Toluene-d8        0.900 0.894 0.892 0.887 0.879 0.877 0.870 0.886   1.22

 4) I   1,4-Dioxane-d8        ----------------ISTD---------------------
 5)  1,4-Dioxane       1.614 1.571 1.593 1.604 1.598 1.630 1.658 1.610   1.74
---------------------------------------------------------------------------
(#) = Out of Range

          simm021516.m        Tue Feb 16 08:50:16 2016
```

Initial Calibration Verification

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample: VZ1491-ICV1491
Lab FileID: Z39662.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\021516\Z39662.D            Vial: 11
Acq On    : 15 Feb 2016  11:03 am                     Operator: melissam
Sample    : ICV1491-4                                 Inst    : MSVOA15
Misc      : MS32649,VZ1491,,,,,                       Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\msdchem\1\METHODS\simm021516.m (RTE Integrator)
Title        : 1,4-Dioxane by SIM
Last Update  : Mon Feb 15 10:41:15 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	3.75
2	S	1,2-Dichloroethane-d4	0.629	0.622	1.1	101	0.00	3.54
3	S	Toluene-d8	0.886	0.884	0.2	102	0.00	4.83
4	I	1,4-Dioxane-d8	1.000	1.000	0.0	106	-0.02	4.43
5		1,4-Dioxane	1.610	1.508	6.3	100	0.00	4.46

(#) = Out of Range SPCC's out = 0 CCC's out = 0
Z39657.D simm021516.m Tue Feb 16 08:31:40 2016

Continuing Calibration Summary

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample: VZ1492-CC1491
Lab FileID: Z39688.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\021616\Z39688.D            Vial: 1
Acq On    : 16 Feb 2016   8:38 am                     Operator: melissam
Sample    : cc1491-4                                  Inst    : MSVOA15
Misc      : MS33017,VZ1492,,,,,                       Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\msdchem\1\METHODS\simm021516.m (RTE Integrator)
Title        : 1,4-Dioxane by SIM
Last Update  : Mon Feb 15 10:41:15 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	79	0.00	3.75
2	S	1,2-Dichloroethane-d4	0.629	0.655	-4.1	82	0.00	3.54
3	S	Toluene-d8	0.886	0.901	-1.7	81	0.00	4.83
4	I	1,4-Dioxane-d8	1.000	1.000	0.0	91	0.00	4.44
5		1,4-Dioxane	1.610	1.476	8.3	83	0.00	4.45

(#) = Out of Range SPCC's out = 0 CCC's out = 0
Z39657.D simm021516.m Wed Feb 17 10:08:47 2016

Continuing Calibration Summary

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample: VZ1492-ECC1491
Lab FileID: Z39714.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\021616\Z39714.D            Vial: 26
Acq On    : 16 Feb 2016   7:18 pm                    Operator: melissam
Sample    : ECC1491-4                                Inst    : MSVOA15
Misc      : MS33040,VZ1492,,,,,                      Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\msdchem\1\METHODS\simm021516.m (RTE Integrator)
Title        : 1,4-Dioxane by SIM
Last Update  : Mon Feb 15 10:41:15 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	106	0.00	3.74
2	S	1,2-Dichloroethane-d4	0.629	0.522	17.0	88	0.00	3.53
3	S	Toluene-d8	0.886	0.881	0.6	106	0.00	4.83
4	I	1,4-Dioxane-d8	1.000	1.000	0.0	111	0.00	4.44
5		1,4-Dioxane	1.610	1.541	4.3	107	0.00	4.45

(#) = Out of Range SPCC's out = 0 CCC's out = 0
Z39657.D simm021516.m Wed Feb 17 10:09:43 2016

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: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP59358-MB	L0685661.D	1	02/16/16	MV	02/16/16	OP59358	SL3792

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

FA31365-1, FA31365-2, FA31365-3

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: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP59358-MB	L0685661.D	1	02/16/16	MV	02/16/16	OP59358	SL3792

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

FA31365-1, FA31365-2, FA31365-3

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	44%	14-67%

Method Blank Summary

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP59358-MB	L0685661.D	1	02/16/16	MV	02/16/16	OP59358	SL3792

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

FA31365-1, FA31365-2, FA31365-3

CAS No.	Surrogate Recoveries		Limits
4165-62-2	Phenol-d5	36%	10-50%
118-79-6	2,4,6-Tribromophenol	81%	33-118%
4165-60-0	Nitrobenzene-d5	67%	42-108%
321-60-8	2-Fluorobiphenyl	75%	40-106%
1718-51-0	Terphenyl-d14	84%	39-121%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
71-36-3	1-Butanol	1.64	8.3	ug/l	JN
	Total TIC, Semi-Volatile		8.3	ug/l	J

Blank Spike Summary

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP59358-BS	L0685660.D	1	02/16/16	MV	02/16/16	OP59358	SL3792

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

FA31365-1, FA31365-2, FA31365-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
105-60-2	Caprolactam	50	10.1	20	11-68
59-50-7	4-Chloro-3-methyl Phenol	50	42.3	85	54-103
95-57-8	2-Chlorophenol	50	39.0	78	52-98
120-83-2	2,4-Dichlorophenol	50	43.8	88	53-103
105-67-9	2,4-Dimethylphenol	50	39.1	78	43-90
51-28-5	2,4-Dinitrophenol	100	70.3	70	44-112
534-52-1	4,6-Dinitro-o-cresol	100	91.9	92	66-121
95-48-7	2-Methylphenol	50	32.4	65	43-90
	3&4-Methylphenol	100	57.1	57	36-88
88-75-5	2-Nitrophenol	50	41.5	83	53-102
100-02-7	4-Nitrophenol	100	30.2	30	18-62
87-86-5	Pentachlorophenol	100	70.7	71	61-115
108-95-2	Phenol	50	15.8	32	19-56
58-90-2	2,3,4,6-Tetrachlorophenol	50	39.0	78	62-110
95-95-4	2,4,5-Trichlorophenol	50	44.7	89	62-109
88-06-2	2,4,6-Trichlorophenol	50	42.3	85	59-107
83-32-9	Acenaphthene	50	41.5	83	61-107
208-96-8	Acenaphthylene	50	41.8	84	60-104
98-86-2	Acetophenone	50	39.7	79	53-106
120-12-7	Anthracene	50	44.2	88	65-108
1912-24-9	Atrazine	50	46.2	92	62-114
100-52-7	Benzaldehyde	50	38.4	77	36-129
56-55-3	Benzo(a)anthracene	50	43.3	87	66-111
50-32-8	Benzo(a)pyrene	50	43.6	87	62-107
205-99-2	Benzo(b)fluoranthene	50	42.4	85	65-114
191-24-2	Benzo(g,h,i)perylene	50	44.3	89	66-116
207-08-9	Benzo(k)fluoranthene	50	45.0	90	65-114
92-52-4	1,1'-Biphenyl	50	40.0	80	57-104
101-55-3	4-Bromophenyl Phenyl Ether	50	48.3	97	65-109
85-68-7	Butyl Benzyl Phthalate	50	43.9	88	65-112
86-74-8	Carbazole	50	43.6	87	59-113
106-47-8	4-Chloroaniline	50	41.2	82	49-105
111-91-1	bis(2-Chloroethoxy)methane	50	31.6	63	51-102
111-44-4	bis(2-Chloroethyl)ether	50	42.7	85	53-100
108-60-1	bis(2-Chloroisopropyl)ether	50	42.3	85	45-106
91-58-7	2-Chloronaphthalene	50	40.5	81	57-103

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP59358-BS	L0685660.D	1	02/16/16	MV	02/16/16	OP59358	SL3792

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

FA31365-1, FA31365-2, FA31365-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
7005-72-3	4-Chlorophenyl Phenyl Ether	50	41.9	84	62-105
218-01-9	Chrysene	50	45.2	90	66-111
53-70-3	Dibenzo(a,h)anthracene	50	45.4	91	66-119
132-64-9	Dibenzofuran	50	41.4	83	61-106
91-94-1	3,3'-Dichlorobenzidine	50	42.6	85	46-117
84-66-2	Diethyl Phthalate	50	42.1	84	64-108
131-11-3	Dimethyl Phthalate	50	42.7	85	63-106
84-74-2	Di-n-butyl Phthalate	50	45.4	91	65-107
117-84-0	Di-n-octyl Phthalate	50	44.3	89	62-118
121-14-2	2,4-Dinitrotoluene	50	41.9	84	61-110
606-20-2	2,6-Dinitrotoluene	50	40.0	80	63-108
117-81-7	bis(2-Ethylhexyl)phthalate	50	44.2	88	61-117
206-44-0	Fluoranthene	50	42.6	85	63-106
86-73-7	Fluorene	50	41.2	82	62-108
118-74-1	Hexachlorobenzene	50	44.2	88	63-108
87-68-3	Hexachlorobutadiene	50	38.4	77	42-102
77-47-4	Hexachlorocyclopentadiene	50	38.3	77	39-102
67-72-1	Hexachloroethane	50	37.4	75	42-100
193-39-5	Indeno(1,2,3-cd)pyrene	50	44.2	88	64-119
78-59-1	Isophorone	50	41.9	84	43-87
91-57-6	2-Methylnaphthalene	50	40.8	82	51-102
91-20-3	Naphthalene	50	41.5	83	47-100
88-74-4	2-Nitroaniline	50	38.7	77	54-128
99-09-2	3-Nitroaniline	50	40.4	81	56-106
100-01-6	4-Nitroaniline	50	40.9	82	55-120
98-95-3	Nitrobenzene	50	39.5	79	50-104
621-64-7	N-Nitrosodi-n-propylamine	50	42.2	84	52-104
86-30-6	N-Nitrosodiphenylamine	50	43.6	87	64-108
85-01-8	Phenanthrene	50	43.4	87	66-110
129-00-0	Pyrene	50	42.9	86	64-113
95-94-3	1,2,4,5-Tetrachlorobenzene	50	41.1	82	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: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP59358-BS	L0685660.D	1	02/16/16	MV	02/16/16	OP59358	SL3792

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

FA31365-1, FA31365-2, FA31365-3

CAS No.	Surrogate Recoveries	BSP	Limits
4165-62-2	Phenol-d5	30%	10-50%
118-79-6	2,4,6-Tribromophenol	82%	33-118%
4165-60-0	Nitrobenzene-d5	73%	42-108%
321-60-8	2-Fluorobiphenyl	75%	40-106%
1718-51-0	Terphenyl-d14	90%	39-121%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP59358-MS	L0685673.D	1	02/16/16	MV	02/16/16	OP59358	SL3792
OP59358-MSD	L0685674.D	1	02/16/16	MV	02/16/16	OP59358	SL3792
FA31335-2	L0685672.D	1	02/16/16	MV	02/16/16	OP59358	SL3792

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

FA31365-1, FA31365-2, FA31365-3

CAS No.	Compound	FA31335-2 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		96.2	37.2	39	96.2	30.3	32	20	11-68/39
59-50-7	4-Chloro-3-methyl Phenol	ND		96.2	80.6	84	96.2	68.7	71	16	54-103/23
95-57-8	2-Chlorophenol	ND		96.2	74.2	77	96.2	60.4	63	21	52-98/25
120-83-2	2,4-Dichlorophenol	ND		96.2	83.0	86	96.2	67.5	70	21	53-103/26
105-67-9	2,4-Dimethylphenol	ND		96.2	71.8	75	96.2	59.1	61	19	43-90/27
51-28-5	2,4-Dinitrophenol	ND		192	25.5	13*	192	21.6	11*	17	44-112/25
534-52-1	4,6-Dinitro-o-cresol	ND		192	56.7	29*	192	55.5	29*	2	66-121/23
95-48-7	2-Methylphenol	ND		96.2	68.6	71	96.2	55.7	58	21	43-90/28
	3&4-Methylphenol	ND		192	134	70	192	107	56	22	36-88/28
88-75-5	2-Nitrophenol	ND		96.2	72.9	76	96.2	61.7	64	17	53-102/29
100-02-7	4-Nitrophenol	ND		192	ND	0*	192	ND	0*	nc	18-62/33
87-86-5	Pentachlorophenol	ND		192	134	70	192	119	62	12	61-115/26
108-95-2	Phenol	ND		96.2	43.9	46	96.2	34.0	35	25	19-56/35
58-90-2	2,3,4,6-Tetrachlorophenol	ND		96.2	73.0	76	96.2	66.0	69	10	62-110/22
95-95-4	2,4,5-Trichlorophenol	ND		96.2	75.8	79	96.2	66.6	69	13	62-109/22
88-06-2	2,4,6-Trichlorophenol	ND		96.2	78.5	82	96.2	69.3	72	12	59-107/23
83-32-9	Acenaphthene	ND		96.2	78.7	82	96.2	69.6	72	12	61-107/22
208-96-8	Acenaphthylene	ND		96.2	76.5	80	96.2	67.9	71	12	60-104/22
98-86-2	Acetophenone	ND		96.2	75.4	78	96.2	61.3	64	21	53-106/27
120-12-7	Anthracene	ND		96.2	84.2	88	96.2	75.3	78	11	65-108/20
1912-24-9	Atrazine	ND		96.2	82.9	86	96.2	74.2	77	11	62-114/24
100-52-7	Benzaldehyde	ND		96.2	74.5	77	96.2	59.4	62	23	36-129/29
56-55-3	Benzo(a)anthracene	ND		96.2	80.6	84	96.2	72.6	76	10	66-111/22
50-32-8	Benzo(a)pyrene	ND		96.2	76.9	80	96.2	71.3	74	8	62-107/23
205-99-2	Benzo(b)fluoranthene	ND		96.2	81.3	85	96.2	70.1	73	15	65-114/23
191-24-2	Benzo(g,h,i)perylene	ND		96.2	78.3	81	96.2	70.1	73	11	66-116/23
207-08-9	Benzo(k)fluoranthene	ND		96.2	80.0	83	96.2	72.7	76	10	65-114/24
92-52-4	1,1'-Biphenyl	ND		96.2	72.7	76	96.2	64.3	67	12	57-104/23
101-55-3	4-Bromophenyl Phenyl Ether	ND		96.2	89.9	93	96.2	82.1	85	9	65-109/23
85-68-7	Butyl Benzyl Phthalate	ND		96.2	82.3	86	96.2	72.0	75	13	65-112/24
86-74-8	Carbazole	ND		96.2	82.5	86	96.2	72.9	76	12	59-113/21
106-47-8	4-Chloroaniline	ND		96.2	68.9	72	96.2	59.6	62	14	49-105/27
111-91-1	bis(2-Chloroethoxy)methane	ND		96.2	57.0	59	96.2	48.4	50*	16	51-102/28
111-44-4	bis(2-Chloroethyl)ether	ND		96.2	80.3	84	96.2	65.8	68	20	53-100/27
108-60-1	bis(2-Chloroisopropyl)ether	ND		96.2	79.5	83	96.2	63.7	66	22	45-106/26
91-58-7	2-Chloronaphthalene	ND		96.2	74.9	78	96.2	65.1	68	14	57-103/23

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP59358-MS	L0685673.D	1	02/16/16	MV	02/16/16	OP59358	SL3792
OP59358-MSD	L0685674.D	1	02/16/16	MV	02/16/16	OP59358	SL3792
FA31335-2	L0685672.D	1	02/16/16	MV	02/16/16	OP59358	SL3792

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

FA31365-1, FA31365-2, FA31365-3

CAS No.	Compound	FA31335-2 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		96.2	75.7	79	96.2	70.1	73	8	62-105/20
218-01-9	Chrysene	ND		96.2	86.7	90	96.2	76.9	80	12	66-111/22
53-70-3	Dibenzo(a,h)anthracene	ND		96.2	81.5	85	96.2	73.3	76	11	66-119/24
132-64-9	Dibenzofuran	ND		96.2	77.6	81	96.2	69.8	73	11	61-106/21
91-94-1	3,3'-Dichlorobenzidine	ND		96.2	70.2	73	96.2	62.6	65	11	46-117/29
84-66-2	Diethyl Phthalate	ND		96.2	76.6	80	96.2	68.3	71	11	64-108/21
131-11-3	Dimethyl Phthalate	ND		96.2	78.6	82	96.2	71.7	75	9	63-106/22
84-74-2	Di-n-butyl Phthalate	ND		96.2	86.1	90	96.2	73.2	76	16	65-107/21
117-84-0	Di-n-octyl Phthalate	ND		96.2	79.1	82	96.2	71.8	75	10	62-118/24
121-14-2	2,4-Dinitrotoluene	ND		96.2	80.0	83	96.2	69.4	72	14	61-110/21
606-20-2	2,6-Dinitrotoluene	ND		96.2	71.1	74	96.2	65.3	68	9	63-108/21
117-81-7	bis(2-Ethylhexyl)phthalate	ND		96.2	84.7	88	96.2	74.7	78	13	61-117/23
206-44-0	Fluoranthene	ND		96.2	78.9	82	96.2	70.8	74	11	63-106/21
86-73-7	Fluorene	ND		96.2	75.7	79	96.2	68.3	71	10	62-108/20
118-74-1	Hexachlorobenzene	ND		96.2	80.0	83	96.2	73.1	76	9	63-108/22
87-68-3	Hexachlorobutadiene	ND		96.2	74.5	77	96.2	62.8	65	17	42-102/28
77-47-4	Hexachlorocyclopentadiene	ND		96.2	52.7	55	96.2	42.9	45	21	39-102/29
67-72-1	Hexachloroethane	ND		96.2	73.3	76	96.2	56.9	59	25	42-100/29
193-39-5	Indeno(1,2,3-cd)pyrene	ND		96.2	79.0	82	96.2	69.5	72	13	64-119/24
78-59-1	Isophorone	ND		96.2	76.7	80	96.2	65.4	68	16	43-87/25
91-57-6	2-Methylnaphthalene	ND		96.2	75.6	79	96.2	63.6	66	17	51-102/26
91-20-3	Naphthalene	ND		96.2	77.5	81	96.2	66.2	69	16	47-100/29
88-74-4	2-Nitroaniline	ND		96.2	73.5	76	96.2	64.9	67	12	54-128/24
99-09-2	3-Nitroaniline	ND		96.2	65.2	68	96.2	63.5	66	3	56-106/27
100-01-6	4-Nitroaniline	ND		96.2	72.8	76	96.2	67.8	71	7	55-120/24
98-95-3	Nitrobenzene	ND		96.2	72.4	75	96.2	63.5	66	13	50-104/28
621-64-7	N-Nitrosodi-n-propylamine	ND		96.2	79.6	83	96.2	62.7	65	24	52-104/25
86-30-6	N-Nitrosodiphenylamine	ND		96.2	82.8	86	96.2	74.6	78	10	64-108/23
85-01-8	Phenanthrene	ND		96.2	82.3	86	96.2	73.2	76	12	66-110/21
129-00-0	Pyrene	ND		96.2	82.8	86	96.2	73.4	76	12	64-113/23
95-94-3	1,2,4,5-Tetrachlorobenzene	ND		96.2	76.9	80	96.2	63.0	66	20	47-111/27

CAS No.	Surrogate Recoveries	MS	MSD	FA31335-2	Limits
367-12-4	2-Fluorophenol	59%	45%	29%	14-67%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP59358-MS	L0685673.D	1	02/16/16	MV	02/16/16	OP59358	SL3792
OP59358-MSD	L0685674.D	1	02/16/16	MV	02/16/16	OP59358	SL3792
FA31335-2	L0685672.D	1	02/16/16	MV	02/16/16	OP59358	SL3792

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

FA31365-1, FA31365-2, FA31365-3

CAS No.	Surrogate Recoveries	MS	MSD	FA31335-2	Limits
4165-62-2	Phenol-d5	46%	34%	24%	10-50%
118-79-6	2,4,6-Tribromophenol	80%	70%	74%	33-118%
4165-60-0	Nitrobenzene-d5	71%	59%	57%	42-108%
321-60-8	2-Fluorobiphenyl	75%	66%	65%	40-106%
1718-51-0	Terphenyl-d14	88%	78%	79%	39-121%

* = Outside of Control Limits.

Instrument Performance Check (DFTPP)

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample: SL3781-DFTPP
Lab File ID: L0685432.D
Instrument ID: GCMSL
Injection Date: 02/02/16
Injection Time: 09:08

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	19198	37.1		Pass
68	Less than 2.0% of mass 69	100	0.19	(0.41) [a]	Pass
69	Mass 69 relative abundance	24376	47.0		Pass
70	Less than 2.0% of mass 69	103	0.20	(0.42) [a]	Pass
127	40.0 - 60.0% of mass 198	25161	48.6		Pass
197	Less than 1.0% of mass 198	10	0.02		Pass
198	Base peak, 100% relative abundance	51810	100.0		Pass
199	5.0 - 9.0% of mass 198	3329	6.43		Pass
275	10.0 - 30.0% of mass 198	14591	28.2		Pass
365	1.0 - 100.0% of mass 198	2110	4.07		Pass
441	Present, but less than mass 443	33	0.06	(0.37) [b]	Pass
442	40.0 - 100.0% of mass 198	44910	86.7		Pass
443	17.0 - 23.0% of mass 442	8832	17.0	(19.7) [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
SL3781-IC3781	L0685433.D	02/02/16	09:23	00:15	Initial cal 5
SL3781-IC3781	L0685434.D	02/02/16	09:48	00:40	Initial cal 10
SL3781-IC3781	L0685435.D	02/02/16	10:13	01:05	Initial cal 25
SL3781-ICC3781	L0685436.D	02/02/16	10:38	01:30	Initial cal 50
SL3781-IC3781	L0685437.D	02/02/16	11:02	01:54	Initial cal 60
SL3781-IC3781	L0685438.D	02/02/16	11:27	02:19	Initial cal 75
SL3781-IC3781	L0685439.D	02/02/16	11:52	02:44	Initial cal 100
SL3781-ICV3781	L0685440.D	02/02/16	12:17	03:09	Initial cal verification 50
SL3781-ICV3781	L0685441.D	02/02/16	12:41	03:33	Initial cal verification 50
SL3781-ICV3781	L0685442.D	02/02/16	13:06	03:58	Initial cal verification 50
OP59178-BS	L0685443.D	02/02/16	13:31	04:23	Blank Spike
OP59178-MB	L0685444.D	02/02/16	13:56	04:48	Method Blank
FA30972-2	L0685445.D	02/02/16	14:21	05:13	(used for QC only; not part of job FA31365)
OP59178-MS	L0685446.D	02/02/16	14:46	05:38	Matrix Spike
OP59178-MSD	L0685447.D	02/02/16	15:10	06:02	Matrix Spike Duplicate
OP59159-BS	L0685448.D	02/02/16	15:35	06:27	Blank Spike
OP59159-MB	L0685449.D	02/02/16	16:00	06:52	Method Blank
ZZZZZZ	L0685450.D	02/02/16	16:24	07:16	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample: SL3792-DFTPP
Lab File ID: L0685655.D
Instrument ID: GCMSL
Injection Date: 02/16/16
Injection Time: 11:37

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	20190	36.9		Pass
68	Less than 2.0% of mass 69	14	0.03	(0.06) [a]	Pass
69	Mass 69 relative abundance	24568	44.9		Pass
70	Less than 2.0% of mass 69	117	0.21	(0.48) [a]	Pass
127	40.0 - 60.0% of mass 198	24882	45.5		Pass
197	Less than 1.0% of mass 198	102	0.19		Pass
198	Base peak, 100% relative abundance	54697	100.0		Pass
199	5.0 - 9.0% of mass 198	3642	6.66		Pass
275	10.0 - 30.0% of mass 198	15481	28.3		Pass
365	1.0 - 100.0% of mass 198	2339	4.28		Pass
441	Present, but less than mass 443	205	0.37	(2.03) [b]	Pass
442	40.0 - 100.0% of mass 198	51019	93.3		Pass
443	17.0 - 23.0% of mass 442	10115	18.5	(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
SL3792-CC3781	L0685656.D	02/16/16	11:52	00:15	Continuing cal 50
SL3792-CC3781	L0685657.D	02/16/16	12:17	00:40	Continuing cal 50
OP59358-BS	L0685660.D	02/16/16	13:31	01:54	Blank Spike
OP59358-MB	L0685661.D	02/16/16	13:56	02:19	Method Blank
ZZZZZZ	L0685662.D	02/16/16	14:21	02:44	(unrelated sample)
ZZZZZZ	L0685671.D	02/16/16	18:04	06:27	(unrelated sample)
FA31335-2	L0685672.D	02/16/16	18:28	06:51	(used for QC only; not part of job FA31365)
OP59358-MS	L0685673.D	02/16/16	18:53	07:16	Matrix Spike
OP59358-MSD	L0685674.D	02/16/16	19:18	07:41	Matrix Spike Duplicate
ZZZZZZ	L0685675.D	02/16/16	19:42	08:05	(unrelated sample)
ZZZZZZ	L0685676.D	02/16/16	20:07	08:30	(unrelated sample)
ZZZZZZ	L0685677.D	02/16/16	20:32	08:55	(unrelated sample)
FA31365-1	L0685678.D	02/16/16	20:56	09:19	WELL-802 WILEY
FA31365-2	L0685679.D	02/16/16	21:21	09:44	WELL-803 WILEY
FA31365-3	L0685680.D	02/16/16	21:46	10:09	DUP-4
ZZZZZZ	L0685681.D	02/16/16	22:10	10:33	(unrelated sample)
ZZZZZZ	L0685682.D	02/16/16	22:35	10:58	(unrelated sample)

Semivolatile Internal Standard Area Summary

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Check Std: SL3792-CC3781 **Injection Date:** 02/16/16
Lab File ID: L0685656.D **Injection Time:** 11:52
Instrument ID: GCMSL **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]	128918	4.86	458715	5.99	297181	7.57	555625	8.89	586478	11.56	587364	13.93
Check Std [b]	179990	4.78	589778	5.92	418005	7.49	717570	8.81	749968	11.44	745868	13.76
Upper Limit [c]	359980	5.28	1179556	6.42	836010	7.99	1435140	9.31	1499936	11.94	1491736	14.26
Lower Limit [d]	89995	4.28	294889	5.42	209003	6.99	358785	8.31	374984	10.94	372934	13.26

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
OP59358-BS	102258	4.78	355875	5.91	239537	7.49	410456	8.80	435549	11.43	421877	13.74
OP59358-MB	121039	4.77	447626	5.91	287464	7.48	481920	8.80	538210	11.43	515670	13.74
ZZZZZZ	121531	4.77	451715	5.91	292611	7.48	499344	8.80	583110	11.43	536891	13.74
ZZZZZZ	136126	4.78	478971	5.91	301245	7.49	497226	8.80	513227	11.44	460804	13.77
FA31335-2	115476	4.78	410660	5.91	266531	7.49	444346	8.80	464318	11.44	401893	13.76
OP59358-MS	95403	4.78	338739	5.91	230978	7.49	388610	8.80	404444	11.45	393236	13.77
OP59358-MSD	107563	4.78	362547	5.91	240191	7.49	415653	8.81	426937	11.44	412739	13.76
ZZZZZZ	103406	4.78	375972	5.91	240391	7.49	408806	8.80	444404	11.44	386959	13.75
ZZZZZZ	128826	4.78	464534	5.91	294622	7.49	492969	8.80	546107	11.44	499862	13.76
ZZZZZZ	123890	4.78	438045	5.91	281791	7.49	471725	8.80	535563	11.43	489996	13.76
FA31365-1	107099	4.78	388933	5.91	252757	7.49	422157	8.80	477265	11.44	441255	13.75
FA31365-2	126078	4.78	454084	5.91	293989	7.49	488225	8.80	556304	11.44	512741	13.75
FA31365-3	118678	4.77	421847	5.91	269123	7.49	463713	8.80	520432	11.44	475969	13.75
ZZZZZZ	98653	4.78	375396	5.90	238655	7.49	403597	8.80	447047	11.43	414800	13.75
ZZZZZZ	99514	4.78	365056	5.91	240474	7.48	400685	8.80	449338	11.43	422061	13.75

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: SL3781-ICC3781 L0685436.D 02/02/16 10:38
(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: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; 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
FA31365-1	L0685678.D	32	23	77	59	66	80
FA31365-2	L0685679.D	33	24	83	66	74	77
FA31365-3	L0685680.D	34	22	79	64	72	80
OP59358-BS	L0685660.D	44	30	82	73	75	90
OP59358-MB	L0685661.D	44	36	81	67	75	84
OP59358-MS	L0685673.D	59	46	80	71	75	88
OP59358-MSD	L0685674.D	45	34	70	59	66	78

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: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample: SL3781-ICC3781
Lab FileID: L0685436.D

Response Factor Report MSBNA02

Method : C:\msdchem\1\METHODS\8270daOP.m (RTE Integrator)
Title : SW846 8270D OR EPA 625
Last Update : Tue Feb 02 15:08:12 2016
Response via : Initial Calibration

Calibration Files
5 =L0685433.D 10 =L0685434.D 25 =L0685435.D 50 =L0685436.D
60 =L0685437.D 75 =L0685438.D 100 =L0685439.D

Compound	5	10	25	50	60	75	100	Avg	%RSD
1) I 1,4-Dichlorobenzene-d	----------ISTD----------								
2) 1,4-Dioxane	0.671	0.758	0.744	0.798	0.826	0.797	0.796	0.770	6.71
3) N-nitrosodimethyl	0.731	0.895	0.879	0.923	0.915	0.866	0.874	0.869	7.40
4) Pyridine	1.744	1.915	1.978	2.104	2.064	1.994	1.917	1.959	6.03
5)P Benzaldehyde	1.381	1.420	1.353	1.204	1.074	0.936	0.727	1.156	22.36
---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9989									
Response Ratio = 0.00000 + 1.60546 *A + -0.35187 *A^2									
6) Aniline	2.702	2.689	2.527	2.571	2.569	2.525	2.430	2.573	3.73
7)S 2-Fluorophenol	1.676	1.754	1.721	1.738	1.750	1.687	1.622	1.707	2.81
8)P bis(2-Chloroethyl	1.610	1.522	1.348	1.441	1.400	1.372	1.354	1.435	6.83
9)S Phenol-d5	2.070	2.070	1.915	1.883	1.856	1.827	1.772	1.913	6.07
10)P Phenol	2.064	2.005	1.987	1.928	1.908	1.902	1.846	1.949	3.79
11)P 2-Chlorophenol	1.362	1.442	1.350	1.386	1.376	1.369	1.317	1.372	2.78
12) 1,3-Dichlorobenze	1.621	1.612	1.488	1.599	1.609	1.602	1.495	1.575	3.65
13) 1,4-Dichlorobenze	1.469	1.521	1.453	1.510	1.525	1.505	1.475	1.494	1.87
14) 1,2-Dichlorobenze	1.517	1.484	1.419	1.470	1.502	1.420	1.371	1.455	3.62
15) Benzyl alcohol	1.034	0.979	0.974	1.107	1.073	1.050	1.041	1.037	4.62
16)P bis(2-chloroisopr	1.367	1.407	1.346	1.326	1.349	1.315	1.258	1.338	3.46
17)P 2-Methylphenol	1.418	1.362	1.341	1.410	1.431	1.416	1.342	1.389	2.80
18)P Acetophenone	2.201	2.214	2.133	2.201	2.243	2.148	2.098	2.177	2.37
19)P Hexachloroethane	0.709	0.697	0.640	0.682	0.682	0.672	0.646	0.675	3.76
20)P N-Nitroso-di-n-pr	0.946	1.054	0.979	1.043	1.057	1.026	0.990	1.014	4.21
21)P 3&4-Methylphenol	1.421	1.404	1.354	1.437	1.452	1.431	1.375	1.410	2.50
22) I Naphthalene-d8	----------ISTD----------								
23)S Nitrobenzene-d5	0.571	0.563	0.553	0.548	0.548	0.546	0.531	0.551	2.33
24)P Nitrobenzene	0.537	0.501	0.508	0.483	0.482	0.473	0.462	0.492	5.13
25)P Isophorone	0.900	0.921	0.866	0.882	0.868	0.851	0.837	0.875	3.27
26)P 2-Nitrophenol	0.230	0.231	0.229	0.238	0.235	0.228	0.225	0.231	1.82
27)P 2,4-Dimethylpheno	0.489	0.470	0.460	0.455	0.452	0.446	0.436	0.458	3.78
28) O,O,O-Triethylpho	0.241	0.235	0.225	0.232	0.226	0.233	0.229	0.232	2.42
29)P bis(2-Chloroethox	0.657	0.666	0.655	0.655	0.641	0.651	0.620	0.649	2.27
30) Benzoic Acid	0.285	0.245	0.250	0.318	0.343	0.338	0.335	0.302	13.91
31)P 2,4-Dichloropheno	0.355	0.372	0.373	0.339	0.348	0.341	0.336	0.352	4.31
32) 1,2,4-Trichlorobe	0.434	0.434	0.399	0.412	0.414	0.408	0.392	0.413	3.87
33) alpha-Terpineol								0.000	-1.00
34)P Naphthalene	1.044	1.047	1.023	0.975	0.976	0.946	0.924	0.991	4.88
35)P 4-Chloroaniline	0.462	0.467	0.475	0.482	0.494	0.494	0.477	0.478	2.59
36) 2,6-Dichloropheno	0.337	0.342	0.348	0.351	0.352	0.353	0.348	0.347	1.63
37)P Hexachlorobutadie	0.272	0.261	0.260	0.270	0.274	0.268	0.258	0.266	2.41
38)P Caprolactam	0.129	0.130	0.128	0.133	0.138	0.140	0.132	0.133	3.44
39)P 4-Chloro-3-methyl	0.386	0.394	0.416	0.406	0.408	0.401	0.394	0.401	2.55
40)P 2-Methylnaphthale	0.834	0.823	0.799	0.789	0.781	0.760	0.738	0.789	4.28
41) 1-Methylnaphthale	0.749	0.769	0.737	0.703	0.694	0.699	0.675	0.718	4.74
42)P 1,2,4,5-Tetrachlo	0.484	0.453	0.453	0.435	0.453	0.433	0.429	0.448	4.17

Initial Calibration Summary

Job Number: FA31365 **Sample:** SL3781-ICC3781
Account: URSNCM AECOM, INC. **Lab FileID:** L0685436.D
Project: Grifton Dump; NC

