Deep Groundwater Investigation Report Addendum
Lockheed Martin Middle River Complex
2323 Eastern Boulevard
Middle River, Maryland

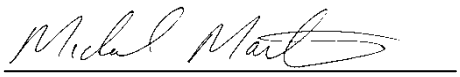
Prepared for:

Lockheed Martin Corporation

Prepared by:

Tetra Tech, Inc.

January 28, 2011



Michael Martin, P.G.
Regional Manager

Anthony Apanavage, P.G.
Project Manager

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ACRONYMS

IDW	investigation derived waste
Lockheed Martin	Lockheed Martin Corporation
µg/L	microgram(s) per liter (i.e., parts per billion)
MRC	Middle River Complex
NAVD88	North American Vertical Datum 1988
TCE	trichloroethene
Tetra Tech	Tetra Tech, Inc.
VOC	volatile organic compound

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Section 1
Introduction

Tetra Tech, Inc. (Tetra Tech) has prepared this *Deep Groundwater Investigation Report Addendum* for the Lockheed Martin Middle River Complex (MRC) in Middle River, Maryland (Figure 1-1) on behalf of Lockheed Martin Corporation (Lockheed Martin). This document is an addendum to the *MRC Deep Groundwater Investigation Report* (Tetra Tech, 2010a) and presents the results of a second round of groundwater level measurements and groundwater samples collected from four wells recently installed in a deep confined-aquifer at the MRC (hereafter referred to as "Round 2"). The Round 2 groundwater sampling and chemical analyses were conducted in accordance with the *MRC Groundwater Monitoring Work Plan Addendum* (Tetra Tech, 2010b). The locations of the four deep wells are shown in Figure 1-2.

The *MRC Deep Groundwater Investigation Report* (Tetra Tech, 2010a) details the installation of four deep groundwater monitoring wells and the chemical analyses of the first round of groundwater samples collected from them (hereafter referred to as "Round 1"). In April–May 2010, four deep groundwater monitoring wells were installed below the lower surficial-aquifer at the MRC to evaluate the presence of chemical contaminants beneath the surficial aquifer. The new wells were installed in sandy materials immediately overlying the thick clay of the Arundel Formation to assess the potential for site contaminants to impact the regional Patuxent Formation aquifer underlying the Arundel Formation. Accordingly, the new deep wells were installed at depths of 189 feet (MW93D), 196 feet (MW94D), 214 feet (MW95D), and 189 feet (MW96D). Round 1 groundwater samples were collected from the four deep wells in June 2010. Tetra Tech also performed other deep-well investigation tasks at the MRC, such as pre-drilling activities, geotechnical analyses of soil samples, Round 1 groundwater-level measurements, well surveying, and management of investigation-derived wastes (IDW) (documented in Tetra Tech 2010a); therefore, details of these tasks are not repeated in this report.

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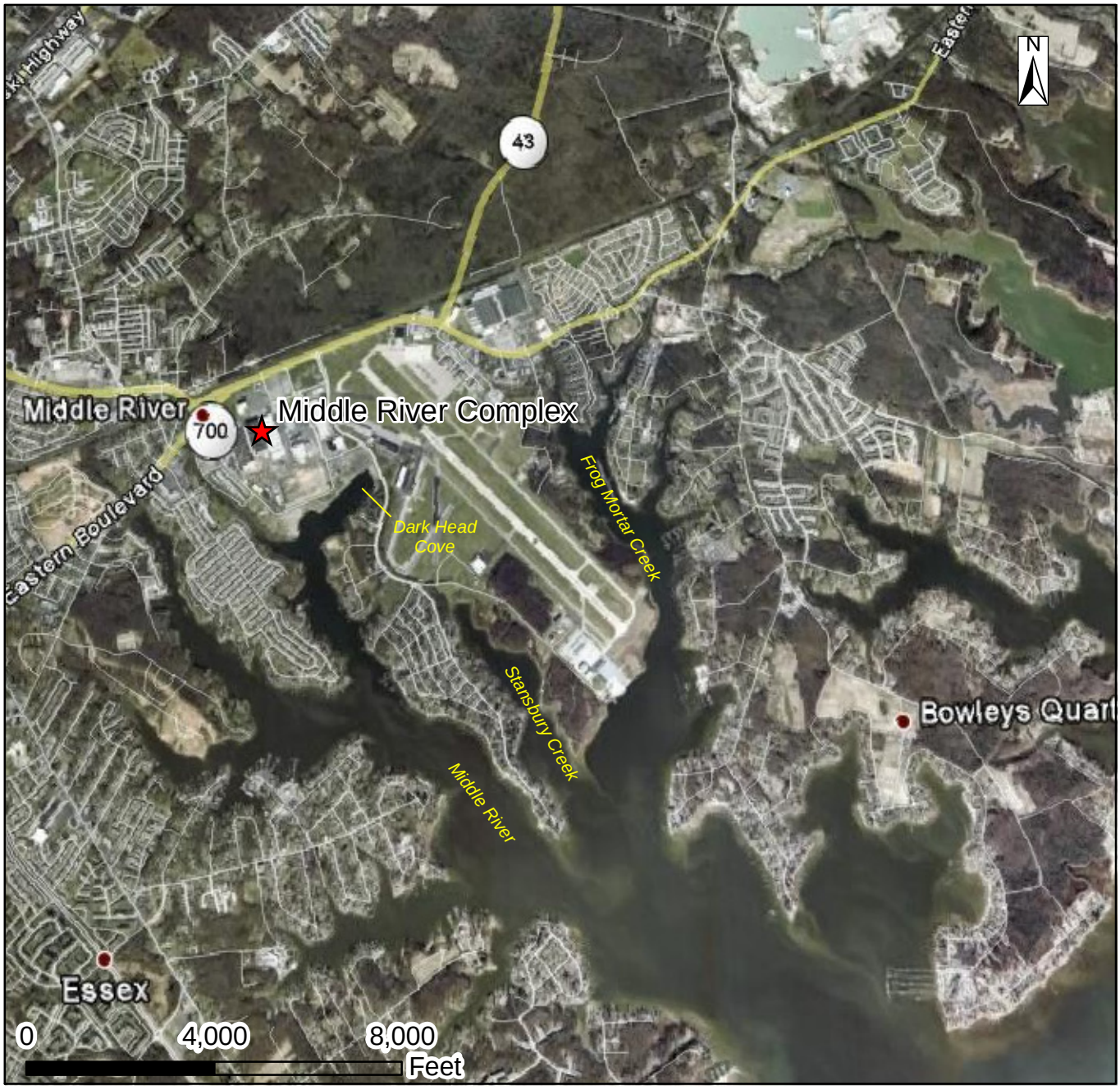

Source: Google Earth Pro, 2008

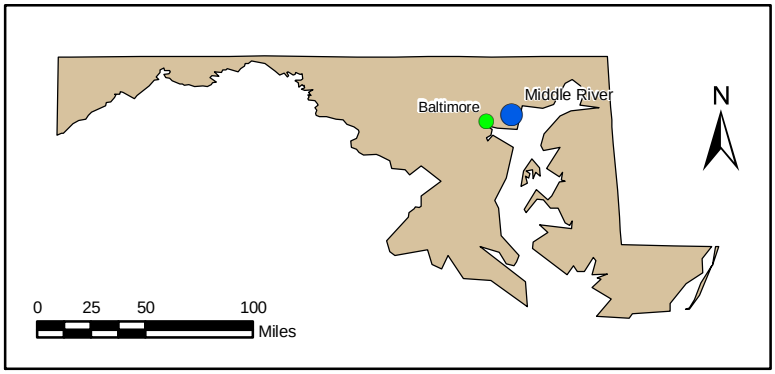

FIGURE 1-1

MIDDLE RIVER COMPLEX
LOCATION MAP

Lockheed Martin Middle River Complex
Middle River, Maryland

DATE MODIFIED:	CREATED BY:
9/3/10	MP

TETRA TECH

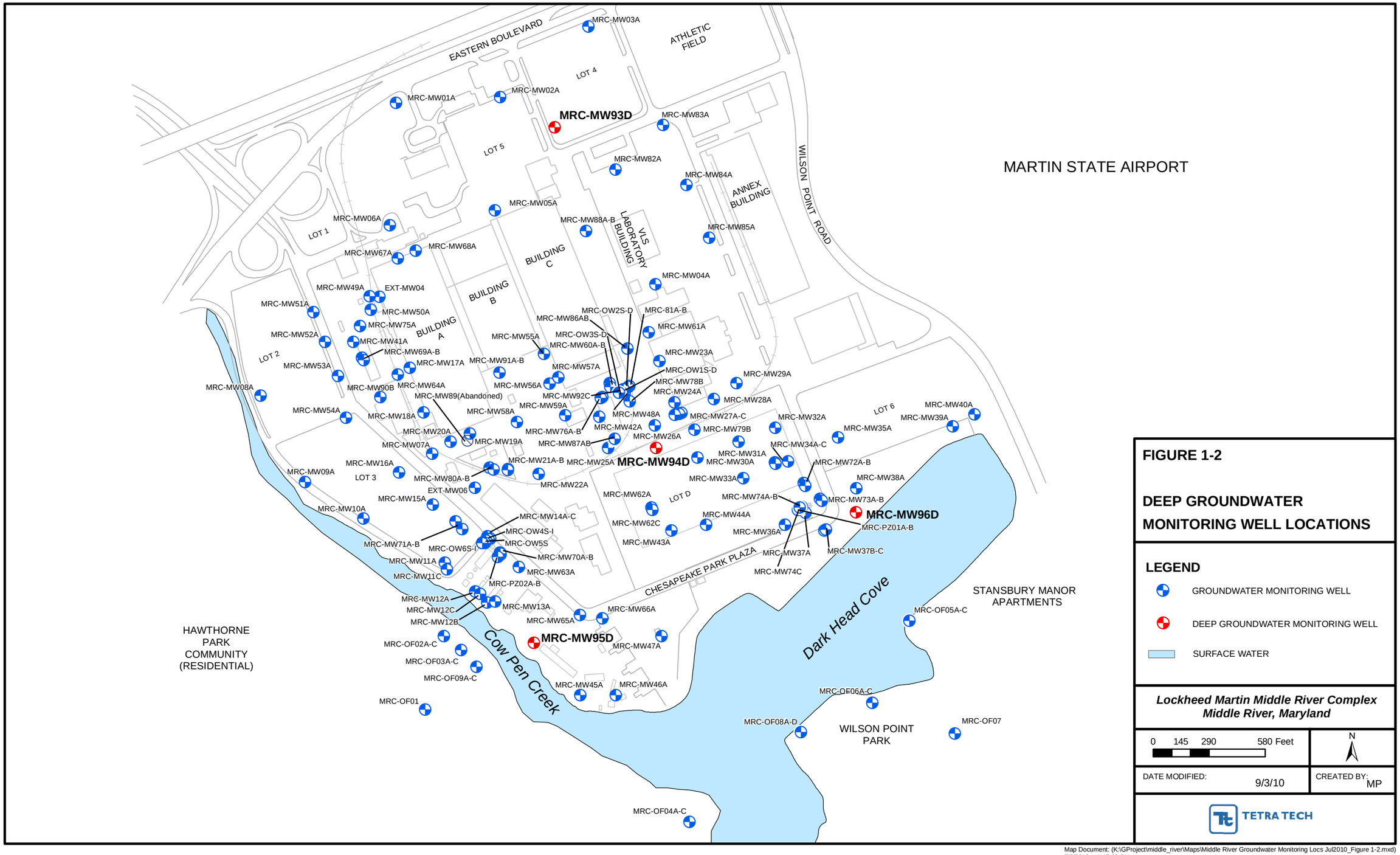

FIGURE 1-2

DEEP GROUNDWATER MONITORING WELL LOCATIONS

LEGEND

- GROUNDWATER MONITORING WELL
- DEEP GROUNDWATER MONITORING WELL
- SURFACE WATER

Lockheed Martin Middle River Complex
Middle River, Maryland

0 145 290 580 Feet

N

DATE MODIFIED: 9/3/10

CREATED BY: MP

TETRA TECH

Map Document: (K:\GProject\middle_river\Maps\Middle River Groundwater Monitoring Locs Jul2010_Figure 1-2.mxd)
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Section 2
Site Description

Previous environmental investigations at the MRC have identified two main groundwater plumes of volatile organic compounds (VOCs) in the surficial aquifer in the southern portion of the MRC, south of the Middle River Aircraft Systems facility. One plume extends southwesterly from the Building A area to Cow Pen Creek (i.e., the Western Trichloroethene [TCE] Plume). The second plume extends southeasterly from the Building C area to Dark Head Cove (i.e., the Eastern TCE Plume). The plumes consist primarily of TCE and TCE-degradation products (i.e., dichloroethenes, vinyl chloride, etc.), which have been detected at concentrations exceeding Maryland groundwater standards. Benzene (a petroleum-related VOC) and several metals have also been detected at concentrations exceeding groundwater standards. 1,4-Dioxane has been detected in the Western TCE Plume at concentrations exceeding groundwater advisory levels and standards established by other states (Maryland currently has no groundwater standard for 1,4-dioxane). Complete details of the site background, including previous investigations, geology, hydrogeology, and current conditions, are provided in the *Site Characterization Report* (Tetra Tech, 2006), *Deep Groundwater Investigation Report* (Tetra Tech, 2010a), and annual groundwater monitoring reports (Tetra Tech 2009, 2010c, and 2010d) and are not repeated here.

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Section 3
Investigation Approach and Methodology

The Round 2 field program included measuring synoptic groundwater levels and collecting groundwater samples from the four deep wells for laboratory chemical analyses. Procedures used to measure and record groundwater levels, purge wells before sampling, collect groundwater samples, clean equipment, document field activities, and collect and handle IDW followed those detailed in Tetra Tech 2010a, and 2010b. Groundwater levels were measured on October 14, 2010 and groundwater samples were collected on October 15–20, 2010. The groundwater level measurement sheet is provided in Appendix A. Well purge data and sampling log sheets are provided in Appendix B.

Groundwater samples were analyzed for VOCs, 1,4-dioxane, Priority Pollutant metals (unfiltered and filtered), and hexavalent chromium using the methods listed in Tetra Tech 2010a and 2010b. TestAmerica Laboratories Inc. of North Canton, Ohio analyzed the groundwater samples. The laboratory chemical data were validated in accordance with procedures described in Tetra Tech 2010a and 2010b. Data-validation reports, including completed chain-of-custody forms, are provided as Appendix C (on compact disc).

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Section 4
Results

The following sections summarize the Round 2 (October 2010) groundwater elevation data and chemical results for groundwater samples collected from the four deep groundwater monitoring wells at the MRC.

4.1 GROUNDWATER-LEVEL DATA

Table 4-1 presents the October 14, 2010 groundwater-level measurements and computed static groundwater elevations for the four MRC deep wells. Figure 4-1 shows the groundwater-elevation contour map for the deep wells for this period. Static groundwater levels measured in the deep confined aquifer wells are reported at depths ranging from the top of the PVC well casing (approximately 0.3-feet below grade) at MW96D near Dark Head Cove to approximately 12-feet below grade at MW94D, in the central portion of the MRC. As shown in Figure 4-1, groundwater in the deep confined-aquifer flows southeast from the upgradient area of well MW93D area, toward wells MW94D and MW96D. Groundwater hydraulic-gradients range from 0.0024 between wells MW93D and MW94D to 0.0059 between wells MW94D and MW96D.

4.2 GROUNDWATER SAMPLING RESULTS

Round 2 groundwater samples were collected from each of the new deep monitoring wells on October 15–20, 2010 and analyzed at an off-site laboratory for VOCs, 1,4-dioxane, Priority Pollutant metals (unfiltered and filtered), and hexavalent chromium. Analytical results are summarized in Table 4-2 and compared against Maryland groundwater standards (Maryland Department of the Environment, 2008). Complete chemical analytical results for Round 2 groundwater samples are provided in Appendix D.

Round 2 VOC and 1,4-dioxane results are consistent with Round 1 groundwater samples collected in June 2010. 1,4-Dioxane was not detected in either round, and all VOC concentrations for Rounds 1 and 2 are less than Maryland groundwater standards. Fewer VOCs were detected in the Round 2 samples than in the Round 1 samples. Consistent with the Round 1

results, Round 2 results do not indicate the presence of MRC target analytes such as TCE, TCE-degradation products, or 1,4-dioxane, but instead indicate only trace to low concentrations of several VOCs that are considered artifacts of the laboratory analyses or are from potable water used during drilling.

Acetone detections are qualified as being present in laboratory control-blanks (i.e., data validation "B" qualifier); therefore, these concentrations are considered artifacts of the laboratory analyses. Several VOCs detected in the Round 1 samples (e.g., 4-methyl-2-pentanone, bromodichloromethane, chlorodibromomethane, chloromethane, and methylene chloride) were not detected in the Round 2 samples. Chloroform was consistently detected at lower concentrations in the Round 2 samples than in the Round 1 samples, and chloroform was not detected at MW94D this round. Chloroform, bromodichloromethane, and chlorodibromomethane are typically associated with potable water treated via chlorination performed by municipal water suppliers. The Round 2 chloroform detections are likely the result of water used in borehole drilling.

2-Butanone and toluene were detected in the same wells (MW93D-MW95D) and at similar (but trace) concentrations in both sampling rounds. The source of these two VOCs is not clear. Both VOCs were detected at low concentrations near analytical detection limits in Rounds 1 and 2, but were not reported to be detected in laboratory blanks (i.e., data validation "B" qualifier). However, concentrations of these two VOCs are less than the groundwater standards.

The Round 2 results for metals are similar to the Round 1 results; however, most Round 2 metal concentrations that exceed standards are typically 50% less than the Round 1 results. For well MW93D, unfiltered groundwater concentrations of five metals (arsenic, iron, lead, manganese, and vanadium) exceed groundwater standards. For wells MW94D and MW95D, only concentrations of iron and manganese (unfiltered and filtered) at MW94D and vanadium at MW95D exceed groundwater standards. Only the unfiltered iron concentration at MW96D exceeds the groundwater standard. Hexavalent chromium was not detected at MW96D. Hexavalent chromium samples for wells MW93D–MW95D were analyzed by the laboratory outside their holding times. However, total chromium concentrations, which represent the sum of both the hexavalent and trivalent chromium concentrations for the samples, were well below the Maryland groundwater standard. That is, the maximum, unfiltered, total chromium concentration

of 65.6 micrograms per liter (µg/L) is less than the hexavalent chromium and chromium standard of 100 µg/L, and the other three total chromium sample results are less than 5 µg/L. The maximum, filtered, chromium sample concentration, which is considered more representative of the actual maximum dissolved chromium groundwater concentration, is 2.1 µg/L.

Table 4-1
DeepWell Groundwater Depths and Elevations October 14, 2010
Deep Groundwater Investigation
Lockheed Martin Middle River Complex, Middle River, Maryland

Well ID	Well elevation (ft NAVD)[1,2]	October 14, 2010	
		Depth to water (ft)[2]	Groundwater elevation (ft NAVD)[1]
MW93D	24.99	9.65	15.34
MW94D	22.91	11.75	11.16
MW95D	10.23	1.80	8.43
MW96D	6.30	0.00[3]	6.30[3]

[1]North American Vertical Datum of 1988.

[2]Reference top of PVC well casing.

[3]Groundwater flowed out of the casing top. Actual potentiometric surface may be higher.

Table 4-2

Analytes Detected in Deep Well Groundwater Samples - October 2010
Deep Groundwater Investigation
Lockheed Martin Middle River Complex, Middle River, Maryland

SAMPLE ID:		MRC-MW93D-101510	MRC-MW94D-101510	MRC-MW95D-101510	MRC-MW96D-102010
LABORATORY ID:	MDE	A0J180429002	A0J180429003	A0J180429004	A0J210616001
LOCATION:	GROUNDWATER	MRC-MW93D	MRC-MW94D	MRC-MW95D	MRC-MW96D
SAMPLE DATE:	STANDARD	10/15/2010	10/15/2010	10/15/2010	10/20/2010
VOLATILES (ug/L)					
2-BUTANONE	700	0.66 J	--	0.81 J	--
ACETONE	550	7.5 B	2.4 B	16 B	--
CARBON DISULFIDE	100	7.7	1	25	--
CHLOROFORM	80	3.2	--	4.9	0.17 J
TOLUENE	1000	0.21 J	0.17 J	0.19 J	--
INORGANICS (ug/L)					
ANTIMONY	6	0.46 J	0.15 J	0.72 J	--
ARSENIC	10	11.7	1.3 J	1 J	0.38 J
BARIUM	2000	257 J	33 L	221 L	14.3
BERYLLIUM	4	3	0.17 J	--	0.11 J
CADMIUM	5	0.22 J	0.036 B	--	0.025 B
CHROMIUM	100	65.6	4.6	0.85 J	1.5 J
COBALT		5.3	0.39 J	0.051 B	2
COPPER	1300	44	2 B	1.2 B	1.6 B
IRON	300	32100 L	3930 L	89.4 B	691
LEAD	15	39.8 J	2.1 L	0.12 B	0.38 B
MANGANESE	50	280 J	79.7 L	1.4 B	24.5
MOLYBDENUM		13.8	1.6 J	14.2	--
NICKEL	73	22.7	3.8	0.66 B	4.6
SELENIUM	50	2.5 J	--	0.58 J	--
SILVER	100	0.15 J	--	--	--
THALLIUM	2	0.13 B	--	--	--
VANADIUM	3.7	44.8	2.9 J	8 J	1.6 J
ZINC	5000	105 L	10.7 B	1.3 B	7.9 B
INORGANICS FILTERED (ug/L)					
ANTIMONY	6	1.3 J	0.18 J	0.81 J	--
ARSENIC	10	4.3 J	0.83 J	1 J	0.29 J
BARIUM	2000	3.5 B	18.8 L	227 L	11
BERYLLIUM	4	0.02 B	--	--	0.067 B
CADMIUM	5	--	--	--	0.027 B
CHROMIUM	100	0.17 B	0.065 B	2.1	0.41 B
COBALT		0.026 B	0.093 B	0.033 B	1.9
COPPER	1300	0.94 B	0.34 B	0.32 B	1.1 B
IRON	300	11.6 B	620 L	25.8 B	66 B
LEAD	15	0.046 B	0.02 B	0.041 B	0.44 B
MANGANESE	50	1.1 B	64.1 L	0.4 B	21
MOLYBDENUM		15.3	1.3 J	14.7	--
NICKEL	73	0.4 B	1.3 B	1.1 B	4.1
SELENIUM	50	0.36 J	--	0.56 J	--
THALLIUM	2	0.26 B	--	--	--
VANADIUM	3.7	2.8 J	--	8 J	1.1 J
ZINC	5000	4 B	1.6 B	2.3 B	5.9 B

MDE - Maryland Department of the Environment, MDE (2008)

-- - Not detected at listed detection limit

B - Laboratory blank contamination

J - Positive result is considered estimated as a result of technical noncompliance

L - Positive result is considered to be biased low as a result of technical noncompliance

ug/l - micrograms per liter

Shaded value exceeds MDE groundwater standard

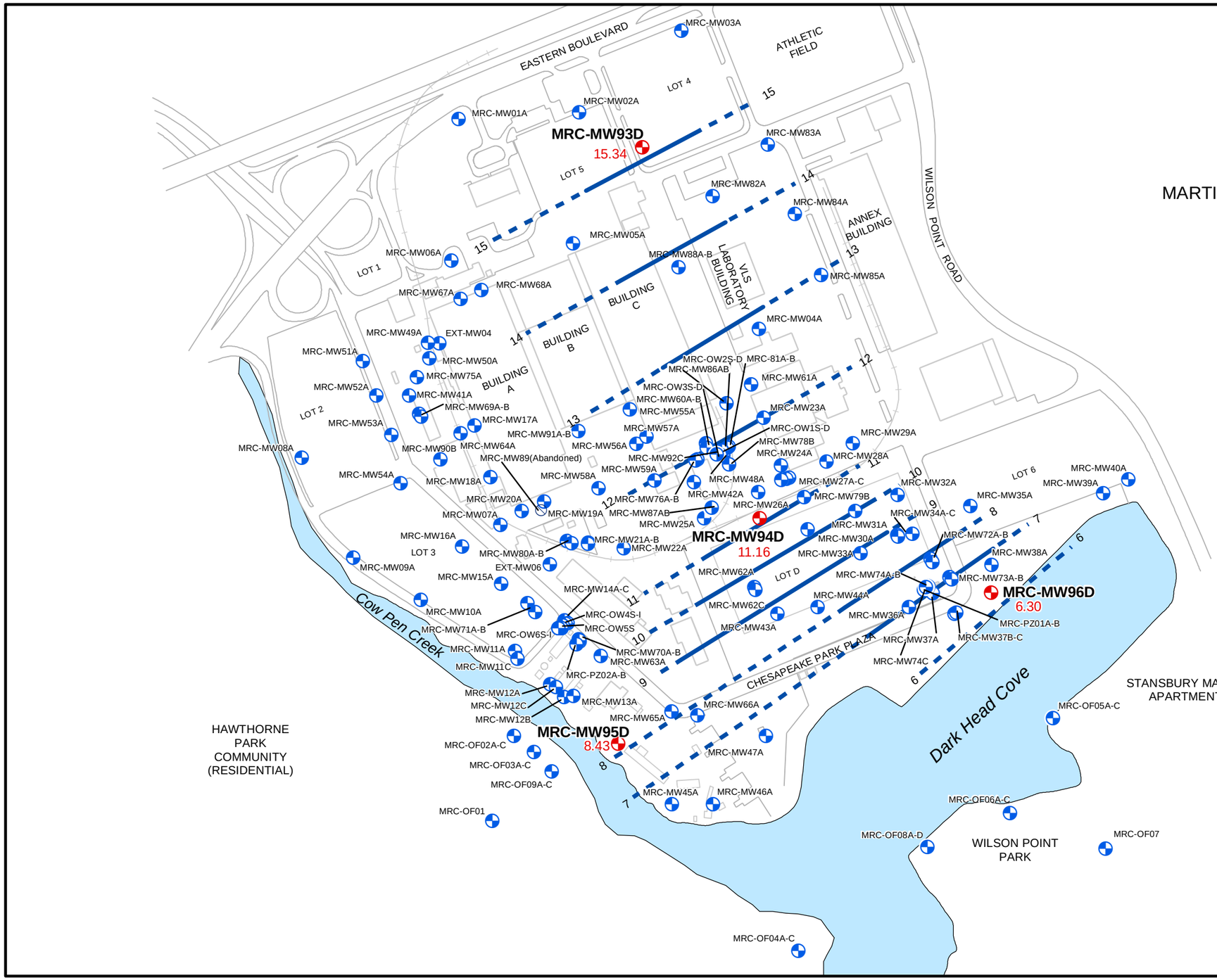

FIGURE 4-1

GROUNDWATER ELEVATION CONTOUR MAP - DEEP CONFINED AQUIFER, OCTOBER 2010

LEGEND

- GROUNDWATER MONITORING WELL
- DEEP GROUNDWATER MONITORING WELL
- ABANDONED WELL
- SURFACE WATER
- GROUNDWATER ELEVATION CONTOUR CONTOUR INTERVAL = 1 FOOT
- INFERRED
- 8.41 GROUNDWATER ELEVATION FEET, MEAN SEA LEVEL

Groundwater level data from October 14, 2010

Lockheed Martin Middle River Complex
Middle River, Maryland

0 150 300 600 Feet

N

DATE MODIFIED: 11/30/10

CREATED BY: MP

TETRA TECH

Map Document: (K:\GProject\middle_river\Maps\Middle River Groundwater Monitoring Locs Jul2010_Figure 4-1.mxd)
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Section 5
References

1. MDE (Maryland Department of the Environment), 2008. *Cleanup Standards for Soil and Groundwater, Interim Final Guidance (Update No. 2.1)*. June.

2. Tetra Tech (Tetra Tech, Inc.), 2006. *Site Characterization Report, Revision 1.0, Lockheed Martin Middle River Complex, Middle River, Maryland.* Tetra Tech, Inc., Germantown, Maryland, on behalf of Lockheed Martin Corporation, Bethesda, Maryland. May.

3. Tetra Tech (Tetra Tech, Inc.), 2009. *Groundwater Monitoring Report July–August 2008, Lockheed Martin Middle River Complex, Middle River, Maryland*. Tetra Tech, Inc., Germantown, Maryland, on behalf of Lockheed Martin Corporation, Bethesda, Maryland. May.

4. Tetra Tech (Tetra Tech, Inc.), 2010a. *Deep Groundwater Investigation Report, Lockheed Martin Middle River Complex, Middle River, Maryland*. Tetra Tech, Inc., Germantown, Maryland, on behalf of Lockheed Martin Corporation, Bethesda, Maryland. August.

5. Tetra Tech (Tetra Tech, Inc.), 2010b. *Groundwater Monitoring Work Plan Addendum, Lockheed Martin Middle River Complex, Middle River, Maryland*. Tetra Tech, Inc., Germantown, Maryland, on behalf of Lockheed Martin Corporation, Bethesda, Maryland. October.

6. Tetra Tech (Tetra Tech, Inc.), 2010c. *Groundwater Monitoring Report July–August 2009, Lockheed Martin Middle River Complex, Middle River, Maryland*. Tetra Tech, Inc., Germantown, Maryland, on behalf of Lockheed Martin Corporation, Bethesda, Maryland. January.

7. Tetra Tech (Tetra Tech, Inc.), 2010d. *Groundwater Monitoring Report May–June 2010, Lockheed Martin Middle River Complex, Middle River, Maryland*. Tetra Tech, Inc., Germantown, Maryland, on behalf of Lockheed Martin Corporation, Bethesda, Maryland. November.

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APPENDIX A—GROUNDWATER-LEVEL MEASUREMENT SHEET

Tetra Tech NUS, Inc.

GROUNDWATER LEVEL MEASUREMENT SHEET

Project Name: Middle River Center
Project No.: 112IC02720-0300.2
Location: MRC
Personnel: Walt Pryor
Weather Conditions: Sunny 60°
Measuring Device: Water Level meter
Tidally Influenced: Yes ___ No ___
Remarks:

Well or Piezometer Number	Date	Time	Elevation of Reference Point (feet)*	Total Well Depth (feet)*	Water Level Indicator Reading (feet)*	Thickness of Free Product (feet)*	Groundwater Elevation (feet)*	Comments
MRC-MW94D	10-14-10	0830			11.75			
MRC-MW95D	↓	0840			1.80			
MRC-MW96D		0850			Top of PVC			
MRC-MW93D		0900			9.65			

* All measurements to the nearest 0.01 foot

APPENDIX B—WELL-PURGE DATA AND SAMPLING LOG SHEETS

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Middle River Center
Project No.: 112IC02720-0300.2

Sample ID No.: MRC-MW93D-101510
Sample Location: MW 93D
Sampled By: MP
C.O.C. No.: 009322

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 10-15-10	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1119								
Method: Whale pump	LT Brwn	10.09	0.358	19.13	>999	0.00	0.0	-309

PURGE DATA:

Date: 10-15-10	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Whale pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC			See Low Flow purge Data Sheet					
Total Well Depth (TD):								
Static Water Level (WL): 9.55								
One Casing Volume(gal/L): —								
Start Purge (hrs): 1012								
End Purge (hrs): 1113								
Total Purge Time (min): 61								
Total Vol. Purged (gal/L): 7.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	✓
Total metals	HNO3	1 - 500 ml Poly	✓
Diss metals	HNO3	1 - 500 ml Poly	✓
1,4 Dioxane	ICE	2 - 1L Ambers	✓
Hex Chrom	ICE	1 - 250 ml Poly	✓

OBSERVATIONS / NOTES:

Hex Chrom collected at 1130

Circle if Applicable:

MS/MSD — Duplicate ID No.:

Signature(s):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112IC02720 - 0500.2
WELL ID.: MRC-MW930 - 101510
DATE: 10-15-10

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1012	9.55	—	—	—	—	—	—	—	—	Initial, no odor
1013	9.95	300	11.70	2.21	199	5.32	20.39	-114	0.1	Cloudy
1018	9.80	300	10.68	0.84	>999	0.10	19.94	-254	0.0	
1023	9.75	300	10.37	0.486	>999	0.00	19.32	-281	0.0	
1033	9.75	300	10.23	0.394	>999	0.00	19.40	-289	0.0	
1043	9.75	300	10.17	0.371	>999	0.00	19.40	-300	0.0	
1053	9.80	300	10.11	0.361	>999	0.00	19.12	-310	0.0	
1102	9.80	300	10.09	0.361	>999	0.00	19.11	-309	0.0	
1108	9.80	300	10.08	0.359	>999	0.00	19.15	-311	0.0	
1113	9.80	300	10.09	0.358	>999	0.00	19.13	-309	0.0	
			Well parameters stabilize							
			Sampling Begins							

SIGNATURE(S): We

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Middle River Center
Project No.: 112IC02720-0300.2

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MRC-MW94D-101510
Sample Location: MW94D
Sampled By: MP
C.O.C. No.: 009322
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 10-15-10								
Time: 1410								
Method: Whale pump	Slight	6.08	0.142	17.53	56.0	0.00	0.0	ORP -177

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 10-15-10								
Method: Whale pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC			See Low Flow Purge Data Sheet					
Total Well Depth (TD): —								
Static Water Level (WL): 11.75								
One Casing Volume(gal/L): —								
Start Purge (hrs): 1304								
End Purge (hrs): 1405								
Total Purge Time (min): 61								
Total Vol. Purged (gal/L): 8.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	✓
Total Metals	HNO3	1 - 500 ml Poly	✓
Diss Metals	HNO3	1 - 500 ml Poly	✓
1,4 Dioxane	ICE	2 - 1L Ambers	✓
Hex Cr	ICE	1 - 250 ml Poly	✓

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Walt Pea

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112IC02720-0300.2

WELL ID.: MRC-MW940-101410
DATE: 10-15-10

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1304	11.75	—	—	—	—	—	—	—	—	Initial, no odor
1305	11.90	240	7.32	0.165	78.3	3.67	18.20	-146	0.0	Slightly cloudy
1310	11.85	240	6.63	0.154	55.6	1.82	18.34	-136	0.0	
1315	11.85	240	6.36	0.150	73.6	1.31	18.46	-139	0.0	
1320	11.85	240	6.22	0.148	88.3	0.00	18.14	-140	0.0	
1325	11.85	240	6.19	0.146	94.2	0.00	18.91	-139	0.0	
1330	11.85	240	6.12	0.145	80.5	0.00	18.37	-145	0.0	
1335	11.85	240	6.10	0.145	70.2	0.00	18.67	-144	0.0	
1340	11.85	240	6.15	0.145	64.3	0.00	18.53	-149	0.0	
1345	11.85	240	6.14	0.144	59.5	1.08	17.56	-157	0.0	
1350	11.85	240	6.15	0.143	60.0	0.00	17.76	-161	0.0	
1355	11.85	240	6.11	0.142	55.4	0.00	17.66	-173	0.0	
1400	11.85	240	6.09	0.142	55.0	0.00	17.59	-175	0.0	
1405	11.85	240	6.08	0.142	56.0	0.00	17.53	-177	0.0	
			Well Parameters Stabilized							
			Sampling Begins							

SIGNATURE(S): Matt Ray

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Middle River Center
Project No.: 112IC02720 -0300.2

Sample ID No.: MRC-MW95D-101510
Sample Location: MW95D
Sampled By: WP
C.O.C. No.: 009322

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/l)	(%)	ORP
Date: 10-15-10								
Time: 1609								
Method: Whale pump	Clear	11.82	2.20	16.29	2.47	0.00	0.1	-245

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 10-15-10								
Method: Whale pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC			See Low Flow purge Data Sheet					
Total Well Depth (TD): —								
Static Water Level (WL): 1.75								
One Casing Volume(gal/L): —								
Start Purge (hrs): 1503								
End Purge (hrs): 1604								
Total Purge Time (min): 61								
Total Vol. Purged (gal/L): 8.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	✓
Total metals	HNO_3	1 - 500 ml Poly	✓
Diss metals	HNO_3	1 - 500 ml Poly	✓
1,4 Dioxane	ICE	2 - 1L Ambers	✓
Cr6 (VI)	ICE	1 - 250 ml Poly	✓

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD —

Duplicate ID No.:

Signature(s):

Walt Pa

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle Raisen Canton
PROJECT NUMBER: 112IC02720-0300.2

WELL ID.: MRC-MW95D-101510
DATE: 10-15-10

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1503	1.75	—	—	—	—	—	—	—	—	Initial, no odor
1504	2.00	300	11.96	2.34	6.77	1.06	16.64	-166	0.1	Clear
1509	1.85		11.87	2.31	16.6	0.00	16.78	-211	0.1	Slightly
1514	1.95		11.85	2.29	3.13	0.00	16.30	-221	0.1	Clear
1519	1.95		11.80	2.28	1.24	0.00	16.26	-231	0.1	
1524	1.95		11.77	2.27	1.69	0.00	16.21	-236	0.1	
1529	1.95		11.75	2.25	2.13	0.00	16.20	-239	0.1	
1534	1.95		11.75	2.23	2.59	0.00	16.19	-241	0.1	
1539	1.95		11.75	2.22	3.03	0.00	16.15	-241	0.1	
1544	1.95		11.76	2.21	2.62	0.00	16.20	-244	0.1	
1549	1.95		11.79	2.21	2.54	0.00	16.28	-245	0.1	
1554	1.95		11.80	2.21	2.50	0.00	16.27	-245	0.1	
1559	1.95		11.81	2.20	2.50	0.00	16.26	-245	0.1	
1604	1.95		11.82	2.20	2.47	0.00	16.29	-245	0.1	
			Well	Parameters		Stabilized				
				Sampling		Begins				

SIGNATURE(S): Nate

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: MRC - Middle River Complex
Project No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MRC-MW16D-102010
Sample Location: Block F
Sampled By: DLM
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 10/20/10	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1218	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Method: Low Flow	clear	4.88	0.024	15.30	24.6	3.44	0.0	171

PURGE DATA:

Date: 10/20/10	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Low Flow								
Monitor Reading (ppm): N/A								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD): 188.15'								
Static Water Level (WL): 0.00								
One Casing Volume(gal/L):								
Start Purge (hrs): 1100								
End Purge (hrs): 1230								
Total Purge Time (min): 90mm.								
Total Vol. Purged (gal/L): ~7.0gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	3-40mL glass vials	
1,4-Dioxane	—	2-1L amber glass bottles	
Total Metals	HNO_3	1-500mL plastic bottle	
Dissolved Metals (Field Filter)	HNO_3	1-500mL plastic bottle	
Dissolved Metals (Lab Filter)	—	1-500mL plastic bottle	
Cr(VI)	—	1-250mL plastic bottle	

OBSERVATIONS / NOTES:

*Sulfurous odor

Circle if Applicable:		Signature(s):
MS/MSD	Duplicate ID No.:	

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MRC - Middle River Complex
PROJECT NUMBER:

WELL ID.: MRC-MW96D-102010
DATE: 10/20/2010

			0.1	3%		10%	3%	10%		
Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	* pH (S.U.)	* S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	* Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1100	0.00	—	—	—	—	—	—	—	—	Static WL; Begin Purge
1103	0.00	280	5.32	0.027	6.48	0.00	15.50	-61	0.0	
1108	0.00	280	5.28	0.040	39.5	0.00	15.56	-63	0.0	
1113	0.00	280	5.01	0.036	55.4	0.63	15.61	-31	0.0	
1118	0.00	250	4.82	0.035	127	1.26	15.45	-4.0	0.0	
1123	0.00	250	4.72	0.033	197	1.84	15.42	23	0.0	
1128	0.00	250	4.65	0.029	200	2.31	15.35	52	0.0	
1133	0.00	250	4.64	0.028	166	2.57	15.40	84	0.0	
1138	0.00	250	4.67	0.027	119	2.77	15.36	107	0.0	
1143	0.00	250	4.73	0.026	84.4	2.88	15.35	116	0.0	
1148	0.00	250	4.78	0.026	61.9	3.03	15.34	129	0.0	
1153	0.00	250	4.83	0.025	40.2	3.13	15.32	139	0.0	
1158	0.00	250	4.89	0.025	32.3	3.20	15.34	146	0.0	
1203	0.00	250	4.97	0.025	26.4	3.25	15.35	150	0.0	
1208	0.00	250	4.96	0.024	23.1	3.28	15.39	156	0.0	
1213	0.00	300	4.94	0.024	21.7	3.38	15.31	162	0.0	
1218	0.00	300	4.88	0.024	24.6	3.44	15.30	171	0.0	Sample
1230	0.00	—	—	—	—	—	—	—	—	Final WL; End Purge

SIGNATURE(S): Daniel J. Muller

APPENDIX C—DATA VALIDATION REPORTS (ON CD)

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO:	**T. APANAVAGE**	**DATE:**	**NOVEMBER 24, 2010**
FROM:	**MICHELLE L. ALLEN**	**COPIES:**	**DV FILE**
SUBJECT:	**ORGANIC DATA VALIDATION – VOC, SVOC MRC DEEP WELL SAMPLING SITE SDG 0J18429**		

SAMPLES: 6/Aqueous/VOC

MRC-93D-101510	MRC-94D-101510	MRC-95D-101510
MRC-96D-102010	TB-101510	TB-102010

4/Aqueous/SVOC

MRC-93D-101510	MRC-94D-101510	MRC-95D-101510
MRC-96D-102010		

Overview

The sample set for MRC Deep Well Sampling Site, CTO 02720, SDG 0J18429 consisted of four (4) aqueous environmental samples and two (2) trip blanks, TB-101510 and TB-102010. All six (6) aqueous samples were analyzed for select Target Compound List (TCL) volatile organic compounds (VOC). Four (4) aqueous samples were analyzed for a select TCL semi-volatile organic compound (SVOC). No field duplicate pair was included in the sample delivery group (SDG).

The samples were collected by Tetra Tech NUS on October 15 and 20, 2010 and analyzed by TestAmerica Laboratories, Inc. All analyses were conducted in accordance with SW-846 Method 8260B and 8270C analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, initial/continuing calibrations, laboratory method blank results, surrogate spike recoveries, blank spike results/blank spike duplicate results, internal standard recoveries, chromatographic resolution, compound identification, compound quantitation, and detection limits. Areas of concern are listed below.

Major

- All of the initial and subsequent continuing calibrations performed on instruments A3UX11 and A3UX16 had relative response factors (RRFs) less than the 0.05 quality control criteria for tert-butyl alcohol. All samples in this SDG were affected. All non-detected results reported for this compound were rejected, (UR), due to calibration noncompliance.

Minor

- The Continuing Calibration Verification (CCV) %Differences (%Ds) for dichlorodifluoromethane, trichlorofluoromethane, acetone, methyl tert-butyl ether, vinyl acetate, tert-butyl alcohol, 2-chloroethyl vinyl ether, 4-methyl-2-pentanone, trans-1,3-dichloropropene, 1,2-dibromo-3-chloropropane, 1,2,4-trichlorobenzene, and 1,2,3-trimethylbenzene for instrument A3UX16 on 11/02/10 @ 11:48 exceeded the 20% quality control limit but were less than 50%. The positive result reported for acetone in the affected sample, TB-102010, was qualified as estimated, (J).

- The following VOC contaminants were detected in the method and trip blanks at the following maximum concentrations:

Analyte	Maximum Conc. µg/L	Action Level µg/L
1,2,3-trichlorobenzene [(1)]	0.35	1.75
Hexachlorobutadiene [(1)]	0.52	2.60
Acetone [(2)]	1.7	17
Methylene Chloride [(2)]	4.8	48
Acetone [(3)]	3.4	34

[1] Maximum concentration detected in the method blank preparation batch L9GKP1AA affecting samples MRC-MW96D-102010 and TB-102010.
[2] Maximum concentration detected in the trip blank, TB-101510, affecting samples MRC-MS93D-101510, MRC-MW94D-101510, and MRC-MW95D-101510.
[3] Maximum concentration detected in the trip blank, TB-102010, affecting sample MRC-MW96D-102010.

An action level of 5X the maximum level for 1,2,3-trichlorobenzene and hexachlorobutadiene and an action level of 10X the maximum level for the common laboratory contaminants, acetone and methylene chloride, was used to evaluate affected samples for blank contamination. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Positive results less than the blank action level reported for the above analytes were qualified (B) as a result of trip blank contamination in the affected samples.

- Positive results reported below the Reporting Limit (RL) but above the method detection limit were qualified as estimated, (J).

Notes

The CCV %Ds for n-butylbenzene, 1,2-dibromo-3-chloropropane, and 1,2,3-trimethylbenzene were greater than the 20% quality control limit and less than 50% for instrument A3UX11 on 10/27/10 @ 08:46. No action was taken as all affected samples had non-detected results.

Executive Summary

Laboratory Performance: Continuing calibration %Ds resulted in qualifying a positive acetone result. Several compounds had %Ds above the quality control limit. The SVOC blank spike/blank spike duplicate samples had low acid %Rs. Positive results reported below the quantitation limit but above the method detection limit were qualified as estimated.

Other Factors Affecting Data Quality: Trip blank contamination was noted in some environmental samples.

The data for these analyses were reviewed with reference to Region III modifications to U.S. EPA National Functional Guidelines for Organic Data Validation (Sept. 1994). The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech NUS
Michelle L. Allen
Chemist/Data Validator

Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Data Validation Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's r < 0.995 / ICP PDS Recovery Noncompliance
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 02720	NSAMPLE	MRC-MW93D-101510			MRC-MW94D-101510			MRC-MW95D-101510			MRC-MW96D-102010		
SDG: 0J18429	LAB_ID	A0J180429002			A0J180429003			A0J180429004			A0J210616001		
FRACTION: OV	SAMP_DATE	10/15/2010			10/15/2010			10/15/2010			10/20/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,1,1-TRICHLOROETHANE		0.22	U		0.22	U		0.22	U		0.22	U	
1,1,2,2-TETRACHLOROETHANE		0.18	U		0.18	U		0.18	U		0.18	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.28	U		0.28	U		0.28	U		0.28	U	
1,1-DICHLOROETHANE		0.15	U		0.15	U		0.15	U		0.15	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.13	U		0.13	U		0.13	U		0.13	U	
1,2,3-TRICHLOROBENZENE		0.17	U		0.17	U		0.17	U		0.17	U	
1,2,3-TRICHLOROPROPANE		0.43	U		0.43	U		0.43	U		0.43	U	
1,2,3-TRIMETHYLBENZENE		0.0059	U		0.0059	U		0.0059	U		0.0059	U	
1,2,4-TRICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2,4-TRIMETHYLBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.67	U		0.67	U		0.67	U		0.67	U	
1,2-DIBROMOETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,2-DICHLOROBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
1,2-DICHLOROETHANE		0.22	U		0.22	U		0.22	U		0.22	U	
1,2-DICHLOROPROPANE		0.18	U		0.18	U		0.18	U		0.18	U	
1,3-DICHLOROBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,3-DICHLOROPROPANE		0.16	U		0.16	U		0.16	U		0.16	U	
1,4-DICHLOROBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
2,2-DICHLOROPROPANE		0.13	U		0.13	U		0.13	U		0.13	U	
2-BUTANONE		0.66	J	P	0.57	U		0.81	J	P	0.57	U	
2-CHLOROETHYL VINYL ETHER		0.99	U		0.99	U		0.99	U		0.99	U	
2-CHLOROTOLUENE		0.11	U		0.11	U		0.11	U		0.11	U	
2-HEXANONE		0.41	U		0.41	U		0.41	U		0.41	U	
4-CHLOROTOLUENE		0.18	U		0.18	U		0.18	U		0.18	U	
4-ISOPROPYLTOLUENE		0.12	U		0.12	U		0.12	U		0.12	U	
4-METHYL-2-PENTANONE		0.32	U		0.32	U		0.32	U		0.32	U	
ACETONE		7.5	B	B	2.4	B	B	16	B	B	1.1	U	
BENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOCHLOROMETHANE		0.29	U		0.29	U		0.29	U		0.29	U	
BROMODICHLOROMETHANE		0.15	U		0.15	U		0.15	U		0.15	U	
BROMOFORM		0.64	U		0.64	U		0.64	U		0.64	U	
BROMOMETHANE		0.41	U		0.41	U		0.41	U		0.41	U	

PROJ_NO: 02720	NSAMPLE	MRC-MW93D-101510	MRC-MW94D-101510	MRC-MW95D-101510	MRC-MW96D-102010
SDG: 0J18429	LAB_ID	A0J180429002	A0J180429003	A0J180429004	A0J210616001
FRACTION: OV	SAMP_DATE	10/15/2010	10/15/2010	10/15/2010	10/20/2010
MEDIA: WATER	QC_TYPE	NM	NM	NM	NM
	UNITS	UG/L	UG/L	UG/L	UG/L
	PCT_SOLIDS	0.0	0.0	0.0	0.0
	DUP_OF				

PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE	7.7			1			25			0.13	U	
CARBON TETRACHLORIDE	0.13	U		0.13	U		0.13	U		0.13	U	
CHLOROBENZENE	0.15	U		0.15	U		0.15	U		0.15	U	
CHLORODIBROMOMETHANE	0.18	U		0.18	U		0.18	U		0.18	U	
CHLOROETHANE	0.29	U		0.29	U		0.29	U		0.29	U	
CHLOROFORM	3.2			0.16	U		4.9			0.17	J	P
CHLOROMETHANE	0.3	U		0.3	U		0.3	U		0.3	U	
CIS-1,2-DICHLOROETHENE	0.17	U		0.17	U		0.17	U		0.17	U	
CIS-1,3-DICHLOROPROPENE	0.14	U		0.14	U		0.14	U		0.14	U	
DIBROMOMETHANE	0.28	U		0.28	U		0.28	U		0.28	U	
DICHLORODIFLUOROMETHANE	0.31	U		0.31	U		0.31	U		0.31	U	
DIISOPROPYL ETHER	1.5	U		1.5	U		1.5	U		1.5	U	
ETHYL TERT-BUTYL ETHER	0.11	U		0.11	U		0.11	U		0.11	U	
ETHYLBENZENE	0.17	U		0.17	U		0.17	U		0.17	U	
HEXACHLOROBUTADIENE	0.3	U		0.3	U		0.3	U		0.3	U	
ISOPROPYLBENZENE	0.13	U		0.13	U		0.13	U		0.13	U	
M+P-XYLENES	0.24	U		0.24	U		0.24	U		0.24	U	
METHYL TERT-BUTYL ETHER	0.17	U		0.17	U		0.17	U		0.17	U	
METHYLENE CHLORIDE	0.33	U		0.33	U		0.33	U		0.33	U	
NAPHTHALENE	0.24	U		0.24	U		0.24	U		0.24	U	
N-BUTYLBENZENE	0.12	U		0.12	U		0.12	U		0.12	U	
N-PROPYLBENZENE	0.14	U		0.14	U		0.14	U		0.14	U	
O-XYLENE	0.14	U		0.14	U		0.14	U		0.14	U	
SEC-BUTYLBENZENE	0.13	U		0.13	U		0.13	U		0.13	U	
STYRENE	0.11	U		0.11	U		0.11	U		0.11	U	
TERT-AMYL METHYL ETHER	0.067	U		0.067	U		0.067	U		0.067	U	
TERT-BUTYLBENZENE	0.13	U		0.13	U		0.13	U		0.13	U	
TERTIARY-BUTYL ALCOHOL	3.9	UR	C	3.9	UR	C	3.9	UR	C	3.9	UR	C
TETRACHLOROETHENE	0.29	U		0.29	U		0.29	U		0.29	U	
TOLUENE	0.21	J	P	0.17	J	P	0.19	J	P	0.13	U	
TOTAL XYLENES	0.28	U		0.28	U		0.28	U		0.28	U	
TRANS-1,2-DICHLOROETHENE	0.19	U		0.19	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE	0.19	U		0.19	U		0.19	U		0.19	U	
TRICHLOROETHENE	0.17	U		0.17	U		0.17	U		0.17	U	
TRICHLOROFLUOROMETHANE	0.21	U		0.21	U		0.21	U		0.21	U	

PROJ_NO: 02720 SDG: 0J18429 FRACTION: OV MEDIA: WATER	NSAMPLE	MRC-MW93D-101510			MRC-MW94D-101510			MRC-MW95D-101510			MRC-MW96D-102010		
	LAB_ID	A0J180429002			A0J180429003			A0J180429004			A0J210616001		
	SAMP_DATE	10/15/2010			10/15/2010			10/15/2010			10/20/2010		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
VINYL ACETATE		0.19	U		0.19	U		0.19	U		0.19	U	
VINYL CHLORIDE		0.22	U		0.22	U		0.22	U		0.22	U	

PROJ_NO: 02720	NSAMPLE	TB-101510			TB-102010		
SDG: 0J18429	LAB_ID	A0J180429001			A0J210616002		
FRACTION: OV	SAMP_DATE	10/15/2010			10/20/2010		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.23	U		0.23	U	
1,1,1-TRICHLOROETHANE		0.22	U		0.22	U	
1,1,2,2-TETRACHLOROETHANE		0.18	U		0.18	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.28	U		0.28	U	
1,1-DICHLOROETHANE		0.15	U		0.15	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.13	U		0.13	U	
1,2,3-TRICHLOROBENZENE		0.17	U		0.17	U	
1,2,3-TRICHLOROPROPANE		0.43	U		0.43	U	
1,2,3-TRIMETHYLBENZENE		0.0059	U		0.0059	U	
1,2,4-TRICHLOROBENZENE		0.15	U		0.15	U	
1,2,4-TRIMETHYLBENZENE		0.12	U		0.12	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.67	U		0.67	U	
1,2-DIBROMOETHANE		0.24	U		0.24	U	
1,2-DICHLOROBENZENE		0.13	U		0.13	U	
1,2-DICHLOROETHANE		0.22	U		0.22	U	
1,2-DICHLOROPROPANE		0.18	U		0.18	U	
1,3-DICHLOROBENZENE		0.14	U		0.14	U	
1,3-DICHLOROPROPANE		0.16	U		0.16	U	
1,4-DICHLOROBENZENE		0.13	U		0.13	U	
2,2-DICHLOROPROPANE		0.13	U		0.13	U	
2-BUTANONE		0.57	U		0.57	U	
2-CHLOROETHYL VINYL ETHER		0.99	U		0.99	U	
2-CHLOROTOLUENE		0.11	U		0.11	U	
2-HEXANONE		0.41	U		0.41	U	
4-CHLOROTOLUENE		0.18	U		0.18	U	
4-ISOPROPYLTOLUENE		0.12	U		0.12	U	
4-METHYL-2-PENTANONE		0.32	U		0.32	U	
ACETONE		1.7	J	P	3.4	J	CP
BENZENE		0.13	U		0.13	U	
BROMOBENZENE		0.13	U		0.13	U	
BROMOCHLOROMETHANE		0.29	U		0.29	U	
BROMODICHLOROMETHANE		0.15	U		0.15	U	
BROMOFORM		0.64	U		0.64	U	
BROMOMETHANE		0.41	U		0.41	U	

PROJ_NO: 02720	NSAMPLE	TB-101510			TB-102010		
SDG: 0J18429	LAB_ID	A0J180429001			A0J210616002		
FRACTION: OV	SAMP_DATE	10/15/2010			10/20/2010		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						

PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE	0.13	U		0.13	U	
CARBON TETRACHLORIDE	0.13	U		0.13	U	
CHLOROBENZENE	0.15	U		0.15	U	
CHLORODIBROMOMETHANE	0.18	U		0.18	U	
CHLOROETHANE	0.29	U		0.29	U	
CHLOROFORM	0.16	U		0.16	U	
CHLOROMETHANE	0.3	U		0.3	U	
CIS-1,2-DICHLOROETHENE	0.17	U		0.17	U	
CIS-1,3-DICHLOROPROPENE	0.14	U		0.14	U	
DIBROMOMETHANE	0.28	U		0.28	U	
DICHLORODIFLUOROMETHANE	0.31	U		0.31	U	
DIISOPROPYL ETHER	1.5	U		1.5	U	
ETHYL TERT-BUTYL ETHER	0.11	U		0.11	U	
ETHYLBENZENE	0.17	U		0.17	U	
HEXACHLOROBUTADIENE	0.3	U		0.3	U	
ISOPROPYLBENZENE	0.13	U		0.13	U	
M+P-XYLENES	0.24	U		0.24	U	
METHYL TERT-BUTYL ETHER	0.17	U		0.17	U	
METHYLENE CHLORIDE	4.8			0.33	U	
NAPHTHALENE	0.24	U		0.24	U	
N-BUTYLBENZENE	0.12	U		0.12	U	
N-PROPYLBENZENE	0.14	U		0.14	U	
O-XYLENE	0.14	U		0.14	U	
SEC-BUTYLBENZENE	0.13	U		0.13	U	
STYRENE	0.11	U		0.11	U	
TERT-AMYL METHYL ETHER	0.067	U		0.067	U	
TERT-BUTYLBENZENE	0.13	U		0.13	U	
TERTIARY-BUTYL ALCOHOL	3.9	UR	C	3.9	UR	C
TETRACHLOROETHENE	0.29	U		0.29	U	
TOLUENE	0.13	U		0.13	U	
TOTAL XYLENES	0.28	U		0.28	U	
TRANS-1,2-DICHLOROETHENE	0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE	0.19	U		0.19	U	
TRICHLOROETHENE	0.17	U		0.17	U	
TRICHLOROFLUOROMETHANE	0.21	U		0.21	U	

PROJ_NO: 02720 SDG: 0J18429 FRACTION: OV MEDIA: WATER	NSAMPLE	TB-101510			TB-102010		
	LAB_ID	A0J180429001			A0J210616002		
	SAMP_DATE	10/15/2010			10/20/2010		
	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
VINYL ACETATE		0.19	U		0.19	U	
VINYL CHLORIDE		0.22	U		0.22	U	

PROJ_NO: 02720	NSAMPLE	MRC-MW93D-101510			MRC-MW94D-101510			MRC-MW95D-101510			MRC-MW96D-102010		
SDG: 0J18429	LAB_ID	A0J180429002			A0J180429003			A0J180429004			A0J210616001		
FRACTION: OS	SAMP_DATE	10/15/2010			10/15/2010			10/15/2010			10/20/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		0.49	U		0.49	U		0.49	U		0.49	U	

Appendix B

Results as Reported by the Laboratory

Tetra Tech NUS, Inc

Client Sample ID: MRC-MW93D-101510

GC/MS Volatiles

Lot-Sample #...: A0J180429-002 **Work Order #...:** L8MNJ1AA **Matrix.....:** WG
Date Sampled...: 10/15/10 11:18 **Date Received..:** 10/16/10
Prep Date.....: 10/27/10 **Analysis Date..:** 10/27/10
Prep Batch #...: 0302138
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	**7.5**	**5.0**	**ug/L**	**1.1**
Bromobenzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
2-Butanone	**0.66 J**	**5.0**	**ug/L**	**0.57**
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon disulfide	**7.7**	**1.0**	**ug/L**	**0.13**
Dibromochloromethane	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	0.67
2-Chloroethyl vinyl ether	ND	5.0	ug/L	0.99
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromoethane	ND	1.0	ug/L	0.24
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.17
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
Trichlorofluoromethane	ND	1.0	ug/L	0.21
Hexachlorobutadiene	ND	1.0	ug/L	0.30
2-Hexanone	ND	5.0	ug/L	0.41
Isopropylbenzene	ND	1.0	ug/L	0.13
p-Isopropyltoluene	ND	1.0	ug/L	0.12
tert-Butyl alcohol	ND	20	ug/L	3.9
4-Methyl-2-pentanone	ND	5.0	ug/L	0.32
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17

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Tetra Tech NUS, Inc

Client Sample ID: MRC-MW93D-101510

GC/MS Volatiles

Lot-Sample #...: A0J180429-002 **Work Order #...:** L8MNJ1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.28
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
Vinyl acetate	ND	2.0	ug/L	0.19
o-Xylene	ND	1.0	ug/L	0.14
Xylenes (total)	ND	2.0	ug/L	0.28
Methyl tert-butyl ether	ND	5.0	ug/L	0.17
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
1,2,3-Trimethylbenzene	ND	5.0	ug/L	0.0059
Diisopropyl Ether (DIPE)	ND	5.0	ug/L	1.5
Ethyl-t-Butyl Ether (ETBE)	ND	5.0	ug/L	0.11
Tert-amyl methyl ether (TAME)	ND	5.0	ug/L	0.067
Benzene	ND	1.0	ug/L	0.13
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	**3.2**	**1.0**	**ug/L**	**0.16**
Chloromethane	ND	1.0	ug/L	0.30
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.14
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.19
Ethylbenzene	ND	1.0	ug/L	0.17
Methylene chloride	ND	1.0	ug/L	0.33
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	**0.21 J**	**1.0**	**ug/L**	**0.13**
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.17
Vinyl chloride	ND	1.0	ug/L	0.22

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	86	(75 - 121)
1,2-Dichloroethane-d4	89	(63 - 129)
Toluene-d8	83	(74 - 115)
4-Bromofluorobenzene	77	(66 - 117)

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

MRC-MW93D-101510

GC/MS Volatiles

Lot-Sample #: A0J180429-002 **Work Order #:** L8MNJ1AA **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
None					ug/L
Freon 22		ND	M		ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Tetra Tech NUS, Inc

Client Sample ID: MRC-MW94D-101510

GC/MS Volatiles

Lot-Sample #...: A0J180429-003 **Work Order #...:** L8MNK1AM **Matrix.....:** WG
Date Sampled...: 10/15/10 14:10 **Date Received..:** 10/16/10
Prep Date.....: 10/27/10 **Analysis Date..:** 10/27/10
Prep Batch #...: 0302138
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	**2.4 J**	**5.0**	**ug/L**	**1.1**
Bromobenzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
2-Butanone	ND	5.0	ug/L	0.57
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon disulfide	**1.0**	**1.0**	**ug/L**	**0.13**
Dibromochloromethane	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	0.67
2-Chloroethyl vinyl ether	ND	5.0	ug/L	0.99
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromoethane	ND	1.0	ug/L	0.24
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.17
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
Trichlorofluoromethane	ND	1.0	ug/L	0.21
Hexachlorobutadiene	ND	1.0	ug/L	0.30
2-Hexanone	ND	5.0	ug/L	0.41
Isopropylbenzene	ND	1.0	ug/L	0.13
p-Isopropyltoluene	ND	1.0	ug/L	0.12
tert-Butyl alcohol	ND	20	ug/L	3.9
4-Methyl-2-pentanone	ND	5.0	ug/L	0.32
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17

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Tetra Tech NUS, Inc

Client Sample ID: MRC-MW94D-101510

GC/MS Volatiles

Lot-Sample #...: A0J180429-003 **Work Order #...:** L8MNK1AM **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.28
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
Vinyl acetate	ND	2.0	ug/L	0.19
o-Xylene	ND	1.0	ug/L	0.14
Xylenes (total)	ND	2.0	ug/L	0.28
Methyl tert-butyl ether	ND	5.0	ug/L	0.17
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
1,2,3-Trimethylbenzene	ND	5.0	ug/L	0.0059
Diisopropyl Ether (DIPE)	ND	5.0	ug/L	1.5
Ethyl-t-Butyl Ether (ETBE)	ND	5.0	ug/L	0.11
Tert-amyl methyl ether (TAME)	ND	5.0	ug/L	0.067
Benzene	ND	1.0	ug/L	0.13
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	ND	1.0	ug/L	0.16
Chloromethane	ND	1.0	ug/L	0.30
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.14
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.19
Ethylbenzene	ND	1.0	ug/L	0.17
Methylene chloride	ND	1.0	ug/L	0.33
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	**0.17 J**	**1.0**	**ug/L**	**0.13**
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.17
Vinyl chloride	ND	1.0	ug/L	0.22

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	86	(75 - 121)
1,2-Dichloroethane-d4	90	(63 - 129)
Toluene-d8	80	(74 - 115)
4-Bromofluorobenzene	73	(66 - 117)

