2.2 General Chemistry Data

2.2.1 Total Organic Carbon Data

2.2.1.1 Summary Data

Login Number: L14100924
Department: Conventionals
Analyst: Ethan Tidd

METHOD

Analysis Water: EPA 415.1/SM5310C/SW846 9060 (Total Organic Carbon)
Soil: Lloyd-Khan Methodology

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Narrative ID: 90840
Approved By: Deanna Hesson

Certificate of Analysis

Sample #: L14100924-02 **PrePrep Method:** N/A **Instrument:** TOC-VWP
Client ID: 13MW3 **Prep Method:** 9060A **Prep Date:** N/A
Matrix: Water **Analytical Method:** 9060A **Cal Date:** 07/16/2014 12:00
Workgroup #: WG497144 **Analyst:** EPT **Run Date:** 10/20/2014 11:49
Collect Date: 10/13/2014 10:00 **Dilution:** 1 **File ID:** TC10202014.006
Sample Tag: 01 **Units:** mg/L

Analyte	CAS #	Result	Qual	RL	MDL
Total Organic Carbon	TOC	13.0		1.00	0.500
Total Organic Carbon Rep1		3.08		1.00	0.500
Total Organic Carbon Rep2		4.30		1.00	0.500
Total Organic Carbon Rep3		8.43		1.00	0.500
Total Organic Carbon Rep4		36.3		1.00	0.500

Sample #: L14100924-03 **PrePrep Method:** N/A **Instrument:** TOC-VWP
Client ID: 13MW3 **Prep Method:** 9060A **Prep Date:** N/A
Matrix: Water **Analytical Method:** 9060A **Cal Date:** 07/16/2014 12:00
Workgroup #: WG497333 **Analyst:** EPT **Run Date:** 10/21/2014 13:49
Collect Date: 10/13/2014 10:00 **Dilution:** 1 **File ID:** TC10212014.006
Sample Tag: 01 **Units:** mg/L

Analyte	CAS #	Result	Qual	RL	MDL
Organic Carbon, Dissolved	TOC	7.23		1.00	0.500
Organic Carbon, Dissolved Rep1		5.52		1.00	0.500
Organic Carbon, Dissolved Rep2		7.43		1.00	0.500
Organic Carbon, Dissolved Rep3		6.18		1.00	0.500
Organic Carbon, Dissolved Rep4		9.80		1.00	0.500

Sample #: L14100924-04 **PrePrep Method:** N/A **Instrument:** TOC-VWP
Client ID: 13MW4 **Prep Method:** 9060A **Prep Date:** N/A
Matrix: Water **Analytical Method:** 9060A **Cal Date:** 07/16/2014 12:00
Workgroup #: WG497144 **Analyst:** EPT **Run Date:** 10/20/2014 12:34
Collect Date: 10/13/2014 11:50 **Dilution:** 1 **File ID:** TC10202014.007
Sample Tag: 01 **Units:** mg/L

Analyte	CAS #	Result	Qual	RL	MDL
Total Organic Carbon	TOC	4.94		1.00	0.500
Total Organic Carbon Rep1		3.83		1.00	0.500
Total Organic Carbon Rep2		4.98		1.00	0.500
Total Organic Carbon Rep3		2.81		1.00	0.500
Total Organic Carbon Rep4		8.14		1.00	0.500

Certificate of Analysis

Sample #: L14100924-05 **PrePrep Method:** N/A **Instrument:** TOC-VWP
Client ID: 13MW4 **Prep Method:** 9060A **Prep Date:** N/A
Matrix: Water **Analytical Method:** 9060A **Cal Date:** 07/16/2014 12:00
Workgroup #: WG497333 **Analyst:** EPT **Run Date:** 10/21/2014 14:40
Collect Date: 10/13/2014 11:50 **Dilution:** 1 **File ID:** TC10212014.007
Sample Tag: 01 **Units:** mg/L

Analyte	CAS #	Result	Qual	RL	MDL
Organic Carbon, Dissolved	TOC	7.47		1.00	0.500
Organic Carbon, Dissolved Rep1		5.04		1.00	0.500
Organic Carbon, Dissolved Rep2		6.82		1.00	0.500
Organic Carbon, Dissolved Rep3		8.83		1.00	0.500
Organic Carbon, Dissolved Rep4		9.18		1.00	0.500

Sample #: L14100924-06 **PrePrep Method:** N/A **Instrument:** TOC-VWP
Client ID: 13MWDUP **Prep Method:** 9060A **Prep Date:** N/A
Matrix: Water **Analytical Method:** 9060A **Cal Date:** 07/16/2014 12:00
Workgroup #: WG497144 **Analyst:** EPT **Run Date:** 10/20/2014 13:20
Collect Date: 10/13/2014 12:00 **Dilution:** 1 **File ID:** TC10202014.008
Sample Tag: 01 **Units:** mg/L

Analyte	CAS #	Result	Qual	RL	MDL
Total Organic Carbon	TOC	3.34		1.00	0.500
Total Organic Carbon Rep1		2.34		1.00	0.500
Total Organic Carbon Rep2		3.13		1.00	0.500
Total Organic Carbon Rep3		3.25		1.00	0.500
Total Organic Carbon Rep4		4.64		1.00	0.500

Sample #: L14100924-07 **PrePrep Method:** N/A **Instrument:** TOC-VWP
Client ID: 13MWDUP **Prep Method:** 9060A **Prep Date:** N/A
Matrix: Water **Analytical Method:** 9060A **Cal Date:** 07/16/2014 12:00
Workgroup #: WG497333 **Analyst:** EPT **Run Date:** 10/21/2014 15:30
Collect Date: 10/13/2014 12:00 **Dilution:** 1 **File ID:** TC10212014.008
Sample Tag: 01 **Units:** mg/L

Analyte	CAS #	Result	Qual	RL	MDL
Organic Carbon, Dissolved	TOC	5.89		1.00	0.500
Organic Carbon, Dissolved Rep1		5.37		1.00	0.500
Organic Carbon, Dissolved Rep2		5.83		1.00	0.500
Organic Carbon, Dissolved Rep3		5.57		1.00	0.500

Certificate of Analysis

Analyte	CAS #	Result	Qual	RL	MDL
Organic Carbon, Dissolved Rep4		6.79		1.00	0.500

Sample #: L14100924-08 **PrePrep Method:** N/A **Instrument:** TOC-VWP
Client ID: 13MW5 **Prep Method:** 9060A **Prep Date:** N/A
Matrix: Water **Analytical Method:** 9060A **Cal Date:** 07/16/2014 12:00
Workgroup #: WG497144 **Analyst:** EPT **Run Date:** 10/20/2014 14:05
Collect Date: 10/13/2014 13:00 **Dilution:** 1 **File ID:** TC10202014.009
Sample Tag: 01 **Units:** mg/L

Analyte	CAS #	Result	Qual	RL	MDL
Total Organic Carbon	TOC	2.18		1.00	0.500
Total Organic Carbon Rep1		2.05		1.00	0.500
Total Organic Carbon Rep2		1.80		1.00	0.500
Total Organic Carbon Rep3		2.13		1.00	0.500
Total Organic Carbon Rep4		2.74		1.00	0.500

Sample #: L14100924-09 **PrePrep Method:** N/A **Instrument:** TOC-VWP
Client ID: 13MW5 **Prep Method:** 9060A **Prep Date:** N/A
Matrix: Water **Analytical Method:** 9060A **Cal Date:** 07/16/2014 12:00
Workgroup #: WG497333 **Analyst:** EPT **Run Date:** 10/21/2014 16:19
Collect Date: 10/13/2014 13:00 **Dilution:** 1 **File ID:** TC10212014.009
Sample Tag: 01 **Units:** mg/L

Analyte	CAS #	Result	Qual	RL	MDL
Organic Carbon, Dissolved	TOC	8.72		1.00	0.500
Organic Carbon, Dissolved Rep1		3.52		1.00	0.500
Organic Carbon, Dissolved Rep2		3.90		1.00	0.500
Organic Carbon, Dissolved Rep3		4.32		1.00	0.500
Organic Carbon, Dissolved Rep4		23.1		1.00	0.500

Sample #: L14100924-10 **PrePrep Method:** N/A **Instrument:** TOC-VWP
Client ID: 13MW5 **Prep Method:** 9060A **Prep Date:** N/A
Matrix: Water **Analytical Method:** 9060A **Cal Date:** 07/16/2014 12:00
Workgroup #: WG497144 **Analyst:** EPT **Run Date:** 10/20/2014 14:49
Collect Date: 10/13/2014 13:00 **Dilution:** 1 **File ID:** TC10202014.010
Sample Tag: 01 **Units:** mg/L

Analyte	CAS #	Result	Qual	RL	MDL
Total Organic Carbon	TOC	11.7		1.00	0.500
Total Organic Carbon Rep1		11.5		1.00	0.500

Certificate of Analysis

Analyte	CAS #	Result	Qual	RL	MDL
Total Organic Carbon Rep2		11.3		1.00	0.500
Total Organic Carbon Rep3		11.8		1.00	0.500
Total Organic Carbon Rep4		12.4		1.00	0.500

Sample #: L14100924-11 **PrePrep Method:** N/A **Instrument:** TOC-VWP
Client ID: 13MW5 **Prep Method:** 9060A **Prep Date:** N/A
Matrix: Water **Analytical Method:** 9060A **Cal Date:** 07/16/2014 12:00
Workgroup #: WG497333 **Analyst:** EPT **Run Date:** 10/21/2014 17:04
Collect Date: 10/13/2014 13:00 **Dilution:** 1 **File ID:** TC10212014.010
Sample Tag: 01 **Units:** mg/L

Analyte	CAS #	Result	Qual	RL	MDL
Organic Carbon, Dissolved	TOC	12.3		1.00	0.500
Organic Carbon, Dissolved Rep1		11.9		1.00	0.500
Organic Carbon, Dissolved Rep2		12.1		1.00	0.500
Organic Carbon, Dissolved Rep3		12.8		1.00	0.500
Organic Carbon, Dissolved Rep4		12.4		1.00	0.500

Sample #: L14100924-12 **PrePrep Method:** N/A **Instrument:** TOC-VWP
Client ID: 13MW5 **Prep Method:** 9060A **Prep Date:** N/A
Matrix: Water **Analytical Method:** 9060A **Cal Date:** 07/16/2014 12:00
Workgroup #: WG497144 **Analyst:** EPT **Run Date:** 10/20/2014 15:34
Collect Date: 10/13/2014 13:00 **Dilution:** 1 **File ID:** TC10202014.011
Sample Tag: 01 **Units:** mg/L

Analyte	CAS #	Result	Qual	RL	MDL
Total Organic Carbon	TOC	12.0		1.00	0.500
Total Organic Carbon Rep1		11.4		1.00	0.500
Total Organic Carbon Rep2		11.9		1.00	0.500
Total Organic Carbon Rep3		11.8		1.00	0.500
Total Organic Carbon Rep4		12.8		1.00	0.500

Sample #: L14100924-13 **PrePrep Method:** N/A **Instrument:** TOC-VWP
Client ID: 13MW5 **Prep Method:** 9060A **Prep Date:** N/A
Matrix: Water **Analytical Method:** 9060A **Cal Date:** 07/16/2014 12:00
Workgroup #: WG497333 **Analyst:** EPT **Run Date:** 10/21/2014 17:49
Collect Date: 10/13/2014 13:00 **Dilution:** 1 **File ID:** TC10212014.011
Sample Tag: 01 **Units:** mg/L

Certificate of Analysis

Analyte	CAS #	Result	Qual	RL	MDL
Organic Carbon, Dissolved	TOC	13.1		1.00	0.500
Organic Carbon, Dissolved Rep1		11.7		1.00	0.500
Organic Carbon, Dissolved Rep2		12.6		1.00	0.500
Organic Carbon, Dissolved Rep3		12.7		1.00	0.500
Organic Carbon, Dissolved Rep4		15.4		1.00	0.500

Sample #: L14100924-14 **PrePrep Method:** N/A **Instrument:** TOC-VWP
Client ID: 13MW6 **Prep Method:** 9060A **Prep Date:** N/A
Matrix: Water **Analytical Method:** 9060A **Cal Date:** 07/16/2014 12:00
Workgroup #: WG497144 **Analyst:** EPT **Run Date:** 10/20/2014 16:19
Collect Date: 10/13/2014 14:05 **Dilution:** 1 **File ID:** TC10202014.012
Sample Tag: 01 **Units:** mg/L

Analyte	CAS #	Result	Qual	RL	MDL
Total Organic Carbon	TOC	4.20		1.00	0.500
Total Organic Carbon Rep1		3.46		1.00	0.500
Total Organic Carbon Rep2		4.18		1.00	0.500
Total Organic Carbon Rep3		4.75		1.00	0.500
Total Organic Carbon Rep4		4.41		1.00	0.500

Sample #: L14100924-15 **PrePrep Method:** N/A **Instrument:** TOC-VWP
Client ID: 13MW6 **Prep Method:** 9060A **Prep Date:** N/A
Matrix: Water **Analytical Method:** 9060A **Cal Date:** 07/16/2014 12:00
Workgroup #: WG497333 **Analyst:** EPT **Run Date:** 10/21/2014 18:34
Collect Date: 10/13/2014 14:05 **Dilution:** 1 **File ID:** TC10212014.012
Sample Tag: 01 **Units:** mg/L

Analyte	CAS #	Result	Qual	RL	MDL
Organic Carbon, Dissolved	TOC	7.08		1.00	0.500
Organic Carbon, Dissolved Rep1		6.53		1.00	0.500
Organic Carbon, Dissolved Rep2		7.09		1.00	0.500
Organic Carbon, Dissolved Rep3		6.17		1.00	0.500
Organic Carbon, Dissolved Rep4		8.53		1.00	0.500

Certificate of Analysis

Sample #: L14100924-16 **PrePrep Method:** N/A **Instrument:** TOC-VWP
Client ID: 13MW7 **Prep Method:** 9060A **Prep Date:** N/A
Matrix: Water **Analytical Method:** 9060A **Cal Date:** 07/16/2014 12:00
Workgroup #: WG497144 **Analyst:** EPT **Run Date:** 10/20/2014 17:04
Collect Date: 10/13/2014 14:55 **Dilution:** 1 **File ID:** TC10202014.013
Sample Tag: 01 **Units:** mg/L

Analyte	CAS #	Result	Qual	RL	MDL
Total Organic Carbon	TOC	3.04		1.00	0.500
Total Organic Carbon Rep1		2.78		1.00	0.500
Total Organic Carbon Rep2		2.31		1.00	0.500
Total Organic Carbon Rep3		3.25		1.00	0.500
Total Organic Carbon Rep4		3.84		1.00	0.500

Sample #: L14100924-17 **PrePrep Method:** N/A **Instrument:** TOC-VWP
Client ID: 13MW7 **Prep Method:** 9060A **Prep Date:** N/A
Matrix: Water **Analytical Method:** 9060A **Cal Date:** 07/16/2014 12:00
Workgroup #: WG497333 **Analyst:** EPT **Run Date:** 10/21/2014 19:21
Collect Date: 10/13/2014 14:55 **Dilution:** 1 **File ID:** TC10212014.013
Sample Tag: 01 **Units:** mg/L

Analyte	CAS #	Result	Qual	RL	MDL
Organic Carbon, Dissolved	TOC	4.18		1.00	0.500
Organic Carbon, Dissolved Rep1		3.65		1.00	0.500
Organic Carbon, Dissolved Rep2		3.71		1.00	0.500
Organic Carbon, Dissolved Rep3		3.87		1.00	0.500
Organic Carbon, Dissolved Rep4		5.49		1.00	0.500

Sample #: L14100924-18 **PrePrep Method:** N/A **Instrument:** TOC-VWP
Client ID: 13MW8 **Prep Method:** 9060A **Prep Date:** N/A
Matrix: Water **Analytical Method:** 9060A **Cal Date:** 07/16/2014 12:00
Workgroup #: WG497144 **Analyst:** EPT **Run Date:** 10/20/2014 18:09
Collect Date: 10/13/2014 11:00 **Dilution:** 1 **File ID:** TC10202014.016
Sample Tag: 01 **Units:** mg/L

Analyte	CAS #	Result	Qual	RL	MDL
Total Organic Carbon	TOC	2.03		1.00	0.500
Total Organic Carbon Rep1		1.66		1.00	0.500
Total Organic Carbon Rep2		1.91		1.00	0.500
Total Organic Carbon Rep3		2.06		1.00	0.500
Total Organic Carbon Rep4		2.50		1.00	0.500

Certificate of Analysis

Sample #:	L14100924-19	**PrePrep Method:**	N/A	**Instrument:**	TOC-VWP
Client ID:	13MW8	**Prep Method:**	9060A	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	9060A	**Cal Date:**	07/16/2014 12:00
Workgroup #:	WG497333	**Analyst:**	EPT	**Run Date:**	10/21/2014 20:27
Collect Date:	10/13/2014 11:00	**Dilution:**	1	**File ID:**	TC10212014.016
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	RL	MDL
Organic Carbon, Dissolved	TOC	3.34		1.00	0.500
Organic Carbon, Dissolved Rep1		3.07		1.00	0.500
Organic Carbon, Dissolved Rep2		2.95		1.00	0.500
Organic Carbon, Dissolved Rep3		3.30		1.00	0.500
Organic Carbon, Dissolved Rep4		4.05		1.00	0.500

2.2.1.2 QC Summary Data

Total Organic Carbon Example Calculations
(Direct Readout Parameter)

(Readout)/(dilution) = mg/L

where:

Readout = direct readout from the instrument
dilution = dilution in decimal form (ex. 1/5 dilution = 0.2)

Microbac Laboratories Inc.

Data Checklist

Date: 20-OCT-2014
Analyst: EPT
Analyst: NA
Method: TOC
Instrument: TOC-VWP
Curve Workgroup: NA
Runlog ID:
Analytical Workgroups: WG497144

Calibration/Linearity	07/16/14
Second Source Check	
ICV/CCV (std)	X
ICB/CCB	X
Blank	X
LCS/LCS Dup	X
MS/MSD	X
Duplicate	
Upload Results	X
Client Forms	
QC Violation Sheet	
Case Narratives	
Signed Raw Data	X
STD/LCS on benchsheet	X
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	
Primary Reviewer	EPT
Secondary Reviewer	DIH
Comments	

Primary Reviewer:
21-OCT-2014
Ethan Tido

Secondary Reviewer:
23-OCT-2014
Dennah Esson

CHECKLIST1 - Modified 03/05/2008
Generated: OCT-23-2014 14:02:13

Microbac Laboratories Inc.

Data Checklist

Date: 21-OCT-2014
Analyst: EPT
Analyst: NA
Method: TOC
Instrument: TOC-VWP
Curve Workgroup: NA
Runlog ID:
Analytical Workgroups: WG497334 WG497333

Calibration/Linearity	07/16/14
Second Source Check	
ICV/CCV (std)	X
ICB/CCB	X
Blank	X
LCS/LCS Dup	X
MS/MSD	X
Duplicate	X
Upload Results	X
Client Forms	
QC Violation Sheet	
Case Narratives	X
Signed Raw Data	X
STD/LCS on benchsheet	X
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	
Primary Reviewer	EPT
Secondary Reviewer	DIH
Comments	

Primary Reviewer:
22-OCT-2014

Secondary Reviewer:
27-OCT-2014

CHECKLIST1 - Modified 03/05/2008
Generated: OCT-27-2014 07:59:58

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 9060A **AAB#:** WG497144

Login Number: L14100924

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
13MW3	02	10/13/14					10/20/2014	7.1	28		10/20/14	7.1	28	
13MW4	04	10/13/14					10/20/2014	7	28		10/20/14	7	28	
13MWDUP	06	10/13/14					10/20/2014	7.1	28		10/20/14	7.1	28	
13MW5	08	10/13/14					10/20/2014	7	28		10/20/14	7	28	
13MW5	10	10/13/14					10/20/2014	7.1	28		10/20/14	7.1	28	
13MW5	12	10/13/14					10/20/2014	7.1	28		10/20/14	7.1	28	
13MW6	14	10/13/14					10/20/2014	7.1	28		10/20/14	7.1	28	
13MW7	16	10/13/14					10/20/2014	7.1	28		10/20/14	7.1	28	
13MW8	18	10/13/14					10/20/2014	7.3	28		10/20/14	7.3	28	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 3828722
Report generated 10/22/2014 10:20

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 9060A **AAB#:** WG497333

Login Number: L14100924

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
13MW3	03	10/13/14					10/21/2014	8.2	28		10/21/14	8.2	28	
13MW4	05	10/13/14					10/21/2014	8.1	28		10/21/14	8.1	28	
13MWDUP	07	10/13/14					10/21/2014	8.1	28		10/21/14	8.1	28	
13MW5	09	10/13/14					10/21/2014	8.1	28		10/21/14	8.1	28	
13MW5	11	10/13/14					10/21/2014	8.2	28		10/21/14	8.2	28	
13MW5	13	10/13/14					10/21/2014	8.2	28		10/21/14	8.2	28	
13MW6	15	10/13/14					10/21/2014	8.2	28		10/21/14	8.2	28	
13MW7	17	10/13/14					10/21/2014	8.2	28		10/21/14	8.2	28	
13MW8	19	10/13/14					10/21/2014	8.4	28		10/21/14	8.4	28	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 3832804
Report generated 10/24/2014 10:16

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L14100924
Work Group: WG497144
Blank File ID: TC10202014.003
Blank Sample ID: WG497144-01
Prep Date: 10/20/14 09:57
Instrument ID: TOC-VWP
Analyzed Date: 10/20/14 09:57
Method: 9060A
Analyst: EPT

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG497144-02	TC10202014.004	10/20/14 10:31	01
LCS2	WG497144-03	TC10202014.005	10/20/14 11:10	01
13MW3	L14100924-02	TC10202014.006	10/20/14 11:49	01
13MW4	L14100924-04	TC10202014.007	10/20/14 12:34	01
13MWDUP	L14100924-06	TC10202014.008	10/20/14 13:20	01
13MW5	L14100924-08	TC10202014.009	10/20/14 14:05	01
13MW5	L14100924-10	TC10202014.010	10/20/14 14:49	01
13MW5	L14100924-12	TC10202014.011	10/20/14 15:34	01
13MW6	L14100924-14	TC10202014.012	10/20/14 16:19	01
13MW7	L14100924-16	TC10202014.013	10/20/14 17:04	01
13MW8	L14100924-18	TC10202014.016	10/20/14 18:09	01

Report Name: BLANK_SUMMARY
PDF File ID: 3828723
Report generated 10/22/2014 10:20

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L14100924
Work Group: WG497333
Blank File ID: TC10212014.003
Blank Sample ID: WG497333-01
Prep Date: 10/21/14 11:56
Instrument ID: TOC-VWP
Analyzed Date: 10/21/14 11:56
Method: 9060A
Analyst: EPT

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG497333-02	TC10212014.004	10/21/14 12:31	01
LCS2	WG497333-03	TC10212014.005	10/21/14 13:10	01
13MW3	L14100924-03	TC10212014.006	10/21/14 13:49	01
13MW4	L14100924-05	TC10212014.007	10/21/14 14:40	01
13MWDUP	L14100924-07	TC10212014.008	10/21/14 15:30	01
13MW5	L14100924-09	TC10212014.009	10/21/14 16:19	01
13MW5	L14100924-11	TC10212014.010	10/21/14 17:04	01
13MW5	L14100924-13	TC10212014.011	10/21/14 17:49	01
13MW6	L14100924-15	TC10212014.012	10/21/14 18:34	01
13MW7	L14100924-17	TC10212014.013	10/21/14 19:21	01
13MW8	L14100924-19	TC10212014.016	10/21/14 20:27	01

Report Name: BLANK_SUMMARY
PDF File ID: 3832805
Report generated 10/24/2014 10:16

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L14100924 Prep Date: 10/20/14 09:57 Sample ID: WG497144-01
Instrument ID: TOC-VWP Run Date: 10/20/14 09:57 Prep Method: 9060A
File ID: TC10202014.003 Analyst: EPT Method: 9060A
Workgroup (AAB#): WG497144 Matrix: Water 2 Units: mg/L
Contract #: Cal ID: TOC-VW-16-JUL-14

Analytes	MDL	RL	Concentration	Dilution	Qualifier
Total Organic Carbon	0.500	1.00	0.500	1	U
Total Organic Carbon Rep1	0.500	1.00	0.500	1	U
Total Organic Carbon Rep2	0.500	1.00	0.500	1	U
Total Organic Carbon Rep3	0.500	1.00	0.500	1	U
Total Organic Carbon Rep4	0.500	1.00	0.500	1	U

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 3828724
22-OCT-2014 10:20

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L14100924 Prep Date:10/21/14 11:56 Sample ID:WG497333-01
Instrument ID:TOC-VWP Run Date:10/21/14 11:56 Prep Method:9060A
File ID:TC10212014.003 Analyst:EPT Method:9060A
Workgroup (AAB#):WG497333 Matrix:Water Units:mg/L
Contract #: Cal ID:TOC-VW-16-JUL-14

Analytes	MDL	RL	Concentration	Dilution	Qualifier
Organic Carbon, Dissolved	0.500	1.00	0.500	1	U
Organic Carbon, Dissolved Rep1	0.500	1.00	0.500	1	U
Organic Carbon, Dissolved Rep2	0.500	1.00	0.500	1	U
Organic Carbon, Dissolved Rep3	0.500	1.00	0.500	1	U
Organic Carbon, Dissolved Rep4	0.500	1.00	0.500	1	U

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 3832806
24-OCT-2014 10:16

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L14100924 Analyst: EPT Prep Method: 9060A
Instrument ID: TOC-VWP Matrix: Water Method: 9060A
Workgroup (AAB#): WG497144 Units: mg/L
QC Key: STD Lot #: STD67086

Sample ID: WG497144-02 LCS File ID: TC10202014.004 Run Date: 10/20/2014 10:31
Sample ID: WG497144-03 LCS2 File ID: TC10202014.005 Run Date: 10/20/2014 11:10

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Total Organic Carbon	25.0	23.5	94.1	25.0	23.4	93.4	0.725	85 - 115	15	
Total Organic Carbon Rep1		23.7			23.1		2.39	85 - 115	15	*
Total Organic Carbon Rep2		23.6			23.2		1.64	85 - 115	15	*
Total Organic Carbon Rep3		23.2			23.4		0.779	85 - 115	15	*
Total Organic Carbon Rep4		23.6			23.6		0.258	85 - 115	15	*

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 3828725
Report generated: 10/22/2014 10:20

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L14100924 Analyst: EPT Prep Method: 9060A
Instrument ID: TOC-VWP Matrix: Water Method: 9060A
Workgroup (AAB#): WG497333 Units: mg/L
QC Key: STD Lot #: STD67086

Sample ID: WG497333-02 LCS File ID: TC10212014.004 Run Date: 10/21/2014 12:31
Sample ID: WG497333-03 LCS2 File ID: TC10212014.005 Run Date: 10/21/2014 13:10

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Organic Carbon, Dissolved	25.0	23.1	92.4	25.0	22.8	91.3	1.13	85 - 115	15	
Organic Carbon, Dissolved Rep1		23.2			22.8		1.61	85 - 115	15	*
Organic Carbon, Dissolved Rep2		23.3			22.8		1.83	85 - 115	15	*
Organic Carbon, Dissolved Rep3		23.3			22.8		2.24	85 - 115	15	*
Organic Carbon, Dissolved Rep4		22.7			22.9		1.12	85 - 115	15	*

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 3832807
Report generated: 10/24/2014 10:16

Microbac Laboratories Inc.

MS/MSD REPORT

Loginnum:L14100924 Cal ID:TOC-VWP- 16-JUL-14 Worknum:WG497144

Instrument ID:TOC-VWP Contract #: Prep Method:9060A

Parent ID:L14100924-08 File ID:TC10202014.009 Dil:1 Method:9060A

Sample ID:L14100924-10 MS File ID:TC10202014.010 Dil:1 Matrix:Water

Sample ID:L14100924-12 MSD File ID:TC10202014.011 Dil:1 Units:mg/L

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Total Organic Carbon	2.18	10.0	11.7	95.5	10.0	12.0	97.7	1.86	85 - 115	15	

* FAILS %REC LIMIT

FAILS RPD LIMIT

MS_MSD - Modified 03/06/2008

PDF File ID: 3828726

Report generated 10/22/2014 10:20

Microbac Laboratories Inc.

MS/MSD REPORT

Loginnum: L14100924 Cal ID: TOC-VWP- 16-JUL-14 Worknum: WG497333

Instrument ID: TOC-VWP Contract #: Prep Method: 9060A

Parent ID: L14100924-09 File ID: TC10212014.009 Dil: 1 Method: 9060

Sample ID: L14100924-11 MS File ID: TC10212014.010 Dil: 1 Matrix: Water

Sample ID: L14100924-13 MSD File ID: TC10212014.011 Dil: 1 Units: mg/L

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Organic Carbon, Dissolved	8.72	10.0	12.3	35.6	10.0	13.1	43.8	6.46	85 - 115	15	*

* FAILS %REC LIMIT

FAILS RPD LIMIT

MS_MSD - Modified 03/06/2008

PDF File ID: 3832808

Report generated 10/24/2014 10:16

3.0 Attachments

CHAIN OF CUSTODY RECORD

Laboratory: Microbac - Ohio Valley Division- 158 Starlite Drive, Marrietta, OH 45750 - Michelle Taylor, Project Manager- 1-800-373-4071

9/22/14

Client:	Draper Aden Associates	**Consultant:**	Draper Aden Associates	**Sample Site:**	RAAP, Radford, Virginia
Attn:	0	**Attn:**	Janet C. Frazier	**Location:**	Open Burning Ground (OBG)/HWMU13
Address:	0	**Address:**	2206 South Main Street	**Event:**	October 2014 AnnualGW Monitoring Event
	0		Blacksburg, Virginia 24060	**DAA JN:**	B03204-12
Phone:	0	**Phone:**	(540) 552-0444	**Lab JN:**	
Fax:	0	**Fax:**	(540) 552-0291		
Fax:	0				

Project Specific (PS) or Batch (B) QC:
Sample Collection for Project Complete? YES
UPS: 12-237-301-01-9371-7219
12-237-301-01-9364-0828
Carrier:
Tracking Number: 12-237-301-01-9053-8207

Box 1: Matrix
SW Surface Water; GW Groundwater; L Leachate; S Soil; T Trip Blank; E Equipment Blank; P Product; O Other

Box 2: Preservative
A HCL; B HNO_3; C H_2SO_4; D $Na_2S_2O_3$; E NaOH; F ZnAc; G Other (Specify); H None

Box 3: Filtered/Unfiltered
F Filtered; U Unfiltered

Box 4: Sample Type
G Grab; C Composite

Box 5: Sample Container Type
P Plastic; AG Amber Glass; V VOA; CG Clear Glass

Invoice
Copy to Consultant: YES
Bill: CLIENT OTHER _____
Preserved and shipped on Ice: YES

Box 4 - Sample Type					G	G	G		G	.			
Box 3 - Filtered/Unfiltered					F	U	F		U	U			
Required pH of Sample					-	<2	<2		H				
Box 2 - Preservative					H	C	C			H			
Box 5 - Sample Container Type					1-250ml P	1-250 mL P	1-250 mL P		2-1LA				
Sample ID	**Date: 2014**	**Time**	**Box 1: Matrix**	**Number of Bottles**	**Perchlorate by SW-846 Method 6850**	**Total Organic Carbon (TOC) - 9060A - 4 reps**	**Dissolved Organic Carbon (DOC) - 9060A- 4 reps**		**8330B**				
13MW2	10/13	1515	GW	1	X								
13MW3		1000	GW	5	X	X	X		X				
13MW4		1150	GW	5	X	X	X		X				
13MWDUP		1200	GW	5	X	X	X		X				
13MW5		1300	GW	15	X	X	X		X				USE FOR QC
13MW6		1405	GW	5	X	X	X		X				
13MW7		1455	GW	5	X	X	X		X				
13MW8		1100	GW	3	X	X	X						

GENERAL NOTES:
1. Level 4 (comprehensive) deliverable with pdf.
2. REPORT DL/QL and estimated results.
3. Perchlorate field filtered with 0. 2 micron filter. DOC field filtered with 0.45 micron filter

Clients Special Instructions:

Received by lab in Good Condition _____ Yes _____ No Custody Seal Intact _____ Yes _____ No Temperature upon arrival _____ Received on Ice _____ Yes _____ No
Describe problems, if any:

Sampler Name (Print): KEN CODDINGTON	Date: 10/13/14	#1 Relinquished by (Signature):	Date: 10/14/14	#2 Relinquished by (Signature):	
Sampler Signature:	Time: 0700	Company Name: DAA	Time: 1700	Company Name:	
Sampler Name (Print): Will Mason-Deese	Date: 10/13/14	#1 Received by (Signature):	Date:	#2 Received by (Signature):	
Sampler Signature:	Time: 0700	Company Name:	Time:	Company Name:	Time:

Microbac OVD
Received: 10/15/2014 09:54
By: COURTNEY REXROAD
221000060831
Courtney Rexroad

JLK 9/22/2014 Y2

MethodRef	Analyte	LOQ	LOD	Units
8330B	2,4-DINITROTOLUENE	5	0.28	ug/l
8330B	2,6-DINITROTOLUENE	5	0.37	ug/l
8330B	m-Dinitrobenzene (1,3-)	2.5	0.45	ug/l
8330B	sym-Trinitrobenzene (1,3,5-)	2.5	0.31	ug/l
~~8332~~ 8330B	NITROGLYCERIN	16	0.77	ug/l

OK JVR 10.21.2013

9.29.2014 JV

SOIL

9330/8332

OK 9/29/14

Abridged data package.
Full deliverable available.