```
43) I   Acenaphthene-d10      ----------------ISTD---------------------
44)P Hexachlorocyclope 0.465 0.437 0.446 0.460 0.469 0.471 0.458 0.458   2.65
45)P 2,4,6-Trichloroph 0.428 0.422 0.418 0.443 0.444 0.440 0.440 0.433   2.48
46)P 2,4,5-Trichloroph 0.416 0.447 0.442 0.452 0.447 0.448 0.442 0.442   2.74
47)S 2-Fluorobiphenyl  1.496 1.467 1.400 1.359 1.337 1.310 1.296 1.381   5.59
48)P 1,1'-Biphenyl     1.573 1.550 1.437 1.429 1.455 1.438 1.401 1.469   4.46
49)P 2-Chloronaphthale 1.167 1.188 1.136 1.135 1.142 1.161 1.124 1.150   1.96
50)P 2-Nitroaniline    0.407 0.417 0.441 0.450 0.457 0.447 0.439 0.437   4.16
51)  p-Dinitrobenzene  0.281 0.316 0.312 0.335 0.342 0.339 0.335 0.323   6.71
52)P Acenaphthylene    1.839 1.885 1.689 1.621 1.622 1.607 1.564 1.690   7.33
53)P Dimethylphthalate 1.427 1.491 1.415 1.393 1.360 1.331 1.302 1.389   4.57
54)  m-Dinitrobenzene  0.234 0.257 0.235 0.241 0.242 0.251 0.245 0.244   3.48
55)P 2,6-Dinitrotoluen 0.307 0.338 0.307 0.318 0.331 0.327 0.322 0.322   3.66
56)  o-Dinitrobenzene  0.216 0.229 0.222 0.221 0.233 0.227 0.226 0.225   2.49
57)P Acenaphthene      1.020 1.066 1.052 1.062 1.071 1.049 1.049 1.053   1.59
58)P 3-Nitroaniline    0.348 0.361 0.339 0.373 0.372 0.370 0.359 0.360   3.59
59)P 2,4-Dinitrophenol 0.137 0.164 0.196 0.231 0.249 0.238 0.245 0.208  21.12
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9974
              Response Ratio = 0.00000 + 0.21432 *A + 0.01323 *A^2

60)P Dibenzofuran      1.677 1.700 1.640 1.592 1.578 1.530 1.495 1.602   4.69
61)P 2,4-Dinitrotoluen 0.395 0.434 0.417 0.452 0.447 0.447 0.444 0.434   4.81
62)P 4-Nitrophenol     0.256 0.291 0.294 0.326 0.333 0.324 0.319 0.306   8.94
63)  2,3,5,6-Tetrachlo 0.383 0.405 0.403 0.420 0.430 0.425 0.416 0.412   3.92
64)P 2,3,4,6-Tetrachlo 0.367 0.413 0.387 0.398 0.407 0.404 0.394 0.396   3.83
65)P Fluorene          1.371 1.438 1.335 1.344 1.332 1.333 1.276 1.347   3.66
66)P 4-Chlorophenyl-ph 0.718 0.743 0.708 0.724 0.729 0.731 0.711 0.723   1.72
67)P Diethylphthalate  1.420 1.477 1.383 1.385 1.381 1.355 1.332 1.390   3.38
68)  Thionazin         0.326 0.338 0.318 0.335 0.337 0.348 0.342 0.335   3.04
69)P 4-Nitroaniline    0.318 0.340 0.319 0.336 0.340 0.335 0.345 0.333   3.19

70) I   Phenanthrene-d10      ----------------ISTD---------------------
71)P 4,6-Dinitro-2-met 0.146 0.158 0.153 0.165 0.174 0.166 0.171 0.162   6.32
72)P n-Nitrosodiphenyl 0.547 0.549 0.506 0.496 0.498 0.486 0.473 0.508   5.72
73)  Diphenylamine     0.656 0.658 0.608 0.596 0.598 0.583 0.568 0.610   5.72
74)  1,2-Diphenylhydra 0.863 0.859 0.807 0.836 0.824 0.853 0.835 0.840   2.42
75)S 2,4,6-Tribromophe 0.142 0.141 0.138 0.140 0.142 0.141 0.136 0.140   1.57
76)  Sulfotep          0.179 0.165 0.163 0.163 0.166 0.163 0.158 0.166   3.91
77)  Phorate           0.570 0.577 0.532 0.512 0.522 0.510 0.493 0.531   5.94
78)P 4-Bromophenyl-phe 0.256 0.248 0.240 0.234 0.237 0.235 0.227 0.240   3.95
79)P Hexachlorobenzene 0.300 0.288 0.273 0.284 0.288 0.285 0.271 0.284   3.46
80)  Dimethoate        0.351 0.353 0.335 0.324 0.335 0.333 0.298 0.333   5.50
81)  Simazine          0.159 0.164 0.141 0.147 0.143 0.145 0.140 0.148   6.15
82)P Atrazine          0.272 0.263 0.241 0.241 0.238 0.235 0.229 0.246   6.42
83)P Pentachlorophenol 0.162 0.160 0.155 0.179 0.184 0.176 0.175 0.170   6.54
84)P Phenanthrene      1.089 1.123 1.072 1.015 1.023 0.986 0.955 1.038   5.74
85)P Anthracene        1.097 1.166 1.091 1.034 1.025 0.995 0.963 1.053   6.58
86)  Disulfoton        0.421 0.433 0.431 0.428 0.439 0.432 0.419 0.429   1.62
87)P Carbazole         1.104 1.089 1.042 0.987 0.996 0.970 0.927 1.016   6.37
88)  Methyl Parathion  0.281 0.296 0.290 0.294 0.300 0.298 0.289 0.293   2.17
89)P Di-n-butylphthala 1.383 1.430 1.300 1.223 1.200 1.144 1.085 1.252  10.01
90)  Ethyl Parathion   0.186 0.202 0.196 0.201 0.202 0.203 0.192 0.197   3.18
91)P Fluoranthene      1.468 1.463 1.387 1.281 1.265 1.205 1.151 1.317   9.44