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

MRC-MW94D-101510

GC/MS Volatiles

Lot-Sample #: A0J180429-003 **Work Order #:** L8MNK1AM **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
1-Propene, 2-methyl-	115-11-7	5.9 NJ	M	1.8755	ug/L
Freon 22		ND	M		ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Tetra Tech NUS, Inc

Client Sample ID: MRC-MW95D-101510

GC/MS Volatiles

Lot-Sample #...: A0J180429-004 **Work Order #...:** L8MNL1A0 **Matrix.....:** WG
Date Sampled...: 10/15/10 16:09 **Date Received..:** 10/16/10
Prep Date.....: 10/27/10 **Analysis Date..:** 10/27/10
Prep Batch #...: 0302138
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	**16**	**5.0**	**ug/L**	**1.1**
Bromobenzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
2-Butanone	**0.81 J**	**5.0**	**ug/L**	**0.57**
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon disulfide	**25**	**1.0**	**ug/L**	**0.13**
Dibromochloromethane	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	0.67
2-Chloroethyl vinyl ether	ND	5.0	ug/L	0.99
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromoethane	ND	1.0	ug/L	0.24
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.17
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
Trichlorofluoromethane	ND	1.0	ug/L	0.21
Hexachlorobutadiene	ND	1.0	ug/L	0.30
2-Hexanone	ND	5.0	ug/L	0.41
Isopropylbenzene	ND	1.0	ug/L	0.13
p-Isopropyltoluene	ND	1.0	ug/L	0.12
tert-Butyl alcohol	ND	20	ug/L	3.9
4-Methyl-2-pentanone	ND	5.0	ug/L	0.32
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17

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Tetra Tech NUS, Inc

Client Sample ID: MRC-MW95D-101510

GC/MS Volatiles

Lot-Sample #...: A0J180429-004 **Work Order #...:** L8MNL1A0 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.28
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
Vinyl acetate	ND	2.0	ug/L	0.19
o-Xylene	ND	1.0	ug/L	0.14
Xylenes (total)	ND	2.0	ug/L	0.28
Methyl tert-butyl ether	ND	5.0	ug/L	0.17
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
1,2,3-Trimethylbenzene	ND	5.0	ug/L	0.0059
Diisopropyl Ether (DIPE)	ND	5.0	ug/L	1.5
Ethyl-t-Butyl Ether (ETBE)	ND	5.0	ug/L	0.11
Tert-amyl methyl ether (TAME)	ND	5.0	ug/L	0.067
Benzene	ND	1.0	ug/L	0.13
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	**4.9**	**1.0**	**ug/L**	**0.16**
Chloromethane	ND	1.0	ug/L	0.30
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.14
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.19
Ethylbenzene	ND	1.0	ug/L	0.17
Methylene chloride	ND	1.0	ug/L	0.33
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	**0.19 J**	**1.0**	**ug/L**	**0.13**
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.17
Vinyl chloride	ND	1.0	ug/L	0.22

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	85	(75 - 121)
1,2-Dichloroethane-d4	88	(63 - 129)
Toluene-d8	80	(74 - 115)
4-Bromofluorobenzene	75	(66 - 117)

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

MRC-MW95D-101510

GC/MS Volatiles

Lot-Sample #: A0J180429-004 **Work Order #:** L8MNL1A0 **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		1.2 J	M	2.5382	ug/L
Unknown		1.1 J	M	10.063	ug/L
1-Hexanol, 2-ethyl-	104-76-7	6.3 NJ	M	10.478	ug/L
Freon 22		ND	M		ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Tetra Tech NUS, Inc

Client Sample ID: MRC-MW96D-102010

GC/MS Volatiles

Lot-Sample #...: A0J210616-001 **Work Order #...:** L8WM31AA **Matrix.....:** WG
Date Sampled...: 10/20/10 12:18 **Date Received..:** 10/21/10
Prep Date.....: 11/02/10 **Analysis Date..:** 11/02/10
Prep Batch #...: 0307211
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	5.0	ug/L	1.1
Bromobenzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
2-Butanone	ND	5.0	ug/L	0.57
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon disulfide	ND	1.0	ug/L	0.13
Dibromochloromethane	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	0.67
2-Chloroethyl vinyl ether	ND	5.0	ug/L	0.99
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromoethane	ND	1.0	ug/L	0.24
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.17
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
Trichlorofluoromethane	ND	1.0	ug/L	0.21
Hexachlorobutadiene	ND	1.0	ug/L	0.30
2-Hexanone	ND	5.0	ug/L	0.41
Isopropylbenzene	ND	1.0	ug/L	0.13
p-Isopropyltoluene	ND	1.0	ug/L	0.12
tert-Butyl alcohol	ND	20	ug/L	3.9
4-Methyl-2-pentanone	ND	5.0	ug/L	0.32
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17

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Tetra Tech NUS, Inc

Client Sample ID: MRC-MW96D-102010

GC/MS Volatiles

Lot-Sample #...: A0J210616-001 **Work Order #...:** L8WM31AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.28
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
Vinyl acetate	ND	2.0	ug/L	0.19
o-Xylene	ND	1.0	ug/L	0.14
Xylenes (total)	ND	2.0	ug/L	0.28
Methyl tert-butyl ether	ND	5.0	ug/L	0.17
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
1,2,3-Trimethylbenzene	ND	5.0	ug/L	0.0059
Diisopropyl Ether (DIPE)	ND	5.0	ug/L	1.5
Ethyl-t-Butyl Ether (ETBE)	ND	5.0	ug/L	0.11
Tert-amyl methyl ether (TAME)	ND	5.0	ug/L	0.067
Benzene	ND	1.0	ug/L	0.13
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	**0.17 J**	**1.0**	**ug/L**	**0.16**
Chloromethane	ND	1.0	ug/L	0.30
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.14
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.19
Ethylbenzene	ND	1.0	ug/L	0.17
Methylene chloride	ND	1.0	ug/L	0.33
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.13
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.17
Vinyl chloride	ND	1.0	ug/L	0.22

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	105	(75 - 121)
1,2-Dichloroethane-d4	95	(63 - 129)
Toluene-d8	102	(74 - 115)
4-Bromofluorobenzene	90	(66 - 117)

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

MRC-MW96D-102010

GC/MS Volatiles

Lot-Sample #: A0J210616-001 **Work Order #:** L8WM31AA **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
None					ug/L
Freon22		ND	M		ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Tetra Tech NUS, Inc

Client Sample ID: TB-101510

GC/MS Volatiles

Lot-Sample #...: A0J180429-001 **Work Order #...:** L8MND1AA **Matrix.....:** WQ
Date Sampled...: 10/15/10 07:00 **Date Received..:** 10/16/10
Prep Date.....: 10/27/10 **Analysis Date..:** 10/27/10
Prep Batch #...: 0302138
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
tert-Butyl alcohol	ND	20	ug/L	3.9
4-Methyl-2-pentanone	ND	5.0	ug/L	0.32
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.28
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
Vinyl acetate	ND	2.0	ug/L	0.19
o-Xylene	ND	1.0	ug/L	0.14
Xylenes (total)	ND	2.0	ug/L	0.28
Methyl tert-butyl ether	ND	5.0	ug/L	0.17
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
1,2,3-Trimethylbenzene	ND	5.0	ug/L	0.0059
Diisopropyl Ether (DIPE)	ND	5.0	ug/L	1.5
Ethyl-t-Butyl Ether (ETBE)	ND	5.0	ug/L	0.11
Tert-amyl methyl ether (TAME)	ND	5.0	ug/L	0.067
Acetone	**1.7 J**	**5.0**	**ug/L**	**1.1**
Bromobenzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
2-Butanone	ND	5.0	ug/L	0.57
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon disulfide	ND	1.0	ug/L	0.13
Dibromochloromethane	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	0.67
2-Chloroethyl vinyl ether	ND	5.0	ug/L	0.99
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromoethane	ND	1.0	ug/L	0.24

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Tetra Tech NUS, Inc

Client Sample ID: TB-101510

GC/MS Volatiles

Lot-Sample #...: A0J180429-001 **Work Order #...:** L8MND1AA **Matrix.....:** WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.17
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
Trichlorofluoromethane	ND	1.0	ug/L	0.21
Hexachlorobutadiene	ND	1.0	ug/L	0.30
2-Hexanone	ND	5.0	ug/L	0.41
Isopropylbenzene	ND	1.0	ug/L	0.13
p-Isopropyltoluene	ND	1.0	ug/L	0.12
Benzene	ND	1.0	ug/L	0.13
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	ND	1.0	ug/L	0.16
Chloromethane	ND	1.0	ug/L	0.30
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.14
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.19
Ethylbenzene	ND	1.0	ug/L	0.17
Methylene chloride	**4.8**	**1.0**	**ug/L**	**0.33**
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.13
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.17
Vinyl chloride	ND	1.0	ug/L	0.22

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	88	(75 - 121)
1,2-Dichloroethane-d4	90	(63 - 129)
Toluene-d8	83	(74 - 115)
4-Bromofluorobenzene	77	(66 - 117)

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

TB-101510

GC/MS Volatiles

Lot-Sample #: A0J180429-001 **Work Order #:** L8MND1AA **Matrix:** WQ

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
None					ug/L
Freon 22		ND	M		ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Tetra Tech NUS, Inc

Client Sample ID: TB-102010

GC/MS Volatiles

Lot-Sample #...: A0J210616-002 **Work Order #...:** L8WNP1AA **Matrix.....:** WQ
Date Sampled...: 10/20/10 **Date Received..:** 10/21/10
Prep Date.....: 11/02/10 **Analysis Date..:** 11/02/10
Prep Batch #...: 0307211
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	**3.4 J**	**5.0**	**ug/L**	**1.1**
Bromobenzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
2-Butanone	ND	5.0	ug/L	0.57
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon disulfide	ND	1.0	ug/L	0.13
Dibromochloromethane	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	0.67
2-Chloroethyl vinyl ether	ND	5.0	ug/L	0.99
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromoethane	ND	1.0	ug/L	0.24
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.17
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
Trichlorofluoromethane	ND	1.0	ug/L	0.21
Hexachlorobutadiene	ND	1.0	ug/L	0.30
2-Hexanone	ND	5.0	ug/L	0.41
Isopropylbenzene	ND	1.0	ug/L	0.13
p-Isopropyltoluene	ND	1.0	ug/L	0.12
tert-Butyl alcohol	ND	20	ug/L	3.9
4-Methyl-2-pentanone	ND	5.0	ug/L	0.32
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17

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Tetra Tech NUS, Inc

Client Sample ID: TB-102010

GC/MS Volatiles

Lot-Sample #...: A0J210616-002 **Work Order #...:** L8WNP1AA **Matrix.....:** WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.28
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
Vinyl acetate	ND	2.0	ug/L	0.19
o-Xylene	ND	1.0	ug/L	0.14
Xylenes (total)	ND	2.0	ug/L	0.28
Methyl tert-butyl ether	ND	5.0	ug/L	0.17
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
1,2,3-Trimethylbenzene	ND	5.0	ug/L	0.0059
Diisopropyl Ether (DIPE)	ND	5.0	ug/L	1.5
Ethyl-t-Butyl Ether (ETBE)	ND	5.0	ug/L	0.11
Tert-amyl methyl ether (TAME)	ND	5.0	ug/L	0.067
Benzene	ND	1.0	ug/L	0.13
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	ND	1.0	ug/L	0.16
Chloromethane	ND	1.0	ug/L	0.30
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.14
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.19
Ethylbenzene	ND	1.0	ug/L	0.17
Methylene chloride	ND	1.0	ug/L	0.33
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.13
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.17
Vinyl chloride	ND	1.0	ug/L	0.22

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(75 - 121)
1,2-Dichloroethane-d4	95	(63 - 129)
Toluene-d8	100	(74 - 115)
4-Bromofluorobenzene	91	(66 - 117)

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

TB-102010

GC/MS Volatiles

Lot-Sample #: A0J210616-002 **Work Order #:** L8WNP1AA **Matrix:** WQ

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
None					ug/L
Freon22		ND	M		ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Tetra Tech NUS, Inc

Client Sample ID: MRC-MW93D-101510

GC/MS Semivolatiles

Lot-Sample #...:	A0J180429-002	**Work Order #...:**	L8MNJ1CL	**Matrix.....:**	WG
Date Sampled...:	10/15/10 11:18	**Date Received..:**	10/16/10		
Prep Date.....:	10/21/10	**Analysis Date..:**	10/28/10		
Prep Batch #...:	0294035				
Dilution Factor:	1	**Initial Wgt/Vol:**	1040 mL	**Final Wgt/Vol..:**	2 mL
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,4-Dioxane	ND	1.0	ug/L	0.49

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	60	(27 - 111)
2-Fluorobiphenyl	56	(28 - 110)
Terphenyl-d14	74	(37 - 119)
Phenol-d5	62	(10 - 110)
2-Fluorophenol	60	(10 - 110)
2,4,6-Tribromophenol	67	(22 - 120)

Tetra Tech NUS, Inc

Client Sample ID: MRC-MW94D-101510

GC/MS Semivolatiles

Lot-Sample #...:	A0J180429-003	**Work Order #...:**	L8MNK1CL	**Matrix.....:**	WG
Date Sampled...:	10/15/10 14:10	**Date Received..:**	10/16/10		
Prep Date.....:	10/21/10	**Analysis Date..:**	10/28/10		
Prep Batch #...:	0294035				
Dilution Factor:	1	**Initial Wgt/Vol:**	1050 mL	**Final Wgt/Vol..:**	2 mL
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,4-Dioxane	ND	1.0	ug/L	0.49

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	59	(27 - 111)
2-Fluorobiphenyl	53	(28 - 110)
Terphenyl-d14	84	(37 - 119)
Phenol-d5	59	(10 - 110)
2-Fluorophenol	59	(10 - 110)
2,4,6-Tribromophenol	67	(22 - 120)

Tetra Tech NUS, Inc

Client Sample ID: MRC-MW95D-101510

GC/MS Semivolatiles

Lot-Sample #...:	A0J180429-004	**Work Order #...:**	L8MNL1CL	**Matrix.....:**	WG
Date Sampled...:	10/15/10 16:09	**Date Received..:**	10/16/10		
Prep Date.....:	10/21/10	**Analysis Date..:**	10/28/10		
Prep Batch #...:	0294035				
Dilution Factor:	1	**Initial Wgt/Vol:**	1040 mL	**Final Wgt/Vol..:**	2 mL
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,4-Dioxane	ND	1.0	ug/L	0.49

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	69	(27 - 111)
2-Fluorobiphenyl	64	(28 - 110)
Terphenyl-d14	85	(37 - 119)
Phenol-d5	73	(10 - 110)
2-Fluorophenol	69	(10 - 110)
2,4,6-Tribromophenol	70	(22 - 120)

Tetra Tech NUS, Inc

Client Sample ID: MRC-MW96D-102010

GC/MS Semivolatiles

Lot-Sample #...:	A0J210616-001	**Work Order #...:**	L8WM31CL	**Matrix.....:**	WG
Date Sampled...:	10/20/10 12:18	**Date Received..:**	10/21/10		
Prep Date.....:	10/27/10	**Analysis Date..:**	10/31/10		
Prep Batch #...:	0300035				
Dilution Factor:	1	**Initial Wgt/Vol:**	1050 mL	**Final Wgt/Vol..:**	2 mL
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,4-Dioxane	ND	1.0	ug/L	0.49

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	78	(27 - 111)
2-Fluorobiphenyl	69	(28 - 110)
Terphenyl-d14	94	(37 - 119)
Phenol-d5	70	(10 - 110)
2-Fluorophenol	68	(10 - 110)
2,4,6-Tribromophenol	73	(22 - 120)

Appendix C

Support Documentation

Chain of Custody Record

TestAmerica 19
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: Tetra Tech NUS	Client Project Manager: Dev Murali	Site Contact: Matt Pryon	Lab Contact: Pat Omeara	COC No: 009322
Address: 20251 Century Blvd	Telephone: (301) 528-3063	Telephone: (301) 991-3914	Telephone: (330) 966-5725	1 of 1 COCs
City/State/Zip: Germantown MD 20874	Email:		Analyses	
Phone: (301) 528-3063		TAT if different from below _____ ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		
Project Name: MNC - Deep well Sampling	Method of Shipment/Carrier:			
Project Number: 112FC02720-0300.2	Shipping/Tracking No:			
PO#				

Sample Identification	Sample Date	Sample Time	Air	Aqueous	Sediment	Solid	Other:	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Unpres	Other:	VOCs	Total metals	Diss metals	1,4 Dioxane							Sample Specific Notes / Special Instructions:
TB-101510	10-15-10	0700		X						X					X										
MNC-MW930-101510		1118		X					X	X			X		X	X	X	X						*	All Diss
MNC-MW940-101510		1410		X					X	X			X		X	X	X	X							metals needs
MNC-MW950-101510	↓			X					X	X			X		X	X	X	X							to be Lab
																									Filtered Please

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Matt Pr	Tetra	10-15-10 1600			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
			Debra Burns	TA	10/16/10 9:30

North Canton

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

22

TAL-4124 (1007)

Client: TetraTech, NUS	Project Manager: Dev Murali	Date: 10/20/10	Chain of Custody Number: 157718
Address: 20251 Century Blvd	Telephone Number (Area Code)/Fax Number: (301) 528-3063	Lab Number:	Page 1 of 1
City: Germantown / State: MD / Zip Code:	Site Contact: Dawn Markiewicz	Lab Contact:	Analysis (Attach list if more space is needed)
Project Name and Location (State): MRC - Deep GW Well Sampling - Round 3	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.: 1121c02720			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	VOC	1,4-Dioxane	Total Metals	Dissolved Metals	Special Instructions/ Conditions of Receipt
MRC-MW96D-102010	10/20/10	1218		X			X		X	X			X	X	X	X	
TB-102010	10/20/10	—		X						X			X				

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time
1. Relinquished By: Dawn L Markiewicz	10/20/10	1330
2. Relinquished By: Paul Ziglund	10/20/10	1906
3. Relinquished By:		
1. Received By:		
2. Received By:	10/21/10	900
3. Received By:		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

North Canton

SDG 0J18429

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HG	UG/L	MRC-MW94D-101510	A0J180429003	NM	10/15/2010	10/19/2010	10/21/2010	4	2	6
HG	UG/L	MRC-MW95D-101510	A0J180429004	NM	10/15/2010	10/19/2010	10/21/2010	4	2	6
HG	UG/L	MRC-MW96D-102010	A0J210616001	NM	10/20/2010	10/22/2010	10/26/2010	2	4	6
HG	UG/L	MRC-MW93D-101510	A0J180429002	NM	10/15/2010	10/19/2010	10/21/2010	4	2	6
M	UG/L	MRC-MW94D-101510	A0J180429003	NM	10/15/2010	10/19/2010	10/21/2010	4	2	6
M	UG/L	MRC-MW95D-101510	A0J180429004	NM	10/15/2010	10/19/2010	10/20/2010	4	1	5
M	UG/L	MRC-MW94D-101510	A0J180429003	NM	10/15/2010	10/19/2010	10/20/2010	4	1	5
M	UG/L	MRC-MW93D-101510	A0J180429002	NM	10/15/2010	10/19/2010	10/21/2010	4	2	6
M	UG/L	MRC-MW93D-101510	A0J180429002	NM	10/15/2010	10/19/2010	10/20/2010	4	1	5
M	UG/L	MRC-MW96D-102010	A0J210616001	NM	10/20/2010	10/22/2010	10/25/2010	2	3	5
MF	UG/L	MRC-MW93D-101510	A0J180429002	NM	10/15/2010	10/19/2010	10/20/2010	4	1	5
MF	UG/L	MRC-MW94D-101510	A0J180429003	NM	10/15/2010	10/19/2010	10/20/2010	4	1	5
MF	UG/L	MRC-MW95D-101510	A0J180429004	NM	10/15/2010	10/19/2010	10/20/2010	4	1	5
MF	UG/L	MRC-MW96D-102010	A0J210616001	NM	10/20/2010	10/22/2010	10/25/2010	2	3	5
OS	UG/L	MRC-MW94D-101510	A0J180429003	SUR	10/15/2010	10/21/2010	10/28/2010	6	7	13

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OS	UG/L	MRC-MW94D-101510	A0J180429003	NM	10/15/2010	10/21/2010	10/28/2010	6	7	13
OS	UG/L	MRC-MW93D-101510	A0J180429002	NM	10/15/2010	10/21/2010	10/28/2010	6	7	13
OS	UG/L	MRC-MW95D-101510	A0J180429004	NM	10/15/2010	10/21/2010	10/28/2010	6	7	13
OS	UG/L	MRC-MW95D-101510	A0J180429004	SUR	10/15/2010	10/21/2010	10/28/2010	6	7	13
OS	UG/L	MRC-MW96D-102010	A0J210616001	NM	10/20/2010	10/27/2010	10/31/2010	7	4	11
OS	UG/L	MRC-MW96D-102010	A0J210616001	SUR	10/20/2010	10/27/2010	10/31/2010	7	4	11
OS	UG/L	MRC-MW93D-101510	A0J180429002	SUR	10/15/2010	10/21/2010	10/28/2010	6	7	13
OV	UG/L	MRC-MW94D-101510	A0J180429003	NM	10/15/2010	10/27/2010	10/27/2010	12	0	12
OV	UG/L	TB-102010	A0J210616002	NM	10/20/2010	11/02/2010	11/02/2010	13	0	13
OV	UG/L	TB-101510	A0J180429001	SUR	10/15/2010	10/27/2010	10/27/2010	12	0	12
OV	UG/L	TB-101510	A0J180429001	NM	10/15/2010	10/27/2010	10/27/2010	12	0	12
OV	UG/L	MRC-MW96D-102010	A0J210616001	SUR	10/20/2010	11/02/2010	11/02/2010	13	0	13
OV	UG/L	MRC-MW96D-102010	A0J210616001	NM	10/20/2010	11/02/2010	11/02/2010	13	0	13
OV	UG/L	MRC-MW95D-101510	A0J180429004	SUR	10/15/2010	10/27/2010	10/27/2010	12	0	12
OV	UG/L	MRC-MW94D-101510	A0J180429003	SUR	10/15/2010	10/27/2010	10/27/2010	12	0	12
OV	UG/L	TB-102010	A0J210616002	SUR	10/20/2010	11/02/2010	11/02/2010	13	0	13
OV	UG/L	MRC-MW93D-101510	A0J180429002	SUR	10/15/2010	10/27/2010	10/27/2010	12	0	12
OV	UG/L	MRC-MW93D-101510	A0J180429002	NM	10/15/2010	10/27/2010	10/27/2010	12	0	12

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	UG/L	MRC-MW95D-101510	A0J180429004	NM	10/15/2010	10/27/2010	10/27/2010	12	0	12

CASE NARRATIVE

0J18429

The following report contains the analytical results for four water samples and two quality control samples submitted to TestAmerica North Canton by Tetra Tech NUS, Inc from the MRC-DEEP WELL SAMPLING Site, project number 112IC02720-0300.2. The samples were received October 16, 2010 and October 21, 2010, according to documented sample acceptance procedures.

This SDG consists of (2) laboratory ID's: A0J180429 and A0J210616.

The Hexavalent Chromium analysis was performed at the TestAmerica Edison Laboratory. Refer to the TestAmerica Edison narrative included in their data package for additional information.

TestAmerica utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Kelly Carper and Tony Apanavage on November 03, 2010, and on November 10, 2010. A summary of QC data for these analyses is included at the back of the report.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

All parameters were evaluated to the method detection limit and include qualified results where applicable.

Please refer to the Quality Control Elements Narrative following this case narrative for additional quality control information.

If you have any questions, please call the Project Manager, Patrick J. O'Meara, at 330-497-9396.

CASE NARRATIVE (continued)

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperatures of the coolers upon sample receipt were 0.9 and 2.1°C.

GC/MS VOLATILES

The sample(s) that contain results between the MDL and the RL were flagged with "J". There is a possibility of false positive or mis-identification at these quantitation levels. In analytical methods requiring confirmation of the analyte reported, confirmation was performed only down to the standard reporting limit (SRL). The acceptance criteria for QC samples may not be met at these quantitation levels.

2-Chloroethyl vinyl ether cannot be reliably recovered in an acid preserved sample.

GC/MS SEMIVOLATILES

The LCS associated with samples MRC-MW93D-101510, MRC-94D-101510 and MRC-MW95D-101510 had acid spike recoveries out of control. However, since only BN compounds were requested no corrective action was necessary.

The LCS associated with QC batch 0300035 had a recovery for Pentachlorophenol below acceptance criteria. Because the samples target list is BN only no corrective action was required.

METALS

The sample(s) that contain results between the MDL and the RL were flagged with "B". There is the possibility of false positive or mis-identification at these quantitation levels. The acceptance criteria for the ICB, CCB, and Method Blank are +/- the standard reporting limit (SRL).

The sample(s) that contained concentrations of target analyte(s) at a reportable level in the associated Method Blank(s) were flagged with "J". Refer to the sample report pages for the affected analyte(s).

QUALITY CONTROL ELEMENTS NARRATIVE

TestAmerica conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data. Program or agency specific requirements take precedence over the requirements listed in this narrative.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. TestAmerica North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples.

For SW846/RCRA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

For 600 series/CWA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE (MS). An MS is prepared and analyzed at a 10% frequency for GC Methods and at a 5% frequency for GC/MS methods.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. Multi peak responders may not be included in the target spike list due to co-elution. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. Comparison of only the failed parameters from the first batch are evaluated. The only exception to the rework requirement is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed in the table.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals ICP-MS	Metals ICP Trace
Methylene Chloride, Acetone, 2-Butanone	Phthalate Esters	Copper, Iron, Zinc, Lead, Calcium, Magnesium, Potassium, Sodium, Barium, Chromium, Manganese	Copper, Iron, Zinc, Lead

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

For certain methods (600 series methods/CWA), a Matrix Spike is required in place of a Matrix Spike/Matrix Spike Duplicate (MS/MSD) or Matrix Spike/Sample Duplicate (MS/DU).

The acceptance criteria do not apply to samples that are diluted.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepared and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepared and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

The acceptance criteria do not apply to samples that are diluted. All other surrogate recoveries will be reported.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide and PCB methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria. The second surrogate must have a recovery of 10% or greater.

TestAmerica Certifications and Approvals:

The laboratory is certified for the analytes listed on the documents below. These are available upon request.
California (#01144CA), Connecticut (#PH-0590), Florida (#E87225),
Illinois (#200004), Kansas (#E10336), Minnesota (#39-999-348), New Jersey (#OH001), New York (#10975), Nevada (#OH-000482008A), OhioVAP (#CL0024), Pennsylvania (#008), West Virginia (#210), Wisconsin (#999518190),NAVY, ARMY, USDA Soil Permit

N:\QAQC\Customer Service\Narrative - Combined RCRA _CWA 032609.doc

SW846 8260B SURROGATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALCAN SDG No: 0J18429

Lot #: A0J180429

Extraction: XXI25QK01

	CLIENT ID.	SRG01	SRG02	SRG03	SRG04	TOT OUT
01	TB-101510	88	90	83	77	00
02	MRC-MW93D-101510	86	89	83	77	00
03	MRC-MW94D-101510	86	90	80	73	00
04	MRC-MW95D-101510	85	88	80	75	00
05	INTRA-LAB QC	81	84	83	76	00
06	METHOD BLK. L895J1AA	78	79	76	70	00
07	LCS L895J1AC	84	89	86	90	00
08	LAB MS/MSD D	82	88	84	85	00
09	LCSD L895J1AD	84	88	82	85	00
10	LAB MS/MSD S	83	90	86	87	00

SURROGATES		QC LIMITS
SRG01	= Dibromofluoromethane	(75-121)
SRG02	= 1,2-Dichloroethane-d4	(63-129)
SRG03	= Toluene-d8	(74-115)
SRG04	= 4-Bromofluorobenzene	(66-117)

\# Column to be used to flag recovery values
* Values outside of required QC Limits
D System monitoring Compound diluted out

FORM II

SW846 8260B SURROGATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALCAN SDG No.: 0J18429

Lot #: A0J210616

Extraction: XXI25QK01

	CLIENT ID.	SRG01	SRG02	SRG03	SRG04	TOT OUT
01	MRC-MW96D-102010	105	95	102	90	00
02	TB-102010	104	95	100	91	00
03	INTRA-LAB QC	109	98	98	86	00
04	METHOD BLK. L9GKP1AA	107	96	100	88	00
05	LCS L9GKP1AC	103	93	106	102	00
06	LAB MS/MSD D	100	89	108	102	00
07	LCSD L9GKP1AD	102	88	106	102	00
08	LAB MS/MSD S	102	90	107	100	00

SURROGATES		QC LIMITS
SRG01	= Dibromofluoromethane	(75-121)
SRG02	= 1,2-Dichloroethane-d4	(63-129)
SRG03	= Toluene-d8	(74-115)
SRG04	= 4-Bromofluorobenzene	(66-117)

\# Column to be used to flag recovery values
* Values outside of required QC Limits
D System monitoring Compound diluted out

FORM II

SW846 8260B CHECK SAMPLE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALCAN SDG No: 0J18429

Lot #: A0J290000 WO #: L895J1AC
BATCH: 0302138

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	% REC	QC LIMITS REC	QUAL
1,1-Dichloroethene	10	9.9	99	78 - 131	
Trichloroethene	10	9.6	96	76 - 117	
Benzene	10	9.9	99	83 - 112	
Toluene	10	9.9	99	84 - 111	
Chlorobenzene	10	9.8	98	85 - 110	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

COMMENTS:

FORM III

SW846 8260B CHECK SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALCAN SDG No: 0J18429

Lot #: A0J290000 WO #: L895J1AD
BATCH: 0302138

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	% REC	QC LIMITS REC	QUAL
1,1-Dichloroethene	10	10	104	78 - 131	
Trichloroethene	10	9.4	94	76 - 117	
Benzene	10	9.4	94	83 - 112	
Toluene	10	9.1	91	84 - 111	
Chlorobenzene	10	8.8	88	85 - 110	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

COMMENTS:

FORM III

SW846 8260B CHECK SAMPLE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALCAN SDG No: 0J18429

Lot #: A0K030000 WO #: L9GKP1AC
BATCH: 0307211

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	% REC	QC LIMITS REC	QUAL
Trichloroethene	10	9.9	99	76 - 117	
Benzene	10	10	105	83 - 112	
Toluene	10	11	106	84 - 111	
Chlorobenzene	10	9.9	99	85 - 110	
1,1-Dichloroethene	10	11	109	78 - 131	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

COMMENTS:

FORM III

SW846 8260B CHECK SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALCAN SDG No: 0J18429

Lot #: A0K030000 WO #: L9GKP1AD
BATCH: 0307211

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	% REC	QC LIMITS REC	QUAL
1,1-Dichloroethene	10	11	110	78 - 131	
Trichloroethene	10	10	101	76 - 117	
Benzene	10	11	106	83 - 112	
Toluene	10	11	111	84 - 111	
Chlorobenzene	10	11	106	85 - 110	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

COMMENTS:

FORM III

SW846 8260B MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALCAN SDG No: 0J18429

Matrix Spike ID: LAB MS/MSD

Lot #: A0J180479 WO #: L8NCP1A2
BATCH: 0302138

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	MS CONCENT. (ug/L)	MS % REC	LIMITS REC	QUAL
1,1-Dichloroethene	250	ND	240	95	74 - 135	
Trichloroethene	250	ND	230	93	66 - 120	
Benzene	250	590	840	96	72 - 121	
Toluene	250	ND	250	101	78 - 114	
Chlorobenzene	250	ND	250	99	80 - 110	

NOTES(S):

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 0 out of 5 outside limits

COMMENTS:

FORM III

SW846 8260B MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALCAN SDG No: 0J18429

Matrix Spike ID: LAB MS/MSD

Lot #: A0J180479 WO #: L8NCP1A3
BATCH: 0302138

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENT. (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	QUAL
1,1-Dichloroethene	250	230	94	1.4	30	74 - 135	
Trichloroethene	250	220	89	3.6	30	66 - 120	
Benzene	250	820	92	1.3	30	72 - 121	
Toluene	250	250	98	2.7	30	78 - 114	
Chlorobenzene	250	240	95	3.6	30	80 - 110	

NOTES(S):

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 5 outside limits

COMMENTS:

FORM III

SW846 8260B MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALCAN SDG No: 0J18429

Matrix Spike ID: LAB MS/MSD

Lot #: A0J250506 WO #: L83MM1AC
BATCH: 0307211

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	MS CONCENT. (ug/L)	MS % REC	LIMITS REC	QUAL
1,1-Dichloroethene	10	ND	11	107	74- 135	
Trichloroethene	10	5.6	12	67	66- 120	
Benzene	10	ND	10	103	72- 121	
Toluene	10	ND	11	106	78- 114	
Chlorobenzene	10	ND	9.8	98	80- 110	

NOTES(S):

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 0 out of 5 outside limits

COMMENTS:

FORM III

SW846 8260B MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALCAN SDG No: 0J18429

Matrix Spike ID: LAB MS/MSD

Lot #: A0J250506 WO #: L83MM1AD
BATCH: 0307211

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENT. (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	QUAL
1,1-Dichloroethene	10	11	108	1.1	30	74 - 135	
Trichloroethene	10	13	70	2.5	30	66 - 120	
Benzene	10	11	108	5.0	30	72 - 121	
Toluene	10	11	112	5.5	30	78 - 114	
Chlorobenzene	10	11	107	9.1	30	80 - 110	

NOTES(S):

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 5 outside limits

COMMENTS:

FORM III

8A
VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: NORTH CANTON Contract:

Lab Code: TALCAN Case No.: SAS No.: SDG No.: 0J18429

Lab File ID (Standard): UXJ3321 Date Analyzed: 10/27/10

Instrument ID: A3UX11 Time Analyzed: 0918

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

		IS1(CBZ) AREA #	RT	IS2(DCB) AREA #	RT	IS3 AREA #	RT
	12 HOUR STD	1772637	8.04	845729	10.29	2469513	5.35
	UPPER LIMIT	3545274	8.54	1691458	10.79	4939026	5.85
	LOWER LIMIT	886319	7.54	422865	9.79	1234757	4.85
	EPA SAMPLE NO.						
01	L895JCHK	1695319	8.04	830683	10.29	2413627	5.35
02	L895JCKDUP	1814561	8.04	840505	10.29	2498115	5.35
03	L895JBLK	1666384	8.04	663727	10.29	2394385	5.35
04	TB-101510	1534003	8.04	651212	10.29	2197398	5.35
05	MRC-MW93D-10	1495582	8.04	636749	10.29	2174769	5.35
06	MRC-MW94D-10	1485784	8.04	595884	10.29	2121744	5.35
07	MRC-MW95D-10	1448457	8.04	619285	10.29	2110946	5.35
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (CBZ) = Chlorobenzene-d5
IS2 (DCB) = 1,4-Dichlorobenzene-d4
IS3 = Fluorobenzene

UPPER LIMIT = +100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk.

8A
VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: NORTH CANTON Contract:

Lab Code: TALCAN Case No.: SAS No.: SDG No.: 0J18429

Lab File ID (Standard): UXM0816 Date Analyzed: 11/02/10

Instrument ID: A3UX16 Time Analyzed: 1157

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

		IS1(CBZ) AREA #	RT	IS2(DCB) AREA #	RT	IS3 AREA #	RT
	12 HOUR STD	747756	8.41	407853	10.65	1136003	5.72
	UPPER LIMIT	1495512	8.91	815706	11.15	2272006	6.22
	LOWER LIMIT	373878	7.91	203927	10.15	568002	5.22
	EPA SAMPLE NO.						
01	L9GKPCHK	760225	8.41	421513	10.65	1151953	5.72
02	L9GKPCKDUP	749803	8.41	409037	10.65	1161858	5.72
03	L9GKPBLK	695670	8.41	342345	10.65	1049483	5.72
04	MRC-MW96D-10	790438	8.41	394806	10.65	1198760	5.72
05	TB-102010	761444	8.41	382394	10.65	1182753	5.72
06							
07							
08							
09							
10							
11							
12							
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14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (CBZ) = Chlorobenzene-d5
IS2 (DCB) = 1,4-Dichlorobenzene-d4
IS3 = Fluorobenzene

UPPER LIMIT = +100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk.

FORM VIII VOA 1/87 Rev.

Tetra Tech NUS, Inc

Client Sample ID: TB-101510

GC/MS Volatiles

Lot-Sample #...: A0J180429-001 **Work Order #...:** L8MND1AA **Matrix.....:** WQ
Date Sampled...: 10/15/10 07:00 **Date Received..:** 10/16/10
Prep Date.....: 10/27/10 **Analysis Date..:** 10/27/10
Prep Batch #...: 0302138
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
tert-Butyl alcohol	ND	20	ug/L	3.9
4-Methyl-2-pentanone	ND	5.0	ug/L	0.32
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.28
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
Vinyl acetate	ND	2.0	ug/L	0.19
o-Xylene	ND	1.0	ug/L	0.14
Xylenes (total)	ND	2.0	ug/L	0.28
Methyl tert-butyl ether	ND	5.0	ug/L	0.17
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
1,2,3-Trimethylbenzene	ND	5.0	ug/L	0.0059
Diisopropyl Ether (DIPE)	ND	5.0	ug/L	1.5
Ethyl-t-Butyl Ether (ETBE)	ND	5.0	ug/L	0.11
Tert-amyl methyl ether (TAME)	ND	5.0	ug/L	0.067
Acetone	**1.7 J**	**5.0**	**ug/L**	**1.1**
Bromobenzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
2-Butanone	ND	5.0	ug/L	0.57
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon disulfide	ND	1.0	ug/L	0.13
Dibromochloromethane	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	0.67
2-Chloroethyl vinyl ether	ND	5.0	ug/L	0.99
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromoethane	ND	1.0	ug/L	0.24

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Tetra Tech NUS, Inc

Client Sample ID: TB-101510

GC/MS Volatiles

Lot-Sample #...: A0J180429-001 **Work Order #...:** L8MND1AA **Matrix.....:** WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.17
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
Trichlorofluoromethane	ND	1.0	ug/L	0.21
Hexachlorobutadiene	ND	1.0	ug/L	0.30
2-Hexanone	ND	5.0	ug/L	0.41
Isopropylbenzene	ND	1.0	ug/L	0.13
p-Isopropyltoluene	ND	1.0	ug/L	0.12
Benzene	ND	1.0	ug/L	0.13
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	ND	1.0	ug/L	0.16
Chloromethane	ND	1.0	ug/L	0.30
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.14
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.19
Ethylbenzene	ND	1.0	ug/L	0.17
Methylene chloride	**4.8**	**1.0**	**ug/L**	**0.33**
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.13
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.17
Vinyl chloride	ND	1.0	ug/L	0.22

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	88	(75 - 121)
1,2-Dichloroethane-d4	90	(63 - 129)
Toluene-d8	83	(74 - 115)
4-Bromofluorobenzene	77	(66 - 117)

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

TB-101510

GC/MS Volatiles

Lot-Sample #: A0J180429-001 **Work Order #:** L8MND1AA **Matrix:** WQ

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
None					ug/L
Freon 22		ND	M		ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: 0J18429 **Work Order #...:** L9GKP1AA **Matrix.....:** WATER
MB Lot-Sample #: A0K030000-211

Prep Date.....: 11/02/10 **Final Wgt/Vol..:** 5 mL
Analysis Date..: 11/02/10 **Prep Batch #...:** 0307211
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acetone	ND	5.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Carbon disulfide	ND	1.0	ug/L	SW846 8260B
Dibromochloromethane	ND	1.0	ug/L	SW846 8260B
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	1.0	ug/L	SW846 8260B
2-Hexanone	ND	5.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
Vinyl acetate	ND	2.0	ug/L	SW846 8260B
Xylenes (total)	ND	2.0	ug/L	SW846 8260B
1,2-Dibromoethane	ND	1.0	ug/L	SW846 8260B
2-Butanone	ND	5.0	ug/L	SW846 8260B
4-Methyl-2-pentanone	ND	5.0	ug/L	SW846 8260B
Bromobenzene	ND	1.0	ug/L	SW846 8260B
Bromochloromethane	ND	1.0	ug/L	SW846 8260B
n-Butylbenzene	ND	1.0	ug/L	SW846 8260B
sec-Butylbenzene	ND	1.0	ug/L	SW846 8260B
tert-Butylbenzene	ND	1.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
Isopropylbenzene	ND	1.0	ug/L	SW846 8260B
Diisopropyl Ether (DIPE)	ND	5.0	ug/L	SW846 8260B
p-Isopropyltoluene	ND	1.0	ug/L	SW846 8260B
tert-Butyl alcohol	ND	20	ug/L	SW846 8260B
Naphthalene	ND	1.0	ug/L	SW846 8260B
n-Propylbenzene	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichlorobenzene	**0.35 J**	**1.0**	**ug/L**	**SW846 8260B**
1,2,4-Trichloro-benzene	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	SW846 8260B
1,2,4-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
o-Xylene	ND	1.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: 0J18429 **Work Order #...:** L9GKP1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
m-Xylene & p-Xylene	ND	2.0	ug/L	SW846 8260B
Methyl tert-butyl ether	ND	5.0	ug/L	SW846 8260B
1,2,3-Trimethylbenzene	ND	5.0	ug/L	SW846 8260B
Ethyl-t-Butyl Ether (ETBE	ND	5.0	ug/L	SW846 8260B
Tert-amyl methyl ether (T	ND	5.0	ug/L	SW846 8260B
2-Chloroethyl vinyl ether	ND	5.0	ug/L	SW846 8260B
2-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
4-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Hexachlorobutadiene	**0.52 J**	**1.0**	**ug/L**	**SW846 8260B**
Benzene	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
cis-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
trans-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	107	(75 - 121)
1,2-Dichloroethane-d4	96	(63 - 129)
Toluene-d8	100	(74 - 115)
4-Bromofluorobenzene	88	(66 - 117)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Method Blank Report

GC/MS Volatiles

Lot-Sample #: A0K030000-211 B **Work Order #:** L9GKP1AA **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
None					ug/L
Freon22		ND	M		ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: 0J18429 **Work Order #...:** L895J1AA **Matrix.....:** WATER
MB Lot-Sample #: A0J290000-138

Prep Date.....: 10/27/10 **Final Wgt/Vol..:** 5 mL
Analysis Date..: 10/27/10 **Prep Batch #...:** 0302138
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Trichlorofluoromethane	ND	1.0	ug/L	SW846 8260B
2-Hexanone	ND	5.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
tert-Butyl alcohol	ND	20	ug/L	SW846 8260B
Naphthalene	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
Vinyl acetate	ND	2.0	ug/L	SW846 8260B
Xylenes (total)	ND	2.0	ug/L	SW846 8260B
1,2-Dibromoethane	ND	1.0	ug/L	SW846 8260B
2-Butanone	ND	5.0	ug/L	SW846 8260B
4-Methyl-2-pentanone	ND	5.0	ug/L	SW846 8260B
1,2,3-Trimethylbenzene	ND	5.0	ug/L	SW846 8260B
Diisopropyl Ether (DIPE)	ND	5.0	ug/L	SW846 8260B
Ethyl-t-Butyl Ether (ETBE	ND	5.0	ug/L	SW846 8260B
Tert-amyl methyl ether (T	ND	5.0	ug/L	SW846 8260B
Acetone	ND	5.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Carbon disulfide	ND	1.0	ug/L	SW846 8260B
Dibromochloromethane	ND	1.0	ug/L	SW846 8260B
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
Bromobenzene	ND	1.0	ug/L	SW846 8260B
Bromochloromethane	ND	1.0	ug/L	SW846 8260B
n-Butylbenzene	ND	1.0	ug/L	SW846 8260B
sec-Butylbenzene	ND	1.0	ug/L	SW846 8260B
tert-Butylbenzene	ND	1.0	ug/L	SW846 8260B
2-Chloroethyl vinyl ether	ND	5.0	ug/L	SW846 8260B
2-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
4-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B

(Continued on next page)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: 0J18429 **Work Order #...:** L895J1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8260B
Isopropylbenzene	ND	1.0	ug/L	SW846 8260B
p-Isopropyltoluene	ND	1.0	ug/L	SW846 8260B
n-Propylbenzene	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	1.0	ug/L	SW846 8260B
1,2,4-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
o-Xylene	ND	1.0	ug/L	SW846 8260B
m-Xylene & p-Xylene	ND	2.0	ug/L	SW846 8260B
Methyl tert-butyl ether	ND	5.0	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
cis-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
trans-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	78	(75 - 121)
1,2-Dichloroethane-d4	79	(63 - 129)
Toluene-d8	76	(74 - 115)
4-Bromofluorobenzene	70	(66 - 117)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Tetra Tech NUS, Inc

Method Blank Report

GC/MS Volatiles

Lot-Sample #: A0J290000-138 B **Work Order #:** L895J1AA **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
None					ug/L
Freon 22		ND	M		ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: NORTH CANTON Contract:

Lab Code: TALCAN Case No.: SAS No.: SDG No.: 0J18429

Lab File ID: BFB502 BFB Injection Date: 10/18/10

Instrument ID: A3UX11 BFB Injection Time: 0754

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	21.0
75	30.0 - 60.0% of mass 95	50.8
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.4 (0.5)1
174	50.0 - 100.0% of mass 95	67.2
175	5.0 - 9.0% of mass 174	4.7 (7.0)1
176	Greater than 95.0%, but less than 101.0% of mass 174	64.6 (96.1)1
177	5.0 - 9.0% of mass 176	4.1 (6.3)2

1-Value is % of mass 174 2-Value is % of mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD040	200NG-IC	UXJ3005	10/18/10	0820
02	VSTD020	100NG-IC	UXJ3006	10/18/10	0842
03	VSTD010	50NG-IC	UXJ3007	10/18/10	0905
04	VSTD005	25NG-IC	UXJ3008	10/18/10	0927
05	VSTD002	10NG-IC	UXJ3009	10/18/10	0950
06	VSTD001	5NG-IC	UXJ3010	10/18/10	1012
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

Report Date : 18-Oct-2010 10:34

TestAmerica North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 17-JUN-2010 12:26
End Cal Date : 18-OCT-2010 10:12
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSV\a3ux11.i\J01018A-IC.b\8260LLUX11.m
Last Edit : 18-Oct-2010 10:27
Curve Type : Average

Calibration File Names:
Level 1: \\cansvr11\dd\chem\MSV\a3ux11.i\J00805A-IC.b\UXJ1313.D
Level 2: \\cansvr11\dd\chem\MSV\a3ux11.i\J00805A-IC.b\UXJ1312.D
Level 3: \\cansvr11\dd\chem\MSV\a3ux11.i\J00805A-IC.b\UXJ1311.D
Level 4: \\cansvr11\dd\chem\MSV\a3ux11.i\J00805A-IC.b\UXJ1310.D
Level 5: \\cansvr11\dd\chem\MSV\a3ux11.i\J00805A-IC.b\UXJ1309.D
Level 6: \\cansvr11\dd\chem\MSV\a3ux11.i\J00805A-IC.b\UXJ1308.D

	Compound	5.000 Level 1	10.000 Level 2	25.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	RRF	% RSD
	8 Dichlorodifluoromethane	0.25261	0.23111	0.22605	0.22872	0.24093	0.23522	0.23577	4.139
	9 Chloromethane	0.63194	0.58224	0.56201	0.55498	0.58311	0.56640	0.58011	4.781
	10 Vinyl Chloride	0.53798	0.50305	0.47506	0.49097	0.50332	0.47374	0.49735	4.770
	11 Bromomethane	0.20492	0.20820	0.19716	0.19647	0.19857	0.20007	0.20090	2.325
	12 Chloroethane	0.29427	0.26858	0.26581	0.26594	0.26484	0.25744	0.26948	4.717
	13 Trichlorofluoromethane	0.39289	0.38999	0.36199	0.39112	0.39002	0.37498	0.38350	3.228
	14 Dichlorofluoromethane	0.34464	0.31928	0.33565	0.35339	0.36362	0.36121	0.34630	4.865
	15 Acrolein	0.06436	0.06086	0.06116	0.06376	0.06000	0.05833	0.06141	3.713
	16 Acetone	0.16892	0.13218	0.11207	0.11085	0.09561	0.10673	0.12106	21.707
	17 1,1-Dichloroethene	0.36260	0.31973	0.33337	0.31771	0.32388	0.35691	0.33570	5.803
	18 Freon-113	0.19715	0.19708	0.18870	0.19176	0.18838	0.20154	0.19410	2.735
	19 Iodomethane	0.38647	0.37057	0.37502	0.38147	0.37077	0.37639	0.37678	1.652
	20 Carbon Disulfide	0.93543	0.86158	0.89467	0.91009	0.95178	1.02069	0.92904	5.905
	21 Methylene Chloride	0.81833	0.57179	0.47090	0.41358	0.39257	0.38650	0.50895	32.731
	22 Acetonitrile	0.06118	0.05236	0.05002	0.05167	0.04996	0.04676	0.05199	9.426
	23 Acrylonitrile	0.15675	0.14028	0.14879	0.15262	0.14712	0.14183	0.14790	4.242
	24 Methyl tert-butyl ether	1.00688	0.92557	0.94967	0.97680	0.99155	0.99346	0.97399	3.152
	25 trans-1,2-Dichloroethene	0.39131	0.36674	0.38155	0.36538	0.38038	0.38747	0.37881	2.812
	26 Hexane	0.09697	0.08346	0.08715	0.08996	0.08796	0.09342	0.08982	5.340
	27 Vinyl acetate	0.60368	0.57467	0.60003	0.62939	0.63334	0.64817	0.61488	4.377
	28 1,1-Dichloroethane	0.75828	0.71772	0.72950	0.69554	0.73760	0.75706	0.73262	3.280
	29 tert-Butyl Alcohol	0.02443	0.02243	0.02275	0.02439	0.02274	0.02133	0.02301	5.215
	30 2-Butanone	0.19062	0.17249	0.17007	0.17905	0.16498	0.16512	0.17372	5.636
M	31 1,2-Dichloroethene (total)	0.41211	0.38542	0.39103	0.38204	0.39584	0.40191	0.39472	2.813
	32 cis-1,2-dichloroethene	0.43291	0.40410	0.40050	0.39870	0.41130	0.41634	0.41064	3.113
	33 2,2-Dichloropropane	0.38016	0.32576	0.35009	0.35221	0.36619	0.32571	0.35002	6.199
	34 Bromochloromethane	0.17465	0.16689	0.17539	0.16843	0.17469	0.17521	0.17254	2.217
	35 Chloroform	0.67821	0.62482	0.63421	0.62327	0.64478	0.66859	0.64565	3.568

Report Date : 18-Oct-2010 10:34

TestAmerica North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 17-JUN-2010 12:26
End Cal Date : 18-OCT-2010 10:12
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSV\a3ux11.i\J01018A-IC.b\8260LLUX11.m
Last Edit : 18-Oct-2010 10:27
Curve Type : Average

	Compound	5.000 Level 1	10.000 Level 2	25.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	RRF	% RSD	
	36 Tetrahydrofuran	0.13363	0.11161	0.10999	0.11610	0.10897	0.10905	0.11489	8.317	
	37 1,1,1-Trichloroethane	0.44636	0.42234	0.44226	0.43616	0.45387	0.44209	0.44051	2.418	
	38 1,1-Dichloropropene	0.55785	0.52432	0.54315	0.52304	0.54168	0.56736	0.54290	3.256	
	39 Carbon Tetrachloride	0.37891	0.33833	0.36202	0.36237	0.38032	0.39568	0.36961	5.370	
	40 1,2-Dichloroethane	0.57561	0.52606	0.52973	0.51653	0.53016	0.54752	0.53760	3.935	
	41 Benzene	1.86954	1.72095	1.71161	1.66080	1.71729	1.81329	1.74891	4.402	
	42 Trichloroethene	0.38488	0.35520	0.36033	0.34784	0.35681	0.37034	0.36257	3.633	
	43 1,2-Dichloropropane	0.46260	0.42969	0.44640	0.43373	0.45240	0.46619	0.44850	3.312	
	44 1,4-Dioxane	0.00314	0.00313	0.00331	0.00347	0.00338	0.00314	0.00326	4.482	<-- NOT TCL
	45 Dibromomethane	0.22835	0.20960	0.21524	0.20871	0.21494	0.21823	0.21584	3.296	
	46 Bromodichloromethane	0.42137	0.40171	0.43503	0.43816	0.46565	0.50255	0.44408	8.001	
	47 2-Chloroethyl vinyl ether	0.24163	0.23588	0.25568	0.27312	0.27302	0.26962	0.25816	6.368	
	48 cis-1,3-Dichloropropene	0.55693	0.52084	0.58384	0.58624	0.62997	0.66523	0.59051	8.696	
	49 4-Methyl-2-pentanone	0.31946	0.31571	0.34399	0.36468	0.35073	0.34733	0.34032	5.584	
	50 Toluene	2.67390	2.41074	2.48640	2.41486	2.51142	2.43513	2.48874	3.987	
	51 trans-1,3-Dichloropropene	0.65895	0.63185	0.68903	0.70966	0.75058	0.74810	0.69803	6.838	
	52 Ethyl Methacrylate	0.59159	0.58480	0.67530	0.70645	0.71963	0.69149	0.66154	8.881	
	53 1,1,2-Trichloroethane	0.50838	0.46126	0.46360	0.45698	0.45033	0.42360	0.46069	5.968	
	54 1,3-Dichloropropane	0.98475	0.89967	0.91639	0.88950	0.90065	0.87448	0.91091	4.252	
	55 Tetrachloroethene	0.42691	0.38181	0.38164	0.37832	0.38396	0.37868	0.38855	4.867	
	56 2-Hexanone	0.31918	0.29690	0.32168	0.34812	0.32534	0.30144	0.31878	5.771	
	57 Dibromochloromethane	0.37530	0.34828	0.38707	0.40209	0.42481	0.43364	0.39520	8.054	
	58 1,2-Dibromoethane	0.45879	0.42567	0.43965	0.44240	0.43949	0.42647	0.43874	2.769	
	59 Chlorobenzene	1.62169	1.44046	1.49058	1.44722	1.48722	1.48339	1.49509	4.388	
	60 1,1,1,2-Tetrachloroethane	0.45567	0.41870	0.44966	0.44295	0.46390	0.47346	0.45072	4.212	
	61 Ethylbenzene	0.80222	0.72586	0.79881	0.78843	0.82005	0.83339	0.79479	4.705	
	62 m + p-Xylene	1.03989	0.94946	1.01372	0.98872	1.03729	1.07752	1.01777	4.387	
M	63 Xylenes (total)	0.99583	0.92963	0.99059	0.97097	1.02320	1.05689	0.99452	4.382	
	64 Xylene-o	0.90769	0.88997	0.94432	0.93547	0.99501	1.01562	0.94801	5.156	
	65 Styrene	1.46124	1.39595	1.53844	1.56438	1.69069	1.75150	1.56703	8.590	
	66 Bromoform	0.19038	0.18100	0.21015	0.21643	0.23261	0.24807	0.21311	11.815	
	67 Isopropylbenzene	2.30650	2.20384	2.40627	2.41938	2.55064	2.45249	2.38985	5.037	
	68 1,1,2,2-Tetrachloroethane	1.31765	1.19450	1.21432	1.22375	1.16820	1.09002	1.20141	6.199	
	69 1,4-Dichloro-2-butene	0.30890	0.25570	0.29836	0.31194	0.30584	0.29543	0.29603	7.000	
	70 1,2,3-Trichloropropane	0.38614	0.33797	0.36951	0.35017	0.33770	0.31523	0.34945	7.228	
	71 Bromobenzene	1.13721	1.10033	1.15158	1.14204	1.14027	1.11981	1.13187	1.644	

Report Date : 18-Oct-2010 10:34

TestAmerica North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 17-JUN-2010 12:26
End Cal Date : 18-OCT-2010 10:12
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSV\a3ux11.i\J01018A-IC.b\8260LLUX11.m
Last Edit : 18-Oct-2010 10:27
Curve Type : Average

Compound	5.000 Level 1	10.000 Level 2	25.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	RRF	% RSD	
72 n-Propylbenzene	1.28708	1.24295	1.32944	1.33045	1.32655	1.31743	1.30565	2.660	
73 2-Chlorotoluene	1.19780	1.14018	1.18025	1.14366	1.15264	1.13367	1.15803	2.193	
74 1,3,5-Trimethylbenzene	4.02291	3.78644	4.05066	4.13126	4.16740	4.11701	4.04595	3.406	
75 4-Chlorotoluene	1.41633	1.22986	1.24196	1.23088	1.23296	1.21077	1.26046	6.112	
76 tert-Butylbenzene	3.16406	3.05911	3.24710	3.32609	3.41622	3.50422	3.28613	4.983	
77 1,2,4-Trimethylbenzene	4.20222	4.03817	4.25294	4.25604	4.33478	4.40596	4.24835	2.953	
78 sec-Butylbenzene	5.08186	4.79474	5.06333	5.06560	5.17115	4.70653	4.98053	3.705	
79 4-Isopropyltoluene	3.84748	3.76700	4.02886	4.08866	4.18470	4.13353	4.00837	4.141	
80 1,3-Dichlorobenzene	2.39721	2.31053	2.26424	2.24582	2.24073	2.28535	2.29065	2.544	
81 1,4-Dichlorobenzene	2.66861	2.34216	2.35128	2.30128	2.32835	2.34746	2.38986	5.764	
82 n-Butylbenzene	3.66330	3.47710	3.81829	3.89994	4.01954	3.99652	3.81245	5.492	
83 1,2-Dichlorobenzene	2.42436	2.21930	2.16321	2.16688	2.16741	2.16970	2.21848	4.645	
84 1,2-Dibromo-3-chloropropane	0.11734	0.12797	0.13150	0.14711	0.13520	0.12439	0.13059	7.779	
85 1,2,4-Trichlorobenzene	0.70306	0.67056	0.70555	0.70325	0.66508	0.65892	0.68440	3.178	
86 Hexachlorobutadiene	0.30235	0.30537	0.30360	0.29192	0.24997	0.23600	0.28154	10.850	
87 Naphthalene	1.25402	1.26261	1.51702	1.68277	1.62099	1.61707	1.49241	12.662	
88 1,2,3-Trichlorobenzene	0.57098	0.55580	0.60983	0.62402	0.61694	0.59859	0.59603	4.542	
89 Ethyl Ether	0.31663	0.28837	0.29648	0.29791	0.30488	0.29903	0.30055	3.162	
90 Ethanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
91 3-Chloropropene	0.12500	0.10925	0.13345	0.15212	0.16367	0.17328	0.14279	17.101	
92 Isopropyl Ether	0.32750	0.29971	0.31377	0.31592	0.33681	0.33660	0.32172	4.533	
93 2-Chloro-1,3-butadiene	0.49478	0.46719	0.48253	0.48665	0.52042	0.51048	0.49367	3.922	
94 Propionitrile	0.05136	0.04810	0.04994	0.04861	0.05019	0.04955	0.04963	2.353	
95 Ethyl Acetate	0.36105	0.32800	0.32186	0.32048	0.33048	0.33421	0.33268	4.458	
96 Methacrylonitrile	0.20099	0.20043	0.20880	0.24018	0.23573	0.23342	0.21993	8.395	
97 Isobutanol	0.01321	0.01311	0.01363	0.01377	0.01349	0.01340	0.01343	1.866	
98 Cyclohexane	0.69246	0.64530	0.66333	0.65507	0.67549	0.71385	0.67425	3.768	
99 n-Butanol	0.00859	0.00825	0.00949	0.01021	0.01059	0.01098	0.00968	11.380	<-
100 Methyl Methacrylate	0.27425	0.26531	0.28421	0.29612	0.31593	0.31976	0.29260	7.560	
101 2-Nitropropane	0.05173	0.04554	0.05334	0.05848	0.06563	0.07125	0.05766	16.448	
102 Chloropicrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
103 Cyclohexanone	0.02767	0.02302	0.02267	0.02662	0.02695	0.02785	0.02580	9.052	
104 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
105 Benzyl Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
134 Thiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
135 Crotononitrile(1st Isomer)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-

Report Date : 18-Oct-2010 10:34

TestAmerica North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 17-JUN-2010 12:26
End Cal Date : 18-OCT-2010 10:12
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSV\a3ux11.i\J01018A-IC.b\8260LLUX11.m
Last Edit : 18-Oct-2010 10:27
Curve Type : Average

	Compound	5.000 Level 1	10.000 Level 2	25.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	___ RRF	% RSD	
	136 Crotononitrile(2nd Isomer)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
M	137 Total Crotononitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	138 Paraldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	139 3,3,5-Trimethylcyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	140 1-Chlorohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	141 1,3,5-Trichlorobenzene	1.14285	1.12302	1.15117	1.12729	1.01705	0.86693	1.07138	10.395	
	143 Methyl Acetate	0.36554	0.33376	0.33231	0.33440	0.31703	0.31195	0.33250	5.641	
	144 Methylcyclohexane	0.58104	0.55148	0.56735	0.58061	0.59236	0.61585	0.58145	3.769	
	145 Dimethoxymethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	146 2-Methylnaphthalene	0.48922	0.60576	0.72203	0.92804	0.99813	1.00806	0.79187	27.606	
	147 Tetrahydrothiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	148 1,4-Dichlorobutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	149 Ethyl Acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	150 Vinyl Acetate-86	0.05707	0.04828	0.05818	0.06143	0.06216	0.06214	0.05821	9.135	
	151 1,3-Butadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	152 n-Heptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	155 t-Butyl ethyl ether	0.93099	0.86916	0.94928	0.94330	1.01542	1.02808	0.95604	6.117	
	156 t-Amyl methyl ether	0.82218	0.75193	0.81192	0.82633	0.89718	0.91486	0.83740	7.141	
	157 1,2,3-Trimethylbenzene	3.51565	3.28573	3.61961	3.69654	4.02260	4.06903	3.70153	8.126	
$	4 Dibromofluoromethane	0.36561	0.32913	0.31893	0.31692	0.32512	0.33138	0.33118	5.367	
$	5 1,2-Dichloroethane-d4	0.56181	0.49835	0.46929	0.46309	0.46957	0.47488	0.48950	7.657	
$	6 Toluene-d8	2.28356	2.09685	2.08174	2.03954	2.09561	2.00510	2.10040	4.602	
$	7 Bromofluorobenzene	0.82235	0.72707	0.73706	0.72830	0.74253	0.74242	0.74995	4.812	

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: NORTH CANTON Contract:

Lab Code: TALCAN Case No.: SAS No.: SDG No.: 0J18429

Lab File ID: BFB512 BFB Injection Date: 10/27/10

Instrument ID: A3UX11 BFB Injection Time: 0846

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	21.4
75	30.0 - 60.0% of mass 95	52.8
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.4 (0.7)1
174	50.0 - 100.0% of mass 95	67.9
175	5.0 - 9.0% of mass 174	4.9 (7.2)1
176	Greater than 95.0%, but less than 101.0% of mass 174	64.9 (95.7)1
177	5.0 - 9.0% of mass 176	4.2 (6.5)2

1-Value is % of mass 174 2-Value is % of mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD010	50NG-CC	UXJ3321	10/27/10	0918
02	VSTD010	50NG-A9CC	UXJ3322	10/27/10	0941
03	L895JCHK	L895J1AC	UXJ3323	10/27/10	1004
04	L895JCKDUP	L895J1AD	UXJ3324	10/27/10	1039
05	L895JBLK	L895J1AA	UXJ3325	10/27/10	1101
06	TB-101510	L8MND1AA	UXJ3334	10/27/10	1506
07	MRC-MW93D-10	L8MNJ1AA	UXJ3335	10/27/10	1528
08	MRC-MW94D-10	L8MNK1AM	UXJ3336	10/27/10	1551
09	MRC-MW95D-10	L8MNL1A0	UXJ3337	10/27/10	1614
10					
11					
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21					
22					

Data File: \\cansvr11\dd\chem\MSV\a3ux11.i\J01027A.b\UXJ3321.D
Report Date: 27-Oct-2010 10:27