Data Package

Pace Project# 35159080

Summary of Contents

Pace Analytical Services, Inc.
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

October 31, 2014

Kevin Godwin
Pace Analytical Charlotte
9800 Kincey Ave. Suite 100
Huntersville, NC 28078

RE: Project: 92221168 RAAP OBG October 2014
Pace Project No.: 35159080

Dear Kevin Godwin:
Enclosed are the analytical results for sample(s) received by the laboratory on October 14, 2014. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Sakina Mckenzie for
Ken Overstreet
ken.overstreet@pacelabs.com
Project Manager

Enclosures

cc: Client Services, Pace Analytical Charlotte

Pace Analytical Services, Inc.
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

CERTIFICATIONS

Project: 92221168 RAAP OBG October 2014
Pace Project No.: 35159080

Ormond Beach Certification IDs
8 East Tower Circle, Ormond Beach, FL 32174
Alabama Certification #: 41320
Arizona Certification #: AZ0735
Colorado Certification: FL NELAC Reciprocity
Connecticut Certification #: PH-0216
Delaware Certification: FL NELAC Reciprocity
Florida Certification #: E83079
Georgia Certification #: 955
Guam Certification: FL NELAC Reciprocity
Hawaii Certification: FL NELAC Reciprocity
Illinois Certification #: 200068
Indiana Certification: FL NELAC Reciprocity
Kansas Certification #: E-10383
Kentucky Certification #: 90050
Louisiana Certification #: FL NELAC Reciprocity
Louisiana Environmental Certificate #: 05007
Maryland Certification: #346
Massachusetts Certification #: M-FL1264
Michigan Certification #: 9911
Mississippi Certification: FL NELAC Reciprocity
Missouri Certification #: 236
Montana Certification #: Cert 0074
Nebraska Certification: NE-OS-28-14
Nevada Certification: FL NELAC Reciprocity
New Hampshire Certification #: 2958
New Jersey Certification #: FL765
New York Certification #: 11608
North Carolina Environmental Certificate #: 667
North Carolina Certification #: 12710
Pennsylvania Certification #: 68-00547
Puerto Rico Certification #: FL01264
South Carolina Certification: #96042001
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity
US Virgin Islands Certification: FL NELAC Reciprocity
Virginia Environmental Certification #: 460165
Washington Certification #: C955
West Virginia Certification #: 9962C
Wisconsin Certification #: 399079670
Wyoming (EPA Region 8): FL NELAC Reciprocity

Pace Analytical Services, Inc.
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

SAMPLE SUMMARY

Project: 92221168 RAAP OBG October 2014
Pace Project No.: 35159080

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92221168001	**13MW2**	Water	10/13/14 00:00	10/14/14 11:15
92221168002	**13MW3**	Water	10/13/14 10:00	10/14/14 11:15
92221168003	**13MW4**	Water	10/13/14 11:50	10/14/14 11:15
92221168004	**13MWDUP**	Water	10/13/14 12:00	10/14/14 11:15
92221168005	**13MW5**	Water	10/13/14 13:00	10/14/14 11:15
92221168006	**13MW6**	Water	10/13/14 14:05	10/14/14 11:15
92221168007	**13MW7**	Water	10/13/14 14:55	10/14/14 11:15
92221168008	**13MW8**	Water	10/13/14 11:00	10/14/14 11:15

Pace Analytical Services, Inc.
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

SAMPLE ANALYTE COUNT

Project: 92221168 RAAP OBG October 2014
Pace Project No.: 35159080

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92221168001	**13MW2**	EPA 300.0	CMB	1	PASI-O
		EPA 300.1	ADC	2	PASI-O
		EPA 300.1	ADC	2	PASI-O
92221168002	**13MW3**	SM 2320B	NMT	1	PASI-O
		EPA 300.0	ADC	1	PASI-O
		EPA 300.0	AIS, CMB	2	PASI-O
		EPA 300.1	ADC	2	PASI-O
		EPA 300.1	ADC	2	PASI-O
92221168003	**13MW4**	SM 2320B	NMT	1	PASI-O
		EPA 300.0	ADC	1	PASI-O
		EPA 300.0	CMB	2	PASI-O
		EPA 300.1	ADC	2	PASI-O
		EPA 300.1	ADC	2	PASI-O
92221168004	**13MWDUP**	SM 2320B	NMT	1	PASI-O
		EPA 300.0	ADC	1	PASI-O
		EPA 300.0	CMB	2	PASI-O
		EPA 300.1	ADC	2	PASI-O
		EPA 300.1	ADC	2	PASI-O
92221168005	**13MW5**	SM 2320B	NMT	1	PASI-O
		EPA 300.0	ADC	1	PASI-O
		EPA 300.0	AIS, CMB	2	PASI-O
		EPA 300.1	ADC	2	PASI-O
		EPA 300.1	ADC	2	PASI-O
92221168006	**13MW6**	SM 2320B	NMT	1	PASI-O
		EPA 300.0	ADC	1	PASI-O
		EPA 300.0	AIS	2	PASI-O
		EPA 300.1	ADC	2	PASI-O
		EPA 300.1	ADC	2	PASI-O
92221168007	**13MW7**	SM 2320B	NMT	1	PASI-O
		EPA 300.0	ADC	1	PASI-O
		EPA 300.0	AIS, CMB	2	PASI-O
		EPA 300.1	ADC	2	PASI-O
		EPA 300.1	ADC	2	PASI-O
92221168008	**13MW8**	SM 2320B	NMT	1	PASI-O
		EPA 300.0	ADC	1	PASI-O
		EPA 300.0	AIS	2	PASI-O
		EPA 300.1	ADC	2	PASI-O

Pace Analytical Services, Inc.
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SAMPLE ANALYTE COUNT

Project: 92221168 RAAP OBG October 2014
Pace Project No.: 35159080

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 300.1	ADC	2	PASI-O

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

ANALYTICAL RESULTS

Project: 92221168 RAAP OBG October 2014
Pace Project No.: 35159080

Sample: 13MW2 **Lab ID: 92221168001** Collected: 10/13/14 00:00 Received: 10/14/14 11:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Chloride	ND	mg/L	5.0	1		10/23/14 19:51	16887-00-6	
300.1 Oxihalide IC Anions 14d	Analytical Method: EPA 300.1							
Chlorite	ND	ug/L	5.0	1		10/15/14 19:57		
Surrogates								
Dichloroacetate (S)	99	%	90-115	1		10/15/14 19:57	79-43-6	
300.1 Oxihalide IC Anions 28d	Analytical Method: EPA 300.1							
Chlorate	ND	ug/L	5.0	1		10/15/14 19:57	7790-93-4	
Surrogates								
Dichloroacetate (S)	99	%	90-115	1		10/15/14 19:57	79-43-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

ANALYTICAL RESULTS

Project: 92221168 RAAP OBG October 2014
Pace Project No.: 35159080

Sample: 13MW3 **Lab ID: 92221168002** Collected: 10/13/14 10:00 Received: 10/14/14 11:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B							
Alkalinity, Total as CaCO3	**227**	mg/L	5.0	1		10/18/14 12:44		
300.0 IC Anions	Analytical Method: EPA 300.0							
Nitrate as N	**1.6**	mg/L	0.050	1		10/15/14 06:49	14797-55-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Chloride	ND	mg/L	5.0	1		10/23/14 20:55	16887-00-6	
Sulfate	**104**	mg/L	10.0	2		10/27/14 23:48	14808-79-8	
300.1 Oxihalide IC Anions 14d	Analytical Method: EPA 300.1							
Chlorite	ND	ug/L	5.0	1		10/15/14 20:41		
Surrogates								
Dichloroacetate (S)	94	%	90-115	1		10/15/14 20:41	79-43-6	
300.1 Oxihalide IC Anions 28d	Analytical Method: EPA 300.1							
Chlorate	ND	ug/L	5.0	1		10/15/14 20:41	7790-93-4	
Surrogates								
Dichloroacetate (S)	94	%	90-115	1		10/15/14 20:41	79-43-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

ANALYTICAL RESULTS

Project: 92221168 RAAP OBG October 2014
Pace Project No.: 35159080

Sample: 13MW4 **Lab ID: 92221168003** Collected: 10/13/14 11:50 Received: 10/14/14 11:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B							
Alkalinity, Total as CaCO3	**202**	mg/L	5.0	1		10/18/14 12:56		
300.0 IC Anions	Analytical Method: EPA 300.0							
Nitrate as N	**0.66**	mg/L	0.050	1		10/15/14 07:32	14797-55-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Chloride	ND	mg/L	5.0	1		10/23/14 21:16	16887-00-6	
Sulfate	**55.9**	mg/L	5.0	1		10/23/14 21:16	14808-79-8	
300.1 Oxihalide IC Anions 14d	Analytical Method: EPA 300.1							
Chlorite	ND	ug/L	5.0	1		10/15/14 21:24		
Surrogates								
Dichloroacetate (S)	97	%	90-115	1		10/15/14 21:24	79-43-6	
300.1 Oxihalide IC Anions 28d	Analytical Method: EPA 300.1							
Chlorate	ND	ug/L	5.0	1		10/15/14 21:24	7790-93-4	
Surrogates								
Dichloroacetate (S)	97	%	90-115	1		10/15/14 21:24	79-43-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

ANALYTICAL RESULTS

Project: 92221168 RAAP OBG October 2014
Pace Project No.: 35159080

Sample: 13MWDUP **Lab ID: 92221168004** Collected: 10/13/14 12:00 Received: 10/14/14 11:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B							
Alkalinity, Total as CaCO3	**198**	mg/L	5.0	1		10/18/14 13:02		
300.0 IC Anions	Analytical Method: EPA 300.0							
Nitrate as N	**0.68**	mg/L	0.050	1		10/15/14 07:53	14797-55-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Chloride	ND	mg/L	5.0	1		10/23/14 21:38	16887-00-6	
Sulfate	**56.1**	mg/L	5.0	1		10/23/14 21:38	14808-79-8	
300.1 Oxihalide IC Anions 14d	Analytical Method: EPA 300.1							
Chlorite	ND	ug/L	5.0	1		10/15/14 22:08		
Surrogates								
Dichloroacetate (S)	99	%	90-115	1		10/15/14 22:08	79-43-6	
300.1 Oxihalide IC Anions 28d	Analytical Method: EPA 300.1							
Chlorate	ND	ug/L	5.0	1		10/15/14 22:08	7790-93-4	
Surrogates								
Dichloroacetate (S)	99	%	90-115	1		10/15/14 22:08	79-43-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

ANALYTICAL RESULTS

Project: 92221168 RAAP OBG October 2014
Pace Project No.: 35159080

Sample: 13MW5 **Lab ID: 92221168005** Collected: 10/13/14 13:00 Received: 10/14/14 11:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B							
Alkalinity, Total as CaCO3	**208**	mg/L	5.0	1		10/18/14 13:07		
300.0 IC Anions	Analytical Method: EPA 300.0							
Nitrate as N	**0.59**	mg/L	0.050	1		10/15/14 08:14	14797-55-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Chloride	ND	mg/L	5.0	1		10/23/14 21:59	16887-00-6	
Sulfate	**182**	mg/L	25.0	5		10/28/14 00:52	14808-79-8	
300.1 Oxihalide IC Anions 14d	Analytical Method: EPA 300.1							
Chlorite	ND	ug/L	5.0	1		10/15/14 22:51		M1
Surrogates								
Dichloroacetate (S)	97	%	90-115	1		10/15/14 22:51	79-43-6	
300.1 Oxihalide IC Anions 28d	Analytical Method: EPA 300.1							
Chlorate	ND	ug/L	5.0	1		10/15/14 22:51	7790-93-4	
Surrogates								
Dichloroacetate (S)	97	%	90-115	1		10/15/14 22:51	79-43-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

ANALYTICAL RESULTS

Project: 92221168 RAAP OBG October 2014
Pace Project No.: 35159080

Sample: 13MW6 **Lab ID: 92221168006** Collected: 10/13/14 14:05 Received: 10/14/14 11:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B							
Alkalinity, Total as CaCO3	**273**	mg/L	5.0	1		10/18/14 13:15		
300.0 IC Anions	Analytical Method: EPA 300.0							
Nitrate as N	**0.74**	mg/L	0.050	1		10/15/14 08:36	14797-55-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Chloride	**7.3**	mg/L	5.0	1		10/28/14 01:14	16887-00-6	
Sulfate	**196**	mg/L	25.0	5		10/28/14 01:35	14808-79-8	
300.1 Oxihalide IC Anions 14d	Analytical Method: EPA 300.1							
Chlorite	ND	ug/L	5.0	1		10/16/14 02:29		
Surrogates								
Dichloroacetate (S)	102	%	90-115	1		10/16/14 02:29	79-43-6	
300.1 Oxihalide IC Anions 28d	Analytical Method: EPA 300.1							
Chlorate	ND	ug/L	5.0	1		10/16/14 02:29	7790-93-4	
Surrogates								
Dichloroacetate (S)	102	%	90-115	1		10/16/14 02:29	79-43-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

ANALYTICAL RESULTS

Project: 92221168 RAAP OBG October 2014
Pace Project No.: 35159080

Sample: 13MW7 **Lab ID: 92221168007** Collected: 10/13/14 14:55 Received: 10/14/14 11:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B							
Alkalinity, Total as CaCO3	**229**	mg/L	5.0	1		10/18/14 13:21		
300.0 IC Anions	Analytical Method: EPA 300.0							
Nitrate as N	**0.93**	mg/L	0.050	1		10/15/14 08:57	14797-55-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Chloride	ND	mg/L	5.0	1		10/23/14 23:25	16887-00-6	
Sulfate	**153**	mg/L	10.0	2		10/28/14 01:56	14808-79-8	
300.1 Oxihalide IC Anions 14d	Analytical Method: EPA 300.1							
Chlorite	ND	ug/L	5.0	1		10/16/14 03:13		
Surrogates								
Dichloroacetate (S)	96	%	90-115	1		10/16/14 03:13	79-43-6	
300.1 Oxihalide IC Anions 28d	Analytical Method: EPA 300.1							
Chlorate	ND	ug/L	5.0	1		10/16/14 03:13	7790-93-4	
Surrogates								
Dichloroacetate (S)	96	%	90-115	1		10/16/14 03:13	79-43-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

ANALYTICAL RESULTS

Project: 92221168 RAAP OBG October 2014
Pace Project No.: 35159080

Sample: 13MW8 **Lab ID: 92221168008** Collected: 10/13/14 11:00 Received: 10/14/14 11:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM 2320B							
Alkalinity, Total as CaCO3	**200**	mg/L	5.0	1		10/18/14 13:27		
300.0 IC Anions	Analytical Method: EPA 300.0							
Nitrate as N	**0.19**	mg/L	0.10	2		10/15/14 07:10	14797-55-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Chloride	ND	mg/L	5.0	1		10/28/14 02:18	16887-00-6	
Sulfate	**336**	mg/L	25.0	5		10/28/14 02:39	14808-79-8	
300.1 Oxihalide IC Anions 14d	Analytical Method: EPA 300.1							
Chlorite	ND	ug/L	5.0	1		10/16/14 03:57		
Surrogates								
Dichloroacetate (S)	101	%	90-115	1		10/16/14 03:57	79-43-6	
300.1 Oxihalide IC Anions 28d	Analytical Method: EPA 300.1							
Chlorate	ND	ug/L	5.0	1		10/16/14 03:57	7790-93-4	
Surrogates								
Dichloroacetate (S)	101	%	90-115	1		10/16/14 03:57	79-43-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

QUALITY CONTROL DATA

Project: 92221168 RAAP OBG October 2014
Pace Project No.: 35159080

QC Batch: WET/27425 Analysis Method: SM 2320B
QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity
Associated Lab Samples: 92221168002, 92221168003, 92221168004, 92221168005, 92221168006, 92221168007, 92221168008

METHOD BLANK: 1032262 Matrix: Water
Associated Lab Samples: 92221168002, 92221168003, 92221168004, 92221168005, 92221168006, 92221168007, 92221168008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	10/18/14 11:30	

LABORATORY CONTROL SAMPLE: 1032263

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	250	248	99	90-110	

SAMPLE DUPLICATE: 1032264

Parameter	Units	35159499001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	73.2	75.0	2	20	

SAMPLE DUPLICATE: 1032265

Parameter	Units	92221168002 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	227	231	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
8 East Tower Circle
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QUALITY CONTROL DATA

Project: 92221168 RAAP OBG October 2014
Pace Project No.: 35159080

QC Batch: WETA/40312 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 92221168002, 92221168003, 92221168004, 92221168005, 92221168006, 92221168007, 92221168008

METHOD BLANK: 1028742 Matrix: Water
Associated Lab Samples: 92221168002, 92221168003, 92221168004, 92221168005, 92221168006, 92221168007, 92221168008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrate as N	mg/L	ND	0.050	10/15/14 11:06	

LABORATORY CONTROL SAMPLE: 1028743

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrate as N	mg/L	5	5.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1028744 1028745

Parameter	Units	92221168005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrate as N	mg/L	0.59	5	5	5.5	5.5	97	98	90-110	.2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

QUALITY CONTROL DATA

Project: 92221168 RAAP OBG October 2014
Pace Project No.: 35159080

QC Batch: WETA/40520 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 92221168001, 92221168002, 92221168003, 92221168004, 92221168005, 92221168006, 92221168007, 92221168008

METHOD BLANK: 1035014 Matrix: Water
Associated Lab Samples: 92221168001, 92221168002, 92221168003, 92221168004, 92221168005, 92221168006, 92221168007, 92221168008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	5.0	10/23/14 17:21	
Sulfate	mg/L	ND	5.0	10/23/14 17:21	

LABORATORY CONTROL SAMPLE: 1035015

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	47.1	94	90-110	
Sulfate	mg/L	50	46.8	94	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1035016 1035017

Parameter	Units	35159340002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	233	250	250	499	499	107	107	90-110	.03	20	
Sulfate	mg/L	162	250	250	418	419	102	103	90-110	.09	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1035018 1035019

Parameter	Units	92221168001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	ND	50	50	48.4	48.5	91	91	90-110	.2	20	
Sulfate	mg/L	34.3	50	50	85.7	85.7	103	103	90-110	.09	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 92221168 RAAP OBG October 2014
Pace Project No.: 35159080

QC Batch: WETA/40338 Analysis Method: EPA 300.1
QC Batch Method: EPA 300.1 Analysis Description: 300.1 Oxihalides IC Anions
Associated Lab Samples: 92221168001, 92221168002, 92221168003, 92221168004, 92221168005, 92221168006, 92221168007, 92221168008

METHOD BLANK: 1029037 Matrix: Water
Associated Lab Samples: 92221168001, 92221168002, 92221168003, 92221168004, 92221168005, 92221168006, 92221168007, 92221168008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chlorite	ug/L	ND	5.0	10/15/14 17:03	
Dichloroacetate (S)	%	100	90-115	10/15/14 17:03	

LABORATORY CONTROL SAMPLE: 1029038

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chlorite	ug/L	40	38.8	97	85-115	
Dichloroacetate (S)	%			102	90-115	

MATRIX SPIKE SAMPLE: 1029040

Parameter	Units	92221168005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chlorite	ug/L	ND	40	27.4	69	75-125	M1
Dichloroacetate (S)	%				100	90-115	

SAMPLE DUPLICATE: 1029039

Parameter	Units	92221168005 Result	Dup Result	RPD	Max RPD	Qualifiers
Chlorite	ug/L	ND	ND		20	
Dichloroacetate (S)	%	97	96	1		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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Ormond Beach, FL 32174
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QUALITY CONTROL DATA

Project: 92221168 RAAP OBG October 2014
Pace Project No.: 35159080

QC Batch: WETA/40339 Analysis Method: EPA 300.1
QC Batch Method: EPA 300.1 Analysis Description: 300.1 Oxihalides IC Anions
Associated Lab Samples: 92221168001, 92221168002, 92221168003, 92221168004, 92221168005, 92221168006, 92221168007, 92221168008

METHOD BLANK: 1029131 Matrix: Water
Associated Lab Samples: 92221168001, 92221168002, 92221168003, 92221168004, 92221168005, 92221168006, 92221168007, 92221168008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chlorate	ug/L	ND	5.0	10/15/14 17:03	
Dichloroacetate (S)	%	100	90-115	10/15/14 17:03	

LABORATORY CONTROL SAMPLE: 1029132

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chlorate	ug/L	40	40.2	101	85-115	
Dichloroacetate (S)	%			102	90-115	

MATRIX SPIKE SAMPLE: 1029134

Parameter	Units	92221168005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chlorate	ug/L	ND	40	38.3	96	75-125	
Dichloroacetate (S)	%				100	90-115	

SAMPLE DUPLICATE: 1029133

Parameter	Units	92221168005 Result	Dup Result	RPD	Max RPD	Qualifiers
Chlorate	ug/L	ND	ND		20	
Dichloroacetate (S)	%	97	96	1		

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
8 East Tower Circle
Ormond Beach, FL 32174
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QUALIFIERS

Project: 92221168 RAAP OBG October 2014
Pace Project No.: 35159080

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-O	Pace Analytical Services - Ormond Beach

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

Pace Analytical Services, Inc.
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 92221168 RAAP OBG October 2014
Pace Project No.: 35159080

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92221168002	**13MW3**	SM 2320B	WET/27425		
92221168003	**13MW4**	SM 2320B	WET/27425		
92221168004	**13MWDUP**	SM 2320B	WET/27425		
92221168005	**13MW5**	SM 2320B	WET/27425		
92221168006	**13MW6**	SM 2320B	WET/27425		
92221168007	**13MW7**	SM 2320B	WET/27425		
92221168008	**13MW8**	SM 2320B	WET/27425		
92221168002	**13MW3**	EPA 300.0	WETA/40312		
92221168003	**13MW4**	EPA 300.0	WETA/40312		
92221168004	**13MWDUP**	EPA 300.0	WETA/40312		
92221168005	**13MW5**	EPA 300.0	WETA/40312		
92221168006	**13MW6**	EPA 300.0	WETA/40312		
92221168007	**13MW7**	EPA 300.0	WETA/40312		
92221168008	**13MW8**	EPA 300.0	WETA/40312		
92221168001	**13MW2**	EPA 300.0	WETA/40520		
92221168002	**13MW3**	EPA 300.0	WETA/40520		
92221168003	**13MW4**	EPA 300.0	WETA/40520		
92221168004	**13MWDUP**	EPA 300.0	WETA/40520		
92221168005	**13MW5**	EPA 300.0	WETA/40520		
92221168006	**13MW6**	EPA 300.0	WETA/40520		
92221168007	**13MW7**	EPA 300.0	WETA/40520		
92221168008	**13MW8**	EPA 300.0	WETA/40520		
92221168001	**13MW2**	EPA 300.1	WETA/40338		
92221168002	**13MW3**	EPA 300.1	WETA/40338		
92221168003	**13MW4**	EPA 300.1	WETA/40338		
92221168004	**13MWDUP**	EPA 300.1	WETA/40338		
92221168005	**13MW5**	EPA 300.1	WETA/40338		
92221168006	**13MW6**	EPA 300.1	WETA/40338		
92221168007	**13MW7**	EPA 300.1	WETA/40338		
92221168008	**13MW8**	EPA 300.1	WETA/40338		
92221168001	**13MW2**	EPA 300.1	WETA/40339		
92221168002	**13MW3**	EPA 300.1	WETA/40339		
92221168003	**13MW4**	EPA 300.1	WETA/40339		
92221168004	**13MWDUP**	EPA 300.1	WETA/40339		
92221168005	**13MW5**	EPA 300.1	WETA/40339		
92221168006	**13MW6**	EPA 300.1	WETA/40339		
92221168007	**13MW7**	EPA 300.1	WETA/40339		
92221168008	**13MW8**	EPA 300.1	WETA/40339		

Sample Condition Upon Receipt Form (SCUR)

Table Number: _____

Client Name: Draper Aden Assoc Project # 35159080

Cooler: ☐ Fed Ex ☑ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other _____

Tracking # 1Z2373010197203758

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐ no

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

Thermometer Used T186 Type of Ice: (Wet) Blue None

Cooler Temperature °C 1.6 (Visual) 0 (Correction Factor) 1.6 (Actual)

Date and Initials of person examining contents: 10/14/14 SG 0940

(Temp should be above freezing to 6°C) If below 0°C, then was sample frozen? ☐ Yes ☐ No

Receipt of samples satisfactory: ☑ Yes ☐ No

Rush TAT requested on COC:

If yes, then all conditions below were met:	If no, then mark box & describe issue (use comments area if necessary):
Chain of Custody Present	☐
Chain of Custody Filled Out	☐
Relinquished Signature & Sampler Name COC	☐
Samples Arrived within Hold Time	☐
Sufficient Volume	☐
Correct Containers Used	☐
Containers Intact	☐
Sample Labels match COC (sample IDs & date/time of collection)	☐ No Labels: ☐ No Time/Date on Labels: ☐
Containers needing preservation are found to be in compliance with EPA recommendation.	☐
Headspace in VOA Vials (>6mm):	☐

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____

Comments/ Resolution (use back for additional comments): _____

Project Manager Review: _____ Date: _____

Finished Product Information Only

F. Sample ID: _____

Production Code: _____

Date/Time Opened: _____

Number of Unopened Bottles Remaining: _____

Retain Sample in Shed: Yes No

Size & Qty of Bottles Received

_____ x 5 Gal
_____ x 2.5 Gal
_____ x 1 Gal
_____ x 1 Liter
_____ x 500 mL
_____ x 250 mL
_____ x Other: _____

Chain of Custody

Chain of Custody

WO#: 35159080

35159080

Pace Analytical
www.pacelabs.com

Workorder: 92221168 Workorder Name: RAAP OBG October 2014 Annual Owner Received Date: 10/14/2014 Results Requested By: 10/23/2014

Report To	Subcontract To
Kevin Godwin Pace Analytical Services, Inc. 9800 Kincey Ave., Suite 100 Huntersville, NC 28078 Phone (704)875-9092 Fax (704)875-9091	Pace Analytical Ormond Beach 8 East Tower Circle Ormond Beach, FL 32174 Phone (386)672-5668

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Other	Preserved Containers: Unpreserved	Requested Analysis: Chlorate 300.1	Chlorite 300.1	Chloride 300.0	Alkalinity 2320B	Nitrate 300.0	Sulfate 300.0	LAB USE ONLY
1	13MW2	PS	10/13/2014 00:00	92221168001	Water	1	1	X	X					
2	13MW3	PS	10/13/2014 10:00	92221168002	Water	1	2	X	X	X	X	X	X	
3	13MW4	PS	10/13/2014 11:50	92221168003	Water	1	2	X	X	X	X	X	X	
4	13MWDUP	PS	10/13/2014 12:00	92221168004	Water	1	2	X	X	X	X	X	X	
5	13MW5	RQS	10/13/2014 13:00	92221168005	Water	1	2	X	X	X	X	X	X	
6	13MW6	PS	10/13/2014 14:05	92221168006	Water	1	2	X	X	X	X	X	X	
7	13MW7	PS	10/13/2014 14:55	92221168007	Water	1	2	X	X	X	X	X	X	
8	13MW8	PS	10/13/2014 11:00	92221168008	Water	1	2	X	X	X	X	X	X	

Transfers	Released By	Date/Time	Received By	Date/Time
1	[signature]	10/14/14 11:21	[signature]	10/14/14 0940
2				
3				

Comments: * client requires Level IV data packages along with MDL & DOC studies.

3134 1

Cooler Temperature on Receipt 1.6 °C | Custody Seal Y or N | Received on Ice Y or N | Samples Intact Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document. This chain of custody is considered complete as is since this information is available in the owner laboratory.

CHAIN OF CUSTODY RECORD

CK JLK 9/29-2014

Laboratory: Pace Analytical Services, Inc. / 8 East Tower Circle / Ormond Beach, FL 32174 / (386) 676-4813 Attn: Jeff Baylor(Project Mngr.)

Client:	Draper Aden Associates	**Consultant:**	Draper Aden Associates	**Sample Site:**	RAAP, Radford, Virginia
Attn:	0	**Attn:**	Janet C. Frazier		
Address:	0	**Address:**	2206 South Main Street	**Location:**	Open Burning Ground (OBG)/HWMU13
	0		Blacksburg, Virginia 24060		
Phone:	0	**Phone:**	(540) 552-0444	**Event:**	October 2014 AnnualGW Monitoring Event
Fax:	0	**Fax:**	(540) 552-0291	**DAA JN:**	B03204-12
Fax:	0			**Lab JN:**	

Project Specific (PS) or Batch (B) QC: YES
Sample Collection for Project Complete? YES
PS
Carrier: 12-237-301-01-9720-3758
Tracking Number:

Box 1: Matrix
SW Surface Water; GW Groundwater; L Leachate; S Soil; T Trip Blank; E Equipment Blank; P Product; O Other

Box 2: Preservative
A HCL; B HNO_3; C H_2SO_4; D $Na_2S_2O_3$; E NaOH; F ZnAc; G Other (Specify); H None

Box 3: Filtered/Unfiltered
F Filtered; U Unfiltered

Box 4: Sample Type
G Grab; C Composite

Box 5: Sample Container Type
P Plastic; AG Amber Glass; V VOA; CG Clear Glass

Invoice
Copy to Consultant: YES
Bill: CLIENT OTHER
Preserved and shipped on ice: YES

Box 4 - Sample Type				G	G									
Box 3 - Filtered/Unfiltered				U	U									
Required pH of Sample				N/A	N/A									
Box 2 - Preservative				G	H									
Box 5 - Sample Container Type				2-125 mL AG	1-250ml P									
Sample ID	2014	Time	Box 1: Matrix	Number of Bottles	EC300.1 - (Chlorate & Chlorite ONLY) preserved with Ethylene Diamine (EDA)	EC300.0 - (Chloride ONLY)	Alkalinity - 2320B	EC300.0- (Nitrate, Sulfate ONLY)						
13MW2	10/13		GW	4 3	X	X								
13MW3		1000	GW	4 3	X	X	X	X						
13MW4		1450	GW	4 3	X	X	X	X						
13MWDUP		1200	GW	4 3	X	X	X	X						
13MW5		1300	GW	5	X	X	X	X						
13MW6		1405	GW	4 3	X	X	X	X						
13MW7		1455	GW	4 3	X	X	X	X						
13MW8		1100	GW	4 3	X	X	X	X						
				21 10-9-14										

GENERAL NOTES:
1. Level 4 deliverable with EDD and pdf.
2. VELAP accreditation required.
3. REPORT DL/QL and estimated results.
4. Nitrate = 48hr Holdtime JLK 9/29/2014

USE FOR QC

Clients Special Instructions: level 4 with edd.

Received by lab in Good Condition ✓ Yes ___ No Custody Seal Intact ✓ Yes ___ No Temperature upon arrival 1.6 T186 Received on Ice ✓ Yes ___ No
Describe problems, if any:

Sampler Name (Print):	KEN CODDINGTON	Date: 10/13/14	#1 Relinquished by (Signature):		Date: 10/13/14	#2 Relinquished by (Signature):	Date:
Sampler Signature:		Time: 0700	Company Name:	DAA	Time: 1700	Company Name:	Time:
Sampler Name (Print):	Will Mason-Deese	Date: 10/13/14	#1 Received by (Signature):		Date: 10/14/14	#2 Received by (Signature):	Date:
Sampler Signature:		Time: 0700	Company Name:	PACE Stacie Pannello	Time: 0940	Company Name:	Time:

Sample Storage
Time Requested:
30 DYS ORG/6 MTHS INORG

1/1 9/29/14

Pace Analytical	Document Name: Sample Condition Upon Receipt Form	Document Revised: August 11, 2014
	Document No.: F-FL-C-007 rev. 06	Issuing Authority: Pace Florida Quality Office

Sample Condition Upon Receipt Form (SCUR)

Table Number: _____

Client Name: Draper Aden Assoc Project # 35159080

Cooler: ☐ Fed Ex ☑ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other _____

Tracking # 1Z2373010197203758

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐ no

Date and Initials of person examining contents: 10/14/14 SG 0940

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

Thermometer Used T186 Type of Ice: (Wet) Blue None

Cooler Temperature °C 1.6 (Visual) 0 (Correction Factor) 1.6 (Actual)

(Temp should be above freezing to 6°C) If below 0°C, then was sample frozen? ☐ Yes ☐ No

Receipt of samples satisfactory: ☑ Yes ☐ No

Rush TAT requested on COC:

If yes, then all conditions below were met:	If no, then mark box & describe issue (use comments area if necessary):
Chain of Custody Present	☐
Chain of Custody Filled Out	☐
Relinquished Signature & Sampler Name COC	☐
Samples Arrived within Hold Time	☐
Sufficient Volume	☐
Correct Containers Used	☐
Containers Intact	☐
Sample Labels match COC (sample IDs & date/time of collection)	☐ No Labels: ☐ No Time/Date on Labels: ☐
Containers needing preservation are found to be in compliance with EPA recommendation.	☐
Headspace in VOA Vials (>6mm):	☐

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____

Comments/ Resolution (use back for additional comments): _____

Project Manager Review: _____ Date: _____

Finished Product Information Only

F. Sample ID: _____

Production Code: _____

Date/Time Opened: _____

Number of Unopened Bottles Remaining: _____

Client Sample in Shed: Yes No

Size & Qty of Bottles Received

_____ x 5 Gal
_____ x 2.5 Gal
_____ x 1 Gal
_____ x 1 Liter
_____ x 500 mL
_____ x 250 mL
_____ x Other: _____

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Engineering • Surveying • Environmental Services
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Data Validation Summary
Fourth Quarter 2014 Semiannual Corrective Action Groundwater Monitoring
Open Burning Ground (OBG) - HWMU 13
Radford Facility Army Ammunition Plant, Radford, Virginia
EPA ID# VA1210020730

Draper Aden Associates performed a comprehensive manual review of the analytical results for the Fourth Quarter 2014 semiannual Corrective Action groundwater monitoring event at the Open Burning Ground (HWMU 13) located at the Radford Army Ammunition Plant (Radford AAP) in Radford, Virginia. The monitoring event also served as the annual Corrective Action monitoring event. The Fourth Quarter 2014 groundwater monitoring activities were conducted in accordance with the Corrective Action Program, approved by VDEQ September 27, 2011 as well as the Class 2 Permit Modification approved by VDEQ June 18, 2013 and the VDEQ approved Class 1 Permit Modification dated June 12, 2014 and incorporated into the Permit. Groundwater samples collected from the Corrective Action monitoring well network during the Fourth Quarter 2014 semiannual monitoring event were analyzed for the constituents listed in Permit Attachment VII.B (*Semi-Annually Monitored Natural Attenuation Parameters and Analytical Methods*). Additionally, groundwater samples collected from the point of compliance wells (wells 13MW3 through 13MW7) were analyzed for the constituents listed in Permit Attachment VII.C (*Corrective Action Program - Annual Groundwater Monitoring List for Radford OBG#13*). The following information and attached table summarize the data validation results.