92) I   Chrysene-d12          ----------------ISTD---------------------
93)  Benzidine         0.669 0.755 0.731 0.620 0.560 0.480 0.443 0.608  19.76
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9922
              Response Ratio = 0.00000 + 0.76224 *A + -0.13235 *A^2
```

Initial Calibration Summary

Job Number: FA31365 **Sample:** SL3781-ICC3781
Account: URSNCM AECOM, INC. **Lab FileID:** L0685436.D
Project: Grifton Dump; NC

94)	P	Pyrene	1.259	1.331	1.261	1.173	1.178	1.148	1.119	1.210	6.24
95)	S	Terphenyl-d14	0.944	0.984	0.959	0.908	0.935	0.914	0.878	0.932	3.78
96)		Famphur	0.539	0.565	0.551	0.517	0.503	0.483	0.469	0.518	6.85
97)	P	Butylbenzylphthal	0.561	0.594	0.575	0.560	0.572	0.557	0.551	0.567	2.52
98)	P	3,3'-Dichlorobenz	0.490	0.499	0.479	0.464	0.465	0.435	0.413	0.464	6.57
99)	P	Benzo[a]anthracen	1.260	1.314	1.256	1.218	1.247	1.195	1.166	1.237	3.92
100)	P	Chrysene	0.937	1.004	1.005	0.981	1.022	0.983	0.965	0.985	2.88
101)	P	bis(2-Ethylhexyl)	0.763	0.765	0.762	0.774	0.780	0.760	0.755	0.766	1.14
102)	I	Perylene-d12	----------ISTD----------								
103)	P	Di-n-octylphthala	1.464	1.506	1.460	1.409	1.418	1.363	1.313	1.419	4.63
104)	P	Benzo[b]fluoranth	1.324	1.309	1.288	1.237	1.243	1.224	1.194	1.260	3.80
105)	P	Benzo[k]fluoranth	1.096	1.180	1.109	1.052	1.110	1.061	1.031	1.091	4.53
106)	P	Benzo[a]pyrene	1.240	1.270	1.209	1.184	1.202	1.180	1.156	1.206	3.21
107)	P	Indeno[1,2,3-cd]p	1.068	1.131	1.104	1.105	1.152	1.107	1.094	1.109	2.40
108)	P	Dibenz[a,h]anthra	1.011	1.071	1.046	1.018	1.023	1.027	1.015	1.030	2.05
109)	P	Benzo[g,h,i]peryl	1.123	1.159	1.127	1.117	1.150	1.106	1.103	1.127	1.87

(#) = Out of Range

8270daOP.m Tue Feb 02 15:16:11 2016

7.7.1

7

Initial Calibration Verification

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample: SL3781-ICV3781
Lab FileID: L0685440.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\sl3781\L0685440.D          Vial: 10
Acq On    :  2 Feb 2016  12:17 pm                     Operator: marthav
Sample    : icv3781-50                                Inst    : MSBNA02
Misc      : op59028,sl3781,1000,,,1,1,water           Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\msdchem\1\METHODS\8270daOP.m (RTE Integrator)
Title        : SW846 8270D OR EPA 625
Last Update  : Tue Feb 02 14:02:30 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	84	0.00	4.85
2		1,4-Dioxane	50.000	48.834	2.3	80	0.00	2.10
3		N-nitrosodimethylamine	50.000	55.329	-10.7	88	0.00	2.46
4		Pyridine		----------NA----------				
		----------	Amount	Calc.	%Drift		----------	
5	P	Benzaldehyde	50.000	59.817	-19.6	91	0.00	4.47
		----------	Amount	Calc.	%Drift		----------	
6		Aniline		----------NA----------				
7	S	2-Fluorophenol		----------NA----------				
8	P	bis(2-Chloroethyl)ether	50.000	50.787	-1.6	85	0.00	4.67
9	S	Phenol-d5		----------NA----------				
10	P	Phenol	50.000	48.881	2.2	83	0.00	4.63
11	P	2-Chlorophenol	50.000	47.739	4.5	80	0.00	4.71
12		1,3-Dichlorobenzene	50.000	49.519	1.0	82	0.00	4.82
13		1,4-Dichlorobenzene	50.000	49.623	0.8	83	0.00	4.87
14		1,2-Dichlorobenzene	50.000	50.800	-1.6	85	0.00	5.03
15		Benzyl alcohol		----------NA----------				
16	P	bis(2-chloroisopropyl)eth	50.000	50.070	-0.1	85	0.00	5.15
17	P	2-Methylphenol	50.000	47.151	5.7	78	0.00	5.14
18	P	Acetophenone	50.000	46.640	6.7	78	0.00	5.24
19	P	Hexachloroethane	50.000	47.721	4.6	80	0.00	5.30
20	P	N-Nitroso-di-n-propylamin	50.000	47.337	5.3	78	0.00	5.27
21	P	3&4-Methylphenol	100.000	90.689	9.3	96	0.00	5.27
22	I	Naphthalene-d8	40.000	40.000	0.0	82	0.00	5.99
23	S	Nitrobenzene-d5		----------NA----------				
24	P	Nitrobenzene	50.000	49.957	0.1	83	0.00	5.39
25	P	Isophorone	50.000	48.156	3.7	78	0.00	5.60
26	P	2-Nitrophenol	50.000	48.978	2.0	78	0.00	5.67
27	P	2,4-Dimethylphenol	50.000	42.245	15.5	69	0.00	5.73
28		O,O,O-Triethylphosphoroth		----------NA----------				
29	P	bis(2-Chloroethoxy)methan	50.000	35.784	28.4#	58	0.00	5.81
30		Benzoic Acid	100.000	104.965	-5.0	96	0.00	5.89
31	P	2,4-Dichlorophenol	50.000	47.780	4.4	81	0.00	5.89
32		1,2,4-Trichlorobenzene	50.000	46.658	6.7	76	0.00	5.96
33		alpha-Terpineol		----------NA----------				
34	P	Naphthalene	50.000	48.264	3.5	80	0.00	6.01
35	P	4-Chloroaniline		----------NA----------				
36		2,6-Dichlorophenol	50.000	47.628	4.7	77	0.00	6.09
37	P	Hexachlorobutadiene	50.000	50.350	-0.7	81	0.00	6.18

Initial Calibration Verification

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample: SL3781-ICV3781
Lab FileID: L0685440.D

38	P	Caprolactam	50.000	47.977	4.0	78	-0.03	6.38
39	P	4-Chloro-3-methylphenol	50.000	47.105	5.8	76	0.00	6.54
40	P	2-Methylnaphthalene		----------NA----------				
41		1-Methylnaphthalene	50.000	50.125	-0.3	83	0.00	6.72
42	P	1,2,4,5-Tetrachlorobenzen	50.000	46.061	7.9	78	0.00	6.81
43	I	Acenaphthene-d10	40.000	40.000	0.0	83	0.00	7.57
44	P	Hexachlorocyclopentadiene	50.000	51.970	-3.9	86	0.00	6.83
45	P	2,4,6-Trichlorophenol	50.000	47.538	4.9	77	0.00	6.91
46	P	2,4,5-Trichlorophenol	50.000	48.465	3.1	78	0.00	6.95
47	S	2-Fluorobiphenyl		----------NA----------				
48	P	1,1'-Biphenyl	50.000	47.008	6.0	80	0.00	7.05
49	P	2-Chloronaphthalene	50.000	47.621	4.8	80	0.00	7.05
50	P	2-Nitroaniline		----------NA----------				
51		p-Dinitrobenzene		----------NA----------				
52	P	Acenaphthylene	50.000	48.235	3.5	83	0.00	7.43
53	P	Dimethylphthalate	50.000	48.148	3.7	79	0.00	7.38
54		m-Dinitrobenzene		----------NA----------				
55	P	2,6-Dinitrotoluene	50.000	47.344	5.3	79	0.00	7.43
56		o-Dinitrobenzene		----------NA----------				
57	P	Acenaphthene	50.000	54.035	-8.1	89	0.00	7.60
58	P	3-Nitroaniline		----------NA----------				
		----------	Amount	Calc.	%Drift		----------	
59	P	2,4-Dinitrophenol	100.000	86.467	13.5	89	0.00	7.65
		----------	Amount	Calc.	%Drift		----------	
60	P	Dibenzofuran		----------NA----------				
61	P	2,4-Dinitrotoluene	50.000	48.202	3.6	76	0.00	7.78
62	P	4-Nitrophenol	100.000	92.037	8.0	92	0.00	7.73
63		2,3,5,6-Tetrachlorophenol		----------NA----------				
64	P	2,3,4,6-Tetrachlorophenol	50.000	43.704	12.6	72	0.00	7.90
65	P	Fluorene	50.000	51.623	-3.2	86	0.00	8.05
66	P	4-Chlorophenyl-phenylethe	50.000	45.973	8.1	76	0.00	8.05
67	P	Diethylphthalate	50.000	46.373	7.3	77	0.00	8.02
68		Thionazin		----------NA----------				
69	P	4-Nitroaniline		----------NA----------				
70	I	Phenanthrene-d10	40.000	40.000	0.0	76	0.00	8.88
71	P	4,6-Dinitro-2-methylpheno	100.000	111.337	-11.3	100	-0.01	8.15
72	P	n-Nitrosodiphenylamine	50.000	46.816	6.37	61	0.00	8.17
73		Diphenylamine		----------NA----------				
74		1,2-Diphenylhydrazine	50.000	50.391	-0.8	77	0.00	8.19
75	S	2,4,6-Tribromophenol		----------NA----------				
76		Sulfotep		----------NA----------				
77		Phorate		----------NA----------				
78	P	4-Bromophenyl-phenylether	50.000	53.666	-7.3	84	0.00	8.49
79	P	Hexachlorobenzene	50.000	47.555	4.9	73	0.00	8.61
80		Dimethoate		----------NA----------				
81		Simazine		----------NA----------				
82	P	Atrazine	50.000	50.273	-0.5	78	-0.01	8.68
83	P	Pentachlorophenol	100.000	105.586	-5.6	97	0.00	8.78
84	P	Phenanthrene	50.000	54.374	-8.7	85	0.00	8.90
85	P	Anthracene	50.000	54.516	-9.0	85	0.00	8.94
86		Disulfoton		----------NA----------				
87	P	Carbazole		----------NA----------				
88		Methyl Parathion		----------NA----------				
89	P	Di-n-butylphthalate	50.000	50.352	-0.7	79	0.00	9.47
90		Ethyl Parathion		----------NA----------				
91	P	Fluoranthene	50.000	47.856	4.3	75	0.00	9.97

7.7.2

7

Initial Calibration Verification

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample: SL3781-ICV3781
Lab FileID: L0685440.D

92	I	Chrysene-d12	40.000	40.000	0.0	77	0.00	11.56
		----------	Amount	Calc.	%Drift		----------	
93		Benzidine		----------NA----------				
		----------	Amount	Calc.	%Drift		----------	
94	P	Pyrene	50.000	54.054	-8.1	86	0.00	10.17
95	S	Terphenyl-d14		----------NA----------				
96		Famphur		----------NA----------				
97	P	Butylbenzylphthalate	50.000	51.009	-2.0	80	0.00	10.92
98	P	3,3'-Dichlorobenzidine		----------NA----------				
99	P	Benzo[a]anthracene	50.000	53.388	-6.8	84	0.00	11.54
100	P	Chrysene	50.000	56.959	-13.9	89	0.00	11.59
101	P	bis(2-Ethylhexyl)phthalat	50.000	48.147	3.7	74	0.00	11.73
102	I	Perylene-d12	40.000	40.000	0.0	75	0.00	13.92
103	P	Di-n-octylphthalate	50.000	46.547	6.9	70	0.00	12.73
104	P	Benzo[b]fluoranthene	50.000	52.197	-4.4	80	0.00	13.25
105	P	Benzo[k]fluoranthene	50.000	55.855	-11.7	87	-0.02	13.29
106	P	Benzo[a]pyrene	50.000	54.098	-8.2	82	-0.01	13.82
107	P	Indeno[1,2,3-cd]pyrene	50.000	56.102	-12.2	84	-0.02	16.03
108	P	Dibenz[a,h]anthracene	50.000	54.998	-10.0	83	-0.02	16.10
109	P	Benzo[g,h,i]perylene	50.000	55.487	-11.0	84	-0.02	16.49

(#) = Out of Range SPCC's out = 0 CCC's out = 0
L0685436.D 8270daOP.m Tue Feb 02 14:07:09 2016

7.7.2

7

Initial Calibration Verification

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample: SL3781-ICV3781
Lab FileID: L0685441.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\sl3781\L0685441.D          Vial: 11
Acq On    :  2 Feb 2016  12:41 pm                    Operator: marthav
Sample    : icv3781-50                               Inst    : MSBNA02
Misc      : op59028,sl3781,1000,,,1,1,water          Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\msdchem\1\METHODS\8270daOP.m (RTE Integrator)
Title        : SW846 8270D OR EPA 625
Last Update  : Tue Feb 02 14:02:30 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	97	0.00	4.86
2		1,4-Dioxane		----------NA----------				
3		N-nitrosodimethylamine		----------NA----------				
4		Pyridine	50.000	44.147	11.7	80	0.00	2.45
		----------	Amount	Calc.	%Drift	----------		
5	P	Benzaldehyde		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
6		Aniline	50.000	44.586	10.8	87	0.00	4.60
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	41.885	16.2	76	0.00	5.01
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	100	0.00	5.99
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		----------NA----------				
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	40.939	18.1	82	-0.01	6.08
36		2,6-Dichlorophenol		----------NA----------				
37	P	Hexachlorobutadiene		----------NA----------				

7.7.3

7

Initial Calibration Verification

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample: SL3781-ICV3781
Lab FileID: L0685441.D

38	P	Caprolactam		----------NA----------				
39	P	4-Chloro-3-methylphenol		----------NA----------				
40	P	2-Methylnaphthalene	50.000	40.935	18.1	82	0.00	6.62
41		1-Methylnaphthalene		----------NA----------				
42	P	1,2,4,5-Tetrachlorobenzen		----------NA----------				
43	I	Acenaphthene-d10	40.000	40.000	0.0	87	0.00	7.57
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	47.120	5.8	80	0.00	7.18
51		p-Dinitrobenzene		----------NA----------				
52	P	Acenaphthylene		----------NA----------				
53	P	Dimethylphthalate		----------NA----------				
54		m-Dinitrobenzene	50.000	45.496	9.0	80	-0.01	7.38
55	P	2,6-Dinitrotoluene		----------NA----------				
56		o-Dinitrobenzene		----------NA----------				
57	P	Acenaphthene		----------NA----------				
58	P	3-Nitroaniline	50.000	48.021	4.0	81	-0.01	7.55
		----------	Amount	Calc.	%Drift		----------	
59	P	2,4-Dinitrophenol		----------NA----------				
		----------	Amount	Calc.	%Drift		----------	
60	P	Dibenzofuran	50.000	47.506	5.0	83	0.00	7.74
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		----------NA----------				
69	P	4-Nitroaniline	50.000	51.469	-2.9	89	-0.02	8.10
70	I	Phenanthrene-d10	40.000	40.000	0.0	89	0.00	8.88
71	P	4,6-Dinitro-2-methylpheno		----------NA----------				
72	P	n-Nitrosodiphenylamine	60.000	55.748	7.1	85	-0.01	8.17
73		Diphenylamine	50.000	46.457	7.1	85	-0.01	8.17
74		1,2-Diphenylhydrazine		----------NA----------				
75	S	2,4,6-Tribromophenol		----------NA----------				
76		Sulfotep		----------NA----------				
77		Phorate		----------NA----------				
78	P	4-Bromophenyl-phenylether		----------NA----------				
79	P	Hexachlorobenzene		----------NA----------				
80		Dimethoate		----------NA----------				
81		Simazine		----------NA----------				
82	P	Atrazine		----------NA----------				
83	P	Pentachlorophenol		----------NA----------				
84	P	Phenanthrene		----------NA----------				
85	P	Anthracene		----------NA----------				
86		Disulfoton		----------NA----------				
87	P	Carbazole	50.000	44.587	10.8	82	0.00	9.10
88		Methyl Parathion		----------NA----------				
89	P	Di-n-butylphthalate		----------NA----------				
90		Ethyl Parathion		----------NA----------				
91	P	Fluoranthene		----------NA----------				

Initial Calibration Verification

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample: SL3781-ICV3781
Lab FileID: L0685441.D

			Amount	Calc.	%Drift			
92	I	Chrysene-d12	40.000	40.000	0.0	89	-0.01	11.55
93		Benzidine	50.000	82.253	-64.5#	116	0.00	10.10
94	P	Pyrene		NA				
95	S	Terphenyl-d14		NA				
96		Famphur		NA				
97	P	Butylbenzylphthalate		NA				
98	P	3,3'-Dichlorobenzidine	50.000	53.217	-6.4	94	-0.01	11.54
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	93	-0.01	13.92
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
L0685436.D 8270daOP.m Tue Feb 02 14:07:10 2016

7.7.3

7

Initial Calibration Verification

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample: SL3781-ICV3781
Lab FileID: L0685442.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\sl3781\L0685442.D          Vial: 12
Acq On    :  2 Feb 2016   1:06 pm                    Operator: marthav
Sample    : icv3781-50                               Inst    : MSBNA02
Misc      : op59028,sl3781,1000,,,1,1,water          Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\msdchem\1\METHODS\8270daOP.m (RTE Integrator)
Title        : SW846 8270D OR EPA 625
Last Update  : Tue Feb 02 15:08:12 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	120	0.00	4.85
2		1,4-Dioxane		NA				
3		N-nitrosodimethylamine		NA				
4		Pyridine		NA				
			Amount	Calc.	%Drift			
5	P	Benzaldehyde		NA				
			Amount	Calc.	%Drift			
6		Aniline		NA				
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		NA				
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	107	0.00	5.99
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	51.051	-2.1	109	0.00	5.82
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		NA				
36		2,6-Dichlorophenol		NA				
37	P	Hexachlorobutadiene		NA				

Initial Calibration Verification

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample: SL3781-ICV3781
Lab FileID: L0685442.D

38	P	Caprolactam		----------NA----------				
39	P	4-Chloro-3-methylphenol		----------NA----------				
40	P	2-Methylnaphthalene		----------NA----------				
41		1-Methylnaphthalene		----------NA----------				
42	P	1,2,4,5-Tetrachlorobenzen		----------NA----------				
43	I	Acenaphthene-d10	40.000	40.000	0.0	112	0.00	7.57
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		----------NA----------				
51		p-Dinitrobenzene		----------NA----------				
52	P	Acenaphthylene		----------NA----------				
53	P	Dimethylphthalate		----------NA----------				
54		m-Dinitrobenzene		----------NA----------				
55	P	2,6-Dinitrotoluene		----------NA----------				
56		o-Dinitrobenzene		----------NA----------				
57	P	Acenaphthene		----------NA----------				
58	P	3-Nitroaniline		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
59	P	2,4-Dinitrophenol		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
60	P	Dibenzofuran		----------NA----------				
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	49.785	0.4	112	-0.02	8.08
69	P	4-Nitroaniline		----------NA----------				
70	I	Phenanthrene-d10	40.000	40.000	0.0	95	0.00	8.88
71	P	4,6-Dinitro-2-methylpheno		----------NA----------				
72	P	n-Nitrosodiphenylamine		----------NA----------				
73		Diphenylamine		----------NA----------				
74		1,2-Diphenylhydrazine		----------NA----------				
75	S	2,4,6-Tribromophenol		----------NA----------				
76		Sulfotep	50.000	51.331	-2.7	98	0.00	8.41
77		Phorate	50.000	46.772	6.5	92	0.00	8.47
78	P	4-Bromophenyl-phenylether		----------NA----------				
79	P	Hexachlorobenzene		----------NA----------				
80		Dimethoate	50.000	49.117	1.8	96	-0.01	8.62
81		Simazine		----------NA----------				
82	P	Atrazine		----------NA----------				
83	P	Pentachlorophenol		----------NA----------				
84	P	Phenanthrene		----------NA----------				
85	P	Anthracene		----------NA----------				
86		Disulfoton	50.000	42.418	15.2	80	0.00	8.93
87	P	Carbazole		----------NA----------				
88		Methyl Parathion	50.000	51.047	-2.1	96	0.00	9.27
89	P	Di-n-butylphthalate		----------NA----------				
90		Ethyl Parathion	50.000	52.442	-4.9	98	0.00	9.63
91	P	Fluoranthene		----------NA----------				

Initial Calibration Verification

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample: SL3781-ICV3781
Lab FileID: L0685442.D