TestAmerica North Canton

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: a3ux11.i Injection Date: 27-OCT-2010 09:18
Lab File ID: UXJ3321.D Init. Cal. Date(s): 17-JUN-2010 18-OCT-2010
Analysis Type: WATER Init. Cal. Times: 12:26 10:12
Lab Sample ID: 50NG-CC Quant Type: ISTD
Method: \\cansvr11\dd\chem\MSV\a3ux11.i\J01027A.b\8260LLUX11.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$ 4 Dibromofluoromethane	0.33118	0.28496	0.28496	0.010	13.95573	50.00000	Averaged	
$ 5 1,2-Dichloroethane-d4	0.48950	0.42834	0.42834	0.010	12.49361	50.00000	Averaged	
$ 6 Toluene-d8	2.10040	1.73076	1.73076	0.010	17.59865	50.00000	Averaged	
$ 7 Bromofluorobenzene	0.74995	0.63839	0.63839	0.010	14.87649	50.00000	Averaged	
8 Dichlorodifluoromethane	0.23577	0.24949	0.24949	0.010	-5.81863	50.00000	Averaged	
9 Chloromethane	0.58011	0.51317	0.51317	0.100	11.53880	50.00000	Averaged	
10 Vinyl Chloride	0.49735	0.44745	0.44745	0.010	10.03291	20.00000	Averaged	
11 Bromomethane	0.20090	0.20291	0.20291	0.010	-0.99980	50.00000	Averaged	
12 Chloroethane	0.26948	0.24846	0.24846	0.010	7.80085	50.00000	Averaged	
13 Trichlorofluoromethane	0.38350	0.34544	0.34544	0.010	9.92447	50.00000	Averaged	
15 Acrolein	0.06141	0.05954	0.05954	0.010	3.04800	50.00000	Averaged	
16 Acetone	100	166	0.17258	0.010	-65.71084	0.000e+000	Wt Linear	
17 1,1-Dichloroethene	0.33570	0.36582	0.36582	0.010	-8.97411	20.00000	Averaged	
18 Freon-113	0.19410	0.20623	0.20623	0.010	-6.24610	50.00000	Averaged	
19 Iodomethane	0.37678	0.37275	0.37275	0.010	1.07058	50.00000	Averaged	
20 Carbon Disulfide	0.92904	0.99386	0.99386	0.010	-6.97735	50.00000	Averaged	
21 Methylene Chloride	50.00000	48.81196	0.40836	0.010	2.37609	0.000e+000	Wt Linear	
22 Acetonitrile	0.05199	0.05000	0.05000	0.010	3.83422	50.00000	Averaged	
23 Acrylonitrile	0.14790	0.14465	0.14465	0.010	2.19615	50.00000	Averaged	
24 Methyl tert-butyl ether	0.97399	0.98072	0.98072	0.010	-0.69150	50.00000	Averaged	
25 trans-1,2-Dichloroethene	0.37881	0.38946	0.38946	0.010	-2.81241	50.00000	Averaged	
26 Hexane	0.08982	0.09472	0.09472	0.010	-5.45521	20.00000	Averaged	
27 Vinyl acetate	0.61488	0.65665	0.65665	0.010	-6.79332	50.00000	Averaged	
28 1,1-Dichloroethane	0.73262	0.77028	0.77028	0.100	-5.14103	50.00000	Averaged	
29 tert-Butyl Alcohol	0.02301	0.02196	0.02196	0.010	4.59237	50.00000	Averaged	
30 2-Butanone	0.17372	0.19203	0.19203	0.010	-10.54095	50.00000	Averaged	
M 31 1,2-Dichloroethene (total)	0.39472	0.39853	0.39853	0.010	-0.96367	50.00000	Averaged	
32 cis-1,2-dichloroethene	0.41064	0.40760	0.40760	0.010	0.74150	50.00000	Averaged	
33 2,2-Dichloropropane	0.35002	0.32875	0.32875	0.010	6.07537	50.00000	Averaged	
34 Bromochloromethane	0.17254	0.17895	0.17895	0.010	-3.71398	50.00000	Averaged	
35 Chloroform	0.64565	0.69408	0.69408	0.010	-7.50084	20.00000	Averaged	
36 Tetrahydrofuran	0.11489	0.11442	0.11442	0.010	0.41349	50.00000	Averaged	
37 1,1,1-Trichloroethane	0.44051	0.44814	0.44814	0.010	-1.73147	50.00000	Averaged	
38 1,1-Dichloropropene	0.54290	0.59578	0.59578	0.010	-9.73985	50.00000	Averaged	
39 Carbon Tetrachloride	0.36961	0.39360	0.39360	0.010	-6.49312	50.00000	Averaged	
40 1,2-Dichloroethane	0.53760	0.58438	0.58438	0.010	-8.70094	50.00000	Averaged	
41 Benzene	1.74891	1.80711	1.80711	0.010	-3.32766	50.00000	Averaged	
42 Trichloroethene	0.36257	0.36725	0.36725	0.010	-1.29339	50.00000	Averaged	
43 1,2-Dichloropropane	0.44850	0.47094	0.47094	0.010	-5.00299	20.00000	Averaged	
44 1,4-Dioxane	0.00326	0.00323	0.00323	0.010	0.86617	50.00000	Averaged	<-
45 Dibromomethane	0.21584	0.22456	0.22456	0.010	-4.03844	50.00000	Averaged	
46 Bromodichloromethane	0.44408	0.49983	0.49983	0.010	-12.55440	50.00000	Averaged	
47 2-Chloroethyl vinyl ether	0.25816	0.25562	0.25562	0.010	0.98376	50.00000	Averaged	

Data File: \\cansvr11\dd\chem\MSV\a3ux11.i\J01027A.b\UXJ3321.D
Report Date: 27-Oct-2010 10:27

TestAmerica North Canton

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: a3ux11.i Injection Date: 27-OCT-2010 09:18
Lab File ID: UXJ3321.D Init. Cal. Date(s): 17-JUN-2010 18-OCT-2010
Analysis Type: WATER Init. Cal. Times: 12:26 10:12
Lab Sample ID: 50NG-CC Quant Type: ISTD
Method: \\cansvr11\dd\chem\MSV\a3ux11.i\J01027A.b\8260LLUX11.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
48 cis-1,3-Dichloropropene	0.59051	0.62071	0.62071	0.010	-5.11414	50.00000	Averaged
49 4-Methyl-2-pentanone	0.34032	0.34395	0.34395	0.010	-1.06742	50.00000	Averaged
50 Toluene	2.48874	2.57430	2.57430	0.010	-3.43770	20.00000	Averaged
51 trans-1,3-Dichloropropene	0.69803	0.75101	0.75101	0.010	-7.59087	50.00000	Averaged
52 Ethyl Methacrylate	0.66154	0.70062	0.70062	0.010	-5.90768	50.00000	Averaged
53 1,1,2-Trichloroethane	0.46069	0.46898	0.46898	0.010	-1.79871	50.00000	Averaged
54 1,3-Dichloropropane	0.91091	0.93188	0.93188	0.010	-2.30245	50.00000	Averaged
55 Tetrachloroethene	0.38855	0.39612	0.39612	0.010	-1.94846	50.00000	Averaged
56 2-Hexanone	0.31878	0.31753	0.31753	0.010	0.39015	50.00000	Averaged
57 Dibromochloromethane	0.39520	0.43979	0.43979	0.010	-11.28213	50.00000	Averaged
58 1,2-Dibromoethane	0.43874	0.44499	0.44499	0.010	-1.42422	50.00000	Averaged
59 Chlorobenzene	1.49509	1.51841	1.51841	0.300	-1.55981	50.00000	Averaged
60 1,1,1,2-Tetrachloroethane	0.45072	0.47210	0.47210	0.010	-4.74313	50.00000	Averaged
61 Ethylbenzene	0.79479	0.82967	0.82967	0.010	-4.38794	20.00000	Averaged
62 m + p-Xylene	1.01777	1.06267	1.06267	0.010	-4.41149	50.00000	Averaged
M 63 Xylenes (total)	0.99452	1.04100	1.04100	0.010	-4.67371	50.00000	Averaged
64 Xylene-o	0.94801	0.99766	0.99766	0.010	-5.23676	50.00000	Averaged
65 Styrene	1.56704	1.64728	1.64728	0.010	-5.12080	50.00000	Averaged
66 Bromoform	0.21311	0.23842	0.23842	0.100	-11.87581	50.00000	Averaged
67 Isopropylbenzene	2.38985	2.57291	2.57291	0.010	-7.65981	50.00000	Averaged
68 1,1,2,2-Tetrachloroethane	1.20141	1.25805	1.25805	0.300	-4.71448	50.00000	Averaged
69 1,4-Dichloro-2-butene	0.29603	0.32924	0.32924	0.010	-11.21740	50.00000	Averaged
70 1,2,3-Trichloropropane	0.34945	0.37256	0.37256	0.010	-6.61164	50.00000	Averaged
71 Bromobenzene	1.13187	1.22530	1.22530	0.010	-8.25404	50.00000	Averaged
72 n-Propylbenzene	1.30565	1.40080	1.40080	0.010	-7.28739	50.00000	Averaged
73 2-Chlorotoluene	1.15803	1.21988	1.21988	0.010	-5.34107	50.00000	Averaged
74 1,3,5-Trimethylbenzene	4.04595	4.39836	4.39836	0.010	-8.71030	50.00000	Averaged
75 4-Chlorotoluene	1.26046	1.31367	1.31367	0.010	-4.22114	50.00000	Averaged
76 tert-Butylbenzene	3.28613	3.49818	3.49818	0.010	-6.45261	50.00000	Averaged
77 1,2,4-Trimethylbenzene	4.24835	4.48370	4.48370	0.010	-5.53981	50.00000	Averaged
78 sec-Butylbenzene	4.98053	5.17081	5.17081	0.010	-3.82048	50.00000	Averaged
79 4-Isopropyltoluene	4.00837	3.78493	3.78493	0.010	5.57428	50.00000	Averaged
80 1,3-Dichlorobenzene	2.29065	2.21345	2.21345	0.010	3.37009	50.00000	Averaged
81 1,4-Dichlorobenzene	2.38986	2.25131	2.25131	0.010	5.79745	50.00000	Averaged
82 n-Butylbenzene	3.81245	2.67196	2.67196	0.010	29.91499	50.00000	Averaged
83 1,2-Dichlorobenzene	2.21848	1.78301	1.78301	0.010	19.62907	50.00000	Averaged
84 1,2-Dibromo-3-chloropropane	0.13059	0.07565	0.07565	0.010	42.07229	50.00000	Averaged
85 1,2,4-Trichlorobenzene	0.68440	0.66551	0.66551	0.010	2.76042	50.00000	Averaged
86 Hexachlorobutadiene	0.28154	0.25731	0.25731	0.010	8.60615	50.00000	Averaged
87 Naphthalene	1.49241	1.56709	1.56709	0.010	-5.00377	50.00000	Averaged
88 1,2,3-Trichlorobenzene	0.59603	0.63457	0.63457	0.010	-6.46701	50.00000	Averaged
98 Cyclohexane	0.67425	0.72026	0.72026	0.010	-6.82374	50.00000	Averaged
143 Methyl Acetate	0.33250	0.32878	0.32878	0.010	1.11871	50.00000	Averaged

Data File: \\cansvr11\dd\chem\MSV\a3ux11.i\J01027A.b\UXJ3321.D
Report Date: 27-Oct-2010 10:27

TestAmerica North Canton

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: a3ux11.i Injection Date: 27-OCT-2010 09:18
Lab File ID: UXJ3321.D Init. Cal. Date(s): 17-JUN-2010 18-OCT-2010
Analysis Type: WATER Init. Cal. Times: 12:26 10:12
Lab Sample ID: 50NG-CC Quant Type: ISTD
Method: \\cansvr11\dd\chem\MSV\a3ux11.i\J01027A.b\8260LLUX11.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
144 Methylcyclohexane	0.58145	0.61477	0.61477	0.010	-5.73103	50.00000	Averaged
141 1,3,5-Trichlorobenzene	1.07138	0.78609	0.78609	0.010	26.62847	50.00000	Averaged
150 Vinyl Acetate-86	0.05821	0.05875	0.05875	0.010	-0.93130	50.00000	Averaged

Data File: \\cansvr11\dd\chem\MSV\a3ux11.i\J01027A.b\UXJ3322.D
Report Date: 27-Oct-2010 09:58

TestAmerica North Canton

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: a3ux11.i Injection Date: 27-OCT-2010 09:41
Lab File ID: UXJ3322.D Init. Cal. Date(s): 17-JUN-2010 18-OCT-2010
Analysis Type: WATER Init. Cal. Times: 12:26 10:12
Lab Sample ID: 50NG-A9CC Quant Type: ISTD
Method: \\cansvr11\dd\chem\MSV\a3ux11.i\J01027A.b\8260LLUX11.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
14 Dichlorofluoromethane	0.34630	0.62110	0.62110	0.010	-79.35285	50.00000	Averaged	<-
89 Ethyl Ether	0.30055	0.35130	0.35130	0.010	-16.88532	50.00000	Averaged	
91 3-Chloropropene	50.00000	60.68122	0.19816	0.010	-21.36245	0.000e+000	Wt Linear	
92 Isopropyl Ether	0.32172	0.33952	0.33952	0.010	-5.53391	50.00000	Averaged	
93 2-Chloro-1,3-butadiene	0.49367	0.63953	0.63953	0.010	-29.54419	50.00000	Averaged	
94 Propionitrile	0.04963	0.05316	0.05316	0.010	-7.12904	50.00000	Averaged	
95 Ethyl Acetate	0.33268	0.37111	0.37111	0.010	-11.55112	50.00000	Averaged	
96 Methacrylonitrile	0.21993	0.25708	0.25708	0.010	-16.89191	50.00000	Averaged	
97 Isobutanol	0.01343	0.01694	0.01694	0.010	-26.11805	50.00000	Averaged	
99 n-Butanol	0.00968	0.01112	0.01112	0.010	-14.78516	50.00000	Averaged	<-
103 Cyclohexanone	0.02580	0.03600	0.03600	0.010	-39.54007	50.00000	Averaged	
100 Methyl Methacrylate	0.29260	0.33636	0.33636	0.010	-14.95686	50.00000	Averaged	
101 2-Nitropropane	100	117	0.07754	0.010	-17.27137	0.000e+000	Wt Linear	
155 t-Butyl ethyl ether	0.95604	1.12888	1.12888	0.010	-18.07897	50.00000	Averaged	
156 t-Amyl methyl ether	0.83740	0.94348	0.94348	0.010	-12.66761	50.00000	Averaged	
157 1,2,3-Trimethylbenzene	3.70153	4.40043	4.40043	0.010	-18.88145	50.00000	Averaged	
146 2-Methylnaphthalene	100	74.74159	0.68836	0.010	25.25841	0.000e+000	Wt Linear	

SW846 8260B METHOD BLANK SUMMARY

BLANK WORKORDER NO.: L895J1AA

Lab Name: TestAmerica Laboratories, Inc.

Lab Code: TALCAN SDG Number: 0J18429

Lab File ID: UXJ3325.D Lot Number: A0J180429

Date Analyzed: 10/27/10 Time Analyzed: 11:01

Matrix: WATER Date Extracted: 10/27/10

GC Column: DB 624 ID: .18 Extraction Method: 5030B

Instrument ID: UX11 Level: (low/med) LOW

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS, LCSD, MS , MSD:

	CLIENT ID.	SAMPLE WORK ORDER #	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	TB-101510	L8MND1AA	UXJ3334.D	10/27/10	15:06
02	MRC-MW93D-101510	L8MNJ1AA	UXJ3335.D	10/27/10	15:28
03	MRC-MW94D-101510	L8MNK1AM	UXJ3336.D	10/27/10	15:51
04	MRC-MW95D-101510	L8MNL1A0	UXJ3337.D	10/27/10	16:14
05	INTRA-LAB QC	L8NCP1AA	UXJ3329.D	10/27/10	12:39
06	LAB MS/MSD	L8NCP1A2 S	UXJ3347.D	10/27/10	20:00
07	LAB MS/MSD	L8NCP1A3 D	UXJ3348.D	10/27/10	20:22
08	CHECK SAMPLE	L895J1AC C	UXJ3323.D	10/27/10	10:04
09	DUPLICATE CHECK	L895J1AD L	UXJ3324.D	10/27/10	10:39
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

COMMENTS:

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: NORTH CANTON Contract:

Lab Code: TALCAN Case No.: SAS No.: SDG No.: 0J18429

Lab File ID: BFB524 BFB Injection Date: 08/03/10

Instrument ID: A3UX16 BFB Injection Time: 1600

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.0
75	30.0 - 60.0% of mass 95	45.8
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 100.0% of mass 95	88.3
175	5.0 - 9.0% of mass 174	6.4 (7.3)1
176	Greater than 95.0%, but less than 101.0% of mass 174	85.7 (97.0)1
177	5.0 - 9.0% of mass 176	5.3 (6.2)2

1-Value is % of mass 174 2-Value is % of mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD040	200NG-IC	UXM7963	08/03/10	1644
02	VSTD020	100NG-IC	UXM7964	08/03/10	1705
03	VSTD010	50NG-IC	UXM7965	08/03/10	1727
04	VSTD005	25NG-IC	UXM7966	08/03/10	1749
05	VSTD002	10NG-IC	UXM7967	08/03/10	1811
06	VSTD001	5NG-IC	UXM7968	08/03/10	1832
07	VSTD040	200NG-A9IC	UXM7970	08/03/10	1916
08	VSTD020	100NG-A9IC	UXM7971	08/03/10	1938
09	VSTD010	50NG-A9IC	UXM7972	08/03/10	1959
10	VSTD005	25NG-A9IC	UXM7973	08/03/10	2021
11	VSTD002	10NG-A9IC	UXM7974	08/03/10	2043
12	VSTD001	5NG-A9IC	UXM7975	08/03/10	2105
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

Report Date : 04-Aug-2010 08:58

TestAmerica North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 03-AUG-2010 16:44
End Cal Date : 03-AUG-2010 21:05
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSV\a3ux16.i\M00803A-IC.b\8260LLUX16.m
Last Edit : 04-Aug-2010 08:59 quayler
Curve Type : Average

Calibration File Names:
Level 1: \\cansvr11\dd\chem\MSV\a3ux16.i\M00803A-IC.b\UXM7975.D
Level 2: \\cansvr11\dd\chem\MSV\a3ux16.i\M00803A-IC.b\UXM7974.D
Level 3: \\cansvr11\dd\chem\MSV\a3ux16.i\M00803A-IC.b\UXM7973.D
Level 4: \\cansvr11\dd\chem\MSV\a3ux16.i\M00803A-IC.b\UXM7972.D
Level 5: \\cansvr11\dd\chem\MSV\a3ux16.i\M00803A-IC.b\UXM7971.D
Level 6: \\cansvr11\dd\chem\MSV\a3ux16.i\M00803A-IC.b\UXM7970.D

	Compound	5.000 Level 1	10.000 Level 2	25.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	RRF	% RSD
8	Dichlorodifluoromethane	0.16587	0.14951	0.18671	0.18976	0.20707	0.22360	0.18709	14.346
9	Chloromethane	0.34811	0.31503	0.31891	0.33855	0.29137	0.30593	0.31965	6.527
10	Vinyl Chloride	0.29593	0.28340	0.30604	0.30367	0.30549	0.30647	0.30017	3.032
11	Bromomethane	0.14146	0.12515	0.13145	0.10936	0.09612	0.07456	0.11302	21.940
12	Chloroethane	0.22302	0.17130	0.16720	0.15527	0.14647	0.13562	0.16648	18.414
13	Trichlorofluoromethane	0.19219	0.17155	0.20525	0.20827	0.21574	0.21701	0.20167	8.551
14	Dichlorofluoromethane	0.39892	0.38754	0.32483	0.33783	0.34290	0.32341	0.35257	9.236
15	Acrolein	0.03507	0.03454	0.03536	0.03583	0.03667	0.03512	0.03543	2.083
16	Acetone	0.10811	0.08454	0.08079	0.08208	0.07605	0.07345	0.08417	14.744
17	1,1-Dichloroethene	0.23779	0.25990	0.25465	0.25077	0.25483	0.25945	0.25290	3.219
18	Freon-113	0.12483	0.16331	0.15236	0.16880	0.17894	0.18220	0.16174	13.018
19	Iodomethane	0.40270	0.42098	0.41968	0.42282	0.41425	0.41721	0.41628	1.752
20	Carbon Disulfide	0.79238	0.83594	0.82953	0.84286	0.84839	0.86014	0.83487	2.794
21	Methylene Chloride	0.53966	0.41181	0.33694	0.31538	0.29383	0.28849	0.36435	26.571
22	Acetonitrile	0.02931	0.02704	0.02813	0.02738	0.02792	0.02598	0.02763	4.066
23	Acrylonitrile	0.07827	0.08238	0.08669	0.08490	0.08461	0.08030	0.08286	3.807
24	Methyl tert-butyl ether	0.40107	0.38966	0.38998	0.38913	0.37094	0.35453	0.38255	4.393
25	trans-1,2-Dichloroethene	0.27676	0.29679	0.28761	0.28399	0.28520	0.28482	0.28586	2.269
26	Hexane	0.03226	0.04464	0.03779	0.04373	0.04730	0.05196	0.04295	16.285
27	Vinyl acetate	0.35171	0.36614	0.37795	0.38176	0.40080	0.40079	0.37986	5.083
28	1,1-Dichloroethane	0.45332	0.47819	0.46358	0.45834	0.46474	0.47002	0.46470	1.880
29	tert-Butyl Alcohol	0.01331	0.01333	0.01319	0.01314	0.01310	0.01194	0.01300	4.069
30	2-Butanone	0.11668	0.10961	0.10749	0.10455	0.10560	0.09823	0.10703	5.692
M 31	1,2-Dichloroethene (total)	0.28426	0.29959	0.28958	0.28745	0.28781	0.28922	0.28965	1.802
32	cis-1,2-dichloroethene	0.29176	0.30239	0.29155	0.29090	0.29042	0.29362	0.29344	1.539
33	2,2-Dichloropropane	0.29731	0.29652	0.29457	0.29883	0.29998	0.29423	0.29691	0.769
34	Bromochloromethane	0.13250	0.13515	0.13292	0.13539	0.13462	0.13547	0.13434	0.972
35	Chloroform	0.44401	0.45246	0.43715	0.43755	0.43622	0.43833	0.44095	1.423

Report Date : 04-Aug-2010 08:58

TestAmerica North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 03-AUG-2010 16:44
End Cal Date : 03-AUG-2010 21:05
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSV\a3ux16.i\M00803A-IC.b\8260LLUX16.m
Last Edit : 04-Aug-2010 08:59 quayler
Curve Type : Average

	Compound	5.000 Level 1	10.000 Level 2	25.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	RRF	% RSD	
	36 Tetrahydrofuran	0.24486	0.14409	0.10426	0.07731	0.07061	0.06375	0.11748	58.735	<-
	37 1,1,1-Trichloroethane	0.35536	0.37709	0.37483	0.37368	0.37791	0.37841	0.37288	2.354	
	38 1,1-Dichloropropene	0.32645	0.34723	0.33658	0.34371	0.34787	0.35666	0.34308	3.040	
	39 Carbon Tetrachloride	0.26448	0.30168	0.29811	0.30822	0.31234	0.32111	0.30099	6.524	
	40 1,2-Dichloroethane	0.33335	0.34992	0.32973	0.32739	0.32946	0.32626	0.33269	2.640	
	41 Benzene	1.17196	1.15482	1.08754	1.08329	1.08733	1.10608	1.11517	3.458	
	42 Trichloroethene	0.27315	0.27787	0.27140	0.27161	0.27477	0.27913	0.27465	1.180	
	43 1,2-Dichloropropane	0.23973	0.24890	0.24028	0.24936	0.25361	0.25852	0.24840	2.968	
	44 1,4-Dioxane	0.00312	0.00298	0.00252	0.00237	0.00235	0.00204	0.00256	15.982	
	45 Dibromomethane	0.13982	0.14506	0.13551	0.13644	0.13818	0.13671	0.13862	2.525	
	46 Bromodichloromethane	0.30397	0.31015	0.30098	0.30893	0.32024	0.32407	0.31139	2.908	
	47 2-Chloroethyl vinyl ether	0.07690	0.07301	0.07401	0.07682	0.07904	0.07913	0.07648	3.311	
	48 cis-1,3-Dichloropropene	0.36012	0.39329	0.38351	0.39606	0.41785	0.43019	0.39684	6.267	
	49 4-Methyl-2-pentanone	0.19553	0.19490	0.20205	0.20000	0.20801	0.19807	0.19976	2.429	
	50 Toluene	1.66646	1.71134	1.63480	1.62235	1.61674	1.60399	1.64261	2.424	
	51 trans-1,3-Dichloropropene	0.45380	0.47756	0.48427	0.49942	0.50619	0.50616	0.48790	4.184	
	52 Ethyl Methacrylate	0.41669	0.46026	0.44001	0.43940	0.44946	0.43800	0.44064	3.281	
	53 1,1,2-Trichloroethane	0.29227	0.30298	0.29550	0.29013	0.28579	0.27597	0.29044	3.146	
	54 1,3-Dichloropropane	0.52504	0.55595	0.51971	0.52016	0.51945	0.51126	0.52526	2.984	
	55 Tetrachloroethene	0.29029	0.30773	0.30454	0.30194	0.30160	0.30325	0.30156	1.972	
	56 2-Hexanone	0.17838	0.17401	0.18345	0.17989	0.18576	0.17013	0.17860	3.257	
	57 Dibromochloromethane	0.28242	0.30120	0.29833	0.30768	0.31525	0.31413	0.30317	4.024	
	58 1,2-Dibromoethane	0.27215	0.29534	0.28341	0.28033	0.28167	0.27124	0.28069	3.128	
	59 Chlorobenzene	1.03863	1.06237	0.99485	0.98775	1.00664	1.00192	1.01536	2.851	
	60 1,1,1,2-Tetrachloroethane	0.36103	0.36445	0.36862	0.36977	0.36449	0.35757	0.36432	1.256	
	61 Ethylbenzene	0.52828	0.55991	0.53536	0.53773	0.54684	0.54352	0.54194	2.016	
	62 m + p-Xylene	0.65483	0.70529	0.66219	0.66653	0.67294	0.67695	0.67312	2.613	
M	63 Xylenes (total)	0.66413	0.70930	0.67489	0.67565	0.67990	0.67589	0.67996	2.252	
	64 Xylene-o	0.68272	0.71734	0.70029	0.69387	0.69381	0.67378	0.69364	2.157	
	65 Styrene	1.07529	1.12437	1.08332	1.09776	1.11497	1.10672	1.10040	1.703	
	66 Bromoform	0.14832	0.16294	0.16910	0.17582	0.18626	0.18675	0.17153	8.589	
	67 Isopropylbenzene	1.64366	1.74160	1.70406	1.69720	1.69879	1.67914	1.69408	1.895	
	68 1,1,2,2-Tetrachloroethane	0.64693	0.70793	0.66835	0.68199	0.66465	0.67284	0.67378	3.019	
	69 1,4-Dichloro-2-butene	0.12309	0.13682	0.13306	0.14451	0.15276	0.15756	0.14130	9.095	
	70 1,2,3-Trichloropropane	0.22173	0.22074	0.20523	0.21405	0.21095	0.21039	0.21385	2.990	
	71 Bromobenzene	0.76083	0.80890	0.76936	0.77528	0.77526	0.81889	0.78475	2.982	

Report Date : 04-Aug-2010 08:58

TestAmerica North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 03-AUG-2010 16:44
End Cal Date : 03-AUG-2010 21:05
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSV\a3ux16.i\M00803A-IC.b\8260LLUX16.m
Last Edit : 04-Aug-2010 08:59 quayler
Curve Type : Average

	Compound	5.000 Level 1	10.000 Level 2	25.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	RRF	% RSD	
72	n-Propylbenzene	0.71872	0.79486	0.77383	0.79033	0.79563	0.84145	0.78580	5.071	
73	2-Chlorotoluene	0.71514	0.73933	0.72718	0.75292	0.73650	0.77294	0.74067	2.730	
74	1,3,5-Trimethylbenzene	2.40822	2.53918	2.48889	2.59463	2.57440	2.75141	2.55946	4.508	
75	4-Chlorotoluene	0.73103	0.74219	0.72106	0.72635	0.73139	0.76864	0.73678	2.321	
76	tert-Butylbenzene	2.00352	2.13089	2.12474	2.23276	2.16102	2.32486	2.16296	5.022	
77	1,2,4-Trimethylbenzene	2.54442	2.62024	2.59061	2.68069	2.63377	2.76841	2.63969	2.942	
78	sec-Butylbenzene	2.48973	2.72205	2.66291	2.82285	2.79726	3.03593	2.75512	6.598	
79	4-Isopropyltoluene	2.12318	2.33682	2.29167	2.41679	2.40873	2.58396	2.36019	6.483	
80	1,3-Dichlorobenzene	1.45256	1.48798	1.42776	1.43962	1.42931	1.46261	1.44997	1.585	
81	1,4-Dichlorobenzene	1.50511	1.51829	1.46185	1.48150	1.46515	1.50194	1.48897	1.545	
82	n-Butylbenzene	1.68287	1.82988	1.81306	1.89744	1.90625	2.08397	1.86891	7.087	
83	1,2-Dichlorobenzene	1.44706	1.51515	1.45738	1.49146	1.43018	1.45707	1.46638	2.126	
84	1,2-Dibromo-3-chloropropane	0.12866	0.13713	0.13607	0.14569	0.14282	0.14300	0.13890	4.490	
85	1,2,4-Trichlorobenzene	0.90222	0.90424	0.93086	0.93910	0.91748	0.91503	0.91816	1.584	
86	Hexachlorobutadiene	0.34725	0.38848	0.38891	0.38861	0.38421	0.39164	0.38152	4.444	
87	Naphthalene	2.24281	2.30154	2.40714	2.45384	2.32204	2.26676	2.33235	3.521	
88	1,2,3-Trichlorobenzene	0.79458	0.79064	0.83610	0.84880	0.81358	0.79958	0.81388	2.923	
89	Ethyl Ether	0.19456	0.20579	0.20322	0.20376	0.20371	0.21143	0.20375	2.669	
90	Ethanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
91	3-Chloropropene	0.13423	0.13356	0.13532	0.13831	0.14608	0.14858	0.13935	4.624	
92	Isopropyl Ether	0.23104	0.24546	0.24045	0.24045	0.24231	0.24839	0.24135	2.452	
93	2-Chloro-1,3-butadiene	0.34669	0.36339	0.36333	0.35495	0.37754	0.37682	0.36378	3.321	
94	Propionitrile	0.02851	0.02770	0.02766	0.02715	0.02875	0.02901	0.02813	2.596	
95	Ethyl Acetate	0.18102	0.20210	0.17961	0.18576	0.18512	0.19083	0.18741	4.382	
96	Methacrylonitrile	0.13821	0.12676	0.13012	0.13518	0.13364	0.13475	0.13311	3.051	
97	Isobutanol	0.01000	0.00839	0.00792	0.00843	0.00872	0.00801	0.00858	8.809	<-
98	Cyclohexane	0.30334	0.37647	0.35329	0.38116	0.40044	0.41814	0.37214	10.820	
99	n-Butanol	0.00696	0.00722	0.00710	0.00800	0.00768	0.00604	0.00717	9.427	<-
100	Methyl Methacrylate	0.19526	0.17392	0.17146	0.17272	0.17351	0.18229	0.17819	5.165	
101	2-Nitropropane	0.04195	0.03968	0.03778	0.03903	0.04064	0.04663	0.04095	7.617	
102	Chloropicrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
103	Cyclohexanone	0.02322	0.02860	0.02805	0.03223	0.03039	0.02754	0.02834	10.748	
104	Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
105	Benzyl Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
134	Thiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
135	Crotononitrile(1st Isomer)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-

Report Date : 04-Aug-2010 08:58

TestAmerica North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 03-AUG-2010 16:44
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Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSV\a3ux16.i\M00803A-IC.b\8260LLUX16.m
Last Edit : 04-Aug-2010 08:59 quayler
Curve Type : Average

	Compound	5.000 Level 1	10.000 Level 2	25.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	RRF	% RSD	
	136 Crotononitrile(2nd Isomer)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
M	137 Total Crotononitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	138 Paraldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	139 3,3,5-Trimethylcyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	140 1-Chlorohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	141 1,3,5-Trichlorobenzene	0.93681	0.97393	0.97204	0.98034	0.96933	1.00048	0.97215	2.123	
	143 Methyl Acetate	0.17715	0.17540	0.17734	0.17469	0.18055	0.16741	0.17542	2.519	
	144 Methylcyclohexane	0.23835	0.30483	0.28989	0.32341	0.34497	0.37111	0.31209	14.806	
	145 Dimethoxymethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	146 2-Methylnaphthalene	0.86198	0.94642	1.00107	1.09495	1.18707	1.12925	1.03679	11.775	
	147 Tetrahydrothiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	148 1,4-Dichlorobutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	149 Vinyl Acetate-86	0.04108	0.03867	0.04346	0.04450	0.04699	0.04663	0.04355	7.410	
	150 1,3-Butadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	151 t-Butyl ethyl ether	0.52464	0.51543	0.51345	0.49325	0.52118	0.48893	0.50948	2.916	
	152 t-Amyl methyl ether	0.45971	0.45931	0.46161	0.44507	0.48405	0.45297	0.46045	2.837	
	153 1,2,3-Trimethylbenzene	2.38208	2.54185	2.56554	2.61518	2.70337	2.77032	2.59639	5.222	
$	4 Dibromofluoromethane	0.22501	0.22614	0.22425	0.21945	0.23551	0.23398	0.22739	2.707	
$	5 1,2-Dichloroethane-d4	0.27507	0.27739	0.27004	0.26008	0.27712	0.27038	0.27168	2.399	
$	6 Toluene-d8	1.37409	1.36945	1.38907	1.30841	1.36567	1.34819	1.35915	2.071	
$	7 Bromofluorobenzene	0.47287	0.47746	0.46384	0.45213	0.46975	0.45752	0.46560	2.061	

Report Date : 04-Aug-2010 09:34

TestAmerica North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 03-AUG-2010 16:44
End Cal Date : 03-AUG-2010 21:05
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSV\a3ux16.i\M00803A-IC.b\8260LLUX16.m
Last Edit : 04-Aug-2010 09:28 a3ux16.i

Calibration File Names:
Level 1: \\cansvr11\dd\chem\MSV\a3ux16.i\M00803A-IC.b\UXM7975.D
Level 2: \\cansvr11\dd\chem\MSV\a3ux16.i\M00803A-IC.b\UXM7974.D
Level 3: \\cansvr11\dd\chem\MSV\a3ux16.i\M00803A-IC.b\UXM7973.D
Level 4: \\cansvr11\dd\chem\MSV\a3ux16.i\M00803A-IC.b\UXM7972.D
Level 5: \\cansvr11\dd\chem\MSV\a3ux16.i\M00803A-IC.b\UXM7971.D
Level 6: \\cansvr11\dd\chem\MSV\a3ux16.i\M00803A-IC.b\UXM7970.D

Compound	5.0000 Level 1	10.0000 Level 2	25.0000 Level 3	50.0000 Level 4	100.0000 Level 5	200.0000 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2
8 Dichlorodifluoromethane	0.16587	0.14951	0.18671	0.18976	0.20707	0.22360	AVRG		0.18709		14.34605
9 Chloromethane	0.34811	0.31503	0.31891	0.33855	0.29137	0.30593	AVRG		0.31965		6.52727
10 Vinyl Chloride	0.29593	0.28340	0.30604	0.30367	0.30549	0.30647	AVRG		0.30017		3.03163
11 Bromomethane	23100	41141	107491	180067	319868	512180	QUAD	0.03889	5.41371	26.23238	0.99944
12 Chloroethane	36417	56315	136727	255644	487419	931664	WLINR	-0.05431	0.14262		0.99559
13 Trichlorofluoromethane	0.19219	0.17155	0.20525	0.20827	0.21574	0.21701	AVRG		0.20167		8.55106
14 Dichlorofluoromethane	0.39892	0.38754	0.32483	0.33783	0.34290	0.32341	AVRG		0.35257		9.23596
15 Acrolein	0.03507	0.03454	0.03536	0.03583	0.03667	0.03512	AVRG		0.03543		2.08281
16 Acetone	0.10811	0.08454	0.08079	0.08208	0.07605	0.07345	AVRG		0.08417		14.74406
17 1,1-Dichloroethene	0.23779	0.25990	0.25465	0.25077	0.25483	0.25945	AVRG		0.25290		3.21885
18 Freon-113	0.12483	0.16331	0.15236	0.16880	0.17894	0.18220	AVRG		0.16174		13.01835
19 Iodomethane	0.40270	0.42098	0.41968	0.42282	0.41425	0.41721	AVRG		0.41628		1.75179
20 Carbon Disulfide	0.79238	0.83594	0.82953	0.84286	0.84839	0.86014	AVRG		0.83487		2.79400
21 Methylene Chloride	88122	135381	275528	519271	977821	1981760	WLINR	-0.08976	0.28456		0.99982

Report Date : 04-Aug-2010 09:34

TestAmerica North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 03-AUG-2010 16:44
End Cal Date : 03-AUG-2010 21:05
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSV\a3ux16.i\M00803A-IC.b\8260LLUX16.m
Last Edit : 04-Aug-2010 09:28 a3ux16.i

	Compound	5.0000 Level 1	10.0000 Level 2	25.0000 Level 3	50.0000 Level 4	100.0000 Level 5	200.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	22 Acetonitrile	0.02931	0.02704	0.02813	0.02738	0.02792	0.02598	AVRG		0.02763		4.06576
	23 Acrylonitrile	0.07827	0.08238	0.08669	0.08490	0.08461	0.08030	AVRG		0.08286		3.80725
	24 Methyl tert-butyl ether	0.40107	0.38966	0.38998	0.38913	0.37094	0.35453	AVRG		0.38255		4.39267
	25 trans-1,2-Dichloroethene	0.27676	0.29679	0.28761	0.28399	0.28520	0.28482	AVRG		0.28586		2.26921
	26 Hexane	5267	14676	30905	71996	157400	356958	WLINR	0.04744	0.05042		0.99425
	27 Vinyl acetate	0.35171	0.36614	0.37795	0.38176	0.40080	0.40079	AVRG		0.37986		5.08331
	28 1,1-Dichloroethane	0.45332	0.47819	0.46358	0.45834	0.46474	0.47002	AVRG		0.46470		1.87967
	29 tert-Butyl Alcohol	0.01331	0.01333	0.01319	0.01314	0.01310	0.01194	AVRG		0.01300		4.06889
	30 2-Butanone	0.11668	0.10961	0.10749	0.10455	0.10560	0.09823	AVRG		0.10703		5.69181
M	31 1,2-Dichloroethene (total)	0.28426	0.29959	0.28958	0.28745	0.28781	0.28922	AVRG		0.28965		1.80227
	32 cis-1,2-dichloroethene	0.29176	0.30239	0.29155	0.29090	0.29042	0.29362	AVRG		0.29344		1.53928
	33 2,2-Dichloropropane	0.29731	0.29652	0.29457	0.29883	0.29998	0.29423	AVRG		0.29691		0.76914
	34 Bromochloromethane	0.13250	0.13515	0.13292	0.13539	0.13462	0.13547	AVRG		0.13434		0.97156
	35 Chloroform	0.44401	0.45246	0.43715	0.43755	0.43622	0.43833	AVRG		0.44095		1.42319
	36 Tetrahydrofuran	39983	47367	85260	127284	234964	437924	WLINR	-0.29515	0.06128		0.99029
	37 1,1,1-Trichloroethane	0.35536	0.37709	0.37483	0.37368	0.37791	0.37841	AVRG		0.37288		2.35392
	38 1,1-Dichloropropene	0.32645	0.34723	0.33658	0.34371	0.34787	0.35666	AVRG		0.34308		3.03992
	39 Carbon Tetrachloride	0.26448	0.30168	0.29811	0.30822	0.31234	0.32111	AVRG		0.30099		6.52359
	40 1,2-Dichloroethane	0.33335	0.34992	0.32973	0.32739	0.32946	0.32626	AVRG		0.33269		2.64039
	41 Benzene	1.17196	1.15482	1.08754	1.08329	1.08733	1.10608	AVRG		1.11517		3.45794
	42 Trichloroethene	0.27315	0.27787	0.27140	0.27161	0.27477	0.27913	AVRG		0.27465		1.17999
	43 1,2-Dichloropropane	0.23973	0.24890	0.24028	0.24936	0.25361	0.25852	AVRG		0.24840		2.96822

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: NORTH CANTON Contract:

Lab Code: TALCAN Case No.: SAS No.: SDG No.: 0J18429

Lab File ID: BFB636 BFB Injection Date: 11/02/10

Instrument ID: A3UX16 BFB Injection Time: 1045

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.1
75	30.0 - 60.0% of mass 95	45.1
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.1
173	Less than 2.0% of mass 174	0.4 (0.5)1
174	50.0 - 100.0% of mass 95	76.7
175	5.0 - 9.0% of mass 174	5.0 (6.6)1
176	Greater than 95.0%, but less than 101.0% of mass 174	73.8 (96.3)1
177	5.0 - 9.0% of mass 176	5.2 (7.0)2

1-Value is % of mass 174 2-Value is % of mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD010	50NG-A9CC	UXM0815	11/02/10	1132
02	VSTD010	50NG-CC	UXM0816	11/02/10	1157
03	L9GKPCHK	L9GKP1AC	UXM0817	11/02/10	1218
04	L9GKPCKDUP	L9GKP1AD	UXM0818	11/02/10	1240
05	L9GKPBLK	L9GKP1AA	UXM0819	11/02/10	1301
06	MRC-MW96D-10	L8WM31AA	UXM0838	11/02/10	1956
07	TB-102010	L8WNP1AA	UXM0839	11/02/10	2017
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M01102A.b\UXM0816.D
Report Date: 02-Nov-2010 13:43

TestAmerica North Canton

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: a3ux16.i
Lab File ID: UXM0816.D
Analysis Type: WATER
Lab Sample ID: 50NG-CC
Method: \\cansvr11\dd\chem\MSV\a3ux16.i\M01102A.b\8260LLUX16.m

Injection Date: 02-NOV-2010 11:57
Init. Cal. Date(s): 03-AUG-2010 31-OCT-2010
Init. Cal. Times: 16:44 14:26
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 4 Dibromofluoromethane	0.22739	0.24235	0.24235	0.010	-6.57932	50.00000	Averaged
$ 5 1,2-Dichloroethane-d4	0.27168	0.25229	0.25229	0.010	7.13838	50.00000	Averaged
$ 6 Toluene-d8	1.35915	1.45058	1.45058	0.010	-6.72744	50.00000	Averaged
$ 7 Bromofluorobenzene	0.46560	0.47260	0.47260	0.010	-1.50492	50.00000	Averaged
8 Dichlorodifluoromethane	0.18709	0.24395	0.24395	0.010	-30.39388	50.00000	Averaged
9 Chloromethane	0.31965	0.38178	0.38178	0.100	-19.43704	50.00000	Averaged
10 Vinyl Chloride	0.30017	0.32420	0.32420	0.010	-8.00732	20.00000	Averaged
11 Bromomethane	50.00000	56.74587	0.12579	0.010	-13.49173	0.000e+000	Quadratic
12 Chloroethane	50.00000	53.55459	0.16051	0.010	-7.10918	0.000e+000	Wt Linear
13 Trichlorofluoromethane	0.20167	0.29155	0.29155	0.010	-44.56739	50.00000	Averaged
15 Acrolein	0.03543	0.03725	0.03725	0.010	-5.14081	50.00000	Averaged
16 Acetone	0.08417	0.05733	0.05733	0.010	31.88848	50.00000	Averaged
17 1,1-Dichloroethene	0.25290	0.28979	0.28979	0.010	-14.58704	20.00000	Averaged
18 Freon-113	0.16174	0.19005	0.19005	0.010	-17.50546	50.00000	Averaged
19 Iodomethane	0.41628	0.40740	0.40740	0.010	2.13120	50.00000	Averaged
20 Carbon Disulfide	0.83487	0.91722	0.91722	0.010	-9.86360	50.00000	Averaged
21 Methylene Chloride	50.00000	58.02272	0.35576	0.010	-16.04544	0.000e+000	Wt Linear
22 Acetonitrile	0.02763	0.02610	0.02610	0.010	5.53319	50.00000	Averaged
23 Acrylonitrile	0.08286	0.08101	0.08101	0.010	2.22652	50.00000	Averaged
24 Methyl tert-butyl ether	0.38255	0.55887	0.55887	0.010	-46.08967	50.00000	Averaged
25 trans-1,2-Dichloroethene	0.28586	0.33240	0.33240	0.010	-16.27976	50.00000	Averaged
26 Hexane	50.00000	54.62738	0.05270	0.010	-9.25475	0.000e+000	Wt Linear
27 Vinyl acetate	0.37986	0.12960	0.12960	0.010	65.88215	50.00000	Averaged <-
28 1,1-Dichloroethane	0.46470	0.52772	0.52772	0.100	-13.56202	50.00000	Averaged
29 tert-Butyl Alcohol	0.01300	0.00875	0.00875	0.010	32.67041	50.00000	Averaged <-
30 2-Butanone	0.10703	0.07743	0.07743	0.010	27.65092	50.00000	Averaged
M 31 1,2-Dichloroethene (total)	0.28965	0.32744	0.32744	0.010	-13.04547	50.00000	Averaged
32 cis-1,2-dichloroethene	0.29344	0.32248	0.32248	0.010	-9.89474	50.00000	Averaged
33 2,2-Dichloropropane	0.29691	0.24262	0.24262	0.010	18.28382	50.00000	Averaged
34 Bromochloromethane	0.13434	0.14425	0.14425	0.010	-7.37605	50.00000	Averaged
35 Chloroform	0.44095	0.48707	0.48707	0.010	-10.45914	20.00000	Averaged
36 Tetrahydrofuran	50.00000	21.72943	0.04472	0.010	56.54113	0.000e+000	Wt Linear
37 1,1,1-Trichloroethane	0.37288	0.37351	0.37351	0.010	-0.16811	50.00000	Averaged
38 1,1-Dichloropropene	0.34308	0.39514	0.39514	0.010	-15.17260	50.00000	Averaged
39 Carbon Tetrachloride	0.30099	0.34010	0.34010	0.010	-12.99169	50.00000	Averaged
40 1,2-Dichloroethane	0.33269	0.32735	0.32735	0.010	1.60362	50.00000	Averaged
41 Benzene	1.11517	1.25130	1.25130	0.010	-12.20743	50.00000	Averaged
42 Trichloroethene	0.27465	0.28771	0.28771	0.010	-4.75472	50.00000	Averaged
43 1,2-Dichloropropane	0.24840	0.28427	0.28427	0.010	-14.44071	20.00000	Averaged
44 1,4-Dioxane	2500	1645	0.00159	0.001	34.18945	0.000e+000	Wt Linear
45 Dibromomethane	0.13862	0.13900	0.13900	0.010	-0.27705	50.00000	Averaged
46 Bromodichloromethane	0.31139	0.32195	0.32195	0.010	-3.39087	50.00000	Averaged
47 2-Chloroethyl vinyl ether	0.07648	0.09198	0.09198	0.010	-20.26311	50.00000	Averaged

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M01102A.b\UXM0816.D
Report Date: 02-Nov-2010 13:43

TestAmerica North Canton

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: a3ux16.i Injection Date: 02-NOV-2010 11:57
Lab File ID: UXM0816.D Init. Cal. Date(s): 03-AUG-2010 31-OCT-2010
Analysis Type: WATER Init. Cal. Times: 16:44 14:26
Lab Sample ID: 50NG-CC Quant Type: ISTD
Method: \\cansvr11\dd\chem\MSV\a3ux16.i\M01102A.b\8260LLUX16.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
48 cis-1,3-Dichloropropene	0.39684	0.34381	0.34381	0.010	13.36146	50.00000	Averaged
49 4-Methyl-2-pentanone	0.19976	0.15593	0.15593	0.010	21.94238	50.00000	Averaged
50 Toluene	1.64261	1.88822	1.88822	0.010	-14.95209	20.00000	Averaged
51 trans-1,3-Dichloropropene	0.48790	0.37136	0.37136	0.010	23.88673	50.00000	Averaged
52 Ethyl Methacrylate	0.44064	0.38546	0.38546	0.010	12.52159	50.00000	Averaged
53 1,1,2-Trichloroethane	0.29044	0.29470	0.29470	0.010	-1.46629	50.00000	Averaged
54 1,3-Dichloropropane	0.52526	0.53468	0.53468	0.010	-1.79338	50.00000	Averaged
55 Tetrachloroethene	0.30156	0.32769	0.32769	0.010	-8.66547	50.00000	Averaged
56 2-Hexanone	0.17860	0.15364	0.15364	0.010	13.97754	50.00000	Averaged
57 Dibromochloromethane	0.30317	0.29696	0.29696	0.010	2.04688	50.00000	Averaged
58 1,2-Dibromoethane	0.28069	0.25068	0.25068	0.010	10.69085	50.00000	Averaged
59 Chlorobenzene	1.01536	1.11780	1.11780	0.300	-10.08859	50.00000	Averaged
60 1,1,1,2-Tetrachloroethane	0.36432	0.39227	0.39227	0.010	-7.67063	50.00000	Averaged
61 Ethylbenzene	0.54194	0.60777	0.60777	0.010	-12.14654	20.00000	Averaged
62 m + p-Xylene	0.67312	0.77365	0.77365	0.010	-14.93481	50.00000	Averaged
M 63 Xylenes (total)	0.67996	0.77110	0.77110	0.010	-13.40351	50.00000	Averaged
64 Xylene-o	0.69364	0.76599	0.76599	0.010	-10.43148	50.00000	Averaged
65 Styrene	1.10040	1.18455	1.18455	0.010	-7.64731	50.00000	Averaged
66 Bromoform	0.17153	0.15607	0.15607	0.100	9.01614	50.00000	Averaged
67 Isopropylbenzene	1.69408	1.84053	1.84053	0.010	-8.64500	50.00000	Averaged
68 1,1,2,2-Tetrachloroethane	0.67378	0.66530	0.66530	0.300	1.25931	50.00000	Averaged
69 1,4-Dichloro-2-butene	0.14130	0.10401	0.10401	0.010	26.38923	50.00000	Averaged
70 1,2,3-Trichloropropane	0.21385	0.18831	0.18831	0.010	11.94349	50.00000	Averaged
71 Bromobenzene	0.78475	0.77376	0.77376	0.010	1.40030	50.00000	Averaged
72 n-Propylbenzene	0.78580	0.87657	0.87657	0.010	-11.55107	50.00000	Averaged
73 2-Chlorotoluene	0.74067	0.82308	0.82308	0.010	-11.12652	50.00000	Averaged
74 1,3,5-Trimethylbenzene	2.55946	2.76901	2.76901	0.010	-8.18751	50.00000	Averaged
75 4-Chlorotoluene	0.73678	0.82551	0.82551	0.010	-12.04393	50.00000	Averaged
76 tert-Butylbenzene	2.16296	2.14780	2.14780	0.010	0.70095	50.00000	Averaged
77 1,2,4-Trimethylbenzene	2.63969	2.85363	2.85363	0.010	-8.10481	50.00000	Averaged
78 sec-Butylbenzene	2.75512	2.99119	2.99119	0.010	-8.56830	50.00000	Averaged
79 4-Isopropyltoluene	2.36019	2.49497	2.49497	0.010	-5.71029	50.00000	Averaged
80 1,3-Dichlorobenzene	1.44997	1.55393	1.55393	0.010	-7.16948	50.00000	Averaged
81 1,4-Dichlorobenzene	1.48897	1.57070	1.57070	0.010	-5.48908	50.00000	Averaged
82 n-Butylbenzene	1.86891	2.02277	2.02277	0.010	-8.23229	50.00000	Averaged
83 1,2-Dichlorobenzene	1.46638	1.52417	1.52417	0.010	-3.94046	50.00000	Averaged
84 1,2-Dibromo-3-chloropropane	0.13890	0.08162	0.08162	0.010	41.23991	50.00000	Averaged
85 1,2,4-Trichlorobenzene	0.91816	0.69368	0.69368	0.010	24.44906	50.00000	Averaged
86 Hexachlorobutadiene	0.38152	0.32761	0.32761	0.010	14.12851	50.00000	Averaged
87 Naphthalene	2.33235	1.26383	1.26383	0.010	45.81320	50.00000	Averaged
88 1,2,3-Trichlorobenzene	0.81388	0.59208	0.59208	0.010	27.25208	50.00000	Averaged
98 Cyclohexane	0.37214	0.47630	0.47630	0.010	-27.98864	50.00000	Averaged
143 Methyl Acetate	0.17542	0.14773	0.14773	0.010	15.78697	50.00000	Averaged

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M01102A.b\UXM0815.D
Report Date: 02-Nov-2010 11:48

TestAmerica North Canton

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: a3ux16.i Injection Date: 02-NOV-2010 11:32
Lab File ID: UXM0815.D Init. Cal. Date(s): 03-AUG-2010 31-OCT-2010
Analysis Type: WATER Init. Cal. Times: 16:44 14:26
Lab Sample ID: 50NG-A9CC Quant Type: ISTD
Method: \\cansvr11\dd\chem\MSV\a3ux16.i\M01102A.b\8260LLUX16.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
14 Dichlorofluoromethane	0.35257	0.43481	0.43481	0.010	-23.32645	50.00000	Averaged	
89 Ethyl Ether	0.20375	0.21370	0.21370	0.010	-4.88478	50.00000	Averaged	
91 3-Chloropropene	0.13935	0.14821	0.14821	0.010	-6.36477	50.00000	Averaged	
92 Isopropyl Ether	0.24135	0.23397	0.23397	0.010	3.05863	50.00000	Averaged	
93 2-Chloro-1,3-butadiene	0.36378	0.39572	0.39572	0.010	-8.77752	50.00000	Averaged	
94 Propionitrile	0.02813	0.02399	0.02399	0.010	14.69697	50.00000	Averaged	
95 Ethyl Acetate	0.18741	0.14068	0.14068	0.010	24.93461	50.00000	Averaged	
96 Methacrylonitrile	0.13311	0.10282	0.10282	0.010	22.75592	50.00000	Averaged	
97 Isobutanol	0.00858	0.00671	0.00671	0.010	21.73626	50.00000	Averaged	<-
99 n-Butanol	0.00717	0.00407	0.00407	0.010	43.24043	50.00000	Averaged	<-
100 Methyl Methacrylate	0.17819	0.12103	0.12103	0.010	32.07852	50.00000	Averaged	
101 2-Nitropropane	0.04095	0.03094	0.03094	0.010	24.45784	50.00000	Averaged	
103 Cyclohexanone	0.02834	0.01558	0.01558	0.010	45.03529	50.00000	Averaged	
146 2-Methylnaphthalene	1.03679	0.31888	0.31888	0.010	69.24338	50.00000	Averaged	<-
151 t-Butyl ethyl ether	0.50948	0.55956	0.55956	0.010	-9.83056	50.00000	Averaged	
152 t-Amyl methyl ether	0.46045	0.42687	0.42687	0.010	7.29325	50.00000	Averaged	
153 1,2,3-Trimethylbenzene	2.59639	2.78504	2.78504	0.010	-7.26583	50.00000	Averaged	

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M01102A.b\UXM0816.D
Report Date: 02-Nov-2010 13:43

TestAmerica North Canton

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: a3ux16.i Injection Date: 02-NOV-2010 11:57
Lab File ID: UXM0816.D Init. Cal. Date(s): 03-AUG-2010 31-OCT-2010
Analysis Type: WATER Init. Cal. Times: 16:44 14:26
Lab Sample ID: 50NG-CC Quant Type: ISTD
Method: \\cansvr11\dd\chem\MSV\a3ux16.i\M01102A.b\8260LLUX16.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
144 Methylcyclohexane	0.31209	0.37937	0.37937	0.010	-21.55561	50.00000	Averaged	
141 1,3,5-Trichlorobenzene	0.97215	0.88510	0.88510	0.010	8.95519	50.00000	Averaged	
149 Vinyl Acetate-86	0.04355	0.01455	0.01455	0.010	66.59331	50.00000	Averaged	<-

SW846 8260B METHOD BLANK SUMMARY

BLANK WORKORDER NO.: L9GKP1AA

Lab Name: TestAmerica Laboratories, Inc.

Lab Code: TALCAN SDG Number: 0J18429

Lab File ID: UXM0819.D Lot Number: A0J210616

Date Analyzed: 11/02/10 Time Analyzed: 13:01

Matrix: WATER Date Extracted: 11/02/10

GC Column: DB624 ID: .18 Extraction Method: 5030B

Instrument ID: UX16 Level: (low/med) LOW

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS, LCSD, MS , MSD:

	CLIENT ID.	SAMPLE WORK ORDER #	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	MRC-MW96D-102010	L8WM31AA	UXM0838.D	11/02/10	19:56
02	TB-102010	L8WNP1AA	UXM0839.D	11/02/10	20:17
03	INTRA-LAB QC	L83MM1AA	UXM0821.D	11/02/10	13:48
04	LAB MS/MSD	L83MM1AC S	UXM0840.D	11/02/10	20:38
05	LAB MS/MSD	L83MM1AD D	UXM0841.D	11/02/10	21:00
06	CHECK SAMPLE	L9GKP1AC C	UXM0817.D	11/02/10	12:18
07	DUPLICATE CHECK	L9GKP1AD L	UXM0818.D	11/02/10	12:40
08					
09					
10					
11					
12					
13					
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30					

COMMENTS:

SW846 8270C CHECK SAMPLE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALCAN SDG No: 0J18429

Lot #: A0J210000 WO #: L8TH51AC
BATCH: 0294035

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	% REC	QC LIMITS REC	QUAL
1,2,4-Trichlorobenzene	20	13	64	25- 110	
Acenaphthene	20	16	81	40- 110	
2,4-Dinitrotoluene	20	18	89	52- 123	
Pyrene	20	17	84	55- 120	
N-Nitrosodi-n-propylamine	20	18	89	37- 121	
1,4-Dichlorobenzene	20	13	66	19- 110	
Pentachlorophenol	20	ND	11*	26- 110	a
Phenol	20	17	86	14- 112	
2-Chlorophenol	20	17	85	27- 110	
4-Chloro-3-methylphenol	20	17	85	39- 110	
4-Nitrophenol	20	16	78	12- 130	

NOTES(S):

a Spiked analyte recovery is outside stated control limits.

* Values outside of QC limits

Spike Recovery: 1 out of 11 outside limits

COMMENTS:

FORM III

SW846 8270C CHECK SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALCAN SDG No: 0J18429

Lot #: A0J210000 WO #: L8TH51AD
BATCH: 0294035

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	% REC	QC LIMITS REC	QUAL
1,2,4-Trichlorobenzene	20	13	63	25 - 110	
Acenaphthene	20	16	81	40 - 110	
2,4-Dinitrotoluene	20	18	88	52 - 123	
Pyrene	20	17	84	55 - 120	
N-Nitrosodi-n-propylamine	20	18	88	37 - 121	
1,4-Dichlorobenzene	20	13	64	19 - 110	
Pentachlorophenol	20	ND	14*	26 - 110	a
Phenol	20	17	86	14 - 112	
2-Chlorophenol	20	17	84	27 - 110	
4-Chloro-3-methylphenol	20	17	85	39 - 110	
4-Nitrophenol	20	16	81	12 - 130	

NOTES(S):

a Spiked analyte recovery is outside stated control limits.

* Values outside of QC limits

Spike Recovery: 1 out of 11 outside limits

COMMENTS:

FORM III

SW846 8270C CHECK SAMPLE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALCAN SDG No: 0J18429

Lot #: A0J270000 WO #: L85ND1AC
BATCH: 0300035

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	% REC	QC LIMITS REC	QUAL
1,2,4-Trichlorobenzene	20	6.8	34	25- 110	
Acenaphthene	20	8.8	44	40- 110	
2,4-Dinitrotoluene	20	14	72	52- 123	
Pyrene	20	12	60	55- 120	
N-Nitrosodi-n-propylamine	20	14	72	37- 121	
1,4-Dichlorobenzene	20	7.4	37	19- 110	
Pentachlorophenol	20	ND	9*	26- 110	a
Phenol	20	14	68	14- 112	
2-Chlorophenol	20	14	68	27- 110	
4-Chloro-3-methylphenol	20	14	69	39- 110	
4-Nitrophenol	20	13	64	12- 130	

NOTES(S):

a Spiked analyte recovery is outside stated control limits.

* Values outside of QC limits

Spike Recovery: 1 out of 11 outside limits

COMMENTS:

FORM III

SW846 8270C CHECK SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALCAN SDG No: 0J18429

Lot #: A0J270000 WO #: L85ND1AD
BATCH: 0300035

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	% REC	QC LIMITS REC	QUAL
1,2,4-Trichlorobenzene	20	7.3	36	25- 110	
Acenaphthene	20	10	52	40- 110	
2,4-Dinitrotoluene	20	14	70	52- 123	
Pyrene	20	12	58	55- 120	
N-Nitrosodi-n-propylamine	20	14	70	37- 121	
1,4-Dichlorobenzene	20	7.9	40	19- 110	
Pentachlorophenol	20	ND	11*	26- 110	a
Phenol	20	13	65	14- 112	
2-Chlorophenol	20	13	67	27- 110	
4-Chloro-3-methylphenol	20	13	64	39- 110	
4-Nitrophenol	20	12	61	12- 130	

NOTES(S):

a Spiked analyte recovery is outside stated control limits.