Sample Collection/Analytical Services

Draper Aden Associates, of Blacksburg, Virginia, collected the semiannual groundwater samples monitoring samples on October 13, 2014. As a result of the Class 2 Permit Modification noted above, this event included sampling of the newly installed plume monitoring well 13MW8 and removal of background monitoring well 13MW1 from the monitoring well network.

Samples were submitted for laboratory analysis via courier to CompuChem, a Division of Liberty Analytical, (CompuChem), of Cary, North Carolina; Eurofins Lancaster Laboratories Environmental, (ELLE), Lancaster Pennsylvania; Microbac Laboratories, (Microbac), of Marietta, Ohio; and Pace Analytical Services, Inc., (Pace), of Ormond Beach, Florida. Each laboratory is a VELAP accredited laboratory for the analytes, methods, and matrix as listed on their certificates of analysis. The chain of custody and permit required target analytes submitted to each laboratory is provided as an attachment.

Receipt of Monitoring Event Data

On behalf of BAE Systems, Ordnance Systems, Inc. each laboratory submitted results to Draper Aden Associates in a final certificate of analysis which included analytical results as well as relevant documentation to verify and validate the results. Final revisions were received on November 3, 2014.

2206 South Main Street ◆ Blacksburg, VA ◆ 24060 ◆ (540) 552-0444 ◆ Fax: (540) 552-0291
Charlottesville ◆ Hampton Roads ◆ Richmond

Verification Events

No verification sampling was required.

Data Presentation

Draper Aden Associates performed a comprehensive review of the analytical results as presented on the attached data validation reports and summary table. Sample results were reported by the laboratory and validated to at or above the method detection limit (MDL). A reported value for a target analyte detected between the MDL and the quantitation limit (QL) should be considered an estimated concentration. No results were rejected based on the data validation criteria.

Detection limits and quantitation limits are presented on the Data Validation Report Summary Table. Sample/blind field duplicate results (13MW4/13MWDUP and 13MW3/13DUP2 – 8260C volatiles only) are presented on the Data Validation Report Summary Table. The data validation results are summarized on the attached reports and table. A summary of the required methods of analysis is provided below.

Summary of Required Analytical Methods and Laboratory

Analytical Method	Laboratory/ SDG	Monitoring Well							
		13MW2	13MW3	13MW4	13MWDUP (13MW4)	13MW5	13MW6	13MW7	13MW8
8260C Volatiles VII.B list	ELLE RAE25	X							X
8260C Volatiles VII.C list	ELLE RAE25		X	X	X (13MW3)	X	X	X	
8270C Semivolatiles	ELLE RAE25		X	X	X	X	X	X	
8330B Energetics	Microbac L14100924		X	X	X	X	X	X	
RSK175-M Methane	ELLE RAE25	X	X	X	X	X	X	X	X
6010C Dissolved Iron and Manganese	CompuChem 1410112		X	X	X	X	X	X	X
6020A/7470A Metals	CompuChem 1410111		X	X	X	X	X	X	
6850 Perchlorate	Microbac L14100924	X	X	X	X	X	X	X	X
9060A TOC/DOC	Microbac L14100924		X	X	X	X	X	X	X
300.1 Anions Chlorate/Chlorite	Pace 92182362	X	X	X	X	X	X	X	X
300.0 Chloride	Pace 92221168	X	X	X	X	X	X	X	X
300.0 Anions (Nitrate (as N)/Sulfate	Pace 92221168		X	X	X	X	X	X	X
2320B Alkalinity	Pace 92221168		X	X	X	X	X	X	X

Note: 13MW2 upgradient background monitoring well. 13MW8 plume monitoring well. Remaining monitoring locations are compliance wells. See Permit and Permit Attachments VII.B (semiannual list) and VII.C (annual list) for specific monitoring parameters for each monitoring well. 13MW1 was removed from the well monitoring network.

LIMITATIONS:

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Conclusions presented are based upon a review of available information, the results of our field studies, and/or professional judgment. To the best of our knowledge, information provided by others is true and accurate, unless otherwise noted.

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Draper Aden Associates
Engineering ♦ Surveying ♦ Environmental Services

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2-26-2015
Date:

SW-846 METHOD 8260C VOLATILE ORGANICS DATA REVIEW SUMMARY

Draper Aden Associates performed a comprehensive manual review of the analytical results for the October 13, 2014 semiannual Corrective Action groundwater monitoring event at the Open Burning Ground (HWMU13) located at the Radford Facility Army Ammunition Plant (RFAAP), Radford, Virginia. Draper Aden Associates collected groundwater samples from monitoring wells 13MW2, 13MW3, 13MW4, 13MW5, 13MW6, 13MW7 and 13MW8. Groundwater sample 13MWDUP2 was submitted to the laboratory as a blind field sample duplicate for 13MW3.

Samples 13MW3, 13MW4, 13MW5, 13MW6 and 13MW7 (compliance wells) were analyzed for the 18 volatile target analytes by USEPA SW-846 Method 8260C listed on the permit attachment VII.C (*Corrective Action Program - Annual Groundwater Monitoring List for Radford OBG#13)*. Sample 13MW2 (upgradient well) and 13MW8 (plume well) were analyzed for the four volatile target analytes by USEPA SW-846 Method 8260C listed on the permit attachment VII.B (*Semi-Annually Monitored Natural Attenuation Parameters and Analytical Methods*).

Draper Aden Associates sent samples to Eurofins Lancaster Laboratories Environmental, (ELLE), of Lancaster, Pennsylvania. Lancaster performed the SW-846 Method 8260C volatile analysis. ELLE submitted results to Draper Aden Associates in a final certificate of analysis, which included sample analytical results as well as relevant documentation to validate and verify the results. ELLE is a VELAP accredited laboratory for the above analytes, method, and matrix.

The evaluation of ELLE's compliance with Method 8260C and validation of the results were based on a review of the following items: QC deliverables package, QC history documentation, technical holding times and preservation requirements, instrument performance (tune) check, instrument calibration and calibration verification data, blank samples analyses, surrogate spike recoveries, matrix spike and matrix spike duplicate (MS/MSD) analyses, laboratory control sample (LCS) data, internal standards requirements, and/or target analyte identification and quantitation. A review of transcriptions from instrument data to sample summary sheets was performed. Calculation verifications were performed on a minimum ten percent of the data set. A summary of data review results with observed deviations is provided below.

ELLE received the samples on ice and in good condition, with custody seals intact. Technical holding times and preservation criteria were met, except where noted. The chain of custody was appropriately signed and dated by field and laboratory personnel.

The original certificate of analysis was received on October 29, 2014. The certificate of analysis was complete and the data were of acceptable quality. The data set demonstrated the ability of the laboratory to achieve the quantitation limit (QL) for each target analyte, unless noted below.

QC deliverables package requirements were met. QC history documentation and instrument performance check criteria were met. Initial calibration, calibration verification, blanks, surrogates, MS/MSD, LCS and internal standards criteria were met, except where noted below. Sample results were verified and no transcription errors were observed.

Field duplicate results and sample results for 13MW3 exhibited acceptable precision, where applicable.

ELLE analysis was performed using a 25 ml purge volume and results were reported to at or above the detection limit. Sample results unaffected by the data validation process and not detected at or above the detection limit were validated and reported as "U." Results reported between the detection limit and QL were qualified as "J" to reflect the estimated concentration. No results were rejected based on the data validation criteria.

SW-846 METHOD 8260C (GC/MS) VOLATILE ORGANICS DATA VALIDATION

Eurofins Lancaster Laboratories Environmental, Lancaster, PA; SDG: RAE25

Comments: *Volatile organic analysis uses a purge and trap system to remove volatile organic target analytes from a 25 ml water sample (SW-846 5030C). Target analytes are separated and quantified using a capillary column gas chromatograph (GC)/mass spectrometer (MS).*

A. QC DELIVERABLES PACKAGE:

1.	Was the case narrative present/signed by a lab representative?	☑ YES ☐ NO
2.	Was the Chain of Custody present/signed by a lab representative?	☑ YES ☐ NO
3.	Were the sample results included for the sample locations?	☑ YES ☐ NO
4.	Did the laboratory report the required target analytes?	☑ YES ☐ NO
5.	Were the analyte QLs reported on reports in agreement with the instrument specific MDL study and project required QL?	☑ YES ☐ NO
6.	Were the sample locations, analytes and QLs in agreement with the electronic deliverable (EDD)?	☑ YES ☐ NO
7.	Passed single blind performance evaluation sample within 12 mo?	☑ YES ☐ NO

Comments: QC deliverables package requirements were met.

B. QC HISTORY DOCUMENTATION CRITERIA:

1.	Was an instrument specific MDL study provided which included DL and QL values for the target analytes?	☑ YES ☐ NO
2.	Was the instrument calibration range provided?	☑ YES ☐ NO
3.	Were the instrument specific check sample data provided for the target analytes?	☑ YES ☐ NO

Comments: QC history documentation was provided and met criteria. The laboratory analyzed a MDL check sample at 0.1 µg/l (25 ml purge) for most target analytes

C. TECHNICAL HOLDING TIME AND PRESERVATION CRITERIA:

1.	Was the 14-day sample collection to analysis holding time met?	☑ YES ☐ NO
2.	Were the samples received at ≤6°C, zero headspace?	☑ YES ☐ NO
3.	Were the sample pHs adjusted to < 2 with HCl?	☑ YES ☐ NO
	Was a separate sample aliquot adjusted with HCl to a pH between 4-5? (For analysis of acrolein only).	☑ NA YES☐ NO

Comments: Technical holding time and sample preservation criteria were met.

D. GC/MS INSTRUMENT PERFORMANCE (TUNING) CHECK CRITERIA:

1. Was analysis of the instrument performance check solution performed at the beginning of each 12-hour period during which standards or samples were analyzed? ☑ YES ☐ NO
2. Was there documentation of the injection of 5-50 ng bromofluorobenzene (BFB)? ☑ YES ☐ NO
3. Were the ion abundance criteria met? ☑ YES ☐ NO
4. Were calibration, blank, and sample analyses performed within 12 hours of tuning? ☑ YES ☐ NO

Comments: Instrument performance check criteria were met.

E. INITIAL GC/MS CALIBRATION CRITERIA:

SW-846 Criteria:

1. Was the internal standard (IS) which was selected for target analyte RF calculation the IS which had the closest retention time? ☑ YES ☐ NO
2. Were the target analytes included in the ICAL? ☑ YES ☐ NO
3. Were any calibration levels removed from the curve that would negatively influence the data integrity? ☐ YES ☑ NO
4. Did the ICALs consist of a minimum of 5 calibration levels? ☑ YES ☐ NO
5. Was the lowest concentration calibration standard at or below the associated MCL? ☑ YES ☐ NO
6. Was the calibration curve developed using the same purge volume used for sample analysis? ☑ YES ☐ NO
7. Were 8260C minimum Relative Response Factor (RRF) criteria met? *Refer to Table 4- SW-846 Method 8260C (Rev3 2/06) for specific analyte RRFs* ☑ YES ☐ NO
8. Was each target analyte %RSD ≤ 20%? ☑ YES ☐ NO
9. Was the correlation coefficient >0.99 for target analytes with ≥20% RSD? (*System recalibrated if >10% analytes fail above condition)* ☑ NA ☐ YES ☐ NO
10. Was an initial calibration verification (ICV) standard analyzed immediately following the ICAL? ☑ YES ☐ NO
11. Was the recovery within 70-130%? ☑ YES ☐ NO
12. Was the ICV standard prepared from a different source from the ICAL ? ☑ YES ☐ NO

Method Validation Performance Criteria:

1. Did target analytes and surrogates that have RSDs >20% have ≥0.99 correlation coefficient or coefficient of determination? ☑ NA ☐ YES ☐ NO
2. For linear regression curves, was the recalculated concentration of the low calibration point within ±30%? ☑ NA ☐ YES ☐ NO
3. For quadratic curves, was a minimum six standards used? ☑ NA ☐ YES ☐ NO

Comments: Initial calibration criteria were met.

F. CALIBRATION VERIFICATION CRITERIA:

SW-846 Criteria:

1. Was a calibration verification analyzed at the beginning of each 12-hour period following the analysis of the instrument performance check and prior to analysis of the method blank and samples? The calibration verification may be part of the ICAL or analyzed independently during another 12-hour analysis period. ☑ YES ☐ NO
2. Were 8260C minimum Relative Response Factor (RRF) criteria met? *Refer to Table 4- SW-846 Method 8260C (Rev3 2/06) for specific analyte RRFs* ☑ YES ☐ NO
3. Did the target analytes and system monitoring analytes (surrogates) have the % D within ± 20%? ☑ YES ☐ NO
   If "NO", list analytes that exceed these criteria:

Draper Aden Associates Contractual Requirements:

1. Did the target analytes and system monitoring analytes (surrogates) have % Ds within ± 20%? ☑ YES ☐ NO

Comments: Calibration verification criteria were met.

G. BLANK CRITERIA:

1. Was a method blank analyzed after the calibration standards, prior to sample analysis, and once for every 12-hour period beginning with the injection of BFB? ☑ YES ☐ NO
2. Was a trip blank analyzed with this sample batch? ☑ YES ☐ NO
3. Were the trip blanks and method blanks interference free? ☑ YES ☐ NO
4. Was the level of blank contamination less than 5% of the regulatory limit associated with an analyte or less than 5% of the sample result for the same analyte, whichever is greater? ☑ NA ☐ YES ☐ NO
5. List target analytes detected in the blanks: *None*
6. Did any result exceed the calibration range? ☐ YES ☑ NO
7. Were one or more blanks analyzed following the high concentration sample to prevent cross contamination? ☑ NA ☐ YES ☐ NO

Comments: Blank criteria were met. A trip blank was analyzed for each day of sample collection.

H. SURROGATE CRITERIA:

SW-846 Criteria:

1. Were the following surrogates used? ☑ YES ☐ NO
   - dibromofluoromethane (80-120%)
   - 4-bromofluorobenzene (80-120%)
   - toluene-d8 (80-120%)
   - 1,2-dichloroethane-d4 (80-120%)
2. Were recoveries within specified ranges? ☑ YES ☐ NO
   If "NO", corrective action is required. Flagging of the data as estimated

is not acceptable until corrective action has been attempted

3. Were samples with surrogates outside the QC window reanalyzed as required? ☑ NA ☐ YES ☐ NO

Comments: Surrogate criteria were met.

I. MATRIX SPIKE, MATRIX SPIKE DUPLICATE (MS/MSD) CRITERIA:

(MS/MSD Requirements - CLP Guidelines)

Analyte	*% R Water*	*% RPD Water*
1,1-dichloroethene	61-145	14
trichloroethene	71-120	14
benzene	76-127	11
toluene	76-125	13
chlorobenzene	75-130	13

1. Was a matrix spike and matrix spike duplicate (MS/MSD) analyzed per sample batch or every 20 samples, whichever may occur first? ☑ YES ☐ NO
2. Did the MS/MSD spike contain additional target analytes? ☑ YES ☐ NO
3. Was the MS/MSD analyzed on the specific project matrix? ☑ YES ☐ NO
4. MS/MSD acceptance range: 75-125%; 70-130% for poor purge analytes
   RPD ≤20 if not otherwise specified.
   Were analytes qualified as estimated due to MS/MSD criteria? ☐ YES ☑ NO
   - If yes, and the LCS for the analyte(s) recovered within control limits, matrix interference is suspected.

Comments: MS/MSD criteria were met.

J. LABORATORY CONTROL SAMPLE (LCS) CRITERIA:

1. Was a LCS included in the sample batch analysis? ☑ YES ☐ NO
2. Did the LCS contain the required target analytes? ☑ YES ☐ NO
3. List the LCS acceptance criteria: 80-120%; 70-130% - poor purge analytes
4. Were any analytes flagged as estimated? ☐ YES ☑ NO

Comments: LCS criteria were met.

K. INTERNAL STANDARDS (IS) CRITERIA:

1. Were the following internal standards (IS) used? ☑ YES ☐ NO
   t-butyl alcohol-d10, fluorobenzene, chlorobenzene-d_5, 1,4-dichlorobenzene-d_4
2. Were IS areas within - 50% to + 100% of the last CV? ☑ YES ☐ NO
3. Were IS RTs within ± 30 seconds of the last CV? ☑ YES ☐ NO
4. Were samples failing Items 2 and/or 3 above reanalyzed as required by the method? ☑ NA ☐ YES ☐ NO

Comments: Internal standards criteria were met.

L. TARGET ANALYTE IDENTIFICATION:

1. Were the RRTs of the reported analytes within ± 0.06 RRT units of the standard RRT? ☑ YES ☐ NO
2. Check the sample spectra against the laboratory standard spectra to see that the following criteria were met:
   * Did characteristic ions maximize in the same scan or within one scan of each other? ☑ YES ☐ NO
   * Were the characteristic ions present in the standard spectra and sample spectra for analytes detected above the QL? ☑ YES ☐ NO
   * Were the relative intensities of the ions between the standard and sample spectra within ± 30%? ☑ YES ☐ NO
3. Were the reported analytes confirmed? ☑ YES ☐ NO

Comments: See attached table for detected analytes. Identification criteria were met.

M. TARGET ANALYTE QUANTITATION:

* If the %RSD of an analyte was 20% or less, then the average relative response factor should have been used for quantitation.
* If the %RSD of an analyte was greater than 20%, then the quantitation should have been based on a calibration curve using the first or higher order regression fit of the five calibration points. (6 calibration points for 2nd order).

1. List the detected analytes whose %RSD was > 20%: *None*
   - Was quantitation based on a linear regression fit? ☑ NA ☐ YES ☐ NO
2. Did the initial analysis of any sample have a concentration of an analyte which exceeded the initial calibration range? ☐ YES ☑ NO
   If so, was the sample reanalyzed at a higher dilution? ☑ NA ☐ YES ☐ NO
3. Were the analyte concentrations that were recorded on the raw sample quantitation reports accurately transferred to the sample summary sheets? ☑ YES ☐ NO
4. Were field sample duplicate RPDs <20? ☑ YES ☐ NO

Comments: Target analyte quantitation criteria were met, where applicable.

N. CORRECTIVE ACTION TAKEN AND GENERAL COMMENTS:

Comments: Library searches were not requested. Calculation checks were performed on a minimum ten percent of the data set. The IDOC for analyst K. Sposito was submitted previously.

REFERENCES:

Draper Aden Associates conducted data validation of the above noted data set using summary tables and raw data provided by the analyzing laboratory. Data validation was conducted in general accordance with SW-846 Method requirements (Test Methods for Evaluating Solid Wastes - Physical and Chemical Methods, USEPA SW-846, 3rd edition - Final Update I, II/IIA, III and subsequent updates) and CLP data validation guidelines (USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, October 1999 and USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review, June 2008, where applicable). Validation of this data set is limited to the items detailed in this report.

LIMITATIONS:

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Draper Aden Associates
Engineering ♦ Surveying ♦ Environmental Services

This Report has been prepared by:

Kathy Olsen

2/18/15

Kathy Olsen, Environmental Scientist
2206 South Main Street, Blacksburg, Virginia 24060
540-552-0444, kolsen@daa.com, www.daa.com

Date:

This Report has been subjected to technical and quality review by:

2/23/15

Janet C. Frazier, Project Manager
2206 South Main Street, Blacksburg, Virginia 24060
540-552-0444, jfrazier@daa.com, www.daa.com

Date:

SW-846 METHOD 8270D SEMIVOLATILE DATA REVIEW SUMMARY

Draper Aden Associates performed a comprehensive manual review of the analytical results for the October 13, 2014 semiannual groundwater monitoring event at the Open Burning Ground (HWMU 13) located at the Radford Facility Army Ammunition Plant (RFAAP), in Radford, Virginia. Draper Aden Associates collected groundwater samples from monitoring wells 13MW2, 13MW3, 13MW4, 13MW5, 13MW6, 13MW7 and 13MW8. Groundwater sample 13MWDUP was submitted to the laboratory as a blind sample duplicate for 13MW4.

Samples 13MW3, 13MW4, 13MW5, 13MW6 and 13MW7 (compliance wells) were analyzed for the 25 semivolatile target analytes by SW-846 Method 8270D listed in permit attachment by VII.C (*Corrective Action Program - Annual Groundwater Monitoring List for Radford OBG#13).* Sample 13MW2 (upgradient wells) and 13MW8 (plume well) were not analyzed for any constituents on the above noted attachment. The following information and attached table summarize the organic data review results.

Draper Aden Associates sent samples to Eurofins Lancaster Laboratories Environmental, (ELLE), of Lancaster, Pennsylvania. ELLE performed the SW-846 Method 8270D semivolatile analysis. ELLE submitted results to Draper Aden Associates in a final certificate of analysis, which included sample analytical results as well as relevant documentation to validate and verify the results. ELLE is a VELAP accredited laboratory for the above analytes, method, and matrix.

The evaluation of ELLE's compliance with Method 8270D and validation of the results was based on a review of the following items: QC deliverables package, QC history documentation, case narrative, technical holding time and preservation requirements, instrument performance (tune) check, instrument calibrations, blank analysis, surrogate spike recoveries, matrix spike and matrix spike duplicate (MS/MSD) analyses, laboratory control sample (LCS) data, and internal standard requirements. A review of the transcriptions from instrument data to sample summary sheets was performed. Calculation verifications were performed on a minimum ten percent of the data set. The following information is intended to summarize data review results and any observed significant deviations from method and/or contractual requirements.

The laboratory received the samples on ice and in good condition with custody seals intact. The chain of custody was appropriately signed and dated by field and laboratory personnel with one exception. Applicable holding time and preservation criteria were met for the samples.

The original certificate of analysis was received on October 29, 2014. The certificate of analysis was complete and data were of acceptable quality, except where noted below. The data set demonstrated the laboratory's ability to achieve the required quantitation limit (QL), except where noted below.

QC history documentation, instrument performance check (tuning) criteria, calibration, blank, surrogate, MS/MSD, LCS and internal standard requirements were met, except where noted below. Sample results were reviewed for transcription errors from the instrument data to the

laboratory report and no errors were noted. No deviations from specific QA/QC criteria were identified during the data review process.

Field duplicate/sample results exhibited acceptable precision, where applicable.

Due to analytical limitations, 3-methylphenol and 4-methylphenol cannot be analyzed separately. 3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The results reported for 3-methylphenol and 4-methylphenol represent the combined total for both compounds. N-Nitrosodiphenylamine decomposes during analysis to form diphenylamine. The results reported for diphenylamine represent the combined total for both compounds.

Results were reported to at or above the detection limit. Sample results unaffected by the data validation process and not detected at or above the detection limit were validated and reported as "U." Results reported between the detection limit and QL were qualified as "J" to reflect the estimated concentration. For this event, phenol was detected below the QL in 13MW7. No other target analytes were detected at or above the detection limit or QL in any other sample. No results were rejected based on the data validation criteria.

SW-846 METHOD 8270D (GC/MS) SEMIVOLATILE ORGANIC DATA VALIDATION

Eurofins Lancaster Laboratories Environmental, Lancaster, PA; SDG: RAE25

Comments: *Semivolatile (a.k.a, base/neutral and acid extractables) analysis involves sample preparation using extraction technique SW-846 Method 3510C. The semivolatile extracts are concentrated through evaporation. Target analytes are separated and quantified using a capillary column gas chromatograph (GC)/mass spectrometer (MS).*

A. QC DELIVERABLES PACKAGE:

1.	Was the case narrative present/signed by a lab representative?	☑ YES ☐ NO
2.	Was the Chain of Custody present/signed by a lab representative?	☑ YES ☐ NO
3.	Were the sample results included for the sample locations?	☑ YES ☐ NO
4.	Did the data correspond to the project specific analyte list?	☑ YES ☐ NO
5.	Were target analyte QLs reported on sample summary sheets in agreement with the instrument specific MDL study?	☑ YES ☐ NO

Comments: QC deliverables package criteria were met.

B. QC HISTORY DOCUMENTATION CRITERIA:

1.	Were instrument specific detection limits provided for analytes?	☑ YES ☐ NO
2.	Were the instrument specific QLs for target analytes provided?	☑ YES ☐ NO
3.	Was calibration range specified for the target analytes?	☑ YES ☐ NO

Comments: QC history documentation criteria were met.

C. TECHNICAL HOLDING TIME AND PRESERVATION CRITERIA:

1.	Was the 7-day sample collection to extraction holding time met?	☑ YES ☐ NO
2.	Was the 40-day extraction to analysis holding time met?	☑ YES ☐ NO
3.	Were the samples received at ≤6°C?	☑ YES ☐ NO

Comments: The sample collection to extraction/analysis holding times and preservation criteria were met.

D. GC/MS INSTRUMENT PERFORMANCE CHECK CRITERIA:
(Tuning, Injection Port and Column Performance)

1.	Was analysis of the instrument performance check solution performed at the beginning of each 12-hour period of standard and/or sample analysis?	☑ YES ☐ NO
2.	Was there documentation of the injection of 50 ng of DFTPP?	☑ YES ☐ NO
3.	Were ion abundance criteria met?	☑ YES ☐ NO
4.	Was the injection port inertness verified by analysis of 4,4'-DDT?	☑ YES ☐ NO

5. Was the degradation of DDT to DDE and DDD <20%? ☑ YES ☐ NO
   - If no, does associated data require qualification? ☑ NA ☐ YES ☐ NO
   - Was the injection port inertness check acceptable? ☑ YES ☐ NO
6. Was column performance checked through the analysis of peak tailing (<2 tailing factor) of pentachlorophenol and benzidine? ☑ YES ☐ NO
   - If no, does associated data require qualification? ☑ NA ☐ YES ☐ NO
   - Was column performance check acceptable? ☐ NA ☑ YES ☐ NO

Comments: Instrument performance check criteria were met.

E. INITIAL GC/MS CALIBRATION CRITERIA:

SW-846 Criteria:

1. Were the initial calibrations (ICAL) and any directly associated blanks and samples analyzed within 12-hours of the associated instrument performance (tune) check? ☑ YES ☐ NO
2. Were quantitation ions, used and listed on data, randomly checked against primary quantitation ions as required by Method 8270D? ☑ YES ☐ NO
3. Were target analytes included in the ICAL? ☑ YES ☐ NO
4. Did the ICAL consist of a minimum of 5 calibration levels? ☑ YES ☐ NO
4. Was the lowest concentration calibration standard at or below the associated MCL, regulatory compliance, or action limit? ☑ YES ☐ NO
6. Were calibration standards dropped to meet calibration criteria? ☐ YES ☑ NO
7 Were 8270D minimum RRF criteria met?
   Relative Response Factor-range (RRF 0.010-0.900) ☑ YES ☐ NO
   **Refer to Table 4 of SW-846 Method 8270D (Rev4 2/07) for specific analyte RRFs*
8. Was each target analyte %RSD ≤ 20%? ☑ YES ☐ NO
9. Was the correlation coefficient or coefficient of determination >0.99 for target analytes with > 20% RSD? ☑ NA ☐ YES ☐ NO
   **System recalibrated if > 10% analytes fail above condition*
10. Was an initial calibration verification (ICV) standard analyzed immediately following the ICAL? ☑ YES ☐ NO
11. Was the recovery within 70-130%? ☑ YES ☐ NO
12. Was the ICV standard prepared from a different source from the ICAL ? ☑ YES ☐ NO

Method Validation Performance Criteria:

1. Did target analytes and surrogates that have RSDs > 20% have ≥0.99 correlation coefficient or coefficient of determination? ☑ NA ☐ YES ☐ NO
2. For linear regression curves, was the recalculated concentration of the low calibration point within ±30%? ☑ NA ☐ YES ☐ NO
3. For quadratic curves, was a minimum six standards used? ☑ NA ☐ YES ☐ NO

Comments: Initial calibration criteria were met.

F. CALIBRATION VERIFICATION CRITERIA:

SW-846 Criteria:

1. Was a calibration verification analyzed at the beginning of each 12-hour period following the analysis of the instrument performance check and prior to analysis of the method blank and samples? The calibration verification may be part of the ICAL or run independently on another 12-hour analysis period. ☑ YES ☐ NO
2. Was each target analyte % difference/drift ≤ 20%? ☑ YES ☐ NO
   (Corrective action if >20% of analytes in ICAL fail above condition)
3. Were 8270D minimum RRF criteria met?
   Relative Response Factor-range (RRF 0.010-0.900) ☑ YES ☐ NO
   **Refer to Table 4 of SW-846 Method 8270D (Rev4 2/07) for specific analyte RRFs*

Method Validation Performance Criteria:

1. Did target analytes and system monitoring analytes (surrogates) have % Ds within ± 20.0%? ☑ YES ☐ NO
   If "NO", list analytes that exceed this criterion:

Comments: Calibration verification criteria were met.

G. BLANK CRITERIA:

1. Was a method/extraction blank analyzed with each sample batch? ☑ YES ☐ NO
2. Was a trip blank analyzed with this sample batch? ☑ NA ☐ YES ☐ NO
3. Were the blank samples interference free? ☑ YES ☐ NO
4. Was the level of blank contamination > 5% of the MCL? ☑ NA ☐ YES ☐ NO
5. List target analytes detected in the blanks: *None*

Comments: Blank criteria were met.

H. SURROGATE CRITERIA:

1. Were the following surrogates used? ☑ YES ☐ NO
   - phenol - d_6 (10%-94%)
   - 2-fluorophenol (21%-100%)
   - 2,4,6-tribromophenol (10%-123%)
   - nitrobenzene – d_5 (43%-108%)
   - 2-fluorobiphenyl (43%-116%)
   - p-terphenyl - d_{14} (33%-141%)
2. Were recoveries within the specified ranges? ☑ YES ☐ NO
3. Were any two base/neutral or acid surrogates out of specification or did any one base/neutral or acid extractable surrogate have a recovery of less than 10%? ☐ YES ☑ NO
   If yes, was a re-extraction and reanalysis performed to confirm that the non-compliance was due to sample matrix effects rather than laboratory deficiencies? ☑ NA ☐ YES ☐ NO

Comments: Surrogate criteria were met.

I. MATRIX SPIKE/ MATRIX SPIKE DUPLICATE (MS/MSD) CRITERIA:

(MS/MSD Requirements - CLP Guidelines)

Analyte	% R Water	% RPD Water
Phenol	12-110	42
2-Chlorophenol	27-123	40
N-Nitroso-di-n-propylamine	41-116	38
4-Chloro-3-methylphenol	23-97	42
Acenaphthene	46-118	31
4-Nitrophenol	10-80	50
2,4-Dinitrotoluene	24-96	38
Pyrene	26-127	31

1. Was a MS/MSD analyzed per sample batch? ☑ YES ☐ NO
2. Did the MS/MSD contain additional target analytes? ☑ YES ☐ NO
3. Was the MS/MSD analyzed on the specific project matrix? ☑ YES ☐ NO
4. MS/MSD acceptance range: *See certificate of analysis*
   RPD ≤30 if not otherwise specified
5. Were analytes qualified as estimated due to MS/MSD criteria? ☐ YES ☑ NO
   - If yes, and the LCS for the analyte(s) recovered within control limits, matrix interference is suspected.

Comments: MS/MSD criteria were met.

J. LABORATORY CONTROL SAMPLE (LCS) CRITERIA:

1. Was a LCS included in the sample analysis? ☑ YES ☐ NO
2. Did the LCS contain the required target analytes? ☑ YES ☐ NO
3. List the LCS target analytes and laboratory recovery range.
   See semivolatile certificate of analysis.
4. Were any analytes qualified as estimated due to LCS criteria? ☐ YES ☑ NO

Comments: LCS criteria were met.

K. INTERNAL STANDARDS CRITERIA:

1. Were the following internal standards (IS) used? ☑ YES ☐ NO
   - 1,4-Dichlorobenzene-d_4
   - Naphthalene-d_8
   - Acenapththene-d_{10}
   - Phenanthrene-d_{10}
   - Chrysene-d_{12}
   - Perylene-d_{12}
2. Were IS areas within ± 50% of last CV? ☑ YES ☐ NO
3. Were IS RTs within ± 30 seconds of last CV? ☑ YES ☐ NO

Comments: Internal standard criteria were met.

L. TARGET ANALYTE IDENTIFICATION:

1. Were the RRTs of the reported analytes within ± 0.06 RRT units of the standard RRT? ☑ YES ☐ NO
2. Check the sample spectra against the laboratory standard spectra to see that the following criteria were met: ☑ YES ☐ NO
   * Did characteristic ions maximize in the same scan or within one scan of each other?
   * Were the characteristic ions present in the standard spectra present in the sample spectra for analytes detected above the QL?
   * Were the relative ion intensities between the standard and sample spectra within ± 30%?
3. Were the reported analytes confirmed? ☑ YES ☐ NO

Comments: Target analyte identification criteria were met. For this event, no target analytes were detected at or above the detection limit or QL in any sample.

M. TARGET ANALYTE QUANTITATION:

* If the %RSD of an analyte was 20% or less, then the average relative response factor should have been used for quantitation.
* If the %RSD of an analyte was greater than 20%, then the quantitation should be based on a calibration curve using the first or higher order regression fit of the five calibration points (6 calibration points for 2nd order).