```
 92 I   Chrysene-d12                40.000  40.000      0.0  111  -0.01   11.55

            ----------------------- Amount  Calc.    %Drift   -------------
 93     Benzidine                             ----------NA----------

            ----------------------- Amount  Calc.    %Drift   -------------
 94 P   Pyrene                                ----------NA----------
 95 S   Terphenyl-d14                         ----------NA----------
 96     Famphur                     50.000  49.745      0.5  111   0.00   10.86
 97 P   Butylbenzylphthalate                  ----------NA----------
 98 P   3,3'-Dichlorobenzidine                ----------NA----------
 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  104  -0.01   13.92
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
     L0685436.D 8270daOP.m       Wed Feb 03 10:48:48 2016
```

7.7.4

7

Continuing Calibration Summary

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample: SL3792-CC3781
Lab FileID: L0685656.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\sl3792\L0685656.D          Vial: 3
Acq On    : 16 Feb 2016  11:52 am                     Operator: marthav
Sample    : cc3781-50                                 Inst    : MSBNA02
Misc      : op59028,sl3792,1000,,,1,1,water           Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\msdchem\1\METHODS\8270daOP.m (RTE Integrator)
Title        : SW846 8270D OR EPA 625
Last Update  : Tue Feb 16 12:36:56 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	140	0.00	4.78
2		1,4-Dioxane	0.770	0.738	4.2	129	-0.02	2.03
3		N-nitrosodimethylamine	0.869	0.817	6.0	124	-0.02	2.40
4		Pyridine	1.959	1.832	6.5	122	-0.03	2.38
		----------	Amount	Calc.	%Drift		----------	
5	P	Benzaldehyde	50.000	65.913	-31.8#	157	0.00	4.40
		----------	AvgRF	CCRF	%Dev		----------	
6		Aniline	2.573	2.299	10.6	125	0.00	4.55
7	S	2-Fluorophenol	1.707	1.660	2.8	133	0.00	3.75
8	P	bis(2-Chloroethyl)ether	1.435	1.472	-2.6	143	0.00	4.60
9	S	Phenol-d5	1.913	1.797	6.1	133	0.01	4.60
10	P	Phenol	1.949	1.728	11.3	125	0.01	4.61
11	P	2-Chlorophenol	1.372	1.313	4.3	132	0.00	4.65
12		1,3-Dichlorobenzene	1.575	1.584	-0.6	138	0.00	4.75
13		1,4-Dichlorobenzene	1.494	1.479	1.0	137	0.00	4.79
14		1,2-Dichlorobenzene	1.455	1.492	-2.5	142	0.00	4.96
15		Benzyl alcohol	1.037	1.094	-5.5	138	0.00	4.95
16	P	bis(2-chloroisopropyl)eth	1.338	1.310	2.1	138	0.00	5.08
17	P	2-Methylphenol	1.389	1.332	4.1	132	0.01	5.11
18	P	Acetophenone	2.177	2.071	4.9	131	0.00	5.17
19	P	Hexachloroethane	0.675	0.674	0.1	138	0.00	5.23
20	P	N-Nitroso-di-n-propylamin	1.014	0.967	4.6	129	0.00	5.21
21	P	3&4-Methylphenol	1.410	1.346	4.5	131	0.01	5.24
22	I	Naphthalene-d8	1.000	1.000	0.0	129	0.00	5.92
23	S	Nitrobenzene-d5	0.551	0.560	-1.6	131	0.00	5.30
24	P	Nitrobenzene	0.492	0.488	0.8	130	0.00	5.32
25	P	Isophorone	0.875	0.887	-1.4	129	0.00	5.53
26	P	2-Nitrophenol	0.231	0.253	-9.5	137	0.00	5.60
27	P	2,4-Dimethylphenol	0.458	0.482	-5.2	136	0.00	5.68
28		O,O,O-Triethylphosphoroth	0.232	0.257	-10.8	142	0.00	5.75
29	P	bis(2-Chloroethoxy)methan	0.649	0.665	-2.5	131	0.00	5.74
30		Benzoic Acid	0.302	0.360	-19.2	146	0.02	5.85
31	P	2,4-Dichlorophenol	0.352	0.389	-10.5	148	0.00	5.84
32		1,2,4-Trichlorobenzene	0.413	0.421	-1.9	131	0.00	5.88
33		alpha-Terpineol		----------NA----------				
34	P	Naphthalene	0.991	1.005	-1.4	132	0.00	5.93
35	P	4-Chloroaniline	0.478	0.511	-6.9	136	0.00	6.02
36		2,6-Dichlorophenol	0.347	0.393	-13.3	144	0.00	6.03
37	P	Hexachlorobutadiene	0.266	0.292	-9.8	139	0.00	6.10

Continuing Calibration Summary

Job Number: FA31365 **Sample:** SL3792-CC3781
Account: URSNCM AECOM, INC. **Lab FileID:** L0685656.D
Project: Grifton Dump; NC

38	P	Caprolactam	0.133	0.144	-8.3	139	0.00	6.33
39	P	4-Chloro-3-methylphenol	0.401	0.432	-7.7	137	0.00	6.49
40	P	2-Methylnaphthalene	0.789	0.793	-0.5	129	0.00	6.55
41		1-Methylnaphthalene	0.718	0.748	-4.2	137	0.00	6.64
42	P	1,2,4,5-Tetrachlorobenzen	0.448	0.485	-8.3	143	0.00	6.73
43	I	Acenaphthene-d10	1.000	1.000	0.0	141	0.00	7.49
44	P	Hexachlorocyclopentadiene	0.458	0.456	0.4	139	0.00	6.75
45	P	2,4,6-Trichlorophenol	0.433	0.442	-2.1	140	0.00	6.85
46	P	2,4,5-Trichlorophenol	0.442	0.464	-5.0	144	0.00	6.89
47	S	2-Fluorobiphenyl	1.381	1.299	5.9	134	0.00	6.90
48	P	1,1'-Biphenyl	1.469	1.417	3.5	140	0.00	6.97
49	P	2-Chloronaphthalene	1.150	1.136	1.2	141	0.00	6.98
50	P	2-Nitroaniline	0.437	0.415	5.0	130	0.00	7.12
51		p-Dinitrobenzene	0.323	0.316	2.2	133	0.00	7.21
52	P	Acenaphthylene	1.690	1.519	10.1	132	0.00	7.35
53	P	Dimethylphthalate	1.389	1.314	5.4	133	0.00	7.31
54		m-Dinitrobenzene	0.244	0.246	-0.8	144	0.00	7.32
55	P	2,6-Dinitrotoluene	0.322	0.300	6.8	133	0.00	7.36
56		o-Dinitrobenzene	0.225	0.213	5.3	135	0.00	7.43
57	P	Acenaphthene	1.053	1.020	3.1	135	0.00	7.52
58	P	3-Nitroaniline	0.360	0.343	4.7	129	0.01	7.50
		----------	Amount	Calc.	%Drift	----------		
59	P	2,4-Dinitrophenol	50.000	45.273	9.5	126	0.00	7.58
		----------	AvgRF	CCRF	%Dev	----------		
60	P	Dibenzofuran	1.602	1.548	3.4	137	0.00	7.66
61	P	2,4-Dinitrotoluene	0.434	0.425	2.1	132	0.00	7.71
62	P	4-Nitrophenol	0.306	0.301	1.6	130	0.02	7.71
63		2,3,5,6-Tetrachlorophenol	0.412	0.412	0.0	138	0.00	7.79
64	P	2,3,4,6-Tetrachlorophenol	0.396	0.398	-0.5	140	0.00	7.83
65	P	Fluorene	1.347	1.278	5.1	134	0.00	7.97
66	P	4-Chlorophenyl-phenylethe	0.723	0.707	2.2	137	0.00	7.98
67	P	Diethylphthalate	1.390	1.300	6.5	132	0.01	7.95
68		Thionazin	0.335	0.321	4.2	135	0.00	8.02
69	P	4-Nitroaniline	0.333	0.308	7.5	129	0.01	8.06
70	I	Phenanthrene-d10	1.000	1.000	0.0	129	0.00	8.81
71	P	4,6-Dinitro-2-methylpheno	0.162	0.168	-3.7	131	0.00	8.08
72	P	n-Nitrosodiphenylamine	0.508	0.511	-0.6	133	0.00	8.10
73		Diphenylamine	0.610	0.613	-0.5	133	0.00	8.10
74		1,2-Diphenylhydrazine	0.840	0.860	-2.4	133	0.00	8.12
75	S	2,4,6-Tribromophenol	0.140	0.153	-9.3	141	0.00	8.22
76		Sulfotep	0.166	0.168	-1.2	133	0.00	8.34
77		Phorate	0.531	0.522	1.7	132	0.00	8.39
78	P	4-Bromophenyl-phenylether	0.240	0.250	-4.2	138	0.00	8.41
79	P	Hexachlorobenzene	0.284	0.305	-7.4	139	0.00	8.54
80		Dimethoate	0.333	0.319	4.2	127	0.00	8.57
81		Simazine	0.148	0.136	8.1	120	0.00	8.59
82	P	Atrazine	0.246	0.254	-3.3	136	0.00	8.62
83	P	Pentachlorophenol	0.170	0.175	-2.9	127	0.00	8.71
84	P	Phenanthrene	1.038	1.025	1.3	130	0.00	8.83
85	P	Anthracene	1.053	1.058	-0.5	132	0.00	8.86
86		Disulfoton	0.429	0.433	-0.9	131	0.00	8.86
87	P	Carbazole	1.016	1.008	0.8	132	0.00	9.03
88		Methyl Parathion	0.293	0.301	-2.7	132	0.00	9.20
89	P	Di-n-butylphthalate	1.252	1.193	4.7	126	0.00	9.39
90		Ethyl Parathion	0.197	0.207	-5.1	133	0.00	9.55
91	P	Fluoranthene	1.317	1.251	5.0	126	0.00	9.89

Continuing Calibration Summary

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample: SL3792-CC3781
Lab FileID: L0685656.D

92	I	Chrysene-d12	1.000	1.000	0.0	128	0.00	11.44
		----------	Amount	Calc.	%Drift		----------	
93		Benzidine		----------NA----------				
		----------	AvgRF	CCRF	%Dev		----------	
94	P	Pyrene	1.210	1.162	4.0	127	0.01	10.09
95	S	Terphenyl-d14	0.932	0.944	-1.3	133	0.00	10.26
96		Famphur	0.518	0.474	8.5	117	0.01	10.77
97	P	Butylbenzylphthalate	0.567	0.565	0.4	129	0.00	10.82
98	P	3,3'-Dichlorobenzidine	0.464	0.483	-4.1	133	0.00	11.43
99	P	Benzo[a]anthracene	1.237	1.237	0.0	130	0.00	11.42
100	P	Chrysene	0.985	1.011	-2.6	132	0.00	11.48
101	P	bis(2-Ethylhexyl)phthalat	0.766	0.779	-1.7	129	0.00	11.62
102	I	Perylene-d12	1.000	1.000	0.0	127	0.00	13.76
103	P	Di-n-octylphthalate	1.419	1.403	1.1	126	0.01	12.60
104	P	Benzo[b]fluoranthene	1.260	1.326	-5.2	136	0.00	13.09
105	P	Benzo[k]fluoranthene	1.091	1.019	6.6	123	0.01	13.14
106	P	Benzo[a]pyrene	1.206	1.210	-0.3	130	0.00	13.66
107	P	Indeno[1,2,3-cd]pyrene	1.109	1.124	-1.4	129	0.00	15.85
108	P	Dibenz[a,h]anthracene	1.030	1.073	-4.2	134	0.00	15.92
109	P	Benzo[g,h,i]perylene	1.127	1.144	-1.5	130	0.01	16.33

(#) = Out of Range SPCC's out = 0 CCC's out = 0
L0685436.D 8270daOP.m Tue Feb 16 12:40:41 2016

7.7.5

7

Continuing Calibration Summary

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample: SL3792-CC3781
Lab FileID: L0685657.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\sl3792\L0685657.D          Vial: 4
Acq On    : 16 Feb 2016  12:17 pm                    Operator: marthav
Sample    : cc3781-50                                Inst    : MSBNA02
Misc      : op59028,sl3792,1000,,,1,1,water          Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\msdchem\1\METHODS\8270daOP.m (RTE Integrator)
Title        : SW846 8270D OR EPA 625
Last Update  : Tue Feb 16 12:36:56 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	99	0.00	4.78
2		1,4-Dioxane		NA				
3		N-nitrosodimethylamine		NA				
4		Pyridine		NA				
			Amount	Calc.	%Drift			
5	P	Benzaldehyde		NA				
			AvgRF	CCRF	%Dev			
6		Aniline		NA				
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		NA				
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	1.000	1.000	0.0	98	-0.01	5.90
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		NA				
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		NA				
36		2,6-Dichlorophenol		NA				
37	P	Hexachlorobutadiene		NA				

Continuing Calibration Summary

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample: SL3792-CC3781
Lab FileID: L0685657.D

38	P	Caprolactam		----------NA----------				
39	P	4-Chloro-3-methylphenol		----------NA----------				
40	P	2-Methylnaphthalene		----------NA----------				
41		1-Methylnaphthalene		----------NA----------				
42	P	1,2,4,5-Tetrachlorobenzen		----------NA----------				
43	I	Acenaphthene-d10	1.000	1.000	0.0	99	0.00	7.49
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		----------NA----------				
51		p-Dinitrobenzene		----------NA----------				
52	P	Acenaphthylene		----------NA----------				
53	P	Dimethylphthalate		----------NA----------				
54		m-Dinitrobenzene		----------NA----------				
55	P	2,6-Dinitrotoluene		----------NA----------				
56		o-Dinitrobenzene		----------NA----------				
57	P	Acenaphthene		----------NA----------				
58	P	3-Nitroaniline		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
59	P	2,4-Dinitrophenol		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
60	P	Dibenzofuran		----------NA----------				
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		----------NA----------				
69	P	4-Nitroaniline		----------NA----------				
70	I	Phenanthrene-d10	1.000	1.000	0.0	91	-0.01	8.79
71	P	4,6-Dinitro-2-methylpheno		----------NA----------				
72	P	n-Nitrosodiphenylamine		----------NA----------				
73		Diphenylamine		----------NA----------				
74		1,2-Diphenylhydrazine		----------NA----------				
75	S	2,4,6-Tribromophenol		----------NA----------				
76		Sulfotep		----------NA----------				
77		Phorate		----------NA----------				
78	P	4-Bromophenyl-phenylether		----------NA----------				
79	P	Hexachlorobenzene		----------NA----------				
80		Dimethoate		----------NA----------				
81		Simazine		----------NA----------				
82	P	Atrazine		----------NA----------				
83	P	Pentachlorophenol		----------NA----------				
84	P	Phenanthrene		----------NA----------				
85	P	Anthracene		----------NA----------				
86		Disulfoton		----------NA----------				
87	P	Carbazole		----------NA----------				
88		Methyl Parathion		----------NA----------				
89	P	Di-n-butylphthalate		----------NA----------				
90		Ethyl Parathion		----------NA----------				
91	P	Fluoranthene		----------NA----------				

Continuing Calibration Summary

Job Number: FA31365
Account: URSNCM AECOM, INC.
Project: Grifton Dump; NC

Sample: SL3792-CC3781
Lab FileID: L0685657.D

```
 92 I   Chrysene-d12                1.000   1.000      0.0   87  -0.01   11.43

            ----------------------- Amount  Calc.    %Drift   -------------
 93     Benzidine                  50.000  67.893    -35.8# 103   0.01   10.02

            ----------------------- AvgRF   CCRF      %Dev   --------------
 94 P   Pyrene                              ----------NA----------
 95 S   Terphenyl-d14                       ----------NA----------
 96     Famphur                             ----------NA----------
 97 P   Butylbenzylphthalate                ----------NA----------
 98 P   3,3'-Dichlorobenzidine              ----------NA----------
 99 P   Benzo[a]anthracene                  ----------NA----------
100 P   Chrysene                            ----------NA----------
101 P   bis(2-Ethylhexyl)phthalat           ----------NA----------

102 I   Perylene-d12               1.000   1.000      0.0   87  -0.02   13.75
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 = 65  CCC's out = 0
     L0685436.D 8270daOP.m       Tue Feb 16 12:40:42 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: FA31365
Account: URSNCM - AECOM, INC.
Project: Grifton Dump; NC

File ID: H40226W2.CSV
Analyst: JL
Parameters: Hg

Date Analyzed: 02/26/16 Methods: EPA 245.1
Run ID: MA12991

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:28	MA12991-STD1	1		STD1
12:29	MA12991-STD2	1		STD2
12:31	MA12991-STD3	1		STD3
12:32	MA12991-STD4	1		STD4
12:34	MA12991-STD5	1		STD5
12:35	MA12991-STD6	1		STD6
12:37	MA12991-HSTD1	1		
12:39	MA12991-ICV1	1		
12:40	MA12991-ICB1	1		
12:42	MA12991-CRI1	1		
12:44	MA12991-CCV1	1		
12:45	MA12991-CCB1	1		
12:47	MP30033-MB1	1		
12:48	MP30033-B1	1		
12:49	FA31572-1	1		(sample used for QC only; not part of login FA31365)
12:51	MP30033-D1	1		
12:52	MP30033-SD1	5		
12:53	MP30033-S1	1		
12:55	MP30033-S2	1		
12:56	ZZZZZZ	1		
12:58	ZZZZZZ	1		
13:00	ZZZZZZ	1		
13:01	MA12991-CCV2	1		
13:02	MA12991-CCB2	1		
13:04	ZZZZZZ	1		
13:05	FA31365-1	1		
13:07	FA31365-2	1		
13:08	FA31365-3	1		
---------->	Last reportable sample/prep for job FA31365			
13:09	ZZZZZZ	1		
13:10	ZZZZZZ	1		
13:17	MA12991-CCV3	1		
13:19	MA12991-CCB3	1		
13:35	MA12991-CCV4	1		

SGS Accutest Instrument Runlog
Inorganics Analyses

Login Number: FA31365
Account: URSNCM - AECOM, INC.
Project: Grifton Dump; NC

File ID: H40226W2.CSV
Analyst: JL
Parameters: Hg

Date Analyzed: 02/26/16 Methods: EPA 245.1
Run ID: MA12991

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:36	MA12991-CCB4	1		
13:52	MA12991-CCV5	1		
13:53	MA12991-CCB5	1		
13:56	MA12991-CRI2	1		
13:58	MA12991-CCV6	1		
13:59	MA12991-CCB6	1		

----------> Last reportable CCB for job FA31365
Refer to raw data for calibration curve and standards.