* Values outside of QC limits

Spike Recovery: 1 out of 11 outside limits

COMMENTS:

FORM III

SW846 8270C SURROGATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALCAN SDG No: 0J18429

Lot #: A0J180429

Extraction: XXI51QL01

	CLIENT ID.	SRG01	SRG02	SRG03	SRG04	SRG05	SRG06	TOT OUT
01	MRC-MW93D-101510	60	56	74	62	60	67	00
02	MRC-MW94D-101510	59	53	84	59	59	67	00
03	MRC-MW95D-101510	69	64	85	73	69	70	00
04	METHOD BLK. L8TH51AA	67	64	88	66	66	54	00
05	LCS L8TH51AC	84	77	94	81	81	84	00
06	LCSD L8TH51AD	83	76	93	79	80	84	00

SURROGATES		QC LIMITS
SRG01	= Nitrobenzene-d5	(27-111)
SRG02	= 2-Fluorobiphenyl	(28-110)
SRG03	= Terphenyl-d14	(37-119)
SRG04	= Phenol-d5	(10-110)
SRG05	= 2-Fluorophenol	(10-110)
SRG06	= 2,4,6-Tribromophenol	(22-120)

\# Column to be used to flag recovery values
* Values outside of required QC Limits
D System monitoring Compound diluted out

FORM II

SW846 8270C SURROGATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALCAN SDG No: 0J18429

Lot #: A0J210616

Extraction: XXI51QL01

	CLIENT ID.	SRG01	SRG02	SRG03	SRG04	SRG05	SRG06	TOT OUT
01	MRC-MW96D-102010	78	69	94	70	68	73	00
02	METHOD BLK. L85ND1AA	69	48	76	63	63	54	00
03	LCS L85ND1AC	72	56	74	68	70	68	00
04	LCSD L85ND1AD	69	53	70	65	66	66	00

SURROGATES		QC LIMITS
SRG01	= Nitrobenzene-d5	(27-111)
SRG02	= 2-Fluorobiphenyl	(28-110)
SRG03	= Terphenyl-d14	(37-119)
SRG04	= Phenol-d5	(10-110)
SRG05	= 2-Fluorophenol	(10-110)
SRG06	= 2,4,6-Tribromophenol	(22-120)

\# Column to be used to flag recovery values
* Values outside of required QC Limits
D System monitoring Compound diluted out

FORM II

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: 0J18429 **Work Order #...:** L8TH51AA **Matrix.....:** WATER
MB Lot-Sample #: A0J210000-035

Prep Date.....: 10/21/10 **Final Wgt/Vol..:** 2 mL
Analysis Date..: 10/27/10 **Prep Batch #...:** 0294035
Dilution Factor: 1 **Initial Wgt/Vol:** 1000 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,4-Dioxane	ND	1.0	ug/L	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	67	(27 - 111)
2-Fluorobiphenyl	64	(28 - 110)
Terphenyl-d14	88	(37 - 119)
Phenol-d5	66	(10 - 110)
2-Fluorophenol	66	(10 - 110)
2,4,6-Tribromophenol	54	(22 - 120)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: 0J18429 **Work Order #...:** L85ND1AA **Matrix.....:** WATER
MB Lot-Sample #: A0J270000-035

Prep Date.....: 10/27/10 **Final Wgt/Vol..:** 2 mL
Analysis Date..: 10/31/10 **Prep Batch #...:** 0300035
Dilution Factor: 1 **Initial Wgt/Vol:** 1000 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,4-Dioxane	ND	1.0	ug/L	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	69	(27 - 111)
2-Fluorobiphenyl	48	(28 - 110)
Terphenyl-d14	76	(37 - 119)
Phenol-d5	63	(10 - 110)
2-Fluorophenol	63	(10 - 110)
2,4,6-Tribromophenol	54	(22 - 120)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: NORTH CANTON Contract:

Lab Code: TACAN Case No.: SAS No.: SDG No.: 0J18429

Lab File ID (Standard): 1SMH1027 Date Analyzed: 10/27/10

Instrument ID: A4HP10 Time Analyzed: 1014

		IS1 (DCB) AREA	#	RT	#	IS2 (NPT) AREA	#	RT	#	IS3 (ANT) AREA	#	RT	#
	12 HOUR STD	282840		3.58		961851		4.48		562370		5.75	
	UPPER LIMIT	565680		4.08		1923702		4.98		1124740		6.25	
	LOWER LIMIT	141420		3.08		480926		3.98		281185		5.25	
	EPA SAMPLE NO.												
01	L8TH5BLK	314188		3.58		1097128		4.47		643156		5.74	
02	L8TH5CHK	246816		3.58		875178		4.47		522744		5.75	
03	L8TH5CKDUP	250412		3.58		882808		4.47		524782		5.75	
04													
05													
06													
07													
08													
09													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: NORTH CANTON Contract:

Lab Code: TACAN Case No.: SAS No.: SDG No.: 0J18429

Lab File ID (Standard): 1SMH1027 Date Analyzed: 10/27/10

Instrument ID: A4HP10 Time Analyzed: 1014

		IS4 (PHN) AREA	#	RT	#	IS5 (CRY) AREA	#	RT	#	IS6 (PRY) AREA	#	RT	#
	12 HOUR STD	969627		6.84		1010038		8.84		809914		10.37	
	UPPER LIMIT	1939254		7.34		2020076		9.34		1619828		10.87	
	LOWER LIMIT	484814		6.34		505019		8.34		404957		9.87	
	EPA SAMPLE NO.												
01	L8TH5BLK	1109143		6.84		1065690		8.83		881224		10.36	
02	L8TH5CHK	881967		6.84		915730		8.83		734795		10.36	
03	L8TH5CKDUP	882589		6.84		908894		8.84		736423		10.37	
04													
05													
06													
07													
08													
09													
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11													
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18													
19													
20													
21													
22													

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: NORTH CANTON Contract:

Lab Code: TACAN Case No.: SAS No.: SDG No.: 0J18429

Lab File ID (Standard): 1SMH1028 Date Analyzed: 10/28/10

Instrument ID: A4HP10 Time Analyzed: 0931

		IS1 (DCB) AREA	#	RT	#	IS2 (NPT) AREA	#	RT	#	IS3 (ANT) AREA	#	RT	#
	12 HOUR STD	280215		3.54		952048		4.44		530851		5.71	
	UPPER LIMIT	560430		4.04		1904096		4.94		1061702		6.21	
	LOWER LIMIT	140108		3.04		476024		3.94		265426		5.21	
	EPA SAMPLE NO.												
01	MRC-MW94D-10	301569		3.54		1079741		4.43		634495		5.70	
02	MRC-MW95D-10	185077		3.54		683383		4.43		406165		5.70	
03	MRC-MW93D-10	255472		3.54		948117		4.43		575914		5.70	
04													
05													
06													
07													
08													
09													
10													
11													
12													
13													
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18													
19													
20													
21													
22													

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: NORTH CANTON Contract:

Lab Code: TACAN Case No.: SAS No.: SDG No.: 0J18429

Lab File ID (Standard): 1SMH1028 Date Analyzed: 10/28/10

Instrument ID: A4HP10 Time Analyzed: 0931

		IS4 (PHN) AREA	#	RT	#	IS5 (CRY) AREA	#	RT	#	IS6 (PRY) AREA	#	RT	#
	12 HOUR STD	886525		6.80		892535		8.81		748414		10.32	
	UPPER LIMIT	1773050		7.30		1785070		9.31		1496828		10.82	
	LOWER LIMIT	443263		6.30		446268		8.31		374207		9.82	
	EPA SAMPLE NO.												
01	MRC-MW94D-10	1096298		6.79		1087500		8.77		922111		10.26	
02	MRC-MW95D-10	701336		6.79		693158		8.77		588135		10.26	
03	MRC-MW93D-10	1015350		6.79		1018121		8.77		870220		10.26	
04													
05													
06													
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21													
22													

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: NORTH CANTON Contract:

Lab Code: TACAN Case No.: SAS No.: SDG No.: 0J18429

Lab File ID (Standard): 9SMH1031 Date Analyzed: 10/31/10

Instrument ID: A4HP9 Time Analyzed: 1023

		IS1(DCB) AREA	#	RT	#	IS2(NPT) AREA	#	RT	#	IS3(ANT) AREA	#	RT	#
	12 HOUR STD	324599		3.80		1263610		4.76		739442		6.06	
	UPPER LIMIT	649198		4.30		2527220		5.26		1478884		6.56	
	LOWER LIMIT	162300		3.30		631805		4.26		369721		5.56	
	EPA SAMPLE NO.												
01	L85NDBLK	328669		3.80		1292576		4.76		772648		6.05	
02	L85NDCHK	318260		3.80		1268351		4.76		782874		6.06	
03	L85NDCKDUP	329197		3.80		1316800		4.76		801067		6.06	
04	MRC-MW96D-10	303392		3.80		1166665		4.76		659918		6.06	
05													
06													
07													
08													
09													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: NORTH CANTON Contract:

Lab Code: TACAN Case No.: SAS No.: SDG No.: 0J18429

Lab File ID (Standard): 9SMH1031 Date Analyzed: 10/31/10

Instrument ID: A4HP9 Time Analyzed: 1023

		IS4 (PHN) AREA	#	RT	#	IS5 (CRY) AREA	#	RT	#	IS6 (PRY) AREA	#	RT	#
	12 HOUR STD	1177815		7.15		1181595		9.09		1001523		10.47	
	UPPER LIMIT	2355630		7.65		2363190		9.59		2003046		10.97	
	LOWER LIMIT	588908		6.65		590798		8.59		500762		9.97	
	EPA SAMPLE NO.												
01	L85NDBLK	1288253		7.14		1257953		9.08		1064144		10.47	
02	L85NDCHK	1286584		7.14		1294719		9.09		1070181		10.47	
03	L85NDCKDUP	1318074		7.14		1319121		9.09		1107406		10.47	
04	MRC-MW96D-10	1113119		7.15		1100593		9.09		984577		10.48	
05													
06													
07													
08													
09													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: NORTH CANTON Contract:

Lab Code: TACAN Case No.: SAS No.: SDG No.: 0J18429

Lab File ID: 1DF1026 DFTPP Injection Date: 10/26/10

Instrument ID: A4HP10 DFTPP Injection Time: 1207

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	41.8
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	43.5
70	Less than 2.0% of mass 69	0.2 (0.5)1
127	25.0 - 75.0% of mass 198	52.0
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 30.0% of mass 198	24.8
365	Greater than 0.75% of mass 198	2.71
441	Present, but less than mass 443	10.3
442	40.0 - 110.0% of mass 198	71.2
443	15.0 - 24.0% of mass 442	14.0 (19.7)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD005	L5	1SMM1026	10/26/10	1227
02	SSTD004	L4	1SM1026	10/26/10	1248
03	SSTD003	L3	1SML1026	10/26/10	1308
04	SSTD002	L2	1SL1026	10/26/10	1328
05	SSTD001	L1	1SLL1026	10/26/10	1347
06	SSTD009	L9	1SHHH1026	10/26/10	1407
07	SSTD008	L8	1SHH1026	10/26/10	1427
08	SSTD007	L7	1SH1026	10/26/10	1447
09	SSTD006	L6	1SMH1026	10/26/10	1507
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

TestAmerica North Canton

INITIAL CALIBRATION DATA

OKmw 10/27/10

Start Cal Date : 26-OCT-2010 12:27
End Cal Date : 26-OCT-2010 21:01
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSS\a4hp10.i\01026a.b\8270C-625.m
Last Edit : 27-Oct-2010 07:09 gruberj
Curve Type : Average

Calibration File Names:
Level 1: \\cansvr11\dd\chem\MSS\a4hp10.i\01026a.b\1SLL1026.D
Level 2: \\cansvr11\dd\chem\MSS\a4hp10.i\01026a.b\1TL1026.D
Level 3: \\cansvr11\dd\chem\MSS\a4hp10.i\01026a.b\1TML1026.D
Level 4: \\cansvr11\dd\chem\MSS\a4hp10.i\01026a.b\1TM1026.D
Level 5: \\cansvr11\dd\chem\MSS\a4hp10.i\01026a.b\1TMM1026.D
Level 6: \\cansvr11\dd\chem\MSS\a4hp10.i\01026a.b\1TMH1026.D
Level 7: \\cansvr11\dd\chem\MSS\a4hp10.i\01026a.b\1TH1026.D
Level 8: \\cansvr11\dd\chem\MSS\a4hp10.i\01026a.b\1THH1026.D
Level 9: \\cansvr11\dd\chem\MSS\a4hp10.i\01026a.b\1THHH1026.D

Compound	0.05000 Level 1	0.25000 Level 2	0.50000 Level 3	1.000 Level 4	2.500 Level 5	5.000 Level 6	RRF	% RSD	
	7.500 Level 7	10.000 Level 8	12.500 Level 9						
198 1,4-Dioxane	+++++	0.58458	0.54472	0.55356	0.50196	0.52420			
	0.53411	0.57778	0.59198				0.55161	5.723	<-
7 N-Nitrosomorpholine	+++++	0.56888	0.56667	0.61263	0.56862	0.60191			
	0.67504	0.68169	0.67390				0.61867	8.243	<-
8 Ethyl methanesulfonate	+++++	0.84252	0.83524	0.86684	0.79885	0.86339			
	0.95694	0.95302	0.93109				0.88099	6.687	<-
9 Pyridine	+++++	1.23279	1.33176	1.32035	1.28104	1.29668			
	1.39678	1.51571	1.50868				1.36047	7.684	<-
10 N-Nitrosodimethylamine	+++++	0.74041	0.79719	0.78365	0.71500	0.70857			
	0.76839	0.83937	0.82047				0.77163	6.184	<-
11 Ethyl methacrylate	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++	+++++	+++++				+++++	+++++	<-
12 3-Chloropropionitrile	+++++	0.75579	0.75353	0.75181	0.72529	0.69291			
	0.72344	0.79103	0.78386				0.74721	4.349	<-
13 Malononitrile	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++	+++++	+++++				+++++	+++++	<-

TestAmerica North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 26-OCT-2010 12:27
End Cal Date : 26-OCT-2010 21:01
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSS\a4hp10.i\01026a.b\8270C-625.m
Last Edit : 27-Oct-2010 07:09 gruberj
Curve Type : Average

Compound	0.05000 Level 1	0.25000 Level 2	0.50000 Level 3	1.000 Level 4	2.500 Level 5	5.000 Level 6	RRF	% RSD	
	7.500 Level 7	10.000 Level 8	12.500 Level 9						
237 3,4-Dichloronitrobenzene	*****	0.18534	0.17479	0.19861	0.22127	0.25182			
	0.25832	0.25290	0.25877				0.22523	15.519	<-
238 Bis(2-hydroxyphehyl)methane	*****	*****	*****	*****	*****	*****			
	*****	*****	*****				*****	*****	<-
239 Bis(4-hydroxyphenyl)methane	*****	*****	*****	*****	*****	*****			
	*****	*****	*****				*****	*****	<-
240 4-Chlorophenol	*****	*****	*****	*****	*****	*****			
	*****	*****	*****				*****	*****	<-
241 2,3-Dichlorophenol	*****	*****	*****	*****	*****	*****			
	*****	*****	*****				*****	*****	<-
242 2,5-Dichlorophenol	*****	*****	*****	*****	*****	*****			
	*****	*****	*****				*****	*****	<-
243 Octachlorostyrene	*****	*****	*****	*****	*****	*****			
	*****	*****	*****				*****	*****	<-
244 Octachlorocyclopentene	*****	*****	*****	*****	*****	*****			
	*****	*****	*****				*****	*****	<-
245 N-methyl-pyrrolidone	*****	*****	*****	*****	*****	*****			
	*****	*****	*****				*****	*****	<-
$ 154 Nitrobenzene-d5	0.36646	0.33009	0.34732	0.35912	0.34574	0.34256			
	0.35614	0.40430	0.39203				0.36042	6.658	
$ 155 2-Fluorobiphenyl	1.30907	1.15757	1.23669	1.24270	1.21993	1.21026			
	1.28094	1.43701	1.38671				1.27565	6.981	

TestAmerica North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 26-OCT-2010 12:27
End Cal Date : 26-OCT-2010 21:01
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSS\a4hp10.i\01026a.b\8270C-625.m
Last Edit : 27-Oct-2010 07:09 gruberj
Curve Type : Average

Compound	0.05000 Level 1	0.25000 Level 2	0.50000 Level 3	1.000 Level 4	2.500 Level 5	5.000 Level 6	RRF	% RSD	
	7.500 Level 7	10.000 Level 8	12.500 Level 9						
$ 156 Terphenyl-d14	0.65525	0.58822	0.60799	0.63167	0.62735	0.61220			
	0.64834	0.72355	0.69718				0.64353	6.762	
$ 157 Phenol-d5	1.43028	1.31120	1.42988	1.47320	1.42243	1.37881			
	1.49866	1.66144	1.58409				1.46555	7.209	
$ 158 2-Fluorophenol	1.20749	1.08952	1.08587	1.14704	1.10173	1.09433			
	1.15987	1.26023	1.24970				1.15509	6.003	
$ 159 2,4,6-Tribromophenol	+++++	0.10127	0.11018	0.12282	0.12675	0.12482			
	0.13300	0.14562	0.13959				0.12551	11.626	<-
$ 186 2-Chlorophenol-d4	+++++	1.04858	1.08149	1.11400	1.11869	1.08825			
	1.16013	1.28641	1.22941				1.14087	7.060	<-
$ 187 1,2-Dichlorobenzene-d4	+++++	0.85388	0.84463	0.86281	0.83467	0.81120			
	0.86008	0.96444	0.91239				0.86801	5.584	<-

Report Date : 27-Oct-2010 07:40

TestAmerica North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 26-OCT-2010 12:27
End Cal Date : 26-OCT-2010 21:01
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSS\a4hp10.i\01026a.b\8270C-625.m
Last Edit : 27-Oct-2010 07:09 gruberj

Calibration File Names:
Level 1: \\cansvr11\dd\chem\MSS\a4hp10.i\01026a.b\1SLL1026.D
Level 2: \\cansvr11\dd\chem\MSS\a4hp10.i\01026a.b\1TL1026.D
Level 3: \\cansvr11\dd\chem\MSS\a4hp10.i\01026a.b\1TML1026.D
Level 4: \\cansvr11\dd\chem\MSS\a4hp10.i\01026a.b\1TM1026.D
Level 5: \\cansvr11\dd\chem\MSS\a4hp10.i\01026a.b\1TMM1026.D
Level 6: \\cansvr11\dd\chem\MSS\a4hp10.i\01026a.b\1TMH1026.D
Level 7: \\cansvr11\dd\chem\MSS\a4hp10.i\01026a.b\1TH1026.D
Level 8: \\cansvr11\dd\chem\MSS\a4hp10.i\01026a.b\1THH1026.D
Level 9: \\cansvr11\dd\chem\MSS\a4hp10.i\01026a.b\1THHH1026.D

Compound	0.0500000 Level 1	0.2500000 Level 2	0.5000000 Level 3	1.0000 Level 4	2.5000 Level 5	5.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	7.5000 Level 7	10.0000 Level 8	12.5000 Level 9									
198 1,4-Dioxane	+++++	0.58458	0.54472	0.55356	0.50196	0.52420						
	0.53411	0.57778	0.59198				AVRG		0.55161		5.72269	<-
7 N-Nitrosomorpholine	+++++	0.56888	0.56667	0.61263	0.56862	0.60191						
	0.67504	0.68169	0.67390				AVRG		0.61867		8.24299	<-
8 Ethyl methanesulfonate	+++++	0.84252	0.83524	0.86684	0.79885	0.86339						
	0.95694	0.95302	0.93109				AVRG		0.88099		6.68741	<-

TestAmerica North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 26-OCT-2010 12:27
End Cal Date : 26-OCT-2010 21:01
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSS\a4hp10.i\01026a.b\8270C-625.m
Last Edit : 27-Oct-2010 07:09 gruberj

Compound	0.0500000 Level 1	0.2500000 Level 2	0.5000000 Level 3	1.0000 Level 4	2.5000 Level 5	5.0000 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2	
	7.5000 Level 7	10.0000 Level 8	12.5000 Level 9									
245 N-methyl-pyrrolidone	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++				AVRG		0.000e+000		0.000e+000	<-
$ 154 Nitrobenzene-d5	0.36646	0.33009	0.34732	0.35912	0.34574	0.34256						
	0.35614	0.40430	0.39203				AVRG		0.36042		6.65842	
$ 155 2-Fluorobiphenyl	1.30907	1.15757	1.23669	1.24270	1.21993	1.21026						
	1.28094	1.43701	1.38671				AVRG		1.27565		6.98101	
$ 156 Terphenyl-d14	0.65525	0.58822	0.60799	0.63167	0.62735	0.61220						
	0.64834	0.72355	0.69718				AVRG		0.64353		6.76229	
$ 157 Phenol-d5	1.43028	1.31120	1.42988	1.47320	1.42243	1.37881						
	1.49866	1.66144	1.58409				AVRG		1.46555		7.20918	
$ 158 2-Fluorophenol	1.20749	1.08952	1.08587	1.14704	1.10173	1.09433						
	1.15987	1.26023	1.24970				AVRG		1.15509		6.00329	
$ 159 2,4,6-Tribromophenol	+++++	0.10127	0.11018	0.12282	0.12675	0.12482						
	0.13300	0.14562	0.13959				AVRG		0.12551		11.62613	<-

TestAmerica North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 26-OCT-2010 12:27
End Cal Date : 26-OCT-2010 21:01
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSS\a4hp10.i\01026a.b\8270C-625.m
Last Edit : 27-Oct-2010 07:09 gruberj

Compound	0.0500000 Level 1	0.2500000 Level 2	0.5000000 Level 3	1.0000 Level 4	2.5000 Level 5	5.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	7.5000 Level 7	10.0000 Level 8	12.5000 Level 9									
$ 186 2-Chlorophenol-d4	+++++	1.04858	1.08149	1.11400	1.11869	1.08825						
	1.16013	1.28641	1.22941				AVRG		1.14087		7.06042	<-
$ 187 1,2-Dichlorobenzene-d4	+++++	0.85388	0.84463	0.86281	0.83467	0.81120						
	0.86008	0.96444	0.91239				AVRG		0.86801		5.58361	<-

TestAmerica North Canton

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: a4hp10.i Injection Date: 26-OCT-2010 15:26
Lab File ID: ICVTCL.D Init. Cal. Date(s): 26-OCT-2010 26-OCT-2010
Analysis Type: Init. Cal. Times: 12:27 21:01
Lab Sample ID: icvtcl Quant Type: ISTD
Method: \\cansvr11\dd\chem\MSS\a4hp10.i\01026a.b\8270C-625.m

COMPOUND	RRF / AMOUNT	RF5	CCAL RRF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
198 1,4-Dioxane	0.55161	0.53140	0.53140	0.010	3.66397	50.00000	Averaged
9 Pyridine	1.36047	1.33968	1.33968	0.010	1.52866	50.00000	Averaged
10 N-Nitrosodimethylamine	0.77163	0.72458	0.72458	0.010	6.09806	50.00000	Averaged
12 3-Chloropropionitrile	0.74721	0.69405	0.69405	0.010	7.11430	50.00000	Averaged
209 Benzaldehyde	0.81557	0.73525	0.73525	0.010	9.84878	50.00000	Averaged
21 Aniline	1.88890	1.88570	1.88570	0.010	0.16923	50.00000	Averaged
22 Phenol	1.55381	1.50296	1.50296	0.010	3.27282	20.00000	Averaged
23 bis(2-Chloroethyl)ether	1.32871	1.20270	1.20270	0.010	9.48388	50.00000	Averaged
24 2-Chlorophenol	1.28732	1.24432	1.24432	0.010	3.33988	50.00000	Averaged
26 1,3-Dichlorobenzene	1.41019	1.35990	1.35990	0.010	3.56598	50.00000	Averaged
27 1,4-Dichlorobenzene	1.39712	1.33220	1.33220	0.010	4.64616	20.00000	Averaged
28 1,2-Dichlorobenzene	1.33897	1.28329	1.28329	0.010	4.15813	50.00000	Averaged
29 Benzyl Alcohol	0.81017	0.78978	0.78978	0.010	2.51612	50.00000	Averaged
30 2-Methylphenol	1.15818	1.13557	1.13557	0.010	1.95228	50.00000	Averaged
31 bis(2-Chloroisopropyl)ether	1.66453	1.52214	1.52214	0.010	8.55443	50.00000	Averaged
37 Acetophenone	1.69279	1.61734	1.61734	0.010	4.45714	50.00000	Averaged
32 N-Nitroso-di-n-propylamine	0.83409	0.80319	0.80319	0.050	3.70466	50.00000	Averaged
192 4-Methylphenol	1.17937	1.15446	1.15446	0.010	2.11171	50.00000	Averaged
34 Hexachloroethane	0.48255	0.46437	0.46437	0.010	3.76724	50.00000	Averaged
35 Nitrobenzene	0.35570	0.34659	0.34659	0.010	2.56003	50.00000	Averaged
41 Isophorone	0.69368	0.68144	0.68144	0.010	1.76406	50.00000	Averaged
42 2-Nitrophenol	5.00000	4.79174	0.17968	0.010	4.16512	0.000e+000	Quadratic
43 2,4-Dimethylphenol	0.33314	0.32576	0.32576	0.010	2.21539	50.00000	Averaged
44 bis(2-Chloroethoxy)methane	0.39028	0.38299	0.38299	0.010	1.86815	50.00000	Averaged
46 2,4-Toluenediamene	5.00000	6.05342	0.10903	0.010	-21.06843	0.000e+000	Quadratic
47 1,3,5-Trichlorobenzene	0.33407	0.31847	0.31847	0.010	4.67089	50.00000	Averaged
48 2,4-Dichlorophenol	0.26437	0.26105	0.26105	0.010	1.25529	20.00000	Averaged
49 Benzoic Acid	10.00000	10.64074	0.24495	0.010	-6.40738	0.000e+000	Quadratic
50 1,2,4-Trichlorobenzene	0.32579	0.31097	0.31097	0.010	4.54764	50.00000	Averaged
51 Naphthalene	1.07933	1.05512	1.05512	0.010	2.24313	50.00000	Averaged
52 4-Chloroaniline	0.42561	0.39347	0.39347	0.010	7.55061	50.00000	Averaged
56 Hexachlorobutadiene	0.16073	0.15186	0.15186	0.010	5.51879	20.00000	Averaged
210 Caprolactam	5.00000	4.99007	0.11263	0.010	0.19865	0.000e+000	Quadratic
57 1,2,3-Trichlorobenzene	0.30123	0.28846	0.28846	0.010	4.24007	50.00000	Averaged
59 4-Chloro-3-Methylphenol	0.26297	0.27266	0.27266	0.010	-3.68605	20.00000	Averaged
62 2-Methylnaphthalene	0.57921	0.56971	0.56971	0.010	1.63967	50.00000	Averaged
63 1-Methylnaphthalene	0.67153	0.65275	0.65275	0.010	2.79540	50.00000	Averaged
64 Hexachlorocyclopentadiene	5.00000	4.75612	0.25773	0.050	4.87759	0.000e+000	Quadratic
66 2,4,6-Trichlorophenol	0.31368	0.31279	0.31279	0.010	0.28545	20.00000	Averaged
67 2,4,5-Trichlorophenol	0.34014	0.34843	0.34843	0.010	-2.43711	50.00000	Averaged
211 1,1'-Biphenyl	1.45400	1.43106	1.43106	0.010	1.57741	50.00000	Averaged
68 1,2,3,5-Tetrachlorobenzene	0.51899	0.49305	0.49305	0.010	4.99841	50.00000	Averaged

TestAmerica North Canton

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: a4hp10.i Injection Date: 26-OCT-2010 15:26
Lab File ID: ICVTCL.D Init. Cal. Date(s): 26-OCT-2010 26-OCT-2010
Analysis Type: Init. Cal. Times: 12:27 21:01
Lab Sample ID: icvtcl Quant Type: ISTD
Method: \\cansvr11\dd\chem\MSS\a4hp10.i\01026a.b\8270C-625.m

COMPOUND	RRF / AMOUNT	RF5	CCAL RRF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
70 2-Chloronaphthalene	1.04647	0.98916	0.98916	0.010	5.47690	50.00000	Averaged
73 2-Nitroaniline	0.27049	0.27585	0.27585	0.010	-1.98043	50.00000	Averaged
74 1,2,3,4-Tetrachlorobenzene	0.47087	0.45228	0.45228	0.010	3.94830	50.00000	Averaged
76 Dimethylphthalate	1.17357	1.16716	1.16716	0.010	0.54640	50.00000	Averaged
78 2,6-Dinitrotoluene	5.00000	4.96501	0.27851	0.010	0.69980	0.000e+000	Quadratic
79 Acenaphthylene	1.74197	1.76711	1.76711	0.010	-1.44340	50.00000	Averaged
80 1,2-Dinitrobenzene	5.00000	4.97376	0.14165	0.010	0.52477	0.000e+000	Quadratic
81 3-Nitroaniline	5.00000	4.92733	0.28528	0.010	1.45348	0.000e+000	Quadratic
82 Acenaphthene	1.12341	1.10339	1.10339	0.010	1.78207	20.00000	Averaged
83 2,4-Dinitrophenol	10.00000	9.90961	0.18050	0.050	0.90390	0.000e+000	Quadratic
85 4-Nitrophenol	5.00000	4.71070	0.12392	0.050	5.78599	0.000e+000	Quadratic
86 Dibenzofuran	1.54491	1.50735	1.50735	0.010	2.43111	50.00000	Averaged
87 2,4-Dinitrotoluene	5.00000	4.91083	0.35315	0.010	1.78336	0.000e+000	Quadratic
91 2,3,5,6-Tetrachlorophenol	5.00000	4.91531	0.27737	0.010	1.69370	0.000e+000	Quadratic
93 Diethylphthalate	1.14710	1.14195	1.14195	0.010	0.44957	50.00000	Averaged
94 Fluorene	1.26967	1.26802	1.26802	0.010	0.13006	50.00000	Averaged
95 4-Chlorophenyl-phenylether	0.57934	0.56968	0.56968	0.010	1.66683	50.00000	Averaged
96 4-Nitroaniline	5.00000	4.87571	0.31372	0.010	2.48580	0.000e+000	Quadratic
98 4,6-Dinitro-2-methylphenol	5.00000	4.85545	0.11138	0.010	2.89101	0.000e+000	Quadratic
99 N-Nitrosodiphenylamine	0.52599	0.52092	0.52092	0.010	0.96342	20.00000	Averaged
100 1,2-Diphenylhydrazine	0.69857	0.68878	0.68878	0.010	1.40110	50.00000	Averaged
106 4-Bromophenyl-phenylether	0.17649	0.17155	0.17155	0.010	2.80092	50.00000	Averaged
107 Hexachlorobenzene	0.17877	0.16573	0.16573	0.010	7.29411	50.00000	Averaged
212 Atrazine	0.10148	0.10601	0.10601	0.010	-4.45775	50.00000	Averaged
111 Pentachlorophenol	10.00000	9.93827	0.12653	0.010	0.61735	20.00000	Quadratic
115 Phenanthrene	1.08207	1.04458	1.04458	0.010	3.46440	50.00000	Averaged
116 Anthracene	1.04221	1.03883	1.03883	0.010	0.32417	50.00000	Averaged
119 Carbazole	0.98936	0.97022	0.97022	0.010	1.93556	50.00000	Averaged
120 Di-n-Butylphthalate	1.05166	1.09443	1.09443	0.010	-4.06748	50.00000	Averaged
123 Fluoranthene	1.05675	1.04718	1.04718	0.010	0.90589	20.00000	Averaged
124 Benzidine	5.00000	4.89777	0.49993	0.010	2.04452	0.000e+000	Quadratic
125 Pyrene	1.09471	1.07918	1.07918	0.010	1.41875	50.00000	Averaged
131 Butylbenzylphthalate	0.43419	0.45253	0.45253	0.010	-4.22478	50.00000	Averaged
133 3,3'-Dimethoxybenzidine	5.00000	4.39626	0.17386	0.010	12.07484	0.000e+000	Quadratic
135 3,3'-Dichlorobenzidine	5.00000	4.95414	0.34076	0.010	0.91723	0.000e+000	Quadratic
136 Benzo(a)Anthracene	1.00777	0.98358	0.98358	0.010	2.40044	50.00000	Averaged
137 Chrysene	0.96156	0.91692	0.91692	0.010	4.64210	50.00000	Averaged
138 4,4'-Methylene bis(o-chloro	5.00000	4.95947	0.16602	0.010	0.81069	0.000e+000	Quadratic
139 bis(2-ethylhexyl)Phthalate	0.61334	0.63844	0.63844	0.010	-4.09126	50.00000	Averaged
140 Di-n-octylphthalate	5.00000	4.91013	1.20272	0.010	1.79747	0.000e+000	Quadratic
141 Benzo(b)fluoranthene	1.05658	1.10593	1.10593	0.010	-4.67080	50.00000	Averaged
142 Benzo(k)fluoranthene	1.17456	1.11965	1.11965	0.010	4.67572	50.00000	Averaged

TestAmerica North Canton

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: a4hp10.i Injection Date: 26-OCT-2010 15:26
Lab File ID: ICVTCL.D Init. Cal. Date(s): 26-OCT-2010 26-OCT-2010
Analysis Type: Init. Cal. Times: 12:27 21:01
Lab Sample ID: icvtcl Quant Type: ISTD
Method: \\cansvr11\dd\chem\MSS\a4hp10.i\01026a.b\8270C-625.m

COMPOUND	RRF / AMOUNT	RF5	CCAL RRF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
146 Benzo(a)pyrene	0.99834	1.01513	1.01513	0.010	-1.68217	20.00000	Averaged
149 Indeno(1,2,3-cd)pyrene	1.03875	1.07408	1.07408	0.010	-3.40128	50.00000	Averaged
150 Dibenz(a,h)anthracene	0.82842	0.91052	0.91052	0.010	-9.91076	50.00000	Averaged
151 Benzo(g,h,i)perylene	0.85645	0.87928	0.87928	0.010	-2.66605	50.00000	Averaged
$ 154 Nitrobenzene-d5	0.36042	0.34197	0.34197	0.010	5.11825	50.00000	Averaged
$ 155 2-Fluorobiphenyl	1.27565	1.22828	1.22828	0.010	3.71357	50.00000	Averaged
$ 156 Terphenyl-d14	0.64353	0.63517	0.63517	0.010	1.29834	50.00000	Averaged
$ 157 Phenol-d5	1.46555	1.40872	1.40872	0.010	3.87821	50.00000	Averaged
$ 158 2-Fluorophenol	1.15509	1.13721	1.13721	0.010	1.54763	50.00000	Averaged
$ 159 2,4,6-Tribromophenol	0.12551	0.12750	0.12750	0.010	-1.58720	50.00000	Averaged
$ 186 2-Chlorophenol-d4	1.14087	1.11708	1.11708	0.010	2.08574	50.00000	Averaged
$ 187 1,2-Dichlorobenzene-d4	0.86801	0.83231	0.83231	0.010	4.11343	50.00000	Averaged
M 195 Cresols, total	2.33755	2.29003	2.29003	0.010	2.03271	50.00000	Averaged
101 Diphenylamine	0.52599	0.52092	0.52092	0.010	0.96342	50.00000	Averaged

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: NORTH CANTON Contract:

Lab Code: TACAN Case No.: SAS No.: SDG No.: 0J18429

Lab File ID: 1DF1027 DFTPP Injection Date: 10/27/10

Instrument ID: A4HP10 DFTPP Injection Time: 0954

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	39.2
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	42.3
70	Less than 2.0% of mass 69	0.1 (0.2)1
127	25.0 - 75.0% of mass 198	52.2
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 30.0% of mass 198	24.8
365	Greater than 0.75% of mass 198	2.59
441	Present, but less than mass 443	10.6
442	40.0 - 110.0% of mass 198	73.8
443	15.0 - 24.0% of mass 442	14.4 (19.5)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD006	L6	1SMH1027	10/27/10	1014
02	L8TH5BLK	L8TH51AA	L8TH51AA	10/27/10	1113
03	L8TH5CHK	L8TH51AC	L8TH51AC	10/27/10	1132
04	L8TH5CKDUP	L8TH51AD	L8TH51AD	10/27/10	1152
05					
06					
07					
08					
09					
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17					
18					
19					
20					
21					
22					

Report Date: 27-Oct-2010 10:09

TestAmerica North Canton

OKMW 10/28/10

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: a4hp10.i
Lab File ID: 1SMH1027.D
Analysis Type:
Lab Sample ID: L6
Method: \\cansvr11\dd\chem\MSS\a4hp10.i\01027a.b\8270C-625.m

Injection Date: 27-OCT-2010 10:14
Init. Cal. Date(s): 26-OCT-2010 26-OCT-2010
Init. Cal. Times: 12:27 21:01
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF5	CCAL RRF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
198 1,4-Dioxane	0.55161	0.53521	0.53521	0.010	2.97386	50.00000	Averaged
9 Pyridine	1.36047	1.28300	1.28300	0.010	5.69489	50.00000	Averaged
10 N-Nitrosodimethylamine	0.77163	0.71783	0.71783	0.010	6.97189	50.00000	Averaged
12 3-Chloropropionitrile	0.74721	0.67771	0.67771	0.010	9.30047	50.00000	Averaged
209 Benzaldehyde	0.81557	0.62619	0.62619	0.010	23.22058	50.00000	Averaged
21 Aniline	1.88890	1.74568	1.74568	0.010	7.58202	50.00000	Averaged
22 Phenol	1.55381	1.43681	1.43681	0.010	7.52980	20.00000	Averaged
23 bis(2-Chloroethyl)ether	1.32871	1.21652	1.21652	0.010	8.44405	50.00000	Averaged
24 2-Chlorophenol	1.28732	1.22054	1.22054	0.010	5.18749	50.00000	Averaged
26 1,3-Dichlorobenzene	1.41019	1.35552	1.35552	0.010	3.87678	50.00000	Averaged
27 1,4-Dichlorobenzene	1.39712	1.34126	1.34126	0.010	3.99761	20.00000	Averaged
28 1,2-Dichlorobenzene	1.33897	1.27050	1.27050	0.010	5.11330	50.00000	Averaged
29 Benzyl Alcohol	0.81017	0.74245	0.74245	0.010	8.35850	50.00000	Averaged
30 2-Methylphenol	1.15818	1.13476	1.13476	0.010	2.02214	50.00000	Averaged
31 bis(2-Chloroisopropyl)ether	1.66453	1.43538	1.43538	0.010	13.76659	50.00000	Averaged
37 Acetophenone	1.69279	1.56316	1.56316	0.010	7.65765	50.00000	Averaged
32 N-Nitroso-di-n-propylamine	0.83409	0.74948	0.74948	0.050	10.14305	50.00000	Averaged
192 4-Methylphenol	1.17937	1.14066	1.14066	0.010	3.28184	50.00000	Averaged
34 Hexachloroethane	0.48255	0.46598	0.46598	0.010	3.43387	50.00000	Averaged
35 Nitrobenzene	0.35570	0.34248	0.34248	0.010	3.71488	50.00000	Averaged
41 Isophorone	0.69368	0.64340	0.64340	0.010	7.24870	50.00000	Averaged
42 2-Nitrophenol	5.00000	4.87692	0.18316	0.010	2.46152	0.000e+000	Quadratic
43 2,4-Dimethylphenol	0.33314	0.32872	0.32872	0.010	1.32737	50.00000	Averaged
44 bis(2-Chloroethoxy)methane	0.39028	0.35928	0.35928	0.010	7.94275	50.00000	Averaged
46 2,4-Toluenediamene	5.00000	6.55597	0.12521	0.010	-31.11931	0.000e+000	Quadratic
47 1,3,5-Trichlorobenzene	0.33407	0.32537	0.32537	0.010	2.60576	50.00000	Averaged
48 2,4-Dichlorophenol	0.26437	0.26509	0.26509	0.010	-0.27155	20.00000	Averaged
49 Benzoic Acid	10.00000	9.73546	0.21974	0.010	2.64535	0.000e+000	Quadratic
50 1,2,4-Trichlorobenzene	0.32579	0.31460	0.31460	0.010	3.43376	50.00000	Averaged
51 Naphthalene	1.07933	1.04596	1.04596	0.010	3.09191	50.00000	Averaged
52 4-Chloroaniline	0.42561	0.42155	0.42155	0.010	0.95313	50.00000	Averaged
56 Hexachlorobutadiene	0.16073	0.15705	0.15705	0.010	2.28896	20.00000	Averaged
210 Caprolactam	5.00000	4.59363	0.10309	0.010	8.12745	0.000e+000	Quadratic
57 1,2,3-Trichlorobenzene	0.30123	0.29111	0.29111	0.010	3.36103	50.00000	Averaged
59 4-Chloro-3-Methylphenol	0.26297	0.25759	0.25759	0.010	2.04591	20.00000	Averaged
62 2-Methylnaphthalene	0.57921	0.55467	0.55467	0.010	4.23609	50.00000	Averaged
63 1-Methylnaphthalene	0.67153	0.63513	0.63513	0.010	5.42045	50.00000	Averaged
64 Hexachlorocyclopentadiene	5.00000	5.24628	0.28767	0.050	-4.92552	0.000e+000	Quadratic
66 2,4,6-Trichlorophenol	0.31368	0.31593	0.31593	0.010	-0.71552	20.00000	Averaged
67 2,4,5-Trichlorophenol	0.34014	0.34795	0.34795	0.010	-2.29415	50.00000	Averaged
211 1,1'-Biphenyl	1.45400	1.42832	1.42832	0.010	1.76589	50.00000	Averaged
68 1,2,3,5-Tetrachlorobenzene	0.51899	0.51055	0.51055	0.010	1.62599	50.00000	Averaged

TestAmerica North Canton

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: a4hp10.i
Lab File ID: 1SMH1027.D
Analysis Type:
Lab Sample ID: L6
Method: \\cansvr11\dd\chem\MSS\a4hp10.i\01027a.b\8270C-625.m

Injection Date: 27-OCT-2010 10:14
Init. Cal. Date(s): 26-OCT-2010 26-OCT-2010
Init. Cal. Times: 12:27 21:01
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF5	CCAL RRF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
70 2-Chloronaphthalene	1.04647	1.01352	1.01352	0.010	3.14856	50.00000	Averaged
73 2-Nitroaniline	0.27049	0.27678	0.27678	0.010	-2.32643	50.00000	Averaged
74 1,2,3,4-Tetrachlorobenzene	0.47087	0.46596	0.46596	0.010	1.04305	50.00000	Averaged
76 Dimethylphthalate	1.17357	1.16323	1.16323	0.010	0.88100	50.00000	Averaged
78 2,6-Dinitrotoluene	5.00000	4.80810	0.26900	0.010	3.83794	0.000e+000	Quadratic
79 Acenaphthylene	1.74197	1.76231	1.76231	0.010	-1.16808	50.00000	Averaged
80 1,2-Dinitrobenzene	5.00000	4.94162	0.14067	0.010	1.16766	0.000e+000	Quadratic
81 3-Nitroaniline	5.00000	5.03623	0.29212	0.010	-0.72462	0.000e+000	Quadratic
82 Acenaphthene	1.12341	1.08569	1.08569	0.010	3.35748	20.00000	Averaged
83 2,4-Dinitrophenol	10.00000	11.21736	0.20972	0.050	-12.17356	0.000e+000	Quadratic
85 4-Nitrophenol	5.00000	4.83315	0.12760	0.050	3.33696	0.000e+000	Quadratic
86 Dibenzofuran	1.54491	1.51109	1.51109	0.010	2.18938	50.00000	Averaged
87 2,4-Dinitrotoluene	5.00000	4.96771	0.35759	0.010	0.64579	0.000e+000	Quadratic
91 2,3,5,6-Tetrachlorophenol	5.00000	4.85174	0.27349	0.010	2.96528	0.000e+000	Quadratic
93 Diethylphthalate	1.14710	1.12441	1.12441	0.010	1.97797	50.00000	Averaged
94 Fluorene	1.26967	1.25631	1.25631	0.010	1.05233	50.00000	Averaged
95 4-Chlorophenyl-phenylether	0.57934	0.56181	0.56181	0.010	3.02548	50.00000	Averaged
96 4-Nitroaniline	5.00000	4.85605	0.31236	0.010	2.87906	0.000e+000	Quadratic
98 4,6-Dinitro-2-methylphenol	5.00000	5.25859	0.12285	0.010	-5.17188	0.000e+000	Quadratic
99 N-Nitrosodiphenylamine	0.52599	0.50166	0.50166	0.010	4.62591	20.00000	Averaged
100 1,2-Diphenylhydrazine	0.69857	0.67496	0.67496	0.010	3.37928	50.00000	Averaged
106 4-Bromophenyl-phenylether	0.17649	0.17130	0.17130	0.010	2.94332	50.00000	Averaged
107 Hexachlorobenzene	0.17877	0.16778	0.16778	0.010	6.14487	50.00000	Averaged
212 Atrazine	0.10148	0.10289	0.10289	0.010	-1.38776	50.00000	Averaged
111 Pentachlorophenol	10.00000	9.88252	0.12575	0.010	1.17482	20.00000	Quadratic
115 Phenanthrene	1.08207	1.02859	1.02859	0.010	4.94256	50.00000	Averaged
116 Anthracene	1.04221	1.02261	1.02261	0.010	1.88065	50.00000	Averaged
119 Carbazole	0.98936	0.95170	0.95170	0.010	3.80648	50.00000	Averaged
120 Di-n-Butylphthalate	1.05166	1.06876	1.06876	0.010	-1.62590	50.00000	Averaged
123 Fluoranthene	1.05675	1.04215	1.04215	0.010	1.38179	20.00000	Averaged
124 Benzidine	5.00000	4.45774	0.44930	0.010	10.84528	0.000e+000	Quadratic
125 Pyrene	1.09471	1.08689	1.08689	0.010	0.71429	50.00000	Averaged
131 Butylbenzylphthalate	0.43419	0.43324	0.43324	0.010	0.21832	50.00000	Averaged
133 3,3'-Dimethoxybenzidine	5.00000	4.47408	0.17722	0.010	10.51841	0.000e+000	Quadratic
135 3,3'-Dichlorobenzidine	5.00000	4.93353	0.33924	0.010	1.32934	0.000e+000	Quadratic
136 Benzo(a)Anthracene	1.00777	0.98211	0.98211	0.010	2.54579	50.00000	Averaged
137 Chrysene	0.96156	0.94135	0.94135	0.010	2.10173	50.00000	Averaged
138 4,4'-Methylene bis(o-chloro	5.00000	4.87510	0.16298	0.010	2.49797	0.000e+000	Quadratic
139 bis(2-ethylhexyl)Phthalate	0.61334	0.61797	0.61797	0.010	-0.75524	50.00000	Averaged
140 Di-n-octylphthalate	5.00000	4.77684	1.16705	0.010	4.46315	0.000e+000	Quadratic
141 Benzo(b)fluoranthene	1.05658	1.08141	1.08141	0.010	-2.35004	50.00000	Averaged
142 Benzo(k)fluoranthene	1.17456	1.20327	1.20327	0.010	-2.44397	50.00000	Averaged

TestAmerica North Canton

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: a4hp10.i
Lab File ID: 1SMH1027.D
Analysis Type:
Lab Sample ID: L6
Method: \\cansvr11\dd\chem\MSS\a4hp10.i\01027a.b\8270C-625.m

Injection Date: 27-OCT-2010 10:14
Init. Cal. Date(s): 26-OCT-2010 26-OCT-2010
Init. Cal. Times: 12:27 21:01
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF5	CCAL RRF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
146 Benzo(a)pyrene	0.99834	1.03659	1.03659	0.010	-3.83096	20.00000	Averaged
149 Indeno(1,2,3-cd)pyrene	1.03875	1.07402	1.07402	0.010	-3.39484	50.00000	Averaged
150 Dibenz(a,h)anthracene	0.82842	0.91137	0.91137	0.010	-10.01288	50.00000	Averaged
151 Benzo(g,h,i)perylene	0.85645	0.87803	0.87803	0.010	-2.52033	50.00000	Averaged
$ 154 Nitrobenzene-d5	0.36042	0.33744	0.33744	0.010	6.37541	50.00000	Averaged
$ 155 2-Fluorobiphenyl	1.27565	1.21617	1.21617	0.010	4.66262	50.00000	Averaged
$ 156 Terphenyl-d14	0.64353	0.62360	0.62360	0.010	3.09589	50.00000	Averaged
$ 157 Phenol-d5	1.46555	1.39615	1.39615	0.010	4.73553	50.00000	Averaged
$ 158 2-Fluorophenol	1.15509	1.11635	1.11635	0.010	3.35387	50.00000	Averaged
$ 159 2,4,6-Tribromophenol	0.12551	0.13115	0.13115	0.010	-4.49947	50.00000	Averaged
$ 186 2-Chlorophenol-d4	1.14087	1.07764	1.07764	0.010	5.54222	50.00000	Averaged
$ 187 1,2-Dichlorobenzene-d4	0.86801	0.82602	0.82602	0.010	4.83764	50.00000	Averaged
M 195 Cresols, total	2.33755	2.27542	2.27542	0.010	2.65769	50.00000	Averaged
101 Diphenylamine	0.52599	0.50166	0.50166	0.010	4.62591	50.00000	Averaged

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: NORTH CANTON Contract:

Lab Code: TACAN Case No.: SAS No.: SDG No.: 0J18429

Lab File ID: 1DF1028 DFTPP Injection Date: 10/28/10

Instrument ID: A4HP10 DFTPP Injection Time: 0903

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	45.7
68	Less than 2.0% of mass 69	0.3 (0.6)1
69	Mass 69 relative abundance	45.8
70	Less than 2.0% of mass 69	0.2 (0.4)1
127	25.0 - 75.0% of mass 198	54.4
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.0
275	10.0 - 30.0% of mass 198	23.5
365	Greater than 0.75% of mass 198	2.55
441	Present, but less than mass 443	10.1
442	40.0 - 110.0% of mass 198	70.0
443	15.0 - 24.0% of mass 442	13.4 (19.1)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD006	L6	1SMH1028	10/28/10	0931
02	MRC-MW94D-10	L8MNK1CL	L8MNK1CL	10/28/10	1326
03	MRC-MW95D-10	L8MNL1CL	L8MNL1CL	10/28/10	1621
04	MRC-MW93D-10	L8MNJ1CL	L8MNJ1CL	10/28/10	1641
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TestAmerica North Canton

OKMW 11/3/10

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: a4hp10.i
Lab File ID: 1SMH1028.D
Analysis Type:
Lab Sample ID:
Method: \\cansvr11\dd\chem\MSS\a4hp10.i\01028a.b\8270C-625.m

Injection Date: 28-OCT-2010 09:31
Init. Cal. Date(s): 26-OCT-2010 26-OCT-2010
Init. Cal. Times: 12:27 21:01
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF5	CCAL RRF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
198 1,4-Dioxane	0.55161	0.66082	0.66082	0.010	-19.79749	50.00000	Averaged
9 Pyridine	1.36047	1.62457	1.62457	0.010	-19.41214	50.00000	Averaged
10 N-Nitrosodimethylamine	0.77163	0.89065	0.89065	0.010	-15.42463	50.00000	Averaged
12 3-Chloropropionitrile	0.74721	0.84874	0.84874	0.010	-13.58830	50.00000	Averaged
209 Benzaldehyde	0.81557	0.73199	0.73199	0.010	10.24797	50.00000	Averaged
21 Aniline	1.88890	1.94543	1.94543	0.010	-2.99276	50.00000	Averaged
22 Phenol	1.55381	1.65466	1.65466	0.010	-6.49067	20.00000	Averaged
23 bis(2-Chloroethyl)ether	1.32871	1.40172	1.40172	0.010	-5.49478	50.00000	Averaged
24 2-Chlorophenol	1.28732	1.32287	1.32287	0.010	-2.76156	50.00000	Averaged
26 1,3-Dichlorobenzene	1.41019	1.41688	1.41688	0.010	-0.47406	50.00000	Averaged
27 1,4-Dichlorobenzene	1.39712	1.37989	1.37989	0.010	1.23270	20.00000	Averaged
28 1,2-Dichlorobenzene	1.33897	1.33339	1.33339	0.010	0.41664	50.00000	Averaged
29 Benzyl Alcohol	0.81017	0.69333	0.69333	0.010	14.42097	50.00000	Averaged
30 2-Methylphenol	1.15818	1.23496	1.23496	0.010	-6.62886	50.00000	Averaged
31 bis(2-Chloroisopropyl)ether	1.66453	1.69843	1.69843	0.010	-2.03681	50.00000	Averaged
37 Acetophenone	1.69279	1.68787	1.68787	0.010	0.29074	50.00000	Averaged
32 N-Nitroso-di-n-propylamine	0.83409	0.84065	0.84065	0.050	-0.78756	50.00000	Averaged
192 4-Methylphenol	1.17937	1.17037	1.17037	0.010	0.76297	50.00000	Averaged
34 Hexachloroethane	0.48255	0.48151	0.48151	0.010	0.21504	50.00000	Averaged
35 Nitrobenzene	0.35570	0.37850	0.37850	0.010	-6.41150	50.00000	Averaged
41 Isophorone	0.69368	0.71387	0.71387	0.010	-2.90999	50.00000	Averaged
42 2-Nitrophenol	5.00000	4.92567	0.18516	0.010	1.48666	0.000e+000	Quadratic
43 2,4-Dimethylphenol	0.33314	0.34403	0.34403	0.010	-3.26857	50.00000	Averaged
44 bis(2-Chloroethoxy)methane	0.39028	0.39509	0.39509	0.010	-1.23264	50.00000	Averaged
46 2,4-Toluenediamene	5.00000	5.21664	0.08729	0.010	-4.33290	0.000e+000	Quadratic
47 1,3,5-Trichlorobenzene	0.33407	0.32754	0.32754	0.010	1.95581	50.00000	Averaged
48 2,4-Dichlorophenol	0.26437	0.26477	0.26477	0.010	-0.15245	20.00000	Averaged
49 Benzoic Acid	10.00000	9.99697	0.22699	0.010	0.03029	0.000e+000	Quadratic
50 1,2,4-Trichlorobenzene	0.32579	0.31189	0.31189	0.010	4.26594	50.00000	Averaged
51 Naphthalene	1.07933	1.05875	1.05875	0.010	1.90742	50.00000	Averaged
52 4-Chloroaniline	0.42561	0.42170	0.42170	0.010	0.91836	50.00000	Averaged
56 Hexachlorobutadiene	0.16073	0.14953	0.14953	0.010	6.96541	20.00000	Averaged
210 Caprolactam	5.00000	4.95715	0.11184	0.010	0.85695	0.000e+000	Quadratic
57 1,2,3-Trichlorobenzene	0.30123	0.28538	0.28538	0.010	5.26414	50.00000	Averaged
59 4-Chloro-3-Methylphenol	0.26297	0.26383	0.26383	0.010	-0.32826	20.00000	Averaged
62 2-Methylnaphthalene	0.57921	0.55402	0.55402	0.010	4.34848	50.00000	Averaged
63 1-Methylnaphthalene	0.67153	0.63846	0.63846	0.010	4.92347	50.00000	Averaged
64 Hexachlorocyclopentadiene	5.00000	4.91756	0.26754	0.050	1.64872	0.000e+000	Quadratic
66 2,4,6-Trichlorophenol	0.31368	0.32136	0.32136	0.010	-2.44655	20.00000	Averaged
67 2,4,5-Trichlorophenol	0.34014	0.34812	0.34812	0.010	-2.34625	50.00000	Averaged
211 1,1'-Biphenyl	1.45400	1.50355	1.50355	0.010	-3.40793	50.00000	Averaged
68 1,2,3,5-Tetrachlorobenzene	0.51899	0.52106	0.52106	0.010	-0.39796	50.00000	Averaged

TestAmerica North Canton

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: a4hp10.i
Lab File ID: 1SMH1028.D
Analysis Type:
Lab Sample ID:
Method: \\cansvr11\dd\chem\MSS\a4hp10.i\01028a.b\8270C-625.m

Injection Date: 28-OCT-2010 09:31
Init. Cal. Date(s): 26-OCT-2010 26-OCT-2010
Init. Cal. Times: 12:27 21:01
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF5	CCAL RRF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
70 2-Chloronaphthalene	1.04647	1.05444	1.05444	0.010	-0.76114	50.00000	Averaged
73 2-Nitroaniline	0.27049	0.29429	0.29429	0.010	-8.79675	50.00000	Averaged
74 1,2,3,4-Tetrachlorobenzene	0.47087	0.47002	0.47002	0.010	0.18045	50.00000	Averaged
76 Dimethylphthalate	1.17357	1.19958	1.19958	0.010	-2.21630	50.00000	Averaged
78 2,6-Dinitrotoluene	5.00000	4.95987	0.27820	0.010	0.80266	0.000e+000	Quadratic
79 Acenaphthylene	1.74197	1.82038	1.82038	0.010	-4.50114	50.00000	Averaged
80 1,2-Dinitrobenzene	5.00000	5.06873	0.14456	0.010	-1.37458	0.000e+000	Quadratic
81 3-Nitroaniline	5.00000	5.04688	0.29279	0.010	-0.93752	0.000e+000	Quadratic
82 Acenaphthene	1.12341	1.14213	1.14213	0.010	-1.66616	20.00000	Averaged
83 2,4-Dinitrophenol	10.00000	12.09294	0.22940	0.050	-20.92942	0.000e+000	Quadratic
85 4-Nitrophenol	5.00000	5.57496	0.15019	0.050	-11.49923	0.000e+000	Quadratic
86 Dibenzofuran	1.54491	1.53968	1.53968	0.010	0.33886	50.00000	Averaged
87 2,4-Dinitrotoluene	5.00000	5.01521	0.36130	0.010	-0.30412	0.000e+000	Quadratic
91 2,3,5,6-Tetrachlorophenol	5.00000	4.67718	0.26285	0.010	6.45633	0.000e+000	Quadratic
93 Diethylphthalate	1.14710	1.14917	1.14917	0.010	-0.18060	50.00000	Averaged
94 Fluorene	1.26967	1.27227	1.27227	0.010	-0.20423	50.00000	Averaged
95 4-Chlorophenyl-phenylether	0.57934	0.56854	0.56854	0.010	1.86423	50.00000	Averaged
96 4-Nitroaniline	5.00000	4.93196	0.31761	0.010	1.36086	0.000e+000	Quadratic
98 4,6-Dinitro-2-methylphenol	5.00000	5.60287	0.13273	0.010	-12.05735	0.000e+000	Quadratic
99 N-Nitrosodiphenylamine	0.52599	0.51695	0.51695	0.010	1.71785	20.00000	Averaged
100 1,2-Diphenylhydrazine	0.69857	0.74912	0.74912	0.010	-7.23691	50.00000	Averaged
106 4-Bromophenyl-phenylether	0.17649	0.17613	0.17613	0.010	0.20427	50.00000	Averaged
107 Hexachlorobenzene	0.17877	0.17228	0.17228	0.010	3.62826	50.00000	Averaged
212 Atrazine	0.10148	0.10808	0.10808	0.010	-6.50172	50.00000	Averaged
111 Pentachlorophenol	10.00000	9.89918	0.12598	0.010	1.00824	20.00000	Quadratic
115 Phenanthrene	1.08207	1.07018	1.07018	0.010	1.09839	50.00000	Averaged
116 Anthracene	1.04221	1.07135	1.07135	0.010	-2.79537	50.00000	Averaged
119 Carbazole	0.98936	0.99568	0.99568	0.010	-0.63797	50.00000	Averaged
120 Di-n-Butylphthalate	1.05166	1.13194	1.13194	0.010	-7.63343	50.00000	Averaged
123 Fluoranthene	1.05675	1.06258	1.06258	0.010	-0.55170	20.00000	Averaged
124 Benzidine	5.00000	4.77778	0.48609	0.010	4.44430	0.000e+000	Quadratic
125 Pyrene	1.09471	1.12497	1.12497	0.010	-2.76436	50.00000	Averaged
131 Butylbenzylphthalate	0.43419	0.45207	0.45207	0.010	-4.11919	50.00000	Averaged
133 3,3'-Dimethoxybenzidine	5.00000	3.80135	0.14804	0.010	23.97310	0.000e+000	Quadratic
135 3,3'-Dichlorobenzidine	5.00000	5.12702	0.35360	0.010	-2.54034	0.000e+000	Quadratic
136 Benzo(a)Anthracene	1.00777	1.01496	1.01496	0.010	-0.71404	50.00000	Averaged
137 Chrysene	0.96156	0.97619	0.97619	0.010	-1.52105	50.00000	Averaged
138 4,4'-Methylene bis(o-chloro	5.00000	4.72733	0.15767	0.010	5.45348	0.000e+000	Quadratic
139 bis(2-ethylhexyl)Phthalate	0.61334	0.64723	0.64723	0.010	-5.52564	50.00000	Averaged
140 Di-n-octylphthalate	5.00000	4.95513	1.21479	0.010	0.89737	0.000e+000	Quadratic
141 Benzo(b)fluoranthene	1.05658	1.09147	1.09147	0.010	-3.30256	50.00000	Averaged
142 Benzo(k)fluoranthene	1.17456	1.17196	1.17196	0.010	0.22142	50.00000	Averaged

TestAmerica North Canton

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: a4hp10.i
Lab File ID: 1SMH1028.D
Analysis Type:
Lab Sample ID:
Method: \\cansvr11\dd\chem\MSS\a4hp10.i\01028a.b\8270C-625.m

Injection Date: 28-OCT-2010 09:31
Init. Cal. Date(s): 26-OCT-2010 26-OCT-2010
Init. Cal. Times: 12:27 21:01
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF5	CCAL RRF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
146 Benzo(a)pyrene	0.99834	1.05138	1.05138	0.010	-5.31288	20.00000	Averaged
149 Indeno(1,2,3-cd)pyrene	1.03875	1.09866	1.09866	0.010	-5.76742	50.00000	Averaged
150 Dibenz(a,h)anthracene	0.82842	0.93108	0.93108	0.010	-12.39281	50.00000	Averaged
151 Benzo(g,h,i)perylene	0.85645	0.89659	0.89659	0.010	-4.68738	50.00000	Averaged
$ 154 Nitrobenzene-d5	0.36042	0.36561	0.36561	0.010	-1.44027	50.00000	Averaged
$ 155 2-Fluorobiphenyl	1.27565	1.28247	1.28247	0.010	-0.53472	50.00000	Averaged
$ 156 Terphenyl-d14	0.64353	0.65260	0.65260	0.010	-1.40951	50.00000	Averaged
$ 157 Phenol-d5	1.46555	1.54541	1.54541	0.010	-5.44922	50.00000	Averaged
$ 158 2-Fluorophenol	1.15509	1.27284	1.27284	0.010	-10.19390	50.00000	Averaged
$ 159 2,4,6-Tribromophenol	0.12551	0.12469	0.12469	0.010	0.64725	50.00000	Averaged
$ 186 2-Chlorophenol-d4	1.14087	1.16197	1.16197	0.010	-1.84971	50.00000	Averaged
$ 187 1,2-Dichlorobenzene-d4	0.86801	0.84393	0.84393	0.010	2.77395	50.00000	Averaged
M 195 Cresols, total	2.33755	2.40532	2.40532	0.010	-2.89945	50.00000	Averaged
101 Diphenylamine	0.52599	0.51695	0.51695	0.010	1.71785	50.00000	Averaged

SW846 8270C METHOD BLANK SUMMARY

BLANK WORKORDER NO.: L8TH51AA

Lab Name: TestAmerica Laboratories, Inc.

Lab Code: TALCAN

SDG Number: 0J18429

Lab File ID: L8TH51AA.