1. List the analytes detected above the QL whose %RSD was >20%: *None*
   a. Was quantitation based on a linear regression fit? ☑ NA ☐ YES ☐ NO
   b. Was the curve forced through the origin? ☑ NA ☐ YES ☐ NO
2. Did the initial analysis of any sample have a concentration of a target analyte that exceeded the initial calibration range? ☐ YES ☑ NO
   -If so, was the sample reanalyzed at a higher dilution? ☑ NA ☐ YES ☐ NO
3. Were the analyte concentrations that were recorded on the raw sample quantitation reports accurately transferred to the sample summary sheets? ☑ YES ☐ NO

Comments: Target analyte quantitation criteria were met. For this event, no target analytes were detected at or above the detection limit or QL in any sample.

N. CORRECTIVE ACTION TAKEN AND GENERAL COMMENTS:

Comments: IDOCs were previously submitted. Library searches were not requested with this data set. Calculation checks were performed on a minimum 10 percent of the data set.

REFERENCES:

Draper Aden Associates conducted data validation of the above noted data set using summary tables and raw data provided by the analyzing laboratory. Data validation was conducted in general accordance with SW-846 Method requirements (Test Methods for Evaluating Solid Wastes -

Physical and Chemical Methods, USEPA SW-846, 3rd edition - Final Update I, II/IIA, III and subsequent updates) and CLP data validation guidelines (USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, October 1999 and USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review, June 2008, where applicable). Validation of this data set is limited to the items detailed in this report.

LIMITATIONS:

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Conclusions presented are based upon a review of available information, the results of our field studies, and/or professional judgment. To the best of our knowledge, information provided by others is true and accurate, unless otherwise noted. Draper Aden Associates' liability, hereunder, shall be limited to amounts due Draper Aden Associates for services actually rendered, or reimbursable expenses actually incurred. Any reuse or modification of any of the aforementioned documents (whether hard copies or electronic transmittals) prepared by Draper Aden Associates without written verification or adaptation by Draper Aden Associates will be at the sole risk of the individual or entity utilizing said documents and such use is without the authorization of Draper Aden Associates. Draper Aden Associates shall have no legal liability resulting from any and all claims, damages, losses, and expenses, including attorney's fees arising out of the unauthorized reuse or modification of these documents. Client shall indemnify Draper Aden Associates from any claims arising out of unauthorized use or modification of the documents whether hard copy or electronic.

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Draper Aden Associates
Engineering ♦ Surveying ♦ Environmental Services

This Report has been prepared by:

OKF L — 2/23/2015

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2/23/2015

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SW-846 METHOD 8330B DATA REVIEW SUMMARY

Draper Aden Associates performed a comprehensive manual review of the analytical results for the October 13, 2014 semiannual Corrective Action groundwater monitoring event at the Open Burning Ground (HWMU 13). Draper Aden Associates collected groundwater samples from monitoring wells 13MW2, 13MW3, 13MW4, 13MW5, 13MW6, 13MW7 and 13MW8. Groundwater sample 13MWDUP was submitted to the laboratory as a blind sample duplicate for 13MW4.

Samples 13MW3, 13MW4, 13MW5, 13MW6 and 13MW7 (compliance wells) were analyzed for the energetic constituents (1,3,5-trinitrobenzene; 1,3-dinitrobenzene; 2,4-dinitrotolune, 2,6-dinitrotolune and nitroglycerin) by SW-846 Method 8330B as listed in permit attachment by VII.C (*Corrective Action Program - Annual Groundwater Monitoring List for Radford OBG#13).* Samples 13MW2 (upgradient well) and 13MW8 (plume well) were not analyzed for these constituents. The following information summarizes the organic data review results.

Draper Aden Associates sent samples to Microbac Laboratories (Microbac), of Marietta, Ohio, for the analysis. On behalf of RFAAP, Microbac submitted results to Draper Aden Associates in a final certificate of analysis that included sample analytical results as well as relevant QA/QC and method performance criteria documentation to verify and validate the results. Microbac is a VELAP accredited laboratory for the above analytes, method, and matrix.

The evaluation of Microbac's compliance with Method 8330B and validation of the results was based on a limited review of the following items: QC deliverables package, QC history documentation, case narrative, technical holding time and preservation requirements, extraction procedures, instrument calibrations, blank analysis, surrogate spike recoveries, retention time, matrix spike (MS/MSD) analyses, and laboratory control samples (LCS), where applicable. Review of transcriptions from instrument data to sample summary sheets was performed. Specific representative calculations were performed on ten percent of the certificate of analysis. The following information is intended to summarize data review results and any observed significant deviations from method and/or contractual requirements.

The laboratory received the samples on ice and in good condition with custody seals intact. The chain of custody was appropriately signed and dated by field and laboratory personnel. Applicable holding time and preservation criteria were met for the samples.

The original certificate of analysis was received on October 30, 2014. The certificate of analysis was complete and the data were of acceptable quality. The data set exhibited the laboratory's ability to achieve the reported project quantitation limit (QL) as supported by the method detection limit (MDL) study, and QL standard.

QC history documentation and QC check sample criteria were met. Initial calibration, calibration verification, blank, surrogate, retention time, MS/MSD and LCS criteria were met except where noted below. Sample results were reviewed for transcription errors from the instrument data to the laboratory report and no errors were noted. No deviations from specific QA/QC criteria were identified during the review process.

No detections were reported in any sample at or above the detection limit or QL. Sample results were reported and evaluated to the detection limit. Sample results unaffected by the data validation process were validated and reported as "U."

SW-846 METHOD 8330B DATA VALIDATION

Mircrobac Laboratories, Marietta, OH; SDG: L14100924

Comments: *Solid phase extraction was performed on samples using SW846 Method 3535A. Explosive analysis- injection onto a reverse phase high performance liquid chromatograph (HPLC) using an ultraviolet detector.*

A. QC DELIVERABLES PACKAGE:

1.	Was case narrative present/signed by a laboratory representative?	☑ YES ☐ NO
2.	Was the Chain of Custody present/signed by a lab representative?	☑ YES ☐ NO
3.	Were sample results included for sample locations?	☑ YES ☐ NO
4.	Did the laboratory report results for project specific analyte list?	☑ YES ☐ NO
5.	Did the QLs reported on sample summary sheets agree with the instrument specific MDL study?	☑ YES ☐ NO

Comments: QC deliverables criteria were met. MDL study was provided as a revision.

B. INSTRUMENT QC HISTORY DOCUMENTATION CRITERIA:

1.	Was the specific extraction method specified?	☑ YES ☐ NO
2.	Were instrument specific DLs for the target analytes provided?	☑ YES ☐ NO
3.	Were instrument specific QLs for the target analytes provided?	☑ YES ☐ NO
4.	Were instrument specific check sample data provided?	☑ YES ☐ NO
5.	Was the calibration range specified?	☑ YES ☐ NO
6.	Were sample analysis log sheets provided?	☑ YES ☐ NO
7.	Were chromatograms and integration reports provided?	☑ YES ☐ NO

Comments: Instrument QC history documentation criteria were met.

C. CHECK SAMPLE CRITERIA: *(Initial Demonstration of Capability)*

1.	Did the check sample contain the required target analyte?	☑ YES ☐ NO
2.	Were the check samples analyzed in quadruplicate?	☑ YES ☐ NO
3.	Were the average recoveries reported?	☑ YES ☐ NO
4.	Were the standard deviations for the recoveries of target analytes quadruplicated and reported?	☑ YES ☐ NO

Comments: Check sample criteria were met. Analyst IDOC on file.

D. TECHNICAL HOLDING TIME AND PRESERVATION CRITERIA:

1. Was the 7-day sample collection to extraction holding time met? ☑ YES ☐ NO
2. Was the 40-day extraction to analysis holding time met? ☑ YES ☐ NO
3. Were the samples received at ≤6°C? ☑ YES ☐ NO

Comments: Preservation, extraction and analysis holding time criteria were met.

E. INITIAL HPLC CALIBRATION CRITERIA:

1. Were the target analyte and surrogate included in the ICAL? ☑ YES ☐ NO
2. Was a minimum five-point calibration analyzed prior to analyses? ☑ YES ☐ NO
3. Was the lowest calibration standard at or below the MCL, regulatory threshold or permit limit? ☑ YES ☐ NO
4. Was the Calibration Factor (CF) for the target analyte provided? ☑ YES ☐ NO
5. Was the % Relative Standard Deviation (%RSD) for target analyte CFs <20% over the established working range? ☑ YES ☐ NO
6. State the Quantitation Method used by the laboratory: *Calibration Factor.*
7. List analytes with a % RSD >20% over the established working range: *None.*
8. Were calibration standards dropped to meet calibration criteria? ☐ YES ☑ NO
9. Second source check analyzed after initial calibration; %R +/-30%? ☑ YES ☐ NO

Comments: Initial calibration criteria were met. The laboratory analyzed a passing check standard. The standard concentration was at or near the QL.

F. CALIBRATION VERIFICATION (CV) CRITERIA:

1. Was a CV standard performed once every 12-hours? ☑ YES ☐ NO
2. Did analyte responses have a % Difference (%D) within ± 20%? ☑ YES ☐ NO
   If no, was a new calibration curve prepared?
3. Was a mid-concentration standard analyzed after each group of 10 samples in the analysis sequence and at the end of the analytical sequence? ☑ YES ☐ NO
4. Was the target analyte and surrogate included in the CV? ☑ YES ☐ NO

Comments: Calibration verification criteria were met.

G. BLANK CRITERIA:

1 Was a blank analyzed prior to the batch samples? ☑ YES ☐ NO
2 Was a blank analyzed after 20 batch samples? ☑ NA ☐ YES ☐ NO
3. Was an extraction blank analyzed with the batch samples? ☑ YES ☐ NO
4 Was a trip blank analyzed per analytical batch? NA ☐ YES ☑ NO

5. List target analytes identified in the blanks: *None.*

Comments: Blank criteria were met.

H. SURROGATE CRITERIA:

1. Were samples, standards, blanks, checks spiked with surrogate? ☑ YES ☐ NO
2. List surrogate used and % recovery range criteria: *1,4-dinitrobenzene; 39-132%*
3. List samples whose surrogate % recoveries were not within the range: *None.*

Comments: Surrogate criteria were met.

I. RETENTION TIME (RT) CRITERIA:

1. Were the daily retention time (RT) windows reported? ☑ YES ☐ NO
2. Were surrogate RTs within RT window for samples and QC? ☑ YES ☐ NO
3. Were LCS/MS RTs within RT window? ☑ YES ☐ NO

Comments: The retention time criteria were met.

J. MATRIX SPIKE/ MATRIX SPIKE DUPLICATE (MS/MSD) CRITERIA:

1. Was a MS/MSD analyzed per sample batch/ or every 20 samples? ☑ YES ☐ NO
2. Did the MS/MSD contain the target analyte? ☑ YES ☐ NO
3. Was the MS/MSD analyzed on the specific project matrix? ☑ YES ☐ NO
4. List the MS % recovery range: 50-150%; RPD ≤30
5. Were any analytes qualified as estimated? ☐ YES ☑ NO
    - If yes, and the LCS for the analyte(s) recovered within control limits, matrix interference is suspected.

Comments: MS/MSD requirements were met.

K. LABORATORY CONTROL SAMPLE (LCS) CRITERIA:

1. Was a LCS included in the sample analysis? ☑ YES ☐ NO
2. Did the LCS contain required target analytes? ☑ YES ☐ NO
3. List the LCS analyte and the laboratory's recovery range criteria: *50%-150%*
3. List the LCS analyte not within the recovery range. *None*

Comments: LCS requirements were met.

L. TARGET ANALYTE IDENTIFICATION:

1.	Was the reported analyte within the RT window?	☑ NA ☐ YES ☐ NO
2.	Were retention time shifts observed when compared with the last calibration verification?	☑ NA ☐ YES ☐ NO
3.	Were reported analytes confirmed?	☑ NA ☐ YES ☐ NO
4.	Were RPDs < 40?	☑ NA ☐ YES ☐ NO
5.	Was appropriate confirmation performed?	☑ NA ☐ YES ☐ NO
6.	Were analyte concentrations that were recorded on the raw sample quantitation reports accurately transferred to the sample summary sheets?	☑ YES ☐ NO
7.	Were dilutions required?	☐ YES ☑ NO

Comments: Target analyte identification criteria were met. No detections were reported at or above the detection limit or QL.

M. CORRECTIVE ACTION TAKEN AND GENERAL COMMENTS:

Comments: No corrective action was required.

REFERENCES:

Draper Aden Associates conducted data validation of the above noted data set using summary tables and raw data provided by the analyzing laboratory. Data validation was conducted in general accordance with SW-846 Method requirements (Test Methods for Evaluating Solid Wastes - Physical and Chemical Methods, USEPA SW-846, 3rd edition - Final Update I, II/IIA, III and subsequent updates) and CLP data validation guidelines (USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, October 1999 and USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review, June 2008, where applicable). Validation of this data set is limited to the items detailed in this report.

LIMITATIONS:

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Engineering ♦ Surveying ♦ Environmental Services

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RSK-175M VOLATILE HEADSPACE ORGANICS GC DATA VALIDATION

Draper Aden Associates performed a manual review of the analytical results for the October 13, 2014 semiannual Corrective Action groundwater monitoring event at the Open Burning Ground (HWMU 13) located at the Radford Facility Army Ammunition Plant (RFAAP), in Radford, Virginia. Draper Aden Associates, of Blacksburg, Virginia, collected groundwater samples from monitoring wells 13MW2, 13MW3, 13MW4, 13MW5, 13MW6, 13MW7 and 13MW8. Sample 13MWDUP, a blind field duplicate for 13MW4, was also submitted for analysis.

Samples 13MW2, 13MW3, 13MW4, 13MW5, 13MW6, 13MW7, 13MW8 and a trip blank were analyzed for methane by EPA Method RSK 175M as listed in the permit attachment VII.B (*Semi-Annually Monitored Natural Attenuation Parameters and Analytical Methods*). The following information and attached table summarizes the methane data review results.

Draper Aden Associates sent samples to Eurofins Lancaster Laboratories Environmental, (ELLE), of Lancaster, Pennsylvania. ELLE performed the RSK175 Modified volatile analysis. ELLE submitted results to Draper Aden Associates in a final certificate of analysis, which included sample analytical results as well as relevant documentation to validate and verify the results. ELLE is a VELAP accredited laboratory for the above analyte, method, and matrix.

The evaluation of ELLE's compliance with Method RSK175 Modified and validation of the results were based on a review of the following items: QC deliverables package, QC history documentation, case narrative, technical holding times and preservation requirements, extraction procedures, instrument calibration and calibration verification data, blank samples analyses, surrogate spike recoveries, matrix spike and matrix spike duplicate (MS/MSD) analyses, laboratory control sample (LCS) data, where applicable. A review of transcriptions from instrument data to sample summary sheets was performed. A summary of data review results with observed deviations is provided below.

ELLE received the samples on ice and in good condition, with custody seals intact. Technical holding time and preservation criteria were met, except where noted. The chain of custody was appropriately signed and dated by field and laboratory personnel.

The original certificate of analysis was received on October 29, 2014. The certificate of analysis was complete and the data were of acceptable quality. The data set demonstrated the ability of the laboratory to achieve the quantitation limit (QL) for each target analyte, unless noted below.

QC deliverables package requirements were met. QC history documentation and QC check sample criteria were met. Initial calibration, calibration verification, blank, surrogates, MS/MSD, LCS and internal standard criteria were met, except where noted below.

Sample results were reviewed for transcription errors from the instrument data to the laboratory report and no errors were noted. No deviations from specific QA/QC criteria were identified during the review process. Field duplicate/sample results exhibited acceptable precision, where applicable.

Sample results were reported to at or above the detection limit (DL). Results unaffected by the data validation process, and not detected at or above the DL or QL, were validated and reported as "U." No results were rejected based on the data validation criteria.

RSK-175M VOLATILE HEADSPACE ORGANICS GC DATA VALIDATION

Eurofins Lancaster Laboratories Environmental, Lancaster, PA; SDG RAE25

"☑" denotes items reviewed. See Data Validation Report for additional comments.

A. QC DELIVERABLES PACKAGE:

- ☑ Case narrative present and signed by a laboratory representative
- ☑ Chain of Custody present and signed by a laboratory representative
- ☑ Sample results included for all sample locations
- ☑ Results provided for project specific analytes
- ☑ Quantitation limits (QLs) at permit or project required QL
- ☑ Analyst initial demonstration of capability provided for target analytes

B. TECHNICAL HOLDING TIME AND PRESERVATION CRITERIA:

- ☑ 14-day sample collection to extraction/analysis holding time, HCl pH<2
- ☑ Samples received at ≤6°C

C. INITIAL CALIBRATION CRITERIA:

- ☑ Analytes included in the ICAL
- ☑ ICAL consist of a minimum of 5 calibration levels
- ☑ A calibration standard at or below the associated MCL, regulatory compliance, or action limit
- ☑ Calibration levels removed from the curve should not negatively impact the data integrity
- ☑ Each analyte %RSD ≤ 15%
- ☑ If not, correlation coefficient/coefficient of determination >0.99 for analytes with ≥15% RSD

D. CALIBRATION VERIFICATION (CV) CRITERIA:

- ☑ CV analyzed at the beginning of each 12-hour period and prior to analysis of the method blank and samples
- ☑ CV analyzed after each 10 samples
- ☑ Analytes have % Difference/Drift within ± 15%.

E. BLANK CRITERIA:

- ☑ Method blank analyzed
- ☑ Trip blank per each day of sample collection
- ☑ Sample results evaluated for blank influence, where applicable.
- ☑ Blank analyzed after result exceeding calibration range, if required

F. SURROGATE CRITERIA:

- ☑ Propene (42-131%R);Surrogate added to project samples

G. MATRIX SPIKE/ MATRIX SPIKE DUPLICATE (MS/MSD) / LABORATORY CONTROL SAMPLE (LCS) CRITERIA:

- ☑ MS/MSD and LCS analyzed target analytes, where applicable
- ☑ MS/MSD (35-157%, RPD<20) and LCS (80-120%) within range

H. REPORTING:

- ☑ Detected analytes or results requiring validation are presented on the attached table(s).
- ☑ Laboratory reported results to at or above MDL
- ☑ Results validated to the MDL.

☑ Secondary/confirmation column provides adequate separation from primary column.

I. COMMENTS REGARDING ANALYTE DETECTIONS:

No methane detections were reported at or above the DL or QL for this event.

LIMITATIONS AND REFERENCES:

Draper Aden Associates conducted a limited data validation of the above noted data set using the data package provided by the analyzing laboratory. Data evaluation was conducted using EPA Method RSKSOP-175 (modified) – *Analysis of Dissolved Methane, Ethane and Ethylene in Groundwater by a Standard Gas Chromatographic Technique*, August 1997 method requirements. Validation of this data set is limited to review of items detailed in this data review report.

Validated by: *Date:*

Draper Aden Associates
Engineering ♦ Surveying ♦ Environmental Services

Kathy Olsen 2/20/15

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2/23/2015

SW-846 INORGANIC (METALS) DATA REVIEW SUMMARY

Draper Aden Associates performed a comprehensive manual review of the analytical results for the October 13, 2014 semiannual Corrective Action groundwater monitoring event at the Open Burning Ground (HWMU 13) located at the Radford Facility Army Ammunition Plant (RFAAP), in Radford, Virginia. Draper Aden Associates, of Blacksburg, Virginia, collected groundwater samples from monitoring wells 13MW2, 13MW3, 13MW4, 13MW5, 13MW6, 13MW7 and 13MW8. Sample 13MWDUP, a blind field duplicate for 13MW4, was also submitted for analysis.

Samples 13MW3, 13MW4, 13MW5, 13MW6 and 13MW7 (compliance wells) and 13MW8 (plume well) were analyzed for dissolved iron and dissolved manganese as listed in permit attachment VII.B (*Semi-Annually Monitored Natural Attenuation Parameters and Analytical Methods*). Samples 13MW3, 13MW4, 13MW5, 13MW6 and 13MW7 were analyzed for antimony, arsenic, barium, cadmium, chromium, lead, mercury, nickel, selenium, silver, and zinc as listed in permit attachment VII.C (*Corrective Action Program - Annual Groundwater Monitoring List for Radford OBG#13).* Sample 13MW2 (upgradient well) was not analyzed for any metal constituents. The following information and attached table summarizes the inorganic data review results.

Inductively coupled plasma atomic emission spectroscopy/mass spectrometry (ICP-AES/ICP-MS) and cold vapor atomic absorption (CVAA) were the techniques used for the metals analysis. ICP-MS Method 6020A was used to analyze for antimony, arsenic, barium, cadmium, chromium, lead, nickel, selenium, silver, and zinc. ICP-AES Method 6010C was used to analyze for dissolved iron and dissolved manganese. CVAA Method 7470A was used to analyze for mercury. All metals were analyzed and reported as total, except where noted above.

CompuChem, a division of Liberty Analytical Corporation (CompuChem), of Cary, North Carolina, performed the analysis. On behalf of RFAAP, CompuChem submitted results to Draper Aden Associates in a final certificate of analysis which included sample analytical results as well as relevant documentation to verify and validate the results. CompuChem is a VELAP accredited laboratory for the above analytes, methods, and matrix.

The evaluation of CompuChem's compliance with the method and validation of results presented here are based upon a limited review of QA/QC information including holding time, preservation procedures, instrument tuning, calibration and calibration verification data, QL standards, blank samples (method, calibration, and other blanks), interference check sample, pre-digestion matrix spike and matrix spike duplicate (MS/MSD), laboratory control sample (LCS), internal standard, and serial dilution results, where applicable. Calculation checks were performed on ten percent of the data set, where applicable, for Methods 6020A and 7470A. The following information is intended to summarize data review results and any observed significant deviations from method and/or contractual requirements.

The laboratory received the samples on ice and in good condition with custody seals intact. The chain of custody (COC) was appropriately signed and dated by field and laboratory

personnel. Applicable holding time and preservation criteria were. Dissolved metal aliquot was field filtered using a 0.45 micron filter prior to sample preservation.

Method 6020A/3005A (ICP-MS)

The original certificates of analysis were received on October 23, 2014. The original certificate of analysis was complete in their presentation and the data were of acceptable quality. The data set demonstrated the laboratory's ability to achieve the reported permit quantitation limit (QL).

QC history documentation was provided. Applicable instrument tune, calibration and calibration verification requirements were met. QL standards, blank, interference check samples (ICSAB), MS/MSD, LCS, internal standard data, and serial dilution results recovered within control limits, where applicable, except where noted below. Field duplicate/sample results exhibited acceptable precision, where applicable. Deviations from QA/QC criteria that were noted during the data review are summarized below.

Zinc was detected in the laboratory preparation blank less than the QL and detected results for zinc less than the QL and less than five times the blank concentration were considered influenced by laboratory contamination. These zinc results were qualified as "U" to denote the result was not detected at or above the QL.

The laboratory's low level QL standard demonstrated the laboratory's ability to achieve the reported permit QLs.

Sample results were reported at or above the detection limit. Except where noted above, target analytes reported by the laboratory as detected less than the corresponding permit QL were validated and qualified as "J" and the reported concentration for should be considered estimated. Sample results unaffected by the data validation process, and not detected at or above the permit detection limit or QL, were validated and reported as "U." No results were rejected based on the data validation criteria.

Method 6010C/3010A

The original certificate of analysis was received on October 23, 2014. The original certificate of analysis was complete in its presentation and the data were of acceptable quality. The data set demonstrated the laboratory's ability to achieve the reported permit quantitation limit (QL), where applicable.

QC documentation criteria were met, except where noted below. Initial calibration and calibration verification criteria were met. QL standards, blank sample, interference check sample, pre-digestion MS/MSD, LCS and serial dilution results recovered within control limits, except where noted below. Field duplicate/sample results exhibited acceptable precision, where

applicable. No deviations from QA/QC control limits were identified during the data review process.

Sample results were reported to at or above the detection limit. Target analytes reported by the laboratory as detected less than the corresponding permit QL were validated and qualified as "J" and the reported concentration for should be considered estimated. Results unaffected by the data validation process, and not detected at or above the permit detection limit or QL, were validated and reported as "U." No results were rejected based on the data validation criteria.

7470A (CVAA)

The original certificate of analysis was received on January 6, 2014. The certificate of analysis was complete in its presentation and the final data were of acceptable quality. The certificate of analysis demonstrated the ability of the laboratory to achieve the QL for mercury.

QC history documentation was provided. Instrument calibration and calibration verification criteria were met. Blanks, quantitation limit standards, matrix spikes, duplicates and laboratory control samples were analyzed as required and applicable criteria were met unless noted below. Field duplicate/sample results exhibited acceptable precision, where applicable. A review of transcriptions from instrument data to sample summary sheets was performed. No deviations from QA/QC criteria were noted during data review.

The laboratory's low level QL standard demonstrated the laboratory's ability to achieve the reported permit QL.

Sample results were reported at or above the detection limit. Except where noted above, target analytes reported by the laboratory as detected less than the corresponding permit QL were validated and qualified as "J" and the reported concentration for should be considered estimated. Sample results unaffected by the data validation process, and not detected at or above the permit detection limit or QL, were validated and reported as "U." No results were rejected based on the data validation criteria.

INORGANIC DATA EVALUATION FOR ICP/MS SW-846 METHOD 6020A

CompuChem, a Division of Liberty Analytical, Cary, NC; SDG:1410111

Preparation Method: 3005A
"☑" denotes items reviewed. See Data Validation Summary for additional comments.

A. DOCUMENTION COMPLETENESS CRITERIA:

Data Quality Objective: Representativeness

- ☑ Chain of custody – Custody transfers must be signed and dated
- ☑ Chain of custody properly and completely filled out including sampler signatures, date and time of sampling, sample ID, analysis requested

B. DETECTION LIMIT AND QUANTITATION LIMIT CRITERIA:

Data Quality Objective: Analytical Sensitivity

- ☑ Specific detection limit reported
- ☑ Specific quantitation limit reported
- ☑ Standard analyzed at the QL (LLQC), digested, 70-130% recovery, analyzed after MDL determination and as needed
- ☑ Method detection limit (MDL) less than QL
- ☑ Performance evaluation sample analyzed within 12 months

C. INITIAL DEMONSTRATION OF CAPABILITY (IDOC) CRITERIA:

Data Quality Objective: Laboratory Method Sensitivity

- ☑ Analyst IDOC for JCF submitted previously

D. SAMPLE AND STANDARD PREPARATION CRITERIA:

Data Quality Objective: Accuracy and Representativeness

- ☑ Digestion prior to analysis
- ☑ Digestion method: 3005A
- ☑ Samples and standards matrix matched

E. TECHNICAL HOLDING TIME / PRESERVATION REQUIREMENTS:

Data Quality Objective: Representativeness

- ☑ 6 month holding time, pH<2 with Nitric Acid (HNO_3)

F. INSTRUMENT TUNE CRITERIA:

Data Quality Objective: Verify Operating Conditions

- ☑ Prior to calibration
- ☑ Relative Standard Deviation (RSD) </=5%
- ☑ Resolution < 0.9 amu full width at 10% peak height (or lower)
- ☑ Mass calibration </=0.1 amu difference from true value

G. INITIAL CALIBRATION CRITERIA:

Data Quality Objective: Laboratory Accuracy

- ☑ 1 calibration blank and 3 standards,
- ☑ Linear curve fit with correlation coefficient $r \geq 0.998$
- ☑ Daily calibration following tuning and prior to sample analysis

H. INITIAL CALIBRATION VERIFICATION (ICV) CRITERIA:

Data Quality Objective: Laboratory Accuracy

- ☑ Daily following initial calibration, independent/second source used for ICV
- ☑ ICV concentration near mid-point of calibration curve, 90-110% recovery
- ☑ Low level ICV (LLICV) – prior to analysis, at QL concentration, 70-130% recovery

I. INITIAL CALIBRATION BLANK CRITERIA:

Data Quality Objective: Laboratory Analytical Sensitivity/Instrument Drift/Contamination Evaluation

- ☑ Daily following ICV
- ☑ Interference free

J. CONTINUING CALIBRATION VERIFICATION (CCV) CRITERIA:

Data Quality Objective: Laboratory Analytical Accuracy

- ☑ CCV, prior to analysis, after every 10 samples, at end of analysis
- ☑ CCV recovery within 90-110%, mid-point of curve concentration
- ☑ Low level CCV (LLCCV), concentration at QL, prior to analysis, after every 10 samples, end of analysis (70-130% R)

K. CONTINUING CALIBRATION BLANK CRITERIA:

Data Quality Objective: Laboratory Analytical Sensitivity/Instrument Drift/Contamination Evaluation

- ☑ Immediately after the CCV, 10 sample frequency
- ☑ Interference free

L. BLANK CRITERIA:

Data Quality Objective: Sensitivity/Instrument Drift/Contamination Evaluation

- N/A Trip Blank (check only if analyzed)
- ☑ Method/Other Lab Blanks (check only if analyzed), one per digestion batch
- ☑ Interference free

M. INTERFERENCE CHECK SAMPLE (ICS) CRITERIA:

Data Quality Objective: Analytical Accuracy/Verification of Isobaric Interference Corrections

- ☑ At beginning of analytical run
- ☑ Recovery: 80-120% (ICSAB)

N. MATRIX SPIKE DUPLICATE (MSD) CRITERIA:

Data Quality Objective: Method Precision in Sample Matrix

- ☑ All analytes, one MSD or sample duplicate per batch of 20 samples
- ☑ Spiked prior to sample preparation
- ☑ RPD $\leq$ 20 between MS and MSD results or sample and duplicate results
- ☑ MSD analyte recovery 75-125%

O. MATRIX SPIKE (MS) CRITERIA:

Data Quality Objective: Method Accuracy in Sample Matrix

- ☑ All analytes, one MS per digestion batch of 20 samples
- ☑ Spiked prior to sample preparation
- ☑ Recovery: 75-125%
- ☑ Post digestion spike if MS/MSD recoveries fail
- ☑ Recovery of post digestion spike analytes within 80-120%

P. LABORATORY CONTROL SAMPLE (LCS) CRITERIA:

Data Quality Objective: Laboratory Method Accuracy, Laboratory Performance

- ☑ LCS for all target analytes, one LCS per 20 sample batch
- ☑ LCS concentration at approximately mid-point of analytical curve
- ☑ Recovery within 80-120% for all analytes

Q. INTERNAL STANDARDS (IS) CRITERIA:

Data Quality Objective: Analytical Accuracy in Sample Matrix

- ☑ IS added to each sample and QC sample
- ☑ % Relative intensity (RI) within 70-125%

R. SERIAL DILUTION (DILUTION TEST) TEST CRITERIA:

Data Quality Objective: Accuracy in Sample Matrix

- ☑ <10% Difference (applicable when sample concentration >10X QL)

S. SAMPLE QUANTITATION AND GENERAL REPORTING CRITERIA:

Data Quality Objective: n/a

- ☑ Sample results reported within instrument linear dynamic range
- ☑ Sample results reported to the detection limit

REFERENCES:

Draper Aden Associates conducted a limited data validation of the above noted data set using the data package provided by the analyzing laboratory. Data evaluation was conducted using SW-846 (Test Methods for Evaluating Solid Waste-Physical/Chemical Methods, USEPA, SW-846, 3rd Edition-Final Update I, II/IIA, III and subsequent updates) method requirements and CLP data validation guidelines (USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, October 2004 and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review, January 2010). Validation of this data set is limited to review of items detailed in this data review report.

INORGANIC DATA EVALUATION FOR ICP SW-846 METHOD 6010C

CompuChem, a Division of Liberty Analytical. Cary, NC; SDG: 1410112

Preparation Method: 3010A
"☑" denotes items reviewed. See Data Validation Summary for additional comments.

A. QC DOCUMENTATION CRITERIA:
- ☑ Specific detection limits/quantitation limit (QLs) for target analytes
- ☑ Passed single blind performance evaluation study within 12 months
- ☑ Standard analyzed at the QL (LLQC), digested, 70-130% recovery, analyzed after MDL determination and as needed
- ☑ Passing MDL check sample
- ☑ IDOC for analyst JCF submitted

B. METHOD INFORMATION DOCUMENTATION:
- ☑ Target analytes analyzed by requested method

C. TECHNICAL HOLDING TIME / PRESERVATION REQUIREMENTS:
- ☑ 6 month holding time
- ☑ Adjust pH <2 w/ HNO_3
- ☑ Dissolved aliquot field filtered 0.45µ filter prior to field preservation

D. INSTRUMENT CALIBRATION CRITERIA:
- ☑ 1 calibration blank and at least 1 standard
  1 calibration blank and at least 3 standards (alternate calibration procedure)
- ☑ Linear curve fit with correlation coefficient $r \geq 0.998$

E. INITIAL / CONTINUING CALIBRATION VERIFICATION CRITERIA:
- ☑ ICV, analyzed prior to analysis (90-110% R)
- ☑ LLICV concentration at QL, prior to analysis (70-130% R)
- ☑ CCV prior to analysis, after every 10 samples, end of analysis, (90-110% R)
- ☑ LLCCV concentration at QL, prior to analysis, after every 10 samples, end of analysis (70-130% R)

F. BLANK SAMPLE CRITERIA:
- NA Trip Blank (check only if analyzed)
- NA Equipment Blank (check only if analyzed)
- ☑ Method/Other Lab Blanks (check only if analyzed)
- ☑ Interference free
- ☑ CCB 10 sample frequency

G. INTERFERENCE CHECK SAMPLE (ICS) CRITERIA:
- ☑ ICS analyzed at beginning of analytical run (Recovery 80-120% for ICSAB)

H. MATRIX SPIKE DUPLICATE (MSD) CRITERIA:

- ☑ All analytes, one MSD or sample duplicate per batch of 20 samples
- ☑ RPD ≤ 20 between MS and MSD or sample and duplicate results
- ☑ Recovery 75-125% for MSD

I. MATRIX SPIKE (MS) CRITERIA:

- ☑ Recovery of MS analytes within 75-125%
- ☑ All analytes, spiked prior to digestion, one MS per batch of 20 samples
- ☑ Post digestion spike if MS/MSD recoveries fail
- ☑ Recovery of post digestion spike analytes within 80-120%

J. LABORATORY CONTROL SAMPLE (LCS) CRITERIA:

- ☑ LCS for all analytes
- ☑ Recovery 80-120% all analytes
- ☑ Independent source for LCS standard

K. SERIAL DILUTION CRITERIA:

- ☑ Similar matrix
- ☑ <10% Difference (applicable when concentration >50X IDL)

L. SAMPLE RESULTS CRITERIA:

- ☑ Results reported within ICP linear calibration range
- ☑ Results reported to laboratory detection limit

REFERENCES:

Draper Aden Associates conducted a limited data validation of the above noted data set using the data package provided by the analyzing laboratory. Data evaluation was conducted using SW-846 (Test Methods for Evaluating Solid Waste-Physical/Chemical Methods, USEPA, SW-846, 3rd Edition-Final Update I, II/IIA, III and subsequent updates) method requirements and CLP data validation guidelines (USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, October 2004 and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review, January 2010, where applicable). Validation of this data set is limited to review of items detailed in this data review report.