8.1
8

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FA31365
Account: URSNCM - AECOM, INC.
Project: Grifton Dump; NC

File ID: H40226W2.CSV
QC Limits: result < RL

Date Analyzed: 02/26/16
Run ID: MA12991

Methods: EPA 245.1
Units: ug/l

Time:			12:40		12:45		13:02		13:19	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.50	.03	0.018	<0.50	0.0093	<0.50	0.014	<0.50	0.019	<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: FA31365
Account: URSNCM - AECOM, INC.
Project: Grifton Dump; NC

File ID: H40226W2.CSV
QC Limits: result < RL

Date Analyzed: 02/26/16
Run ID: MA12991

Methods: EPA 245.1
Units: ug/l

Time:			13:36		13:53		13:59	
Sample ID:			CCB4		CCB5		CCB6	
Metal	RL	IDL	raw	final	raw	final	raw	final
Mercury	0.50	.03	0.017	<0.50	0.024	<0.50	0.024	<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: FA31365
Account: URSNCM - AECOM, INC.
Project: Grifton Dump; NC

File ID: H40226W2.CSV
Date Analyzed: 02/26/16
Methods: EPA 245.1
QC Limits: 90 to 110 % Recovery
Run ID: MA12991
Units: ug/l

Time:		12:39			12:44			13:01	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
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: FA31365
Account: URSNCM - AECOM, INC.
Project: Grifton Dump; NC

File ID: H40226W2.CSV
QC Limits: 90 to 110 % Recovery

Date Analyzed: 02/26/16
Run ID: MA12991

Methods: EPA 245.1
Units: ug/l

Time:		13:17			13:35			13:52	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	3.0	3.0	100.0	3	2.9	96.7	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: FA31365
Account: URSNCM - AECOM, INC.
Project: Grifton Dump; NC

File ID: H40226W2.CSV
QC Limits: 90 to 110 % Recovery

Date Analyzed: 02/26/16
Run ID: MA12991

Methods: EPA 245.1
Units: ug/l

Time:		13:58	
Sample ID:	CCV	CCV6	
Metal	True	Results	% Rec
Mercury	3	2.9	96.7

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

8.1.2
8

HIGH STANDARD CHECK SUMMARY

Login Number: FA31365
Account: URSNCM - AECOM, INC.
Project: Grifton Dump; NC

File ID: H40226W2.CSV
QC Limits: 95 to 105 % Recovery

Date Analyzed: 02/26/16
Run ID: MA12991

Methods: EPA 245.1
Units: ug/l

Time:		12:37	
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: FA31365
Account: URSNCM - AECOM, INC.
Project: Grifton Dump; NC

File ID: H40226W2.CSV
QC Limits: 80 to 120 % Recovery

Date Analyzed: 02/26/16
Run ID: MA12991

Methods: EPA 245.1
Units: ug/l

Time:			12:42		13:56	
Sample ID:	CRI	CRIA	CRI1		CRI2	
Metal	True	True	Results	% Rec	Results	% Rec
Mercury	0.20		0.21	105.0	0.21	105.0

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

8.1.4

8

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FA31365
Account: URSNCM - AECOM, INC.
Project: Grifton Dump; NC

QC Batch ID: MP30033
Matrix Type: AQUEOUS

Methods: EPA 245.1
Units: ug/l

Prep Date: 02/26/16

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.50	.03	.03	0.0079	<0.50

Associated samples MP30033: FA31365-1, FA31365-2, FA31365-3

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: FA31365
Account: URSNCM - AECOM, INC.
Project: Grifton Dump; NC

QC Batch ID: MP30033
Matrix Type: AQUEOUS

Methods: EPA 245.1
Units: ug/l

Prep Date: 02/26/16 02/26/16

Metal	FA31572-1 Original	DUP	RPD	QC Limits	FA31572-1 Original	MS	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	0.036	0.0	200.0(a)	0-10	0.036	2.9	3	95.5	70-130

Associated samples MP30033: FA31365-1, FA31365-2, FA31365-3

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
(a) RPD acceptable due to low duplicate and sample concentrations.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA31365
Account: URSNCM - AECOM, INC.
Project: Grifton Dump; NC

QC Batch ID: MP30033 Methods: EPA 245.1
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 02/26/16

Metal	FA31572-1 Original	MSD	Spikelot HGFLWS1	% Rec	MSD RPD	QC Limit
Mercury	0.036	2.9	3	95.5	0.0	

Associated samples MP30033: FA31365-1, FA31365-2, FA31365-3

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: FA31365
Account: URSNCM - AECOM, INC.
Project: Grifton Dump; NC

QC Batch ID: MP30033
Matrix Type: AQUEOUS

Methods: EPA 245.1
Units: ug/l

Prep Date: 02/26/16

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

Associated samples MP30033: FA31365-1, FA31365-2, FA31365-3

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: FA31365
Account: URSNCM - AECOM, INC.
Project: Grifton Dump; NC

QC Batch ID: MP30033
Matrix Type: AQUEOUS

Methods: EPA 245.1
Units: ug/l

Prep Date: 02/26/16

Metal	FA31572-1 Original	SDL 1:5	%DIF	QC Limits
Mercury	0.0360	0.00	100.0(a)	0-10

Associated samples MP30033: FA31365-1, FA31365-2, FA31365-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

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: FA31365
Account: URSNCM - AECOM, INC.
Project: Grifton Dump; NC

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Nitrogen, Ammonia	GP27448/GN69897	0.10	0.0	mg/l	2.5	2.45	98.0	90-110%
Nitrogen, Nitrate	GP27417/GN69784	0.10	0.0	mg/l	2.5	2.28	91.2	90-110%
Sulfate	GP27417/GN69784	2.0	0.0	mg/l	50	47.6	95.2	90-110%

Associated Samples:
Batch GP27417: FA31365-1, FA31365-2, FA31365-3
Batch GP27448: FA31365-1, FA31365-2, FA31365-3
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA31365
Account: URSNCM - AECOM, INC.
Project: Grifton Dump; NC

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Nitrogen, Ammonia	GP27448/GN69897	FA31335-1	mg/l	0.067	2.5	2.3	89.3N(a)	90-110%
Nitrogen, Nitrate	GP27417/GN69784	FA31296-2	mg/l	0.056	2.5	2.4	93.8	90-110%
Sulfate	GP27417/GN69784	FA31296-2	mg/l	75.3	50	124	97.4	90-110%

Associated Samples:
Batch GP27417: FA31365-1, FA31365-2, FA31365-3
Batch GP27448: FA31365-1, FA31365-2, FA31365-3
(*) 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: FA31365
Account: URSNCM - AECOM, INC.
Project: Grifton Dump; NC

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Nitrogen, Ammonia	GP27448/GN69897	FA31335-1	mg/l	0.067	2.5	2.4	4.3	20%
Nitrogen, Nitrate	GP27417/GN69784	FA31296-2	mg/l	0.056	2.5	2.4	0.0	20%
Sulfate	GP27417/GN69784	FA31296-2	mg/l	75.3	50	124	0.0	20%

Associated Samples:
Batch GP27417: FA31365-1, FA31365-2, FA31365-3
Batch GP27448: FA31365-1, FA31365-2, FA31365-3
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

SGS Accutest Instrument Runlog
Inorganics Analyses

Login Number: FA31365
Account: URSNCM - AECOM, INC.
Project: Grifton Dump; NC

File ID: 216021201.TXT Date Analyzed: 02/12/16 Methods: EPA 300/SW846 9056A
Analyst: DM Run ID: GN69784
Parameters: Nitrogen, Nitrate,Sulfate

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:47	GN69784-CCV1	1		
11:04	GP27417-MB1	1		
11:21	GP27417-B1	1		
12:11	ZZZZZZ	1		
12:28	ZZZZZZ	1		
12:45	ZZZZZZ	1		
13:02	FA31365-1	1		
13:19	FA31365-2	1		
13:36	FA31365-3	1		
13:53	GN69784-CCV2	1		
14:10	GN69784-CCB1	1		
14:27	ZZZZZZ	1		
14:44	ZZZZZZ	1		
15:01	ZZZZZZ	1		
15:17	FA31296-2	1		(sample used for QC only; not part of login FA31365)
16:08	ZZZZZZ	1		
16:25	ZZZZZZ	1		
16:42	FA31341-4	1		(sample used for QC only; not part of login FA31365)
16:59	ZZZZZZ	1		
17:16	GN69784-CCV3	1		
17:33	GN69784-CCB2	1		
18:07	ZZZZZZ	2		
18:24	GP27417-S1	1		
18:41	GP27417-S2	1		
18:58	GP27417-S3	1		
19:14	GP27417-S4	1		
19:48	ZZZZZZ	10		
20:05	GN69784-CCV4	1		
20:22	GN69784-CCB3	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: FA31365
Account: URSNCM - AECOM, INC.
Project: Grifton Dump; NC

File ID: 216021201.TXT
Date Analyzed: 02/12/16
Run ID: GN69784
Methods: EPA 300/SW846 9056A
Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN69784-CCV1	Nitrogen, Nitrate	2.3	0.10	0.050	2.5	92.0	90-110
GN69784-CCV1	Sulfate	48.0	2.0	0.60	50	96.0	90-110
GN69784-CCV2	Nitrogen, Nitrate	2.4	0.10	0.050	2.5	96.0	90-110
GN69784-CCV2	Sulfate	48.7	2.0	0.60	50	97.4	90-110
GN69784-CCB1	Nitrogen, Nitrate	0.050 U	0.10	0.050			
GN69784-CCB1	Sulfate	0.60 U	2.0	0.60			
GN69784-CCV3	Nitrogen, Nitrate	2.5	0.10	0.050	2.5	100.0	90-110
GN69784-CCV3	Sulfate	48.5	2.0	0.60	50	97.0	90-110
GN69784-CCB2	Nitrogen, Nitrate	0.050 U	0.10	0.050			
GN69784-CCB2	Sulfate	0.60 U	2.0	0.60			
GN69784-CCV4	Nitrogen, Nitrate	2.4	0.10	0.050	2.5	96.0	90-110
GN69784-CCV4	Sulfate	49.2	2.0	0.60	50	98.4	90-110
GN69784-CCB3	Nitrogen, Nitrate	0.050 U	0.10	0.050			
GN69784-CCB3	Sulfate	0.60 U	2.0	0.60			

(!) Outside of QC limits

SGS Accutest Instrument Runlog
Inorganics Analyses

Login Number: FA31365
Account: URSNCM - AECOM, INC.
Project: Grifton Dump; NC

File ID: B021816AMN1.CSV Date Analyzed: 02/18/16 Methods: EPA 350.1, EPA 350.1 M
Analyst: JK Run ID: GN69897
Parameters: Nitrogen, Ammonia

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:40	GN69897-ICV1	1		
15:07	GN69897-CCV1	1		
15:08	GN69897-CCB1	1		
15:09	GP27447-MB1	1		
15:10	GP27447-B1	1		
15:17	ZZZZZZ	5		
15:20	GN69897-CCV2	1		
15:21	GN69897-CCB2	1		
15:43	GN69897-CCV3	1		
15:45	GN69897-CCB3	1		
15:46	GP27448-MB1	1		
15:47	GP27448-B1	1		
15:50	GP27448-S1	1		
15:51	GP27448-S2	1		
15:52	FA31335-1	1		(sample used for QC only; not part of login FA31365)
15:53	ZZZZZZ	1		
15:55	ZZZZZZ	1		
15:56	ZZZZZZ	1		
15:57	GN69897-CCV4	1		
15:58	GN69897-CCB4	1		
15:59	ZZZZZZ	1		
16:00	FA31365-1	1		
16:01	FA31365-2	1		
16:02	FA31365-3	1		
16:03	ZZZZZZ	1		
16:05	ZZZZZZ	1		
16:06	GP27448-S3	1		
16:07	GP27448-S4	1		
16:08	FA31366-1	1		(sample used for QC only; not part of login FA31365)
16:09	ZZZZZZ	1		
16:10	GN69897-CCV5	1		
16:11	GN69897-CCB5	1		
16:12	ZZZZZZ	1		

SGS Accutest Instrument Runlog
Inorganics Analyses

Login Number: FA31365
Account: URSNCM - AECOM, INC.
Project: Grifton Dump; NC

File ID: B021816AMN1.CSV Date Analyzed: 02/18/16 Methods: EPA 350.1, EPA 350.1 M
Analyst: JK Run ID: GN69897
Parameters: Nitrogen, Ammonia

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:14	ZZZZZZ	1		
16:21	GN69897-CCV6	1		
16:22	GN69897-CCB6	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: FA31365
Account: URSNCM - AECOM, INC.
Project: Grifton Dump; NC

File ID: B021816AMN1.CSV
Date Analyzed: 02/18/16
Run ID: GN69897
Methods: EPA 350.1, EPA 350.1 M
Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN69897-ICV1	Nitrogen, Ammonia	2.6	0.10	0.030	2.5	104.0	90-110
GN69897-CCV1	Nitrogen, Ammonia	2.5	0.10	0.030	2.5	100.0	90-110
GN69897-CCB1	Nitrogen, Ammonia	-0.054	0.10	0.030			
GN69897-CCV2	Nitrogen, Ammonia	2.4	0.10	0.030	2.5	96.0	90-110
GN69897-CCB2	Nitrogen, Ammonia	-0.060	0.10	0.030			
GN69897-CCV3	Nitrogen, Ammonia	2.5	0.10	0.030	2.5	100.0	90-110
GN69897-CCB3	Nitrogen, Ammonia	-0.049	0.10	0.030			
GN69897-CCV4	Nitrogen, Ammonia	2.5	0.10	0.030	2.5	100.0	90-110
GN69897-CCB4	Nitrogen, Ammonia	-0.046	0.10	0.030			
GN69897-CCV5	Nitrogen, Ammonia	2.4	0.10	0.030	2.5	96.0	90-110
GN69897-CCB5	Nitrogen, Ammonia	-0.059	0.10	0.030			
GN69897-CCV6	Nitrogen, Ammonia	2.5	0.10	0.030	2.5	100.0	90-110
GN69897-CCB6	Nitrogen, Ammonia	-0.043	0.10	0.030			

(!) Outside of QC limits

Misc. Forms

Custody Documents and Other Forms

(Accutest New Jersey)

Includes the following where applicable:

- Chain of Custody
- Analyst Legend

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

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

FED-EX Tracking # 4623 7369 7670
Bottle Order Control #
Accutest Quote #
Accutest Job # FA31365

Client / Reporting Information

Company Name: Accutest Laboratories
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): JAJW Phone:

Project Information

Project Name: Grifton Dump; 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-802 WILEY		2/11/16	12:00:00 AM	JAJW	AQ	1			1						X	
2	WELL-803 WILEY		2/11/16	12:00:00 AM	JAJW	AQ	1			1						X	FL
3	DUP-4		2/11/16	12:00:00 AM	JAJW	AQ	1			1						X	

Turnaround Time (Business days)

- ☐ 10 Day (business)
- ☐ 5-7 Day
- ☐ 3 Day RUSH
- ☐ 2 Day RUSH
- ☐ 1 Day RUSH
- ☒ other 14

Rush T/A data available VIA Lablink

Approved By (Accutest PM): / Date:

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)
- ☒ Other REDT1
- ☐ EDD Format

Comments / Special Instructions

ALNJ

INITIAL ASESSMENT 2A

LABEL VERIFICATION

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	2/15/16 1700	1	2	2/16/16 9:50	2
Relinquished by Sampler: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal # Client	☒ Intact ☐ Not intact	Preserved where applicable ☒

On Ice ☒ Cooler Temp. 2.1°C

10.1 10

FA31365: Chain of Custody
Page 1 of 2
Accutest New Jersey

SGS Accutest Sample Receipt Summary

Job Number: FA31365 **Client:** _____ **Project:** _____

Date / Time Received: 2/16/2016 9:50:00 AM **Delivery Method:** _____ **Airbill #'s:** _____

Cooler Temps (Raw Measured) °C: Cooler 1: (2.1);

Cooler Temps (Corrected) °C: Cooler 1: (2.5);

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

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

Quality Control Preservation	Y	or	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	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

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

Sample Integrity - Instructions	Y	or	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

FA31365: Chain of Custody

Page 2 of 2

Analyst Legend

Job Number: FA31365
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: URSNCM: Grifton Dump; NC

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

Metals Analysis

QC Data Summaries

(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: FA31365
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Grifton Dump; NC

File ID: XA021716M1.CSV Date Analyzed: 02/17/16 Methods: EPA 200.8, SW846 6020A
Analyst: JO Run ID: MA38749
Parameters: Sb,As,Be,Cd,Cr,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:06	MA38749-STD1	1		STDA
09:11	MA38749-STD2	1		STDA
09:20	MA38749-STD3	1		STDA
09:25	MA38749-STD4	1		STDA
09:30	MA38749-STD5	1		STDB
09:34	MA38749-STD6	1		STDC
09:39	MA38749-STD7	1		STDD
09:44	MA38749-STD8	1		STDE
09:49	MA38749-STD9	1		STDF
09:53	MA38749-STD10	1		STDG
09:58	MA38749-STD11	1		STDH
10:03	MA38749-STD12	1		STDI
10:08	MA38749-STD13	1		STDJ
10:17	ZZZZZZ	1		
10:22	MA38749-ICVA1	1		
10:27	MA38749-ICV1	1		60ppb Al.
10:32	MA38749-ICB1	1		
10:36	ZZZZZZ	1		
10:41	MA38749-ICSA1	1		
10:46	MA38749-ICSAB1	1		
10:51	ZZZZZZ	1		
10:56	MA38749-CCVA1	1		
11:01	MA38749-CCB1	1		
11:07	MA38749-CRI1	1		See rerun
11:12	MA38749-CCVA2	1		
11:17	MA38749-CCB2	1		
11:22	MP92058-MB1	2		
11:27	MP92058-B1	10		
11:31	MP92058-S1	10		
11:36	MP92058-S2	10		
11:41	ZZZZZZ	1		
11:46	FA31250-1	2		(sample used for QC only; not part of login FA31365)
11:51	MP92058-SD1	10		See rerun, analytical problems

SGS Accutest Instrument Runlog
Inorganics Analyses

Login Number: FA31365
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Grifton Dump; NC

File ID: XA021716M1.CSV Date Analyzed: 02/17/16 Methods: EPA 200.8, SW846 6020A
Analyst: JO Run ID: MA38749
Parameters: Sb,As,Be,Cd,Cr,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:56	ZZZZZZ	2		
12:01	ZZZZZZ	2		
12:05	MA38749-CCVA3	1		
12:10	MA38749-CCB3	1		
12:15	ZZZZZZ	1		
12:20	ZZZZZZ	1		
12:27	MP92058-SD1	10		
12:32	ZZZZZZ	1		
12:37	ZZZZZZ	1		
12:42	MA38749-CRI2	1		See rerun
12:48	MA38749-CCVA4	1		
12:53	MA38749-CCB4	1		
12:58	ZZZZZZ	1		
13:03	ZZZZZZ	1		
13:13	ZZZZZZ	1		
13:17	MA38749-CRI3	1		
13:28	MA38749-CCVA5	1		
13:33	MA38749-CCB5	1		
13:38	MP92060-MB1	1		
13:42	MP92060-B1	1		
13:47	MP92060-B1	2		
13:52	MP92060-S1	1		
13:57	MP92060-S1	2		
14:01	MP92060-S2	1		
14:06	MP92060-S2	2		
14:11	ZZZZZZ	1		
14:16	ZZZZZZ	1		
14:21	MA38749-CCVA6	1		
14:25	MA38749-CCB6	1		
14:30	FA31327-2	1		(sample used for QC only; not part of login FA31365)
14:35	ZZZZZZ	1		
14:40	ZZZZZZ	1		
14:45	ZZZZZZ	1		