Lot Number: A0J180429

Date Analyzed: 10/27/10

Time Analyzed: 11:13

Matrix: WATER

Date Extracted: 10/21/10

GC Column: DB-5MS ID: .18

Extraction Method: 3520C

Instrument ID: HP10

Level: (low/med) LOW

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS, LCSD, MS , MSD:

	CLIENT ID.	SAMPLE WORK ORDER #	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	MRC-MW93D-101510	L8MNJ1CL	L8MNJ1CL.	10/28/10	16:41
02	MRC-MW94D-101510	L8MNK1CL	L8MNK1CL.	10/28/10	13:26
03	MRC-MW95D-101510	L8MNL1CL	L8MNL1CL.	10/28/10	16:21
04	CHECK SAMPLE	L8TH51AC C	L8TH51AC.	10/27/10	11:32
05	DUPLICATE CHECK	L8TH51AD L	L8TH51AD.	10/27/10	11:52
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COMMENTS:

FORM IV

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: NORTH CANTON Contract:

Lab Code: TACAN Case No.: SAS No.: SDG No.: 0J18429

Lab File ID: 9DF1028 DFTPP Injection Date: 10/28/10

Instrument ID: A4HP9 DFTPP Injection Time: 0954

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	37.5
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	57.9
70	Less than 2.0% of mass 69	0.3 (0.5)1
127	25.0 - 75.0% of mass 198	56.3
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 30.0% of mass 198	23.2
365	Greater than 0.75% of mass 198	3.04
441	Present, but less than mass 443	12.3
442	40.0 - 110.0% of mass 198	78.8
443	15.0 - 24.0% of mass 442	14.9 (18.9)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD006	L6	9SMH1028	10/28/10	1011
02	SSTD005	L5	9SMM1028	10/28/10	1031
03	SSTD004	L4	9SM1028	10/28/10	1051
04	SSTD003	L3	9SML1028	10/28/10	1110
05	SSTD002	L2	9SL1028	10/28/10	1130
06	SSTD001	L1	9SLL1028	10/28/10	1150
07	SSTD008	L8	9SHH1028	10/28/10	1230
08	SSTD009	L9	9HHH1028	10/28/10	1250
09	SSTD007	L7	9SH1028	10/28/10	1311
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TestAmerica North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 28-OCT-2010 10:11
End Cal Date : 28-OCT-2010 13:11
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSS\a4hp9.i\01028a.b\8270c-625.m
Last Edit : 28-Oct-2010 13:34 ulmanm
Curve Type : Average

Calibration File Names:
Level 1: \\cansvr11\dd\chem\MSS\a4hp9.i\01028a.b\9SLL1028.D
Level 2: \\cansvr11\dd\chem\MSS\a4hp9.i\01028a.b\9SL1028.D
Level 3: \\cansvr11\dd\chem\MSS\a4hp9.i\01028a.b\9SML1028.D
Level 4: \\cansvr11\dd\chem\MSS\a4hp9.i\01028a.b\9SM1028.D
Level 5: \\cansvr11\dd\chem\MSS\a4hp9.i\01028a.b\9SMM1028.D
Level 6: \\cansvr11\dd\chem\MSS\a4hp9.i\01028a.b\9SMH1028.D
Level 7: \\cansvr11\dd\chem\MSS\a4hp9.i\01028a.b\9SH1028.D
Level 8: \\cansvr11\dd\chem\MSS\a4hp9.i\01028a.b\9SHH1028.D
Level 9: \\cansvr11\dd\chem\MSS\a4hp9.i\01028a.b\9HHH1028.D

Compound	0.05000 Level 1	0.25000 Level 2	0.50000 Level 3	1.000 Level 4	2.500 Level 5	5.000 Level 6	RRF	% RSD	
	7.500 Level 7	10.000 Level 8	12.500 Level 9						
198 1,4-Dioxane	+++++	0.80700	0.86373	0.79340	0.77712	0.78238			
	0.79809	0.90109	0.79587				0.81484	5.383	<-
7 N-Nitrosomorpholine	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++	+++++	+++++				+++++	+++++	<-
8 Ethyl methanesulfonate	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++	+++++	+++++				+++++	+++++	<-
9 Pyridine	+++++	1.99615	2.24159	2.20263	2.15729	2.13868			
	2.22880	2.53166	2.34602				2.23035	7.062	<-
10 N-Nitrosodimethylamine	+++++	1.19253	1.05860	1.19107	1.16711	1.14397			
	1.20194	1.37883	1.26990				1.20049	7.790	<-
11 Ethyl methacrylate	+++++	1.97449	1.98349	1.88462	1.84997	1.85965			
	1.86448	2.10642	1.88809				1.92640	4.615	<-
12 3-Chloropropionitrile	+++++	0.92484	0.90638	0.89082	0.83384	0.82417			
	0.84677	0.95931	0.88737				0.88419	5.301	<-
13 Malononitrile	+++++	2.48617	2.55191	2.54894	2.40827	2.37654			
	2.38933	2.59515	2.42658				2.47286	3.409	<-

TestAmerica North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 28-OCT-2010 10:11
End Cal Date : 28-OCT-2010 13:11
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSS\a4hp9.i\01028a.b\8270c-625.m
Last Edit : 28-Oct-2010 13:34 ulmanm
Curve Type : Average

Compound	0.05000 Level 1	0.25000 Level 2	0.50000 Level 3	1.000 Level 4	2.500 Level 5	5.000 Level 6	RRF	% RSD	
	7.500 Level 7	10.000 Level 8	12.500 Level 9						
228 Isodrin	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++	+++++	+++++				+++++	+++++	<-
231 Phenyl sulfone	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++	+++++	+++++				+++++	+++++	<-
232 3,4-Dichloronitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++	+++++	+++++				+++++	+++++	<-
233 N-methyl-pyrrolidone	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++	+++++	+++++				+++++	+++++	<-
234 Tributyl phosphate	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++	+++++	+++++				+++++	+++++	<-
235 2-Methylcyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++	+++++	+++++				+++++	+++++	<-
236 3-Methylcyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++	+++++	+++++				+++++	+++++	<-
237 4-Methylcyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++	+++++	+++++				+++++	+++++	<-
238 N,N-Dimethylformamide	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++	+++++	+++++				+++++	+++++	<-
$ 154 Nitrobenzene-d5	0.55610	0.46902	0.44795	0.52519	0.50627	0.52678			
	0.52347	0.57667	0.55613				0.52084	7.997	
$ 155 2-Fluorobiphenyl	1.40385	1.21058	1.21913	1.24420	1.14971	1.15100			
	1.16655	1.24904	1.15125				1.21615	6.659	

TestAmerica North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 28-OCT-2010 10:11
End Cal Date : 28-OCT-2010 13:11
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSS\a4hp9.i\01028a.b\8270c-625.m
Last Edit : 28-Oct-2010 13:34 ulmanm
Curve Type : Average

Compound	0.05000 Level 1	0.25000 Level 2	0.50000 Level 3	1.000 Level 4	2.500 Level 5	5.000 Level 6	RRF	% RSD	
	7.500 Level 7	10.000 Level 8	12.500 Level 9						
$ 156 Terphenyl-d14	0.86107	0.63195	0.65898	0.65195	0.63346	0.63794			
	0.63840	0.73079	0.67857				0.68035	10.971	
$ 157 Phenol-d5	+++++	2.26502	2.28014	2.33107	2.24270	2.25831			
	2.27348	2.57458	2.42970				2.33187	4.927	<-
$ 158 2-Fluorophenol	+++++	1.47790	1.46624	1.49735	1.48108	1.47438			
	1.54560	1.68680	1.61719				1.53082	5.282	<-
$ 159 2,4,6-Tribromophenol	+++++	0.07095	0.08058	0.10771	0.10288	0.11295			
	0.11737	0.12491	0.12797				0.10566	19.278	<-
$ 186 2-Chlorophenol-d4	+++++	1.19975	1.19586	1.26536	1.21416	1.23536			
	1.23573	1.35547	1.29447				1.24952	4.330	<-
$ 187 1,2-Dichlorobenzene-d4	0.97194	0.88618	0.91733	0.87383	0.83817	0.84786			
	0.84735	0.91721	0.87172				0.88573	4.877	

Report Date : 28-Oct-2010 13:46

TestAmerica North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 28-OCT-2010 10:11
End Cal Date : 28-OCT-2010 13:11
Quant Method : ISTD
Origin : Included
Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSS\a4hp9.i\01028a.b\8270c-625.m
Last Edit : 28-Oct-2010 13:34 ulmanm

Calibration File Names:
Level 1: \\cansvr11\dd\chem\MSS\a4hp9.i\01028a.b\9SLL1028.D
Level 2: \\cansvr11\dd\chem\MSS\a4hp9.i\01028a.b\9SL1028.D
Level 3: \\cansvr11\dd\chem\MSS\a4hp9.i\01028a.b\9SML1028.D
Level 4: \\cansvr11\dd\chem\MSS\a4hp9.i\01028a.b\9SM1028.D
Level 5: \\cansvr11\dd\chem\MSS\a4hp9.i\01028a.b\9SMM1028.D
Level 6: \\cansvr11\dd\chem\MSS\a4hp9.i\01028a.b\9SMH1028.D
Level 7: \\cansvr11\dd\chem\MSS\a4hp9.i\01028a.b\9SH1028.D
Level 8: \\cansvr11\dd\chem\MSS\a4hp9.i\01028a.b\9SHH1028.D
Level 9: \\cansvr11\dd\chem\MSS\a4hp9.i\01028a.b\9HHH1028.D

Compound	0.0500000 Level 1	0.2500000 Level 2	0.5000000 Level 3	1.0000 Level 4	2.5000 Level 5	5.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	7.5000 Level 7	10.0000 Level 8	12.5000 Level 9									
198 1,4-Dioxane	+++++	0.80700	0.86373	0.79340	0.77712	0.78238						
	0.79809	0.90109	0.79587				AVRG		0.81484		5.38299	<-
7 N-Nitrosomorpholine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++				AVRG		0.000e+000		0.000e+000	<-
8 Ethyl methanesulfonate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++				AVRG		0.000e+000		0.000e+000	<-

TestAmerica North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 28-OCT-2010 10:11
End Cal Date : 28-OCT-2010 13:11
Quant Method : ISTD
Origin : Included
Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSS\a4hp9.i\01028a.b\8270c-625.m
Last Edit : 28-Oct-2010 13:34 ulmanm

Compound	0.0500000 Level 1	0.2500000 Level 2	0.5000000 Level 3	1.0000 Level 4	2.5000 Level 5	5.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	7.5000 Level 7	10.0000 Level 8	12.5000 Level 9									
235 2-Methylcyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++				AVRG		0.000e+000		0.000e+000	<-
236 3-Methylcyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++				AVRG		0.000e+000		0.000e+000	<-
237 4-Methylcyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++				AVRG		0.000e+000		0.000e+000	<-
238 N,N-Dimethylformamide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++				AVRG		0.000e+000		0.000e+000	<-
$ 154 Nitrobenzene-d5	0.55610	0.46902	0.44795	0.52519	0.50627	0.52678						
	0.52347	0.57667	0.55613				AVRG		0.52084		7.99666	
$ 155 2-Fluorobiphenyl	1.40385	1.21058	1.21913	1.24420	1.14971	1.15100						
	1.16655	1.24904	1.15125				AVRG		1.21615		6.65941	
$ 156 Terphenyl-d14	0.86107	0.63195	0.65898	0.65195	0.63346	0.63794						
	0.63840	0.73079	0.67857				AVRG		0.68035		10.97080	

TestAmerica North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 28-OCT-2010 10:11
End Cal Date : 28-OCT-2010 13:11
Quant Method : ISTD
Origin : Included
Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSS\a4hp9.i\01028a.b\8270c-625.m
Last Edit : 28-Oct-2010 13:34 ulmanm

Compound	0.0500000 Level 1	0.2500000 Level 2	0.5000000 Level 3	1.0000 Level 4	2.5000 Level 5	5.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	7.5000 Level 7	10.0000 Level 8	12.5000 Level 9									
$ 157 Phenol-d5	+++++	2.26502	2.28014	2.33107	2.24270	2.25831						
	2.27348	2.57458	2.42970				AVRG		2.33187		4.92689	<-
$ 158 2-Fluorophenol	+++++	1.47790	1.46624	1.49735	1.48108	1.47438						
	1.54560	1.68680	1.61719				AVRG		1.53082		5.28160	<-
$ 159 2,4,6-Tribromophenol	+++++	5919	12942	39491	83811	166049						
	272098	388185	529563				QUAD	0.05626	9.12922	-1.77971	0.99974	<-
$ 186 2-Chlorophenol-d4	+++++	1.19975	1.19586	1.26536	1.21416	1.23536						
	1.23573	1.35547	1.29447				AVRG		1.24952		4.33028	<-
$ 187 1,2-Dichlorobenzene-d4	0.97194	0.88618	0.91733	0.87383	0.83817	0.84786						
	0.84735	0.91721	0.87172				AVRG		0.88573		4.87714	

TestAmerica North Canton

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: a4hp9.i
Lab File ID: 9TCLICV.D
Analysis Type:
Lab Sample ID: L6
Method: \\cansvr11\dd\chem\MSS\a4hp9.i\01028a.b\8270c-625.m

Injection Date: 28-OCT-2010 13:36
Init. Cal. Date(s): 28-OCT-2010 28-OCT-2010
Init. Cal. Times: 10:11 13:11
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF5	CCAL RRF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
9 Pyridine	2.23035	2.18902	2.18902	0.010	1.85295	50.00000	Averaged
10 N-Nitrosodimethylamine	1.20049	1.18381	1.18381	0.010	1.38985	50.00000	Averaged
11 Ethyl methacrylate	1.92640	1.88690	1.88690	0.010	2.05049	50.00000	Averaged
12 3-Chloropropionitrile	0.88419	0.83848	0.83848	0.010	5.16953	50.00000	Averaged
13 Malononitrile	2.47286	2.34381	2.34381	0.010	5.21878	50.00000	Averaged
209 Benzaldehyde	5.00000	4.80760	1.21543	0.010	3.84793	0.000e+000	Quadratic
21 Aniline	3.09826	2.95978	2.95978	0.010	4.46949	50.00000	Averaged
22 Phenol	2.55966	2.45389	2.45389	0.010	4.13222	20.00000	Averaged
23 bis(2-Chloroethyl)ether	2.05189	1.89718	1.89718	0.010	7.53979	50.00000	Averaged
24 2-Chlorophenol	1.37085	1.32206	1.32206	0.010	3.55879	50.00000	Averaged
26 1,3-Dichlorobenzene	1.44899	1.40120	1.40120	0.010	3.29835	50.00000	Averaged
27 1,4-Dichlorobenzene	1.42656	1.37605	1.37605	0.010	3.54108	20.00000	Averaged
28 1,2-Dichlorobenzene	1.38016	1.30798	1.30798	0.010	5.22988	50.00000	Averaged
29 Benzyl Alcohol	1.16396	1.11526	1.11526	0.010	4.18443	50.00000	Averaged
30 2-Methylphenol	1.62468	1.57292	1.57292	0.010	3.18568	50.00000	Averaged
31 bis(2-Chloroisopropyl)ether	1.86178	1.77019	1.77019	0.010	4.91928	50.00000	Averaged
37 Acetophenone	2.45322	2.38596	2.38596	0.010	2.74157	50.00000	Averaged
32 N-Nitroso-di-n-propylamine	1.48976	1.47322	1.47322	0.050	1.11064	50.00000	Averaged
192 4-Methylphenol	1.75029	1.70212	1.70212	0.010	2.75201	50.00000	Averaged
34 Hexachloroethane	0.62644	0.60046	0.60046	0.010	4.14676	50.00000	Averaged
35 Nitrobenzene	0.55252	0.54710	0.54710	0.010	0.98036	50.00000	Averaged
41 Isophorone	1.07604	1.07764	1.07764	0.010	-0.14887	50.00000	Averaged
42 2-Nitrophenol	5.00000	4.94146	0.16861	0.010	1.17088	0.000e+000	Quadratic
43 2,4-Dimethylphenol	0.44103	0.43731	0.43731	0.010	0.84292	50.00000	Averaged
44 bis(2-Chloroethoxy)methane	0.58738	0.57724	0.57724	0.010	1.72672	50.00000	Averaged
46 2,4-Toluenediamene	0.16638	0.12574	0.12574	0.010	24.42747	50.00000	Averaged
47 1,3,5-Trichlorobenzene	0.27990	0.27132	0.27132	0.010	3.06729	50.00000	Averaged
48 2,4-Dichlorophenol	0.25593	0.25675	0.25675	0.010	-0.32003	20.00000	Averaged
49 Benzoic Acid	10.00000	10.39829	0.27058	0.010	-3.98294	0.000e+000	Quadratic
50 1,2,4-Trichlorobenzene	0.28299	0.27673	0.27673	0.010	2.21012	50.00000	Averaged
51 Naphthalene	1.06496	1.02998	1.02998	0.010	3.28418	50.00000	Averaged
52 4-Chloroaniline	0.44411	0.43486	0.43486	0.010	2.08282	50.00000	Averaged
56 Hexachlorobutadiene	0.13866	0.13570	0.13570	0.010	2.13502	20.00000	Averaged
210 Caprolactam	0.13861	0.15209	0.15209	0.010	-9.72294	50.00000	Averaged
57 1,2,3-Trichlorobenzene	0.26598	0.25750	0.25750	0.010	3.18961	50.00000	Averaged
59 4-Chloro-3-Methylphenol	0.38976	0.39531	0.39531	0.010	-1.42433	20.00000	Averaged
62 2-Methylnaphthalene	0.58946	0.57478	0.57478	0.010	2.49075	50.00000	Averaged
63 1-Methylnaphthalene	0.66941	0.65484	0.65484	0.010	2.17692	50.00000	Averaged
64 Hexachlorocyclopentadiene	0.22890	0.23548	0.23548	0.050	-2.87496	50.00000	Averaged
66 2,4,6-Trichlorophenol	0.28698	0.28680	0.28680	0.010	0.06268	20.00000	Averaged
67 2,4,5-Trichlorophenol	0.32266	0.33341	0.33341	0.010	-3.32984	50.00000	Averaged
211 1,1'-Biphenyl	1.39004	1.38492	1.38492	0.010	0.36854	50.00000	Averaged

TestAmerica North Canton

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: a4hp9.i Injection Date: 28-OCT-2010 13:36
Lab File ID: 9TCLICV.D Init. Cal. Date(s): 28-OCT-2010 28-OCT-2010
Analysis Type: Init. Cal. Times: 10:11 13:11
Lab Sample ID: L6 Quant Type: ISTD
Method: \\cansvr11\dd\chem\MSS\a4hp9.i\01028a.b\8270c-625.m

COMPOUND	RRF / AMOUNT	RF5	CCAL RRF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
68 1,2,3,5-Tetrachlorobenzene	0.43089	0.42311	0.42311	0.010	1.80644	50.00000	Averaged
70 2-Chloronaphthalene	1.04123	1.01240	1.01240	0.010	2.76834	50.00000	Averaged
73 2-Nitroaniline	5.00000	5.08049	0.45304	0.010	-1.60983	0.000e+000	Quadratic
74 1,2,3,4-Tetrachlorobenzene	0.39492	0.38182	0.38182	0.010	3.31783	50.00000	Averaged
76 Dimethylphthalate	1.19936	1.20584	1.20584	0.010	-0.54028	50.00000	Averaged
78 2,6-Dinitrotoluene	5.00000	5.18193	0.26888	0.010	-3.63858	0.000e+000	Quadratic
79 Acenaphthylene	1.78129	1.79622	1.79622	0.010	-0.83822	50.00000	Averaged
80 1,2-Dinitrobenzene	5.00000	4.99764	0.13445	0.010	0.04710	0.000e+000	Quadratic
81 3-Nitroaniline	0.29031	0.30914	0.30914	0.010	-6.48563	50.00000	Averaged
82 Acenaphthene	1.11103	1.07417	1.07417	0.010	3.31777	20.00000	Averaged
83 2,4-Dinitrophenol	10.00000	10.77410	0.17396	0.050	-7.74102	0.000e+000	Quadratic
85 4-Nitrophenol	0.20430	0.19445	0.19445	0.050	4.82204	50.00000	Averaged
86 Dibenzofuran	1.49779	1.49356	1.49356	0.010	0.28235	50.00000	Averaged
87 2,4-Dinitrotoluene	5.00000	5.19545	0.37674	0.010	-3.90902	0.000e+000	Quadratic
91 2,3,5,6-Tetrachlorophenol	0.22793	0.23728	0.23728	0.010	-4.10190	50.00000	Averaged
93 Diethylphthalate	1.22098	1.22876	1.22876	0.010	-0.63682	50.00000	Averaged
94 Fluorene	1.26366	1.22788	1.22788	0.010	2.83157	50.00000	Averaged
95 4-Chlorophenyl-phenylether	0.52547	0.52382	0.52382	0.010	0.31544	50.00000	Averaged
96 4-Nitroaniline	5.00000	5.01359	0.33379	0.010	-0.27175	0.000e+000	Quadratic
98 4,6-Dinitro-2-methylphenol	5.00000	5.14899	0.11417	0.010	-2.97979	0.000e+000	Quadratic
99 N-Nitrosodiphenylamine	0.55802	0.56016	0.56016	0.010	-0.38254	20.00000	Averaged
100 1,2-Diphenylhydrazine	1.28923	1.29476	1.29476	0.010	-0.42892	50.00000	Averaged
106 4-Bromophenyl-phenylether	0.17621	0.17379	0.17379	0.010	1.36905	50.00000	Averaged
107 Hexachlorobenzene	0.17251	0.16472	0.16472	0.010	4.51731	50.00000	Averaged
212 Atrazine	0.10422	0.10738	0.10738	0.010	-3.02668	50.00000	Averaged
111 Pentachlorophenol	10.00000	10.33784	0.10716	0.010	-3.37840	0.000e+000	Quadratic
115 Phenanthrene	1.12801	1.07952	1.07952	0.010	4.29840	50.00000	Averaged
116 Anthracene	1.11123	1.08495	1.08495	0.010	2.36540	50.00000	Averaged
119 Carbazole	1.07031	1.06034	1.06034	0.010	0.93213	50.00000	Averaged
120 Di-n-Butylphthalate	1.23704	1.28757	1.28757	0.010	-4.08536	50.00000	Averaged
123 Fluoranthene	1.09539	1.04341	1.04341	0.010	4.74459	20.00000	Averaged
124 Benzidine	5.00000	5.20757	0.59111	0.010	-4.15146	0.000e+000	Quadratic
125 Pyrene	1.18288	1.15875	1.15875	0.010	2.03978	50.00000	Averaged
131 Butylbenzylphthalate	0.54842	0.58763	0.58763	0.010	-7.15001	50.00000	Averaged
133 3,3'-Dimethoxybenzidine	5.00000	5.08873	0.19916	0.010	-1.77463	0.000e+000	Quadratic
135 3,3'-Dichlorobenzidine	0.35877	0.38442	0.38442	0.010	-7.14946	50.00000	Averaged
136 Benzo(a)Anthracene	1.10902	1.05153	1.05153	0.010	5.18345	50.00000	Averaged
137 Chrysene	1.06022	0.97824	0.97824	0.010	7.73210	50.00000	Averaged
138 4,4'-Methylene bis(o-chloro	0.17177	0.18565	0.18565	0.010	-8.07991	50.00000	Averaged
139 bis(2-ethylhexyl)Phthalate	0.78174	0.81829	0.81829	0.010	-4.67557	50.00000	Averaged
140 Di-n-octylphthalate	1.47148	1.56628	1.56628	0.010	-6.44228	20.00000	Averaged
141 Benzo(b)fluoranthene	1.25972	1.20645	1.20645	0.010	4.22887	50.00000	Averaged

TestAmerica North Canton

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: a4hp9.i Injection Date: 28-OCT-2010 13:36
Lab File ID: 9TCLICV.D Init. Cal. Date(s): 28-OCT-2010 28-OCT-2010
Analysis Type: Init. Cal. Times: 10:11 13:11
Lab Sample ID: L6 Quant Type: ISTD
Method: \\cansvr11\dd\chem\MSS\a4hp9.i\01028a.b\8270c-625.m

COMPOUND	RRF / AMOUNT	RF5	CCAL RRF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
142 Benzo(k)fluoranthene	1.25978	1.24088	1.24088	0.010	1.50005	50.00000	Averaged
146 Benzo(a)pyrene	1.15453	1.13954	1.13954	0.010	1.29834	20.00000	Averaged
149 Indeno(1,2,3-cd)pyrene	1.16417	1.17462	1.17462	0.010	-0.89745	50.00000	Averaged
150 Dibenz(a,h)anthracene	0.96536	0.97342	0.97342	0.010	-0.83583	50.00000	Averaged
151 Benzo(g,h,i)perylene	0.97723	0.99428	0.99428	0.010	-1.74464	50.00000	Averaged
198 1,4-Dioxane	0.81484	0.80533	0.80533	0.010	1.16672	50.00000	Averaged
$ 154 Nitrobenzene-d5	0.52084	0.52642	0.52642	0.010	-1.07061	50.00000	Averaged
$ 155 2-Fluorobiphenyl	1.21615	1.15124	1.15124	0.010	5.33723	50.00000	Averaged
$ 156 Terphenyl-d14	0.68035	0.65515	0.65515	0.010	3.70351	50.00000	Averaged
$ 157 Phenol-d5	2.33187	2.24555	2.24555	0.010	3.70186	50.00000	Averaged
$ 158 2-Fluorophenol	1.53082	1.52192	1.52192	0.010	0.58150	50.00000	Averaged
$ 159 2,4,6-Tribromophenol	5.00000	5.24536	0.11940	0.010	-4.90716	0.000e+000	Quadratic
$ 186 2-Chlorophenol-d4	1.24952	1.20440	1.20440	0.010	3.61059	50.00000	Averaged
$ 187 1,2-Dichlorobenzene-d4	0.88573	0.82590	0.82590	0.010	6.75512	50.00000	Averaged
M 195 Cresols, total	3.37497	3.27504	3.27504	0.010	2.96078	50.00000	Averaged
101 Diphenylamine	0.55802	0.56016	0.56016	0.010	-0.38254	50.00000	Averaged

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: NORTH CANTON Contract:

Lab Code: TACAN Case No.: SAS No.: SDG No.: 0J18429

Lab File ID: 9DF1031 DFTPP Injection Date: 10/31/10

Instrument ID: A4HP9 DFTPP Injection Time: 1006

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	39.9
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	57.1
70	Less than 2.0% of mass 69	0.2 (0.4)1
127	25.0 - 75.0% of mass 198	55.8
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 30.0% of mass 198	22.8
365	Greater than 0.75% of mass 198	2.74
441	Present, but less than mass 443	6.7
442	40.0 - 110.0% of mass 198	72.8
443	15.0 - 24.0% of mass 442	14.1 (19.3)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD006	L6	9SMH1031	10/31/10	1023
02	L85NDBLK	L85ND1AA	L85ND1AA	10/31/10	1449
03	L85NDCHK	L85ND1AC	L85ND1AC	10/31/10	1508
04	L85NDCKDUP	L85ND1AD	L85ND1AD	10/31/10	1527
05	MRC-MW96D-10	L8WM31CL	L8WM31CL	10/31/10	2051
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

TestAmerica North Canton

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: a4hp9.i
Lab File ID: 9SMH1031.D
Analysis Type:
Lab Sample ID: L6
Method: \\cansvr11\dd\chem\MSS\a4hp9.i\01031a.b\8270c-625.m

Injection Date: 31-OCT-2010 10:23
Init. Cal. Date(s): 28-OCT-2010 31-OCT-2010
Init. Cal. Times: 10:11 13:15
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF5	CCAL RRF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
9 Pyridine	2.23035	2.06923	2.06923	0.010	7.22400	50.00000	Averaged
10 N-Nitrosodimethylamine	1.20049	1.12675	1.12675	0.010	6.14264	50.00000	Averaged
11 Ethyl methacrylate	1.92640	1.77879	1.77879	0.010	7.66256	50.00000	Averaged
12 3-Chloropropionitrile	0.88419	0.85771	0.85771	0.010	2.99464	50.00000	Averaged
13 Malononitrile	2.47286	2.22281	2.22281	0.010	10.11174	50.00000	Averaged
209 Benzaldehyde	5.00000	3.78329	0.99249	0.010	24.33415	0.000e+000	Quadratic
21 Aniline	3.09826	2.91559	2.91559	0.010	5.89597	50.00000	Averaged
22 Phenol	2.55966	2.41255	2.41255	0.010	5.74722	20.00000	Averaged
23 bis(2-Chloroethyl)ether	2.05189	1.90293	1.90293	0.010	7.25957	50.00000	Averaged
24 2-Chlorophenol	1.37085	1.32257	1.32257	0.010	3.52223	50.00000	Averaged
26 1,3-Dichlorobenzene	1.44899	1.37426	1.37426	0.010	5.15743	50.00000	Averaged
27 1,4-Dichlorobenzene	1.42656	1.35709	1.35709	0.010	4.86987	20.00000	Averaged
28 1,2-Dichlorobenzene	1.38016	1.30454	1.30454	0.010	5.47905	50.00000	Averaged
29 Benzyl Alcohol	1.16396	1.09196	1.09196	0.010	6.18557	50.00000	Averaged
30 2-Methylphenol	1.62468	1.57497	1.57497	0.010	3.05963	50.00000	Averaged
31 bis(2-Chloroisopropyl)ether	1.86178	1.81310	1.81310	0.010	2.61446	50.00000	Averaged
37 Acetophenone	2.45322	2.40391	2.40391	0.010	2.00986	50.00000	Averaged
32 N-Nitroso-di-n-propylamine	1.48976	1.44405	1.44405	0.050	3.06845	50.00000	Averaged
192 4-Methylphenol	1.75029	1.68024	1.68024	0.010	4.00232	50.00000	Averaged
34 Hexachloroethane	0.62644	0.60929	0.60929	0.010	2.73791	50.00000	Averaged
35 Nitrobenzene	0.55252	0.54822	0.54822	0.010	0.77720	50.00000	Averaged
41 Isophorone	1.07604	1.05215	1.05215	0.010	2.21987	50.00000	Averaged
42 2-Nitrophenol	5.00000	5.30687	0.18147	0.010	-6.13731	0.000e+000	Quadratic
43 2,4-Dimethylphenol	0.44103	0.45178	0.45178	0.010	-2.43723	50.00000	Averaged
44 bis(2-Chloroethoxy)methane	0.58738	0.55047	0.55047	0.010	6.28533	50.00000	Averaged
46 2,4-Toluenediamene	0.16638	0.11455	0.11455	0.010	31.15049	50.00000	Averaged
47 1,3,5-Trichlorobenzene	0.27990	0.27094	0.27094	0.010	3.20020	50.00000	Averaged
48 2,4-Dichlorophenol	0.25593	0.25809	0.25809	0.010	-0.84125	20.00000	Averaged
49 Benzoic Acid	10.00000	10.06192	0.26065	0.010	-0.61924	0.000e+000	Quadratic
50 1,2,4-Trichlorobenzene	0.28299	0.27443	0.27443	0.010	3.02296	50.00000	Averaged
51 Naphthalene	1.06496	1.02819	1.02819	0.010	3.45271	50.00000	Averaged
52 4-Chloroaniline	0.44411	0.42656	0.42656	0.010	3.95106	50.00000	Averaged
56 Hexachlorobutadiene	0.13866	0.13323	0.13323	0.010	3.91907	20.00000	Averaged
210 Caprolactam	0.13861	0.14738	0.14738	0.010	-6.32514	50.00000	Averaged
57 1,2,3-Trichlorobenzene	0.26598	0.25320	0.25320	0.010	4.80517	50.00000	Averaged
59 4-Chloro-3-Methylphenol	0.38976	0.38707	0.38707	0.010	0.68919	20.00000	Averaged
62 2-Methylnaphthalene	0.58946	0.56738	0.56738	0.010	3.74610	50.00000	Averaged
63 1-Methylnaphthalene	0.66941	0.64541	0.64541	0.010	3.58553	50.00000	Averaged
64 Hexachlorocyclopentadiene	0.22890	0.24226	0.24226	0.050	-5.84039	50.00000	Averaged
66 2,4,6-Trichlorophenol	0.28698	0.29028	0.29028	0.010	-1.15147	20.00000	Averaged
67 2,4,5-Trichlorophenol	0.32266	0.31494	0.31494	0.010	2.39251	50.00000	Averaged
211 1,1'-Biphenyl	1.39004	1.36153	1.36153	0.010	2.05125	50.00000	Averaged

TestAmerica North Canton

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: a4hp9.i Injection Date: 31-OCT-2010 10:23
Lab File ID: 9SMH1031.D Init. Cal. Date(s): 28-OCT-2010 31-OCT-2010
Analysis Type: Init. Cal. Times: 10:11 13:15
Lab Sample ID: L6 Quant Type: ISTD
Method: \\cansvr11\dd\chem\MSS\a4hp9.i\01031a.b\8270c-625.m

COMPOUND	RRF / AMOUNT	RF5	CCAL RRF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
68 1,2,3,5-Tetrachlorobenzene	0.43089	0.41740	0.41740	0.010	3.13248	50.00000	Averaged
70 2-Chloronaphthalene	1.04123	0.97963	0.97963	0.010	5.91623	50.00000	Averaged
73 2-Nitroaniline	5.00000	5.15498	0.45999	0.010	-3.09958	0.000e+000	Quadratic
74 1,2,3,4-Tetrachlorobenzene	0.39492	0.37526	0.37526	0.010	4.97931	50.00000	Averaged
76 Dimethylphthalate	1.19936	1.15082	1.15082	0.010	4.04707	50.00000	Averaged
78 2,6-Dinitrotoluene	5.00000	5.07458	0.26285	0.010	-1.49165	0.000e+000	Quadratic
79 Acenaphthylene	1.78129	1.72820	1.72820	0.010	2.98076	50.00000	Averaged
80 1,2-Dinitrobenzene	5.00000	5.04266	0.13575	0.010	-0.85324	0.000e+000	Quadratic
81 3-Nitroaniline	0.29031	0.31157	0.31157	0.010	-7.32228	50.00000	Averaged
82 Acenaphthene	1.11103	1.06041	1.06041	0.010	4.55631	20.00000	Averaged
83 2,4-Dinitrophenol	10.00000	11.83918	0.19381	0.050	-18.39176	0.000e+000	Quadratic
85 4-Nitrophenol	0.20430	0.21989	0.21989	0.050	-7.62701	50.00000	Averaged
86 Dibenzofuran	1.49779	1.44004	1.44004	0.010	3.85565	50.00000	Averaged
87 2,4-Dinitrotoluene	5.00000	5.03527	0.36430	0.010	-0.70541	0.000e+000	Quadratic
91 2,3,5,6-Tetrachlorophenol	0.22793	0.23053	0.23053	0.010	-1.13997	50.00000	Averaged
93 Diethylphthalate	1.22098	1.16972	1.16972	0.010	4.19868	50.00000	Averaged
94 Fluorene	1.26366	1.20695	1.20695	0.010	4.48785	50.00000	Averaged
95 4-Chlorophenyl-phenylether	0.52547	0.50116	0.50116	0.010	4.62606	50.00000	Averaged
96 4-Nitroaniline	5.00000	5.03183	0.33507	0.010	-0.63650	0.000e+000	Quadratic
98 4,6-Dinitro-2-methylphenol	5.00000	5.52374	0.12408	0.010	-10.47484	0.000e+000	Quadratic
99 N-Nitrosodiphenylamine	0.55802	0.52388	0.52388	0.010	6.11844	20.00000	Averaged
100 1,2-Diphenylhydrazine	1.28923	1.26454	1.26454	0.010	1.91567	50.00000	Averaged
106 4-Bromophenyl-phenylether	0.17621	0.16586	0.16586	0.010	5.87066	50.00000	Averaged
107 Hexachlorobenzene	0.17251	0.15961	0.15961	0.010	7.48041	50.00000	Averaged
212 Atrazine	0.10422	0.10690	0.10690	0.010	-2.56918	50.00000	Averaged
111 Pentachlorophenol	10.00000	9.86195	0.10163	0.010	1.38049	0.000e+000	Quadratic
115 Phenanthrene	1.12801	1.03755	1.03755	0.010	8.01914	50.00000	Averaged
116 Anthracene	1.11123	1.05614	1.05614	0.010	4.95772	50.00000	Averaged
119 Carbazole	1.07031	1.03632	1.03632	0.010	3.17612	50.00000	Averaged
120 Di-n-Butylphthalate	1.23704	1.25215	1.25215	0.010	-1.22171	50.00000	Averaged
123 Fluoranthene	1.09539	1.02810	1.02810	0.010	6.14305	20.00000	Averaged
124 Benzidine	5.00000	5.35901	0.61047	0.010	-7.18028	0.000e+000	Quadratic
125 Pyrene	1.18288	1.09942	1.09942	0.010	7.05574	50.00000	Averaged
131 Butylbenzylphthalate	0.54842	0.55353	0.55353	0.010	-0.93149	50.00000	Averaged
133 3,3'-Dimethoxybenzidine	5.00000	6.13425	0.24460	0.010	-22.68494	0.000e+000	Quadratic
135 3,3'-Dichlorobenzidine	0.35877	0.37641	0.37641	0.010	-4.91506	50.00000	Averaged
136 Benzo(a)Anthracene	1.10902	1.03682	1.03682	0.010	6.50953	50.00000	Averaged
137 Chrysene	1.06022	0.95587	0.95587	0.010	9.84279	50.00000	Averaged
138 4,4'-Methylene bis(o-chloro	5.00000	5.07515	0.18393	0.010	-1.50295	0.000e+000	Quadratic
139 bis(2-ethylhexyl)Phthalate	0.78174	0.77561	0.77561	0.010	0.78447	50.00000	Averaged
140 Di-n-octylphthalate	1.47148	1.53109	1.53109	0.010	-4.05071	20.00000	Averaged
141 Benzo(b)fluoranthene	1.25972	1.21883	1.21883	0.010	3.24636	50.00000	Averaged

TestAmerica North Canton

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: a4hp9.i Injection Date: 31-OCT-2010 10:23
Lab File ID: 9SMH1031.D Init. Cal. Date(s): 28-OCT-2010 31-OCT-2010
Analysis Type: Init. Cal. Times: 10:11 13:15
Lab Sample ID: L6 Quant Type: ISTD
Method: \\cansvr11\dd\chem\MSS\a4hp9.i\01031a.b\8270c-625.m

COMPOUND	RRF / AMOUNT	RF5	CCAL RRF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
142 Benzo(k)fluoranthene	1.25978	1.17829	1.17829	0.010	6.46858	50.00000	Averaged
146 Benzo(a)pyrene	1.15453	1.10259	1.10259	0.010	4.49835	20.00000	Averaged
149 Indeno(1,2,3-cd)pyrene	1.16417	1.17041	1.17041	0.010	-0.53580	50.00000	Averaged
150 Dibenz(a,h)anthracene	0.96536	0.98088	0.98088	0.010	-1.60813	50.00000	Averaged
151 Benzo(g,h,i)perylene	0.97723	0.97075	0.97075	0.010	0.66384	50.00000	Averaged
198 1,4-Dioxane	0.81484	0.77827	0.77827	0.010	4.48706	50.00000	Averaged
$ 154 Nitrobenzene-d5	0.52084	0.52796	0.52796	0.010	-1.36677	50.00000	Averaged
$ 155 2-Fluorobiphenyl	1.21615	1.14578	1.14578	0.010	5.78598	50.00000	Averaged
$ 156 Terphenyl-d14	0.68035	0.63806	0.63806	0.010	6.21468	50.00000	Averaged
$ 157 Phenol-d5	2.33187	2.27067	2.27067	0.010	2.62469	50.00000	Averaged
$ 158 2-Fluorophenol	1.53082	1.47622	1.47622	0.010	3.56640	50.00000	Averaged
$ 159 2,4,6-Tribromophenol	5.00000	5.01501	0.11370	0.010	-0.30018	0.000e+000	Quadratic
$ 186 2-Chlorophenol-d4	1.24952	1.20458	1.20458	0.010	3.59663	50.00000	Averaged
$ 187 1,2-Dichlorobenzene-d4	0.88573	0.81385	0.81385	0.010	8.11579	50.00000	Averaged
M 195 Cresols, total	3.37497	3.25521	3.25521	0.010	3.54847	50.00000	Averaged
101 Diphenylamine	0.55802	0.52388	0.52388	0.010	6.11844	50.00000	Averaged

SW846 8270C METHOD BLANK SUMMARY

BLANK WORKORDER NO.: L85ND1AA

Lab Name: TestAmerica Laboratories, Inc.

Lab Code: TALCAN

SDG Number: 0J18429

Lab File ID: L85ND1AA.

Lot Number: A0J210616

Date Analyzed: 10/31/10

Time Analyzed: 14:49

Matrix: WATER

Date Extracted: 10/27/10

GC Column: DB .625 ID: .32

Extraction Method: 3520C

Instrument ID: HP9

Level: (low/med) LOW

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS, LCSD, MS , MSD:

	CLIENT ID.	SAMPLE WORK ORDER #	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	MRC-MW96D-102010	L8WM31CL	L8WM31CL.	10/31/10	20:51
02	CHECK SAMPLE	L85ND1AC C	L85ND1AC.	10/31/10	15:08
03	DUPLICATE CHECK	L85ND1AD L	L85ND1AD.	10/31/10	15:27
04					
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COMMENTS:

FORM IV

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO: D. MURALI **DATE: NOVEMBER 23, 2010**

FROM: DANIELLE M. BAUGHMAN **COPIES:** DV FILE

SUBJECT: INORGANIC DATA VALIDATION – SELECT TAL METALS AND DISSOLVED METALS
MIDDLE RIVER CENTER – DEEP WELL
SAMPLE DELIVERY GROUP (SDG) – 0J18429

SAMPLES:

4/Aqueous/

MRC-MW93D-101510	MRC-MW94D-101510
MRC-MW95D-101510	MRC-MW96D-102010

4/Dissolved/

MRC-MW93D-101510	MRC-MW94D-101510
MRC-MW95D-101510	MRC-MW96D-102010

Overview

The sample set for Middle River Center, SDG 0J18429, consists of four (4) aqueous environmental samples. No field duplicate pairs were included within this SDG.

All samples were analyzed for the following total and dissolved metals including silver, arsenic, barium, beryllium, cadmium, cobalt, chromium, copper, iron, manganese, molybdenum, nickel, lead, antimony, selenium, thallium, vanadium, zinc, and mercury. The samples were collected by Tetra Tech NUS on October 15, 2010 and October 20, 2010, and analyzed by Test America. Metals analyses were conducted using SW-846 method 6020. Mercury analyses were conducted using SW-846 method 7470A.

The findings offered in this report are based upon a general review of all available data. The data review was based on data completeness, holding times, initial and continuing calibration verification results, laboratory method / preparation blank results, ICP interference results, laboratory control sample recoveries, matrix spike recoveries, internal standards, detection limits and analyte quantitation.

Areas of concern with respect to data quality are listed below.

Major Problems

No issues to report.

Minor Problems

- The following contaminants were detected in the laboratory method/preparation blanks at the following maximum concentrations:

Analyte	Maximum Concentration	Action Level
Antimony[1]	0.024 ug/L	0.12 ug/L
Antimony[4]	0.032 ug/L	0.16 ug/L
Barium[2]	0.89 ug/L	4.45 ug/L
Barium[5]	0.97 ug/L	4.85 ug/L
Beryllium[1]	0.018 ug/L	0.09 ug/L
Cadmium[1]	0.0093 ug/L	0.0465 ug/L
Cadmium[4]	0.0073 ug/L	0.0365 ug/L
Chromium[2]	0.16 ug/L	0.8 ug/L
Chromium[5]	0.19 ug/L	0.95 ug/L
Cobalt[1]	0.02 ug/L	0.1 ug/L
Cobalt[4]	0.016 ug/L	0.08 ug/L
Copper[2]	0.75 ug/L	3.75 ug/L
Copper[5]	0.84 ug/L	4.2 ug/L
Iron[2]	19.6 ug/L	98 ug/L
Iron[5]	18 ug/L	90 ug/L
Lead[2]	0.13 ug/L	0.65 ug/L
Lead[5]	0.12 ug/L	0.6 ug/L
Manganese[2]	0.67 ug/L	3.35 ug/L
Manganese[5]	0.37 ug/L	1.85 ug/L
Mercury[3]	0.1 ug/L	0.5 ug/L
Molybdenum[1]	0.11 ug/L	0.55 ug/L
Nickel[1]	0.31 ug/L	1.55 ug/L
Nickel[4]	0.056 ug/L	0.28 ug/L
Silver[1]	0.022 ug/L	0.11 ug/L
Thallium[1]	0.27 ug/L	1.35 ug/L
Thallium[4]	0.25 ug/L	1.25 ug/L
Zinc[2]	4.8 ug/L	24 ug/L
Zinc[5]	3.3 ug/L	16.5 ug/L

(1) CCB run on 10/20/10 associated with total and dissolved samples MRC-MW93D-102010, MRC-MW94D-102010, and MRC-MW95D-102010.
(2) Prep batch 0292014.
(3) CCB run on 10/26/10 associated with sample MRC-MW96D-102010.
(4) CCB run on 10/25/10 associated with total and dissolved sample MRC-MW96D-102010.
(5) Prep batch 0295021.

An action level of 5X the maximum contaminant level has been used to evaluate sample data for blank contamination. Sample aliquot, percent solids and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Positive results less than the blank action level reported for barium, beryllium, cadmium, cobalt, copper, iron, lead, manganese, thallium, and zinc were qualified "B" as a result of laboratory blank contamination.

- The interfering analyte iron was present in sample MRC-MW93D-102010 for total metals at a concentration comparable to the concentration of iron in the interference check sample (ICS) solution. Several analytes namely antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, and silver were present in the ICS solution at a concentration that exceeded the absolute value of the instrument detection limit (IDL).

Interference effects exist for antimony, cadmium, and silver in the affected sample. The positive results reported for antimony, cadmium, and silver were qualified as estimated, "J".

- The matrix spike percent recoveries for antimony, barium, iron, lead, manganese, selenium, and zinc were < 75% quality control limit affecting prep batch 0292014. The positive results reported for the aforementioned analytes were qualified as either biased low, "L", or estimated, "J", as a result of conflicting noncompliances. The non detected results reported for the aforementioned analytes were qualified as biased low, "UL". No validation actions were warranted for samples that were qualified for blank contamination.

- The contract required detection limit (CRDL) percent recovery for selenium was < 90% quality control limit affecting prep batch 0292014. Positive results < 2X CRDL in the affected samples were qualified as estimated, "J". Nondetected results in the affected samples were qualified as biased low, "UL".

- The contract required detection limit (CRDL) percent recovery for silver was >110% quality control limit affecting prep batch 0292014. Positive results < 2X CRDL in the affected samples were qualified as estimated, "J".

- The contract required detection limit (CRDL) percent recovery for silver was < 90% quality control limit affecting prep batch 0295021. Nondetected results in the affected samples were qualified as biased low, "UL".

- Positive results reported below the reporting limit (RL) but above the method detection limit (MDL) were qualified as estimated, "J".

Notes

- The contract required detection limit (CRDL) percent recovery for copper, iron, and manganese were > 110% quality control limit affecting prep batch 0292014. No validation actions were warranted as all sample results were either qualified for blank contamination or sample results were > 2X CRDL.

- The contract required detection limit (CRDL) percent recovery for manganese and nickel were >110% quality control limit affecting prep batch 0295021. No validation actions were warranted as all sample results were > 2X CRDL.

Executive Summary

Laboratory Performance: Several analytes were present in the laboratory method / preparation blanks. The contract required detection limit (CRDL) percent recoveries for selenium and silver were outside of the 90-110% quality control limit.

Other Factors Affecting Data Quality: The matrix spike percent recoveries for antimony, barium, iron, lead, manganese, selenium, and zinc were < 75% quality control limit affecting total and dissolved metals analysis. Positive results reported below the RL but above the MDL were qualified as estimated. The interfering analyte iron was present in sample MRC-MW93D-102010 for total metals only.

The data for these analyses were reviewed with reference to Region III modifications to the "National Functional Guidelines for Inorganic Data Validation", April 1993.

The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech NUS
Danielle M. Baughman
Project Engineer

Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:

1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as reported by the Laboratory
3. Appendix C - Support Documentation

APPENDIX A
QUALIFIED ANALYTICAL RESULTS

Data Validation Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS-GFAA MSA's r < 0.995 / ICP PDS Recovery Noncompliance
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O - Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DOT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 02720 SDG: 0J18429 FRACTION: M MEDIA: WATER	NSAMPLE	MRC-MW93D-101510			MRC-MW94D-101510			MRC-MW95D-101510			MRC-MW96D-102010		
	LAB_ID	A0J180429002			A0J180429003			A0J180429004			A0J210616001		
	SAMP_DATE	10/15/2010			10/15/2010			10/15/2010			10/20/2010		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.46	J	DKP	0.15	J	DP	0.72	J	DP	0.027	U	
ARSENIC		11.7			1.3	J	P	1	J	P	0.38	J	P
BARIUM		257	J	D	33	L	D	221	L	D	14.3		
BERYLLIUM		3			0.17	J	P	0.0059	U		0.11	J	P
CADMIUM		0.22	J	KP	0.036	B	A	0.025	U		0.025	B	A
CHROMIUM		65.6			4.6			0.85	J	P	1.5	J	P
COBALT		5.3			0.39	J	P	0.051	B	A	2		
COPPER		44			2	B	A	1.2	B	A	1.6	B	A
IRON		32100	L	D	3930	L	D	89.4	B	A	691		
LEAD		39.8	J	D	2.1	L	D	0.12	B	A	0.38	B	A
MANGANESE		280	J	D	79.7	L	D	1.4	B	A	24.5		
MERCURY		0.1	U		0.1	U		0.1	U		0.1	U	
MOLYBDENUM		13.8			1.6	J	P	14.2			0.27	U	
NICKEL		22.7			3.8			0.66	B	A	4.6		
SELENIUM		2.5	J	CDP	0.13	UL	CD	0.58	J	CDP	0.13	U	
SILVER		0.15	J	CKP	0.015	U		0.015	U		0.015	UL	C
THALLIUM		0.13	B	A	0.13	U		0.13	U		0.13	U	
VANADIUM		44.8			2.9	J	P	8	J	P	1.6	J	P
ZINC		105	L	D	10.7	B	A	1.3	B	A	7.9	B	A

PROJ_NO: 02720	NSAMPLE	MRC-MW93D-101510			MRC-MW94D-101510			MRC-MW95D-101510			MRC-MW96D-102010		
SDG: 0J18429	LAB_ID	A0J180429002			A0J180429003			A0J180429004			A0J210616001		
FRACTION: MF	SAMP_DATE	10/15/2010			10/15/2010			10/15/2010			10/20/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		1.3	J	DP	0.18	J	DP	0.81	J	DP	0.027	U	
ARSENIC		4.3	J	P	0.83	J	P	1	J	P	0.29	J	P
BARIUM		3.5	B	A	18.8	L	D	227	L	D	11		
BERYLLIUM		0.02	B	A	0.0059	U		0.0059	U		0.067	B	A
CADMIUM		0.025	U		0.025	U		0.025	U		0.027	B	A
CHROMIUM		0.17	B	A	0.065	B	A	2.1			0.41	B	A
COBALT		0.026	B	A	0.093	B	A	0.033	B	A	1.9		
COPPER		0.94	B	A	0.34	B	A	0.32	B	A	1.1	B	A
IRON		11.6	B	A	620	L	D	25.8	B	A	66	B	A
LEAD		0.046	B	A	0.02	B	A	0.041	B	A	0.44	B	A
MANGANESE		1.1	B	A	64.1	L	D	0.4	B	A	21		
MERCURY		0.1	U		0.1	U		0.1	U		0.1	U	
MOLYBDENUM		15.3			1.3	J	P	14.7			0.27	U	
NICKEL		0.4	B	A	1.3	B	A	1.1	B	A	4.1		
SELENIUM		0.36	J	CDP	0.13	UL	CD	0.56	J	CDP	0.13	U	
SILVER		0.015	U		0.015	U		0.015	U		0.015	UL	C
THALLIUM		0.26	B	A	0.13	U		0.13	U		0.13	U	
VANADIUM		2.8	J	P	0.43	U		8	J	P	1.1	J	P
ZINC		4	B	A	1.6	B	A	2.3	B	A	5.9	B	A

APPENDIX B
RESULTS AS REPORTED BY THE LABORATORY

Tetra Tech NUS, Inc

Client Sample ID: MRC-MW93D-101510

TOTAL Metals

Lot-Sample #...: A0J180429-002 **Matrix.....:** WG
Date Sampled...: 10/15/10 11:18 **Date Received..:** 10/16/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0292014						
Silver	0.15 B	1.0	ug/L	SW846 6020	10/19-10/20/10	L8MNJ1AR
		Dilution Factor: 1		Analysis Time..: 18:50	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.015		
Arsenic	11.7	5.0	ug/L	SW846 6020	10/19-10/20/10	L8MNJ1AD
		Dilution Factor: 1		Analysis Time..: 18:50	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.16		
Barium	257 J	1.0	ug/L	SW846 6020	10/19-10/20/10	L8MNJ1AE
		Dilution Factor: 1		Analysis Time..: 18:50	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.027		
Beryllium	3.0 J	1.0	ug/L	SW846 6020	10/19-10/20/10	L8MNJ1AF
		Dilution Factor: 1		Analysis Time..: 18:50	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.0059		
Cadmium	0.22 B	1.0	ug/L	SW846 6020	10/19-10/20/10	L8MNJ1AG
		Dilution Factor: 1		Analysis Time..: 18:50	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.025		
Cobalt	5.3 J	1.0	ug/L	SW846 6020	10/19-10/20/10	L8MNJ1AH
		Dilution Factor: 1		Analysis Time..: 18:50	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.015		
Chromium	65.6 J	2.0	ug/L	SW846 6020	10/19-10/20/10	L8MNJ1AW
		Dilution Factor: 1		Analysis Time..: 18:50	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.044		
Copper	44.0 J	2.0	ug/L	SW846 6020	10/19-10/21/10	L8MNJ1AJ
		Dilution Factor: 1		Analysis Time..: 13:12	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.043		
Iron	32100 J	50.0	ug/L	SW846 6020	10/19-10/20/10	L8MNJ1AK
		Dilution Factor: 1		Analysis Time..: 18:50	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 6.0		
Manganese	280 J	1.0	ug/L	SW846 6020	10/19-10/20/10	L8MNJ1AM
		Dilution Factor: 1		Analysis Time..: 18:50	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.16		

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Tetra Tech NUS, Inc

Client Sample ID: MRC-MW93D-101510

TOTAL Metals

Lot-Sample #...: A0J180429-002 Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Molybdenum	13.8	2.0	ug/L	SW846 6020	10/19-10/20/10	L8MNJ1AN
		Dilution Factor: 1		Analysis Time..: 18:50	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.27		
Nickel	22.7	2.0	ug/L	SW846 6020	10/19-10/20/10	L8MNJ1AP
		Dilution Factor: 1		Analysis Time..: 18:50	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.16		
Lead	39.8 J	1.0	ug/L	SW846 6020	10/19-10/20/10	L8MNJ1AL
		Dilution Factor: 1		Analysis Time..: 18:50	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.019		
Antimony	0.46 B	2.0	ug/L	SW846 6020	10/19-10/20/10	L8MNJ1AC
		Dilution Factor: 1		Analysis Time..: 18:50	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.027		
Selenium	2.5 B	5.0	ug/L	SW846 6020	10/19-10/20/10	L8MNJ1AQ
		Dilution Factor: 1		Analysis Time..: 18:50	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.13		
Thallium	0.13 B	1.0	ug/L	SW846 6020	10/19-10/20/10	L8MNJ1AT
		Dilution Factor: 1		Analysis Time..: 18:50	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.13		
Vanadium	44.8	20.0	ug/L	SW846 6020	10/19-10/20/10	L8MNJ1AU
		Dilution Factor: 1		Analysis Time..: 18:50	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.43		
Zinc	105 J	20.0	ug/L	SW846 6020	10/19-10/20/10	L8MNJ1AV
		Dilution Factor: 1		Analysis Time..: 18:50	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.35		
Mercury	ND	0.20	ug/L	SW846 7470A	10/19-10/21/10	L8MNJ1AX
		Dilution Factor: 1		Analysis Time..: 18:53	Analyst ID.....: 001576	
		Instrument ID..: H4		MDL.....: 0.10		

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: MRC-MW94D-101510

TOTAL Metals

Lot-Sample #...: A0J180429-003 Matrix.....: WG
Date Sampled...: 10/15/10 14:10 Date Received..: 10/16/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0292014						
Silver	ND	1.0	ug/L	SW846 6020	10/19-10/20/10	L8MNK1A4
		Dilution Factor: 1		Analysis Time..: 19:12	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.015		
Arsenic	1.3 B	5.0	ug/L	SW846 6020	10/19-10/20/10	L8MNK1AP
		Dilution Factor: 1		Analysis Time..: 19:12	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.16		
Barium	33.0 J	1.0	ug/L	SW846 6020	10/19-10/20/10	L8MNK1AQ
		Dilution Factor: 1		Analysis Time..: 19:12	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.027		
Beryllium	0.17 B,J	1.0	ug/L	SW846 6020	10/19-10/20/10	L8MNK1AR
		Dilution Factor: 1		Analysis Time..: 19:12	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.0059		
Cadmium	0.036 B	1.0	ug/L	SW846 6020	10/19-10/20/10	L8MNK1AT
		Dilution Factor: 1		Analysis Time..: 19:12	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.025		
Cobalt	0.39 B,J	1.0	ug/L	SW846 6020	10/19-10/20/10	L8MNK1AU
		Dilution Factor: 1		Analysis Time..: 19:12	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.015		
Chromium	4.6 J	2.0	ug/L	SW846 6020	10/19-10/20/10	L8MNK1A8
		Dilution Factor: 1		Analysis Time..: 19:12	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.044		
Copper	2.0 J	2.0	ug/L	SW846 6020	10/19-10/21/10	L8MNK1AV
		Dilution Factor: 1		Analysis Time..: 13:29	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.043		
Iron	3930 J	50.0	ug/L	SW846 6020	10/19-10/20/10	L8MNK1AW
		Dilution Factor: 1		Analysis Time..: 19:12	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 6.0		
Manganese	79.7 J	1.0	ug/L	SW846 6020	10/19-10/20/10	L8MNK1A0
		Dilution Factor: 1		Analysis Time..: 19:12	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.16		

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Tetra Tech NUS, Inc

Client Sample ID: MRC-MW94D-101510

TOTAL Metals

Lot-Sample #...: A0J180429-003 Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Molybdenum	1.6 B	2.0	ug/L	SW846 6020	10/19-10/20/10	L8MNK1A1
		Dilution Factor: 1		Analysis Time..: 19:12	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.27		
Nickel	3.8	2.0	ug/L	SW846 6020	10/19-10/20/10	L8MNK1A2
		Dilution Factor: 1		Analysis Time..: 19:12	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.16		
Lead	2.1 J	1.0	ug/L	SW846 6020	10/19-10/20/10	L8MNK1AX
		Dilution Factor: 1		Analysis Time..: 19:12	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.019		
Antimony	0.15 B	2.0	ug/L	SW846 6020	10/19-10/20/10	L8MNK1AN
		Dilution Factor: 1		Analysis Time..: 19:12	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.027		
Selenium	ND	5.0	ug/L	SW846 6020	10/19-10/20/10	L8MNK1A3
		Dilution Factor: 1		Analysis Time..: 19:12	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.13		
Thallium	ND	1.0	ug/L	SW846 6020	10/19-10/20/10	L8MNK1A5
		Dilution Factor: 1		Analysis Time..: 19:12	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.13		
Vanadium	2.9 B	20.0	ug/L	SW846 6020	10/19-10/20/10	L8MNK1A6
		Dilution Factor: 1		Analysis Time..: 19:12	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.43		
Zinc	10.7 B,J	20.0	ug/L	SW846 6020	10/19-10/20/10	L8MNK1A7
		Dilution Factor: 1		Analysis Time..: 19:12	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.35		
Mercury	ND	0.20	ug/L	SW846 7470A	10/19-10/21/10	L8MNK1A9
		Dilution Factor: 1		Analysis Time..: 19:00	Analyst ID.....: 001576	
		Instrument ID..: H4		MDL.....: 0.10		

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: MRC-MW95D-101510

TOTAL Metals

Lot-Sample #...: A0J180429-004 Matrix.....: WG
Date Sampled...: 10/15/10 16:09 Date Received..: 10/16/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0292014						
Silver	ND	1.0	ug/L	SW846 6020	10/19-10/20/10	L8MNL1AF
		Dilution Factor: 1		Analysis Time..: 19:22	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.015		
Arsenic	1.0 B	5.0	ug/L	SW846 6020	10/19-10/20/10	L8MNL1A2
		Dilution Factor: 1		Analysis Time..: 19:22	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.16		
Barium	221 J	1.0	ug/L	SW846 6020	10/19-10/20/10	L8MNL1A3
		Dilution Factor: 1		Analysis Time..: 19:22	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.027		
Beryllium	ND	1.0	ug/L	SW846 6020	10/19-10/20/10	L8MNL1A4
		Dilution Factor: 1		Analysis Time..: 19:22	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.0059		
Cadmium	ND	1.0	ug/L	SW846 6020	10/19-10/20/10	L8MNL1A5
		Dilution Factor: 1		Analysis Time..: 19:22	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.025		
Cobalt	0.051 B,J	1.0	ug/L	SW846 6020	10/19-10/20/10	L8MNL1A6
		Dilution Factor: 1		Analysis Time..: 19:22	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.015		
Chromium	0.85 B,J	2.0	ug/L	SW846 6020	10/19-10/20/10	L8MNL1AK
		Dilution Factor: 1		Analysis Time..: 19:22	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.044		
Copper	1.2 B,J	2.0	ug/L	SW846 6020	10/19-10/20/10	L8MNL1A7
		Dilution Factor: 1		Analysis Time..: 19:22	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.043		
Iron	89.4 J	50.0	ug/L	SW846 6020	10/19-10/20/10	L8MNL1A8
		Dilution Factor: 1		Analysis Time..: 19:22	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 6.0		
Manganese	1.4 J	1.0	ug/L	SW846 6020	10/19-10/20/10	L8MNL1AA
		Dilution Factor: 1		Analysis Time..: 19:22	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.16		

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Tetra Tech NUS, Inc

Client Sample ID: MRC-MW95D-101510

TOTAL Metals

Lot-Sample #...: A0J180429-004 Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Molybdenum	14.2	2.0	ug/L	SW846 6020	10/19-10/20/10	L8MNL1AC
		Dilution Factor: 1		Analysis Time..: 19:22	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.27		
Nickel	0.66 B	2.0	ug/L	SW846 6020	10/19-10/20/10	L8MNL1AD
		Dilution Factor: 1		Analysis Time..: 19:22	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.16		
Lead	0.12 B,J	1.0	ug/L	SW846 6020	10/19-10/20/10	L8MNL1A9
		Dilution Factor: 1		Analysis Time..: 19:22	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.019		
Antimony	0.72 B	2.0	ug/L	SW846 6020	10/19-10/20/10	L8MNL1A1
		Dilution Factor: 1		Analysis Time..: 19:22	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.027		
Selenium	0.58 B	5.0	ug/L	SW846 6020	10/19-10/20/10	L8MNL1AE
		Dilution Factor: 1		Analysis Time..: 19:22	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.13		
Thallium	ND	1.0	ug/L	SW846 6020	10/19-10/20/10	L8MNL1AG
		Dilution Factor: 1		Analysis Time..: 19:22	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.13		
Vanadium	8.0 B	20.0	ug/L	SW846 6020	10/19-10/20/10	L8MNL1AH
		Dilution Factor: 1		Analysis Time..: 19:22	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.43		
Zinc	1.3 B,J	20.0	ug/L	SW846 6020	10/19-10/20/10	L8MNL1AJ
		Dilution Factor: 1		Analysis Time..: 19:22	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.35		
Mercury	ND	0.20	ug/L	SW846 7470A	10/19-10/21/10	L8MNL1AL
		Dilution Factor: 1		Analysis Time..: 18:24	Analyst ID.....: 001576	
		Instrument ID..: H4		MDL.....: 0.10		

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: MRC-MW96D-102010

TOTAL Metals

Lot-Sample #...: A0J210616-001
Date Sampled...: 10/20/10 12:18 Date Received..: 10/21/10
Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0295021						
Silver	ND	1.0 Dilution Factor: 1 Instrument ID..: I8	ug/L	SW846 6020 Analysis Time..: 14:57 MDL.....: 0.015	10/22-10/25/10 Analyst ID.....: 000079	L8WM31AR
Arsenic	0.38 B	5.0 Dilution Factor: 1 Instrument ID..: I8	ug/L	SW846 6020 Analysis Time..: 14:57 MDL.....: 0.16	10/22-10/25/10 Analyst ID.....: 000079	L8WM31AD
Barium	14.3 J	1.0 Dilution Factor: 1 Instrument ID..: I8	ug/L	SW846 6020 Analysis Time..: 14:57 MDL.....: 0.027	10/22-10/25/10 Analyst ID.....: 000079	L8WM31AE
Beryllium	0.11 B	1.0 Dilution Factor: 1 Instrument ID..: I8	ug/L	SW846 6020 Analysis Time..: 14:57 MDL.....: 0.0059	10/22-10/25/10 Analyst ID.....: 000079	L8WM31AF
Cadmium	0.025 B	1.0 Dilution Factor: 1 Instrument ID..: I8	ug/L	SW846 6020 Analysis Time..: 14:57 MDL.....: 0.025	10/22-10/25/10 Analyst ID.....: 000079	L8WM31AG
Cobalt	2.0	1.0 Dilution Factor: 1 Instrument ID..: I8	ug/L	SW846 6020 Analysis Time..: 14:57 MDL.....: 0.015	10/22-10/25/10 Analyst ID.....: 000079	L8WM31AH
Chromium	1.5 B,J	2.0 Dilution Factor: 1 Instrument ID..: I8	ug/L	SW846 6020 Analysis Time..: 14:57 MDL.....: 0.044	10/22-10/25/10 Analyst ID.....: 000079	L8WM31AW
Copper	1.6 B,J	2.0 Dilution Factor: 1 Instrument ID..: I8	ug/L	SW846 6020 Analysis Time..: 14:57 MDL.....: 0.043	10/22-10/25/10 Analyst ID.....: 000079	L8WM31AJ
Iron	691 J	50.0 Dilution Factor: 1 Instrument ID..: I8	ug/L	SW846 6020 Analysis Time..: 14:57 MDL.....: 6.0	10/22-10/25/10 Analyst ID.....: 000079	L8WM31AK
Manganese	24.5 J	1.0 Dilution Factor: 1 Instrument ID..: I8	ug/L	SW846 6020 Analysis Time..: 14:57 MDL.....: 0.16	10/22-10/25/10 Analyst ID.....: 000079	L8WM31AM