INORGANIC DATA EVALUATION FOR MERCURY BY COLD VAPOR AA SW-846 METHOD 7470A

CompuChem, a Division of Liberty Analytical, Cary, NC; SDG: 1410111

"☑" denotes items were reviewed. See Data Validation Summary for additional comments.

A. QC DOCUMENTATION CRITERIA:
- ☑ Specific detection limits/quantitation limit (QLs) for target analyte
- ☑ Standard analyzed at the QL (70-130% Recovery)
- ☑ Passed single blind performance evaluation study within 12 months
- ☑ IDOC for analyst JRR submitted

B. METHOD INFORMATION DOCUMENTATION:
- ☑ Mercury analyzed by requested method

C. TECHNICAL HOLDING TIME / PRESERVATION REQUIREMENTS:
- ☑ 28 day holding time
- ☑ Adjust pH <2 w/ HNO_3

D. INSTRUMENT CALIBRATION CRITERIA:
- ☑ 1 calibration blank and at least 3 standards, correlation coefficient >0.995
- ☑ Instrument calibrated for every analytical sequence for every method

E. INITIAL / CONTINUING CALIBRATION VERIFICATION CRITERIA:
- ☑ 10 sample frequency for CCV
- ☑ Recovery within 80-120%

F. BLANK SAMPLE CRITERIA:
- N/A Trip Blank (check only if analyzed)
- N/A Equipment Blank (check only if analyzed)
- ☑ Method/other laboratory blanks (check only if analyzed)
- ☑ Interference free

G. MATRIX SPIKE DUPLICATE (MSD) SAMPLE CRITERIA:
- ☑ One MSD or sample duplicate per batch of 20 samples
- ☑ RPD ≤20 between MS and MSD or sample and duplicate results
- ☑ Recovery 75-125% for MSD

H. MATRIX SPIKE (MS) SAMPLE CRITERIA:
- ☑ Recovery within 75-125% range
- ☑ One MS per batch of 20 samples
- ☑ MS added prior to digestion

I. LABORATORY CONTROL SAMPLE (LCS) CRITERIA:

- ☑ LCS for mercury
- ☑ Recovery within 80-120%
- ☑ Independent source for LCS

J. SAMPLE RESULTS CRITERIA:

- ☑ Results reported within instrument calibration range
- ☑ Results reported to detection limit

Draper Aden Associates conducted a limited data validation of the above noted data set using the data package provided by the analyzing laboratory. Data evaluation was conducted using SW-846 (Test Methods for Evaluating Solid Waste-Physical/Chemical Methods, USEPA, SW-846, 3rd Edition-Final Update I, II/IIA, III and subsequent updates) method requirements and CLP data validation guidelines (USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, October 2004 and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review, January 2010). Validation of this data set is limited to review of items detailed in this data review report.

LIMITATIONS

Draper Aden Associates prepared this document (which may include drawings, specifications, reports, studies and attachments) in accordance with the agreement between Draper Aden Associates and BAE Systems, Ordnance Systems, Inc.

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Draper Aden Associates
Engineering ◆ Surveying ◆ Environmental Services

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2/23/15

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2/24/15

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SW-846 INORGANIC PERCHLORATE DATA REVIEW SUMMARY

Draper Aden Associates performed a comprehensive manual review of the analytical results for the October 13, 2014 semiannual Corrective Action groundwater monitoring event at the Open Burning Ground (HWMU 13) located at the Radford Facility Army Ammunition Plant (RFAAP), in Radford, Virginia. Draper Aden Associates, of Blacksburg, Virginia, collected groundwater samples from monitoring wells 13MW2, 13MW3, 13MW4, 13MW5, 13MW6, 13MW7 and 13MW8. Sample 13MWDUP, a blind field duplicate for 13MW4, was also submitted for analysis.

Samples were analyzed for perchlorate as listed in permit attachments VII.B (*Semi-Annually Monitored Natural Attenuation Parameters and Analytical Methods*) and VII.C (*Corrective Action Program - Annual Groundwater Monitoring List for Radford OBG#13)* by Method SW-846 6850. The following information and attached table summarizes the perchlorate data review results.

Draper Aden Associates sent samples to Microbac Laboratories (Microbac), of Marietta, Ohio, for the analyses. On behalf of RFAAP, Microbac submitted results to Draper Aden Associates in a final certificate of analysis that included sample analytical results as well as relevant QA/QC and method performance criteria documentation to verify and validate the results. Microbac is a VELAP accredited laboratory for the above analyte, method, and matrix.

The evaluation of Microbac's compliance with the method and validation of the results presented here are based upon a limited review of QA/QC information including holding times, preservation procedures, calibration and calibration verification data, blank samples, matrix spike and matrix spike duplicate (MS/MSD), laboratory control sample (LCS), and internal standard results, where applicable. Calculation verifications were performed on a minimum ten percent of the data set. A summary of data review results with any observed deviations is provided below.

The laboratory received the samples on ice and in good condition with custody seals intact. The chain of custody was appropriately signed and dated by field and laboratory personnel. Applicable holding time and preservation criteria were met.

The original certificate of analysis was complete in its presentation and the data were of acceptable quality. The certificate of analysis demonstrated the ability of the laboratory to achieve the reported QL for each target analyte. The data set demonstrated the laboratory's ability to achieve the required quantitation limit (QL).

QC documentation criteria were met. Instrument calibration and calibration verification criteria were met. Blank sample, MS/MSD, LCS, and internal standard results recovered within control limits, except where noted below. Sample results were reviewed for transcription errors from the instrument data to the laboratory report and no errors were noted. Deviations from specific QA/QC criteria that were identified during the review process are summarized below.

The MS/MSD for 13MW5 recovered low; however, the sample concentration was four times greater than the spike added concentration of the MS/MSD and no data qualification was needed.

Perchlorate was detected in 13MW4 at 13.6 µg/l and in the blind field duplicate, 13MWDUP, at 11.6 µg/l. Both these samples required a 1:10 dilution in order to obtain results within the calibration range. Field duplicate/sample results exhibited acceptable precision.

Perchlorate detected at or above the detection limit and/or analytical data that required a data validation qualifier due to quality control deviations noted above was summarized on the attached table.

Results reported for perchlorate detected between the detection limit and QL should be considered estimated concentrations and qualified as "J" to note the analyte was analyzed for, but not detected above the QL. Except where noted above, results remain as reported by the laboratory. No results were rejected based on the data validation criteria.

SW-846 METHOD 6850 (HPLC/MS) PERCHLORATE DATA VALIDATION

Mircrobac Laboratories, Marietta, OH; SDG: L14100924

Comments: *Method 6850 - uses high performance liquid chromatography (HPLC) coupled with tandem mass spectrometry (MS/MS) for the determination of perchlorate in aqueous and solid matrices.*

A. QC DELIVERABLES PACKAGE:

- ☑ Case narrative and Chain of custody present and signed by a laboratory representative
- ☑ Sample results included for the sample locations
- ☑ Project specific target analytes reported at or above the method detection limit (DL)
- ☑ MDL study performed for target analytes and supports QL
- ☑ Initial demonstration of proficiency performed (on file at laboratory)
- ☑ Electronic data file reviewed

B. TECHNICAL HOLDING TIME AND PRESERVATION REVIEW CRITERIA:

- ☑ Holding time: analyze water samples and extracts of solid samples within 28 days of collection or preparation, respectively
- ☑ Aqueous and soil samples stored with headspace
- ☑ Aqueous samples filtered with 0.2 µm filter in the field
  Soils samples collected in glass amber jars, water samples collected in plastic

C. INSTUMENT TUNING:

- ☑ Laboratory stated instrument tuned as per manufacturer's instructions

D. INITIAL CALIBRATION REVIEW CRITERIA:

- ☑ Target analytes included in the ICAL
- ☑ ICAL consisted of a minimum of 5 calibration standards (or more, as needed)
- ☑ Lowest concentration calibration standard at or below the associated MCL, regulatory compliance, action limit, or permit QL

E. INITIAL/ CONTINUING CALIBRATION VERIFICATION REVIEW CRITERIA:

- ☑ Initial calibration prepared from different source from daily standards
- ☑ Continuing calibration verification standard analyzed at the prior to sample analysis; every 10 samples and at the end of the analytical run
- ☑ Midpoint calibration standard
- ☑ Initial and continuing verification % recoveries within 85-115%
- ☑ Area counts of internal standards (IS) in CCV must be between 50-150% of the average IS area counts in the standards from the associated ICAL.
- ☑ Low-level calibration verification (LLOQ) standard at or near the QL analyzed daily with recoveries 50-150%

F. BLANK REVIEW CRITERIA:

- ☑ Method blank analyzed on each extraction
- ☑ Method blank analyzed after calibration and before analytical samples

G. LABORATORY CONTROL SAMPLE (LCS) REVIEW CRITERIA:

- ☑ LCS analyzed with target analytes – matrix matched per batch of 20 samples

- ☑ Concentration near midpoint
- ☑ LCS recovered within limits (80-120%)

H. MATRIX SPIKE/MATRIX SPIKE DUPLICATE/DUPLICATE:

- ☑ MS/MSD recovered within limits, %R within range (80-120%-aqueous /70-130%-solids)
- ☑ One MS/MSD and/or duplicate per batch of 20 samples
- ☑ MS/MSD/DUP 15% RPD control limit

I. INTERNAL STANDARDS REVIEW CRITERIA:

- ☑ Internal standard added to each extract
- ☑ Area count 50-150% of area count of CCV

J. TARGET ANALYTE IDENTIFICATION REVIEW CRITERIA:

- ☑ The calculated 83/85 area counts ratios within ±30% for area counts of mid-range standard or average daily CCVs if samples analyzed separate day from ICAL (Section 12.1.2)
- ☑ RT of 83 and IS in each sample and QC should not vary by more than 0.2 min.(Sec 12.1.1)

K. TARGET ANALYTE QUANTITATION REVIEW CRITERIA:

- ☑ Quantitation based on internal standard calibration

L. REPORTING:

- ☑ Detected results requiring validation are presented on the attached data validation report Soils/sediments reported on dry-weight basis
- ☑ Results reported within calibration range
- ☑ Results reported to detection limit
- ☑ Calculation verifications were performed on a minimum ten percent of the data set

REFERENCES:

Draper Aden Associates conducted a limited data validation of the above noted data set using the data package provided by the analyzing laboratory. Data evaluation was conducted using SW-846 (Test Methods for Evaluating Solid Waste-Physical/Chemical Methods, USEPA, SW-846, 3rd Edition-Final Update I, II/IIA, III and subsequent updates) method requirements and CLP data validation guidelines (USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, October 2004 and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review, January 2010). Validation of this data set is limited to review of items detailed in this data review report.

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Draper Aden Associates
Engineering ♦ Surveying ♦ Environmental Services

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MISCELLANEOUS INORGANIC DATA REVIEW SUMMARY

Draper Aden Associates performed a comprehensive manual review of the analytical results for the October 13, 2014 semiannual Corrective Action groundwater monitoring event at the Open Burning Ground (HWMU 13) located at the Radford Facility Army Ammunition Plant (RFAAP), in Radford, Virginia. Draper Aden Associates, of Blacksburg, Virginia, collected groundwater samples from monitoring wells 13MW2, 13MW3, 13MW4, 13MW5, 13MW6, 13MW7 and 13MW8. Sample 13MWDUP, a blind field duplicate for 13MW4, was also submitted for analysis.

As per the permit attachment VII.B B (*Semi-Annually Monitored Natural Attenuation Parameters and Analytical Methods*), samples 13MW3, 13MW4, 13MW5, 13MW6, 13MW7 (compliance wells) and 13MW8 (plume well) were analyzed for total organic carbon (TOC) and dissolved organic carbon (DOC) by SW-846 Method 9060A; alkalinity by Standard Methods 2320B; inorganic anions: chloride, nitrate and sulfate by UESPA Method 300.0; and chlorate and chlorite by USEPA Method 300.1. Sample 13MW2 (upgradient well) was analyzed for the inorganic ions: chloride and chlorate and chlorite by USEPA Method 300.0 and 300.1, respectively. The following information and attached table summarize the data validation results.

Microbac Laboratories (Microbac), of Marietta, Ohio, performed the TOC and DOC analyses. Pace Analytical Services, Inc. (Pace), of Ormond Beach, Florida, performed the alkalinity and anions analyses. On behalf of RFAAP, each laboratory submitted results to Draper Aden Associates in a final certificate of analysis which included sample analytical results as well as relevant documentation to verify and validate the results. Each laboratory is a VELAP accredited laboratory for the above analytes, methods, and matrix.

The evaluation of the laboratories' compliance with SW-846 9060A, SM 2320B, USEPA Methods 300.0 and 300.1 and validation of the results was based on a limited review of the following items: QC deliverables package, QC history documentation, case narrative, technical holding time and preservation requirements, instrument calibrations, blank analysis, retention time, matrix spike and matrix spike duplicate (MS/MSD) analyses, and laboratory control/ laboratory control duplicate samples (LCS/LCSD), where applicable. A review of transcriptions from instrument data to sample summary sheets was performed. Calculation verifications were performed on a minimum ten percent of the data set. The following information is intended to summarize data review results and any observed significant deviations from method and/or contractual requirements.

Each laboratory received the samples on ice and in good condition with custody seals present and intact. Technical holding times and preservation criteria were met, except where noted below. The chain of custody (COC) was appropriately signed and dated by field and laboratory personnel.

Method 9060A – TOC and DOC

The original certificate of analysis was received on and October 30, 2014. The certificate of analysis was complete in its presentation and the data were of acceptable quality. The data set demonstrated the laboratory's ability to achieve the reported permit quantitation limit (QL).

QC history documentation was provided. Applicable preservation and technical holding time criteria were met. Instrument calibration and calibration verification requirements were met. Blank, MS/MSD and LCS were within control limits, where applicable. The laboratory reported the results for the quadruplicate analyses; however, as the final result, the mean of quadruplicate analyses was reported. Deviations from QA/QC criteria that were noted during data review are summarized below.

The MS/MSD recovered low for DOC. Results for DOC were qualified as estimated due to the QC deficiency.

Results are reported as the mean of four replicates. Reported results with a relative standard deviation (RSD) > 20 for the four replicates were qualified as estimated (see data validation report).

For several samples, the dissolved result was greater than the total result (relative percent difference (RPD) > 20) and these results were qualified as estimated (see data validation report).

Field duplicate and sample results did not exhibit acceptable precision (RPD) for either TOC or DOC. The sample and duplicate results for TOC and DOC were qualified as estimated.

Target analytes detected at or above the detection limit or QL and/or analytical data that required a data validation qualifier due to quality control deviations noted above are summarized on the attached table. The reported concentration for target analytes detected less than the QL should be considered estimated.

Sample results were reported to at or above the laboratory detection limit and qualified as noted above. Results for the samples unaffected by the data validation process and not detected at or above the detection limit were validated and reported as "U." No results were rejected based on the data validation criteria.

SM 2320B – Alkalinity

The original certificate of analysis was received on October 31, 2014. The certificate of analysis was complete in its presentation and the data were of acceptable quality. The data set demonstrated the laboratory's ability to achieve the reported permit quantitation limit (QL).

QC deliverables package requirements were met. Technical holding time and preservation criteria were met. Calibration, blank, LCS and duplicate samples were analyzed and the reported results were within control limits. Blanks were interference free. Field duplicate results and

sample results exhibited acceptable precision, where applicable. No deviations from QA/QC criteria were noted during the data review process.

Target analytes detected at or above the detection limit or QL and/or analytical data that required a data validation qualifier due to quality control deviations noted above are summarized on the attached table. The reported concentration for target analytes detected less than the QL should be considered estimated.

Sample results were reported to at or above the laboratory detection limit. Alkalinity was detected above the QL in the project samples. No results were rejected based on the data validation criteria.

Methods 300.0 (IC) – Chloride, Nitrate, Sulfate

The original certificate of analysis was received on October 31, 2014. The certificate of analysis was complete in its presentation and the data were of acceptable quality. The data set demonstrated the laboratory's ability to achieve the reported permit quantitation limit (QL).

QC documentation criteria were met. Calibration and calibration verification requirements were met. Blank samples were analyzed as required and were interference free. LCS/LCSD and MS/MSD samples were analyzed as required and the reported results were within method specified control limits, except where noted. Field duplicate and sample results exhibited acceptable precision, where applicable. No deviations from QA/QC criteria were noted during the data review process.

Sulfate results from the initial analysis were not within the calibration range for samples 13MW3, 13MW5, 13MW6, 13MW7 and 13MW8. These samples were diluted and reanalyzed to accurately report the final result for sulfate. No data qualification was required.

Target analytes detected at or above the detection limit and/or analytical data that required a data validation qualifier due to quality control deviations noted above are summarized on the attached table. The reported concentration for target analytes detected less than the QL should be considered estimated.

Results remain as reported by the laboratory, except where noted above. Except where noted above, target analytes not detected at or above the detection limit or QL were validated and reported as "U" to note the target analyte was analyzed for, but not detected above the detection limit or QL. No chloride, nitrate or sulfate results were rejected based on the data validation criteria.

Methods 300.1 (IC) – Chlorate, Chlorite

The original certificate of analysis was received on October 31, 2014. The original certificate of analysis was complete in its presentation and the data were of acceptable quality.

The data set demonstrated the laboratory's ability to achieve the reported permit quantitation limit (QL).

QC documentation criteria were met. Calibration and calibration verification requirements were met. Blank samples were analyzed as required and were interference free. Surrogates, LCS and MS and DUP samples were analyzed as required and the reported results were within method specified control limits, except where noted. Field duplicate and sample results exhibited acceptable precision, where applicable. Deviations from QA/QC criteria that were noted during the data review process are summarized below.

Chlorite recovered low in 13MW5 MS. Chlorite was not detected at or above the DL or QL in any sample and results for this analyte were validated and qualified "UJ" to note that the QL was estimated due to the observed QC deficiency.

Target analytes detected at or above the detection limit and/or analytical data that required a data validation qualifier due to quality control deviations noted above are summarized on the attached table. The reported concentration for target analytes detected less than the QL should be considered estimated.

Sample results were reported to at or above the laboratory detection limit. Target analytes not detected at or above the detection limit or QL were validated and reported as "U" to note the target analyte was analyzed for, but not detected above the QL. No results were rejected based on the data validation criteria.

DATA EVALUATION FOR SW-846 METHOD 9060A FOR TOC / DOC

Microbac Laboratories, Marietta, Ohio; SDG: L14100924
"☑" denotes items reviewed. See Data Validation Report for additional comments.

A. QC DELIVERABLES PACKAGE REVIEW CRITERIA:
- ☑ Case narrative present and signed by a laboratory representative
- ☑ Chain of Custody present and signed by a laboratory representative
- ☑ Sample results included for sample locations
- ☑ Analyte QLs at project required QL
- ☑ MDL study and analyst's initial demonstration submitted

B. TECHNICAL HOLDING TIME AND PRESERVATION REVIEW CRITERIA:
- ☑ 28-day sample holding time met,
- ☑ Samples received at ≤ 6°C and preserved to pH<2 with HCl or H_2SO_4, DOC field filtered

C. INSTRUMENT CALIBRATION REVIEW CRITERIA:
- ☑ Calibrate per manufacturers' instructions
- ☑ Calibration ≥ 0.995

D. INITIAL / CONTINUING CALIBRATION VERIFICATION REVIEW CRITERIA:
- ☑ 10 sample frequency
- ☑ Use of calibration blank and check standard
- ☑ % Recovery (%R) within 90-110

E. BLANK ANALYSIS REVIEW CRITERIA:
- ☑ Method/Other Lab Blanks
- ☑ Interference free
- ☑ 10 sample frequency

F. MATRIX SPIKE DUPLICATE (MSD) ANALYSIS REVIEW CRITERIA:
- ☑ One matrix spike duplicate/sample duplicate per batch of 20 samples
- ☑ RPD ≤ 20 between MS and MSD results

G. MATRIX SPIKE (MS) SAMPLE ANALYSIS REVIEW CRITERIA:
- ☑ %R within 75-125
- ☑ One MS per batch of 20 samples

H. SAMPLE RESULTS REPORTED:
- ☑ Sample results reported within calibration range
- ☑ Report average of quad analysis

I. REPORTING:
- ☑ Sample results reported by laboratory to the method detection limit, average of quadruplicate analysis reported

REFERENCES:

Draper Aden Associates conducted a limited data validation of the above noted data set using the data package provided by the analyzing laboratory. Data evaluation was conducted using SW-846 (Test Methods for Evaluating Solid Waste-Physical/Chemical Methods, USEPA, SW-846, 3rd Edition-Final Update I, II/IIA, III and subsequent updates) method requirements and CLP data validation guidelines (USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, October 2004 and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review, January 2010). Validation of this data set is limited to review of items detailed in this data review report.

STANDARD METHODS 2320B ALKALINITY DATA VALIDATION

Pace Analytical Services (Pace), Ormond Beach, Florida; SDG: 92221168
"☑" denotes items reviewed. See Data Validation Summary for additional comments.

A. QC DOCUMENTATION CRITERIA:
- ☑ Detection limit and QL reported by laboratory

B. TECHNICAL HOLDING TIME/ PRESERVATION REQUIREMENTS:
- ☑ Cool ≤6 degrees C, analyzed within 14 days

C. INSTRUMENT CALIBRATION CRITERIA:
- ☑ Titration curve with three pH concentration standards
- ☑ Correlation coefficient (R) ≥ 0.995

D. INITIAL / CONTINUING CALIBRATION CRITERIA:
- ☑ ICV – analyzed at beginning of each batch; Recovery within 90-110%
- ☑ Mid-range standard; after every 10 samples
- ☑ Recovery within 90-110% range

E. BLANK SAMPLE CRITERIA:
- ☑ Interference free
- ☑ Method Blank

F. LCS CRITERIA:
- ☑ One LCS per batch or 20 samples
- ☑ Recovery within 90-110% range

G. BLANK SAMPLE CRITERIA:
- ☑ Interference free
- ☑ Method Blank

H. SAMPLE DUPLICATE CRITERIA:
- ☑ One sample duplicate for every sample batch
- ☑ RPD <20 for sample/lab duplicate and sample/field duplicate precision

I. SAMPLE RESULTS CRITERIA:
- ☑ Sample results reported to the method detection limit

REFERENCES:

Draper Aden Associates conducted a limited data validation of the above noted data set using the data package provided by the analyzing laboratory. Data evaluation was conducted using *Standard Methods for the Examination of Water and Wastewater, 18th Edition*, 1992 method requirements. Validation of this data set is limited to review of items detailed in this data review report.

USEPA METHOD 300.0 ION CHROMATOGRAPHY DATA VALIDATION

Pace Analytical Services (Pace), Ormond Beach, Florida; SDG: 92221168
Corresponds to Chloride, Nitrate (as N), Sulfate
"☑" denotes items reviewed. See Data Validation Summary for additional comments.

A. DETECTION LIMIT AND QUANTITATION LIMIT CRITERIA:
Data Quality Objective: Analytical Sensitivity
- ☑ Specific detection limit reported
- ☑ Specific quantitation limit reported
- Instrument detection limit (IDL) less than QL
- Performance evaluation sample analyzed within 12 months

B. INITIAL DEMONSTRATION OF CAPABILITY (IDOC) CRITERIA:
Data Quality Objective: Laboratory Method Sensitivity
- ☑ IDOC for analysts included in data package

C. TECHNICAL HOLDING TIME / PRESERVATION REQUIREMENTS:
Data Quality Objective: Representativeness
- ☑ 48 hour hold time for Nitrate; cool to ≤ 6 °C
- ☑ 28 day hold time for Chloride and Sulfate; cool to ≤ 6 °C

D. INITIAL CALIBRATION CRITERIA:
Data Quality Objective: Laboratory Accuracy
- ☑ 1 calibration blank and at least 3 standards.
- ☑ Linear curve fit with correlation coefficient r>0.995 or average response

E. CONTINUING CALIBRATION VERIFICATION (CCV) CRITERIA:
Data Quality Objective: Laboratory Analytical Accuracy
- ☑ 10 sample frequency, Recovery within 90-110%
- ☑ Independent/second source used for ICV or CCV
- ☑ CCV concentration near mid-level of calibration curve

F. BLANK SAMPLE CRITERIA:
Data Quality Objective: Sensitivity/Instrument Drift/Contamination Evaluation
- ☑ Method/Other Lab Blanks (check only if analyzed), one per batch
- ☑ Interference free

G. LABORATORY CONTROL SAMPLE (LCS) CRITERIA:
Data Quality Objective: Laboratory Method Accuracy and Precision, Laboratory Performance
- ☑ 1 LCS per 20 samples/sample batch
- ☑ 90-110% recovery

H. QC RESULTS:
Data Quality Objective: Laboratory Method Accuracy and Precision, Laboratory Performance
- ☑ MS/MSD (or batch QC) per sample batch. Recovery: 80-120% Precision: RPD < 20
  QL standard recovered within criteria: 70-130%
- ☑ Sample/Field Duplicate precision criteria: RPD <20

I. SAMPLE RESULTS:
- ☑ Anion results were reported within calibration range
- ☑ Results reported to the detection limit

REFERENCES:

Draper Aden Associates conducted a limited data validation of the above noted data set using the data package provided by the analyzing laboratory. Data evaluation was conducted using USEPA Method 300.0 - *Determination of Inorganic Anions by Ion Chromatography*, Revision 2.1, August 1993 method requirements. Validation of this data set is limited to review of items detailed in this data review report.

USEPA METHOD 300.1 ION CHROMATOGRAPHY DATA VALIDATION

Pace Analytical Services (Pace), Ormond Beach, Florida; SDG: 92221168
Corresponds to Chlorite and Chlorate
"☑" denotes items reviewed. See Data Validation Report for additional comments.

A. DETECTION LIMIT AND QUANTITATION LIMIT CRITERIA:
Data Quality Objective: Analytical Sensitivity
- ☑ Specific detection limit reported
- ☑ Specific quantitation limit reported
- Instrument detection limit (IDL) less than QL
- Performance evaluation sample analyzed within 12 months

B. INITIAL DEMONSTRATION OF CAPABILITY (IDOC) CRITERIA:
Data Quality Objective: Laboratory Method Sensitivity
- ☑ IDOC submitted with data package.

C. TECHNICAL HOLDING TIME / PRESERVATION REQUIREMENTS:
Data Quality Objective: Representativeness
- ☑ 28 day hold time for Chlorate; cool to ≤ 6 °Cwith EDA
- ☑ 14 day hold time for Chlorite; cool to ≤ 6 °C with EDA

D. INITIAL CALIBRATION CRITERIA:
Data Quality Objective: Laboratory Accuracy
- ☑ 1 calibration blank and at least 3 standards.
- ☑ Linear curve fit with correlation coefficient r>0.995 or average response

E. CONTINUING CALIBRATION VERIFICATION (CCV) CRITERIA:
Data Quality Objective: Laboratory Analytical Accuracy
- ☑ 10 sample frequency, Recovery within 85-115%
- ☑ Independent/second source used for ICV or CCV
- ☑ CCV concentration near mid-level of calibration curve

F. BLANK SAMPLE CRITERIA:
Data Quality Objective: Sensitivity/Instrument Drift/Contamination Evaluation
- ☑ Method/Other Lab Blanks (check only if analyzed), one per batch
- ☑ Interference free

G. LABORATORY CONTROL SAMPLE (LCS) CRITERIA:
Data Quality Objective: Laboratory Method Accuracy and Precision, Laboratory Performance
- ☑ 1 LCS per 20 samples/sample batch
- ☑ 85-115% recovery

H. QC RESULTS:
Data Quality Objective: Laboratory Method Accuracy and Precision, Laboratory Performance
- ☑ IPC analyzed once per analytical run and within criteria; 85-115%
- ☑ MS/sample duplicate per sample batch. Recovery: 85-115% Precision: RPD < 20
- ☑ QL standard recovered within criteria: 75-125%
- ☑ Sample/Field Duplicate precision criteria: RPD <20
- ☑ Surrogate (dichloroacetate) recovered within 90-115%

I. SAMPLE RESULTS:
- ☑ Anion results were reported within calibration range

☑ Results reported to the detection limit

REFERENCES:

Draper Aden Associates conducted a limited data validation of the above noted data set using the data package provided by the analyzing laboratory. Data evaluation was conducted using USEPA Method 300.1-*Determination of Inorganic Anions in Drinking Water by Ion Chromatography,* Revision 1.0, 1997 method requirements. Validation of this data set is limited to review of items detailed in this data review report.

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Engineering ♦ Surveying ♦ Environmental Services

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2/27/2015

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Date:

Analyte	Sample ID	Result	Q	Result	Q	QL	DL	Unit	Validation Notes
Method: 2320B									
Laboratory: Pace Analytical Services, Huntersville, NC									
Alkalinity	13MW3	227		227		5	5	mg/L	No action taken.
	13MW4	202		202		5	5	mg/L	No action taken.
	13MW5	208		208		5	5	mg/L	No action taken.
	13MW6	273		273		5	5	mg/L	No action taken.
	13MW7	229		229		5	5	mg/L	No action taken.
	13MW8	200		200		5	5	mg/L	No action taken.
	13MWDUP	198		198		5	5	mg/L	No action taken.
Method: 300.0									
Laboratory: Pace Analytical Services, Huntersville, NC									
Chloride	13MW2	5	U	U		5	2.5	mg/L	Analyte not detected at or above permit MDL or QL.
	13MW3	5	U	U		5	2.5	mg/L	Analyte not detected at or above permit MDL or QL.
	13MW4	5	U	U		5	2.5	mg/L	Analyte not detected at or above permit MDL or QL.
	13MW5	5	U	U		5	2.5	mg/L	Analyte not detected at or above permit MDL or QL.
	13MW6	7.3		7.3		5	2.5	mg/L	No action taken.
	13MW7	5	U	U		5	2.5	mg/L	Analyte not detected at or above permit MDL or QL.
	13MW8	5	U	U		5	2.5	mg/L	Analyte not detected at or above permit MDL or QL.
	13MWDUP	5	U	U		5	2.5	mg/L	Analyte not detected at or above permit MDL or QL.
Nitrate (as N)	13MW3	1.6		1.6		0.05	0.043	mg/L	No action taken.
	13MW4	0.66		0.66		0.05	0.043	mg/L	No action taken.
	13MW5	0.59		0.59		0.05	0.043	mg/L	No action taken.
	13MW6	0.74		0.74		0.05	0.043	mg/L	No action taken.
	13MW7	0.93		0.93		0.05	0.043	mg/L	No action taken.
	13MW8	0.19		0.19		0.05	0.086	mg/L	No action taken. Analyzed in dilution (1:2). Actual QL 0.1 mg/l.
	13MWDUP	0.68		0.68		0.05	0.043	mg/L	No action taken.
Sulfate	13MW3	104		104		5	5	mg/L	No action taken. Analyzed in dilution (1:2). Actual QL 10 mg/l.
	13MW4	55.9		55.9		5	2.5	mg/L	No action taken.
	13MW5	182		182		5	12.5	mg/L	No action taken. Analyzed in dilution (1:5). Actual QL 25 mg/l.
	13MW6	196		196		5	12.5	mg/L	No action taken. Analyzed in dilution (1:5). Actual QL 25 mg/l.
	13MW7	153		153		5	5	mg/L	No action taken. Analyzed in dilution (1:2). Actual QL 10 mg/l.
	13MW8	336		336		5	12.5	mg/L	No action taken. Analyzed in dilution (1:5). Actual QL 25 mg/l.
	13MWDUP	56.1		56.1		5	2.5	mg/L	No action taken.