SGS Accutest Instrument Runlog
Inorganics Analyses

Login Number: FA31365
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Grifton Dump; NC

File ID: XA021716M1.CSV Date Analyzed: 02/17/16 Methods: EPA 200.8, SW846 6020A
Analyst: JO Run ID: MA38749
Parameters: Sb,As,Be,Cd,Cr,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,Zn

	Time	Sample Description	Dilution Factor	PS Recov	Comments
	14:49	ZZZZZZ	1		
	14:54	ZZZZZZ	1		
	14:59	ZZZZZZ	1		
	15:04	ZZZZZZ	1		
	15:08	MA38749-CCVA7	1		
	15:13	MA38749-CCB7	1		
	15:18	FA31365-1	1		
	15:23	FA31365-2	1		
	15:28	FA31365-3	1		
---------->	Last reportable sample/prep for job FA31365				
	15:32	ZZZZZZ	1		
	15:37	ZZZZZZ	1		
	15:42	MP92063-MB1	1		
	15:47	MP92063-B1	1		
	15:51	MP92063-B1	2		
	15:56	MA38749-CCVA8	1		
	16:01	MA38749-CCB8	1		
---------->	Last reportable CCB for job FA31365				
	16:06	MP92063-S1	10		Sb, Se, Pb and Tl. To reanalysis at higher dilution for Mn with the QC sample
	16:14	MP92063-S1	25		
	16:19	MP92063-S2	25		Need a 1:10. Reanalysis for Mn with QC sample
	16:24	ZZZZZZ	1		
	16:29	JC14285-1	10		(sample used for QC only; not part of login FA31365)
	16:33	ZZZZZZ	10		
	16:38	ZZZZZZ	1		
	16:43	ZZZZZZ	1		
	16:48	ZZZZZZ	1		
	16:53	MA38749-CCVA9	1		
	16:57	MA38749-CCB9	1		
	17:02	MP92063-S1	2		Ag
	17:07	MP92063-S2	2		Ag
	17:12	MP92063-S1	1		
	17:17	MP92063-S2	1		
	17:21	ZZZZZZ	1		
	17:26	ZZZZZZ	1		

SGS Accutest Instrument Runlog
Inorganics Analyses

Login Number: FA31365
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Grifton Dump; NC

File ID: XA021716M1.CSV Date Analyzed: 02/17/16 Methods: EPA 200.8, SW846 6020A
Analyst: JO Run ID: MA38749
Parameters: Sb,As,Be,Cd,Cr,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
17:31	JC14285-1	1		(sample used for QC only; not part of login FA31365)
17:36	ZZZZZZ	1		
17:41	ZZZZZZ	1		
17:46	ZZZZZZ	1		
17:50	MA38749-CCVA10	1		
17:55	MA38749-CCB10	1		

Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: FA31365
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Grifton Dump; NC

File ID: XA021716M1.CSV Date Analyzed: 02/17/16 Methods: EPA 200.8, SW846 6020A
Analyst: JO Run ID: MA38749
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
09:06	MA38749-STD1	100	100	100	100	100	100	100	100
09:11	MA38749-STD2	100	100	100	100	100	100	100	100
09:20	MA38749-STD3	100	100	100	100	100	100	100	100
09:25	MA38749-STD4	100	100	100	100	100	100	100	100
09:30	MA38749-STD5	101.417	99.612	100.261	99.165	99.371	101.233	99.286	98.566
09:34	MA38749-STD6	100.759	100.289	100.203	99.886	99.634	100.586	98.647	98.245
09:39	MA38749-STD7	100.896	99.173	99.127	98.181	97.795	100.103	98.947	97.401
09:44	MA38749-STD8	101.154	98.752	97.891	97.892	98.163	98.68	98.07	96.684
09:49	MA38749-STD9	99.986	97.686	97.705	97.262	97.159	97.945	97.478	96.02
09:53	MA38749-STD10	98.936	96.542	96.818	98.251	95.819	96.611	98.703	95.251
09:58	MA38749-STD11	99.595	97.531	97.272	98.306	96.257	97.212	97.16	95.282
10:03	MA38749-STD12	99.439	98.326	96.486	98.24	96.394	97.741	98.684	95.787
10:08	MA38749-STD13	97.534	96.386	96.939	97.068	94.783	97.143	96.974	93.524
10:17	ZZZZZZ	98.847	97.566	99.381	98.81	96.855	100.556	99.349	96.574
10:22	MA38749-ICVA1	99.051	98.405	97.177	96.096	96.422	97.945	96.515	96.108
10:27	MA38749-ICV1	97.679	95.289	97.155	97.198	95.696	97.788	97.878	94.144
10:32	MA38749-ICB1	97.836	95.718	97.256	97.076	97.08	99.318	98.272	95.392
10:36	ZZZZZZ	94.754	96.151	96.492	100.528	96.19	98.556	102.361	90.855
10:41	MA38749-ICSA1	99.601	101.67	100.489	106.421	99.629	103.247	107.948	95.402
10:46	MA38749-ICSAB1	101.477	103.451	102.68	110.111	102.275	105.285	111.114	98.512
10:51	ZZZZZZ	101.369	101.098	99.216	105.783	100.93	102.501	106.063	101.371
10:56	MA38749-CCVA1	99.594	99.602	99.447	104.674	98.55	101.785	105.098	98.182
11:01	MA38749-CCB1	100.682	99.832	99.629	105.721	100.333	102.283	106.283	99.273
11:07	MA38749-CRI1	No results reported for the elements associated with this internal standard.							
11:12	MA38749-CCVA2	101.566	100.763	100.051	105.209	98.229	101.908	103.81	98.389
11:17	MA38749-CCB2	101.702	99.889	99.78	105.351	100.251	103.163	105.481	100.06
11:22	MP92058-MB1	100.512	97.989	97.441	104.643	102.587	104.662	109.071	101.611
11:27	MP92058-B1	102.318	100.388	99.361	101.898	99.064	101.258	100.8	99.151
11:31	MP92058-S1	96.726	97.318	101	106.462	95.038	100.591	102.667	94.621
11:36	MP92058-S2	99.048	100.51	101.841	106.517	97.342	101.005	102.273	97.079
11:41	ZZZZZZ	104.817	103.286	102.485	107.676	102.315	106.337	109.442	101.655
11:46	FA31250-1	97.599	103.107	108.285	123.621	99.663	110.502	121.065	99.097
11:51	MP92058-SD1	No results reported for the elements associated with this internal standard.							

INTERNAL STANDARD SUMMARY

Login Number: FA31365
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Grifton Dump; NC

File ID: XA021716M1.CSV Date Analyzed: 02/17/16 Methods: EPA 200.8, SW846 6020A
Analyst: JO Run ID: MA38749
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
11:56	ZZZZZZ	114.878	113.381	112.065	123.446	117.013	120.216	130.347 !	114.99
12:01	ZZZZZZ	111.193	112.882	109.607	120.881	115.649	118.212	126.73	114.736
12:05	MA38749-CCVA3	114.492	114.427	110.323	119.506	112.174	113.563	119.599	111.418
12:10	MA38749-CCB3	115.516	113.806	113.3	120.307	113.342	117.01	119.773	112.873
12:15	ZZZZZZ	116.155	114.278	114.183	119.165	113.208	117.071	119.008	112.622
12:20	ZZZZZZ	116.994	114.072	113.818	119.909	113.102	117.238	120.033	112.131
12:27	MP92058-SD1	113.136	115.637	120.724	128.181	111.579	119.512	128.401	110.587
12:32	ZZZZZZ	115.235	113.739	113.741	117.359	112.015	115.113	117.068	111.42
12:37	ZZZZZZ	116.227	113.837	114.053	114.048	112.869	116.406	115.053	111.758
12:42	MA38749-CRI2	No results reported for the elements associated with this internal standard.							
12:48	MA38749-CCVA4	108.175	105.454	104.388	107.585	102.482	104.512	105.973	101.889
12:53	MA38749-CCB4	109.072	104.491	105.47	108.629	103.341	107.222	109.183	102.772
12:58	ZZZZZZ	108.454	104.286	104.168	106.524	103.413	106.933	107.464	101.976
13:03	ZZZZZZ	107.743	103.098	102.009	106.716	101.824	104.027	105.422	100.91
13:13	ZZZZZZ	106.252	101.412	102.914	104.793	101.243	104.5	103.863	100.146
13:17	MA38749-CRI3	106.347	101.141	101.622	103.2	100.131	102.818	104.138	98.439
13:28	MA38749-CCVA5	101.083	96.097	98.273	99.845	92.576	98.207	98.306	92.836
13:33	MA38749-CCB5	102.412	97.593	97.957	100.49	96.002	100.706	100.935	95.05
13:38	MP92060-MB1	103.834	97.977	98.592	101.237	97.193	101.488	100.918	95.975
13:42	MP92060-B1	103.11	98.072	98.193	100.204	96.713	99.237	99.953	96.353
13:47	MP92060-B1	104.592	100.483	101.1	101.134	98.424	102.028	101.875	97.542
13:52	MP92060-S1	100.381	99.632	100.878	100.091	95.426	101.331	100.055	95.137
13:57	MP92060-S1	105.803	103.413	103.921	104.925	100.679	104.863	103.944	100.242
14:01	MP92060-S2	104.102	104.609	105.751	106.143	99.715	105.861	105.356	100.162
14:06	MP92060-S2	99.633	97.668	102.04	105.22	94.521	104.127	105.248	93.66
14:11	ZZZZZZ	106.119	100.005	102.625	102.569	99.566	104.461	104.314	98.972
14:16	ZZZZZZ	109.713	105.342	103.946	104.088	104.369	106.212	104.828	103.281
14:21	MA38749-CCVA6	100.718	95.87	98.679	101.373	93.565	99.661	99.937	93.061
14:25	MA38749-CCB6	101.359	95.616	98.247	101.335	95.211	101.626	101.742	93.947
14:30	FA31327-2	101.499	100.092	102.735	104.957	96.344	103.056	102.383	95.875
14:35	ZZZZZZ	101.757	99.887	99.574	102.341	96.347	101.157	99.829	94.295
14:40	ZZZZZZ	102.515	99.242	99.602	100.498	97.939	103.718	102.271	96.944
14:45	ZZZZZZ	101.239	97.98	98.264	100.434	96.939	102.133	102.055	95.352

INTERNAL STANDARD SUMMARY

Login Number: FA31365
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Grifton Dump; NC

File ID: XA021716M1.CSV Date Analyzed: 02/17/16 Methods: EPA 200.8, SW846 6020A
Analyst: JO Run ID: MA38749
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
14:49	ZZZZZZ	101.505	99.1	99.521	101.225	97.794	103.502	102.702	96.617
14:54	ZZZZZZ	104.785	100.997	103.131	102.673	100.4	106.388	102.799	98.647
14:59	ZZZZZZ	101.57	97.692	97.647	100.614	97.164	101.402	101.236	96.147
15:04	ZZZZZZ	103.173	99.331	99.749	100.468	98.775	102.413	100.722	96.446
15:08	MA38749-CCVA7	100.344	96.767	98.794	100.317	94.68	99.252	99.659	93.566
15:13	MA38749-CCB7	101.455	97.379	98.523	99.126	95.811	100	99.492	94.024
15:18	FA31365-1	98.112	95.797	95.9	98.321	93.836	98.894	98.066	91.848
15:23	FA31365-2	98.946	97.113	96.925	99.444	94.146	99.269	99.57	93.207
15:28	FA31365-3	98.392	96.416	95.926	97.507	93.531	97.602	98.043	91.76
15:32	ZZZZZZ	102.968	97.724	99.639	99.432	97.997	102.717	101.6	95.747
15:37	ZZZZZZ	102.549	97.859	98.021	98.884	97.255	101.363	100.639	96.258
15:42	MP92063-MB1	102.427	96.592	96.635	99.161	96.167	101.368	101.447	93.891
15:47	MP92063-B1	100.71	95.149	96.184	97.335	93.453	98.668	97.542	92.946
15:51	MP92063-B1	100.257	95.01	97.064	97.821	92.923	99.593	98.304	92.222
15:56	MA38749-CCVA8	101.155	96.158	97.27	98.272	93.525	99.333	99.272	93.177
16:01	MA38749-CCB8	101.22	96.428	97.777	98.319	95.17	100.603	98.325	94.002
16:06	MP92063-S1	99.942	96.544	97.864	98.289	94.739	100.667	99.612	93.553
16:14	MP92063-S1	No results reported for the elements associated with this internal standard.							
16:19	MP92063-S2	No results reported for the elements associated with this internal standard.							
16:24	ZZZZZZ	101.641	97.644	98.61	98.44	96.058	101.503	99.498	94.21
16:29	JC14285-1	100.181	97.507	99.49	99.755	95.735	100.691	100.733	93.989
16:33	ZZZZZZ	102.39	98.371	101.86	104.884	95.914	103.033	104.126	94.826
16:38	ZZZZZZ	103.031	102.775	102.279	102.888	97.329	103.05	102.138	96.514
16:43	ZZZZZZ	102.604	103.017	100.031	102.599	97.293	101.959	101.93	95.959
16:48	ZZZZZZ	107.901	103.691	103.684	105.148	102.376	105.466	104.732	100.754
16:53	MA38749-CCVA9	104.036	100.365	100.393	102.262	98.316	101.454	101.944	95.09
16:57	MA38749-CCB9	104.763	100.163	102.028	103.07	99.031	103.448	103.22	97.854
17:02	MP92063-S1	96.74	103.902	101.909	105.445	97.41	105.696	104.591	95.087
17:07	MP92063-S2	94.946	100.845	99.866	107.452	95.231	103.327	106.473	92.282
17:12	MP92063-S1	92.722	110.888	105.19	112.922	99.899	111.645	112.32	96.081
17:17	MP92063-S2	100.044	120.529	114.852	126.284	!a109.777	120.626	126.511	!a104.526
17:21	ZZZZZZ	No results reported for the elements associated with this internal standard.							
17:26	ZZZZZZ	No results reported for the elements associated with this internal standard.							

INTERNAL STANDARD SUMMARY

Login Number: FA31365
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Grifton Dump; NC

File ID: XA021716M1.CSV Date Analyzed: 02/17/16 Methods: EPA 200.8, SW846 6020A
Analyst: JO Run ID: MA38749
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
17:31	JC14285-1	98.743	119.775	115.91	128.038	!a109.145	122.383	128.304	!a103.752
17:36	ZZZZZZ	109.873	123.084	126.095	!a140.517	!a114.847	123.526	133.466	!a114.503
17:41	ZZZZZZ	No results reported for the elements associated with this internal standard.							
17:46	ZZZZZZ	No results reported for the elements associated with this internal standard.							
17:50	MA38749-CCVA10	115.04	113.72	113.005	123.381	112.05	117.787	122.956	110.372
17:55	MA38749-CCB10	116.17	114.497	114.759	123.522	112.351	119.725	124.525	111.622

! = 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 %

(a) No samples reported for the elements associated with this internal standard.

INTERNAL STANDARD SUMMARY

Login Number: FA31365
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Grifton Dump; NC

File ID: XA021716M1.CSV Date Analyzed: 02/17/16 Methods: EPA 200.8, SW846 6020A
Analyst: JO Run ID: MA38749
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
09:06	MA38749-STD1	100	100	100	100	100	100	100	100
09:11	MA38749-STD2	100	100	100	100	100	100	100	100
09:20	MA38749-STD3	100	100	100	100	100	100	100	100
09:25	MA38749-STD4	100	100	100	100	100	100	100	100
09:30	MA38749-STD5	100.511	99.869	100.037	99.775	98.483	99.561	99.993	100.088
09:34	MA38749-STD6	100.564	99.792	99.562	99.841	98.81	99.421	99.021	99.353
09:39	MA38749-STD7	99.044	99.549	99.631	99.39	98.758	99.56	98.766	99.665
09:44	MA38749-STD8	98.782	98.789	98.55	98.138	97.605	99.442	97.4	99.991
09:49	MA38749-STD9	97.951	98.093	97.348	97.716	97.668	97.774	97.081	98.822
09:53	MA38749-STD10	97.745	98.101	96.423	97.653	97.88	97.317	97.133	98.098
09:58	MA38749-STD11	98.153	96.839	96.768	97.251	97.14	98.003	97.707	98.883
10:03	MA38749-STD12	98.675	96.592	96.55	95.996	95.255	98.003	97.705	99.117
10:08	MA38749-STD13	97.627	96.357	93.795	94.308	93.516	95.974	95.939	97.922
10:17	ZZZZZZ	100.338	99.245	98.808	100.284	98.124	98.695	100.395	98.353
10:22	MA38749-ICVA1	97.371	96.684	96.072	95.735	94.243	97.573	97.036	99.522
10:27	MA38749-ICV1	98.353	97.603	97.207	98.149	97.311	97.852	98.155	98.209
10:32	MA38749-ICB1	98.814	97.533	96.989	98.002	97.452	97.8	98.382	98.298
10:36	ZZZZZZ	93.979	97.632	87.077	87.76	87.093	91.601	91.051	96.955
10:41	MA38749-ICSA1	99.045	101.223	91.497	91.366	91.425	96.281	94.93	102.824
10:46	MA38749-ICSAB1	101.52	103.939	93.663	92.617	93.286	98.471	95.97	105.131
10:51	ZZZZZZ	103.177	106.429	103.736	103.794	104.617	105.187	101.663	107.302
10:56	MA38749-CCVA1	101.647	104.335	100.587	100.735	102.172	103.553	99.369	107.29
11:01	MA38749-CCB1	102.526	106.01	102.838	103.955	104.547	104.45	101.136	106.323
11:07	MA38749-CRI1	No results reported for the elements associated with this internal standard.							
11:12	MA38749-CCVA2	100.733	104.34	101.392	101.086	101.202	104.095	99.401	107.555
11:17	MA38749-CCB2	103.082	105.875	103.238	104.512	104.138	104.544	102.495	106.524
11:22	MP92058-MB1	104.862	110.156	100.942	102.219	104.044	103.005	99.458	105.55
11:27	MP92058-B1	101.026	100.458	101.465	100.21	99.122	103.275	99.835	106.513
11:31	MP92058-S1	101.619	103.744	94.312	96.966	96.622	98.637	99.29	103.636
11:36	MP92058-S2	101.489	103.555	95.93	97.096	96.7	100.661	98.209	104.502
11:41	ZZZZZZ	106.303	107.82	105.223	105.814	106.858	106.188	104.363	108.264
11:46	FA31250-1	110.235	121.171	92.813	98.536	105.786	98.485	102.45	105.107
11:51	MP92058-SD1	No results reported for the elements associated with this internal standard.							