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Tetra Tech NUS, Inc

Client Sample ID: MRC-MW96D-102010

TOTAL Metals

Lot-Sample #...: A0J210616-001 Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Molybdenum	ND	2.0	ug/L	SW846 6020	10/22-10/25/10	L8WM31AN
		Dilution Factor: 1		Analysis Time..: 14:57	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.27		
Nickel	**4.6**	**2.0**	**ug/L**	**SW846 6020**	**10/22-10/25/10**	**L8WM31AP**
		Dilution Factor: 1		Analysis Time..: 14:57	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.16		
Lead	**0.38 B,J**	**1.0**	**ug/L**	**SW846 6020**	**10/22-10/25/10**	**L8WM31AL**
		Dilution Factor: 1		Analysis Time..: 14:57	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.019		
Antimony	ND	2.0	ug/L	SW846 6020	10/22-10/25/10	L8WM31AC
		Dilution Factor: 1		Analysis Time..: 14:57	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.027		
Selenium	ND	5.0	ug/L	SW846 6020	10/22-10/25/10	L8WM31AQ
		Dilution Factor: 1		Analysis Time..: 14:57	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.13		
Thallium	ND	1.0	ug/L	SW846 6020	10/22-10/25/10	L8WM31AT
		Dilution Factor: 1		Analysis Time..: 14:57	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.13		
Vanadium	**1.6 B**	**20.0**	**ug/L**	**SW846 6020**	**10/22-10/25/10**	**L8WM31AU**
		Dilution Factor: 1		Analysis Time..: 14:57	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.43		
Zinc	**7.9 B,J**	**20.0**	**ug/L**	**SW846 6020**	**10/22-10/25/10**	**L8WM31AV**
		Dilution Factor: 1		Analysis Time..: 14:57	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.35		
Mercury	ND	0.20	ug/L	SW846 7470A	10/22-10/26/10	L8WM31AX
		Dilution Factor: 1		Analysis Time..: 16:51	Analyst ID.....: 001576	
		Instrument ID..: H1		MDL.....: 0.10		

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: MRC-MW93D-101510

DISSOLVED Metals

Lot-Sample #...: A0J180429-002 Matrix.....: WG
Date Sampled...: 10/15/10 11:18 Date Received..: 10/16/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0292014						
Silver	ND	1.0	ug/L	SW846 6020	10/19-10/20/10	L8MNJ1CE
		Dilution Factor: 1		Analysis Time..: 19:07	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.015		
Arsenic	4.3 B	5.0	ug/L	SW846 6020	10/19-10/20/10	L8MNJ1A1
		Dilution Factor: 1		Analysis Time..: 19:07	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.16		
Barium	3.5 J	1.0	ug/L	SW846 6020	10/19-10/20/10	L8MNJ1A2
		Dilution Factor: 1		Analysis Time..: 19:07	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.027		
Beryllium	0.020 B,J	1.0	ug/L	SW846 6020	10/19-10/20/10	L8MNJ1A3
		Dilution Factor: 1		Analysis Time..: 19:07	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.0059		
Cadmium	ND	1.0	ug/L	SW846 6020	10/19-10/20/10	L8MNJ1A4
		Dilution Factor: 1		Analysis Time..: 19:07	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.025		
Cobalt	0.026 B,J	1.0	ug/L	SW846 6020	10/19-10/20/10	L8MNJ1A5
		Dilution Factor: 1		Analysis Time..: 19:07	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.015		
Chromium	0.17 B,J	2.0	ug/L	SW846 6020	10/19-10/20/10	L8MNJ1CJ
		Dilution Factor: 1		Analysis Time..: 19:07	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.044		
Copper	0.94 B,J	2.0	ug/L	SW846 6020	10/19-10/20/10	L8MNJ1A6
		Dilution Factor: 1		Analysis Time..: 19:07	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.043		
Iron	11.6 B,J	50.0	ug/L	SW846 6020	10/19-10/20/10	L8MNJ1A7
		Dilution Factor: 1		Analysis Time..: 19:07	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 6.0		
Manganese	1.1 J	1.0	ug/L	SW846 6020	10/19-10/20/10	L8MNJ1A9
		Dilution Factor: 1		Analysis Time..: 19:07	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.16		

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Tetra Tech NUS, Inc

Client Sample ID: MRC-MW93D-101510

DISSOLVED Metals

Lot-Sample #...: A0J180429-002 Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Molybdenum	15.3	2.0	ug/L	SW846 6020	10/19-10/20/10	L8MNJ1CA
		Dilution Factor: 1		Analysis Time..: 19:07	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.27		
Nickel	0.40 B	2.0	ug/L	SW846 6020	10/19-10/20/10	L8MNJ1CC
		Dilution Factor: 1		Analysis Time..: 19:07	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.16		
Lead	0.046 B,J	1.0	ug/L	SW846 6020	10/19-10/20/10	L8MNJ1A8
		Dilution Factor: 1		Analysis Time..: 19:07	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.019		
Antimony	1.3 B	2.0	ug/L	SW846 6020	10/19-10/20/10	L8MNJ1A0
		Dilution Factor: 1		Analysis Time..: 19:07	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.027		
Selenium	0.36 B	5.0	ug/L	SW846 6020	10/19-10/20/10	L8MNJ1CD
		Dilution Factor: 1		Analysis Time..: 19:07	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.13		
Thallium	0.26 B	1.0	ug/L	SW846 6020	10/19-10/20/10	L8MNJ1CF
		Dilution Factor: 1		Analysis Time..: 19:07	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.13		
Vanadium	2.8 B	20.0	ug/L	SW846 6020	10/19-10/20/10	L8MNJ1CG
		Dilution Factor: 1		Analysis Time..: 19:07	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.43		
Zinc	4.0 B,J	20.0	ug/L	SW846 6020	10/19-10/20/10	L8MNJ1CH
		Dilution Factor: 1		Analysis Time..: 19:07	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.35		
Mercury	ND	0.20	ug/L	SW846 7470A	10/19-10/21/10	L8MNJ1CK
		Dilution Factor: 1		Analysis Time..: 18:58	Analyst ID.....: 001576	
		Instrument ID..: H4		MDL.....: 0.10		

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: MRC-MW94D-101510

DISSOLVED Metals

Lot-Sample #...: A0J180429-003 Matrix.....: WG
Date Sampled...: 10/15/10 14:10 Date Received..: 10/16/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0292014						
Silver	ND	1.0	ug/L	SW846 6020	10/19-10/20/10	L8MNK1CE
		Dilution Factor: 1		Analysis Time..: 19:17	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.015		
Arsenic	**0.83 B**	**5.0**	**ug/L**	**SW846 6020**	**10/19-10/20/10**	**L8MNK1AC**
		Dilution Factor: 1		Analysis Time..: 19:17	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.16		
Barium	**18.8 J**	**1.0**	**ug/L**	**SW846 6020**	**10/19-10/20/10**	**L8MNK1AD**
		Dilution Factor: 1		Analysis Time..: 19:17	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.027		
Beryllium	ND	1.0	ug/L	SW846 6020	10/19-10/20/10	L8MNK1AE
		Dilution Factor: 1		Analysis Time..: 19:17	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.0059		
Cadmium	ND	1.0	ug/L	SW846 6020	10/19-10/20/10	L8MNK1AF
		Dilution Factor: 1		Analysis Time..: 19:17	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.025		
Cobalt	**0.093 B,J**	**1.0**	**ug/L**	**SW846 6020**	**10/19-10/20/10**	**L8MNK1AG**
		Dilution Factor: 1		Analysis Time..: 19:17	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.015		
Chromium	**0.065 B,J**	**2.0**	**ug/L**	**SW846 6020**	**10/19-10/20/10**	**L8MNK1CJ**
		Dilution Factor: 1		Analysis Time..: 19:17	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.044		
Copper	**0.34 B,J**	**2.0**	**ug/L**	**SW846 6020**	**10/19-10/20/10**	**L8MNK1AH**
		Dilution Factor: 1		Analysis Time..: 19:17	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.043		
Iron	**620 J**	**50.0**	**ug/L**	**SW846 6020**	**10/19-10/20/10**	**L8MNK1AJ**
		Dilution Factor: 1		Analysis Time..: 19:17	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 6.0		
Manganese	**64.1 J**	**1.0**	**ug/L**	**SW846 6020**	**10/19-10/20/10**	**L8MNK1AL**
		Dilution Factor: 1		Analysis Time..: 19:17	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.16		

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Tetra Tech NUS, Inc

Client Sample ID: MRC-MW94D-101510

DISSOLVED Metals

Lot-Sample #...: A0J180429-003 Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Molybdenum	1.3 B	2.0	ug/L	SW846 6020	10/19-10/20/10	L8MNK1CA
		Dilution Factor: 1		Analysis Time..: 19:17	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.27		
Nickel	1.3 B	2.0	ug/L	SW846 6020	10/19-10/20/10	L8MNK1CC
		Dilution Factor: 1		Analysis Time..: 19:17	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.16		
Lead	0.020 B,J	1.0	ug/L	SW846 6020	10/19-10/20/10	L8MNK1AK
		Dilution Factor: 1		Analysis Time..: 19:17	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.019		
Antimony	0.18 B	2.0	ug/L	SW846 6020	10/19-10/20/10	L8MNK1AA
		Dilution Factor: 1		Analysis Time..: 19:17	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.027		
Selenium	ND	5.0	ug/L	SW846 6020	10/19-10/20/10	L8MNK1CD
		Dilution Factor: 1		Analysis Time..: 19:17	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.13		
Thallium	ND	1.0	ug/L	SW846 6020	10/19-10/20/10	L8MNK1CF
		Dilution Factor: 1		Analysis Time..: 19:17	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.13		
Vanadium	ND	20.0	ug/L	SW846 6020	10/19-10/20/10	L8MNK1CG
		Dilution Factor: 1		Analysis Time..: 19:17	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.43		
Zinc	1.6 B,J	20.0	ug/L	SW846 6020	10/19-10/20/10	L8MNK1CH
		Dilution Factor: 1		Analysis Time..: 19:17	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.35		
Mercury	ND	0.20	ug/L	SW846 7470A	10/19-10/21/10	L8MNK1CK
		Dilution Factor: 1		Analysis Time..: 19:02	Analyst ID.....: 001576	
		Instrument ID..: H4		MDL.....: 0.10		

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: MRC-MW95D-101510

DISSOLVED Metals

Lot-Sample #...: A0J180429-004 Matrix.....: WG
Date Sampled...: 10/15/10 16:09 Date Received..: 10/16/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0292014						
Silver	ND	1.0	ug/L	SW846 6020	10/19-10/20/10	L8MNL1CE
		Dilution Factor: 1		Analysis Time..: 19:27	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.015		
Arsenic	1.0 B	5.0	ug/L	SW846 6020	10/19-10/20/10	L8MNL1AN
		Dilution Factor: 1		Analysis Time..: 19:27	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.16		
Barium	227 J	1.0	ug/L	SW846 6020	10/19-10/20/10	L8MNL1AP
		Dilution Factor: 1		Analysis Time..: 19:27	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.027		
Beryllium	ND	1.0	ug/L	SW846 6020	10/19-10/20/10	L8MNL1AQ
		Dilution Factor: 1		Analysis Time..: 19:27	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.0059		
Cadmium	ND	1.0	ug/L	SW846 6020	10/19-10/20/10	L8MNL1AR
		Dilution Factor: 1		Analysis Time..: 19:27	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.025		
Cobalt	0.033 B,J	1.0	ug/L	SW846 6020	10/19-10/20/10	L8MNL1AT
		Dilution Factor: 1		Analysis Time..: 19:27	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.015		
Chromium	2.1 J	2.0	ug/L	SW846 6020	10/19-10/20/10	L8MNL1CJ
		Dilution Factor: 1		Analysis Time..: 19:27	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.044		
Copper	0.32 B,J	2.0	ug/L	SW846 6020	10/19-10/20/10	L8MNL1AU
		Dilution Factor: 1		Analysis Time..: 19:27	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.043		
Iron	25.8 B,J	50.0	ug/L	SW846 6020	10/19-10/20/10	L8MNL1AV
		Dilution Factor: 1		Analysis Time..: 19:27	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 6.0		
Manganese	0.40 B,J	1.0	ug/L	SW846 6020	10/19-10/20/10	L8MNL1AX
		Dilution Factor: 1		Analysis Time..: 19:27	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.16		

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Tetra Tech NUS, Inc

Client Sample ID: MRC-MW95D-101510

DISSOLVED Metals

Lot-Sample #...: A0J180429-004 Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Molybdenum	**14.7**	**2.0**	**ug/L**	**SW846 6020**	**10/19-10/20/10**	**L8MNL1CA**
		Dilution Factor: 1		Analysis Time..: 19:27	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.27		
Nickel	**1.1 B**	**2.0**	**ug/L**	**SW846 6020**	**10/19-10/20/10**	**L8MNL1CC**
		Dilution Factor: 1		Analysis Time..: 19:27	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.16		
Lead	**0.041 B,J**	**1.0**	**ug/L**	**SW846 6020**	**10/19-10/20/10**	**L8MNL1AW**
		Dilution Factor: 1		Analysis Time..: 19:27	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.019		
Antimony	**0.81 B**	**2.0**	**ug/L**	**SW846 6020**	**10/19-10/20/10**	**L8MNL1AM**
		Dilution Factor: 1		Analysis Time..: 19:27	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.027		
Selenium	**0.56 B**	**5.0**	**ug/L**	**SW846 6020**	**10/19-10/20/10**	**L8MNL1CD**
		Dilution Factor: 1		Analysis Time..: 19:27	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.13		
Thallium	ND	1.0	ug/L	SW846 6020	10/19-10/20/10	L8MNL1CF
		Dilution Factor: 1		Analysis Time..: 19:27	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.13		
Vanadium	**8.0 B**	**20.0**	**ug/L**	**SW846 6020**	**10/19-10/20/10**	**L8MNL1CG**
		Dilution Factor: 1		Analysis Time..: 19:27	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.43		
Zinc	**2.3 B,J**	**20.0**	**ug/L**	**SW846 6020**	**10/19-10/20/10**	**L8MNL1CH**
		Dilution Factor: 1		Analysis Time..: 19:27	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.35		
Mercury	ND	0.20	ug/L	SW846 7470A	10/19-10/21/10	L8MNL1CK
		Dilution Factor: 1		Analysis Time..: 19:08	Analyst ID.....: 001576	
		Instrument ID..: H4		MDL.....: 0.10		

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: MRC-MW96D-102010

DISSOLVED Metals

Lot-Sample #...: A0J210616-001 Matrix.....: WG
Date Sampled...: 10/20/10 12:18 Date Received..: 10/21/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0295021						
Silver	ND	1.0	ug/L	SW846 6020	10/22-10/25/10	L8WM31CE
		Dilution Factor: 1		Analysis Time..: 15:02	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.015		
Arsenic	0.29 B	5.0	ug/L	SW846 6020	10/22-10/25/10	L8WM31A1
		Dilution Factor: 1		Analysis Time..: 15:02	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.16		
Barium	11.0 J	1.0	ug/L	SW846 6020	10/22-10/25/10	L8WM31A2
		Dilution Factor: 1		Analysis Time..: 15:02	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.027		
Beryllium	0.067 B	1.0	ug/L	SW846 6020	10/22-10/25/10	L8WM31A3
		Dilution Factor: 1		Analysis Time..: 15:02	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.0059		
Cadmium	0.027 B	1.0	ug/L	SW846 6020	10/22-10/25/10	L8WM31A4
		Dilution Factor: 1		Analysis Time..: 15:02	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.025		
Cobalt	1.9	1.0	ug/L	SW846 6020	10/22-10/25/10	L8WM31A5
		Dilution Factor: 1		Analysis Time..: 15:02	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.015		
Chromium	0.41 B,J	2.0	ug/L	SW846 6020	10/22-10/25/10	L8WM31CJ
		Dilution Factor: 1		Analysis Time..: 15:02	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.044		
Copper	1.1 B,J	2.0	ug/L	SW846 6020	10/22-10/25/10	L8WM31A6
		Dilution Factor: 1		Analysis Time..: 15:02	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.043		
Iron	66.0 J	50.0	ug/L	SW846 6020	10/22-10/25/10	L8WM31A7
		Dilution Factor: 1		Analysis Time..: 15:02	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 6.0		
Manganese	21.0 J	1.0	ug/L	SW846 6020	10/22-10/25/10	L8WM31A9
		Dilution Factor: 1		Analysis Time..: 15:02	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.16		

(Continued on next page)

Tetra Tech NUS, Inc

Client Sample ID: MRC-MW96D-102010

DISSOLVED Metals

Lot-Sample #...: A0J210616-001 Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Molybdenum	ND	2.0	ug/L	SW846 6020	10/22-10/25/10	L8WM31CA
		Dilution Factor: 1		Analysis Time..: 15:02	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.27		
Nickel	4.1	2.0	ug/L	SW846 6020	10/22-10/25/10	L8WM31CC
		Dilution Factor: 1		Analysis Time..: 15:02	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.16		
Lead	0.44 B,J	1.0	ug/L	SW846 6020	10/22-10/25/10	L8WM31A8
		Dilution Factor: 1		Analysis Time..: 15:02	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.019		
Antimony	ND	2.0	ug/L	SW846 6020	10/22-10/25/10	L8WM31A0
		Dilution Factor: 1		Analysis Time..: 15:02	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.027		
Selenium	ND	5.0	ug/L	SW846 6020	10/22-10/25/10	L8WM31CD
		Dilution Factor: 1		Analysis Time..: 15:02	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.13		
Thallium	ND	1.0	ug/L	SW846 6020	10/22-10/25/10	L8WM31CF
		Dilution Factor: 1		Analysis Time..: 15:02	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.13		
Vanadium	1.1 B	20.0	ug/L	SW846 6020	10/22-10/25/10	L8WM31CG
		Dilution Factor: 1		Analysis Time..: 15:02	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.43		
Zinc	5.9 B,J	20.0	ug/L	SW846 6020	10/22-10/25/10	L8WM31CH
		Dilution Factor: 1		Analysis Time..: 15:02	Analyst ID.....: 000079	
		Instrument ID..: I8		MDL.....: 0.35		
Mercury	ND	0.20	ug/L	SW846 7470A	10/22-10/26/10	L8WM31CK
		Dilution Factor: 1		Analysis Time..: 16:40	Analyst ID.....: 001576	
		Instrument ID..: H1		MDL.....: 0.10		

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

APPENDIX C
SUPPORT DOCUMENTATION

CASE NARRATIVE

0J18429

The following report contains the analytical results for four water samples and two quality control samples submitted to TestAmerica North Canton by Tetra Tech NUS, Inc from the MRC-DEEP WELL SAMPLING Site, project number 112IC02720-0300.2. The samples were received October 16, 2010 and October 21, 2010, according to documented sample acceptance procedures.

This SDG consists of (2) laboratory ID's: A0J180429 and A0J210616.

The Hexavalent Chromium analysis was performed at the TestAmerica Edison Laboratory. Refer to the TestAmerica Edison narrative included in their data package for additional information.

TestAmerica utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Kelly Carper and Tony Apanavage on November 03, 2010, and on November 10, 2010. A summary of QC data for these analyses is included at the back of the report.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

All parameters were evaluated to the method detection limit and include qualified results where applicable.

Please refer to the Quality Control Elements Narrative following this case narrative for additional quality control information.

If you have any questions, please call the Project Manager, Patrick J. O'Meara, at 330-497-9396.

CASE NARRATIVE (continued)

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperatures of the coolers upon sample receipt were 0.9 and 2.1°C.

GC/MS VOLATILES

The sample(s) that contain results between the MDL and the RL were flagged with "J". There is a possibility of false positive or mis-identification at these quantitation levels. In analytical methods requiring confirmation of the analyte reported, confirmation was performed only down to the standard reporting limit (SRL). The acceptance criteria for QC samples may not be met at these quantitation levels.

2-Chloroethyl vinyl ether cannot be reliably recovered in an acid preserved sample.

GC/MS SEMIVOLATILES

The LCS associated with samples MRC-MW93D-101510, MRC-94D-101510 and MRC-MW95D-101510 had acid spike recoveries out of control. However, since only BN compounds were requested no corrective action was necessary.

The LCS associated with QC batch 0300035 had a recovery for Pentachlorophenol below acceptance criteria. Because the samples target list is BN only no corrective action was required.

METALS

The sample(s) that contain results between the MDL and the RL were flagged with "B". There is the possibility of false positive or mis-identification at these quantitation levels. The acceptance criteria for the ICB, CCB, and Method Blank are +/- the standard reporting limit (SRL).

The sample(s) that contained concentrations of target analyte(s) at a reportable level in the associated Method Blank(s) were flagged with "J". Refer to the sample report pages for the affected analyte(s).

CASE NARRATIVE (continued)

METALS (cont)

Matrix spike recovery and relative percent difference (RPD) data were not calculated for some analytes for batch(es) 0295021 due to the sample concentration reading greater than four times the spike amount. See the Matrix Spike Report for the affected analytes which will be flagged with "NC, MSB".

The matrix spike/matrix spike duplicate(s) for MRC-MW93D-101510 had recoveries outside acceptance limits. However, since the associated method blank(s) and laboratory control sample(s) were in control, no corrective action was necessary.

No ICP MS Form IX provided for batch(es) 0292014 and 0295021. The serial dilution was performed on a different sample from the same QC batch(es).

The CCB was greater than or equal to the requested reporting for Copper. Since the result(s) for samples MRC-MW93D-101510, MRC-MW94D-101510 and MRC-MW95D-101510 were below the requested reporting limit the result(s) were accepted.

QUALITY CONTROL ELEMENTS NARRATIVE

TestAmerica conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data. Program or agency specific requirements take precedence over the requirements listed in this narrative.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. TestAmerica North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples.

For SW846/RCRA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

For 600 series/CWA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE (MS). An MS is prepared and analyzed at a 10% frequency for GC Methods and at a 5% frequency for GC/MS methods.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. Multi peak responders may not be included in the target spike list due to co-elution. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. Comparison of only the failed parameters from the first batch are evaluated. The only exception to the rework requirement is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed in the table.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals ICP-MS	Metals ICP Trace
Methylene Chloride, Acetone, 2-Butanone	Phthalate Esters	Copper, Iron, Zinc, Lead, Calcium, Magnesium, Potassium, Sodium, Barium, Chromium, Manganese	Copper, Iron, Zinc, Lead

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

For certain methods (600 series methods/CWA), a Matrix Spike is required in place of a Matrix Spike/Matrix Spike Duplicate (MS/MSD) or Matrix Spike/Sample Duplicate (MS/DU).

The acceptance criteria do not apply to samples that are diluted.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepared and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepared and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

The acceptance criteria do not apply to samples that are diluted. All other surrogate recoveries will be reported.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide and PCB methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria. The second surrogate must have a recovery of 10% or greater.

TestAmerica Certifications and Approvals:

The laboratory is certified for the analytes listed on the documents below. These are available upon request.
California (#01144CA), Connecticut (#PH-0590), Florida (#E87225),
Illinois (#200004), Kansas (#E10336), Minnesota (#39-999-348), New Jersey (#OH001), New York (#10975), Nevada (#OH-000482008A), OhioVAP (#CL0024), Pennsylvania (#008), West Virginia (#210), Wisconsin (#999518190),NAVY, ARMY, USDA Soil Permit

N:\QAQC\Customer Service\Narrative - Combined RCRA _CWA 032609.doc

SAMPLE SUMMARY

0J18429 : A0J180429

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
L8MND	001	TB-101510	10/15/10	07:00
L8MNJ	002	MRC-MW93D-101510	10/15/10	11:18
L8MNK	003	MRC-MW94D-101510	10/15/10	14:10
L8MNL	004	MRC-MW95D-101510	10/15/10	16:09

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

(Continued on next page)

SAMPLE SUMMARY

0J18429 : A0J210616

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
L8WM3	001	MRC-MW96D-102010	10/20/10	12:18
L8WNP	002	TB-102010	10/20/10	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Chain of Custody Record

TestAmerica 19
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: Tetra Tech MS	Client Project Manager: Dev Murali	Site Contact: Matt Ryon	Lab Contact: Pat Omeara	COC No: 009322
Address: 20251 Century Blvd	Telephone: (301) 528-3063	Telephone: (301) 991-3914	Telephone: (330) 966-5725	1 of 1 COCs
City/State/Zip: Germantown MD 20874	Email:	Analysis Turnaround Time (CALENDAR DAYS)	Analyses	For Lab Use Only: Walk-in client ☐ Lab sampling ☐ Job / SDG No.:
Phone: (301) 528-3063		TAT if different from below _____ ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		
Project Name: MRC - Deep well Sampling	Method of Shipment/Carrier:			
Project Number: 112IC02720-0300.2	Shipping/Tracking No:			
PO #				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Unpres	Other:	Total # of Containers	VOCs	Total metals	Diss metals	1,4 Dioxane						Sample Specific Notes / Special Instructions:
TB-101510	10-15-10	0700		X						X						X									
MRC-MW930-101510 ✓	↓	1118		X					X	X			X			X	X	X	X					*	All Diss
MRC-MW940-101510 ✓		1410		X					X	X			X			X	X	X	X						metals needs
MRC-MW950-101510 ✓	↓			X					X	X			X			X	X	X	X						to be Lab
																									Filtered Please

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Matt Ryon	TtMS	10-15-10 1600			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
			Terry Burns	TA	10/16/10 930

North Canton

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

22

TAL-4124 (1007)

Client: TetraTech, NUS	Project Manager: Dev Murali	Date: 10/20/10	Chain of Custody Number: 157718
Address: 20251 Century Blvd	Telephone Number (Area Code)/Fax Number: (301) 528-3063	Lab Number:	Page 1 of 1
City: Germantown; State: MD; Zip Code:	Site Contact: Dawn Markiewicz; Lab Contact:	Analysis (Attach list if more space is needed)	
Project Name and Location (State): MRC - Deep GW Well Sampling - Round 2	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.: 1121c02720			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	VOC	1,4-Dioxane	Total Metals	Dissolved Metals
MRC-MW96D-102010 ✓	10/20/10	1218		X			X		X	X			X	X	X	X
TB-102010	10/20/10	—		X						X			X			

Special Instructions/ Conditions of Receipt

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time
1. Relinquished By	10/20/10	1330
2. Relinquished By	10/20/10	1906
3. Relinquished By		
1. Received By		
2. Received By	10/21/10	900
3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

North Canton

HOLDTIMES

SDG 0J18429

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HG	UG/L	MRC-MW94D-101510	A0J180429003	NM	10/15/2010	10/19/2010	10/21/2010	4	2	6
HG	UG/L	MRC-MW95D-101510	A0J180429004	NM	10/15/2010	10/19/2010	10/21/2010	4	2	6
HG	UG/L	MRC-MW96D-102010	A0J210616001	NM	10/20/2010	10/22/2010	10/26/2010	2	4	6
HG	UG/L	MRC-MW93D-101510	A0J180429002	NM	10/15/2010	10/19/2010	10/21/2010	4	2	6
M	UG/L	MRC-MW94D-101510	A0J180429003	NM	10/15/2010	10/19/2010	10/21/2010	4	2	6
M	UG/L	MRC-MW95D-101510	A0J180429004	NM	10/15/2010	10/19/2010	10/20/2010	4	1	5
M	UG/L	MRC-MW94D-101510	A0J180429003	NM	10/15/2010	10/19/2010	10/20/2010	4	1	5
M	UG/L	MRC-MW93D-101510	A0J180429002	NM	10/15/2010	10/19/2010	10/21/2010	4	2	6
M	UG/L	MRC-MW93D-101510	A0J180429002	NM	10/15/2010	10/19/2010	10/20/2010	4	1	5
M	UG/L	MRC-MW96D-102010	A0J210616001	NM	10/20/2010	10/22/2010	10/25/2010	2	3	5
MF	UG/L	MRC-MW93D-101510	A0J180429002	NM	10/15/2010	10/19/2010	10/20/2010	4	1	5
MF	UG/L	MRC-MW94D-101510	A0J180429003	NM	10/15/2010	10/19/2010	10/20/2010	4	1	5
MF	UG/L	MRC-MW95D-101510	A0J180429004	NM	10/15/2010	10/19/2010	10/20/2010	4	1	5
MF	UG/L	MRC-MW96D-102010	A0J210616001	NM	10/20/2010	10/22/2010	10/25/2010	2	3	5
OS	UG/L	MRC-MW94D-101510	A0J180429003	SUR	10/15/2010	10/21/2010	10/28/2010	6	7	13

TestAmerica North Canton

Metals Data Reporting Form

Initial Calibration Verification Standard

Instrument: CVAA **Units:** ug/L

Chart Number: hg41021a.prn **Acceptable Range:** 90% - 110%

Standard Source: Ultra **Standard ID:**

Element	WL/ Mass	True Conc	Ck2ICV 10/21/2010 12:52 PM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	2.5	2.47	**99.0**								

TestAmerica North Canton

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: CVAA **Units:** ug/L

Chart Number: hg41021a.prn **Acceptable Range:** 80% - 120%

Standard Source: Ultra **Standard ID:**

Element	WL/ Mass	True Conc	Ck6CCV 10/21/2010 12:57 PM		Ck6CCV 10/21/2010 1:20 PM		Ck6CCV 10/21/2010 1:41 PM		Ck6CCV 10/21/2010 2:01 PM		Ck6CCV 10/21/2010 2:23 PM	
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	5.0	4.89	**97.7**	5.10	**102.0**	5.05	**101.1**	5.07	**101.5**	5.01	**100.1**

TestAmerica North Canton

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: CVAA **Units:** ug/L

Chart Number: hg41021a.prn **Acceptable Range:** 80% - 120%

Standard Source: Ultra **Standard ID:**

Element	WL/ Mass	True Conc	Ck6CCV 10/21/2010 2:41 PM		Ck6CCV 10/21/2010 3:02 PM		Ck6CCV 10/21/2010 3:21 PM		Ck6CCV 10/21/2010 3:42 PM		Ck6CCV 10/21/2010 4:04 PM	
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	5.0	4.85	**97.1**	5.08	**101.6**	5.05	**100.9**	4.81	**96.2**	5.04	**100.8**

TestAmerica North Canton

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: CVAA **Units:** ug/L

Chart Number: hg41021a.prn **Acceptable Range:** 80% - 120%

Standard Source: Ultra **Standard ID:**

Element	WL/ Mass	True Conc	Ck6CCV 10/21/2010 4:24 PM		Ck6CCV 10/21/2010 4:45 PM		Ck6CCV 10/21/2010 5:04 PM		Ck6CCV 10/21/2010 5:24 PM		Ck6CCV 10/21/2010 5:46 PM	
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	5.0	4.79	**95.9**	4.98	**99.6**	4.84	**96.7**	5.00	**100.0**	4.90	**98.1**

TestAmerica North Canton

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: CVAA **Units:** ug/L

Chart Number: hg41021a.prn **Acceptable Range:** 80% - 120%

Standard Source: Ultra **Standard ID:**

Element	WL/ Mass	True Conc	Ck6CCV 10/21/2010 6:06 PM		Ck6CCV 10/21/2010 6:27 PM		Ck6CCV 10/21/2010 6:48 PM		Ck6CCV 10/21/2010 7:09 PM			
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	5.0	4.98	**99.5**	5.03	**100.6**	4.94	**98.9**	4.92	**98.4**		

TestAmerica North Canton

Metals Data Reporting Form

Initial Calibration Verification Standard

Instrument: CVAA **Units:** ug/L

Chart Number: hg11026a.prn **Acceptable Range:** 90% - 110%

Standard Source: Ultra **Standard ID:**

Element	WL/ Mass	True Conc	Ck5ICV 10/26/2010 4:26 PM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	2.5	2.55	**101.8**								

TestAmerica North Canton

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: CVAA

Units: ug/L

Chart Number: hg11026a.prn

Acceptable Range: 80% - 120%

Standard Source: Ultra

Standard ID:

Element	WL/ Mass	True Conc	Ck2CCV 10/26/2010 4:29 PM Found	% Rec	Ck2CCV 10/26/2010 4:44 PM Found	% Rec	Ck2CCV 10/26/2010 4:59 PM Found	% Rec	Ck2CCV 10/26/2010 5:14 PM Found	% Rec	Ck2CCV 10/26/2010 5:28 PM Found	% Rec
Mercury	253.7	5.0	5.06	**101.2**	5.14	**102.9**	4.99	**99.8**	5.05	**101.0**	5.02	**100.3**

TestAmerica North Canton

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: CVAA **Units:** ug/L

Chart Number: hg11026a.prn **Acceptable Range:** 80% - 120%

Standard Source: Ultra **Standard ID:**

Element	WL/ Mass	True Conc	Ck2CCV 10/26/2010 5:42 PM Found	% Rec	Ck2CCV 10/26/2010 5:57 PM Found	% Rec	Ck2CCV 10/26/2010 6:11 PM Found	% Rec	Ck2CCV 10/26/2010 6:26 PM Found	% Rec	Ck2CCV 10/26/2010 6:34 PM Found	% Rec
Mercury	253.7	5.0	5.02	**100.3**	4.85	**96.9**	5.00	**99.9**	4.91	**98.2**	4.95	**99.1**

TestAmerica North Canton

Metals Data Reporting Form

Contract Required Detection Limit Standard

Instrument: ICPMS **Units:** ug/L

Chart Number: I81020A.csv **Acceptable Range:** 50% - 150%

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	True Conc	CRI 10/20/2010 2:04 PM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Antimony	121	2.0	2.01	**100.5**								
Arsenic	75	2.0	1.87	**93.3**								
Barium	137	1.0	0.95	**94.6**								
Beryllium	9	1.0	1.03	**102.6**								
Cadmium	111	0.5	0.48	**95.6**								
Chromium	52	2.0	1.93	**96.5**								
Cobalt	59	1.0	0.97	**97.4**								
Copper	65	2.0	2.37	**118.6**								
Iron	56	50.0	57.49	**115.0**								
Lead	208	1.0	0.96	**95.8**								
Manganese	55	1.0	1.10	**110.1**								
Molybdenu	95	10.0	9.82	**98.2**								
Nickel	60	2.0	1.94	**96.8**								
Selenium	78	2.0	1.65	**82.4**								
Silver	107	0.5	0.56	**111.7**								
Thallium	205	1.0	1.01	**100.8**								
Vanadium	51	5.0	4.85	**97.0**								
Zinc	66	10.0	8.93	**89.3**								

TestAmerica North Canton

Metals Data Reporting Form

Contract Required Detection Limit Standard

Instrument: ICPMS **Units:** ug/L

Chart Number: I81025A.csv **Acceptable Range:** 50% - 150%

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	True Conc	CRI 10/25/2010 12:47 PM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Antimony	121	2.0	1.95	**97.5**								
Arsenic	75	2.0	1.93	**96.4**								
Barium	137	1.0	0.97	**97.3**								
Beryllium	9	1.0	1.00	**100.3**								
Cadmium	111	0.5	0.47	**94.7**								
Chromium	52	2.0	1.98	**99.1**								
Cobalt	59	1.0	0.99	**99.1**								
Copper	65	2.0	2.09	**104.6**								
Iron	56	50.0	55.34	**110.7**								
Lead	208	1.0	0.96	**95.8**								
Manganese	55	1.0	1.14	**113.8**								
Molybdenu	95	10.0	9.42	**94.2**								
Nickel	60	2.0	2.23	**111.3**								
Selenium	78	2.0	1.92	**95.9**								
Silver	107	0.5	0.26	**51.8**								
Thallium	205	1.0	0.94	**93.7**								
Vanadium	51	5.0	5.53	**110.6**								
Zinc	66	10.0	9.31	**93.1**								

TestAmerica North Canton

Metals Data Reporting Form

Contract Required Detection Limit Standard

Instrument: CVAA **Units:** ug/L

Chart Number: hg11026a.prn **Acceptable Range:** 50% - 150%

Standard Source: Ultra **Standard ID:**

Element	WL/ Mass	True Conc	Ck3CRA\MRL 10/26/2010 4:28 PM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	0.2	0.20	**98.1**								

TestAmerica North Canton

Metals Data Reporting Form

Contract Required Detection Limit Standard

Instrument: CVAA **Units:** ug/L

Chart Number: hg41021a.prn **Acceptable Range:** 50% - 150%

Standard Source: Ultra **Standard ID:**

Element	WL/ Mass	True Conc	Ck4CRA\MRL 10/21/2010 12:55 PM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	0.2	0.22	**111.3**								

TestAmerica North Canton

Metals Data Reporting Form

Initial Calibration Verification Standard

Instrument: ICPMS **Units:** ug/L

Chart Number: I81020A.csv **Acceptable Range:** 90% - 110%

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	True Conc	ICV 10/20/2010 1:46 PM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Antimony	121	80.0	81.52	**101.9**								
Arsenic	75	80.0	80.26	**100.3**								
Barium	137	80.0	78.69	**98.4**								
Beryllium	9	80.0	80.31	**100.4**								
Cadmium	111	80.0	83.61	**104.5**								
Chromium	52	80.0	77.55	**96.9**								
Cobalt	59	80.0	81.05	**101.3**								
Copper	65	80.0	82.00	**102.5**								
Iron	56	20000.0	19800.00	**99.0**								
Lead	208	80.0	78.95	**98.7**								
Manganese	55	400.0	407.90	**102.0**								
Molybdenum	95	80.0	81.52	**101.9**								
Nickel	60	80.0	80.75	**100.9**								
Selenium	78	80.0	81.17	**101.5**								
Silver	107	80.0	82.09	**102.6**								
Thallium	205	80.0	82.49	**103.1**								
Vanadium	51	80.0	78.07	**97.6**								
Zinc	66	80.0	81.80	**102.3**								

TestAmerica North Canton

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: ICPMS **Units:** ug/L

Chart Number: I81020A.csv **Acceptable Range:** 90% - 110%

Standard Source: **Standard ID:**

Element	WL/ Mass	True Conc	CCV 10/20/2010 2:20 PM Found	% Rec	CCV 10/20/2010 5:22 PM Found	% Rec	CCV 10/20/2010 6:29 PM Found	% Rec	CCV 10/20/2010 7:31 PM Found	% Rec	Found	% Rec
Antimony	121	100.0	102.83	**102.8**	101.09	**101.1**	99.83	**99.8**	101.57	**101.6**		
Arsenic	75	100.0	99.57	**99.6**	100.90	**100.9**	100.17	**100.2**	100.23	**100.2**		
Barium	137	100.0	98.74	**98.7**	100.00	**100.0**	99.02	**99.0**	100.14	**100.1**		
Beryllium	9	100.0	100.31	**100.3**	98.96	**99.0**	99.99	**100.0**	101.36	**101.4**		
Cadmium	111	100.0	104.47	**104.5**	105.10	**105.1**	102.70	**102.7**	104.43	**104.4**		
Chromium	52	100.0	97.62	**97.6**	101.42	**101.4**	100.70	**100.7**	100.69	**100.7**		
Cobalt	59	100.0	98.07	**98.1**	101.28	**101.3**	99.20	**99.2**	100.49	**100.5**		
Copper	65	100.0	101.50	**101.5**	105.27	**105.3**	103.57	**103.6**	105.70	**105.7**		
Iron	56	25000.0	24673.33	**98.7**	25550.00	**102.2**	24960.00	**99.8**	25193.33	**100.8**		
Lead	208	100.0	101.33	**101.3**	100.45	**100.4**	101.57	**101.6**	101.63	**101.6**		
Manganese	55	500.0	507.67	**101.5**	509.63	**101.9**	509.00	**101.8**	505.67	**101.1**		
Molybdenum	95	100.0	106.00	**106.0**	106.63	**106.6**	104.97	**105.0**	104.97	**105.0**		
Nickel	60	100.0	100.13	**100.1**	103.20	**103.2**	100.05	**100.1**	102.40	**102.4**		
Selenium	78	100.0	101.20	**101.2**	98.37	**98.4**	98.03	**98.0**	99.91	**99.9**		
Silver	107	100.0	104.87	**104.9**	104.87	**104.9**	103.83	**103.8**	104.70	**104.7**		
Thallium	205	100.0	107.70	**107.7**	103.43	**103.4**	103.80	**103.8**	103.87	**103.9**		
Vanadium	51	100.0	98.99	**99.0**	99.71	**99.7**	100.23	**100.2**	101.09	**101.1**		
Zinc	66	100.0	103.07	**103.1**	102.47	**102.5**	101.37	**101.4**	102.10	**102.1**		

TestAmerica North Canton

Metals Data Reporting Form

Initial Calibration Verification Standard

Instrument: ICPMS **Units:** ug/L

Chart Number: I81021A.csv **Acceptable Range:** 90% - 110%

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	True Conc	ICV 10/21/2010 10:55 AM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Copper	65	80.0	82.84	**103.6**								

TestAmerica North Canton

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: ICPMS **Units:** ug/L

Chart Number: I81021A.csv **Acceptable Range:** 90% - 110%

Standard Source: **Standard ID:**

Element	WL/ Mass	True Conc	CCV 10/21/2010 11:25 AM Found	% Rec	CCV 10/21/2010 11:43 AM Found	% Rec	CCV 1 10/21/2010 12:19 PM Found	% Rec	CCV 2 10/21/2010 1:35 PM Found	% Rec	Found	% Rec
Copper	65	100.0	101.53	**101.5**	102.47	**102.5**	101.57	**101.6**	102.37	**102.4**		

TestAmerica North Canton

Metals Data Reporting Form

Contract Required Detection Limit Standard

Instrument: ICPMS **Units:** ug/L

Chart Number: I81021A.csv **Acceptable Range:** 50% - 150%

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	True Conc	CRI 10/21/2010 11:38 AM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Copper	65	2.0	1.95	**97.7**								

TestAmerica North Canton

Metals Data Reporting Form

Initial Calibration Verification Standard

Instrument: ICPMS **Units:** ug/L

Chart Number: I81025A.csv **Acceptable Range:** 90% - 110%

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	True Conc	ICV 10/25/2010 12:35 PM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Antimony	121	80.0	80.31	**100.4**								
Arsenic	75	80.0	78.84	**98.6**								
Barium	137	80.0	80.86	**101.1**								
Beryllium	9	80.0	81.28	**101.6**								
Cadmium	111	80.0	81.68	**102.1**								
Chromium	52	80.0	79.48	**99.4**								
Cobalt	59	80.0	80.46	**100.6**								
Copper	65	80.0	84.25	**105.3**								
Iron	56	20000.0	19853.33	**99.3**								
Lead	208	80.0	80.66	**100.8**								
Manganese	55	400.0	410.93	**102.7**								
Molybdenum	95	80.0	79.80	**99.7**								
Nickel	60	80.0	81.44	**101.8**								
Selenium	78	80.0	77.93	**97.4**								
Silver	107	80.0	80.45	**100.6**								
Thallium	205	80.0	77.98	**97.5**								
Vanadium	51	80.0	80.58	**100.7**								
Zinc	66	80.0	83.26	**104.1**								

TestAmerica North Canton

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: ICPMS **Units:** ug/L

Chart Number: I81025A.csv **Acceptable Range:** 90% - 110%

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	True Conc	CCV 10/25/2010 1:04 PM Found	% Rec	CCV 1 10/25/2010 2:17 PM Found	% Rec	CCV 2 10/25/2010 3:18 PM Found	% Rec	Found	% Rec	Found	% Rec
Antimony	121	100.0	98.46	**98.5**	98.40	**98.4**	96.29	**96.3**				
Arsenic	75	100.0	97.70	**97.7**	97.27	**97.3**	95.57	**95.6**				
Barium	137	100.0	99.19	**99.2**	96.32	**96.3**	96.31	**96.3**				
Beryllium	9	100.0	98.83	**98.8**	94.97	**95.0**	96.58	**96.6**				
Cadmium	111	100.0	99.34	**99.3**	100.58	**100.6**	99.27	**99.3**				
Chromium	52	100.0	99.32	**99.3**	99.51	**99.5**	98.60	**98.6**				
Cobalt	59	100.0	98.72	**98.7**	99.41	**99.4**	97.87	**97.9**				
Copper	65	100.0	98.65	**98.7**	99.01	**99.0**	98.00	**98.0**				
Iron	56	25000.0	24530.00	**98.1**	24660.00	**98.6**	24166.67	**96.7**				
Lead	208	100.0	98.37	**98.4**	99.19	**99.2**	97.67	**97.7**				
Manganese	55	500.0	495.97	**99.2**	500.63	**100.1**	492.20	**98.4**				
Molybdenum	95	100.0	103.57	**103.6**	102.27	**102.3**	100.09	**100.1**				
Nickel	60	100.0	100.17	**100.2**	100.12	**100.1**	98.50	**98.5**				
Selenium	78	100.0	96.70	**96.7**	96.06	**96.1**	97.19	**97.2**				
Silver	107	100.0	100.20	**100.2**	100.76	**100.8**	98.52	**98.5**				
Thallium	205	100.0	96.64	**96.6**	97.38	**97.4**	95.51	**95.5**				
Vanadium	51	100.0	98.81	**98.8**	98.03	**98.0**	97.42	**97.4**				
Zinc	66	100.0	99.39	**99.4**	102.13	**102.1**	102.02	**102.0**				

TestAmerica North Canton

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: CVAA **Units:** ug/L

Chart Number: hg41021a.prn

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	Ck3ICB 10/21/2010 12:53 PM Found	Q	Found	Q	Found	Q	Found	Q	Found	Q
Mercury	253.7	0.2	0.1	U								

U Result is less than the IDL

B Result is between IDL and RL

Form 3 Equivalent

TestAmerica North Canton

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: CVAA **Units:** ug/L

Chart Number: hg41021a.prn

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	Ck5CCB 10/21/2010 12:59 PM		Ck5CCB 10/21/2010 1:21 PM		Ck5CCB 10/21/2010 1:43 PM		Ck5CCB 10/21/2010 2:03 PM		Ck5CCB 10/21/2010 2:24 PM	
			Found	Q	Found	Q	Found	Q	Found	Q	Found	Q
Mercury	253.7	0.2	0.1	U	0.1	U	0.1	U	**0.1**	**B**	0.1	U

U Result is less than the IDL

B Result is between IDL and RL

TestAmerica North Canton

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: CVAA **Units:** ug/L

Chart Number: hg41021a.prn

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	Ck5CCB 10/21/2010 2:43 PM		Ck5CCB 10/21/2010 3:03 PM		Ck5CCB 10/21/2010 3:23 PM		Ck5CCB 10/21/2010 3:44 PM		Ck5CCB 10/21/2010 4:06 PM	
			Found	Q	Found	Q	Found	Q	Found	Q	Found	Q
Mercury	253.7	0.2	0.1	U	0.1	U	**0.1**	**B**	**0.1**	**B**	0.1	U

U Result is less than the IDL

B Result is between IDL and RL

TestAmerica North Canton

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: CVAA **Units:** ug/L

Chart Number: hg41021a.prn

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	Ck5CCB 10/21/2010 4:25 PM Found	Q	Ck5CCB 10/21/2010 4:46 PM Found	Q	Ck5CCB 10/21/2010 5:06 PM Found	Q	Ck5CCB 10/21/2010 5:26 PM Found	Q	Ck5CCB 10/21/2010 5:47 PM Found	Q
Mercury	253.7	0.2	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U

TestAmerica North Canton

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: CVAA **Units:** ug/L

Chart Number: hg41021a.prn

Standard Source: **Standard ID:**

Element	WL/ Mass	Report Limit	Ck5CCB 10/21/2010 6:08 PM Found	Q	Ck5CCB 10/21/2010 6:28 PM Found	Q	Ck5CCB 10/21/2010 6:49 PM Found	Q	Ck5CCB 10/21/2010 7:11 PM Found	Q	Found	Q
Mercury	253.7	0.2	0.1	U	0.1	U	0.1	U	0.1	U		

5.04.5

U Result is less than the IDL

B Result is between IDL and RL

Form 3 Equivalent

TestAmerica North Canton

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: CVAA **Units:** ug/L

Chart Number: hg11026a.prn

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	Ck4ICB 10/26/2010 4:27 PM Found	Q	Found	Q	Found	Q	Found	Q	Found	Q
Mercury	253.7	0.2	0.1	U								

U Result is less than the IDL

B Result is between IDL and RL

Form 3 Equivalent

TestAmerica North Canton

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: CVAA **Units:** ug/L

Chart Number: hg11026a.prn

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	Ck1CCB 10/26/2010 4:30 PM Found	Q	Ck1CCB 10/26/2010 4:46 PM Found	Q	Ck1CCB 10/26/2010 5:00 PM Found	Q	Ck1CCB 10/26/2010 5:15 PM Found	Q	Ck1CCB 10/26/2010 5:29 PM Found	Q
Mercury	253.7	0.2	0.1	U	0.1	U	**0.1**	**B**	0.1	U	0.1	U

5.04.5

U Result is less than the IDL

B Result is between IDL and RL

Form 3 Equivalent

TestAmerica North Canton

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: CVAA **Units:** ug/L

Chart Number: hg11026a.prn

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	Ck1CCB 10/26/2010 5:43 PM Found	Q	Ck1CCB 10/26/2010 5:58 PM Found	Q	Ck1CCB 10/26/2010 6:12 PM Found	Q	Ck1CCB 10/26/2010 6:27 PM Found	Q	Ck1CCB 10/26/2010 6:36 PM Found	Q
Mercury	253.7	0.2	**-0.1**	**B**	0.1	U	0.1	U	0.1	U	0.1	U

U Result is less than the IDL

B Result is between IDL and RL

TestAmerica North Canton

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: ICPMS **Units:** ug/L

Chart Number: I81025A.csv

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	ICB 10/25/2010 12:42 PM Found	Q	Found	Q	Found	Q	Found	Q	Found	Q
Antimony	121	2	**0.032**	**B**								
Arsenic	75	5	0.15	U								
Barium	137	1	0.045	U								
Beryllium	9	1	0.0083	U								
Cadmium	111	1	**0.0073**	**B**								
Chromium	52	2	0.058	U								
Cobalt	59	1	**0.0077**	**B**								
Copper	65	2	0.053	U								
Iron	56	50	2.9	U								
Lead	208	1	0.016	U								
Manganese	55	1	0.043	U								
Molybdenum	95	2	0.079	U								
Nickel	60	2	0.048	U								
Selenium	78	5	0.18	U								
Silver	107	1	**-0.18**	**B**								
Thallium	205	1	**0.17**	**B**								
Vanadium	51	20	1	U								
Zinc	66	20	8.1	U								

TestAmerica North Canton

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: ICPMS **Units:** ug/L

Chart Number: I81025A.csv

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	CCB 10/25/2010 1:11 PM Found	Q	CCB 1 10/25/2010 2:23 PM Found	Q	CCB 2 10/25/2010 3:25 PM Found	Q	Found	Q	Found	Q
Antimony	121	2	**0.018**	**B**	**0.017**	**B**	**0.021**	**B**				
Arsenic	75	5	0.15	U	0.15	U	0.15	U				
Barium	137	1	0.045	U	0.045	U	0.045	U				
Beryllium	9	1	**0.0087**	**B**	0.0083	U	0.0083	U				
Cadmium	111	1	**0.007**	**B**	**0.006**	**B**	0.0057	U				
Chromium	52	2	0.058	U	0.058	U	**0.088**	**B**				
Cobalt	59	1	**0.01**	**B**	**0.016**	**B**	**0.0073**	**B**				
Copper	65	2	0.053	U	0.053	U	0.053	U				
Iron	56	50	2.9	U	**4.2**	**B**	2.9	U				
Lead	208	1	0.016	U	**0.016**	**B**	0.016	U				
Manganese	55	1	0.043	U	**0.053**	**B**	0.043	U				
Molybdenum	95	2	0.079	U	0.079	U	0.079	U				
Nickel	60	2	0.048	U	**0.056**	**B**	0.048	U				
Selenium	78	5	0.18	U	0.18	U	0.18	U				
Silver	107	1	**-0.27**	**B**	**-0.31**	**B**	**-0.33**	**B**				
Thallium	205	1	**0.23**	**B**	**0.25**	**B**	**0.24**	**B**				
Vanadium	51	20	1	U	1	U	1	U				
Zinc	66	20	8.1	U	8.1	U	8.1	U				

U Result is less than the IDL

B Result is between IDL and RL

TestAmerica North Canton

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: ICPMS **Units:** ug/L

Chart Number: I81020A.csv

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	ICB 10/20/2010 1:53 PM Found	Q	Found	Q	Found	Q	Found	Q	Found	Q
Antimony	121	2	**0.024**	**B**								
Arsenic	75	5	0.15	U								
Barium	137	1	0.045	U								
Beryllium	9	1	**0.009**	**B**								
Cadmium	111	1	0.0057	U								
Chromium	52	2	0.058	U								
Cobalt	59	1	0.0073	U								
Copper	65	2	**0.41**	**B**								
Iron	56	50	2.9	U								
Lead	208	1	0.016	U								
Manganese	55	1	0.043	U								
Molybdenum	95	2	0.079	U								
Nickel	60	2	0.048	U								
Selenium	78	5	0.18	U								
Silver	107	1	0.0084	U								
Thallium	205	1	**0.25**	**B**								
Vanadium	51	20	1	U								
Zinc	66	20	8.1	U								

U Result is less than the IDL

B Result is between IDL and RL

Form 3 Equivalent

TestAmerica North Canton

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: ICPMS **Units:** ug/L

Chart Number: I81020A.csv

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	CCB 10/20/2010 2:27 PM Found	Q	CCB 10/20/2010 5:29 PM Found	Q	CCB 10/20/2010 6:36 PM Found	Q	CCB 10/20/2010 7:38 PM Found	Q	Found	Q
Antimony	121	2	**0.023**	**B**	**0.016**	**B**	**0.022**	**B**	**0.024**	**B**		
Arsenic	75	5	0.15	U	0.15	U	0.15	U	0.15	U		
Barium	137	1	0.045	U	0.045	U	0.045	U	0.045	U		
Beryllium	9	1	0.0083	U	0.0083	U	**0.018**	**B**	0.0083	U		
Cadmium	111	1	0.0057	U	0.0057	U	**0.0093**	**B**	**0.007**	**B**		
Chromium	52	2	0.058	U	0.058	U	0.058	U	0.058	U		
Cobalt	59	1	0.0073	U	0.0073	U	**0.012**	**B**	**0.02**	**B**		
Copper	65	2	**0.54**	**B**	**2.2**		**2.4**		**2.3**			
Iron	56	50	2.9	U	**3.4**	**B**	**5.7**	**B**	**6.3**	**B** N4		
Lead	208	1	0.016	U	0.016	U	0.016	U	0.016	U		
Manganese	55	1	0.043	U	**0.084**	**B**	**0.14**	**B**	**0.16**	**B** N4		
Molybdenum	95	2	**0.26**	**B**	**0.12**	**B**	**0.11**	**B**	**0.11**	**B**		
Nickel	60	2	0.048	U	**0.28**	**B**	**0.28**	**B**	**0.31**	**B**		
Selenium	78	5	0.18	U	0.18	U	0.18	U	0.18	U		
Silver	107	1	0.0084	U	**0.011**	**B**	**0.015**	**B**	**0.022**	**B**		
Thallium	205	1	**0.29**	**B**	**0.25**	**B**	**0.27**	**B**	**0.26**	**B**		
Vanadium	51	20	1	U	1	U	1	U	1	U		
Zinc	66	20	8.1	U	8.1	U	8.1	U	8.1	U		

U Result is less than the IDL

B Result is between IDL and RL

TestAmerica North Canton

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: ICPMS **Units:** ug/L

Chart Number: I81021A.csv

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	ICB 10/21/2010 11:02 AM Found	Q	Found	Q	Found	Q	Found	Q	Found	Q
Copper	65	2	0.053	U								

5.04.5

U Result is less than the IDL

B Result is between IDL and RL

Form 3 Equivalent

TestAmerica North Canton

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: ICPMS **Units:** ug/L

Chart Number: I81021A.csv

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	CCB 10/21/2010 11:31 AM Found	Q	CCB 10/21/2010 11:50 AM Found	Q	CCB 1 10/21/2010 12:26 PM Found	Q	CCB 2 10/21/2010 1:42 PM Found	Q	Found	Q
Copper	65	2	0.053	U	0.053	U	0.053	U	0.053	U		

U Result is less than the IDL

B Result is between IDL and RL

Form 3 Equivalent

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: 0J18429 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: A0J190000-014 Prep Batch #...: 0292014						
Antimony	ND	2.0	ug/L	SW846 6020	10/19-10/20/10	L8NTA1AA
		Dilution Factor: 1				
		Analysis Time..: 17:33		Analyst ID.....: 000079	Instrument ID..: I8	
Arsenic	ND	5.0	ug/L	SW846 6020	10/19-10/20/10	L8NTA1AC
		Dilution Factor: 1				
		Analysis Time..: 17:33		Analyst ID.....: 000079	Instrument ID..: I8	
Barium	0.89 B	1.0	ug/L	SW846 6020	10/19-10/20/10	L8NTA1AD
		Dilution Factor: 1				
		Analysis Time..: 17:33		Analyst ID.....: 000079	Instrument ID..: I8	
Beryllium	0.011 B	1.0	ug/L	SW846 6020	10/19-10/20/10	L8NTA1AE
		Dilution Factor: 1				
		Analysis Time..: 17:33		Analyst ID.....: 000079	Instrument ID..: I8	
Cadmium	ND	1.0	ug/L	SW846 6020	10/19-10/20/10	L8NTA1AF
		Dilution Factor: 1				
		Analysis Time..: 17:33		Analyst ID.....: 000079	Instrument ID..: I8	
Chromium	0.16 B	2.0	ug/L	SW846 6020	10/19-10/20/10	L8NTA1AV
		Dilution Factor: 1				
		Analysis Time..: 17:33		Analyst ID.....: 000079	Instrument ID..: I8	
Cobalt	0.018 B	1.0	ug/L	SW846 6020	10/19-10/20/10	L8NTA1AG
		Dilution Factor: 1				
		Analysis Time..: 17:33		Analyst ID.....: 000079	Instrument ID..: I8	
Copper	0.75 B	2.0	ug/L	SW846 6020	10/19-10/21/10	L8NTA1AH
		Dilution Factor: 1				
		Analysis Time..: 12:33		Analyst ID.....: 000079	Instrument ID..: I8	
Iron	19.6 B	50.0	ug/L	SW846 6020	10/19-10/20/10	L8NTA1AJ
		Dilution Factor: 1				
		Analysis Time..: 17:33		Analyst ID.....: 000079	Instrument ID..: I8	
Lead	0.13 B	1.0	ug/L	SW846 6020	10/19-10/20/10	L8NTA1AK
		Dilution Factor: 1				
		Analysis Time..: 17:33		Analyst ID.....: 000079	Instrument ID..: I8	
Manganese	0.67 B	1.0	ug/L	SW846 6020	10/19-10/20/10	L8NTA1AL
		Dilution Factor: 1				
		Analysis Time..: 17:33		Analyst ID.....: 000079	Instrument ID..: I8	

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METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: 0J18429 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Molybdenum	ND	2.0	ug/L	SW846 6020	10/19-10/20/10	L8NTA1AM
		Dilution Factor: 1				
		Analysis Time..: 17:33		Analyst ID.....: 000079	Instrument ID..: I8	
Nickel	ND	2.0	ug/L	SW846 6020	10/19-10/20/10	L8NTA1AN
		Dilution Factor: 1				
		Analysis Time..: 17:33		Analyst ID.....: 000079	Instrument ID..: I8	
Selenium	ND	5.0	ug/L	SW846 6020	10/19-10/20/10	L8NTA1AP
		Dilution Factor: 1				
		Analysis Time..: 17:33		Analyst ID.....: 000079	Instrument ID..: I8	
Silver	ND	1.0	ug/L	SW846 6020	10/19-10/20/10	L8NTA1AQ
		Dilution Factor: 1				
		Analysis Time..: 17:33		Analyst ID.....: 000079	Instrument ID..: I8	
Thallium	ND	1.0	ug/L	SW846 6020	10/19-10/20/10	L8NTA1AR
		Dilution Factor: 1				
		Analysis Time..: 17:33		Analyst ID.....: 000079	Instrument ID..: I8	
Vanadium	ND	20.0	ug/L	SW846 6020	10/19-10/20/10	L8NTA1AT
		Dilution Factor: 1				
		Analysis Time..: 17:33		Analyst ID.....: 000079	Instrument ID..: I8	
Zinc	4.8 B	**20.0**	**ug/L**	**SW846 6020**	**10/19-10/20/10**	**L8NTA1AU**
		Dilution Factor: 1				
		Analysis Time..: 17:33		Analyst ID.....: 000079	Instrument ID..: I8	
Mercury	ND	0.20	ug/L	SW846 7470A	10/19-10/21/10	L8NTA1AW
		Dilution Factor: 1				
		Analysis Time..: 18:46		Analyst ID.....: 001576	Instrument ID..: H4	

MB Lot-Sample #: A0J220000-021 **Prep Batch #...:** 0295021

Antimony	ND	2.0	ug/L	SW846 6020	10/22-10/25/10	L8WWP1EA
		Dilution Factor: 1				
		Analysis Time..: 13:20		Analyst ID.....: 000079	Instrument ID..: I8	
Arsenic	ND	5.0	ug/L	SW846 6020	10/22-10/25/10	L8WWP1EC
		Dilution Factor: 1				
		Analysis Time..: 13:20		Analyst ID.....: 000079	Instrument ID..: I8	
Barium	0.97 B	**1.0**	**ug/L**	**SW846 6020**	**10/22-10/25/10**	**L8WWP1ED**
		Dilution Factor: 1				
		Analysis Time..: 13:20		Analyst ID.....: 000079	Instrument ID..: I8	

(Continued on next page)

METHOD BLANK REPORT

DISSOLVED Metals

Client Lot #...: 0J18429 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Molybdenum	ND	2.0	ug/L	SW846 6020	10/19-10/20/10	L8NTA1CW
		Dilution Factor: 1				
		Analysis Time..: 17:33		Analyst ID.....: 000079	Instrument ID..: I8	
Nickel	ND	2.0	ug/L	SW846 6020	10/19-10/20/10	L8NTA1CX
		Dilution Factor: 1				
		Analysis Time..: 17:33		Analyst ID.....: 000079	Instrument ID..: I8	
Selenium	ND	5.0	ug/L	SW846 6020	10/19-10/20/10	L8NTA1C0
		Dilution Factor: 1				
		Analysis Time..: 17:33		Analyst ID.....: 000079	Instrument ID..: I8	
Silver	ND	1.0	ug/L	SW846 6020	10/19-10/20/10	L8NTA1C1
		Dilution Factor: 1				
		Analysis Time..: 17:33		Analyst ID.....: 000079	Instrument ID..: I8	
Thallium	ND	1.0	ug/L	SW846 6020	10/19-10/20/10	L8NTA1C2
		Dilution Factor: 1				
		Analysis Time..: 17:33		Analyst ID.....: 000079	Instrument ID..: I8	
Vanadium	ND	20.0	ug/L	SW846 6020	10/19-10/20/10	L8NTA1C3
		Dilution Factor: 1				
		Analysis Time..: 17:33		Analyst ID.....: 000079	Instrument ID..: I8	
Zinc	**4.8 B**	**20.0**	**ug/L**	**SW846 6020**	**10/19-10/20/10**	**L8NTA1C4**
		Dilution Factor: 1				
		Analysis Time..: 17:33		Analyst ID.....: 000079	Instrument ID..: I8	
Mercury	ND	0.20	ug/L	SW846 7470A	10/19-10/21/10	L8NTA1C6
		Dilution Factor: 1				
		Analysis Time..: 18:46		Analyst ID.....: 001576	Instrument ID..: H4	