Analyte	Sample ID	Result	Q	Result	Q	QL	DL	Unit	Validation Notes
Method: 300.1									
Laboratory: Pace Analytical Services, Huntersville, NC									
Chlorate	13MW2	5	U	U		5	1.2	ug/L	Analyte not detected at or above permit MDL or QL.
	13MW3	5	U	U		5	1.2	ug/L	Analyte not detected at or above permit MDL or QL.
	13MW4	5	U	U		5	1.2	ug/L	Analyte not detected at or above permit MDL or QL.
	13MW5	5	U	U		5	1.2	ug/L	Analyte not detected at or above permit MDL or QL.
	13MW6	5	U	U		5	1.2	ug/L	Analyte not detected at or above permit MDL or QL.
	13MW7	5	U	U		5	1.2	ug/L	Analyte not detected at or above permit MDL or QL.
	13MW8	5	U	U		5	1.2	ug/L	Analyte not detected at or above permit MDL or QL.
	13MWDUP	5	U	U		5	1.2	ug/L	Analyte not detected at or above permit MDL or QL.
Chlorite	13MW2	5	U	U	J	5	1.4	ug/L	Analyte not detected at or above permit MDL or QL. MS recovered low (69%).
	13MW3	5	U	U	J	5	1.4	ug/L	Analyte not detected at or above permit MDL or QL. MS recovered low (69%).
	13MW4	5	U	U	J	5	1.4	ug/L	Analyte not detected at or above permit MDL or QL. MS recovered low (69%).
	13MW5	5	U	U	J	5	1.4	ug/L	Analyte not detected at or above permit MDL or QL. MS recovered low (69%).
	13MW6	5	U	U	J	5	1.4	ug/L	Analyte not detected at or above permit MDL or QL. MS recovered low (69%).
	13MW7	5	U	U	J	5	1.4	ug/L	Analyte not detected at or above permit MDL or QL. MS recovered low (69%).
	13MW8	5	U	U	J	5	1.4	ug/L	Analyte not detected at or above permit MDL or QL. MS recovered low (69%).
	13MWDUP	5	U	U	J	5	1.4	ug/L	Analyte not detected at or above permit MDL or QL. MS recovered low (69%).
Method: 6010C									
Laboratory: CompuChem, a Division of Liberty Analytical, Cary, NC									
Iron, Dissolved	13MW3	58	U	U		200	58	ug/L	Analyte not detected at or above permit MDL or QL.
	13MW4	58	U	U		200	58	ug/L	Analyte not detected at or above permit MDL or QL.
	13MW5	58	U	U		200	58	ug/L	Analyte not detected at or above permit MDL or QL.
	13MW6	58	U	U		200	58	ug/L	Analyte not detected at or above permit MDL or QL.
	13MW7	58	U	U		200	58	ug/L	Analyte not detected at or above permit MDL or QL.
	13MW8	58	U	U		200	58	ug/L	Analyte not detected at or above permit MDL or QL.
	13MWDUP	200	U	U		200	58	ug/L	Analyte not detected at or above permit MDL or QL.
Manganese, Dissolved	13MW3	0.184	J	0.184	J	10	0.093	ug/L	Result < QL.
	13MW4	0.173	J	0.173	J	10	0.093	ug/L	Result < QL.
	13MW5	0.12	J	0.12	J	10	0.093	ug/L	Result < QL.
	13MW6	0.0987	J	0.0987	J	10	0.093	ug/L	Result < QL.
	13MW7	0.17	J	0.17	J	10	0.093	ug/L	Result < QL.
	13MW8	6.93	J	6.93	J	10	0.093	ug/L	Result < QL.
	13MWDUP	0.726	J	0.726	J	10	0.93	ug/L	Result < QL.

Analyte	Sample ID	Result	Q	Result	Q	QL	DL	Unit	Validation Notes
Method: 6020A									
Laboratory: CompuChem, a division of Liberty Analytical, Cary, NC									
Antimony	13MW1					5	0.13	ug/L	not sampled. For database report JCF
	13MW3	0.13	U	U		5	0.13	ug/L	Analyte not detected at or above permit MDL or QL.
	13MW4	0.186	J	0.186	J	5	0.13	ug/L	Result < QL.
	13MW5	0.13	U	U		5	0.13	ug/L	Analyte not detected at or above permit MDL or QL.
	13MW6	0.13	U	U		5	0.13	ug/L	Analyte not detected at or above permit MDL or QL.
	13MW7	0.13	U	U		5	0.13	ug/L	Analyte not detected at or above permit MDL or QL.
	13MWDUP	0.199	J	0.199	J	5	0.13	ug/L	Result < QL.
Arsenic	13MW3	0.209	J	0.209	J	5	0.14	ug/L	Result < QL.
	13MW4	0.284	J	0.284	J	5	0.14	ug/L	Result < QL.
	13MW5	0.291	J	0.291	J	5	0.14	ug/L	Result < QL.
	13MW6	0.27	J	0.27	J	5	0.14	ug/L	Result < QL.
	13MW7	0.247	J	0.247	J	5	0.14	ug/L	Result < QL.
	13MWDUP	0.321	J	0.321	J	5	0.14	ug/L	Result < QL.
Barium	13MW3	102		102		10	0.13	ug/L	No action taken.
	13MW4	57.6		57.6		10	0.13	ug/L	No action taken. RPD sample/blind field duplicate < 20 (58.4 ug/l).
	13MW5	107		107		10	0.13	ug/L	No action taken.
	13MW6	82.4		82.4		10	0.13	ug/L	No action taken.
	13MW7	138		138		10	0.13	ug/L	No action taken.
	13MWDUP	58.4		58.4		10	0.13	ug/L	No action taken. RPD sample/blind field duplicate < 20 (58.4 ug/l).
Cadmium	13MW3	0.14	U	U		1	0.14	ug/L	Analyte not detected at or above permit MDL or QL.
	13MW4	0.14	U	U		1	0.14	ug/L	Analyte not detected at or above permit MDL or QL.
	13MW5	0.14	U	U		1	0.14	ug/L	Analyte not detected at or above permit MDL or QL.
	13MW6	0.14	U	U		1	0.14	ug/L	Analyte not detected at or above permit MDL or QL.
	13MW7	0.14	U	U		1	0.14	ug/L	Analyte not detected at or above permit MDL or QL.
	13MWDUP	0.14	U	U		1	0.14	ug/L	Analyte not detected at or above permit MDL or QL.
Chromium	13MW3	1.94	J	1.94	J	5	0.13	ug/L	Result < QL.
	13MW4	2.59	J	2.59	J	5	0.13	ug/L	Result < QL.
	13MW5	1.95	J	1.95	J	5	0.13	ug/L	Result < QL.
	13MW6	1.18	J	1.18	J	5	0.13	ug/L	Result < QL.
	13MW7	0.788	J	0.788	J	5	0.13	ug/L	Result < QL.
	13MWDUP	2.48	J	2.48	J	5	0.13	ug/L	Result < QL.
Lead	13MW3	0.06	U	U		5	0.06	ug/L	Analyte not detected at or above permit MDL or QL.
	13MW4	0.131	J	0.131	J	5	0.06	ug/L	Result < QL.
	13MW5	0.0767	J	0.0767	J	5	0.06	ug/L	Result < QL.

Analyte	Sample ID	Result	Q	Result	Q	QL	DL	Unit	Validation Notes
Method: 6020A									
Laboratory: CompuChem, a division of Liberty Analytical, Cary, NC									
Lead	13MW6	0.06	U	U		5	0.06	ug/L	Analyte not detected at or above permit MDL or QL.
	13MW7	0.06	U	U		5	0.06	ug/L	Analyte not detected at or above permit MDL or QL.
	13MWDUP	0.159	J	0.159	J	5	0.06	ug/L	Result < QL.
Nickel	13MW3	0.786	J	0.786	J	5	0.1	ug/L	Result < QL.
	13MW4	2.77	J	2.77	J	5	0.1	ug/L	Result < QL.
	13MW5	1.78	J	1.78	J	5	0.1	ug/L	Result < QL.
	13MW6	1.06	J	1.06	J	5	0.1	ug/L	Result < QL.
	13MW7	12.7		12.7		5	0.1	ug/L	No action taken.
	13MWDUP	2.56	J	2.56	J	5	0.1	ug/L	Result < QL.
Selenium	13MW3	0.605	J	0.605	J	5	0.37	ug/L	Result < QL.
	13MW4	0.4	J	0.4	J	5	0.37	ug/L	Result < QL.
	13MW5	1.12	J	1.12	J	5	0.37	ug/L	Result < QL.
	13MW6	1.94	J	1.94	J	5	0.37	ug/L	Result < QL.
	13MW7	1.48	J	1.48	J	5	0.37	ug/L	Result < QL.
	13MWDUP	0.627	J	U		5	0.37	ug/L	Result < QL.
Silver	13MW3	0.04	U	U		2	0.04	ug/L	Analyte not detected at or above permit MDL or QL.
	13MW4	0.04	U	U		2	0.04	ug/L	Analyte not detected at or above permit MDL or QL.
	13MW5	0.04	U	U		2	0.04	ug/L	Analyte not detected at or above permit MDL or QL.
	13MW6	0.04	U	U		2	0.04	ug/L	Analyte not detected at or above permit MDL or QL.
	13MW7	0.04	U	U		2	0.04	ug/L	Analyte not detected at or above permit MDL or QL.
	13MWDUP	0.04	U	U		2	0.04	ug/L	Analyte not detected at or above permit MDL or QL.
Zinc	13MW3	2.33	J	U		5	0.29	ug/L	Result < QL. Laboratory blank contamination. Result < 5X prep blank concentration (0.8 ug/l).
	13MW4	2.21	J	U		5	0.29	ug/L	Result < QL. Laboratory blank contamination. Result < 5X prep blank concentration (0.8 ug/l).
	13MW5	1.3	J	U		5	0.29	ug/L	Result < QL. Laboratory blank contamination. Result < 5X prep blank concentration (0.8 ug/l).
	13MW6	1.21	J	U		5	0.29	ug/L	Result < QL. Laboratory blank contamination. Result < 5X prep blank concentration (0.8 ug/l).
	13MW7	4.56	J	4.56	J	5	0.29	ug/L	Result < QL.
	13MWDUP	2.51	J	U		5	0.29	ug/L	Result < QL. Laboratory blank contamination. Result < 5X prep blank concentration (0.8 ug/l).

Analyte	Sample ID	Result	Q	Result	Q	QL	DL	Unit	Validation Notes
Method: 6850									
Laboratory: Microbac, Ohio Valley Division, Marrietta, OH									
Perchlorate	13MW2	0.59		0.59		0.2	0.1	ug/L	No action taken.
	13MW3	1.86		1.86		0.2	0.1	ug/L	No action taken.
	13MW4	13.6		13.6		0.2	1	ug/L	Analyzed in dilution (1:10). Actual QL 2 ug/l.
	13MW5	1.17		1.17		0.2	0.1	ug/L	No action taken.
	13MW6	0.672		0.672		0.2	0.1	ug/L	No action taken.
	13MW7	1.21		1.21		0.2	0.1	ug/L	No action taken.
	13MW8	4.48		4.48		0.2	0.1	ug/L	No action taken.
	13MWDUP	11.6		11.6		0.2	1	ug/L	Analyzed in dilution (1:10). Actual QL 2 ug/l. Field duplicate of 13MW4. RPD 15.9
Method: 7470A									
Laboratory: CompuChem, a division of Liberty Analytical, Cary, NC									
Mercury	13MW3	0.0711	U	U		0.5	0.0711	ug/L	Analyte not detected at or above permit MDL or QL.
	13MW4	0.0711	U	U		0.5	0.0711	ug/L	Analyte not detected at or above permit MDL or QL.
	13MW5	0.0711	U	U		0.5	0.0711	ug/L	Analyte not detected at or above permit MDL or QL.
	13MW6	0.0711	U	U		0.5	0.0711	ug/L	Analyte not detected at or above permit MDL or QL.
	13MW7	0.0711	U	U		0.5	0.0711	ug/L	Analyte not detected at or above permit MDL or QL.
	13MWDUP	0.0711	U	U		0.5	0.0711	ug/L	Analyte not detected at or above permit MDL or QL.

Analyte	Sample ID	Result	Q	Result	Q	QL	DL	Unit	Validation Notes
Method: 8260C									
Laboratory: ELLE, LLC, Lancaster, PA									
Benzene	13MW3	0.1	J	0.1	J	0.5	0.1	ug/l	Result < QL.
	13MW4	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW5	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW6	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW7	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MWDUP2	0.6		0.6		0.5	0.1	ug/l	No action taken. Field duplicate of 13MW3.
	TRIP BLANK 1	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
Benzyl chloride	13MW3	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW4	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW5	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW6	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW7	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MWDUP2	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	TRIP BLANK 1	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
Bromomethane	13MW3	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW4	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW5	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW6	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW7	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MWDUP2	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	TRIP BLANK 1	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
Carbon tetrachloride	13MW2	0.1	U	U		1	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW3	5.7		5.7		1	0.1	ug/l	No action taken.
	13MW4	0.1	U	U		1	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW5	0.1	J	0.1	J	1	0.1	ug/l	Result < QL.
	13MW6	0.1	U	U		1	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW7	0.1	U	U		1	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW8	0.3	J	0.3	J	1	0.1	ug/l	Result < QL.
	13MWDUP2	5.7		5.7		1	0.1	ug/l	No action taken. Field duplicate of 13MW3. RPD <20.
	TRIP BLANK 1	0.1	U	U		1	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
Chlorobenzene	13MW3	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW4	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW5	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW6	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.

Analyte	Sample ID	Result	Q	Result	Q	QL	DL	Unit	Validation Notes
Method: 8260C									
Laboratory: ELLE, LLC, Lancaster, PA									
Chlorobenzene	13MW7	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MWDUP2	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	TRIP BLANK 1	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
Chloromethane	13MW2	0.2	U	U		0.5	0.2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW3	0.2	U	U		0.5	0.2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW4	0.2	U	U		0.5	0.2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW5	0.2	U	U		0.5	0.2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW6	0.2	U	U		0.5	0.2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW7	0.2	U	U		0.5	0.2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW8	0.2	U	U		0.5	0.2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MWDUP2	0.2	U	U		0.5	0.2	ug/l	Analyte not detected at or above permit MDL or QL.
	TRIP BLANK 1	0.2	U	U		0.5	0.2	ug/l	Analyte not detected at or above permit MDL or QL.
Chloroform	13MW2	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW3	0.6		0.6		0.5	0.1	ug/l	No action taken.
	13MW4	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW5	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW6	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW7	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW8	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MWDUP2	0.6		0.6		0.5	0.1	ug/l	No action taken. Field duplicate of 13MW3. RPD <20.
	TRIP BLANK 1	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
1,1-Dichloroethane	13MW3	0.1	U	U		1	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW4	0.1	U	U		1	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW5	0.1	U	U		1	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW6	0.1	U	U		1	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW7	0.1	U	U		1	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MWDUP2	0.1	U	U		1	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	TRIP BLANK 1	0.1	U	U		1	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
1,2-Dichloroethane	13MW3	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW4	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW5	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW6	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW7	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MWDUP2	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.

Analyte	Sample ID	Result	Q	Result	Q	QL	DL	Unit	Validation Notes
Method: 8260C									
Laboratory: ELLE, LLC, Lancaster, PA									
1,2-Dichloroethane	TRIP BLANK 1	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
1,1-Dichloroethene	13MW3	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW4	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW5	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW6	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW7	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MWDUP2	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	TRIP BLANK 1	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
Methylene chloride	13MW2	0.2	U	U		1	0.2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW3	0.2	U	U		1	0.2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW4	0.2	U	U		1	0.2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW5	0.2	U	U		1	0.2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW6	0.2	U	U		1	0.2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW7	0.2	U	U		1	0.2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW8	0.2	U	U		1	0.2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MWDUP2	0.2	U	U		1	0.2	ug/l	Analyte not detected at or above permit MDL or QL.
	TRIP BLANK 1	0.2	U	U		1	0.2	ug/l	Analyte not detected at or above permit MDL or QL.
Naphthalene	13MW3	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW4	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW5	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW6	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW7	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MWDUP2	0.1	J	0.1	J	0.5	0.1	ug/l	Result < QL. Field duplicate of 13MW3.
	TRIP BLANK 1	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
Tetrachloroethene	13MW3	0.1	U	U		1	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW4	0.1	U	U		1	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW5	0.1	U	U		1	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW6	0.1	U	U		1	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW7	0.1	U	U		1	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MWDUP2	0.1	U	U		1	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	TRIP BLANK 1	0.1	U	U		1	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
Toluene	13MW3	2.5		2.5		1	0.1	ug/l	No action taken.
	13MW4	0.1	U	U		1	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW5	0.1	U	U		1	0.1	ug/l	Analyte not detected at or above permit MDL or QL.

Analyte	Sample ID	Result	Q	Result	Q	QL	DL	Unit	Validation Notes
Method: 8260C									
Laboratory: ELLE, LLC, Lancaster, PA									
Toluene	13MW6	0.1	U	U		1	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW7	0.1	U	U		1	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MWDUP2	5.2		5.2		1	0.1	ug/l	No action taken. Field duplicate of 13MW3. RPD <20.
	TRIP BLANK 1	0.1	U	U		1	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
1,1,1-Trichloroethane	13MW3	0.1	U	U		1	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW4	0.1	U	U		1	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW5	0.1	U	U		1	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW6	0.1	U	U		1	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW7	0.1	U	U		1	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MWDUP2	0.1	U	U		1	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	TRIP BLANK 1	0.1	U	U		1	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
Trichloroethene	13MW3	1.1		1.1		1	0.1	ug/l	No action taken.
	13MW4	1.3		1.3		1	0.1	ug/l	No action taken.
	13MW5	0.1	U	U		1	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW6	0.1	U	U		1	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW7	0.5	J	0.5	J	1	0.1	ug/l	Result < QL.
	13MWDUP2	1.1		1.1		1	0.1	ug/l	No action taken. Field duplicate of 13MW3. RPD <20.
	TRIP BLANK 1	0.1	U	U		1	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
Trichlorofluoromethane	13MW3	0.2	J	0.2	J	1	0.1	ug/l	Result < QL.
	13MW4	0.1	U	U		1	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW5	0.1	U	U		1	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW6	0.1	U	U		1	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW7	0.1	U	U		1	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MWDUP2	0.2	J	0.2	J	1	0.1	ug/l	Result < QL. Field duplicate of 13MW3. RPD <20.
	TRIP BLANK 1	0.1	U	U		1	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
Vinyl chloride	13MW3	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW4	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW5	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW6	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW7	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MWDUP2	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.
	TRIP BLANK 1	0.1	U	U		0.5	0.1	ug/l	Analyte not detected at or above permit MDL or QL.

Analyte	Sample ID	Result	Q	Result	Q	QL	DL	Unit	Validation Notes
Method: 8270D									
Laboratory: ELLE, LLC, Lancaster, PA									
Acetophenone	13MW3	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW4	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW5	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW6	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW7	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MWDUP	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL. Field duplicate of 13MW4.
Benzo[a]anthracene	13MW3	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW4	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW5	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW6	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW7	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MWDUP	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL. Field duplicate of 13MW4.
Benzo[b]fluoranthene	13MW3	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW4	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW5	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW6	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW7	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MWDUP	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL. Field duplicate of 13MW4.
Benzo[k]fluoranthene	13MW3	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW4	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW5	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW6	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW7	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MWDUP	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL. Field duplicate of 13MW4.
Benzo[a]pyrene	13MW3	0.5	U	U		0.5	0.5	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW4	0.5	U	U		0.5	0.5	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW5	0.5	U	U		0.5	0.5	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW6	0.5	U	U		0.5	0.5	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW7	0.5	U	U		0.5	0.5	ug/l	Analyte not detected at or above permit MDL or QL.
	13MWDUP	0.5	U	U		0.5	0.5	ug/l	Analyte not detected at or above permit MDL or QL. Field duplicate of 13MW4.
bis(2-Ethylhexyl)phthalate	13MW3	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW4	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW5	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW6	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL.

Analyte	Sample ID	Result	Q	Result	Q	QL	DL	Unit	Validation Notes
Method: 8270D									
Laboratory: ELLE, LLC, Lancaster, PA									
bis(2-Ethylhexyl)phthalate	13MW7	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MWDUP	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL. Field duplicate of 13MW4.
Butyl benzyl phthalate	13MW3	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW4	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW5	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW6	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW7	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MWDUP	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL. Field duplicate of 13MW4.
2-Chlorophenol	13MW3	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW4	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW5	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW6	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW7	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MWDUP	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL. Field duplicate of 13MW4.
Diethyl phthalate	13MW3	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW4	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW5	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW6	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW7	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MWDUP	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL. Field duplicate of 13MW4.
Diphenylamine	13MW3	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW4	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW5	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW6	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW7	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MWDUP	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL. Field duplicate of 13MW4.
Dibenz(a,h)anthracene	13MW3	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW4	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW5	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW6	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW7	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MWDUP	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL. Field duplicate of 13MW4.
Dibenzofuran	13MW3	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW4	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.

Analyte	Sample ID	Result	Q	Result	Q	QL	DL	Unit	Validation Notes
Method: 8270D									
Laboratory: ELLE, LLC, Lancaster, PA									
Dibenzofuran	13MW5	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW6	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW7	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MWDUP	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL. Field duplicate of 13MW4.
2,4-Dichlorophenol	13MW3	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW4	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW5	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW6	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW7	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MWDUP	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL. Field duplicate of 13MW4.
3,3'-Dimethylbenzidine	13MW3	26	U	U		75	25	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW4	25	U	U		75	25	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW5	25	U	U		75	25	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW6	26	U	U		75	25	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW7	25	U	U		75	25	ug/l	Analyte not detected at or above permit MDL or QL.
	13MWDUP	26	U	U		75	25	ug/l	Analyte not detected at or above permit MDL or QL. Field duplicate of 13MW4.
Dimethyl phthalate	13MW3	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW4	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW5	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW6	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW7	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MWDUP	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL. Field duplicate of 13MW4.
Di-n-butyl phthalate	13MW3	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW4	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW5	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW6	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW7	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MWDUP	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL. Field duplicate of 13MW4.
Di-n-octyl phthalate	13MW3	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW4	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW5	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW6	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW7	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MWDUP	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL. Field duplicate of 13MW4.

Analyte	Sample ID	Result	Q	Result	Q	QL	DL	Unit	Validation Notes
Method: 8270D									
Laboratory: ELLE, LLC, Lancaster, PA									
Fluoranthene	13MW3	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW4	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW5	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW6	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW7	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MWDUP	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL. Field duplicate of 13MW4.
Hexachloroethane	13MW3	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW4	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW5	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW6	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW7	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MWDUP	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL. Field duplicate of 13MW4.
Indeno[1,2,3-cd]pyrene	13MW3	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW4	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW5	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW6	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW7	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MWDUP	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL. Field duplicate of 13MW4.
3 & 4-Methylphenol	13MW3	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW4	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW5	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW6	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW7	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MWDUP	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL. Field duplicate of 13MW4.
Nitrobenzene	13MW3	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW4	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW5	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW6	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW7	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MWDUP	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL. Field duplicate of 13MW4.
p-Nitrophenol	13MW3	10	U	U		30	10	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW4	10	U	U		30	10	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW5	10	U	U		30	10	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW6	10	U	U		30	10	ug/l	Analyte not detected at or above permit MDL or QL.

Analyte	Sample ID	Result	Q	Result	Q	QL	DL	Unit	Validation Notes
Method: 8270D									
Laboratory: ELLE, LLC, Lancaster, PA									
p-Nitrophenol	13MW7	10	U	U		30	10	ug/l	Analyte not detected at or above permit MDL or QL.
	13MWDUP	10	U	U		30	10	ug/l	Analyte not detected at or above permit MDL or QL. Field duplicate of 13MW4.
N-Nitrosodiphenylamine	13MW3	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW4	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW5	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW6	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW7	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL.
	13MWDUP	2	U	U		5	2	ug/l	Analyte not detected at or above permit MDL or QL. Field duplicate of 13MW4.
Phenol	13MW3	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW4	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW5	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW6	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW7	2	J	2	J	5	1	ug/l	Result < QL.
	13MWDUP	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL. Field duplicate of 13MW4.
Pyrene	13MW3	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW4	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW5	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW6	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW7	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL.
	13MWDUP	1	U	U		5	1	ug/l	Analyte not detected at or above permit MDL or QL. Field duplicate of 13MW4.

Analyte	Sample ID	Result	Q	Result	Q	QL	DL	Unit	Validation Notes
Method: 8330B									
Laboratory: Microbac, Marrietta, OH									
2,4-Dinitrotoluene	13MW3	0.25	U	U		1	0.25	ug/L	Analyte not detected at or above permit MDL or QL.
	13MW4	0.25	U	U		1	0.25	ug/L	Analyte not detected at or above permit MDL or QL.
	13MW5	0.25	U	U		1	0.25	ug/L	Analyte not detected at or above permit MDL or QL.
	13MW6	0.25	U	U		1	0.25	ug/L	Analyte not detected at or above permit MDL or QL.
	13MW7	0.25	U	U		1	0.25	ug/L	Analyte not detected at or above permit MDL or QL.
	13MWDUP	0.25	U	U		1	0.25	ug/L	Analyte not detected at or above permit MDL or QL. Field duplicate of 13MW4.
m-Dinitrobenzene	13MW3	0.25	U	U		1	0.25	ug/L	Analyte not detected at or above permit MDL or QL.
	13MW4	0.25	U	U		1	0.25	ug/L	Analyte not detected at or above permit MDL or QL.
	13MW5	0.25	U	U		1	0.25	ug/L	Analyte not detected at or above permit MDL or QL.
	13MW6	0.25	U	U		1	0.25	ug/L	Analyte not detected at or above permit MDL or QL.
	13MW7	0.25	U	U		1	0.25	ug/L	Analyte not detected at or above permit MDL or QL.
	13MWDUP	0.25	U	U		1	0.25	ug/L	Analyte not detected at or above permit MDL or QL. Field duplicate of 13MW4.
2,6-Dinitrotoluene	13MW3	0.25	U	U		1	0.25	ug/L	Analyte not detected at or above permit MDL or QL.
	13MW4	0.25	U	U		1	0.25	ug/L	Analyte not detected at or above permit MDL or QL.
	13MW5	0.25	U	U		1	0.25	ug/L	Analyte not detected at or above permit MDL or QL.
	13MW6	0.25	U	U		1	0.25	ug/L	Analyte not detected at or above permit MDL or QL.
	13MW7	0.25	U	U		1	0.25	ug/L	Analyte not detected at or above permit MDL or QL.
	13MWDUP	0.25	U	U		1	0.25	ug/L	Analyte not detected at or above permit MDL or QL. Field duplicate of 13MW4.
Nitroglycerin	13MW3	0.25	U	U		1	0.25	ug/L	Analyte not detected at or above permit MDL or QL.
	13MW4	0.25	U	U		1	0.25	ug/L	Analyte not detected at or above permit MDL or QL.
	13MW5	0.25	U	U		1	0.25	ug/L	Analyte not detected at or above permit MDL or QL.
	13MW6	0.25	U	U		1	0.25	ug/L	Analyte not detected at or above permit MDL or QL.
	13MW7	0.25	U	U		1	0.25	ug/L	Analyte not detected at or above permit MDL or QL.
	13MWDUP	0.25	U	U		1	0.25	ug/L	Analyte not detected at or above permit MDL or QL. Field duplicate of 13MW4.
sym-Trinitrobenzene	13MW3	0.25	U	U		1	0.25	ug/L	Analyte not detected at or above permit MDL or QL.
	13MW4	0.25	U	U		1	0.25	ug/L	Analyte not detected at or above permit MDL or QL.
	13MW5	0.25	U	U		1	0.25	ug/L	Analyte not detected at or above permit MDL or QL.
	13MW6	0.25	U	U		1	0.25	ug/L	Analyte not detected at or above permit MDL or QL.
	13MW7	0.25	U	U		1	0.25	ug/L	Analyte not detected at or above permit MDL or QL.
	13MWDUP	0.25	U	U		1	0.25	ug/L	Analyte not detected at or above permit MDL or QL. Field duplicate of 13MW4.

Analyte	Sample ID	Result	Q	Result	Q	QL	DL	Unit	Validation Notes
Method: 9060A									
Laboratory: Microbac, Ohio Valley Division, Marrietta, OH									
Dissolved Organic Carbon	13MW3	7.23		7.23	J	1	0.5	mg/L	Result is mean of 4 replicates. MS/MSD recovered low. Range 5.52, 7.43, 6.18, 9.8 mg/l. RSD 28.
	13MW4	7.47		7.47	J	1	0.5	mg/L	Result is mean of 4 replicates. MS/MSD recovered low. Range 5.04, 6.82, 8.83, 9.18 mg/l. RSD 25. Sample/field duplicate RPD 24.
	13MW5	8.72		8.72	J	1	0.5	mg/L	Result is mean of 4 replicates. MS/MSD recovered low. Range 2.05, 1.80, 2.13, 2.74 mg/l. RSD 19. Dissolved result > total result RPD >20.
	13MW6	7.08		7.08	J	1	0.5	mg/L	Result is mean of 4 replicates. MS/MSD recovered low. Range 6.53, 7.09, 6.17, 8.83 mg/l. RSD 15. Dissolved result > total result RPD >20.
	13MW7	4.18		4.18	J	1	0.5	mg/L	Result is mean of 4 replicates. MS/MSD recovered low. Range 3.65, 3.71, 3.87, 5.49 mg/l. RSD 23. Dissolved result > total result RPD >20.
	13MW8	3.34		3.34	J	1	0.5	mg/L	Result is mean of 4 replicates. MS/MSD recovered low. Range 3.07, 2.95, 3.3, 4.05 mg/l. RSD 16. Dissolved result > total result RPD >20.
	13MWDUP	5.89		5.89	J	1	0.5	mg/L	Result is mean of 4 replicates. Range 5.37, 5.83, 5.57, 6.79 mg/l. RSD 11. Field duplicate of 13MW4. RPD 24. Dissolved result > total result RPD >20.
Total Organic Carbon (Rep 1)	13MW3	13		13	J	1	0.5	mg/L	Result is mean of 4 replicates. Range 3.08, 4.30, 8.43, 36.3 mg/l. RSD 246.
	13MW4	4.94		4.94	J	1	0.5	mg/L	Result is mean of 4 replicates. Range 3.83, 4.98, 2.81, 8.14 mg/l. RSD 52. Sample/field duplicate RPD 39. Dissolved result > total result RPD >20.
	13MW5	2.18		2.18	J	1	0.5	mg/L	Result is mean of 4 replicates. Range 2.05, 1.80, 2.13, 2.74 mg/l. RSD 19. Dissolved result > total result RPD >20.
	13MW6	4.2		4.2	J	1	0.5	mg/L	Result is mean of 4 replicates. Range 3.46, 4.18, 4.75, 4.41 mg/l. RSD 13. Dissolved result > total result RPD >20.
	13MW7	3.04		3.04	J	1	0.5	mg/L	Result is mean of 4 replicates. Range 2.78, 2.31, 3.25, 3.84 mg/l. RSD 22. Dissolved result > total result RPD >20.
	13MW8	2.03		2.03	J	1	0.5	mg/L	Result is mean of 4 replicates. Range 1.66, 1.91, 2.06, 2.50 mg/l. RSD 18. Dissolved result > total result RPD >20.
	13MWDUP	3.34		3.34	J	1	0.5	mg/L	Result is mean of 4 replicates. Range 2.34, 3.13, 3.25, 4.64 mg/l. RSD 30. Field duplicate of 13MW4. RPD 39. Dissolved result > total result RPD >20.
Method: RSK175 M									
Laboratory: ELLE, LLC, Lancaster, PA									
Methane	13MW2	3	U	U		5	3	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW3	3	U	U		5	3	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW4	3	U	U		5	3	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW5	3	U	U		5	3	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW6	3	U	U		5	3	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW7	3	U	U		5	3	ug/l	Analyte not detected at or above permit MDL or QL.
	13MW8	3	U	U		5	3	ug/l	Analyte not detected at or above permit MDL or QL.
	13MWDUP	3	U	U		5	3	ug/l	Analyte not detected at or above permit MDL or QL.
	TRIP BLANK 1	3	U	U		5	3	ug/l	Analyte not detected at or above permit MDL or QL.

Analyte	Sample ID	Result	Q	Result	Q	QL	DL	Unit	Validation Notes

Definitions: **QL** Denotes quantitation limit. **DL** Denotes detection limit. Q Denotes data qualifier. **U** Denotes analyte not detected at or above DL or QL.
UA Denotes analyte not detected at or above adjusted sample DL or QL. **J** Denotes result estimated due to quality control reasons.
When used with a "U" (i.e., "UJ"), denotes analyte not detected at or above DL or QL and DL and QL are estimated due to quality control reasons. When used with "UA" (i.e., "**UAJ**"), denotes analyte not detected at or above adjusted DL or QL and adjusted DL and QL are estimated due to quality control reasons. **R** Denotes result rejected.

Laboratory data qualifiers: **B or J** denotes result between DL and QL and result is estimated.

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF GENERAL SERVICES
DIVISION OF CONSOLIDATED LABORATORY SERVICES

Certifies that

VA Laboratory ID#: 460188
Compuchem, A Division of Liberty Analytical

501 Madison Avenue
Cary, NC 27513

Owner: JOSEPH WORTLEY
Responsible Official: WILLIAM WARING

Having met the requirements of 1 VAC 30-46
and the National Environmental Laboratory Accreditation Conference 2003 Standard
is hereby approved as an

Accredited Laboratory

As more fully described in the attached Scope of Accreditation

Effective Date: **September 15, 2014**
Expiration Date: **September 14, 2015**
Certificate # 6537

Denise M. Toney

Denise M. Toney, Ph.D., HCLD
DGS Deputy Director for Laboratories

Continued accreditation status depends on successful ongoing participation in the program.
Certificate to be conspicuously displayed at the laboratory.
Not valid unless accompanied by a valid Virginia Environmental Laboratory Accreditation Program (VELAP) Scope of Accreditation.
Customers are urged to verify the laboratory's current accreditation status.