INTERNAL STANDARD SUMMARY

Login Number: FA31365
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Grifton Dump; NC

File ID: XA021716M1.CSV Date Analyzed: 02/17/16 Methods: EPA 200.8, SW846 6020A
Analyst: JO Run ID: MA38749
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
11:56	ZZZZZZ	119.333	128.6	114.283	115.552	119.51	118.016	112.028	123.478
12:01	ZZZZZZ	119.85	126.369	113.312	114.37	117.878	117.141	110.562	122.379
12:05	MA38749-CCVA3	114.983	119.648	114.767	114.08	115.058	118.257	110.954	123.228
12:10	MA38749-CCB3	116.922	120.009	116.562	118.043	118.456	118.454	115.339	119.881
12:15	ZZZZZZ	117.258	118.684	116.483	118.048	117.126	117.926	115.218	120.094
12:20	ZZZZZZ	117.503	119.784	116.135	117.441	117.907	117.488	114.496	119.051
12:27	MP92058-SD1	119.775	127.289	108.788	113.869	117.861	114.642	117.11	117.716
12:32	ZZZZZZ	115.863	116.649	113.607	115.359	114.221	114.579	113.406	114.94
12:37	ZZZZZZ	115.649	114.732	115.078	116.403	111.686	116.775	115.25	117.226
12:42	MA38749-CRI2	No results reported for the elements associated with this internal standard.							
12:48	MA38749-CCVA4	104.298	104.895	104.467	103.822	103.603	107.237	104.124	110.738
12:53	MA38749-CCB4	107.694	107.865	107.114	108.106	107.272	109.282	107.282	109.965
12:58	ZZZZZZ	106.09	106.553	105.722	107.253	105.901	107.102	106.439	108.606
13:03	ZZZZZZ	104.579	105.414	105.236	104.145	103.475	107.234	104.531	108.142
13:13	ZZZZZZ	105.182	103.206	103.432	104.434	102.4	105.441	105.217	106.265
13:17	MA38749-CRI3	103.424	103.664	102.423	103.11	101.66	104.454	102.829	106.448
13:28	MA38749-CCVA5	99.743	98.839	95.987	96.965	95.592	98.841	98.721	102.766
13:33	MA38749-CCB5	100.768	100.549	100.349	101.292	99.381	102.469	101.863	103.347
13:38	MP92060-MB1	100.825	101.341	100.253	101.495	100.065	102.39	101.987	104.412
13:42	MP92060-B1	100.07	100.176	99.097	100.151	98.225	101.825	100.545	104.641
13:47	MP92060-B1	102.802	101.515	101.193	101.538	99.022	103.389	102.622	105.044
13:52	MP92060-S1	101.641	99.246	94.313	95.701	91.584	98.156	99.093	103.151
13:57	MP92060-S1	105.712	104.255	99.468	100.192	98.141	104.429	103.853	108.18
14:01	MP92060-S2	106.949	105.708	98.852	99.7	97.358	104.349	103.862	109.378
14:06	MP92060-S2	104.265	104.547	93.824	98.969	98.24	98.699	102.554	103.47
14:11	ZZZZZZ	105.553	104.606	102.881	105.213	102.682	105.454	106.185	108.492
14:16	ZZZZZZ	105.339	105.145	108.238	106.223	104.054	110.471	106.867	112.961
14:21	MA38749-CCVA6	99.425	99.993	96.717	98.771	98.278	99.708	100.497	104.227
14:25	MA38749-CCB6	100.863	101.48	99.166	101.421	100.639	101.819	102	104.681
14:30	FA31327-2	102.294	102.916	95.37	97.569	95.924	100.064	100.656	105.577
14:35	ZZZZZZ	101.874	100.41	95.746	97.41	95.375	102.146	101.658	106.127
14:40	ZZZZZZ	103.311	101.211	99.353	99.989	97.712	103.465	103.048	106.942
14:45	ZZZZZZ	102.25	101.645	98.135	100.078	98.682	102.871	102.55	105.424

INTERNAL STANDARD SUMMARY

Login Number: FA31365
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Grifton Dump; NC

File ID: XA021716M1.CSV Date Analyzed: 02/17/16 Methods: EPA 200.8, SW846 6020A
Analyst: JO Run ID: MA38749
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
14:49	ZZZZZZ	102.464	102.291	98.2	100.183	98.488	102.604	102.989	106.816
14:54	ZZZZZZ	106.2	102.683	102.633	104.448	99.99	105.909	106.749	108.001
14:59	ZZZZZZ	101.735	100.539	98.982	99.351	98.735	103.012	101.252	104.694
15:04	ZZZZZZ	103.59	101.388	101.254	102.659	99.741	104.219	103.882	105.871
15:08	MA38749-CCVA7	99.271	99.19	97.242	99.022	97.481	100.799	100.57	105.41
15:13	MA38749-CCB7	102.017	99.044	99.063	100.997	98.06	101.894	102.231	103.9
15:18	FA31365-1	99.616	98.812	94.417	95.568	93.734	100.153	98.865	103.257
15:23	FA31365-2	98.773	99.316	95.792	96.04	95.849	100.649	99.12	105.566
15:28	FA31365-3	97.714	98.511	94.462	95.042	93.812	99.286	98.17	104.011
15:32	ZZZZZZ	103.112	101.764	100.467	102.146	100.005	102.896	102.924	105.129
15:37	ZZZZZZ	101.621	99.13	100.759	101.827	99.026	103.415	103.427	104.677
15:42	MP92063-MB1	101.384	100.687	100.199	100.419	99.027	102.116	101.567	104.144
15:47	MP92063-B1	98.817	99.138	96.998	98.428	96.335	101.181	99.247	103.958
15:51	MP92063-B1	100.843	98.599	97.908	99.487	96.663	101.274	101.13	103.794
15:56	MA38749-CCVA8	99.627	98.42	96.82	97.74	95.881	100.684	100.379	104.723
16:01	MA38749-CCB8	100.987	97.826	98.982	100.093	97.517	101.682	101.82	103.816
16:06	MP92063-S1	99.845	98.496	96.458	98.022	95.005	101.509	100.203	105.795
16:14	MP92063-S1	No results reported for the elements associated with this internal standard.							
16:19	MP92063-S2	No results reported for the elements associated with this internal standard.							
16:24	ZZZZZZ	102.585	99.632	100.116	101.224	98.501	102.685	103.59	105.432
16:29	JC14285-1	100.721	99.67	97.94	98.488	96.49	102.284	100.899	106.8
16:33	ZZZZZZ	104.038	104.838	98.11	100.767	99.655	102.743	103.825	106.772
16:38	ZZZZZZ	102.17	100.724	98.54	98.674	96.46	103.956	102.979	108.631
16:43	ZZZZZZ	102.453	101.148	98.441	98.591	96.523	103.983	102.732	109.322
16:48	ZZZZZZ	106.41	104.786	106.211	105.744	103.479	108.318	106.849	110.614
16:53	MA38749-CCVA9	101.949	101.111	100.436	101.223	98.364	104.211	103.47	108.179
16:57	MA38749-CCB9	104.453	103.432	103.22	104.348	101.712	106.411	106.91	109.281
17:02	MP92063-S1	101.472	100.745	96.65	95.985	93.13	102.655	100.994	112.163
17:07	MP92063-S2	99.769	103.49	94.466	96.034	96.08	101.288	99.094	111.411
17:12	MP92063-S1	104.661	103.164	97.397	95.911	93.291	104.964	99.262	120.66
17:17	MP92063-S2	111.878	116.72	106.175	104.507	105.346	114.351	107.631	132.12 !a
17:21	ZZZZZZ	No results reported for the elements associated with this internal standard.							
17:26	ZZZZZZ	No results reported for the elements associated with this internal standard.							

INTERNAL STANDARD SUMMARY

Login Number: FA31365
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Grifton Dump; NC

File ID: XA021716M1.CSV Date Analyzed: 02/17/16 Methods: EPA 200.8, SW846 6020A
Analyst: JO Run ID: MA38749
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
17:31	JC14285-1	114.355	117.925	105.03	105.564	106.128	114.65	109.138	132.254 !a
17:36	ZZZZZZ	124.882	131.842 !a	114.665	115.577	116.966	122.59	119.989	132.229 !a
17:41	ZZZZZZ	No results reported for the elements associated with this internal standard.							
17:46	ZZZZZZ	No results reported for the elements associated with this internal standard.							
17:50	MA38749-CCVA10	116.88	122.363	117.676	119.634	118.892	122.817	115.307	129.375 !a
17:55	MA38749-CCB10	119.518	124.042	120.515	123.66	121.44	123.449	119.48	127.7 !a

! = 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 %

(a) No samples reported for the elements associated with this internal standard.

INTERNAL STANDARD SUMMARY

Login Number: FA31365
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Grifton Dump; NC

File ID: XA021716M1.CSV Date Analyzed: 02/17/16 Methods: EPA 200.8, SW846 6020A
Analyst: JO Run ID: MA38749
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
09:06	MA38749-STD1	100	100	100	100	100	100
09:11	MA38749-STD2	100	100	100	100	100	100
09:20	MA38749-STD3	100	100	100	100	100	100
09:25	MA38749-STD4	100	100	100	100	100	100
09:30	MA38749-STD5	99.98	98.848	100.142	99.953	100.489	100.307
09:34	MA38749-STD6	100.503	98.861	99.399	99.916	99.519	99.896
09:39	MA38749-STD7	100.441	98.427	99.748	99.84	101.267	100.241
09:44	MA38749-STD8	100.063	97.923	100.387	99.385	101.236	99.886
09:49	MA38749-STD9	99.472	98.681	99.215	99.724	100.402	100.251
09:53	MA38749-STD10	99.729	99.039	99.029	99.445	99.017	99.275
09:58	MA38749-STD11	100.108	97.97	98.915	99.567	99.749	99.489
10:03	MA38749-STD12	100.824	97.88	99.951	100.493	97.653	97.787
10:08	MA38749-STD13	99.688	96.373	98.303	98.75	95.512	95.285
10:17	ZZZZZZ	101.663	97.205	99.353	101.747	99.779	101.382
10:22	MA38749-ICVA1	100.273	96.47	99.993	100.536	97.88	97.355
10:27	MA38749-ICV1	99.775	96.925	98.286	99.841	99.289	98.977
10:32	MA38749-ICB1	99.723	97.564	98.625	99.711	99.264	99.063
10:36	ZZZZZZ	96.622	93.478	97.74	97.076	90.308	88.681
10:41	MA38749-ICSA1	100.178	96.954	103.833	100.323	95.135	91.123
10:46	MA38749-ICSAB1	101.253	98.765	105.684	101.566	96.49	91.833
10:51	ZZZZZZ	104.482	103.954	107.658	104.114	107.826	103.956
10:56	MA38749-CCVA1	104.891	103.115	108.139	104.766	106.407	102.29
11:01	MA38749-CCB1	104.601	103.453	106.789	104.956	108.22	105.521
11:07	MA38749-CRI1	No results reported for the elements associated with this internal standard.					
11:12	MA38749-CCVA2	105.053	102.807	108.392	105.185	106.76	103.039
11:17	MA38749-CCB2	104.921	102.518	107.035	105.425	108.287	105.367
11:22	MP92058-MB1	103.045	102.95	106.739	103.312	114.116	105.964
11:27	MP92058-B1	104.301	100.463	107.199	104.822	108.233	103.167
11:31	MP92058-S1	104.848	101.32	104.235	105.408	99.943	99.531
11:36	MP92058-S2	103.38	100.339	105.184	104.182	100.742	97.528
11:41	ZZZZZZ	106.395	104.477	108.334	106.432	109.363	106.006
11:46	FA31250-1	108.63	109.708	106.983	108.934	97.667	96.164
11:51	MP92058-SD1	No results reported for the elements associated with this internal standard.					

INTERNAL STANDARD SUMMARY

Login Number: FA31365
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Grifton Dump; NC

File ID: XA021716M1.CSV Date Analyzed: 02/17/16 Methods: EPA 200.8, SW846 6020A
Analyst: JO Run ID: MA38749
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
11:56	ZZZZZZ	118.702	117.701	124.673	119.667	125.758	118.375
12:01	ZZZZZZ	118.024	115.813	123.679	118.645	124.004	117.041
12:05	MA38749-CCVA3	117.459	113.994	124.071	117.66	122.588	113.904
12:10	MA38749-CCB3	119.103	113.494	121.378	118.831	122.171	118.244
12:15	ZZZZZZ	118.061	111.845	120.825	118.51	121.674	118.136
12:20	ZZZZZZ	118.316	112.141	119.516	118.262	120.353	117.525
12:27	MP92058-SD1	120.634	117.879	119.352	121.803	113.706	113.559
12:32	ZZZZZZ	114.86	109.653	116.356	115.326	116.127	113.905
12:37	ZZZZZZ	116.837	107.46	118.415	116.856	118.817	116.264
12:42	MA38749-CRI2	No results reported for the elements associated with this internal standard.					
12:48	MA38749-CCVA4	108.334	105.311	111.354	108.57	110.251	105.937
12:53	MA38749-CCB4	109.8	105.548	111.139	109.299	111.973	108.734
12:58	ZZZZZZ	108.706	104.293	109.292	108.762	110.15	107.731
13:03	ZZZZZZ	106.674	102.533	109.076	106.961	109.397	105.948
13:13	ZZZZZZ	107.204	102.153	107.026	107.299	108.06	106.858
13:17	MA38749-CRI3	106.083	101.196	106.831	106.143	108.142	105.606
13:28	MA38749-CCVA5	103.464	98.33	103.047	104.805	103.377	101.126
13:33	MA38749-CCB5	104.292	98.991	104.047	104.536	105.854	103.816
13:38	MP92060-MB1	104.444	99.927	104.835	104.619	107.749	105.717
13:42	MP92060-B1	104.823	99.582	104.703	105.586	105.546	103.253
13:47	MP92060-B1	105.819	99.611	105.402	106.182	107.816	104.991
13:52	MP92060-S1	105.5	97.203	104.311	106.046	100.337	98.012
13:57	MP92060-S1	108.91	103.101	109.272	109.36	106.149	103.813
14:01	MP92060-S2	110.628	104.158	110.252	110.774	104.782	103.324
14:06	MP92060-S2	108.03	103.084	103.722	108.83	101.823	103.669
14:11	ZZZZZZ	109.91	103.024	109.001	109.955	109.873	109.414
14:16	ZZZZZZ	110.879	104.674	113.945	111.025	115.943	110.678
14:21	MA38749-CCVA6	106.091	101.532	104.847	107.254	104.523	103.35
14:25	MA38749-CCB6	105.959	101.568	106.013	105.983	106.713	105.717
14:30	FA31327-2	107.82	101.62	106.641	108.096	102.358	100.443
14:35	ZZZZZZ	107.039	100.809	106.828	107.357	104.36	101.18
14:40	ZZZZZZ	108.251	101.464	107.302	108.458	107.513	104.571
14:45	ZZZZZZ	107.485	101.777	106.011	107.366	107.633	105.909

INTERNAL STANDARD SUMMARY

Login Number: FA31365
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Grifton Dump; NC

File ID: XA021716M1.CSV Date Analyzed: 02/17/16 Methods: EPA 200.8, SW846 6020A
Analyst: JO Run ID: MA38749
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
14:49	ZZZZZZ	108.631	102.595	106.9	108.377	106.335	104.697
14:54	ZZZZZZ	109.687	101.696	108.955	110.807	111.695	110.264
14:59	ZZZZZZ	105.561	101.09	105.957	105.573	108.223	104.836
15:04	ZZZZZZ	106.863	100.617	106.847	107.546	107.357	106.266
15:08	MA38749-CCVA7	106.889	100.658	105.55	107.42	104.842	103.221
15:13	MA38749-CCB7	105.48	98.827	104.645	106.494	106.755	104.892
15:18	FA31365-1	104.401	98.703	104.318	104.915	103.659	101.233
15:23	FA31365-2	105.065	99.923	105.572	105.879	104.659	101.58
15:28	FA31365-3	104.411	98.409	104.5	104.993	104.201	101.047
15:32	ZZZZZZ	107.002	100.339	106.193	107.218	106.921	105.831
15:37	ZZZZZZ	106.802	99.678	105.765	106.785	107.803	106.006
15:42	MP92063-MB1	105.216	99.593	105.208	105.524	108.269	105.709
15:47	MP92063-B1	105.599	99.077	104.203	105.713	107.291	103.576
15:51	MP92063-B1	105.963	98.642	104.691	106.511	106.958	104.966
15:56	MA38749-CCVA8	106.182	99.492	105.018	106.23	105.335	102.187
16:01	MA38749-CCB8	106.195	99.33	104.786	105.714	106.536	104.187
16:06	MP92063-S1	106.889	99.794	106.12	107.367	105.661	102.916
16:14	MP92063-S1	No results reported for the elements associated with this internal standard.					
16:19	MP92063-S2	No results reported for the elements associated with this internal standard.					
16:24	ZZZZZZ	106.957	99.461	105.693	107.203	107.501	104.776
16:29	JC14285-1	107.684	100.465	107.328	107.875	107.123	103.93
16:33	ZZZZZZ	110.315	102.798	107.891	110.148	107.36	105.061
16:38	ZZZZZZ	110.33	102.024	109.863	110.13	108.357	104.705
16:43	ZZZZZZ	109.553	101.927	110.408	109.853	109.226	104.526
16:48	ZZZZZZ	111.008	103.482	111.454	111.014	112.266	108.779
16:53	MA38749-CCVA9	109.979	100.763	108.927	110.271	109.207	105.032
16:57	MA38749-CCB9	110.532	102.358	109.245	110.284	111.046	108.266
17:02	MP92063-S1	112.891	103.731	112.828	112.87	105.661	100.859
17:07	MP92063-S2	111.263	105.493	112.167	111.798	105.556	100.594
17:12	MP92063-S1	115.622	107.219	121.005	115.79	107.679	98.287
17:17	MP92063-S2	125.274	!a119.958	132.074	!a125.502	!a118.55	106.998
17:21	ZZZZZZ	No results reported for the elements associated with this internal standard.					
17:26	ZZZZZZ	No results reported for the elements associated with this internal standard.					