MB Lot-Sample #: A0J220000-021 **Prep Batch #...:** 0295021

Antimony	ND	2.0	ug/L	SW846 6020	10/22-10/25/10	L8WWP1EX
		Dilution Factor: 1				
		Analysis Time..: 13:20		Analyst ID.....: 000079	Instrument ID..: I8	
Arsenic	ND	5.0	ug/L	SW846 6020	10/22-10/25/10	L8WWP1E0
		Dilution Factor: 1				
		Analysis Time..: 13:20		Analyst ID.....: 000079	Instrument ID..: I8	
Barium	**0.97 B**	**1.0**	**ug/L**	**SW846 6020**	**10/22-10/25/10**	**L8WWP1E1**
		Dilution Factor: 1				
		Analysis Time..: 13:20		Analyst ID.....: 000079	Instrument ID..: I8	

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METHOD BLANK REPORT

DISSOLVED Metals

Client Lot #...: 0J18429 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Beryllium	ND	1.0	ug/L	SW846 6020	10/22-10/25/10	L8WWP1E2
		Dilution Factor: 1				
		Analysis Time..: 13:20		Analyst ID.....: 000079	Instrument ID..: I8	
Cadmium	ND	1.0	ug/L	SW846 6020	10/22-10/25/10	L8WWP1E3
		Dilution Factor: 1				
		Analysis Time..: 13:20		Analyst ID.....: 000079	Instrument ID..: I8	
Chromium	0.19 B	2.0	ug/L	SW846 6020	10/22-10/25/10	L8WWP1FH
		Dilution Factor: 1				
		Analysis Time..: 13:20		Analyst ID.....: 000079	Instrument ID..: I8	
Cobalt	ND	1.0	ug/L	SW846 6020	10/22-10/25/10	L8WWP1E4
		Dilution Factor: 1				
		Analysis Time..: 13:20		Analyst ID.....: 000079	Instrument ID..: I8	
Copper	0.84 B	2.0	ug/L	SW846 6020	10/22-10/25/10	L8WWP1E5
		Dilution Factor: 1				
		Analysis Time..: 13:20		Analyst ID.....: 000079	Instrument ID..: I8	
Iron	18.0 B	50.0	ug/L	SW846 6020	10/22-10/25/10	L8WWP1E6
		Dilution Factor: 1				
		Analysis Time..: 13:20		Analyst ID.....: 000079	Instrument ID..: I8	
Lead	0.12 B	1.0	ug/L	SW846 6020	10/22-10/25/10	L8WWP1E7
		Dilution Factor: 1				
		Analysis Time..: 13:20		Analyst ID.....: 000079	Instrument ID..: I8	
Manganese	0.37 B	1.0	ug/L	SW846 6020	10/22-10/25/10	L8WWP1E8
		Dilution Factor: 1				
		Analysis Time..: 13:20		Analyst ID.....: 000079	Instrument ID..: I8	
Molybdenum	ND	2.0	ug/L	SW846 6020	10/22-10/25/10	L8WWP1E9
		Dilution Factor: 1				
		Analysis Time..: 13:20		Analyst ID.....: 000079	Instrument ID..: I8	
Nickel	ND	2.0	ug/L	SW846 6020	10/22-10/25/10	L8WWP1FA
		Dilution Factor: 1				
		Analysis Time..: 13:20		Analyst ID.....: 000079	Instrument ID..: I8	
Selenium	ND	5.0	ug/L	SW846 6020	10/22-10/25/10	L8WWP1FC
		Dilution Factor: 1				
		Analysis Time..: 13:20		Analyst ID.....: 000079	Instrument ID..: I8	
Silver	ND	1.0	ug/L	SW846 6020	10/22-10/25/10	L8WWP1FD
		Dilution Factor: 1				
		Analysis Time..: 13:20		Analyst ID.....: 000079	Instrument ID..: I8	

(Continued on next page)

METHOD BLANK REPORT

DISSOLVED Metals

Client Lot #...: 0J18429 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Thallium	ND	1.0	ug/L	SW846 6020	10/22-10/25/10	L8WWP1FE
		Dilution Factor: 1				
		Analysis Time..: 13:20		Analyst ID.....: 000079	Instrument ID..: I8	
Vanadium	ND	20.0	ug/L	SW846 6020	10/22-10/25/10	L8WWP1FF
		Dilution Factor: 1				
		Analysis Time..: 13:20		Analyst ID.....: 000079	Instrument ID..: I8	
Zinc	**3.3 B**	**20.0**	**ug/L**	**SW846 6020**	**10/22-10/25/10**	**L8WWP1FG**
		Dilution Factor: 1				
		Analysis Time..: 13:20		Analyst ID.....: 000079	Instrument ID..: I8	
Mercury	ND	0.20	ug/L	SW846 7470A	10/22-10/26/10	L8WWP1FJ
		Dilution Factor: 1				
		Analysis Time..: 16:31		Analyst ID.....: 001576	Instrument ID..: H1	

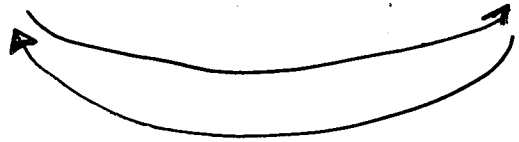
NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

AQUEOUS - Total

Affected Analyte	Sample	Reported Result	Qualifier	Interferent	Interferent level in ICS	Conc. ICS	Interferent Level	Est. Interference	Validation Action	Validation Action
ANTIMONY	MRC-MW93D-101510	0.11		Fe	50900	0.46	32100	0.29	J	na
ARSENIC	MRC-MW93D-101510	0.34		Fe	50900	11.7	32100	7.38	J	na
BARIUM	MRC-MW93D-101510	0.094		Fe	50900	257	32100	162.08	J	na
BERYLLIUM	MRC-MW93D-101510	0.011		Fe	50900	3	32100	1.89	J	na
CADMIUM	MRC-MW93D-101510	-0.67		Fe	50900	0.22	32100	0.14	J	na
CHROMIUM	MRC-MW93D-101510	0.57		Fe	50900	65.6	32100	41.37	J	na
COBALT	MRC-MW93D-101510	0.073		Fe	50900	5.3	32100	3.34	J	na
COPPER	MRC-MW93D-101510	2		Fe	50900	44	32100	27.75	J	na
LEAD	MRC-MW93D-101510	0.11		Fe	50900	39.8	32100	25.10	J	na
MANGANESE	MRC-MW93D-101510	0.18		Fe	50900	280	32100	176.58	J	na
MOLYBDENUM	MRC-MW93D-101510	1040		Fe	50900	13.8	32100	8.70	na	na
NICKEL	MRC-MW93D-101510	0.44		Fe	50900	22.7	32100	14.32	J	na
SILVER	MRC-MW93D-101510	0.076		Fe	50900	0.15	32100	0.09	J	na



Affected Analyte	Sample	Reported Result	Qualifier	Interferent	Interferent level in ICS	Conc. ICS	Interferent Level	Est. Interference	Validation Action	Validation Action
Sb	93D	0.46		Fe	50900	0.11	32100	0.07	J	na
As		11.7			50900	0.34	32100	0.21	na	na
Ba		257			50900	0.094	32100	0.06	na	na
Be		3			50900	0.011	32100	0.01	na	na
Cd		0.22			50900	-0.67	32100	-0.42	J	na
Cr		65.6			50900	0.57	32100	0.36	na	na
Co		5.3			50900	0.073	32100	0.05	na	na
Cu		44			50900	2	32100	1.26	na	na
Pb		39.8			50900	0.11	32100	0.07	na	na
Mn		280			50900	0.18	32100	0.11	na	na
Ni		22.7			50900	0.44	32100	0.28	na	na
Ag		0.15			50900	0.076	32100	0.05	J	na

TestAmerica North Canton

Metals Data Reporting Form

Interference Check Standard A

Instrument: ICPMS **Units:** ug/L

Chart Number: I81020A.csv **Acceptable Range:** 0% - 0%

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Reporting Limit	True Conc	ICSA 10/20/2010 2:09 PM Found	Found	Found	Found	Found
Antimony	121	2		0.110				
Arsenic	75	5		0.340				
Barium	137	1		0.094				
Beryllium	9	1		0.011				
Cadmium	111	1		-0.670				
Chromium	52	2		0.570				
Cobalt	59	1		0.073				
Copper	65	2		2				
Iron	56		50000	50900				
Lead	208	1		0.110				
Manganese	55	1		0.180				
Molybdenum	95	2	1000	1040				
Nickel	60	2		0.440				
Selenium	78	5		-0.110				
Silver	107	1		0.076				
Thallium	205	1		0.065				
Vanadium	51	20		-0.530				
Zinc	66	20		0.240				

TestAmerica North Canton

Metals Data Reporting Form

Interference Check Standard A

Instrument: ICPMS **Units:** ug/L

Chart Number: I81021A.csv **Acceptable Range:** 0% - 0%

Standard Source: **Standard ID:**

Element	WL/ Mass	Reporting Limit	True Conc	ICSA 10/21/2010 11:13 AM Found	Found	Found	Found	Found
Copper	65	2		1				

TestAmerica North Canton

Metals Data Reporting Form

Interference Check Standard A

Instrument: ICPMS **Units:** ug/L

Chart Number: I81025A.csv **Acceptable Range:** 0% - 0%

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Reporting Limit	True Conc	ICSA 10/25/2010 12:52 PM Found	Found	Found	Found	Found
Antimony	121	2		0.120				
Arsenic	75	5		0.720				
Barium	137	1		0.092				
Beryllium	9	1		0.00i				
Cadmium	111	1		-0.390				
Chromium	52	2		0.830				
Cobalt	59	1		0.078				
Copper	65	2		2				
Iron	56		50000	50300				
Lead	208	1		0.110				
Manganese	55	1		0.180				
Molybdenum	95	2	1000	1000				
Nickel	60	2		0.520				
Selenium	78	5		0.021				
Silver	107	1		-0.190				
Thallium	205	1		0.011				
Vanadium	51	20		0.270				
Zinc	66	20		0.620				

TestAmerica North Canton

Metals Data Reporting Form

Interference Check Standard AB

Instrument: ICPMS **Units:** ug/L

Chart Number: I81020A.csv **Acceptable Range:** 50% - 150%

Standard Source: **Standard ID:**

Element	WL/ Mass	True Conc	ICSAB 10/20/2010 2:14 PM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Antimony	121	100	98.3	**98.3**								
Arsenic	75	100	96.8	**96.8**								
Barium	137	100	97.8	**97.8**								
Beryllium	9	100	98.5	**98.5**								
Cadmium	111	100	99.0	**99.0**								
Chromium	52	100	98.1	**98.1**								
Cobalt	59	100	96.6	**96.6**								
Copper	65	100	99.4	**99.4**								
Iron	56	50000	50893.3	**101.8**								
Lead	208	100	98.6	**98.6**								
Manganese	55	100	96.4	**96.4**								
Molybdenum	95	1000	1141.3	**114.1**								
Nickel	60	100	98.9	**98.9**								
Selenium	78	100	95.9	**95.9**								
Silver	107	100	98.8	**98.8**								
Thallium	205	100	102.0	**102.0**								
Vanadium	51	100	97.7	**97.7**								
Zinc	66	100	98.4	**98.4**								

N Spike recovery failed
NC Percent recovery was not calculated
U Result is less than the IDL

Form 4 Equivalent

TestAmerica North Canton

Metals Data Reporting Form

Interference Check Standard AB

Instrument: ICPMS **Units:** ug/L

Chart Number: I81021A.csv **Acceptable Range:** 50% - 150%

Standard Source: **Standard ID:**

Element	WL/ Mass	True Conc	ICSAB 10/21/2010 11:18 AM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Copper	65	100	97.3	**97.3**								

5.04.5

N Spike recovery failed
NC Percent recovery was not calculated
U Result is less than the IDL

Form 4 Equivalent

TestAmerica North Canton

Metals Data Reporting Form

Interference Check Standard AB

Instrument: ICPMS **Units:** ug/L

Chart Number: I81025A.csv **Acceptable Range:** 50% - 150%

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	True Conc	ICSAB 10/25/2010 12:57 PM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Antimony	121	100	96.2	**96.2**								
Arsenic	75	100	95.9	**95.9**								
Barium	137	100	100.7	**100.7**								
Beryllium	9	100	98.4	**98.4**								
Cadmium	111	100	98.0	**98.0**								
Chromium	52	100	98.5	**98.5**								
Cobalt	59	100	95.7	**95.7**								
Copper	65	100	97.6	**97.6**								
Iron	56	50000	50026.7	**100.1**								
Lead	208	100	97.7	**97.7**								
Manganese	55	100	101.8	**101.8**								
Molybdenum	95	1000	1105.0	**110.5**								
Nickel	60	100	98.6	**98.6**								
Selenium	78	100	93.3	**93.3**								
Silver	107	100	97.7	**97.7**								
Thallium	205	100	94.4	**94.4**								
Vanadium	51	100	99.2	**99.2**								
Zinc	66	100	99.7	**99.7**								

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: 0J18429 **Matrix.....:** WG
Date Sampled...: 10/15/10 11:18 **Date Received..:** 10/16/10

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: A0J180429-002 **Prep Batch #...:** 0292014								
Antimony	0.46	100	31.9 N	ug/L	31	SW846 6020	10/19-10/20/10	L8MNJ1CP
			Dilution Factor: 1			Analysis Time..: 18:50	Instrument ID..: I8	
			Analyst ID.....: 000079					
Arsenic	11.7	100	91.0 N	ug/L	79	SW846 6020	10/19-10/20/10	L8MNJ1CQ
			Dilution Factor: 1			Analysis Time..: 18:50	Instrument ID..: I8	
			Analyst ID.....: 000079					
Barium	257	100	314	ug/L	57	SW846 6020	10/19-10/20/10	L8MNJ1CR
			Dilution Factor: 1			Analysis Time..: 18:50	Instrument ID..: I8	
			Analyst ID.....: 000079					
Beryllium	3.0	100	85.1	ug/L	82	SW846 6020	10/19-10/20/10	L8MNJ1CT
			Dilution Factor: 1			Analysis Time..: 18:50	Instrument ID..: I8	
			Analyst ID.....: 000079					
Cadmium	0.22	100	84.9	ug/L	85	SW846 6020	10/19-10/20/10	L8MNJ1CU
			Dilution Factor: 1			Analysis Time..: 18:50	Instrument ID..: I8	
			Analyst ID.....: 000079					
Chromium	65.6	100	141	ug/L	76	SW846 6020	10/19-10/20/10	L8MNJ1C9
			Dilution Factor: 1			Analysis Time..: 18:50	Instrument ID..: I8	
			Analyst ID.....: 000079					
Cobalt	5.3	100	85.5	ug/L	80	SW846 6020	10/19-10/20/10	L8MNJ1CV
			Dilution Factor: 1			Analysis Time..: 18:50	Instrument ID..: I8	
			Analyst ID.....: 000079					
Copper	44.0	100	120	ug/L	76	SW846 6020	10/19-10/21/10	L8MNJ1CW
			Dilution Factor: 1			Analysis Time..: 13:12	Instrument ID..: I8	
			Analyst ID.....: 000079					
Iron	32100	10000	37900	ug/L	58	SW846 6020	10/19-10/20/10	L8MNJ1CX
			Dilution Factor: 1			Analysis Time..: 18:50	Instrument ID..: I8	
			Analyst ID.....: 000079					
Lead	39.8	100	114	ug/L	74	SW846 6020	10/19-10/20/10	L8MNJ1C0
			Dilution Factor: 1			Analysis Time..: 18:50	Instrument ID..: I8	
			Analyst ID.....: 000079					

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MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: 0J18429 **Matrix.....:** WG
Date Sampled...: 10/15/10 11:18 **Date Received..:** 10/16/10

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Manganese	280	100	339	ug/L	59	SW846 6020	10/19-10/20/10	L8MNJ1C1
			Dilution Factor: 1			Analysis Time..: 18:50	Instrument ID..: I8	
			Analyst ID.....: 000079					
Molybdenum	13.8	100	92.1 N	ug/L	78	SW846 6020	10/19-10/20/10	L8MNJ1C2
			Dilution Factor: 1			Analysis Time..: 18:50	Instrument ID..: I8	
			Analyst ID.....: 000079					
Nickel	22.7	100	103	ug/L	81	SW846 6020	10/19-10/20/10	L8MNJ1C3
			Dilution Factor: 1			Analysis Time..: 18:50	Instrument ID..: I8	
			Analyst ID.....: 000079					
Selenium	2.5	100	76.4	ug/L	74	SW846 6020	10/19-10/20/10	L8MNJ1C4
			Dilution Factor: 1			Analysis Time..: 18:50	Instrument ID..: I8	
			Analyst ID.....: 000079					
Silver	0.15	100	86.2	ug/L	86	SW846 6020	10/19-10/20/10	L8MNJ1C5
			Dilution Factor: 1			Analysis Time..: 18:50	Instrument ID..: I8	
			Analyst ID.....: 000079					
Thallium	0.13	100	78.5	ug/L	78	SW846 6020	10/19-10/20/10	L8MNJ1C6
			Dilution Factor: 1			Analysis Time..: 18:50	Instrument ID..: I8	
			Analyst ID.....: 000079					
Vanadium	44.8	100	124	ug/L	80	SW846 6020	10/19-10/20/10	L8MNJ1C7
			Dilution Factor: 1			Analysis Time..: 18:50	Instrument ID..: I8	
			Analyst ID.....: 000079					
Zinc	105	100	165	ug/L	60	SW846 6020	10/19-10/20/10	L8MNJ1C8
			Dilution Factor: 1			Analysis Time..: 18:50	Instrument ID..: I8	
			Analyst ID.....: 000079					
Mercury	ND	1.0	1.1	ug/L	112	SW846 7470A	10/19-10/21/10	L8MNJ1DA
			Dilution Factor: 1			Analysis Time..: 18:53	Instrument ID..: H4	
			Analyst ID.....: 001576					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: 0J18429 **Matrix.....:** WATER
Date Sampled...: 10/21/10 10:00 **Date Received..:** 10/21/10

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: A0J210603-001 **Prep Batch #...:** 0295021									
Antimony									
	0.81	100	96.0	ug/L	95		SW846 6020	10/22-10/25/10	L8WKL1HE
	0.81	100	91.0	ug/L	90	5.5	SW846 6020	10/22-10/25/10	L8WKL1HF
			Dilution Factor: 1						
			Analysis Time..: 13:36		Instrument ID..: I8			Analyst ID.....: 000079	
Arsenic									
	7.9	100	110	ug/L	97		SW846 6020	10/22-10/25/10	L8WKL1HH
	7.9	100	99.0	ug/L	91	5.8	SW846 6020	10/22-10/25/10	L8WKL1HJ
			Dilution Factor: 1						
			Analysis Time..: 13:36		Instrument ID..: I8			Analyst ID.....: 000079	
Barium									
	470	100	560	ug/L			SW846 6020	10/22-10/25/10	L8WKL1HL
			Qualifiers: NC,MSB						
	470	100	530	ug/L			SW846 6020	10/22-10/25/10	L8WKL1HM
			Qualifiers: NC,MSB						
			Dilution Factor: 1						
			Analysis Time..: 13:36		Instrument ID..: I8			Analyst ID.....: 000079	
Beryllium									
	ND	100	94.0	ug/L	94		SW846 6020	10/22-10/25/10	L8WKL1HP
	ND	100	90.0	ug/L	90	4.2	SW846 6020	10/22-10/25/10	L8WKL1HQ
			Dilution Factor: 1						
			Analysis Time..: 13:36		Instrument ID..: I8			Analyst ID.....: 000079	
Cadmium									
	ND	100	91.0	ug/L	91		SW846 6020	10/22-10/25/10	L8WKL1HT
	ND	100	87.0	ug/L	87	4.5	SW846 6020	10/22-10/25/10	L8WKL1HU
			Dilution Factor: 1						
			Analysis Time..: 13:36		Instrument ID..: I8			Analyst ID.....: 000079	
Chromium									
	1.9	100	97.0	ug/L	95		SW846 6020	10/22-10/25/10	L8WKL1J4
	1.9	100	93.0	ug/L	91	4.4	SW846 6020	10/22-10/25/10	L8WKL1J5
			Dilution Factor: 1						
			Analysis Time..: 13:36		Instrument ID..: I8			Analyst ID.....: 000079	
Cobalt									
	1.2	100	95.0	ug/L	94		SW846 6020	10/22-10/25/10	L8WKL1HW
	1.2	100	92.0	ug/L	91	3.6	SW846 6020	10/22-10/25/10	L8WKL1HX
			Dilution Factor: 1						
			Analysis Time..: 13:36		Instrument ID..: I8			Analyst ID.....: 000079	

Not included in SDG

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MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: 0J18429
Date Sampled...: 10/21/10 10:00 **Date Received..:** 10/21/10

Matrix.....: WATER

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper									
	2.7	100	92.0	ug/L	90		SW846 6020	10/22-10/25/10	L8WKL1H1
	2.7	100	91.0	ug/L	88	1.9	SW846 6020	10/22-10/25/10	L8WKL1H2
			Dilution Factor: 1						
			Analysis Time..: 13:36		Instrument ID..: I8			Analyst ID.....: 000079	
Iron									
	11800	10000	21200	ug/L	95		SW846 6020	10/22-10/25/10	L8WKL1H4
	11800	10000	20100	ug/L	84	5.2	SW846 6020	10/22-10/25/10	L8WKL1H5
			Dilution Factor: 1						
			Analysis Time..: 13:36		Instrument ID..: I8			Analyst ID.....: 000079	
Lead									
	4.9	100	100	ug/L	99		SW846 6020	10/22-10/25/10	L8WKL1H7
	4.9	100	99.0	ug/L	94	4.6	SW846 6020	10/22-10/25/10	L8WKL1H8
			Dilution Factor: 1						
			Analysis Time..: 13:36		Instrument ID..: I8			Analyst ID.....: 000079	
Manganese									
	1200	100	1300	ug/L			SW846 6020	10/22-10/25/10	L8WKL1JA
			Qualifiers: NC,MSB						
	1200	100	1200	ug/L			SW846 6020	10/22-10/25/10	L8WKL1JC
			Qualifiers: NC,MSB						
			Dilution Factor: 1						
			Analysis Time..: 13:36		Instrument ID..: I8			Analyst ID.....: 000079	
Molybdenum									
	10.0	100	120	ug/L	106		SW846 6020	10/22-10/25/10	L8WKL1JE
	10.0	100	110	ug/L	99	5.8	SW846 6020	10/22-10/25/10	L8WKL1JF
			Dilution Factor: 1						
			Analysis Time..: 13:36		Instrument ID..: I8			Analyst ID.....: 000079	
Nickel									
	2.9	100	95.0	ug/L	92		SW846 6020	10/22-10/25/10	L8WKL1JH
	2.9	100	92.0	ug/L	89	3.4	SW846 6020	10/22-10/25/10	L8WKL1JJ
			Dilution Factor: 1						
			Analysis Time..: 13:36		Instrument ID..: I8			Analyst ID.....: 000079	
Selenium									
	ND	100	90.0	ug/L	90		SW846 6020	10/22-10/25/10	L8WKL1JL
	ND	100	87.0	ug/L	87	4.2	SW846 6020	10/22-10/25/10	L8WKL1JM
			Dilution Factor: 1						
			Analysis Time..: 13:36		Instrument ID..: I8			Analyst ID.....: 000079	

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MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: 0J18429 **Matrix.....:** WATER
Date Sampled...: 10/21/10 10:00 **Date Received..:** 10/21/10

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Silver									
	ND	100	90.0	ug/L	90		SW846 6020	10/22-10/25/10	L8WKL1JP
	ND	100	86.0	ug/L	86	4.2	SW846 6020	10/22-10/25/10	L8WKL1JQ
			Dilution Factor: 1						
			Analysis Time..: 13:36		Instrument ID..: I8			Analyst ID.....: 000079	
Thallium									
	0.23	100	100	ug/L	104		SW846 6020	10/22-10/25/10	L8WKL1JT
	0.23	100	97.0	ug/L	97	6.6	SW846 6020	10/22-10/25/10	L8WKL1JU
			Dilution Factor: 1						
			Analysis Time..: 13:36		Instrument ID..: I8			Analyst ID.....: 000079	
Vanadium									
	2.3	100	100	ug/L	98		SW846 6020	10/22-10/25/10	L8WKL1JW
	2.3	100	96.0	ug/L	94	3.7	SW846 6020	10/22-10/25/10	L8WKL1JX
			Dilution Factor: 1						
			Analysis Time..: 13:36		Instrument ID..: I8			Analyst ID.....: 000079	
Zinc									
	12.0	100	100	ug/L	88		SW846 6020	10/22-10/25/10	L8WKL1J1
	12.0	100	99.0	ug/L	87	0.58	SW846 6020	10/22-10/25/10	L8WKL1J2
			Dilution Factor: 1						
			Analysis Time..: 13:36		Instrument ID..: I8			Analyst ID.....: 000079	
Mercury									
	ND	1.0	1.1	ug/L	108		SW846 7470A	10/22-10/26/10	L8WKL1J7
	ND	1.0	1.0	ug/L	100	7.6	SW846 7470A	10/22-10/26/10	L8WKL1J8
			Dilution Factor: 1						
			Analysis Time..: 16:35		Instrument ID..: H1			Analyst ID.....: 001576	

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

NC The recovery and/or RPD were not calculated.

MSB The recovery and RPD may be outside control limits because the sample amount was greater than 4X the spike amount.

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: 0J18429 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: A0J190000-014 **Prep Batch #...:** 0292014							
Antimony	100	92.7	ug/L	93	SW846 6020	10/19-10/20/10	L8NTA1AX
			Dilution Factor: 1		Analysis Time..: 17:38	Analyst ID.....: 000079	
			Instrument ID..: I8				
Arsenic	100	90.0	ug/L	90	SW846 6020	10/19-10/20/10	L8NTA1A0
			Dilution Factor: 1		Analysis Time..: 17:38	Analyst ID.....: 000079	
			Instrument ID..: I8				
Barium	100	87.8	ug/L	88	SW846 6020	10/19-10/20/10	L8NTA1A1
			Dilution Factor: 1		Analysis Time..: 17:38	Analyst ID.....: 000079	
			Instrument ID..: I8				
Beryllium	100	92.5	ug/L	93	SW846 6020	10/19-10/20/10	L8NTA1A2
			Dilution Factor: 1		Analysis Time..: 17:38	Analyst ID.....: 000079	
			Instrument ID..: I8				
Cadmium	100	96.5	ug/L	96	SW846 6020	10/19-10/20/10	L8NTA1A3
			Dilution Factor: 1		Analysis Time..: 17:38	Analyst ID.....: 000079	
			Instrument ID..: I8				
Cobalt	100	89.6	ug/L	90	SW846 6020	10/19-10/20/10	L8NTA1A4
			Dilution Factor: 1		Analysis Time..: 17:38	Analyst ID.....: 000079	
			Instrument ID..: I8				
Copper	100	95.9	ug/L	96	SW846 6020	10/19-10/21/10	L8NTA1A5
			Dilution Factor: 1		Analysis Time..: 12:38	Analyst ID.....: 000079	
			Instrument ID..: I8				
Iron	10000	9120	ug/L	91	SW846 6020	10/19-10/20/10	L8NTA1A6
			Dilution Factor: 1		Analysis Time..: 17:38	Analyst ID.....: 000079	
			Instrument ID..: I8				
Lead	100	87.9	ug/L	88	SW846 6020	10/19-10/20/10	L8NTA1A7
			Dilution Factor: 1		Analysis Time..: 17:38	Analyst ID.....: 000079	
			Instrument ID..: I8				
Manganese	100	89.8	ug/L	90	SW846 6020	10/19-10/20/10	L8NTA1A8
			Dilution Factor: 1		Analysis Time..: 17:38	Analyst ID.....: 000079	
			Instrument ID..: I8				

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LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: 0J18429 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Molybdenum	100	90.4	ug/L	90	SW846 6020	10/19-10/20/10	L8NTA1A9
			Dilution Factor: 1		Analysis Time..: 17:38	Analyst ID.....: 000079	
			Instrument ID..: I8				
Nickel	100	94.3	ug/L	94	SW846 6020	10/19-10/20/10	L8NTA1CA
			Dilution Factor: 1		Analysis Time..: 17:38	Analyst ID.....: 000079	
			Instrument ID..: I8				
Selenium	100	88.5	ug/L	89	SW846 6020	10/19-10/20/10	L8NTA1CC
			Dilution Factor: 1		Analysis Time..: 17:38	Analyst ID.....: 000079	
			Instrument ID..: I8				
Silver	100	100	ug/L	100	SW846 6020	10/19-10/20/10	L8NTA1CD
			Dilution Factor: 1		Analysis Time..: 17:38	Analyst ID.....: 000079	
			Instrument ID..: I8				
Thallium	100	90.6	ug/L	91	SW846 6020	10/19-10/20/10	L8NTA1CE
			Dilution Factor: 1		Analysis Time..: 17:38	Analyst ID.....: 000079	
			Instrument ID..: I8				
Vanadium	100	88.8	ug/L	89	SW846 6020	10/19-10/20/10	L8NTA1CF
			Dilution Factor: 1		Analysis Time..: 17:38	Analyst ID.....: 000079	
			Instrument ID..: I8				
Zinc	100	101	ug/L	101	SW846 6020	10/19-10/20/10	L8NTA1CG
			Dilution Factor: 1		Analysis Time..: 17:38	Analyst ID.....: 000079	
			Instrument ID..: I8				
Chromium	100	89.0	ug/L	89	SW846 6020	10/19-10/20/10	L8NTA1CH
			Dilution Factor: 1		Analysis Time..: 17:38	Analyst ID.....: 000079	
			Instrument ID..: I8				
Mercury	5.0	5.4	ug/L	108	SW846 7470A	10/19-10/21/10	L8NTA1CJ
			Dilution Factor: 1		Analysis Time..: 18:51	Analyst ID.....: 001576	
			Instrument ID..: H4				

LCS Lot-Sample#: A0J220000-021 **Prep Batch #...:** 0295021

Thallium	100	80.0	ug/L	80	SW846 6020	10/22-10/25/10	L8WWP1CH
			Dilution Factor: 1		Analysis Time..: 13:24	Analyst ID.....: 000079	
			Instrument ID..: I8				
Antimony	100	88.0	ug/L	88	SW846 6020	10/22-10/25/10	L8WWP1GJ
			Dilution Factor: 1		Analysis Time..: 13:24	Analyst ID.....: 000079	
			Instrument ID..: I8				

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LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: 0J18429 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Arsenic	100	86.0	ug/L	86	SW846 6020	10/22-10/25/10	L8WWP1GK
			Dilution Factor: 1		Analysis Time..: 13:24	Analyst ID.....: 000079	
			Instrument ID..: I8				
Barium	100	91.0	ug/L	91	SW846 6020	10/22-10/25/10	L8WWP1GL
			Dilution Factor: 1		Analysis Time..: 13:24	Analyst ID.....: 000079	
			Instrument ID..: I8				
Beryllium	100	92.0	ug/L	92	SW846 6020	10/22-10/25/10	L8WWP1GM
			Dilution Factor: 1		Analysis Time..: 13:24	Analyst ID.....: 000079	
			Instrument ID..: I8				
Cadmium	100	92.0	ug/L	92	SW846 6020	10/22-10/25/10	L8WWP1GN
			Dilution Factor: 1		Analysis Time..: 13:24	Analyst ID.....: 000079	
			Instrument ID..: I8				
Cobalt	100	89.0	ug/L	89	SW846 6020	10/22-10/25/10	L8WWP1GQ
			Dilution Factor: 1		Analysis Time..: 13:24	Analyst ID.....: 000079	
			Instrument ID..: I8				
Copper	100	91.0	ug/L	91	SW846 6020	10/22-10/25/10	L8WWP1GR
			Dilution Factor: 1		Analysis Time..: 13:24	Analyst ID.....: 000079	
			Instrument ID..: I8				
Iron	10000	8800	ug/L	88	SW846 6020	10/22-10/25/10	L8WWP1GT
			Dilution Factor: 1		Analysis Time..: 13:24	Analyst ID.....: 000079	
			Instrument ID..: I8				
Lead	100	84.0	ug/L	84	SW846 6020	10/22-10/25/10	L8WWP1GU
			Dilution Factor: 1		Analysis Time..: 13:24	Analyst ID.....: 79	
			Instrument ID..: I8				
Manganese	100	94.0	ug/L	94	SW846 6020	10/22-10/25/10	L8WWP1GW
			Dilution Factor: 1		Analysis Time..: 13:24	Analyst ID.....: 000079	
			Instrument ID..: I8				
Nickel	100	92.0	ug/L	92	SW846 6020	10/22-10/25/10	L8WWP1GX
			Dilution Factor: 1		Analysis Time..: 13:24	Analyst ID.....: 000079	
			Instrument ID..: I8				
Selenium	100	87.0	ug/L	87	SW846 6020	10/22-10/25/10	L8WWP1G1
			Dilution Factor: 1		Analysis Time..: 13:24	Analyst ID.....: 000079	
			Instrument ID..: I8				

(Continued on next page)

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: 0J18429 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Silver	100	93.0	ug/L	93	SW846 6020	10/22-10/25/10	L8WWP1G2
			Dilution Factor: 1		Analysis Time..: 13:24	Analyst ID.....: 000079	
			Instrument ID..: I8				
Vanadium	100	88.0	ug/L	88	SW846 6020	10/22-10/25/10	L8WWP1G4
			Dilution Factor: 1		Analysis Time..: 13:24	Analyst ID.....: 000079	
			Instrument ID..: I8				
Zinc	100	97.0	ug/L	97	SW846 6020	10/22-10/25/10	L8WWP1G5
			Dilution Factor: 1		Analysis Time..: 13:24	Analyst ID.....: 000079	
			Instrument ID..: I8				
Chromium	100	88.0	ug/L	88	SW846 6020	10/22-10/25/10	L8WWP1G6
			Dilution Factor: 1		Analysis Time..: 13:24	Analyst ID.....: 000079	
			Instrument ID..: I8				
Molybdenum	100	87.0	ug/L	87	SW846 6020	10/22-10/25/10	L8WWP1HJ
			Dilution Factor: 1		Analysis Time..: 13:24	Analyst ID.....: 000079	
			Instrument ID..: I8				
Mercury	5.0	5.7	ug/L	115	SW846 7470A	10/22-10/26/10	L8WWP1CJ
			Dilution Factor: 1		Analysis Time..: 18:33	Analyst ID.....: 001576	
			Instrument ID..: H1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

DISSOLVED Metals

Client Lot #...: 0J18429 **Matrix.....:** WATER

LCS Lot-Sample#: A0J190000-014 **Prep Batch #...:** 0292014

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	100	92.7	ug/L	93	SW846 6020	10/19-10/20/10	L8NTA1DT
			Dilution Factor: 1		Analysis Time..: 17:38	Analyst ID.....: 000079	
			Instrument ID..: I8				
Arsenic	100	90.0	ug/L	90	SW846 6020	10/19-10/20/10	L8NTA1DU
			Dilution Factor: 1		Analysis Time..: 17:38	Analyst ID.....: 000079	
			Instrument ID..: I8				
Barium	100	87.8	ug/L	88	SW846 6020	10/19-10/20/10	L8NTA1DV
			Dilution Factor: 1		Analysis Time..: 17:38	Analyst ID.....: 000079	
			Instrument ID..: I8				
Beryllium	100	92.5	ug/L	93	SW846 6020	10/19-10/20/10	L8NTA1DW
			Dilution Factor: 1		Analysis Time..: 17:38	Analyst ID.....: 000079	
			Instrument ID..: I8				
Cadmium	100	96.5	ug/L	96	SW846 6020	10/19-10/20/10	L8NTA1DX
			Dilution Factor: 1		Analysis Time..: 17:38	Analyst ID.....: 000079	
			Instrument ID..: I8				
Cobalt	100	89.6	ug/L	90	SW846 6020	10/19-10/20/10	L8NTA1D0
			Dilution Factor: 1		Analysis Time..: 17:38	Analyst ID.....: 000079	
			Instrument ID..: I8				
Copper	100	95.9	ug/L	96	SW846 6020	10/19-10/21/10	L8NTA1D1
			Dilution Factor: 1		Analysis Time..: 12:38	Analyst ID.....: 000079	
			Instrument ID..: I8				
Iron	10000	9120	ug/L	91	SW846 6020	10/19-10/20/10	L8NTA1D2
			Dilution Factor: 1		Analysis Time..: 17:38	Analyst ID.....: 000079	
			Instrument ID..: I8				
Lead	100	87.9	ug/L	88	SW846 6020	10/19-10/20/10	L8NTA1D3
			Dilution Factor: 1		Analysis Time..: 17:38	Analyst ID.....: 000079	
			Instrument ID..: I8				
Manganese	100	89.8	ug/L	90	SW846 6020	10/19-10/20/10	L8NTA1D4
			Dilution Factor: 1		Analysis Time..: 17:38	Analyst ID.....: 000079	
			Instrument ID..: I8				

(Continued on next page)

LABORATORY CONTROL SAMPLE DATA REPORT

DISSOLVED Metals

Client Lot #...: 0J18429 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Molybdenum	100	90.4	ug/L	90	SW846 6020	10/19-10/20/10	L8NTA1D5
			Dilution Factor: 1		Analysis Time..: 17:38	Analyst ID.....: 000079	
			Instrument ID..: I8				
Nickel	100	94.3	ug/L	94	SW846 6020	10/19-10/20/10	L8NTA1D6
			Dilution Factor: 1		Analysis Time..: 17:38	Analyst ID.....: 000079	
			Instrument ID..: I8				
Selenium	100	88.5	ug/L	89	SW846 6020	10/19-10/20/10	L8NTA1D7
			Dilution Factor: 1		Analysis Time..: 17:38	Analyst ID.....: 000079	
			Instrument ID..: I8				
Silver	100	100	ug/L	100	SW846 6020	10/19-10/20/10	L8NTA1D8
			Dilution Factor: 1		Analysis Time..: 17:38	Analyst ID.....: 000079	
			Instrument ID..: I8				
Thallium	100	90.6	ug/L	91	SW846 6020	10/19-10/20/10	L8NTA1D9
			Dilution Factor: 1		Analysis Time..: 17:38	Analyst ID.....: 000079	
			Instrument ID..: I8				
Vanadium	100	88.8	ug/L	89	SW846 6020	10/19-10/20/10	L8NTA1EA
			Dilution Factor: 1		Analysis Time..: 17:38	Analyst ID.....: 000079	
			Instrument ID..: I8				
Zinc	100	101	ug/L	101	SW846 6020	10/19-10/20/10	L8NTA1EC
			Dilution Factor: 1		Analysis Time..: 17:38	Analyst ID.....: 000079	
			Instrument ID..: I8				
Chromium	100	89.0	ug/L	89	SW846 6020	10/19-10/20/10	L8NTA1ED
			Dilution Factor: 1		Analysis Time..: 17:38	Analyst ID.....: 000079	
			Instrument ID..: I8				
Mercury	5.0	5.4	ug/L	108	SW846 7470A	10/19-10/21/10	L8NTA1EE
			Dilution Factor: 1		Analysis Time..: 18:51	Analyst ID.....: 001576	
			Instrument ID..: H4				

LCS Lot-Sample#: A0J220000-021 **Prep Batch #...:** 0295021

Antimony	100	88.0	ug/L	88	SW846 6020	10/22-10/25/10	L8WWP1HK
			Dilution Factor: 1		Analysis Time..: 13:24	Analyst ID.....: 000079	
			Instrument ID..: I8				
Arsenic	100	86.0	ug/L	86	SW846 6020	10/22-10/25/10	L8WWP1HL
			Dilution Factor: 1		Analysis Time..: 13:24	Analyst ID.....: 000079	
			Instrument ID..: I8				

(Continued on next page)

LABORATORY CONTROL SAMPLE DATA REPORT

DISSOLVED Metals

Client Lot #...: 0J18429 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Barium	100	91.0	ug/L	91	SW846 6020	10/22-10/25/10	L8WWP1HM
			Dilution Factor: 1		Analysis Time..: 13:24	Analyst ID.....: 000079	
			Instrument ID..: I8				
Beryllium	100	92.0	ug/L	92	SW846 6020	10/22-10/25/10	L8WWP1HN
			Dilution Factor: 1		Analysis Time..: 13:24	Analyst ID.....: 000079	
			Instrument ID..: I8				
Cadmium	100	92.0	ug/L	92	SW846 6020	10/22-10/25/10	L8WWP1HP
			Dilution Factor: 1		Analysis Time..: 13:24	Analyst ID.....: 000079	
			Instrument ID..: I8				
Cobalt	100	89.0	ug/L	89	SW846 6020	10/22-10/25/10	L8WWP1HQ
			Dilution Factor: 1		Analysis Time..: 13:24	Analyst ID.....: 000079	
			Instrument ID..: I8				
Copper	100	91.0	ug/L	91	SW846 6020	10/22-10/25/10	L8WWP1HR
			Dilution Factor: 1		Analysis Time..: 13:24	Analyst ID.....: 000079	
			Instrument ID..: I8				
Iron	10000	8800	ug/L	88	SW846 6020	10/22-10/25/10	L8WWP1HT
			Dilution Factor: 1		Analysis Time..: 13:24	Analyst ID.....: 000079	
			Instrument ID..: I8				
Lead	100	84.0	ug/L	84	SW846 6020	10/22-10/25/10	L8WWP1HU
			Dilution Factor: 1		Analysis Time..: 13:24	Analyst ID.....: 79	
			Instrument ID..: I8				
Manganese	100	94.0	ug/L	94	SW846 6020	10/22-10/25/10	L8WWP1HV
			Dilution Factor: 1		Analysis Time..: 13:24	Analyst ID.....: 000079	
			Instrument ID..: I8				
Molybdenum	100	87.0	ug/L	87	SW846 6020	10/22-10/25/10	L8WWP1HW
			Dilution Factor: 1		Analysis Time..: 13:24	Analyst ID.....: 000079	
			Instrument ID..: I8				
Nickel	100	92.0	ug/L	92	SW846 6020	10/22-10/25/10	L8WWP1HX
			Dilution Factor: 1		Analysis Time..: 13:24	Analyst ID.....: 000079	
			Instrument ID..: I8				
Selenium	100	87.0	ug/L	87	SW846 6020	10/22-10/25/10	L8WWP1H0
			Dilution Factor: 1		Analysis Time..: 13:24	Analyst ID.....: 000079	
			Instrument ID..: I8				

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LABORATORY CONTROL SAMPLE DATA REPORT

DISSOLVED Metals

Client Lot #...: 0J18429 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Silver	100	93.0	ug/L	93	SW846 6020	10/22-10/25/10	L8WWP1H1
			Dilution Factor: 1		Analysis Time..: 13:24	Analyst ID.....: 000079	
			Instrument ID..: I8				
Thallium	100	80.0	ug/L	80	SW846 6020	10/22-10/25/10	L8WWP1H2
			Dilution Factor: 1		Analysis Time..: 13:24	Analyst ID.....: 000079	
			Instrument ID..: I8				
Vanadium	100	88.0	ug/L	88	SW846 6020	10/22-10/25/10	L8WWP1H3
			Dilution Factor: 1		Analysis Time..: 13:24	Analyst ID.....: 000079	
			Instrument ID..: I8				
Zinc	100	97.0	ug/L	97	SW846 6020	10/22-10/25/10	L8WWP1H4
			Dilution Factor: 1		Analysis Time..: 13:24	Analyst ID.....: 000079	
			Instrument ID..: I8				
Chromium	100	88.0	ug/L	88	SW846 6020	10/22-10/25/10	L8WWP1H5
			Dilution Factor: 1		Analysis Time..: 13:24	Analyst ID.....: 000079	
			Instrument ID..: I8				
Mercury	5.0	5.7	ug/L	115	SW846 7470A	10/22-10/26/10	L8WWP1GE
			Dilution Factor: 1		Analysis Time..: 18:33	Analyst ID.....: 001576	
			Instrument ID..: H1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

TestAmerica North Canton

Metals Data Reporting Form

Instrument Detection Limits

Instrument: ICPMS **Units:** ppb

Element	Mass	Reporting Limit	IDL	Date of IDL
Antimony	121	2.0	0.016	10/19/2010
Arsenic	75	5.0	0.15	10/19/2010
Barium	137	1.0	0.045	10/19/2010
Beryllium	9	1.0	0.0083	10/19/2010
Cadmium	111	1.0	0.0057	10/19/2010
Chromium	52	2.0	0.058	10/19/2010
Cobalt	59	1.0	0.0073	10/19/2010
Copper	65	2.0	0.053	10/19/2010
Iron	56	50.0	2.9	10/19/2010
Lead	208	1.0	0.016	10/19/2010
Manganese	55	1.0	0.043	10/19/2010
Molybdenum	95	2.0	0.079	10/19/2010
Nickel	60	2.0	0.048	10/19/2010
Selenium	78	5.0	0.18	10/19/2010
Silver	107	1.0	0.0084	10/19/2010
Thallium	205	1.0	0.16	10/19/2010
Vanadium	51	20.0	1.0	10/19/2010
Zinc	66	20.0	8.1	10/19/2010

TestAmerica North Canton

Metals Data Reporting Form

Instrument Detection Limits

Instrument: ICPST **Units:** ppb

Element	Wavelength	Reporting Limit	IDL	Date of IDL
Aluminum	308.215	200.0	6.5	12/1/2009
Antimony	206.838	60.0	5.3	12/1/2009
Arsenic	189.042	10.0	2.4	12/1/2009
Barium	493.409	200.0	0.24	12/1/2009
Beryllium	313.042	5.0	0.10	12/1/2009
Cadmium	226.502	5.0	0.17	12/1/2009
Calcium	317.933	5000.0	5.2	12/1/2009
Chromium	267.716	10.0	0.99	12/1/2009
Cobalt	228.616	50.0	0.94	12/1/2009
Copper	324.753	25.0	1.1	12/1/2009
Iron	271.441	100.0	7.6	12/1/2009
Lead	220.353	3.0	1.3	12/1/2009
Magnesium	279.078	5000.0	8.1	12/1/2009
Manganese	257.610	15.0	0.19	12/1/2009
Nickel	231.604	40.0	1.1	12/1/2009
Potassium	766.491	5000.0	19.6	12/1/2009
Selenium	196.026	5.0	4.3	12/1/2009
Silver	328.068	10.0	0.99	12/1/2009
Sodium	330.232	5000.0	333	12/1/2009
Thallium	190.864	10.0	6.9	12/1/2009
Vanadium	292.402	50.0	0.65	12/1/2009
Zinc	213.856	20.0	0.32	12/1/2009

TestAmerica North Canton

Metals Data Reporting Form

Instrument Detection Limits

Instrument: CVAA-H1 **Units:** ppb

Element	Wavelength	Reporting Limit	IDL	Date of IDL
Mercury	253.700	0.2	0.10	1/8/2010

TestAmerica North Canton

Metals Data Reporting Form

Instrument Detection Limits

Instrument: CVAA-H4 **Units:** ppb

Element	Wavelength	Reporting Limit	IDL	Date of IDL
Mercury	253.700	0.2	0.10	11/20/2009

Batch Number: 0292014

TestAmerica Laboratories, Inc.
Metals Prep Log/ Batch Summary

Prepared By: Lisa McGall (e-Signature)

Prep Date: 10/19/10 08:00 Prep End Date: 10/19/10 14:00
Due Date: 10/29/10

Lot	Work Order			ICP Weight	ICPMS Weight	Hg Weight
A0J190000 Water	L8NTA	B	Due Date: SDG:		50 mL	100 mL
A0J190000 Water	L8NTA	C	Due Date: SDG:		50 mL	100 mL
A0J150494 Water	L8JQP Total		Due Date: 10/29/10 SDG:		50 mL	
A0J150494 Water	L8JQT Total		Due Date: 10/29/10 SDG:		50 mL	
A0J150494 Water	L8JQX Total		Due Date: 10/29/10 SDG:		50 mL	
A0J150494 Water	L8JQX Total	S	Due Date: 10/29/10 SDG:		50 mL	
A0J150494 Water	L8JQX Total	D	Due Date: 10/29/10 SDG:		50 mL	
A0J150494 Water	L8JQ0 Total		Due Date: 10/29/10 SDG:		50 mL	
A0J150494 Water	L8JQ2 Total		Due Date: 10/29/10 SDG:		50 mL	
A0J150494 Water	L8JQ4 Total		Due Date: 10/29/10 SDG:		50 mL	
A0J150494 Water	L8JQ6 Total		Due Date: 10/29/10 SDG:		50 mL	
A0J180429 Water	L8MNJ Dissolved		Due Date: 10/29/10 SDG: 0J18429		50 mL	100 mL
A0J180429 Water	L8MNJ Total		~~Due Date: 10/29/10~~ SDG: 0J18429		50 mL	100 mL
A0J180429 Water	L8MNJ Total	S	Due Date: 10/29/10 SDG: 0J18429		50 mL	100 mL
A0J180429 Water	~~L8MNJ~~ Total	~~X~~	Due Date: 10/29/10 SDG: 0J18429		50 mL	100 mL
A0J180429 Water	L8MNK Dissolved		Due Date: 10/29/10 SDG: 0J18429		50 mL	100 mL
A0J180429 Water	L8MNK Total		Due Date: 10/29/10 SDG: 0J18429		50 mL	100 mL
A0J180429 Water	L8MNL Dissolved		Due Date: 10/29/10 SDG: 0J18429		50 mL	100 mL
A0J180429 Water	L8MNL Total		Due Date: 10/29/10 SDG: 0J18429		50 mL	100 mL
A0J180456 Water	L8M0R Total		Due Date: 10/29/10 SDG: 0J18456		50 mL	100 mL
A0J180483 Water	L8NE0 Total		Due Date: 11/01/10 SDG:		50 mL	100 mL

Filter & Preserve

Batch Number: **0292014**

TestAmerica Laboratories, Inc.
Metals Prep Log/ Batch Summary

Prepared By:
Lisa McGall
(e-Signature)

Prep Date: 10/19/10 08:00 Prep End Date: 10/19/10 14:00
Due Date: 10/29/10

Lot	Work Order	ICP Weight	ICPMS Weight	Hg Weight
	LEVEL 2			
	BLANK AND CHECK STANDARD ON BATCH	X		
	MS/MSD AND PDS ON BATCH	X		
	CORRECT SPIKES ADDED	X		
	SPIKING SOLUTIONS DOCUMENTED ON BATCH LOG	X		

Comments:

B-BLANK; C-CHECK SAMPLE; L-CHECK SAMPLE DUPLICATE; P-SERIAL DILUTION; S-MATRIX SPIKE SAMPLE; D-MATRIX SPIKE DUPLICATE SAMPLE

Unless otherwise noted, final volumes are as follows: Soils - 100 mL. Waters - ICP and ICPMS - 50 mL, Hg - 100 mL.

Low Level Hg: final volumes are 40 mL.

ICPMS ELEMENTS WITHIN THE BATCH:

AG AS BA BE CD CO CR CU FE MN MO NI PB SB SE TL VX ZN

Matrix Spike Information:			
L8JQX		ICPMS-1	
Matrix Spike Information:			
L8MNJ	Hg	ICPMS-1	ICPMS-2
Check Sample Information:			
L8NTA	Hg	ICPMS-1	ICPMS-2

Prep Method(s): SW846 3005A, SW846 7470A

Batch Number: 0295021

TestAmerica Laboratories, Inc.
Metals Prep Log/ Batch Summary

Prepared By: Lisa McGall (e-Signature)

Prep Date: 10/22/10 08:00
Due Date: 10/27/10

Prep End Date: 10/22/10 14:00

Lot	Work Order			ICP Weight	ICPMS Weight	Hg Weight
A0J220000 Water	L8WWP	B	Due Date: SDG:	50 mL	50 mL	100 mL
A0J220000 Water	L8WWP	C	Due Date: SDG:	50 mL	50 mL	100 mL
A0J210603 Water	L8WKL Total		Due Date: 10/27/10 SDG:	50 mL	50 mL	100 mL
A0J210603 Water	L8WKL Total	S	Due Date: 10/27/10 SDG:	50 mL	50 mL	100 mL
A0J210603 Water	L8WKL Total	D	Due Date: 10/27/10 SDG:	50 mL	50 mL	100 mL
A0J210603 Water	L8WKV Total		Due Date: 10/27/10 SDG:	50 mL	50 mL	100 mL
A0J210603 Water	L8WKX Total		Due Date: 10/27/10 SDG:	50 mL	50 mL	100 mL
A0J210536 Water	L8VXX Total		Due Date: 11/01/10 SDG:	50 mL	50 mL	
A0J210618 Water	L8WNT Total		Due Date: 11/01/10 SDG:		50 mL	100 mL
A0J210480 Water	L8VGM Total		Due Date: 11/02/10 SDG:	50 mL		
A0J210480 Water	L8VGP Total		Due Date: 11/02/10 SDG:	50 mL	50 mL	
A0J210480 Water	L8VGV Total		Due Date: 11/02/10 SDG:	50 mL	50 mL	
A0J210480 Water	L8VGX Total		Due Date: 11/02/10 SDG:	50 mL	50 mL	
A0J210480 Water	L8VG1 Total		Due Date: 11/02/10 SDG:	50 mL		
A0J210480 Water	L8VG2 Total		Due Date: 11/02/10 SDG:	50 mL	50 mL	
A0J210480 Water	L8VG4 Total		Due Date: 11/02/10 SDG:	50 mL	50 mL	
A0J210534 Water	L8VXN Total		Due Date: 11/02/10 SDG:		50 mL	100 mL
A0J210500 Water	L8VLP Total		Due Date: 11/04/10 SDG:	50 mL		100 mL
A0J210500 Water	A L8VP9 Dissolved		Due Date: 11/04/10 SDG:	50 mL		100 mL
A0J210500 Water	L8VP9 Total		Due Date: 11/04/10 SDG:	50 mL		100 mL
A0J210601 Water	L8WKW Total		Due Date: 11/04/10 SDG:	50 mL		100 mL
A0J210601 Water	L8WK5 Total		Due Date: 11/04/10 SDG:	50 mL		100 mL

1/2 prep Hg only Lim. Qty.

A Filter & Preserve

Batch Number: 0295021

TestAmerica Laboratories, Inc.
Metals Prep Log/ Batch Summary

Prepared By: Lisa McGall (e-Signature)

Prep Date: 10/22/10 08:00
Due Date: 10/27/10
Prep End Date: 10/22/10 14:00

Lot	Work Order		ICP Weight	ICPMS Weight	Hg Weight
A0J210616 Water	L8WM3 Dissolved	Due Date: 11/04/10 SDG:		50 mL	100 mL
A0J210616 Water	L8WM3 Total	Due Date: 11/04/10 SDG:		50 mL	100 mL

mw 960

LEVEL 2

BLANK AND CHECK STANDARD ON BATCH	X
MS/MSD AND PDS ON BATCH	X
CORRECT SPIKES ADDED	X
SPIKING SOLUTIONS DOCUMENTED ON BATCH LOG	X

Comments:

B-BLANK; C-CHECK SAMPLE; L-CHECK SAMPLE DUPLICATE; P-SERIAL DILUTION; S-MATRIX SPIKE SAMPLE; D-MATRIX SPIKE DUPLICATE SAMPLE

Unless otherwise noted, final volumes are as follows: Soils - 100 mL. Waters - ICP and ICPMS - 50 mL, Hg - 100 mL.

Low Level Hg: final volumes are 40 mL.