Certificate Not Transferable

Surrender Upon Revocation

Commonwealth of Virginia

Department of General Services
Division of Consolidated Laboratory Services

Scope of Accreditation

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 1010 A	FLASHPOINT	FL	EPA 130.1	TOTAL HARDNESS AS CACO3	FL
EPA 1664 A	OIL AND GREASE (AS HEM)	FL	EPA 1664 A	TOTAL PETROLEUM HYDROCARBONS (TPH) (AS NONPOLAR MATERIAL, SGT-HEM)	FL
EPA 300.0 REV 2.1	CHLORIDE	FL	EPA 300.0 REV 2.1	FLUORIDE	FL
EPA 300.0 REV 2.1	NITRATE AS N	FL	EPA 300.0 REV 2.1	NITRATE/NITRITE	FL
EPA 300.0 REV 2.1	NITRITE AS N	FL	EPA 300.0 REV 2.1	ORTHOPHOSPHATE AS P	FL
EPA 300.0 REV 2.1	SULFATE	FL	EPA 310.2 (AS LACHAT 10-303-31-1-A)	ALKALINITY AS CACO3	FL
EPA 335.4 REV 1.0	CYANIDE	FL	EPA 350.1 REV 2	AMMONIA AS N	FL
EPA 351.2 REV 2	KJELDAHL NITROGEN - TOTAL	FL	EPA 353.2 (AS LACHAT 10-107-04-1-C)	NITRATE AS N	FL
EPA 353.2 (AS LACHAT 10-107-04-1-C)	NITRATE/NITRITE	FL	EPA 353.2 (AS LACHAT 10-107-04-1-C)	NITRITE AS N	FL
EPA 365.4	PHOSPHORUS, TOTAL	FL	EPA 420.4 REV 1	TOTAL PHENOLICS	FL
EPA 6010 C	ALUMINUM	FL	EPA 6010 C	ANTIMONY	FL
EPA 6010 C	ARSENIC	FL	EPA 6010 C	BARIUM	FL
EPA 6010 C	BERYLLIUM	FL	EPA 6010 C	BORON	FL
EPA 6010 C	CADMIUM	FL	EPA 6010 C	CALCIUM	FL
EPA 6010 C	CHROMIUM	FL	EPA 6010 C	COBALT	FL
EPA 6010 C	COPPER	FL	EPA 6010 C	IRON	FL
EPA 6010 C	LEAD	FL	EPA 6010 C	MAGNESIUM	FL
EPA 6010 C	MANGANESE	FL	EPA 6010 C	MOLYBDENUM	FL
EPA 6010 C	NICKEL	FL	EPA 6010 C	POTASSIUM	FL
EPA 6010 C	SELENIUM	FL	EPA 6010 C	SILVER	FL
EPA 6010 C	SODIUM	FL	EPA 6010 C	THALLIUM	FL
EPA 6010 C	TIN	FL	EPA 6010 C	TITANIUM	FL
EPA 6010 C	VANADIUM	FL	EPA 6010 C	ZINC	FL
EPA 6020 A	ANTIMONY	FL	EPA 6020 A	ARSENIC	FL
EPA 6020 A	BARIUM	FL	EPA 6020 A	BERYLLIUM	FL
EPA 6020 A	CADMIUM	FL	EPA 6020 A	CHROMIUM	FL
EPA 6020 A	COBALT	FL	EPA 6020 A	COPPER	FL
EPA 6020 A	LEAD	FL	EPA 6020 A	MANGANESE	FL
EPA 6020 A	NICKEL	FL	EPA 6020 A	SELENIUM	FL
EPA 6020 A	SILVER	FL	EPA 6020 A	THALLIUM	FL
EPA 6020 A	VANADIUM	FL	EPA 6020 A	ZINC	FL
EPA 7470 A	MERCURY	FL	EPA 8015 C	DIESEL RANGE ORGANICS (DRO)	FL
EPA 8015 C	GASOLINE RANGE ORGANICS (GRO)	FL	EPA 8081 B	4,4'-DDD	FL
EPA 8081 B	4,4'-DDE	FL	EPA 8081 B	4,4'-DDT	FL

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METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 8081 B	ALDRIN	FL	EPA 8081 B	ALPHA-BHC (ALPHA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 B	ALPHA-CHLORDANE [CIS-CHLORDANE]	FL	EPA 8081 B	BETA-BHC (BETA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 B	CHLORDANE (TECH.)	FL	EPA 8081 B	DELTA-BHC	FL
EPA 8081 B	DIELDRIN	FL	EPA 8081 B	ENDOSULFAN I	FL
EPA 8081 B	ENDOSULFAN II	FL	EPA 8081 B	ENDOSULFAN SULFATE	FL
EPA 8081 B	ENDRIN	FL	EPA 8081 B	ENDRIN ALDEHYDE	FL
EPA 8081 B	ENDRIN KETONE	FL	EPA 8081 B	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 B	GAMMA-CHLORDANE [BETA-CHLORDANE, TRANS-CHLORDANE]	FL	EPA 8081 B	HEPTACHLOR	FL
EPA 8081 B	HEPTACHLOR EPOXIDE	FL	EPA 8081 B	METHOXYCHLOR	FL
EPA 8081 B	TOXAPHENE (CHLORINATED CAMPHENE)	FL	EPA 8082 A	AROCLOR-1016 (PCB-1016)	FL
EPA 8082 A	AROCLOR-1221 (PCB-1221)	FL	EPA 8082 A	AROCLOR-1232 (PCB-1232)	FL
EPA 8082 A	AROCLOR-1242 (PCB-1242)	FL	EPA 8082 A	AROCLOR-1248 (PCB-1248)	FL
EPA 8082 A	AROCLOR-1254 (PCB-1254)	FL	EPA 8082 A	AROCLOR-1260 (PCB-1260)	FL
EPA 8151 A	2,4,5-T	FL	EPA 8151 A	2,4-D	FL
EPA 8151 A	2,4-DB	FL	EPA 8151 A	4-NITROPHENOL	FL
EPA 8151 A	DALAPON	FL	EPA 8151 A	DICAMBA	FL
EPA 8151 A	DICHLOROPROP (DICHLORPROP)	FL	EPA 8151 A	DINOSEB (2-SEC-BUTYL-4,6-DINITROPHENOL, DNBP)	FL
EPA 8151 A	PENTACHLOROPHENOL	FL	EPA 8151 A	SILVEX (2,4,5-TP)	FL
EPA 8260 B	1,1,1,2-TETRACHLOROETHANE	FL	EPA 8260 B	1,1,1-TRICHLOROETHANE	FL
EPA 8260 B	1,1,2,2-TETRACHLOROETHANE	FL	EPA 8260 B	1,1,2-TRICHLOROETHANE	FL
EPA 8260 B	1,1-DICHLOROETHANE	FL	EPA 8260 B	1,1-DICHLOROETHYLENE	FL
EPA 8260 B	1,1-DICHLOROPROPENE	FL	EPA 8260 B	1,2,3-TRICHLOROBENZENE	FL
EPA 8260 B	1,2,3-TRICHLOROPROPANE	FL	EPA 8260 B	1,2,4-TRICHLOROBENZENE	FL
EPA 8260 B	1,2,4-TRIMETHYLBENZENE	FL	EPA 8260 B	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	FL
EPA 8260 B	1,2-DIBROMOETHANE (EDB, ETHYLENE DIBROMIDE)	FL	EPA 8260 B	1,2-DICHLOROBENZENE	FL
EPA 8260 B	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	FL	EPA 8260 B	1,2-DICHLOROPROPANE	FL
EPA 8260 B	1,3,5-TRIMETHYLBENZENE	FL	EPA 8260 B	1,3-DICHLOROBENZENE	FL
EPA 8260 B	1,3-DICHLOROPROPANE	FL	EPA 8260 B	1,4-DICHLOROBENZENE	FL
EPA 8260 B	1,4-DIOXANE (1,4-DIETHYLENEOXIDE)	FL	EPA 8260 B	1-CHLOROHEXANE	FL
EPA 8260 B	2,2-DICHLOROPROPANE	FL			

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METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 8260 B	2-BUTANONE (METHYL ETHYL KETONE, MEK)	FL	EPA 8260 B	2-CHLOROETHYL VINYL ETHER	FL
EPA 8260 B	2-CHLOROTOLUENE	FL	EPA 8260 B	2-HEXANONE	FL
EPA 8260 B	4-CHLOROTOLUENE	FL	EPA 8260 B	4-METHYL-2-PENTANONE (MIBK)	FL
EPA 8260 B	ACETONE	FL	EPA 8260 B	ACETONITRILE	FL
EPA 8260 B	ACROLEIN (PROPENAL)	FL	EPA 8260 B	ACRYLONITRILE	FL
EPA 8260 B	ALLYL CHLORIDE (3-CHLOROPROPENE)	FL	EPA 8260 B	BENZENE	FL
EPA 8260 B	BROMOBENZENE	FL	EPA 8260 B	BROMOCHLOROMETHANE	FL
EPA 8260 B	BROMODICHLOROMETHANE	FL	EPA 8260 B	BROMOFORM	FL
EPA 8260 B	CARBON DISULFIDE	FL	EPA 8260 B	CARBON TETRACHLORIDE	FL
EPA 8260 B	CHLOROBENZENE	FL	EPA 8260 B	CHLORODIBROMOMETHANE	FL
EPA 8260 B	CHLOROETHANE (ETHYL CHLORIDE)	FL	EPA 8260 B	CHLOROFORM	FL
EPA 8260 B	CHLOROPRENE (2-CHLORO-1,3-BUTADIENE)	FL	EPA 8260 B	CIS-1,2-DICHLOROETHYLENE	FL
EPA 8260 B	CIS-1,3-DICHLOROPROPENE	FL	EPA 8260 B	DIBROMOMETHANE (METHYLENE BROMIDE)	FL
EPA 8260 B	ETHYL METHACRYLATE	FL	EPA 8260 B	ETHYLBENZENE	FL
EPA 8260 B	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	FL	EPA 8260 B	IODOMETHANE (METHYL IODIDE)	FL
EPA 8260 B	ISOBUTYL ALCOHOL (2-METHYL-1-PROPANOL)	FL	EPA 8260 B	ISOPROPYLBENZENE	FL
EPA 8260 B	METHACRYLONITRILE	FL	EPA 8260 B	METHYL BROMIDE (BROMOMETHANE)	FL
EPA 8260 B	METHYL CHLORIDE (CHLOROMETHANE)	FL	EPA 8260 B	METHYL METHACRYLATE	FL
EPA 8260 B	METHYL TERT-BUTYL ETHER (MTBE)	FL	EPA 8260 B	METHYLENE CHLORIDE (DICHLOROMETHANE)	FL
EPA 8260 B	N-BUTYLBENZENE	FL	EPA 8260 B	N-PROPYLBENZENE	FL
EPA 8260 B	NAPHTHALENE	FL	EPA 8260 B	PENTACHLOROETHANE	FL
EPA 8260 B	PROPIONITRILE (ETHYL CYANIDE)	FL	EPA 8260 B	SEC-BUTYLBENZENE	FL
EPA 8260 B	STYRENE	FL	EPA 8260 B	TERT-BUTYLBENZENE	FL
EPA 8260 B	TETRACHLOROETHENE (PERCHLOROETHENE)	FL	EPA 8260 B	TOLUENE	FL
EPA 8260 B	TRANS-1,2-DICHLOROETHENE	FL	EPA 8260 B	TRANS-1,3-DICHLOROPROPENE	FL
EPA 8260 B	TRANS-1,4-DICHLORO-2-BUTENE	FL	EPA 8260 B	TRICHLOROETHENE (TRICHLOROETHYLENE)	FL
EPA 8260 B	TRICHLOROFLUOROMETHANE (FLUOROTRICHLOROMETHANE, FREON 11)	FL	EPA 8260 B	VINYL ACETATE	FL
EPA 8260 B	VINYL CHLORIDE	FL	EPA 8260 B	XYLENE (TOTAL)	FL
EPA 8260 B - EXTENDED	1,1,2-TRICHLORO-1,2,2-TRIFLUORO ETHANE (FREON 113)	FL	EPA 8270 D	1,2,4,5-TETRACHLOROBENZENE	FL
EPA 8270 D	1,2,4-TRICHLOROBENZENE	FL	EPA 8270 D	1,2-DICHLOROBENZENE	FL

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METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 8270 D	1,2-DIPHENYLHYDRAZINE	FL	EPA 8270 D	1,3,5-TRINITROBENZENE (1,3,5-TNB)	FL
EPA 8270 D	1,3-DICHLOROBENZENE	FL	EPA 8270 D	1,3-DINITROBENZENE (1,3-DNB)	FL
EPA 8270 D	1,4-DICHLOROBENZENE	FL	EPA 8270 D	1,4-NAPHTHOQUINONE	FL
EPA 8270 D	1,4-PHENYLENEDIAMINE	FL	EPA 8270 D	1-NAPHTHYLAMINE	FL
EPA 8270 D	2,3,4,6-TETRACHLOROPHENOL	FL	EPA 8270 D	2,4,5-TRICHLOROPHENOL	FL
EPA 8270 D	2,4,6-TRICHLOROPHENOL	FL	EPA 8270 D	2,4-DICHLOROPHENOL	FL
EPA 8270 D	2,4-DIMETHYLPHENOL	FL	EPA 8270 D	2,4-DINITROPHENOL	FL
EPA 8270 D	2,4-DINITROTOLUENE (2,4-DNT)	FL	EPA 8270 D	2,6-DICHLOROPHENOL	FL
EPA 8270 D	2,6-DINITROTOLUENE (2,6-DNT)	FL	EPA 8270 D	2-ACETYLAMINOFLUORENE	FL
EPA 8270 D	2-CHLORONAPHTHALENE	FL	EPA 8270 D	2-CHLOROPHENOL	FL
EPA 8270 D	2-METHYL-4,6-DINITROPHENOL (4,6-DINITRO-2-METHYLPHENOL)	FL	EPA 8270 D	2-METHYLNAPHTHALENE	FL
EPA 8270 D	2-METHYLPHENOL (O-CRESOL)	FL	EPA 8270 D	2-NAPHTHYLAMINE	FL
EPA 8270 D	2-NITROANILINE	FL	EPA 8270 D	2-NITROPHENOL	FL
EPA 8270 D	2-PICOLINE (2-METHYLPYRIDINE)	FL	EPA 8270 D	3,3'-DICHLOROBENZIDINE	FL
EPA 8270 D	3,3'-DIMETHYLBENZIDINE	FL	EPA 8270 D	3-METHYLCHOLANTHRENE	FL
EPA 8270 D	3-NITROANILINE	FL	EPA 8270 D	4-AMINOBIPHENYL	FL
EPA 8270 D	4-BROMOPHENYL PHENYL ETHER	FL	EPA 8270 D	4-CHLORO-3-METHYLPHENOL	FL
EPA 8270 D	4-CHLOROANILINE	FL	EPA 8270 D	4-CHLOROPHENYL PHENYLETHER	FL
EPA 8270 D	4-DIMETHYL AMINOAZOBENZENE	FL	EPA 8270 D	4-NITROANILINE	FL
EPA 8270 D	4-NITROPHENOL	FL	EPA 8270 D	5-NITRO-O-TOLUIDINE	FL
EPA 8270 D	7,12-DIMETHYLBENZ(A) ANTHRACENE	FL	EPA 8270 D	A-A-DIMETHYLPHENETHYLAMINE	FL
EPA 8270 D	ACENAPHTHENE	FL	EPA 8270 D	ACENAPHTHYLENE	FL
EPA 8270 D	ACETOPHENONE	FL	EPA 8270 D	ANILINE	FL
EPA 8270 D	ANTHRACENE	FL	EPA 8270 D	ARAMITE	FL
EPA 8270 D	BENZIDINE	FL	EPA 8270 D	BENZO(A)ANTHRACENE	FL
EPA 8270 D	BENZO(A)PYRENE	FL	EPA 8270 D	BENZO(B)FLUORANTHENE	FL
EPA 8270 D	BENZO(G,H,I)PERYLENE	FL	EPA 8270 D	BENZO(K)FLUORANTHENE	FL
EPA 8270 D	BENZOIC ACID	FL	EPA 8270 D	BENZYL ALCOHOL	FL
EPA 8270 D	BIS(2-CHLOROETHOXY)METHANE	FL	EPA 8270 D	BIS(2-CHLOROETHYL) ETHER	FL
EPA 8270 D	BIS(2-CHLOROISOPROPYL) ETHER	FL	EPA 8270 D	BIS(2-ETHYLHEXYL) PHTHALATE (DI(2-ETHYLHEXYL)PHTHALATE), (DEHP)	FL
EPA 8270 D	BUTYL BENZYL PHTHALATE	FL	EPA 8270 D	CHLOROBENZILATE	FL
EPA 8270 D	CHRYSENE	FL	EPA 8270 D	DI-N-BUTYL PHTHALATE	FL
EPA 8270 D	DI-N-OCTYL PHTHALATE	FL	EPA 8270 D	DIALLATE	FL
EPA 8270 D	DIBENZO(A,H) ANTHRACENE	FL	EPA 8270 D	DIBENZOFURAN	FL
EPA 8270 D	DIETHYL PHTHALATE	FL	EPA 8270 D	DIMETHOATE	FL
EPA 8270 D	DIMETHYL PHTHALATE	FL			

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 8270 D	DISULFOTON	FL	EPA 8270 D	ETHYL METHANESULFONATE	FL
EPA 8270 D	FAMPHUR	FL	EPA 8270 D	FLUORANTHENE	FL
EPA 8270 D	FLUORENE	FL	EPA 8270 D	HEXACHLOROBENZENE	FL
EPA 8270 D	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	FL	EPA 8270 D	HEXACHLOROCYCLOPENTADIENE	FL
EPA 8270 D	HEXACHLOROETHANE	FL	EPA 8270 D	HEXACHLOROPHENE	FL
EPA 8270 D	HEXACHLOROPROPENE	FL	EPA 8270 D	INDENO(1,2,3-CD) PYRENE	FL
EPA 8270 D	ISODRIN	FL	EPA 8270 D	ISOPHORONE	FL
EPA 8270 D	ISOSAFROLE	FL	EPA 8270 D	KEPONE	FL
EPA 8270 D	METHAPYRILENE	FL	EPA 8270 D	METHYL METHANESULFONATE	FL
EPA 8270 D	METHYL PARATHION (PARATHION, METHYL)	FL	EPA 8270 D	N-NITROSO-DI-N-BUTYLAMINE	FL
EPA 8270 D	N-NITROSODI-N-PROPYLAMINE	FL	EPA 8270 D	N-NITROSODIETHYLAMINE	FL
EPA 8270 D	N-NITROSODIMETHYLAMINE	FL	EPA 8270 D	N-NITROSODIPHENYLAMINE	FL
EPA 8270 D	N-NITROSOMETHYLETHYLAMINE	FL	EPA 8270 D	N-NITROSOMORPHOLINE	FL
EPA 8270 D	N-NITROSOPIPERIDINE	FL	EPA 8270 D	N-NITROSOPYRROLIDINE	FL
EPA 8270 D	NAPHTHALENE	FL	EPA 8270 D	NITROBENZENE	FL
EPA 8270 D	NITROQUINOLINE-1-OXIDE	FL	EPA 8270 D	O,O,O-TRIETHYL PHOSPHOROTHIOATE	FL
EPA 8270 D	O-TOLUIDINE (2-METHYLANILINE)	FL	EPA 8270 D	PARATHION (PARATHION - ETHYL)	FL
EPA 8270 D	PENTACHLOROBENZENE	FL	EPA 8270 D	PENTACHLORONITROBENZENE	FL
EPA 8270 D	PENTACHLOROPHENOL	FL	EPA 8270 D	PHENACETIN	FL
EPA 8270 D	PHENANTHRENE	FL	EPA 8270 D	PHENOL	FL
EPA 8270 D	PHORATE	FL	EPA 8270 D	PRONAMIDE (KERB)	FL
EPA 8270 D	PYRENE	FL	EPA 8270 D	SAFROLE	FL
EPA 8270 D	SULFOTEPP (TETRAETHYL DITHIOPYROPHOSPHATE)	FL	EPA 8270 D	THIONAZIN (ZINOPHOS)	FL
EPA 8270 D - EXTENDED	2,2'-OXYBIS(1-CHLOROPROPANE)	FL	EPA 8270 D - EXTENDED	3+4-METHYL PHENOL (M+P CRESOL)	FL
EPA 8270 D - EXTENDED	CARBAZOLE	FL	EPA 8270 D - EXTENDED	PYRIDINE	FL
EPA 8270 D SIM	2-METHYLNAPHTHALENE	FL	EPA 8270 D SIM	ACENAPHTHENE	FL
EPA 8270 D SIM	ACENAPHTHYLENE	FL	EPA 8270 D SIM	ANTHRACENE	FL
EPA 8270 D SIM	BENZO(A)ANTHRACENE	FL	EPA 8270 D SIM	BENZO(A)PYRENE	FL
EPA 8270 D SIM	BENZO(B)FLUORANTHENE	FL	EPA 8270 D SIM	BENZO(G,H,I)PERYLENE	FL
EPA 8270 D SIM	BENZO(K)FLUORANTHENE	FL	EPA 8270 D SIM	CHRYSENE	FL
EPA 8270 D SIM	DIBENZO(A,H) ANTHRACENE	FL	EPA 8270 D SIM	FLUORANTHENE	FL
EPA 8270 D SIM	FLUORENE	FL	EPA 8270 D SIM	HEXACHLOROBENZENE	FL
EPA 8270 D SIM	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	FL	EPA 8270 D SIM	INDENO(1,2,3-CD) PYRENE	FL
EPA 8270 D SIM	NAPHTHALENE	FL	EPA 8270 D SIM	PENTACHLOROPHENOL	FL
EPA 8270 D SIM	PHENANTHRENE	FL	EPA 8270 D SIM	PYRENE	FL

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 8310	ACENAPHTHENE	FL	EPA 8310	ACENAPHTHYLENE	FL
EPA 8310	ANTHRACENE	FL	EPA 8310	BENZO(A)ANTHRACENE	FL
EPA 8310	BENZO(A)PYRENE	FL	EPA 8310	BENZO(B)FLUORANTHENE	FL
EPA 8310	BENZO(G,H,I)PERYLENE	FL	EPA 8310	BENZO(K)FLUORANTHENE	FL
EPA 8310	CHRYSENE	FL	EPA 8310	DIBENZO(A,H) ANTHRACENE	FL
EPA 8310	FLUORANTHENE	FL	EPA 8310	FLUORENE	FL
EPA 8310	INDENO(1,2,3-CD) PYRENE	FL	EPA 8310	NAPHTHALENE	FL
EPA 8310	PHENANTHRENE	FL	EPA 8310	PYRENE	FL
EPA 8330 A	1,3,5-TRINITROBENZENE (1,3,5-TNB)	FL	EPA 8330 A	1,3-DINITROBENZENE (1,3-DNB)	FL
EPA 8330 A	2,4,6-TRINITROTOLUENE (2,4,6-TNT)	FL	EPA 8330 A	2,4-DINITROTOLUENE (2,4-DNT)	FL
EPA 8330 A	2,6-DINITROTOLUENE (2,6-DNT)	FL	EPA 8330 A	2-AMINO-4,6-DINITROTOLUENE (2-AM-DNT)	FL
EPA 8330 A	2-NITROTOLUENE	FL	EPA 8330 A	3-NITROTOLUENE	FL
EPA 8330 A	4-AMINO-2,6-DINITROTOLUENE (4-AM-DNT)	FL	EPA 8330 A	4-NITROTOLUENE	FL
EPA 8330 A	NITROBENZENE	FL	EPA 8330 A	OCTAHYDRO-1,3,5,7-TETRANITRO-1 ,3,5,7-TETRAZOCINE (HMX)	FL
EPA 8330 A	RDX (HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE)	FL	EPA 8330 B	1,3,5-TRINITROBENZENE (1,3,5-TNB)	FL
EPA 8330 B	1,3-DINITROBENZENE (1,3-DNB)	FL	EPA 8330 B	2,4,6-TRINITROTOLUENE (2,4,6-TNT)	FL
EPA 8330 B	2,4-DINITROTOLUENE (2,4-DNT)	FL	EPA 8330 B	2,6-DINITROTOLUENE (2,6-DNT)	FL
EPA 8330 B	2-AMINO-4,6-DINITROTOLUENE (2-AM-DNT)	FL	EPA 8330 B	2-NITROTOLUENE	FL
EPA 8330 B	3-NITROTOLUENE	FL	EPA 8330 B	4-AMINO-2,6-DINITROTOLUENE (4-AM-DNT)	FL
EPA 8330 B	4-NITROTOLUENE	FL	EPA 8330 B	NITROBENZENE	FL
EPA 8330 B	OCTAHYDRO-1,3,5,7-TETRANITRO-1 ,3,5,7-TETRAZOCINE (HMX)	FL	EPA 8330 B	RDX (HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE)	FL
EPA 8332	NITROGLYCERIN	FL	EPA 9010 B	PREP: CYANIDE DISTILLATION	FL
EPA 9010 C	PREP: CYANIDE DISTILLATION	FL	EPA 9012 A	AMENABLE CYANIDE	FL
EPA 9012 A	TOTAL CYANIDE	FL	EPA 9012 B	AMENABLE CYANIDE	FL
EPA 9012 B	TOTAL CYANIDE	FL	EPA 9040 B	PH	FL
EPA 9040 C	PH	FL	SM 2540 B-2011	RESIDUE-TOTAL	FL
SM 2540 C-2011	RESIDUE-FILTERABLE (TDS)	FL	SM 2540 D-2011	RESIDUE-NONFILTERABLE (TSS)	FL
SM 3500-CR B-2011	CHROMIUM VI	FL	SM 4500-CN^- G-2011	AMENABLE CYANIDE	FL
SM 4500-$S2^-$ F-2011	SULFIDE	FL	SM 5310 B-2011	TOTAL ORGANIC CARBON	FL

SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 1010 A	FLASHPOINT	FL			

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METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 1311	PREP: TOXICITY CHARACTERISTIC LEACHING PROCEDURE	FL	EPA 1312	PREP: SYNTHETIC PRECIPITATION LEACHING PROCEDURE	FL
EPA 6010 C	ALUMINUM	FL	EPA 6010 C	ANTIMONY	FL
EPA 6010 C	ARSENIC	FL	EPA 6010 C	BARIUM	FL
EPA 6010 C	BERYLLIUM	FL	EPA 6010 C	BORON	FL
EPA 6010 C	CADMIUM	FL	EPA 6010 C	CALCIUM	FL
EPA 6010 C	CHROMIUM	FL	EPA 6010 C	COBALT	FL
EPA 6010 C	COPPER	FL	EPA 6010 C	IRON	FL
EPA 6010 C	LEAD	FL	EPA 6010 C	MAGNESIUM	FL
EPA 6010 C	MANGANESE	FL	EPA 6010 C	MOLYBDENUM	FL
EPA 6010 C	NICKEL	FL	EPA 6010 C	POTASSIUM	FL
EPA 6010 C	SELENIUM	FL	EPA 6010 C	SILVER	FL
EPA 6010 C	SODIUM	FL	EPA 6010 C	THALLIUM	FL
EPA 6010 C	TIN	FL	EPA 6010 C	TITANIUM	FL
EPA 6010 C	VANADIUM	FL	EPA 6010 C	ZINC	FL
EPA 6020 A	ANTIMONY	FL	EPA 6020 A	ARSENIC	FL
EPA 6020 A	BARIUM	FL	EPA 6020 A	BERYLLIUM	FL
EPA 6020 A	CADMIUM	FL	EPA 6020 A	CHROMIUM	FL
EPA 6020 A	COBALT	FL	EPA 6020 A	COPPER	FL
EPA 6020 A	LEAD	FL	EPA 6020 A	MANGANESE	FL
EPA 6020 A	NICKEL	FL	EPA 6020 A	SELENIUM	FL
EPA 6020 A	SILVER	FL	EPA 6020 A	THALLIUM	FL
EPA 6020 A	VANADIUM	FL	EPA 6020 A	ZINC	FL
EPA 7196 A	CHROMIUM VI	FL	EPA 7471 A	MERCURY	FL
EPA 7471 B	MERCURY	FL	EPA 8015 C	DIESEL RANGE ORGANICS (DRO)	FL
EPA 8015 C	GASOLINE RANGE ORGANICS (GRO)	FL	EPA 8081 B	4,4'-DDD	FL
EPA 8081 B	4,4'-DDE	FL	EPA 8081 B	4,4'-DDT	FL
EPA 8081 B	ALDRIN	FL	EPA 8081 B	ALPHA-BHC (ALPHA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 B	ALPHA-CHLORDANE [CIS-CHLORDANE]	FL	EPA 8081 B	BETA-BHC (BETA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 B	CHLORDANE (TECH.)	FL	EPA 8081 B	DELTA-BHC	FL
EPA 8081 B	DIELDRIN	FL	EPA 8081 B	ENDOSULFAN I	FL
EPA 8081 B	ENDOSULFAN II	FL	EPA 8081 B	ENDOSULFAN SULFATE	FL
EPA 8081 B	ENDRIN	FL	EPA 8081 B	ENDRIN ALDEHYDE	FL
EPA 8081 B	ENDRIN KETONE	FL	EPA 8081 B	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	FL

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EPA 8081 B	GAMMA-CHLORDANE [BETA-CHLORDANE, TRANS-CHLORDANE]	FL	EPA 8081 B	HEPTACHLOR	FL
EPA 8081 B	HEPTACHLOR EPOXIDE	FL	EPA 8081 B	METHOXYCHLOR	FL
EPA 8081 B	TOXAPHENE (CHLORINATED CAMPHENE)	FL	EPA 8082 A	AROCLOR-1016 (PCB-1016)	FL
EPA 8082 A	AROCLOR-1221 (PCB-1221)	FL	EPA 8082 A	AROCLOR-1232 (PCB-1232)	FL
EPA 8082 A	AROCLOR-1242 (PCB-1242)	FL	EPA 8082 A	AROCLOR-1248 (PCB-1248)	FL
EPA 8082 A	AROCLOR-1254 (PCB-1254)	FL	EPA 8082 A	AROCLOR-1260 (PCB-1260)	FL
EPA 8151 A	2,4,5-T	FL	EPA 8151 A	2,4-D	FL
EPA 8151 A	2,4-DB	FL	EPA 8151 A	4-NITROPHENOL	FL
EPA 8151 A	DALAPON	FL	EPA 8151 A	DICAMBA	FL
EPA 8151 A	DICHLOROPROP (DICHLORPROP)	FL	EPA 8151 A	DINOSEB (2-SEC-BUTYL-4,6-DINITROPHENOL, DNBP)	FL
EPA 8151 A	PENTACHLOROPHENOL	FL	EPA 8151 A	SILVEX (2,4,5-TP)	FL
EPA 8260 B	1,1,1,2-TETRACHLOROETHANE	FL	EPA 8260 B	1,1,1-TRICHLOROETHANE	FL
EPA 8260 B	1,1,2,2-TETRACHLOROETHANE	FL	EPA 8260 B	1,1,2-TRICHLOROETHANE	FL
EPA 8260 B	1,1-DICHLOROETHANE	FL	EPA 8260 B	1,1-DICHLOROETHYLENE	FL
EPA 8260 B	1,1-DICHLOROPROPENE	FL	EPA 8260 B	1,2,3-TRICHLOROBENZENE	FL
EPA 8260 B	1,2,3-TRICHLOROPROPANE	FL	EPA 8260 B	1,2,4-TRICHLOROBENZENE	FL
EPA 8260 B	1,2,4-TRIMETHYLBENZENE	FL	EPA 8260 B	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	FL
EPA 8260 B	1,2-DIBROMOETHANE (EDB, ETHYLENE DIBROMIDE)	FL	EPA 8260 B	1,2-DICHLOROBENZENE	FL
EPA 8260 B	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	FL	EPA 8260 B	1,2-DICHLOROPROPANE	FL
EPA 8260 B	1,3,5-TRIMETHYLBENZENE	FL	EPA 8260 B	1,3-DICHLOROBENZENE	FL
EPA 8260 B	1,3-DICHLOROPROPANE	FL	EPA 8260 B	1,4-DICHLOROBENZENE	FL
EPA 8260 B	1,4-DIOXANE (1,4-DIETHYLENEOXIDE)	FL	EPA 8260 B	1-CHLOROHEXANE	FL
EPA 8260 B	2,2-DICHLOROPROPANE	FL	EPA 8260 B	2-BUTANONE (METHYL ETHYL KETONE, MEK)	FL
EPA 8260 B	2-CHLOROETHYL VINYL ETHER	FL	EPA 8260 B	2-CHLOROTOLUENE	FL
EPA 8260 B	2-HEXANONE	FL	EPA 8260 B	4-CHLOROTOLUENE	FL
EPA 8260 B	4-METHYL-2-PENTANONE (MIBK)	FL	EPA 8260 B	ACETONE	FL
EPA 8260 B	ACETONITRILE	FL	EPA 8260 B	ACROLEIN (PROPENAL)	FL
EPA 8260 B	ACRYLONITRILE	FL	EPA 8260 B	ALLYL CHLORIDE (3-CHLOROPROPENE)	FL
EPA 8260 B	BENZENE	FL	EPA 8260 B	BROMOBENZENE	FL
EPA 8260 B	BROMOCHLOROMETHANE	FL	EPA 8260 B	BROMODICHLOROMETHANE	FL
EPA 8260 B	BROMOFORM	FL	EPA 8260 B	CARBON DISULFIDE	FL
EPA 8260 B	CARBON TETRACHLORIDE	FL	EPA 8260 B	CHLOROBENZENE	FL