INTERNAL STANDARD SUMMARY

Login Number: FA31365
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Grifton Dump; NC

File ID: XA021716M1.CSV Date Analyzed: 02/17/16 Methods: EPA 200.8, SW846 6020A
Analyst: JO Run ID: MA38749
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
17:31	JC14285-1	128.021	!a120.546	132.975	!a127.747	!a118.579	108.79
17:36	ZZZZZZ	128.723	!a122.992	133.187	!a129.131	!a120.583	110.756
17:41	ZZZZZZ	No results reported for the elements associated with this internal standard.					
17:46	ZZZZZZ	No results reported for the elements associated with this internal standard.					
17:50	MA38749-CCVA10	125.714	!a120.854	130.315	!a126.43	!a 130.109	!a120.308
17:55	MA38749-CCB10	126.081	!a119.338	128.726	!a126.613	!a131.388	!a127.204 !a

! = 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 %

(a) No samples reported for the elements associated with this internal standard.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FA31365
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Grifton Dump; NC

File ID: XA021716M1.CSV Date Analyzed: 02/17/16 Methods: EPA 200.8, SW846 6020A
QC Limits: result < RL Run ID: MA38749 Units: ug/l

Time:			10:32		11:01		11:17		12:10	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	25	.32								
Antimony	2.0	.1	0.032	<2.0	-0.044	<2.0	-0.056	<2.0	-0.074	<2.0
Arsenic	0.50	.035	0.067	<0.50	0.082	<0.50	0.073	<0.50	0.055	<0.50
Barium	1.0	.033								
Beryllium	0.50	.008	0.0020	<0.50	0.0061	<0.50	0.0044	<0.50	0.0051	<0.50
Boron	25	1.5								
Cadmium	0.50	.01	0.0036	<0.50	0.0059	<0.50	0.0035	<0.50	0.012	<0.50
Calcium	250	9.7								
Chromium	1.0	.016	-0.015	<1.0	-0.0063	<1.0	-0.018	<1.0	-0.011	<1.0
Cobalt	0.50	.002								
Copper	2.0	.02	-0.0048	<2.0	0.0058	<2.0	0.0068	<2.0	0.0030	<2.0
Iron	25	.18	0.020	<25	0.70	<25	0.45	<25	0.44	<25
Lead	0.50	.007	-0.0011	<0.50	0.0018	<0.50	0.0021	<0.50	0.0020	<0.50
Magnesium	250	.28								
Manganese	1.0	.014	0.0016	<1.0	-0.0037	<1.0	0.0011	<1.0	0.016	<1.0
Molybdenum	1.0	.016	anr							
Nickel	1.0	.016	-0.0013	<1.0	-0.0068	<1.0	-0.0061	<1.0	0.0012	<1.0
Potassium	250	3.3								
Selenium	0.50	.03	-0.015	<0.50	0.021	<0.50	0.0052	<0.50	-0.00049	<0.50
Silver	0.50	.006	0.0014	<0.50	0.0033	<0.50	0.00033	<0.50	0.0050	<0.50
Sodium	250	1.4								
Strontium	5.0	.01								
Thallium	0.50	.015	0.0095	<0.50	0.030	<0.50	0.029	<0.50	0.034	<0.50
Tin	5.0	.027								
Titanium	1.0	.061								
Vanadium	1.0	.062								
Zinc	5.0	.11	-0.048	<5.0	-0.062	<5.0	-0.053	<5.0	-0.080	<5.0

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

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FA31365
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Grifton Dump; NC

File ID: XA021716M1.CSV Date Analyzed: 02/17/16 Methods: EPA 200.8, SW846 6020A
QC Limits: result < RL Run ID: MA38749 Units: ug/l

Time:			12:53		13:33		14:25		15:13	
Sample ID:			CCB4		CCB5		CCB6		CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	25	.32								
Antimony	2.0	.1	0.0017	<2.0	0.17	<2.0	0.12	<2.0	0.12	<2.0
Arsenic	0.50	.035	0.064	<0.50	0.081	<0.50	0.077	<1.0	0.086	<1.0
Barium	1.0	.033								
Beryllium	0.50	.008	0.0045	<0.50	0.0060	<0.50	0.0096	<0.50	0.0093	<0.50
Boron	25	1.5								
Cadmium	0.50	.01	0.014	<0.50	0.0058	<0.50	0.013	<0.50	0.0070	<0.50
Calcium	250	9.7								
Chromium	1.0	.016	-0.0085	<1.0	-0.0054	<1.0	-0.016	<4.0	-0.0040	<4.0
Cobalt	0.50	.002								
Copper	2.0	.02	0.0046	<2.0	-0.0025	<2.0	0.0061	<4.0	0.0036	<4.0
Iron	25	.18	0.37	<25	0.50	<25	0.49	<50	0.53	<50
Lead	0.50	.007	0.0020	<0.50	0.0023	<0.50	0.0039	<0.50	-0.00075	<0.50
Magnesium	250	.28								
Manganese	1.0	.014	0.0036	<1.0	-0.0072	<1.0	-0.0041	<1.0	0.0082	<1.0
Molybdenum	1.0	.016	anr							
Nickel	1.0	.016	-0.0050	<1.0	0.000072	<1.0	-0.0044	<4.0	0.00062	<4.0
Potassium	250	3.3								
Selenium	0.50	.03	0.0053	<0.50	-0.0065	<0.50	0.0036	<1.0	-0.0035	<1.0
Silver	0.50	.006	0.0041	<0.50	0.0097	<0.50	0.0076	<2.0	0.0089	<2.0
Sodium	250	1.4								
Strontium	5.0	.01								
Thallium	0.50	.015	0.029	<0.50	0.025	<0.50	0.037	<0.50	0.025	<0.50
Tin	5.0	.027								
Titanium	1.0	.061								
Vanadium	1.0	.062								
Zinc	5.0	.11	-0.11	<5.0	-0.096	<5.0	-0.097	<10	-0.13	<10

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

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FA31365
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Grifton Dump; NC

File ID: XA021716M1.CSV Date Analyzed: 02/17/16 Methods: EPA 200.8, SW846 6020A
QC Limits: result < RL Run ID: MA38749 Units: ug/l

Time:			16:01	
Sample ID:			CCB8	
Metal	RL	IDL	raw	final
Aluminum	25	.32		
Antimony	2.0	.1	0.17	<2.0
Arsenic	0.50	.035	0.063	<1.0
Barium	1.0	.033		
Beryllium	0.50	.008	0.0058	<0.50
Boron	25	1.5		
Cadmium	0.50	.01	0.0047	<0.50
Calcium	250	9.7		
Chromium	1.0	.016	-0.014	<4.0
Cobalt	0.50	.002		
Copper	2.0	.02	0.0043	<4.0
Iron	25	.18	0.47	<50
Lead	0.50	.007	0.0039	<0.50
Magnesium	250	.28		
Manganese	1.0	.014	0.0097	<1.0
Molybdenum	1.0	.016	anr	
Nickel	1.0	.016	0.0015	<4.0
Potassium	250	3.3		
Selenium	0.50	.03	-0.00095	<1.0
Silver	0.50	.006	0.0081	<2.0
Sodium	250	1.4		
Strontium	5.0	.01		
Thallium	0.50	.015	0.045	<0.50
Tin	5.0	.027		
Titanium	1.0	.061		
Vanadium	1.0	.062		
Zinc	5.0	.11	-0.079	<10

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FA31365
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Grifton Dump; NC

File ID: XA021716M1.CSV Date Analyzed: 02/17/16 Methods: EPA 200.8, SW846 6020A
QC Limits: 90 to 110 % Recovery Run ID: MA38749 Units: ug/l

Time:		10:22			10:27			10:56	
Sample ID:	ICVA	ICVA1		ICV	ICV1		CCVA	CCVA1	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony	60	63.7	106.2				50	53.5	107.0
Arsenic	60	59.2	98.7				50	50.2	100.4
Barium									
Beryllium	60	57.5	95.8				50	48.5	97.0
Boron									
Cadmium	60	57.3	95.5				50	50.0	100.0
Calcium									
Chromium	60	59.7	99.5				50	51.8	103.6
Cobalt									
Copper	60	57.5	95.8				50	50.2	100.4
Iron	5500	5350	97.3				5000	5110	102.2
Lead	60	58.7	97.8				50	50.5	101.0
Magnesium									
Manganese	60	59.9	99.8				50	50.4	100.8
Molybdenum	anr								
Nickel	60	57.6	96.0				50	50.6	101.2
Potassium									
Selenium	60	58.1	96.8				50	50.3	100.6
Silver	60	62.9	104.8				50	49.1	98.2
Sodium									
Strontium									
Thallium	60	61.3	102.2				50	49.9	99.8
Tin									
Titanium									
Vanadium									
Zinc	60	58.2	97.0				50	50.4	100.8

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FA31365
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Grifton Dump; NC

File ID: XA021716M1.CSV Date Analyzed: 02/17/16 Methods: EPA 200.8, SW846 6020A
QC Limits: 90 to 110 % Recovery Run ID: MA38749 Units: ug/l

Time:		11:12			12:05			12:48	
Sample ID:	CCVA	CCVA2		CCVA	CCVA3		CCVA	CCVA4	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony	50	53.5	107.0	50	52.9	105.8	50	52.8	105.6
Arsenic	50	50.6	101.2	50	51.9	103.8	50	50.1	100.2
Barium									
Beryllium	50	48.4	96.8	50	48.8	97.6	50	48.0	96.0
Boron									
Cadmium	50	50.1	100.2	50	51.1	102.2	50	49.6	99.2
Calcium									
Chromium	50	51.6	103.2	50	52.6	105.2	50	50.4	100.8
Cobalt									
Copper	50	50.2	100.4	50	50.9	101.8	50	49.1	98.2
Iron	5000	5150	103.0	5000	5190	103.8	5000	5080	101.6
Lead	50	50.2	100.4	50	49.9	99.8	50	50.3	100.6
Magnesium									
Manganese	50	50.4	100.8	50	51.0	102.0	50	50.0	100.0
Molybdenum	anr								
Nickel	50	50.5	101.0	50	50.7	101.4	50	49.4	98.8
Potassium									
Selenium	50	49.7	99.4	50	49.6	99.2	50	50.5	101.0
Silver	50	48.8	97.6	50	48.6	97.2	50	48.4	96.8
Sodium									
Strontium									
Thallium	50	49.9	99.8	50	50.5	101.0	50	49.8	99.6
Tin									
Titanium									
Vanadium									
Zinc	50	50.7	101.4	50	52.1	104.2	50	49.8	99.6

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FA31365
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Grifton Dump; NC

File ID: XA021716M1.CSV Date Analyzed: 02/17/16 Methods: EPA 200.8, SW846 6020A
QC Limits: 90 to 110 % Recovery Run ID: MA38749 Units: ug/l

Time:		13:28			14:21			15:08	
Sample ID:	CCVA	CCVA5		CCVA	CCVA6		CCVA	CCVA7	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony	50	52.0	104.0	50	51.4	102.8	50	51.3	102.6
Arsenic	50	50.6	101.2	50	50.5	101.0	50	50.6	101.2
Barium									
Beryllium	50	47.6	95.2	50	47.5	95.0	50	48.1	96.2
Boron									
Cadmium	50	49.4	98.8	50	49.9	99.8	50	49.7	99.4
Calcium									
Chromium	50	50.5	101.0	50	50.8	101.6	50	50.2	100.4
Cobalt									
Copper	50	48.9	97.8	50	49.1	98.2	50	48.8	97.6
Iron	5000	5010	100.2	5000	5090	101.8	5000	5070	101.4
Lead	50	50.2	100.4	50	49.9	99.8	50	50.1	100.2
Magnesium									
Manganese	50	50.4	100.8	50	50.8	101.6	50	51.0	102.0
Molybdenum	anr								
Nickel	50	48.8	97.6	50	49.2	98.4	50	49.1	98.2
Potassium									
Selenium	50	50.5	101.0	50	51.2	102.4	50	51.0	102.0
Silver	50	47.3	94.6	50	47.2	94.4	50	47.1	94.2
Sodium									
Strontium									
Thallium	50	49.8	99.6	50	50.0	100.0	50	49.8	99.6
Tin									
Titanium									
Vanadium									
Zinc	50	49.3	98.6	50	49.3	98.6	50	49.9	99.8

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FA31365
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Grifton Dump; NC

File ID: XA021716M1.CSV Date Analyzed: 02/17/16 Methods: EPA 200.8, SW846 6020A
QC Limits: 90 to 110 % Recovery Run ID: MA38749 Units: ug/l

Time:		15:56	
Sample ID:	CCVA	CCVA8	
Metal	True	Results	% Rec
Aluminum			
Antimony	50	51.4	102.8
Arsenic	50	51.0	102.0
Barium			
Beryllium	50	47.6	95.2
Boron			
Cadmium	50	49.9	99.8
Calcium			
Chromium	50	51.2	102.4
Cobalt			
Copper	50	49.1	98.2
Iron	5000	5130	102.6
Lead	50	49.6	99.2
Magnesium			
Manganese	50	51.8	103.6
Molybdenum	anr		
Nickel	50	48.9	97.8
Potassium			
Selenium	50	50.4	100.8
Silver	50	46.3	92.6
Sodium			
Strontium			
Thallium	50	49.0	98.0
Tin			
Titanium			
Vanadium			
Zinc	50	50.3	100.6

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

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: FA31365
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Grifton Dump; NC

File ID: XA021716M1.CSV Date Analyzed: 02/17/16 Methods: EPA 200.8, SW846 6020A
QC Limits: 70 to 130 % Recovery Run ID: MA38749 Units: ug/l

Time:			13:17	
Sample ID:	CRI	CRIA	CRI3	
Metal	True	True	Results	% Rec
Aluminum	25	25		
Antimony	2.0	0.25	2.1	105.0
Arsenic	0.50	0.50	0.55	110.0
Barium	1.0	0.50		
Beryllium	0.50	0.25	0.48	96.0
Boron	25	2.5		
Cadmium	0.50	0.25	0.46	92.0
Calcium	250	125		
Chromium	1.0	2.0	0.95	95.0
Cobalt	0.50	0.25		
Copper	2.0	2.0	2.1	105.0
Iron	25	25	24.9	99.6
Lead	0.50	0.25	0.46	92.0
Magnesium	250	125		
Manganese	0.50	0.25	0.50	100.0
Molybdenum	1.0	0.50	anr	
Nickel	1.0	2.0	0.95	95.0
Potassium	250	125		
Selenium	0.50	0.50	0.49	98.0
Silver	0.50	1.0	0.54	108.0
Sodium	250	125		
Strontium	5.0	0.50		
Thallium	0.50	0.25	0.45	90.0
Tin	5.0	0.50		
Titanium	1.0	0.50		
Vanadium	1.0	2.0		
Zinc	5.0	2.0	4.9	98.0

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

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

Login Number: FA31365
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Grifton Dump; NC

File ID: XA021716M1.CSV Date Analyzed: 02/17/16 Methods: EPA 200.8, SW846 6020A
QC Limits: 80 to 120 % Recovery Run ID: MA38749 Units: ug/l

Time:			10:41		10:46	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	100000	100000	95300	95.3	96000	96.0
Antimony			0.10		0.062	
Arsenic		20	0.19		19.2	96.0
Barium			0.12		0.12	
Beryllium			0.011		0.0080	
Boron			1.7		1.2	
Cadmium		20	0.42		18.6	93.0
Calcium	100000	100000	95600	95.6	96200	96.2
Chromium		20	1.1		20.2	101.0
Cobalt		20	0.019		18.1	90.5
Copper		20	0.51		17.8	89.0
Iron	100000	100000	90600	90.6	91300	91.3
Lead			0.20		0.20	
Magnesium	100000	100000	92700	92.7	93600	93.6
Manganese		20	0.37		19.0	95.0
Molybdenum	2000	2000	2000	100.0	2030	101.5
Nickel		20	0.15		17.7	88.5
Potassium	100000	100000	96600	96.6	97200	97.2
Selenium		20	0.031		19.6	98.0
Silver		20	0.025		19.7	98.5
Sodium	100000	100000	96300	96.3	97200	97.2
Strontium			0.72		0.72	
Thallium			0.0079		0.0038	
Tin			0.054		0.037	
Titanium	2000	2000	2020	101.0	2040	102.0
Vanadium		20	-0.028		21.0	105.0
Zinc		20	0.67		17.5	87.5

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

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FA31365
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Grifton Dump; NC

QC Batch ID: MP92060
Matrix Type: AQUEOUS

Methods: EPA 200.8
Units: ug/l

Prep Date: 02/16/16

Metal	RL	IDL	MDL	MB raw	final
Aluminum	50	.32	1.3		
Antimony	2.0	.1	.056	0.10	<2.0
Arsenic	1.0	.035	.048	0.096	<1.0
Barium	1.0	.033	.11		
Beryllium	0.50	.008	.074	0.015	<0.50
Boron	50	1.5	.75		
Cadmium	0.50	.01	.06	0.0047	<0.50
Calcium	250	9.7	3.4		
Chromium	4.0	.016	.083	-0.043	<4.0
Cobalt	0.50	.002	.036		
Copper	4.0	.02	.13	0.92	<4.0
Iron	50	.18	.65	1.0	<50
Lead	0.50	.007	.0066	0.00026	<0.50
Magnesium	250	.28	.96		
Manganese	1.0	.014	.12	0.015	<1.0
Molybdenum	1.0	.016	.054		
Nickel	4.0	.016	.097	0.010	<4.0
Potassium	250	3.3	3.5		
Selenium	1.0	.03	.076	0.00049	<1.0
Silver	2.0	.006	.019	0.017	<2.0
Sodium	250	1.4	2.2		
Strontium	5.0	.01	.029		
Thallium	0.50	.015	.026	0.0078	<0.50
Tin	5.0	.027	.097		
Titanium	1.0	.061	.43		
Vanadium	4.0	.062	.08		
Zinc	10	.11	1.9	0.31	<10

Associated samples MP92060: FA31365-1, FA31365-2, FA31365-3

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: FA31365
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Grifton Dump; NC

QC Batch ID: MP92060
Matrix Type: AQUEOUS

Methods: EPA 200.8
Units: ug/l

Prep Date: 02/16/16

Metal	FA31327-2 Original	MS	Spikelot MPXDW7	% Rec	QC Limits
Aluminum					
Antimony	0.39	102	100	101.6	70-130
Arsenic	0.44	94.4	100	94.0	70-130
Barium					
Beryllium	0.0	92.2	100	92.2	70-130
Boron					
Cadmium	0.050	90.1	100	90.1	70-130
Calcium					
Chromium	1.2	95.5	100	94.3	70-130
Cobalt					
Copper	38.3	126	100	87.7	70-130
Iron	305	2160	2000	92.8	70-130
Lead	0.68	97.0	100	96.3	70-130
Magnesium					
Manganese	5.8	99.3	100	93.5	70-130
Molybdenum	anr				
Nickel	8.1	95.1	100	87.0	70-130
Potassium					
Selenium	0.12	184	200	91.9	70-130
Silver	0.45	98.2	100	97.8	70-130
Sodium					
Strontium					
Thallium	0.016	94.2	100	94.2	70-130
Tin					
Titanium					
Vanadium					
Zinc	5.1	93.3	100	88.2	70-130

Associated samples MP92060: FA31365-1, FA31365-2, FA31365-3

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: FA31365
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Grifton Dump; NC

QC Batch ID: MP92060
Matrix Type: AQUEOUS

Methods: EPA 200.8
Units: ug/l

Prep Date: 02/16/16

Metal	FA31327-2 Original	MSD	Spikelot MPXDW7	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony	0.39	104	100	103.6	1.9	10
Arsenic	0.44	97.0	100	96.6	2.7	10
Barium						
Beryllium	0.0	95.4	100	95.4	3.4	10
Boron						
Cadmium	0.050	92.8	100	92.8	3.0	10
Calcium						
Chromium	1.2	98.7	100	97.5	3.3	10
Cobalt						
Copper	38.3	130	100	91.7	3.1	11
Iron	305	2230	2000	96.3	3.2	10
Lead	0.68	100	100	99.3	3.0	10
Magnesium						
Manganese	5.8	102	100	96.2	2.7	10
Molybdenum	anr					
Nickel	8.1	97.3	100	89.2	2.3	10
Potassium						
Selenium	0.12	193	200	96.4	4.8	10
Silver	0.45	100	100	99.6	1.8	10
Sodium						
Strontium						
Thallium	0.016	97.5	100	97.5	3.4	10
Tin						
Titanium						
Vanadium						
Zinc	5.1	95.3	100	90.2	2.1	10

Associated samples MP92060: FA31365-1, FA31365-2, FA31365-3

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: FA31365
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: URSNCM: Grifton Dump; NC

QC Batch ID: MP92060
Matrix Type: AQUEOUS

Methods: EPA 200.8
Units: ug/l

Prep Date: 02/16/16

Metal	BSP Result	Spikelot MPXDW7	% Rec	QC Limits
Aluminum				
Antimony	103	100	103.0	85-115
Arsenic	96.6	100	96.6	85-115
Barium				
Beryllium	91.6	100	91.6	85-115
Boron				
Cadmium	95.7	100	95.7	85-115
Calcium				
Chromium	100	100	100.0	85-115
Cobalt				
Copper	97.0	100	97.0	85-115
Iron	1980	2000	99.0	85-115
Lead	97.7	100	97.7	85-115
Magnesium				
Manganese	99.9	100	99.9	85-115
Molybdenum	anr			
Nickel	95.5	100	95.5	85-115
Potassium				
Selenium	194	200	97.0	85-115
Silver	104	100	104.0	85-115
Sodium				
Strontium				
Thallium	95.6	100	95.6	85-115
Tin				
Titanium				
Vanadium				
Zinc	96.0	100	96.0	85-115

Associated samples MP92060: FA31365-1, FA31365-2, FA31365-3

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