ICP ELEMENTS WITHIN THE BATCH:

AG AL AS BA BE CA CD CO CR CU FE KX MG MN NA NI PB SB SE SN TL VX ZN

ICPMS ELEMENTS WITHIN THE BATCH:

AG AL AS BA BE CA CD CO CR CU FE KX MG MN MO NA NI PB SB SE TL VX ZN

Matrix Spike Information:

L8WKL	ICP-1	ICP-2A	Hg	Ag	ICPMS-1	ICPMS-2

Check Sample Information:

L8WWP	ICP-1	ICP-2A	Hg	Ag	ICPMS-1	ICPMS-2

Prep Method(s): MCAWW 200.7, MCAWW 200.8, MCAWW 245.1, SW846 3005A, SW846 7470A

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:       Instrument Upload                                    Run Log - Page  1 :
:       Started Fri Oct 22 08:57:48 2010 by TOTHR                              :
:       Data File: UPL$CAN_DATA_ROOT:<LHG>HG41021A.PRN;1                       :
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1			22-OCT-2010				H4
2	STD01REP1	1	21-OCT-2010	12:41:22			H4
3	STD02REP1	1	21-OCT-2010	12:43:36			H4
4	STD03REP1	1	21-OCT-2010	12:45:31			H4
5	STD04REP1	1	21-OCT-2010	12:47:07			H4
6	STD05REP1	1	21-OCT-2010	12:48:46			H4
7	STD06REP1	1	21-OCT-2010	12:50:34			H4
8	CK2ICV	1	21-OCT-2010	12:52:13			H4
9	CK3ICB	1	21-OCT-2010	12:53:49			H4
10	CK4CRA\MRL	1	21-OCT-2010	12:55:24			H4
11	CK6CCV	1	21-OCT-2010	12:57:01			H4
12	CK5CCB	1	21-OCT-2010	12:59:04			H4
13	L8ME8BT	1	21-OCT-2010	13:01:26	0293025	A0J180000	H4
14	L8QNMBT	1	21-OCT-2010	13:03:12	0293025	A0J200000	H4
15	L8QNMCT	1	21-OCT-2010	13:04:50	0293025	A0J200000	H4
16	L8E5AT	1	21-OCT-2010	13:07:07	0293025	A0J130593	H4
17	L8E5ATS	1	21-OCT-2010	13:09:00	0293025	A0J130593	H4
18	L8E5ATD	1	21-OCT-2010	13:11:05	0293025	A0J130593	H4
19	L8HDGT	1	21-OCT-2010	13:12:44	0293025	A0J140582	H4
20	L8HDFT	1	21-OCT-2010	13:14:18	0293025	A0J140582	H4
21	L8HCDT	1	21-OCT-2010	13:16:03	0293025	A0J140582	H4
22	L8HDET	1	21-OCT-2010	13:18:27	0293025	A0J140582	H4
23	CK6CCV	1	21-OCT-2010	13:20:01			H4
24	CK5CCB	1	21-OCT-2010	13:21:34			H4
25	L8HC3T	1	21-OCT-2010	13:23:09	0293025	A0J140582	H4
26	L8HC8T	1	21-OCT-2010	13:24:53	0293025	A0J140582	H4
27	L8HC0T	1	21-OCT-2010	13:26:46	0293025	A0J140582	H4
28	L8HDAT	1	21-OCT-2010	13:28:33	0293025	A0J140582	H4
29	L8HCVT	1	21-OCT-2010	13:30:21	0293025	A0J140582	H4
30	L8HDHT	1	21-OCT-2010	13:31:54	0293025	A0J140582	H4
31	L8NTDB	1	21-OCT-2010	13:33:38	0292015	A0J190000	H4
32	L8NTDC	1	21-OCT-2010	13:35:11	0292015	A0J190000	H4
33	L8NKE	1	21-OCT-2010	13:37:10	0292015	A0J180496	H4
34	L8NKES	1	21-OCT-2010	13:39:14	0292015	A0J180496	H4
35	CK6CCV	1	21-OCT-2010	13:41:37			H4
36	CK5CCB	1	21-OCT-2010	13:43:22			H4
37	L8NKED	1	21-OCT-2010	13:45:02	0292015	A0J180496	H4
38	L8NK5	1	21-OCT-2010	13:46:48	0292015	A0J180496	H4
39	L8NK3	1	21-OCT-2010	13:48:38	0292015	A0J180496	H4
40	L8NK6	1	21-OCT-2010	13:50:14	0292015	A0J180496	H4
41	L8NKX	1	21-OCT-2010	13:52:07	0292015	A0J180496	H4
42	L8NLW	1	21-OCT-2010	13:53:44	0292015	A0J180496	H4
43	L8NKG	1	21-OCT-2010	13:55:21	0292015	A0J180496	H4
44	L8NK7	1	21-OCT-2010	13:56:57	0292015	A0J180496	H4

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#	WorkOrder	Dilution	Date	Time	Batch	Lot	Instrument
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46	L8NL3	1	21-OCT-2010	14:00:06	0292015	A0J180496	H4
47	CK6CCV	1	21-OCT-2010	14:01:41			H4
48	CK5CCB	1	21-OCT-2010	14:03:23			H4
49	L8NK9	1	21-OCT-2010	14:05:08	0292015	A0J180496	H4
50	L8NLE	1	21-OCT-2010	14:07:05	0292015	A0J180496	H4
51	L8NLT	1	21-OCT-2010	14:09:06	0292015	A0J180496	H4
52	L8NKQ	1	21-OCT-2010	14:10:41	0292015	A0J180496	H4
53	L8NKR	1	21-OCT-2010	14:12:45	0292015	A0J180496	H4
54	L8NKP	1	21-OCT-2010	14:14:23	0292015	A0J180496	H4
55	L8NLH	1	21-OCT-2010	14:16:00	0292015	A0J180496	H4
56	L8NK2	1	21-OCT-2010	14:17:57	0292015	A0J180496	H4
57	L8NLC	1	21-OCT-2010	14:19:34	0292015	A0J180496	H4
58	L8NKM	1	21-OCT-2010	14:21:20	0292015	A0J180496	H4
59	CK6CCV	1	21-OCT-2010	14:23:10			H4
60	CK5CCB	1	21-OCT-2010	14:24:46			H4
61	L8NTHB	1	21-OCT-2010	14:26:19	0292017	A0J190000	H4
62	L8NTHC	1	21-OCT-2010	14:28:07	0292017	A0J190000	H4
63	L8NMA	1	21-OCT-2010	14:29:54	0292017	A0J180496	H4
64	L8NMAS	1	21-OCT-2010	14:31:39	0292017	A0J180496	H4
65	CK6CCV	1	21-OCT-2010	14:41:58			H4
66	CK5CCB	1	21-OCT-2010	14:43:41			H4
67	L8NMAD	1	21-OCT-2010	14:45:18	0292017	A0J180496	H4
68	L8NMC	1	21-OCT-2010	14:46:51	0292017	A0J180496	H4
69	L8NME	1	21-OCT-2010	14:48:28	0292017	A0J180496	H4
70	L8NMD	1	21-OCT-2010	14:50:24	0292017	A0J180496	H4
71	L8NMK	1	21-OCT-2010	14:51:59	0292017	A0J180496	H4
72	L8NMH	1	21-OCT-2010	14:53:53	0292017	A0J180496	H4
73	L8NMF	1	21-OCT-2010	14:55:26	0292017	A0J180496	H4
74	L8NMV	1	21-OCT-2010	14:57:03	0292017	A0J180496	H4
75	L8NMG	1	21-OCT-2010	14:58:56	0292017	A0J180496	H4
76	L8NMM	1	21-OCT-2010	15:00:50	0292017	A0J180496	H4
77	CK6CCV	1	21-OCT-2010	15:02:26			H4
78	CK5CCB	1	21-OCT-2010	15:03:59			H4
79	L8QNDB	1	21-OCT-2010	15:05:34	0293021	A0J200000	H4
80	L8QNDC	1	21-OCT-2010	15:07:08	0293021	A0J200000	H4
81	L8N41	1	21-OCT-2010	15:08:41	0293021	A0J190412	H4
82	L8N41S	1	21-OCT-2010	15:10:17	0293021	A0J190412	H4
83	L8N41D	1	21-OCT-2010	15:11:52	0293021	A0J190412	H4
84	L8N5D	1	21-OCT-2010	15:13:30	0293021	A0J190412	H4
85	L8N92	1	21-OCT-2010	15:15:04	0293021	A0J190436	H4
86	L8PQF	1	21-OCT-2010	15:16:42	0293021	A0J190484	H4
87	L8N5C	1	21-OCT-2010	15:18:17	0293021	A0J190412	H4
88	L8FDRB	1	21-OCT-2010	15:19:51	0287014	A0J140000	H4

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#	WorkOrder	Dilution	Date	Time	Batch	Lot	Instrument
89	CK6CCV	1	21-OCT-2010	15:21:49			H4
90	CK5CCB	1	21-OCT-2010	15:23:37			H4
91	L8FDRC	1	21-OCT-2010	15:25:13	0287014	A0J140000	H4
92	L8C2E	1	21-OCT-2010	15:26:59	0287014	A0J130403	H4
93	L8C2EX	1	21-OCT-2010	15:29:14	0287014	A0J130403	H4
94	L8C2ES	1	21-OCT-2010	15:31:07	0287014	A0J130403	H4
95	L8C3N	1	21-OCT-2010	15:32:51	0287014	A0J130403	H4
96	L8C3X	1	21-OCT-2010	15:34:26	0287014	A0J130403	H4
97	L8C25	1	21-OCT-2010	15:36:01	0287014	A0J130403	H4
98	L8C28	1	21-OCT-2010	15:37:35	0287014	A0J130403	H4
99	L8C21	1	21-OCT-2010	15:39:25	0287014	A0J130403	H4
100	L8C3V	1	21-OCT-2010	15:40:59	0287014	A0J130403	H4
101	CK6CCV	1	21-OCT-2010	15:42:55			H4
102	CK5CCB	1	21-OCT-2010	15:44:42			H4
103	L8C3Q	1	21-OCT-2010	15:46:18	0287014	A0J130403	H4
104	L8C31	1	21-OCT-2010	15:47:55	0287014	A0J130403	H4
105	L8C2P	1	21-OCT-2010	15:49:36	0287014	A0J130403	H4
106	L8C3M	1	21-OCT-2010	15:51:10	0287014	A0J130403	H4
107	L8C33	1	21-OCT-2010	15:53:16	0287014	A0J130403	H4
108	L8C3E	1	21-OCT-2010	15:54:59	0287014	A0J130403	H4
109	L8C2V	1	21-OCT-2010	15:56:46	0287014	A0J130403	H4
110	L8C3K	1	21-OCT-2010	15:58:50	0287014	A0J130403	H4
111	L8ME6BT	1	21-OCT-2010	16:00:45	0293022	A0J180000	H4
112	L8QNFBT	1	21-OCT-2010	16:02:30	0293022	A0J200000	H4
113	CK6CCV	1	21-OCT-2010	16:04:04			H4
114	CK5CCB	1	21-OCT-2010	16:06:01			H4
115	L8QNFCT	1	21-OCT-2010	16:07:39	0293022	A0J200000	H4
116	L8J7LT	1	21-OCT-2010	16:09:16	0293022	A0J150549	H4
117	L8J7LTS	1	21-OCT-2010	16:10:51	0293022	A0J150549	H4
118	L8J7LTD	1	21-OCT-2010	16:12:38	0293022	A0J150549	H4
119	L8PN1BT	1	21-OCT-2010	16:14:25	0294017	A0J190000	H4
120	L8TGWBT	1	21-OCT-2010	16:15:59	0294017	A0J210000	H4
121	L8TGWCT	1	21-OCT-2010	16:17:33	0294017	A0J210000	H4
122	L8M67T	1	21-OCT-2010	16:19:11	0294017	A0J180475	H4
123	L8M67TS	1	21-OCT-2010	16:20:48	0294017	A0J180475	H4
124	L8M67TD	1	21-OCT-2010	16:22:23	0294017	A0J180475	H4
125	CK6CCV	1	21-OCT-2010	16:24:13			H4
126	CK5CCB	1	21-OCT-2010	16:25:57			H4
127	L8KW2T	1	21-OCT-2010	16:27:31	0294017	A0J150593	H4
128	L8PNHBT	1	21-OCT-2010	16:29:08	0294019	A0J190000	H4
129	L8TG2CT	1	21-OCT-2010	16:30:45	0294019	A0J210000	H4
130	L8TG2BT	1	21-OCT-2010	16:32:21	0294019	A0J210000	H4
131	L8K20T	1	21-OCT-2010	16:33:57	0294019	A0J150603	H4
132	L8K20TS	1	21-OCT-2010	16:36:02	0294019	A0J150603	H4

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#	WorkOrder	Dilution	Date	Time	Batch	Lot	Instrument
133	L8K20TD	1	21-OCT-2010	16:38:08	0294019	A0J150603	H4
134	L8MTNT	1	21-OCT-2010	16:39:56	0294019	A0J180444	H4
135	L8K2XT	1	21-OCT-2010	16:41:42	0294019	A0J150603	H4
136	L8K22T	1	21-OCT-2010	16:43:32	0294019	A0J150603	H4
137	CK6CCV	1	21-OCT-2010	16:45:07			H4
138	CK5CCB	1	21-OCT-2010	16:46:42			H4
139	L8K21T	1	21-OCT-2010	16:48:18	0294019	A0J150603	H4
140	L8K2QT	1	21-OCT-2010	16:49:55	0294019	A0J150603	H4
141	L8MTPT	1	21-OCT-2010	16:51:42	0294019	A0J180444	H4
142	L8L7PB	1	21-OCT-2010	16:53:40	0291019	A0J180000	H4
143	L8L7PC	1	21-OCT-2010	16:56:36	0291019	A0J180000	H4
144	L8FHQ	1	21-OCT-2010	16:58:14	0291019	A0J140402	H4
145	L8FHQX	1	21-OCT-2010	17:00:00	0291019	A0J140402	H4
146	CK6CCV	1	21-OCT-2010	17:04:50			H4
147	CK5CCB	1	21-OCT-2010	17:06:24			H4
148	L8FHQS	1	21-OCT-2010	17:08:17	0291019	A0J140402	H4
149	L8FG6	1	21-OCT-2010	17:10:01	0291019	A0J140402	H4
150	L8FHM	1	21-OCT-2010	17:11:34	0291019	A0J140402	H4
151	L8FHG	1	21-OCT-2010	17:13:10	0291019	A0J140402	H4
152	L8FGV	1	21-OCT-2010	17:14:45	0291019	A0J140402	H4
153	L8FG8	1	21-OCT-2010	17:16:41	0291019	A0J140402	H4
154	L8FG0	1	21-OCT-2010	17:18:17	0291019	A0J140402	H4
155	L8FGM	1	21-OCT-2010	17:19:56	0291019	A0J140402	H4
156	L8FHL	1	21-OCT-2010	17:21:31	0291019	A0J140402	H4
157	L8FG4	1	21-OCT-2010	17:23:22	0291019	A0J140402	H4
158	CK6CCV	1	21-OCT-2010	17:24:56			H4
159	CK5CCB	1	21-OCT-2010	17:26:45			H4
160	L8FHE	1	21-OCT-2010	17:28:20	0291019	A0J140402	H4
161	L8FGP	1	21-OCT-2010	17:30:35	0291019	A0J140402	H4
162	L8PNRBT	1	21-OCT-2010	17:32:10	0294018	A0J190000	H4
163	L8TG0BT	1	21-OCT-2010	17:34:06	0294018	A0J210000	H4
164	L8TG0CT	1	21-OCT-2010	17:35:40	0294018	A0J210000	H4
165	L8K29T	1	21-OCT-2010	17:37:20	0294018	A0J150609	H4
166	L8K29TS	1	21-OCT-2010	17:39:07	0294018	A0J150609	H4
167	L8K29TD	1	21-OCT-2010	17:40:41	0294018	A0J150609	H4
168	L8K3CT	1	21-OCT-2010	17:42:40	0294018	A0J150609	H4
169	L8MHEBT	1	21-OCT-2010	17:44:26	0293023	A0J180000	H4
170	CK6CCV	1	21-OCT-2010	17:46:22			H4
171	CK5CCB	1	21-OCT-2010	17:47:57			H4
172	L8QNHBT	1	21-OCT-2010	17:49:33	0293023	A0J200000	H4
173	L8QNHCT	1	21-OCT-2010	17:51:07	0293023	A0J200000	H4
174	L8G4GT	1	21-OCT-2010	17:52:51	0293023	A0J140555	H4
175	L8G4GTX	1	21-OCT-2010	17:54:27	0293023	A0J140555	H4
176	L8G4GTS	1	21-OCT-2010	17:56:12	0293023	A0J140555	H4

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#	WorkOrder	Dilution	Date	Time	Batch	Lot	Instrument
177	L8G4RT	1	21-OCT-2010	17:58:10	0293023	A0J140555	H4
178	L8G4PT	1	21-OCT-2010	18:00:05	0293023	A0J140555	H4
179	L8G4QT	1	21-OCT-2010	18:01:49	0293023	A0J140555	H4
180	L8H0CT	1	21-OCT-2010	18:03:25	0293023	A0J150419	H4
181	L8NTFB	1	21-OCT-2010	18:05:04	0292016	A0J190000	H4
182	CK6CCV	1	21-OCT-2010	18:06:41			H4
183	CK5CCB	1	21-OCT-2010	18:08:14			H4
184	L8NTFC	1	21-OCT-2010	18:09:49	0292016	A0J190000	H4
185	L8JR7	1	21-OCT-2010	18:11:27	0292016	A0J150500	H4
186	L8JR7S	1	21-OCT-2010	18:13:03	0292016	A0J150500	H4
187	L8JR7D	1	21-OCT-2010	18:14:59	0292016	A0J150500	H4
188	L8JTP	1	21-OCT-2010	18:16:54	0292016	A0J150500	H4
189	L8K8C	1	21-OCT-2010	18:19:08	0292016	A0J150617	H4
190	L8J94	1	21-OCT-2010	18:20:56	0292016	A0J150552	H4
191	L8K8A	1	21-OCT-2010	18:22:35	0292016	A0J150617	H4
192	L8MNL	1	21-OCT-2010	18:24:12	0292014	0J18429	H4
193	L8KAA	1	21-OCT-2010	18:25:47	0292016	A0J150552	H4
194	CK6CCV	1	21-OCT-2010	18:27:24			H4
195	CK5CCB	1	21-OCT-2010	18:28:57			H4
196	L8J99	1	21-OCT-2010	18:30:33	0292016	A0J150552	H4
197	L8J92	1	21-OCT-2010	18:32:09	0292016	A0J150552	H4
198	L8JTF	1	21-OCT-2010	18:34:05	0292016	A0J150500	H4
199	L8J98	1	21-OCT-2010	18:35:41	0292016	A0J150552	H4
200	L8JTJ	1	21-OCT-2010	18:37:16	0292016	A0J150500	H4
201	L8JTM	1	21-OCT-2010	18:38:51	0292016	A0J150500	H4
202	L8J93	1	21-OCT-2010	18:40:42	0292016	A0J150552	H4
203	L8J95	1	21-OCT-2010	18:42:20	0292016	A0J150552	H4
204	L8J97	1	21-OCT-2010	18:44:18	0292016	A0J150552	H4
205	L8NTAB	1	21-OCT-2010	18:46:04	0292014	A0J190000	H4
206	CK6CCV	1	21-OCT-2010	18:48:03			H4
207	CK5CCB	1	21-OCT-2010	18:49:38			H4
208	L8NTAC	1	21-OCT-2010	18:51:24	0292014	A0J190000	H4
209	L8MNJF	1	21-OCT-2010	18:53:31	0292014	0J18429	H4
210	L8MNJX	1	21-OCT-2010	18:55:17	0292014	0J18429	H4
211	L8MNJS	1	21-OCT-2010	18:56:55	0292014	0J18429	H4
212	L8MNJF	1	21-OCT-2010	18:58:40	0292014	0J18429	H4
213	L8MNK	1	21-OCT-2010	19:00:18	0292014	0J18429	H4
214	L8MNKF	1	21-OCT-2010	19:02:08	0292014	0J18429	H4
215	L8M0R	1	21-OCT-2010	19:04:16	0292014	0J18456	H4
216	L8NE0	1	21-OCT-2010	19:06:04	0292014	A0J180483	H4
217	L8MNLF	1	21-OCT-2010	19:08:00	0292014	0J18429	H4
218	CK6CCV	1	21-OCT-2010	19:09:36			H4
219	CK5CCB	1	21-OCT-2010	19:11:20			H4

End of Report

Instrument Upload Run Log - Page 1

Started Wed Oct 27 05:57:48 2010 by TOTHR

Data File: UPL$CAN_DATA_ROOT:<LHG>HG11026A.PRN;1

#	WorkOrder	Dilution	Date	Time	Batch	Lot	Instrument
1	STD1REP1	1	26-OCT-2010	16:07:08			H1
2	STD2REP1	1	26-OCT-2010	16:08:14			H1
3	STD1REP1	1	26-OCT-2010	16:11:22			H1
4	STD1REP1	1	26-OCT-2010	16:17:49			H1
5	STD2REP1	1	26-OCT-2010	16:19:46			H1
6	STD3REP1	1	26-OCT-2010	16:21:05			H1
7	STD4REP1	1	26-OCT-2010	16:22:24			H1
8	STD5REP1	1	26-OCT-2010	16:23:42			H1
9	STD6REP1	1	26-OCT-2010	16:24:49			H1
10	CK5ICV	1	26-OCT-2010	16:26:03			H1
11	CK4ICB	1	26-OCT-2010	16:27:19			H1
12	CK3CRA\MRL	1 L8TKR	26-OCT-2010	16:28:35			H1
13	CK2CCV	1	26-OCT-2010	16:29:41			H1
14	CK1CCB	1	26-OCT-2010	16:30:45			H1
15	L8WWPB	1	26-OCT-2010	16:31:51	0295021	A0J220000	H1
16	L8WWPC	1	26-OCT-2010	16:33:00	0295021	A0J220000	H1
17	L8WKL	1	26-OCT-2010	16:34:04	0295021	A0J210603	H1
18	L8WKLS	1	26-OCT-2010	16:35:12	0295021	A0J210603	H1
19	L8WKLD	1	26-OCT-2010	16:36:40	0295021	A0J210603	H1
20	L8VP9	1	26-OCT-2010	16:37:57	0295021	A0J210500	H1
21	L8WKV	1	26-OCT-2010	16:39:12	0295021	A0J210603	H1
22	L8WM3F ✓	1	26-OCT-2010	16:40:21	0295021	0J18429	H1
23	L8VLP	1	26-OCT-2010	16:41:28	0295021	A0J210500	H1
24	L8WKX	1	26-OCT-2010	16:42:37	0295021	A0J210603	H1
25	CK2CCV	1	26-OCT-2010	16:44:43			H1
26	CK1CCB	1	26-OCT-2010	16:46:03			H1
27	L8VP9F	1	26-OCT-2010	16:47:09	0295021	A0J210500	H1
28	L8WKW	1	26-OCT-2010	16:48:14	0295021	A0J210601	H1
29	L8WK5	1	26-OCT-2010	16:49:21	0295021	A0J210601	H1
30	L8VXN	1	26-OCT-2010	16:50:25	0295021	A0J210534	H1
960 31	L8WM3 ✓	1	26-OCT-2010	16:51:51	0295021	0J18429	H1
32	L8QR8BT	1	26-OCT-2010	16:53:06	0295024	A0J200000	H1
33	L8WWXCT	1	26-OCT-2010	16:54:22	0295024	A0J220000	H1
34	L8N51T	1	26-OCT-2010	16:55:32	0295024	A0J190415	H1
35	L8N51TS	1	26-OCT-2010	16:56:58	0295024	A0J190415	H1
36	L8N51TD	1	26-OCT-2010	16:58:03	0295024	A0J190415	H1
37	CK2CCV	1	26-OCT-2010	16:59:19			H1
38	CK1CCB	1	26-OCT-2010	17:00:38			H1
39	L8NEKT	1	26-OCT-2010	17:01:45	0295024	A0J180483	H1
40	L8NEFT	1	26-OCT-2010	17:02:55	0295024	A0J180483	H1
41	L8NEMT	1	26-OCT-2010	17:04:30	0295024	A0J180483	H1
42	L8P1NT	1	26-OCT-2010	17:05:37	0295024	A0J190499	H1
43	L8NEAT	1	26-OCT-2010	17:07:01	0295024	A0J180483	H1
44	L8P1XT	1	26-OCT-2010	17:08:18	0295024	A0J190499	H1

(continued)

#	WorkOrder	Dilution	Date	Time	Batch	Lot	Instrument
45	L8P1JT	1	26-OCT-2010	17:09:35	0295024	A0J190499	H1
46	L8NEGT	1	26-OCT-2010	17:10:41	0295024	A0J180483	H1
47	L8N56T	1	26-OCT-2010	17:11:58	0295024	A0J190415	H1
48	L8N57T	1	26-OCT-2010	17:13:15	0295024	A0J190415	H1
49	CK2CCV	1	26-OCT-2010	17:14:22			H1
50	CK1CCB	1	26-OCT-2010	17:15:28			H1
51	L8P1KT	1	26-OCT-2010	17:16:35	0295024	A0J190499	H1
52	L8WWXBT	1	26-OCT-2010	17:17:45	0295024	A0J220000	H1
53	L8NEET	1	26-OCT-2010	17:18:50	0295024	A0J180483	H1
54	L8NEPT	1	26-OCT-2010	17:20:01	0295024	A0J180483	H1
55	L8NEJT	1	26-OCT-2010	17:21:06	0295024	A0J180483	H1
56	L8P1GT	1	26-OCT-2010	17:22:31	0295024	A0J190499	H1
57	L8NEHT	1	26-OCT-2010	17:23:38	0295024	A0J180483	H1
58	L8NENT	1	26-OCT-2010	17:24:44	0295024	A0J180483	H1
59	L8NEQT	1	26-OCT-2010	17:25:49	0295024	A0J180483	H1
60	L8T3VBT	1	26-OCT-2010	17:26:59	0298019	A0J210000	H1
61	CK2CCV	1	26-OCT-2010	17:28:26			H1
62	CK1CCB	1	26-OCT-2010	17:29:33			H1
63	L82CMBT	1	26-OCT-2010	17:30:41	0298019	A0J250000	H1
64	L82CMCT	1	26-OCT-2010	17:31:57	0298019	A0J250000	H1
65	L8R9LT	1	26-OCT-2010	17:33:18	0298019	A0J200572	H1
66	L8R9LTS	1	26-OCT-2010	17:34:47	0298019	A0J200572	H1
67	L8R9LTD	1	26-OCT-2010	17:35:52	0298019	A0J200572	H1
68	L8PCKT	1	26-OCT-2010	17:36:58	0298019	A0J190440	H1
69	L82DCBT	1	26-OCT-2010	17:38:03	0298030	A0J250000	H1
70	L8T36BT	1	26-OCT-2010	17:39:08	0298030	A0J210000	H1
71	L82DCCT	1	26-OCT-2010	17:40:25	0298030	A0J250000	H1
72	L8QFFT	1	26-OCT-2010	17:41:41	0298030	A0J190537	H1
73	CK2CCV	1	26-OCT-2010	17:42:46			H1
74	CK1CCB	1	26-OCT-2010	17:43:51			H1
75	L8QFFTS	1	26-OCT-2010	17:44:58	0298030	A0J190537	H1
76	L8QFFTD	1	26-OCT-2010	17:46:27	0298030	A0J190537	H1
77	L8QFGT	1	26-OCT-2010	17:47:48	0298030	A0J190537	H1
78	L8QFHT	1	26-OCT-2010	17:48:54	0298030	A0J190537	H1
79	L8R95T	1	26-OCT-2010	17:50:22	0298030	A0J200574	H1
80	L8T4FBT	1	26-OCT-2010	17:51:28	0298020	A0J210000	H1
81	L82CPBT	1	26-OCT-2010	17:52:44	0298020	A0J250000	H1
82	L82CPCT	1	26-OCT-2010	17:53:49	0298020	A0J250000	H1
83	L8R93T	1	26-OCT-2010	17:54:56	0298020	A0J200574	H1
84	L8R93TS	1	26-OCT-2010	17:56:14	0298020	A0J200574	H1
85	CK2CCV	1	26-OCT-2010	17:57:24			H1
86	CK1CCB	1	26-OCT-2010	17:58:30			H1
87	L8R93TD	1	26-OCT-2010	17:59:46	0298020	A0J200574	H1
88	L8R9WT	1	26-OCT-2010	18:00:54	0298020	A0J200574	H1

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#	WorkOrder	Dilution	Date	Time	Batch	Lot	Instrument
89	L8R94T	1	26-OCT-2010	18:02:03	0298020	A0J200574	H1
90	L82CFB	1	26-OCT-2010	18:03:09	0298016	A0J250000	H1
91	L82CFC	1	26-OCT-2010	18:04:25	0298016	A0J250000	H1
92	L80WV	1	26-OCT-2010	18:05:32	0298016	A0J220557	H1
93	L80WVS	1	26-OCT-2010	18:06:42	0298016	A0J220557	H1
94	L80WVD	1	26-OCT-2010	18:07:47	0298016	A0J220557	H1
95	L8W8RF	1	26-OCT-2010	18:08:56	0298016	A0J220409	H1
96	L80VN	1	26-OCT-2010	18:10:14	0298016	A0J220554	H1
97	CK2CCV	1	26-OCT-2010	18:11:22			H1
98	CK1CCB	1	26-OCT-2010	18:12:50			H1
99	L8XW1	1	26-OCT-2010	18:14:05	0298016	A0J220475	H1
100	L80KX	1	26-OCT-2010	18:15:13	0298016	A0J220531	H1
101	L810J	1	26-OCT-2010	18:16:21	0298016	A0J230452	H1
102	L80J8	1	26-OCT-2010	18:17:29	0298016	A0J220531	H1
103	L80KG	1	26-OCT-2010	18:18:38	0298016	A0J220531	H1
104	L8XXEF	1	26-OCT-2010	18:20:20	0298016	A0J220475	H1
105	L8W8T	1	26-OCT-2010	18:21:29	0298016	A0J220409	H1
106	L8W8TF	1	26-OCT-2010	18:22:36	0298016	A0J220409	H1
107	L8W8R	1	26-OCT-2010	18:24:02	0298016	A0J220409	H1
108	L81GA	1	26-OCT-2010	18:25:08	0298016	A0J220589	H1
109	CK2CCV	1	26-OCT-2010	18:26:14			H1
110	CK1CCB	1	26-OCT-2010	18:27:22			H1
111	L8XXW	1	26-OCT-2010	18:28:37	0298016	A0J220475	H1
112	L80KQ	1	26-OCT-2010	18:29:47	0298016	A0J220531	H1
113	L8XX1F	1	26-OCT-2010	18:30:53	0298016	A0J220475	H1
114	L80KQF	1	26-OCT-2010	18:32:02	0298016	A0J220531	H1
115	L8WWPC	1	26-OCT-2010	18:33:20	0295021	A0J220000	H1
116	CK2CCV	1	26-OCT-2010	18:34:57			H1
117	CK1CCB	1	26-OCT-2010	18:36:12			H1

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:       Instrument Upload                                    Run Log - Page  1 :
:       Started Thu Oct 21 07:54:07 2010 by MUSSELMN                           :
:       Data File: UPL$CAN_DATA_ROOT:<REP>I81020A.CSV;1                        :
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#	WorkOrder	Dilution	Date	Time	Batch	Lot	Instrument
1	STD1	1	20-OCT-2010	13:13:40			I8
2	STD2	1	20-OCT-2010	13:18:24			I8
3	STD3	1	20-OCT-2010	13:25:21			I8
4	STD4	1	20-OCT-2010	13:32:16			I8
5	STD5	1	20-OCT-2010	13:39:13			I8
6	ICV	1	20-OCT-2010	13:46:09			I8
7	ICB	1	20-OCT-2010	13:53:07			I8
8	CRI	1	20-OCT-2010	13:58:14			I8
9	CRI	1	20-OCT-2010	14:04:14			I8
10	ICSA	1	20-OCT-2010	14:09:17			I8
11	ICSAB	1	20-OCT-2010	14:14:02			I8
12	CCV	1	20-OCT-2010	14:20:59			I8
13	CCB	1	20-OCT-2010	14:27:53			I8
14	L8C0EB	1	20-OCT-2010	14:32:51	0286019	A0J130000	I8
15	L8C0EC	5	20-OCT-2010	14:37:36	0286019	A0J130000	I8
16	L7G33	1	20-OCT-2010	14:44:35	0286019	H0I240594	I8
17	L7G37	1	20-OCT-2010	14:51:30	0286019	H0I240594	I8
18	L7G37L	1	20-OCT-2010	14:56:28			I8
19	L7G37S	1	20-OCT-2010	15:01:30	0286019	H0I240594	I8
20	L7G37D	1	20-OCT-2010	15:08:26	0286019	H0I240594	I8
21	L7G39	1	20-OCT-2010	15:15:23	0286019	H0I240594	I8
22	L7G4C	1	20-OCT-2010	15:20:08	0286019	H0I240594	I8
23	L7H5W	1	20-OCT-2010	15:24:54	0286019	H0I260407	I8
24	CCV	1	20-OCT-2010	15:29:40			I8
25	CCB	1	20-OCT-2010	15:36:35			I8
26	L7H5X	1	20-OCT-2010	15:41:31	0286019	H0I260407	I8
27	L744C	1	20-OCT-2010	15:46:37	0286019	H0I260407	I8
28	L8HT4	1	20-OCT-2010	15:51:38	0291018	A0J150401	I8
29	L8HT7	1	20-OCT-2010	15:56:44	0291018	A0J150401	I8
30	L8HT9	1	20-OCT-2010	16:01:30	0291018	A0J150401	I8
31	L8HVE	1	20-OCT-2010	16:06:11	0291018	A0J150401	I8
32	L8HVG	1	20-OCT-2010	16:10:52	0291018	A0J150401	I8
33	L8HVJ	1	20-OCT-2010	16:15:41	0291018	A0J150401	I8
34	L8HVM	1	20-OCT-2010	16:20:28	0291018	A0J150401	I8
35	L8HVML	1	20-OCT-2010	16:25:13			I8
36	CCV	1	20-OCT-2010	16:30:00			I8
37	CCB	1	20-OCT-2010	16:36:56			I8
38	L8HVMX	1	20-OCT-2010	16:41:38	0291018	A0J150401	I8
39	L8HVMS	1	20-OCT-2010	16:46:41	0291018	A0J150401	I8
40	L8HVQ	1	20-OCT-2010	16:53:39	0291018	A0J150401	I8
41	L8HVR	1	20-OCT-2010	16:58:26	0291018	A0J150401	I8
42	L8K2F	1	20-OCT-2010	17:03:08	0291018	A0J150600	I8
43	L8K2L	1	20-OCT-2010	17:07:49	0291018	A0J150600	I8
44	L8K2M	1	20-OCT-2010	17:12:31	0291018	A0J150600	I8

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#	WorkOrder	Dilution	Date	Time	Batch	Lot	Instrument
45	L76D6	10	20-OCT-2010	17:17:19	0286021	0J08469	I8
46	CCV	1	20-OCT-2010	17:22:04			I8
47	CCB	1	20-OCT-2010	17:29:00			I8
48	L8NTAB	1	20-OCT-2010	17:33:57	0292014	A0J190000	I8
49	L8NTAC	1	20-OCT-2010	17:38:47	0292014	A0J190000	I8
50	L8JQP	1	20-OCT-2010	17:45:47	0292014	A0J150494	I8
51	L8JQPL	1	20-OCT-2010	17:50:45			I8
52	L8JQT	1	20-OCT-2010	17:55:33	0292014	A0J150494	I8
53	L8JQX	1	20-OCT-2010	18:00:17	0292014	A0J150494	I8
54	L8JQXS	1	20-OCT-2010	18:05:03	0292014	A0J150494	I8
55	L8JQXD	1	20-OCT-2010	18:12:01	0292014	A0J150494	I8
56	L8JQ0	1	20-OCT-2010	18:19:02	0292014	A0J150494	I8
57	L8JQ2	1	20-OCT-2010	18:24:07	0292014	A0J150494	I8
58	CCV	1	20-OCT-2010	18:29:09			I8
59	CCB	1	20-OCT-2010	18:36:06			I8
60	L8JQ4	1	20-OCT-2010	18:41:06	0292014	A0J150494	I8
61	L8JQ6	1	20-OCT-2010	18:45:57	0292014	A0J150494	I8
62	L8MNJ	1	20-OCT-2010	18:50:53	0292014	0J18429	I8
63	L8MNJX	1	20-OCT-2010	18:55:50	0292014	0J18429	I8
64	L8MNJS	1	20-OCT-2010	19:00:37	0292014	0J18429	I8
65	L8MNJF	1	20-OCT-2010	19:07:38	0292014	0J18429	I8
66	L8MNK	1	20-OCT-2010	19:12:40	0292014	0J18429	I8
67	L8MNKF	1	20-OCT-2010	19:17:26	0292014	0J18429	I8
68	L8MNL	1	20-OCT-2010	19:22:22	0292014	0J18429	I8
69	L8MNLF	1	20-OCT-2010	19:27:09	0292014	0J18429	I8
70	CCV	1	20-OCT-2010	19:31:58			I8
71	CCB	1	20-OCT-2010	19:38:54			I8
72	L8M0R	1	20-OCT-2010	19:44:02	0292014	0J18456	I8
73	L8NE0	1	20-OCT-2010	19:48:48	0292014	A0J180483	I8
74	L8NTRB	1	20-OCT-2010	19:53:33	0292022	A0J190000	I8
75	L8NTRC	1	20-OCT-2010	19:58:31	0292022	A0J190000	I8
76	CCV	1	20-OCT-2010	20:05:30			I8
77	CCB	1	20-OCT-2010	20:12:27			I8
78	L8HCD	1	20-OCT-2010	20:17:39	0292022	A0J140582	I8
79	L8HCV	1	20-OCT-2010	20:22:57	0292022	A0J140582	I8
80	L8HC0	1	20-OCT-2010	20:27:56	0292022	A0J140582	I8
81	L8HC3	1	20-OCT-2010	20:32:41	0292022	A0J140582	I8
82	L8HC8	1	20-OCT-2010	20:37:34	0292022	A0J140582	I8
83	L8HDA	1	20-OCT-2010	20:42:33	0292022	A0J140582	I8
84	L8HDE	1	20-OCT-2010	20:47:37	0292022	A0J140582	I8
85	L8HDF	1	20-OCT-2010	20:52:46	0292022	A0J140582	I8
86	L8HDG	1	20-OCT-2010	20:57:43	0292022	A0J140582	I8
87	L8HDH	1	20-OCT-2010	21:02:48	0292022	A0J140582	I8
88	CCV	1	20-OCT-2010	21:07:31			I8

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: Instrument Upload Run Log - Page 1 :
: Started Fri Oct 22 07:04:03 2010 by MUSSELMN :
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	#	WorkOrder	Dilution	Date	Time	Batch	Lot	Instrument
	1	STD1	1	21-OCT-2010	10:23:16			I8
	2	STD2	1	21-OCT-2010	10:27:58			I8
	3	STD3	1	21-OCT-2010	10:34:54			I8
	4	STD4	1	21-OCT-2010	10:41:49			I8
	5	STD5	1	21-OCT-2010	10:48:44			I8
	6	ICV	1	21-OCT-2010	10:55:40			I8
	7	ICB	1	21-OCT-2010	11:02:37			I8
	8	CRI Rerun NPR-10-2210		21-OCT-2010	11:08:30			I8
	9	ICSA	1	21-OCT-2010	11:13:19			I8
	10	ICSAB	1	21-OCT-2010	11:18:04			I8
	11	CCV	1	21-OCT-2010	11:25:01			I8
	12	CCB	1	21-OCT-2010	11:31:57			I8
	13	CRI	1	21-OCT-2010	11:38:13			I8
	14	CCV	1	21-OCT-2010	11:43:08			I8
	15	CCB	1	21-OCT-2010	11:50:03			I8
	16	L8C0EB	1	21-OCT-2010	11:56:19	0286019	A0J130000	I8
	17	L8C0EC	5	21-OCT-2010	12:01:00	0286019	A0J130000	I8
	18	L7G39	1	21-OCT-2010	12:07:55	0286019	H0I240594	I8
	19	L744C	5	21-OCT-2010	12:14:51	0286019	H0I260407	I8
	20	CCV	1	21-OCT-2010	12:19:52			I8
	21	CCB	1	21-OCT-2010	12:26:47			I8
	22	L8NTAB	1	21-OCT-2010	12:33:40	0292014	A0J190000	I8
	23	L8NTAC	1	21-OCT-2010	12:38:21	0292014	A0J190000	I8
	24	L8JQX	1	21-OCT-2010	12:45:18	0292014	A0J150494	I8
	25	L8JQXS	1	21-OCT-2010	12:51:36	0292014	A0J150494	I8
	26	L8JQXD	1	21-OCT-2010	12:58:33	0292014	A0J150494	I8
	27	L8JQ0	1	21-OCT-2010	13:05:31	0292014	A0J150494	I8
Q30	28	L8MNJ	1	21-OCT-2010	13:12:29	0292014	0J18429	I8
	29	L8MNJX	1	21-OCT-2010	13:17:27	0292014	0J18429	I8
	30	L8MNJS	1	21-OCT-2010	13:22:13	0292014	0J18429	I8
Q40	31	L8MNK	1	21-OCT-2010	13:29:09	0292014	0J18429	I8
	32	CCV	1	21-OCT-2010	13:35:24			I8
	33	CCB	1	21-OCT-2010	13:42:20			I8
	34	L8M0R	1	21-OCT-2010	13:48:38	0292014	0J18456	I8
	35	L8NTRB	1	21-OCT-2010	13:53:29	0292022	A0J190000	I8
	36	L8NTRC	1	21-OCT-2010	13:58:19	0292022	A0J190000	I8
	37	L8HCD	1	21-OCT-2010	14:04:55	0292022	A0J140582	I8
	38	L8HCV	1	21-OCT-2010	14:09:49	0292022	A0J140582	I8
	39	L8HC0	1	21-OCT-2010	14:14:37	0292022	A0J140582	I8
	40	L8HC3	1	21-OCT-2010	14:19:28	0292022	A0J140582	I8
	41	L8HC8	1	21-OCT-2010	14:24:27	0292022	A0J140582	I8
	42	L8HDA	1	21-OCT-2010	14:29:22	0292022	A0J140582	I8
	43	L8HDE	1	21-OCT-2010	14:34:22	0292022	A0J140582	I8
	44	CCV	1	21-OCT-2010	14:39:13			I8

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: Instrument Upload Run Log - Page 1 :
: Started Tue Oct 26 05:27:34 2010 by MUSSELMN :
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#	WorkOrder	Dilution	Date	Time	Batch	Lot	Instrument
1	STD1	1	25-OCT-2010	12:10:22			I8
2	STD2	1	25-OCT-2010	12:15:09			I8
3	STD3	1	25-OCT-2010	12:22:04			I8
4	STD4	1	25-OCT-2010	12:29:00			I8
5	ICV	1	25-OCT-2010	12:35:52			I8
6	ICB	1	25-OCT-2010	12:42:48			I8
7	CRI	1	25-OCT-2010	12:47:35			I8
8	ICSA	1	25-OCT-2010	12:52:24			I8
9	ICSAB	1	25-OCT-2010	12:57:12			I8
10	CCV	1	25-OCT-2010	13:04:09			I8
11	CCB	1	25-OCT-2010	13:11:04			I8
12	L8WWPB	1	25-OCT-2010	13:20:05	0295021	A0J220000	I8
13	L8WWPC	1	25-OCT-2010	13:24:53	0295021	A0J220000	I8
14	L8WKL	1	25-OCT-2010	13:31:48	0295021	A0J210603	I8
15	L8WKLS	1	25-OCT-2010	13:36:57	0295021	A0J210603	I8
16	L8WKLD	1	25-OCT-2010	13:43:53	0295021	A0J210603	I8
17	L8WKV	1	25-OCT-2010	13:50:49	0295021	A0J210603	I8
18	L8WKX	1	25-OCT-2010	13:57:46	0295021	A0J210603	I8
19	L8VXX	1	25-OCT-2010	14:02:40	0295021	A0J210536	I8
20	L8WNT	1	25-OCT-2010	14:07:26	0295021	A0J210618	I8
21	L8VGP	1	25-OCT-2010	14:12:15	0295021	A0J210480	I8
22	CCV	1	25-OCT-2010	14:17:00			I8
23	CCB	1	25-OCT-2010	14:23:58			I8
24	L8VGPL	1	25-OCT-2010	14:28:41			I8
25	L8VGV	1	25-OCT-2010	14:33:24	0295021	A0J210480	I8
26	L8VGX	1	25-OCT-2010	14:38:11	0295021	A0J210480	I8
27	L8VG2	1	25-OCT-2010	14:42:56	0295021	A0J210480	I8
28	L8VG4	1	25-OCT-2010	14:47:50	0295021	A0J210480	I8
29	L8VXN	1	25-OCT-2010	14:52:34	0295021	A0J210534	I8
30	L8WM3	1	25-OCT-2010	14:57:20	0295021	A0J210616	I8
31	L8WM3F	1	25-OCT-2010	15:02:11	0295021	A0J210616	I8
32	L8TGCB	1	25-OCT-2010	15:06:53			I8
33	L8TGCC	1	25-OCT-2010	15:11:36			I8
34	CCV	1	25-OCT-2010	15:18:23			I8
35	CCB	1	25-OCT-2010	15:25:19			I8
36	L8R7WF	1	25-OCT-2010	15:30:09	0294012	A0J200558	I8
37	L8R75	1	25-OCT-2010	15:34:53	0294012	A0J200558	I8
38	L8R75S	1	25-OCT-2010	15:39:37	0294012	A0J200558	I8
39	L8R75D	1	25-OCT-2010	15:46:35	0294012	A0J200558	I8
40	L8R76F	1	25-OCT-2010	15:53:32	0294012	A0J200558	I8
41	L8R78F	1	25-OCT-2010	15:58:17	0294012	A0J200558	I8
42	L8R79F	1	25-OCT-2010	16:02:59	0294012	A0J200558	I8
43	L8TF9B	1	25-OCT-2010	16:07:42	0294011	A0J210000	I8
44	L8TF9C	1	25-OCT-2010	16:12:26	0294011	A0J210000	I8

(continued)

L8WM3 10/25/2010 14:57:20 QC Status: PASS (Initial: FAIL)

User Pre -dilution: 1.000

Run	Time	6Li	9Be	10B
		ppb	ppb	ppb
X		107.769%	0.113	28.650
%RSD		0.407	5.611	1.776
Run	Time	23Na	25Mg	27Al
		ppb	ppb	ppb
X		2944.000	312.700	541.900
%RSD		1.329	4.980	1.341
Run	Time	35Cl	39K	43Ca
		ppb	ppb	ppb
X		τ0.000	τ542.400	795.800
%RSD		τ0.000	τ1.199	1.715
Run	Time	45Sc	45Sc	47Ti
		ppb	ppb	ppb
X		τ97.637%	98.247%	8.491
%RSD		τ0.757	0.912	12.210
Run	Time	51V	52Cr	53Cr(O
		ppb	ppb	ppb
X		1.645	1.535	9.952
%RSD		23.390	1.673	3.225
Run	Time	55Mn	56Fe	59Co
		ppb	ppb	ppb
X		24.540	691.100	2.048
%RSD		0.506	1.165	2.852
Run	Time	60Ni	65Cu	66Zn
		ppb	ppb	ppb
X		4.636	1.583	7.897
%RSD		3.942	4.951	3.348
Run	Time	72Ge	75As	77ArCl
		ppb	ppb	ppb
X		97.984%	0.385	-0.007
%RSD		2.219	8.642	111.800
Run	Time	78Se	88Sr	95Mo
		ppb	ppb	ppb
X		0.000	8.444	0.042
%RSD		57860.000	0.699	57.550
Run	Time	105Pd	107Ag	108Mo(O
		ppb	ppb	ppb
X		0.000	-0.338	-0.073
%RSD		0.000	0.722	804.300
Run	Time	111Cd	115In	118Sn
		ppb	ppb	ppb
X		0.025	97.455%	0.048
%RSD		79.800	2.556	37.800
Run	Time	121Sb	137Ba	159Tb
		ppb	ppb	ppb
X		-0.004	14.340	0.000
%RSD		216.700	1.482	0.000
Run	Time	165Ho	182W	205Tl
		ppb	ppb	ppb
X		100.295%	-0.001	-0.071
%RSD		1.126	455.700	8.184
Run	Time	208Pb	209Bi	
		ppb	ppb	
X		0.377	101.615%	
%RSD		1.512	4.301	

Form I 0.38 Sample Calc 0.377

North Canton

L8MNJ 10/20/2010 18:50:53 QC Status: PASS (Initial: PASS)

User Pre -dilution: 1.000

Run	Time	6Li	9Be	10B
		ppb	ppb	ppb
X		89.069%	2.968	65.690
%RSD		0.757	1.175	2.293
Run	**Time**	**23Na**	**25Mg**	**27Al**
		ppb	ppb	ppb
X		T 70400.000	8692.000	M 54540.000
%RSD		T 2.318	2.803	M 0.457
Run	**Time**	**35Cl**	**39K**	**43Ca**
		ppb	ppb	ppb
X		T 0.000	T 23260.000	16150.000
%RSD		T 0.000	T 0.258	1.597
Run	**Time**	**45Sc**	**45Sc**	**47Ti**
		ppb	ppb	ppb
X		T 94.277%	96.747%	129.000
%RSD		T 2.127	0.680	5.481
Run	**Time**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb
X		44.840	65.570	3.049
%RSD		2.114	2.786	13.050
Run	**Time**	**55Mn**	**56Fe**	**59Co**
		ppb	ppb	ppb
X		T 280.400	T 32070.000	5.322
%RSD		T 1.882	T 1.075	1.471
Run	**Time**	**60Ni**	**65Cu**	**66Zn**
		ppb	ppb	ppb
X		22.720	43.630	105.400
%RSD		1.792	1.501	0.808
Run	**Time**	**72Ge**	**75As**	**77Ar Cl**
		ppb	ppb	ppb
X		100.761%	11.690	0.104
%RSD		2.492	3.086	32.300
Run	**Time**	**78Se**	**88Sr**	**95Mo**
		ppb	ppb	ppb
X		2.465	M 585.100	13.850
%RSD		11.250	M 1.610	3.126
Run	**Time**	**105Pd**	**107Ag**	**108Mo O**
		ppb	ppb	ppb
X		0.000	0.147	-8.346
%RSD		0.000	7.581	25.940
Run	**Time**	**111Cd**	**115In**	**118Sn**
		ppb	ppb	ppb
X		0.221	98.828%	8.606
%RSD		14.070	3.232	0.428
Run	**Time**	**121Sb**	**137Ba**	**159Tb**
		ppb	ppb	ppb
X		0.463	M 257.000	0.000
%RSD		8.287	M 1.622	0.000
Run	**Time**	**165Ho**	**205Tl**	**208Pb**
		ppb	ppb	ppb
X		0.000	0.133	39.750
%RSD		0.000	8.612	0.200
Run	**Time**	**209Bi**		
		ppb		
X		98.833%		
%RSD		2.293		

L8MNJF 10/20/2010 19:07:38 QC Status: PASS (Initial: PASS)

User Pre -dilution: 1.000

Run	Time	6Li	9Be	10B
		ppb	ppb	ppb
X		102.998%	0.020	22.690
%RSD		1.362	19.950	3.624
Run	**Time**	**23Na**	**25Mg**	**27Al**
		ppb	ppb	ppb
X		T 66320.000	37.320	13.040
%RSD		T 5.426	28.190	15.920
Run	**Time**	**35Cl**	**39K**	**43Ca**
		ppb	ppb	ppb
X		T 0.000	T 14940.000	692.700
%RSD		T 0.000	T 1.100	2.036
Run	**Time**	**45Sc**	**45Sc**	**47Ti**
		ppb	ppb	ppb
X		T 106.777%	104.506%	0.290
%RSD		T 0.771	3.110	16.490
Run	**Time**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb
X		2.752	0.172	0.436
%RSD		9.516	5.651	57.310
Run	**Time**	**55Mn**	**56Fe**	**59Co**
		ppb	ppb	ppb
X		1.111	11.550	0.026
%RSD		2.323	8.032	21.480
Run	**Time**	**60Ni**	**65Cu**	**66Zn**
		ppb	ppb	ppb
X		0.403	0.944	3.965
%RSD		2.761	9.119	5.968
Run	**Time**	**72Ge**	**75As**	**77Ar Cl**
		ppb	ppb	ppb
X		105.115%	4.262	0.026
%RSD		1.638	5.022	20.070
Run	**Time**	**78Se**	**88Sr**	**95Mo**
		ppb	ppb	ppb
X		0.359	18.950	15.330
%RSD		54.190	1.067	2.081
Run	**Time**	**105Pd**	**107Ag**	**108Mo O**
		ppb	ppb	ppb
X		0.000	0.010	-1.044
%RSD		0.000	37.640	119.300
Run	**Time**	**111Cd**	**115In**	**118Sn**
		ppb	ppb	ppb
X		-0.010	103.957%	1.026
%RSD		25.860	0.660	3.384
Run	**Time**	**121Sb**	**137Ba**	**159Tb**
		ppb	ppb	ppb
X		1.311	3.515	0.000
%RSD		2.748	0.902	0.000
Run	**Time**	**165Ho**	**205Tl**	**208Pb**
		ppb	ppb	ppb
X		0.000	0.260	0.046
%RSD		0.000	2.368	0.267
Run	**Time**	**209Bi**		
		ppb		
X		99.778%		
%RSD		1.063		

L8MNK 10/20/2010 19:12:40 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B
		ppb	ppb	ppb
X		101.820%	0.174	36.090
%RSD		0.773	2.786	0.536
Run	Time	23Na	25Mg	27Al
		ppb	ppb	ppb
X		T 25480.000	1010.000	M 3758.000
%RSD		T 2.722	1.781	M 2.269
Run	Time	35Cl	39K	43Ca
		ppb	ppb	ppb
X		T 0.000	T 2544.000	3390.000
%RSD		T 0.000	T 0.649	0.319
Run	Time	45Sc	45Sc	47Ti
		ppb	ppb	ppb
X		T 104.153%	105.895%	22.690
%RSD		T 1.272	1.427	4.268
Run	Time	51V	52Cr	53Cl IO
		ppb	ppb	ppb
X		2.913	4.561	0.371
%RSD		3.654	1.961	35.870
Run	Time	55Mn	56Fe	59Co
		ppb	ppb	ppb
X		79.670	3934.000	0.389
%RSD		0.294	0.850	6.041
Run	Time	60Ni	65Cu	66Zn
		ppb	ppb	ppb
X		3.785	2.231	10.710
%RSD		2.589	5.691	3.122
Run	Time	72Ge	75As	77Ar Cl
		ppb	ppb	ppb
X		106.097%	1.283	0.022
%RSD		1.377	8.606	147.500
Run	Time	78Se	88Sr	95Mo
		ppb	ppb	ppb
X		0.006	52.750	1.592
%RSD		3259.000	0.473	2.585
Run	Time	105Pd	107Ag	108Mo O
		ppb	ppb	ppb
X		0.000	0.012	-1.437
%RSD		0.000	25.510	75.650
Run	Time	111Cd	115In	118Sn
		ppb	ppb	ppb
X		0.036	102.367%	1.955
%RSD		16.690	0.832	1.316
Run	Time	121Sb	137Ba	159Tb
		ppb	ppb	ppb
X		0.147	33.000	0.000
%RSD		9.927	0.636	0.000
Run	Time	165Ho	205Tl	208Pb
		ppb	ppb	ppb
X		0.000	0.088	2.113
%RSD		0.000	6.488	1.829
Run	Time	209Bi		
		ppb		
X		101.923%		
%RSD		1.483		

L8MNKF 10/20/2010 19:17:26 QC Status: PASS (Initial: PASS)

User Pre -dilution: 1.000

Run	Time	6Li	9Be	10B
		ppb	ppb	ppb
X		100.759%	0.002	13.990
%RSD		0.622	126.700	0.744
Run	Time	23Na	25Mg	27Al
		ppb	ppb	ppb
X		T 27900.000	451.000	0.809
%RSD		T 2.188	4.909	86.600
Run	Time	35Cl	39K	43Ca
		ppb	ppb	ppb
X		T 0.000	T 2618.000	2577.000
%RSD		T 0.000	T 0.752	1.054
Run	Time	45Sc	45Sc	47Ti
		ppb	ppb	ppb
X		T 102.133%	103.924%	0.064
%RSD		T 1.124	1.015	262.500
Run	Time	51V	52Cr	53ClO
		ppb	ppb	ppb
X		-0.192	0.065	0.351
%RSD		32.000	29.690	130.700
Run	Time	55Mn	56Fe	59Co
		ppb	ppb	ppb
X		64.100	619.600	0.093
%RSD		0.902	0.623	14.250
Run	Time	60Ni	65Cu	66Zn
		ppb	ppb	ppb
X		1.262	0.338	1.626
%RSD		4.733	10.040	5.931
Run	Time	72Ge	75As	77ArCl
		ppb	ppb	ppb
X		104.725%	0.827	0.045
%RSD		1.882	14.770	75.120
Run	Time	78Se	88Sr	95Mo
		ppb	ppb	ppb
X		-0.110	40.400	1.284
%RSD		91.240	3.152	5.238
Run	Time	105Pd	107Ag	108MoO
		ppb	ppb	ppb
X		0.000	0.002	-0.165
%RSD		0.000	75.570	173.200
Run	Time	111Cd	115In	118Sn
		ppb	ppb	ppb
X		-0.007	103.226%	0.108
%RSD		33.290	2.457	21.220
Run	Time	121Sb	137Ba	159Tb
		ppb	ppb	ppb
X		0.184	18.760	0.000
%RSD		7.176	1.902	0.000
Run	Time	165Ho	205Tl	208Pb
		ppb	ppb	ppb
X		0.000	0.037	0.020
%RSD		0.000	15.440	5.414
Run	Time	209Bi		
		ppb		
X		102.962%		
%RSD		1.108		

L8MNL 10/20/2010 19:22:22 QC Status: PASS (Initial: PASS)

User Pre -dilution: 1.000

Run	Time	6Li	9Be	10B
		ppb	ppb	ppb
X		92.169%	0.003	41.670
%RSD		0.392	212.000	2.254
Run	**Time**	**23Na**	**25Mg**	**27Al**
		ppb	ppb	ppb
X		TM 103900.000	13.150	703.800
%RSD		TM 1.634	10.470	1.667
Run	**Time**	**35Cl**	**39K**	**43Ca**
		ppb	ppb	ppb
X		T 0.000	T 82440.000	33500.000
%RSD		T 0.000	T 0.789	1.143
Run	**Time**	**45Sc**	**45Sc**	**47Ti**
		ppb	ppb	ppb
X		T 98.759%	97.611%	0.902
%RSD		T 1.367	2.703	39.420
Run	**Time**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb
X		8.010	0.854	0.223
%RSD		4.993	2.221	67.360
Run	**Time**	**55Mn**	**56Fe**	**59Co**
		ppb	ppb	ppb
X		1.427	89.420	0.051
%RSD		1.771	0.278	39.130
Run	**Time**	**60Ni**	**65Cu**	**66Zn**
		ppb	ppb	ppb
X		0.660	1.180	1.294
%RSD		6.721	10.860	17.430
Run	**Time**	**72Ge**	**75As**	**77Ar Cl**
		ppb	ppb	ppb
X		98.531%	1.033	0.104
%RSD		1.850	11.990	45.500
Run	**Time**	**78Se**	**88Sr**	**95Mo**
		ppb	ppb	ppb
X		0.583	TM 5959.000	14.190
%RSD		15.910	TM 1.453	2.513
Run	**Time**	**105Pd**	**107Ag**	**108M o O**
		ppb	ppb	ppb
X		0.000	0.002	0.598
%RSD		0.000	222.300	366.300
Run	**Time**	**111Cd**	**115In**	**118Sn**
		ppb	ppb	ppb
X		-0.011	98.004%	1.185
%RSD		38.960	2.072	4.216
Run	**Time**	**121Sb**	**137Ba**	**159Tb**
		ppb	ppb	ppb
X		0.722	M 220.600	0.000
%RSD		3.439	M 2.527	0.000
Run	**Time**	**165Ho**	**205Tl**	**208Pb**
		ppb	ppb	ppb
X		0.000	0.008	0.123
%RSD		0.000	22.060	6.947
Run	**Time**	**209Bi**		
		ppb		
X		92.033%		
%RSD		1.035		

APPENDIX D—CHEMICAL ANALYTICAL RESULTS

Table D-1

Chemical Analytical Results for Deep Well Groundwater Samples, October 2010
Deep Groundwater Investigation
Lockheed Martin Middle River Complex, Middle River, Maryland

SAMPLE ID:	MRC-MW93D-101510	MRC-MW94D-101510	MRC-MW95D-101510	MRC-MW96D-102010
LABORATORY ID:	A0J180429002	A0J180429003	A0J180429004	A0J210616001
LOCATION:	MRC-MW93D	MRC-MW94D	MRC-MW95D	MRC-MW96D
SAMPLE DATE:	10/15/2010	10/15/2010	10/15/2010	10/20/2010
VOLATILES (ug/L)				
1,1,1,2-TETRACHLOROETHANE	0.23 U	0.23 U	0.23 U	0.23 U
1,1,1-TRICHLOROETHANE	0.22 U	0.22 U	0.22 U	0.22 U
1,1,2,2-TETRACHLOROETHANE	0.18 U	0.18 U	0.18 U	0.18 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.28 U	0.28 U	0.28 U	0.28 U
1,1-DICHLOROETHANE	0.15 U	0.15 U	0.15 U	0.15 U
1,1-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U
1,1-DICHLOROPROPENE	0.13 U	0.13 U	0.13 U	0.13 U
1,2,3-TRICHLOROBENZENE	0.17 U	0.17 U	0.17 U	0.17 U
1,2,3-TRICHLOROPROPANE	0.43 U	0.43 U	0.43 U	0.43 U
1,2,3-TRIMETHYLBENZENE	0.0059 U	0.0059 U	0.0059 U	0.0059 U
1,2,4-TRICHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U
1,2,4-TRIMETHYLBENZENE	0.12 U	0.12 U	0.12 U	0.12 U
1,2-DIBROMO-3-CHLOROPROPANE	0.67 U	0.67 U	0.67 U	0.67 U
1,2-DIBROMOETHANE	0.24 U	0.24 U	0.24 U	0.24 U
1,2-DICHLOROBENZENE	0.13 U	0.13 U	0.13 U	0.13 U
1,2-DICHLOROETHANE	0.22 U	0.22 U	0.22 U	0.22 U
1,2-DICHLOROPROPANE	0.18 U	0.18 U	0.18 U	0.18 U
1,3-DICHLOROBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
1,3-DICHLOROPROPANE	0.16 U	0.16 U	0.16 U	0.16 U
1,4-DICHLOROBENZENE	0.13 U	0.13 U	0.13 U	0.13 U
2,2-DICHLOROPROPANE	0.13 U	0.13 U	0.13 U	0.13 U
2-BUTANONE	0.66 J	0.57 U	0.81 J	0.57 U
2-CHLOROETHYL VINYL ETHER	0.99 U	0.99 U	0.99 U	0.99 U
2-CHLOROTOLUENE	0.11 U	0.11 U	0.11 U	0.11 U
2-HEXANONE	0.41 U	0.41 U	0.41 U	0.41 U

Table D-1

Chemical Analytical Results for Deep Well Groundwater Samples, October 2010
Deep Groundwater Investigation
Lockheed Martin Middle River Complex, Middle River, Maryland

SAMPLE ID:	MRC-MW93D-101510	MRC-MW94D-101510	MRC-MW95D-101510	MRC-MW96D-102010
LABORATORY ID:	A0J180429002	A0J180429003	A0J180429004	A0J210616001
LOCATION:	MRC-MW93D	MRC-MW94D	MRC-MW95D	MRC-MW96D
SAMPLE DATE:	10/15/2010	10/15/2010	10/15/2010	10/20/2010
4-CHLOROTOLUENE	0.18 U	0.18 U	0.18 U	0.18 U
4-ISOPROPYLTOLUENE	0.12 U	0.12 U	0.12 U	0.12 U
4-METHYL-2-PENTANONE	0.32 U	0.32 U	0.32 U	0.32 U
ACETONE	7.5 B	2.4 B	16 B	1.1 U
BENZENE	0.13 U	0.13 U	0.13 U	0.13 U
BROMOBENZENE	0.13 U	0.13 U	0.13 U	0.13 U
BROMOCHLOROMETHANE	0.29 U	0.29 U	0.29 U	0.29 U
BROMODICHLOROMETHANE	0.15 U	0.15 U	0.15 U	0.15 U
BROMOFORM	0.64 U	0.64 U	0.64 U	0.64 U
BROMOMETHANE	0.41 U	0.41 U	0.41 U	0.41 U
CARBON DISULFIDE	7.7	1	25	0.13 U
CARBON TETRACHLORIDE	0.13 U	0.13 U	0.13 U	0.13 U
CHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U
CHLORODIBROMOMETHANE	0.18 U	0.18 U	0.18 U	0.18 U
CHLOROETHANE	0.29 U	0.29 U	0.29 U	0.29 U
CHLOROFORM	3.2	0.16 U	4.9	0.17 J
CHLOROMETHANE	0.3 U	0.3 U	0.3 U	0.3 U
CIS-1,2-DICHLOROETHENE	0.17 U	0.17 U	0.17 U	0.17 U
CIS-1,3-DICHLOROPROPENE	0.14 U	0.14 U	0.14 U	0.14 U
DIBROMOMETHANE	0.28 U	0.28 U	0.28 U	0.28 U
DICHLORODIFLUOROMETHANE	0.31 U	0.31 U	0.31 U	0.31 U
DIISOPROPYL ETHER	1.5 U	1.5 U	1.5 U	1.5 U
ETHYL TERT-BUTYL ETHER	0.11 U	0.11 U	0.11 U	0.11 U
ETHYLBENZENE	0.17 U	0.17 U	0.17 U	0.17 U
HEXACHLOROBUTADIENE	0.3 U	0.3 U	0.3 U	0.3 U
ISOPROPYLBENZENE	0.13 U	0.13 U	0.13 U	0.13 U

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LABORATORY ID:	A0J180429002	A0J180429003	A0J180429004	A0J210616001
LOCATION:	MRC-MW93D	MRC-MW94D	MRC-MW95D	MRC-MW96D
SAMPLE DATE:	10/15/2010	10/15/2010	10/15/2010	10/20/2010
M+P-XYLENES	0.24 U	0.24 U	0.24 U	0.24 U
METHYL TERT-BUTYL ETHER	0.17 U	0.17 U	0.17 U	0.17 U
METHYLENE CHLORIDE	0.33 U	0.33 U	0.33 U	0.33 U
NAPHTHALENE	0.24 U	0.24 U	0.24 U	0.24 U
N-BUTYLBENZENE	0.12 U	0.12 U	0.12 U	0.12 U
N-PROPYLBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
O-XYLENE	0.14 U	0.14 U	0.14 U	0.14 U
SEC-BUTYLBENZENE	0.13 U	0.13 U	0.13 U	0.13 U
STYRENE	0.11 U	0.11 U	0.11 U	0.11 U
TERT-AMYL METHYL ETHER	0.067 U	0.067 U	0.067 U	0.067 U
TERT-BUTYLBENZENE	0.13 U	0.13 U	0.13 U	0.13 U
TERTIARY-BUTYL ALCOHOL	3.9 UR	3.9 UR	3.9 UR	3.9 UR
TETRACHLOROETHENE	0.29 U	0.29 U	0.29 U	0.29 U
TOLUENE	0.21 J	0.17 J	0.19 J	0.13 U
TOTAL XYLENES	0.28 U	0.28 U	0.28 U	0.28 U
TRANS-1,2-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U
TRANS-1,3-DICHLOROPROPENE	0.19 U	0.19 U	0.19 U	0.19 U
TRICHLOROETHENE	0.17 U	0.17 U	0.17 U	0.17 U
TRICHLOROFLUOROMETHANE	0.21 U	0.21 U	0.21 U	0.21 U
VINYL ACETATE	0.19 U	0.19 U	0.19 U	0.19 U
VINYL CHLORIDE	0.22 U	0.22 U	0.22 U	0.22 U
SEMIVOLATILES (ug/L)				
1,4-DIOXANE	0.49 U	0.49 U	0.49 U	0.49 U
INORGANICS (ug/L)				
ANTIMONY	0.46 J	0.15 J	0.72 J	0.027 U
ARSENIC	11.7	1.3 J	1 J	0.38 J

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LABORATORY ID:	A0J180429002	A0J180429003	A0J180429004	A0J210616001
LOCATION:	MRC-MW93D	MRC-MW94D	MRC-MW95D	MRC-MW96D
SAMPLE DATE:	10/15/2010	10/15/2010	10/15/2010	10/20/2010
BARIUM	257 J	33 L	221 L	14.3
BERYLLIUM	3	0.17 J	0.0059 U	0.11 J
CADMIUM	0.22 J	0.036 B	0.025 U	0.025 B
CHROMIUM	65.6	4.6	0.85 J	1.5 J
COBALT	5.3	0.39 J	0.051 B	2
COPPER	44	2 B	1.2 B	1.6 B
HEXAVALENT CHROMIUM	0.56 UR	0.56 UR	0.56 UR	0.56 U
IRON	32100 L	3930 L	89.4 B	691
LEAD	39.8 J	2.1 L	0.12 B	0.38 B
MANGANESE	280 J	79.7 L	1.4 B	24.5
MERCURY	0.1 U	0.1 U	0.1 U	0.1 U
MOLYBDENUM	13.8	1.6 J	14.2	0.27 U
NICKEL	22.7	3.8	0.66 B	4.6
SELENIUM	2.5 J	0.13 UL	0.58 J	0.13 U
SILVER	0.15 J	0.015 U	0.015 U	0.015 UL
THALLIUM	0.13 B	0.13 U	0.13 U	0.13 U
VANADIUM	44.8	2.9 J	8 J	1.6 J
ZINC	105 L	10.7 B	1.3 B	7.9 B
INORGANICS FILTERED (ug/L)				
ANTIMONY	1.3 J	0.18 J	0.81 J	0.027 U
ARSENIC	4.3 J	0.83 J	1 J	0.29 J
BARIUM	3.5 B	18.8 L	227 L	11
BERYLLIUM	0.02 B	0.0059 U	0.0059 U	0.067 B
CADMIUM	0.025 U	0.025 U	0.025 U	0.027 B
CHROMIUM	0.17 B	0.065 B	2.1	0.41 B
COBALT	0.026 B	0.093 B	0.033 B	1.9

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LOCATION:	MRC-MW93D	MRC-MW94D	MRC-MW95D	MRC-MW96D
SAMPLE DATE:	10/15/2010	10/15/2010	10/15/2010	10/20/2010
COPPER	0.94 B	0.34 B	0.32 B	1.1 B
IRON	11.6 B	620 L	25.8 B	66 B
LEAD	0.046 B	0.02 B	0.041 B	0.44 B
MANGANESE	1.1 B	64.1 L	0.4 B	21
MERCURY	0.1 U	0.1 U	0.1 U	0.1 U
MOLYBDENUM	15.3	1.3 J	14.7	0.27 U
NICKEL	0.4 B	1.3 B	1.1 B	4.1
SELENIUM	0.36 J	0.13 UL	0.56 J	0.13 U
SILVER	0.015 U	0.015 U	0.015 U	0.015 UL
THALLIUM	0.26 B	0.13 U	0.13 U	0.13 U
VANADIUM	2.8 J	0.43 U	8 J	1.1 J
ZINC	4 B	1.6 B	2.3 B	5.9 B

U - Not detected at listed detection limit.

UL - Nondetected value considered to be biased low as a result of technical noncompliance.

UR - Nondetected value rejected as a result of technical noncompliance.

B - Laboratory blank contamination.

J - Positive result is considered estimated as a result of technical noncompliance.

L - Positive result is considered to be biased low as a result of technical noncompliance.

ug/l - micrograms per liter.