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EPA 8260 B	CHLORODIBROMOMETHANE	FL	EPA 8260 B	CHLOROETHANE (ETHYL CHLORIDE)	FL
EPA 8260 B	CHLOROFORM	FL	EPA 8260 B	CHLOROPRENE (2-CHLORO-1,3-BUTADIENE)	FL
EPA 8260 B	CIS-1,2-DICHLOROETHYLENE	FL	EPA 8260 B	CIS-1,3-DICHLOROPROPENE	FL
EPA 8260 B	DIBROMOMETHANE (METHYLENE BROMIDE)	FL	EPA 8260 B	DICHLORODIFLUOROMETHANE (FREON-12)	FL
EPA 8260 B	ETHYL METHACRYLATE	FL	EPA 8260 B	ETHYLBENZENE	FL
EPA 8260 B	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	FL	EPA 8260 B	IODOMETHANE (METHYL IODIDE)	FL
EPA 8260 B	ISOBUTYL ALCOHOL (2-METHYL-1-PROPANOL)	FL	EPA 8260 B	ISOPROPYLBENZENE	FL
EPA 8260 B	METHACRYLONITRILE	FL	EPA 8260 B	METHYL BROMIDE (BROMOMETHANE)	FL
EPA 8260 B	METHYL CHLORIDE (CHLOROMETHANE)	FL	EPA 8260 B	METHYL METHACRYLATE	FL
EPA 8260 B	METHYL TERT-BUTYL ETHER (MTBE)	FL	EPA 8260 B	METHYLENE CHLORIDE (DICHLOROMETHANE)	FL
EPA 8260 B	N-BUTYLBENZENE	FL	EPA 8260 B	N-PROPYLBENZENE	FL
EPA 8260 B	NAPHTHALENE	FL	EPA 8260 B	PENTACHLOROETHANE	FL
EPA 8260 B	PROPIONITRILE (ETHYL CYANIDE)	FL	EPA 8260 B	SEC-BUTYLBENZENE	FL
EPA 8260 B	STYRENE	FL	EPA 8260 B	TERT-BUTYLBENZENE	FL
EPA 8260 B	TETRACHLOROETHENE (PERCHLOROETHENE)	FL	EPA 8260 B	TOLUENE	FL
EPA 8260 B	TRANS-1,2-DICHLOROETHENE	FL	EPA 8260 B	TRANS-1,3-DICHLOROPROPENE	FL
EPA 8260 B	TRANS-1,4-DICHLORO-2-BUTENE	FL	EPA 8260 B	TRICHLOROETHENE (TRICHLOROETHYLENE)	FL
EPA 8260 B	TRICHLOROFLUOROMETHANE (FLUOROTRICHLOROMETHANE, FREON 11)	FL	EPA 8260 B	VINYL ACETATE	FL
EPA 8260 B	VINYL CHLORIDE	FL	EPA 8260 B	XYLENE (TOTAL)	FL
EPA 8260 B - EXTENDED	1,1,2-TRICHLORO-1,2,2-TRIFLUORO ETHANE (FREON 113)	FL	EPA 8270 D	1,2,4,5-TETRACHLOROBENZENE	FL
EPA 8270 D	1,2,4-TRICHLOROBENZENE	FL	EPA 8270 D	1,2-DICHLOROBENZENE	FL
EPA 8270 D	1,2-DIPHENYLHYDRAZINE	FL	EPA 8270 D	1,3,5-TRINITROBENZENE (1,3,5-TNB)	FL
EPA 8270 D	1,3-DICHLOROBENZENE	FL	EPA 8270 D	1,3-DINITROBENZENE (1,3-DNB)	FL
EPA 8270 D	1,4-DICHLOROBENZENE	FL	EPA 8270 D	1,4-NAPHTHOQUINONE	FL
EPA 8270 D	1,4-PHENYLENEDIAMINE	FL	EPA 8270 D	1-NAPHTHYLAMINE	FL
EPA 8270 D	2,3,4,6-TETRACHLOROPHENOL	FL	EPA 8270 D	2,4,5-TRICHLOROPHENOL	FL
EPA 8270 D	2,4,6-TRICHLOROPHENOL	FL	EPA 8270 D	2,4-DICHLOROPHENOL	FL
EPA 8270 D	2,4-DIMETHYLPHENOL	FL	EPA 8270 D	2,4-DINITROPHENOL	FL
EPA 8270 D	2,4-DINITROTOLUENE (2,4-DNT)	FL	EPA 8270 D	2,6-DICHLOROPHENOL	FL
EPA 8270 D	2,6-DINITROTOLUENE (2,6-DNT)	FL	EPA 8270 D	2-ACETYLAMINOFLUORENE	FL
EPA 8270 D	2-CHLORONAPHTHALENE	FL	EPA 8270 D	2-CHLOROPHENOL	FL

Commonwealth of Virginia

Department of General Services
Division of Consolidated Laboratory Services

Scope of Accreditation

VELAP Certificate No.: 6537

Compuchem, A Division of Liberty Analytical
501 Madison Avenue
Cary, NC 27513

Virginia Laboratory ID: 460188
Effective Date: September 15, 2014
Expiration Date: September 14, 2015

SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 8270 D	2-METHYL-4,6-DINITROPHENOL (4,6-DINITRO-2-METHYLPHENOL)	FL	EPA 8270 D	2-METHYLNAPHTHALENE	FL
EPA 8270 D	2-METHYLPHENOL (O-CRESOL)	FL	EPA 8270 D	2-NAPHTHYLAMINE	FL
EPA 8270 D	2-NITROANILINE	FL	EPA 8270 D	2-NITROPHENOL	FL
EPA 8270 D	2-PICOLINE (2-METHYLPYRIDINE)	FL	EPA 8270 D	3,3'-DICHLOROBENZIDINE	FL
EPA 8270 D	3,3'-DIMETHYLBENZIDINE	FL	EPA 8270 D	3-METHYLCHOLANTHRENE	FL
EPA 8270 D	3-NITROANILINE	FL	EPA 8270 D	4-AMINOBIPHENYL	FL
EPA 8270 D	4-BROMOPHENYL PHENYL ETHER	FL	EPA 8270 D	4-CHLORO-3-METHYLPHENOL	FL
EPA 8270 D	4-CHLOROANILINE	FL	EPA 8270 D	4-CHLOROPHENYL PHENYLETHER	FL
EPA 8270 D	4-DIMETHYL AMINOAZOBENZENE	FL	EPA 8270 D	4-METHYLPHENOL (P-CRESOL)	FL
EPA 8270 D	4-NITROANILINE	FL	EPA 8270 D	4-NITROPHENOL	FL
EPA 8270 D	5-NITRO-O-TOLUIDINE	FL	EPA 8270 D	7,12-DIMETHYLBENZ(A) ANTHRACENE	FL
EPA 8270 D	A-A-DIMETHYLPHENETHYLAMINE	FL	EPA 8270 D	ACENAPHTHENE	FL
EPA 8270 D	ACENAPHTHYLENE	FL	EPA 8270 D	ACETOPHENONE	FL
EPA 8270 D	ANILINE	FL	EPA 8270 D	ANTHRACENE	FL
EPA 8270 D	ARAMITE	FL	EPA 8270 D	BENZIDINE	FL
EPA 8270 D	BENZO(A)ANTHRACENE	FL	EPA 8270 D	BENZO(A)PYRENE	FL
EPA 8270 D	BENZO(B)FLUORANTHENE	FL	EPA 8270 D	BENZO(G,H,I)PERYLENE	FL
EPA 8270 D	BENZO(K)FLUORANTHENE	FL	EPA 8270 D	BENZOIC ACID	FL
EPA 8270 D	BENZYL ALCOHOL	FL	EPA 8270 D	BIS(2-CHLOROETHOXY)METHANE	FL
EPA 8270 D	BIS(2-CHLOROETHYL) ETHER	FL	EPA 8270 D	BIS(2-CHLOROISOPROPYL) ETHER	FL
EPA 8270 D	BIS(2-ETHYLHEXYL) PHTHALATE (DI(2-ETHYLHEXYL)PHTHALATE), (DEHP)	FL	EPA 8270 D	BUTYL BENZYL PHTHALATE	FL
EPA 8270 D	CHLOROBENZILATE	FL	EPA 8270 D	CHRYSENE	FL
EPA 8270 D	DI-N-BUTYL PHTHALATE	FL	EPA 8270 D	DI-N-OCTYL PHTHALATE	FL
EPA 8270 D	DIALLATE	FL	EPA 8270 D	DIBENZO(A,H) ANTHRACENE	FL
EPA 8270 D	DIBENZOFURAN	FL	EPA 8270 D	DIETHYL PHTHALATE	FL
EPA 8270 D	DIMETHOATE	FL	EPA 8270 D	DIMETHYL PHTHALATE	FL
EPA 8270 D	DISULFOTON	FL	EPA 8270 D	ETHYL METHANESULFONATE	FL
EPA 8270 D	FAMPHUR	FL	EPA 8270 D	FLUORANTHENE	FL
EPA 8270 D	FLUORENE	FL	EPA 8270 D	HEXACHLOROBENZENE	FL
EPA 8270 D	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	FL	EPA 8270 D	HEXACHLOROCYCLOPENTADIENE	FL
EPA 8270 D	HEXACHLOROETHANE	FL	EPA 8270 D	HEXACHLOROPHENE	FL
EPA 8270 D	HEXACHLOROPROPENE	FL	EPA 8270 D	INDENO(1,2,3-CD) PYRENE	FL
EPA 8270 D	ISODRIN	FL	EPA 8270 D	ISOPHORONE	FL
EPA 8270 D	ISOSAFROLE	FL	EPA 8270 D	KEPONE	FL
EPA 8270 D	METHAPYRILENE	FL	EPA 8270 D	METHYL METHANESULFONATE	FL

Commonwealth of Virginia

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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 8270 D	METHYL PARATHION (PARATHION, METHYL)	FL
EPA 8270 D	N-NITROSODI-N-PROPYLAMINE	FL
EPA 8270 D	N-NITROSODIMETHYLAMINE	FL
EPA 8270 D	N-NITROSOMETHYLETHYLAMINE	FL
EPA 8270 D	N-NITROSOPIPERIDINE	FL
EPA 8270 D	NAPHTHALENE	FL
EPA 8270 D	NITROQUINOLINE-1-OXIDE	FL
EPA 8270 D	O-TOLUIDINE (2-METHYLANILINE)	FL
EPA 8270 D	PENTACHLOROBENZENE	FL
EPA 8270 D	PENTACHLOROPHENOL	FL
EPA 8270 D	PHENANTHRENE	FL
EPA 8270 D	PHORATE	FL
EPA 8270 D	PYRENE	FL
EPA 8270 D	SULFOTEPP (TETRAETHYL DITHIOPYROPHOSPHATE)	FL
EPA 8270 D - EXTENDED	2,2'-OXYBIS(1-CHLOROPROPANE)	FL
EPA 8270 D - EXTENDED	CARBAZOLE	FL
EPA 8270 D SIM	2-METHYLNAPHTHALENE	FL
EPA 8270 D SIM	ACENAPHTHYLENE	FL
EPA 8270 D SIM	BENZO(A)ANTHRACENE	FL
EPA 8270 D SIM	BENZO(B)FLUORANTHENE	FL
EPA 8270 D SIM	BENZO(K)FLUORANTHENE	FL
EPA 8270 D SIM	DIBENZO(A,H) ANTHRACENE	FL
EPA 8270 D SIM	FLUORENE	FL
EPA 8270 D SIM	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	FL
EPA 8270 D SIM	NAPHTHALENE	FL
EPA 8270 D SIM	PHENANTHRENE	FL
EPA 8310	ACENAPHTHENE	FL
EPA 8310	ANTHRACENE	FL
EPA 8310	BENZO(A)PYRENE	FL
EPA 8310	BENZO(G,H,I)PERYLENE	FL
EPA 8310	CHRYSENE	FL
EPA 8310	FLUORANTHENE	FL
EPA 8310	INDENO(1,2,3-CD) PYRENE	FL
EPA 8310	PHENANTHRENE	FL
EPA 8330 A	1,3,5-TRINITROBENZENE (1,3,5-TNB)	FL
EPA 8270 D	N-NITROSO-DI-N-BUTYLAMINE	FL
EPA 8270 D	N-NITROSODIETHYLAMINE	FL
EPA 8270 D	N-NITROSODIPHENYLAMINE	FL
EPA 8270 D	N-NITROSOMORPHOLINE	FL
EPA 8270 D	N-NITROSOPYRROLIDINE	FL
EPA 8270 D	NITROBENZENE	FL
EPA 8270 D	O,O,O-TRIETHYL PHOSPHOROTHIOATE	FL
EPA 8270 D	PARATHION (PARATHION - ETHYL)	FL
EPA 8270 D	PENTACHLORONITROBENZENE	FL
EPA 8270 D	PHENACETIN	FL
EPA 8270 D	PHENOL	FL
EPA 8270 D	PRONAMIDE (KERB)	FL
EPA 8270 D	SAFROLE	FL
EPA 8270 D	THIONAZIN (ZINOPHOS)	FL
EPA 8270 D - EXTENDED	3+4-METHYL PHENOL (M+P CRESOL)	FL
EPA 8270 D - EXTENDED	PYRIDINE	FL
EPA 8270 D SIM	ACENAPHTHENE	FL
EPA 8270 D SIM	ANTHRACENE	FL
EPA 8270 D SIM	BENZO(A)PYRENE	FL
EPA 8270 D SIM	BENZO(G,H,I)PERYLENE	FL
EPA 8270 D SIM	CHRYSENE	FL
EPA 8270 D SIM	FLUORANTHENE	FL
EPA 8270 D SIM	HEXACHLOROBENZENE	FL
EPA 8270 D SIM	INDENO(1,2,3-CD) PYRENE	FL
EPA 8270 D SIM	PENTACHLOROPHENOL	FL
EPA 8270 D SIM	PYRENE	FL
EPA 8310	ACENAPHTHYLENE	FL
EPA 8310	BENZO(A)ANTHRACENE	FL
EPA 8310	BENZO(B)FLUORANTHENE	FL
EPA 8310	BENZO(K)FLUORANTHENE	FL
EPA 8310	DIBENZO(A,H) ANTHRACENE	FL
EPA 8310	FLUORENE	FL
EPA 8310	NAPHTHALENE	FL
EPA 8310	PYRENE	FL
EPA 8330 A	1,3-DINITROBENZENE (1,3-DNB)	FL

Commonwealth of Virginia

Department of General Services
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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 8330 A	2,4,6-TRINITROTOLUENE (2,4,6-TNT)	FL
EPA 8330 A	2,6-DINITROTOLUENE (2,6-DNT)	FL
EPA 8330 A	2-NITROTOLUENE	FL
EPA 8330 A	4-AMINO-2,6-DINITROTOLUENE (4-AM-DNT)	FL
EPA 8330 A	NITROBENZENE	FL
EPA 8330 A	RDX (HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE)	FL
EPA 9010 B	CYANIDE	FL
EPA 9010 C	PREP: CYANIDE DISTILLATION	FL
EPA 9012 B	TOTAL CYANIDE	FL
EPA 9060 A	TOTAL ORGANIC CARBON	FL
EPA 8330 A	2,4-DINITROTOLUENE (2,4-DNT)	FL
EPA 8330 A	2-AMINO-4,6-DINITROTOLUENE (2-AM-DNT)	FL
EPA 8330 A	3-NITROTOLUENE	FL
EPA 8330 A	4-NITROTOLUENE	FL
EPA 8330 A	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	FL
EPA 8332	NITROGLYCERIN	FL
EPA 9010 B	PREP: CYANIDE DISTILLATION	FL
EPA 9012 A	CYANIDE	FL
EPA 9045 C	PH	FL
EPA 9071 B	OIL AND GREASE (AS HEM)	FL

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF GENERAL SERVICES
DIVISION OF CONSOLIDATED LABORATORY SERVICES

Certifies that

VA Laboratory ID#: 460182
EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC

2425 NEW HOLLAND PIKE
LANCASTER, PA 17601

Owner: EUROFINS SCIENTIFIC
Operator: J. WILSON HERSHEY
Responsible Official: J. WILSON HERSHEY

Having met the requirements of 1 VAC 30-46
and the National Environmental Laboratory Accreditation Conference 2003 Standard

is hereby approved as an

Accredited Laboratory

As more fully described in the attached Scope of Accreditation

Effective Date: **June 15, 2014**
Expiration Date: **June 14, 2015**
Certificate # 2914

Denise M. Toney, Ph.D.
DGS Deputy Director for Laboratories, Acting

Continued accreditation status depends on successful ongoing participation in the program.
Certificate to be conspicuously displayed at the laboratory.
Not valid unless accompanied by a valid Virginia Environmental Laboratory Accreditation Program (VELAP) Scope of Accreditation.
Customers are urged to verify the laboratory's current accreditation status.

Certificate Not Transferable

Surrender Upon Revocation

Commonwealth of Virginia

Department of General Services
Division of Consolidated Laboratory Services

Scope of Accreditation

VELAP Certificate No.: 2914

EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC
2425 NEW HOLLAND PIKE
LANCASTER, PA 17601

Virginia Laboratory ID: 460182
Effective Date: June 15, 2014
Expiration Date: June 14, 2015

AIR

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA TO-14A REV 2	1,1,1-TRICHLOROETHANE	LA DEQ	EPA TO-14A REV 2	1,1,2,2-TETRACHLOROETHANE	LA DEQ
EPA TO-14A REV 2	1,1,2-TRICHLORO-1,2,2-TRIFLUOR OETHANE (FREON 113)	LA DEQ	EPA TO-14A REV 2	1,1,2-TRICHLOROETHANE	LA DEQ
EPA TO-14A REV 2	1,1-DICHLOROETHANE	LA DEQ	EPA TO-14A REV 2	1,1-DICHLOROETHYLENE	LA DEQ
EPA TO-14A REV 2	1,2,4-TRICHLOROBENZENE	LA DEQ	EPA TO-14A REV 2	1,2,4-TRIMETHYLBENZENE	LA DEQ
EPA TO-14A REV 2	1,2-DIBROMOETHANE (EDB, ETHYLENE DIBROMIDE)	LA DEQ	EPA TO-14A REV 2	1,2-DICHLOROBENZENE	LA DEQ
EPA TO-14A REV 2	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	LA DEQ	EPA TO-14A REV 2	1,2-DICHLOROPROPANE	LA DEQ
EPA TO-14A REV 2	1,3,5-TRIMETHYLBENZENE	LA DEQ	EPA TO-14A REV 2	1,3-DICHLOROBENZENE	LA DEQ
EPA TO-14A REV 2	1,4-DICHLOROBENZENE	LA DEQ	EPA TO-14A REV 2	2-BUTANONE (METHYL ETHYL KETONE, MEK)	LA DEQ
EPA TO-14A REV 2	BENZENE	LA DEQ	EPA TO-14A REV 2	BROMOFORM	LA DEQ
EPA TO-14A REV 2	CARBON TETRACHLORIDE	LA DEQ	EPA TO-14A REV 2	CHLOROBENZENE	LA DEQ
EPA TO-14A REV 2	CHLOROETHANE (ETHYL CHLORIDE)	LA DEQ	EPA TO-14A REV 2	CHLOROFORM	LA DEQ
EPA TO-14A REV 2	CIS-1,2-DICHLOROETHYLENE	LA DEQ	EPA TO-14A REV 2	CIS-1,3-DICHLOROPROPENE	LA DEQ
EPA TO-14A REV 2	ETHYLBENZENE	LA DEQ	EPA TO-14A REV 2	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	LA DEQ
EPA TO-14A REV 2	M+P-XYLENE	LA DEQ	EPA TO-14A REV 2	METHYL BROMIDE (BROMOMETHANE)	LA DEQ
EPA TO-14A REV 2	METHYL CHLORIDE (CHLOROMETHANE)	LA DEQ	EPA TO-14A REV 2	METHYLENE CHLORIDE (DICHLOROMETHANE)	LA DEQ
EPA TO-14A REV 2	O-XYLENE	LA DEQ	EPA TO-14A REV 2	STYRENE	LA DEQ
EPA TO-14A REV 2	TETRACHLOROETHENE (PERCHLOROETHENE)	LA DEQ	EPA TO-14A REV 2	TOLUENE	LA DEQ
EPA TO-14A REV 2	TRANS-1,2-DICHLOROETHENE	LA DEQ	EPA TO-14A REV 2	TRANS-1,3-DICHLOROPROPENE	LA DEQ
EPA TO-14A REV 2	TRICHLOROETHENE (TRICHLOROETHYLENE)	LA DEQ	EPA TO-14A REV 2	TRICHLOROFLUOROMETHANE (FLUOROTRICHLOROMETHANE, FREON 11)	LA DEQ
EPA TO-14A REV 2	VINYL CHLORIDE	LA DEQ	EPA TO-14A REV 2 - EXTENDED	4-METHYL-2-PENTANONE (MIBK)	LA DEQ
EPA TO-14A REV 2 - EXTENDED	BROMODICHLOROMETHANE	LA DEQ	EPA TO-14A REV 2 - EXTENDED	CARBON DISULFIDE	LA DEQ
EPA TO-14A REV 2 - EXTENDED	METHYL TERT-BUTYL ETHER (MTBE)	LA DEQ	EPA TO-14A REV 2 - EXTENDED	XYLENE (TOTAL)	LA DEQ
EPA TO-15	1,1,1-TRICHLOROETHANE	LA DEQ	EPA TO-15	1,1,2,2-TETRACHLOROETHANE	LA DEQ
EPA TO-15	1,1,2-TRICHLORO-1,2,2-TRIFLUOR OETHANE (FREON 113)	LA DEQ	EPA TO-15	1,1,2-TRICHLOROETHANE	LA DEQ
EPA TO-15	1,1-DICHLOROETHANE	LA DEQ	EPA TO-15	1,1-DICHLOROETHYLENE	LA DEQ
EPA TO-15	1,2,4-TRICHLOROBENZENE	LA DEQ	EPA TO-15	1,2,4-TRIMETHYLBENZENE	LA DEQ
EPA TO-15	1,2-DIBROMOETHANE (EDB, ETHYLENE DIBROMIDE)	LA DEQ	EPA TO-15	1,2-DICHLOROBENZENE	LA DEQ
EPA TO-15	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	LA DEQ	EPA TO-15	1,2-DICHLOROPROPANE	LA DEQ
EPA TO-15	1,3,5-TRIMETHYLBENZENE	LA DEQ	EPA TO-15	1,3-BUTADIENE	LA DEQ

Commonwealth of Virginia

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Scope of Accreditation

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LANCASTER, PA 17601

Virginia Laboratory ID: 460182
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AIR

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA TO-15	1,3-DICHLOROBENZENE	LA DEQ	EPA TO-15	1,4-DICHLOROBENZENE	LA DEQ
EPA TO-15	1,4-DIOXANE (1,4-DIETHYLENEOXIDE)	LA DEQ	EPA TO-15	2-BUTANONE (METHYL ETHYL KETONE, MEK)	LA DEQ
EPA TO-15	4-METHYL-2-PENTANONE (MIBK)	LA DEQ	EPA TO-15	ACETONITRILE	LA DEQ
EPA TO-15	ACROLEIN (PROPENAL)	LA DEQ	EPA TO-15	ACRYLONITRILE	LA DEQ
EPA TO-15	ALLYL CHLORIDE (3-CHLOROPROPENE)	LA DEQ	EPA TO-15	BENZENE	LA DEQ
EPA TO-15	BROMODICHLOROMETHANE	LA DEQ	EPA TO-15	BROMOFORM	LA DEQ
EPA TO-15	CARBON DISULFIDE	LA DEQ	EPA TO-15	CARBON TETRACHLORIDE	LA DEQ
EPA TO-15	CHLOROBENZENE	LA DEQ	EPA TO-15	CHLOROETHANE (ETHYL CHLORIDE)	LA DEQ
EPA TO-15	CHLOROFORM	LA DEQ	EPA TO-15	CIS-1,2-DICHLOROETHYLENE	LA DEQ
EPA TO-15	CIS-1,3-DICHLOROPROPENE	LA DEQ	EPA TO-15	CYCLOHEXANE	LA DEQ
EPA TO-15	ETHYL ACRYLATE	LA DEQ	EPA TO-15	ETHYLBENZENE	LA DEQ
EPA TO-15	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	LA DEQ	EPA TO-15	HEXACHLOROETHANE	LA DEQ
EPA TO-15	IODOMETHANE (METHYL IODIDE)	LA DEQ	EPA TO-15	ISOPROPYLBENZENE	LA DEQ
EPA TO-15	M+P-XYLENE	LA DEQ	EPA TO-15	METHYL BROMIDE (BROMOMETHANE)	LA DEQ
EPA TO-15	METHYL CHLORIDE (CHLOROMETHANE)	LA DEQ	EPA TO-15	METHYL METHACRYLATE	LA DEQ
EPA TO-15	METHYL TERT-BUTYL ETHER (MTBE)	LA DEQ	EPA TO-15	METHYLENE CHLORIDE (DICHLOROMETHANE)	LA DEQ
EPA TO-15	O-XYLENE	LA DEQ	EPA TO-15	PROPYLENE	LA DEQ
EPA TO-15	STYRENE	LA DEQ	EPA TO-15	TETRACHLOROETHENE (PERCHLOROETHENE)	LA DEQ
EPA TO-15	TOLUENE	LA DEQ	EPA TO-15	TRANS-1,2-DICHLOROETHENE	LA DEQ
EPA TO-15	TRANS-1,3-DICHLOROPROPENE	LA DEQ	EPA TO-15	TRICHLOROETHENE (TRICHLOROETHYLENE)	LA DEQ
EPA TO-15	TRICHLOROFLUOROMETHANE (FLUOROTRICHLOROMETHANE, FREON 11)	LA DEQ	EPA TO-15	VINYL ACETATE	LA DEQ
EPA TO-15	VINYL CHLORIDE	LA DEQ	EPA TO-15	XYLENE (TOTAL)	LA DEQ
EPA TO-15 - EXTENDED	2-CHLOROTOLUENE	LA DEQ	EPA TO-15 - EXTENDED	2-HEXANONE	LA DEQ
EPA TO-15 - EXTENDED	4-ETHYLTOLUENE	LA DEQ	EPA TO-15 - EXTENDED	ACETONE	LA DEQ
EPA TO-15 - EXTENDED	CHLORODIFLUOROMETHANE (FREON-22)	LA DEQ	EPA TO-15 - EXTENDED	NAPHTHALENE	LA DEQ
EPA TO-15 - EXTENDED	TERT-BUTYL ALCOHOL	LA DEQ			

DRINKING WATER

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 180.1 REV 2	TURBIDITY	PA	EPA 200.7 REV 4.4	ALUMINUM	PA
EPA 200.7 REV 4.4	BARIUM	PA	EPA 200.7 REV 4.4	BERYLLIUM	PA
EPA 200.7 REV 4.4	CADMIUM	PA	EPA 200.7 REV 4.4	CALCIUM	PA

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DRINKING WATER

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 200.7 REV 4.4	CHROMIUM	PA	EPA 200.7 REV 4.4	COPPER	PA
EPA 200.7 REV 4.4	IRON	PA	EPA 200.7 REV 4.4	MAGNESIUM	PA
EPA 200.7 REV 4.4	MANGANESE	PA	EPA 200.7 REV 4.4	NICKEL	PA
EPA 200.7 REV 4.4	SILVER	PA	EPA 200.7 REV 4.4	SODIUM	PA
EPA 200.7 REV 4.4	ZINC	PA	EPA 200.8 REV 5.4	ANTIMONY	PA
EPA 200.8 REV 5.4	ARSENIC	PA	EPA 200.8 REV 5.4	BERYLLIUM	PA
EPA 200.8 REV 5.4	CADMIUM	PA	EPA 200.8 REV 5.4	CHROMIUM	PA
EPA 200.8 REV 5.4	COPPER	PA	EPA 200.8 REV 5.4	LEAD	PA
EPA 200.8 REV 5.4	NICKEL	PA	EPA 200.8 REV 5.4	SELENIUM	PA
EPA 200.8 REV 5.4	THALLIUM	PA	EPA 245.1 REV 3	MERCURY	PA
EPA 300.0 REV 2.1	CHLORIDE	PA	EPA 300.0 REV 2.1	FLUORIDE	PA
EPA 300.0 REV 2.1	NITRATE AS N	PA	EPA 300.0 REV 2.1	NITRITE AS N	PA
EPA 300.0 REV 2.1	SULFATE	PA	EPA 335.4 REV 1.0	CYANIDE	PA
EPA 353.2 REV 2	NITRATE AS N	PA	EPA 353.2 REV 2	NITRATE/NITRITE	PA
EPA 353.2 REV 2	NITRITE AS N	PA	EPA 504.1 REV 1.1	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	PA
EPA 504.1 REV 1.1	1,2-DIBROMOETHANE (EDB, ETHYLENE DIBROMIDE)	PA	EPA 507 REV 2.1	ALACHLOR	PA
EPA 507 REV 2.1	ATRAZINE	PA	EPA 507 REV 2.1	SIMAZINE	PA
EPA 508 REV 3.1	AROCLOR-1016 (PCB-1016)	PA	EPA 508 REV 3.1	AROCLOR-1221 (PCB-1221)	PA
EPA 508 REV 3.1	AROCLOR-1232 (PCB-1232)	PA	EPA 508 REV 3.1	AROCLOR-1242 (PCB-1242)	PA
EPA 508 REV 3.1	AROCLOR-1248 (PCB-1248)	PA	EPA 508 REV 3.1	AROCLOR-1254 (PCB-1254)	PA
EPA 508 REV 3.1	AROCLOR-1260 (PCB-1260)	PA	EPA 508 REV 3.1	CHLORDANE (TECH.)	PA
EPA 508 REV 3.1	ENDRIN	PA	EPA 508 REV 3.1	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	PA
EPA 508 REV 3.1	HEPTACHLOR	PA	EPA 508 REV 3.1	HEPTACHLOR EPOXIDE	PA
EPA 508 REV 3.1	HEXACHLOROBENZENE	PA	EPA 508 REV 3.1	HEXACHLOROCYCLOPENTADIENE	PA
EPA 508 REV 3.1	METHOXYCHLOR	PA	EPA 508 REV 3.1	TOXAPHENE (CHLORINATED CAMPHENE)	PA
EPA 515.1 REV 4	2,4-D	PA	EPA 515.1 REV 4	DALAPON	PA
EPA 515.1 REV 4	DINOSEB (2-SEC-BUTYL-4,6-DINITROPHENOL, DNBP)	PA	EPA 515.1 REV 4	PENTACHLOROPHENOL	PA
EPA 515.1 REV 4	PICLORAM	PA	EPA 515.1 REV 4	SILVEX (2,4,5-TP)	PA
EPA 524.2 REV 4.1	1,1,1-TRICHLOROETHANE	PA	EPA 524.2 REV 4.1	1,1,2-TRICHLOROETHANE	PA
EPA 524.2 REV 4.1	1,1-DICHLOROETHYLENE	PA	EPA 524.2 REV 4.1	1,2,4-TRICHLOROBENZENE	PA
EPA 524.2 REV 4.1	1,2-DICHLOROBENZENE	PA	EPA 524.2 REV 4.1	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	PA
EPA 524.2 REV 4.1	1,2-DICHLOROPROPANE	PA	EPA 524.2 REV 4.1	1,4-DICHLOROBENZENE	PA
EPA 524.2 REV 4.1	BENZENE	PA	EPA 524.2 REV 4.1	BROMODICHLOROMETHANE	PA
EPA 524.2 REV 4.1	BROMOFORM	PA	EPA 524.2 REV 4.1	CARBON TETRACHLORIDE	PA

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DRINKING WATER

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 524.2 REV 4.1	CHLOROBENZENE	PA	EPA 524.2 REV 4.1	CHLORODIBROMOMETHANE	PA
EPA 524.2 REV 4.1	CHLOROFORM	PA	EPA 524.2 REV 4.1	CIS-1,2-DICHLOROETHYLENE	PA
EPA 524.2 REV 4.1	ETHYLBENZENE	PA	EPA 524.2 REV 4.1	METHYLENE CHLORIDE (DICHLOROMETHANE)	PA
EPA 524.2 REV 4.1	STYRENE	PA	EPA 524.2 REV 4.1	TETRACHLOROETHENE (PERCHLOROETHENE)	PA
EPA 524.2 REV 4.1	TOLUENE	PA	EPA 524.2 REV 4.1	TRANS-1,2-DICHLOROETHENE	PA
EPA 524.2 REV 4.1	TRICHLOROETHENE (TRICHLOROETHYLENE)	PA	EPA 524.2 REV 4.1	VINYL CHLORIDE	PA
EPA 524.2 REV 4.1	XYLENE (TOTAL)	PA	EPA 525.2 REV 2	ALACHLOR	PA
EPA 525.2 REV 2	ATRAZINE	PA	EPA 525.2 REV 2	BENZO(A)PYRENE	PA
EPA 525.2 REV 2	BIS(2-ETHYLHEXYL) PHTHALATE (DI(2-ETHYLHEXYL)PHTHALATE), (DEHP)	PA	EPA 525.2 REV 2	BIS(2-ETHYLHEXYL)ADIPATE (DI(2-ETHYLHEXYL)ADIPATE)	PA
EPA 525.2 REV 2	ENDRIN	PA	EPA 525.2 REV 2	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	PA
EPA 525.2 REV 2	HEPTACHLOR	PA	EPA 525.2 REV 2	HEPTACHLOR EPOXIDE	PA
EPA 525.2 REV 2	HEXACHLOROBENZENE	PA	EPA 525.2 REV 2	HEXACHLOROCYCLOPENTADIENE	PA
EPA 525.2 REV 2	METHOXYCHLOR	PA	EPA 531.1 REV 3.1	CARBOFURAN (FURADEN)	PA
EPA 531.1 REV 3.1	OXAMYL	PA	SM 2320 B-1997	ALKALINITY AS CACO3	PA
SM 2510 B-1997	CONDUCTIVITY	PA	SM 2540 C-1997	RESIDUE-FILTERABLE (TDS)	PA
SM 4500-F⁻ C-1997	FLUORIDE	PA	SM 4500-H+ B-2000	PH	PA
SM 4500-P E-1999	ORTHOPHOSPHATE AS P	PA	SM 5540 C-2000	SURFACTANTS - MBAS	PA
SM 9215 B-1994	HETEROTROPHIC PLATE COUNT	PA	SM 9223 COLILERT P/A	ESCHERICHIA COLI	PA
SM 9223 COLILERT P/A	TOTAL COLIFORMS	PA			

NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 1010	FLASHPOINT	PA	EPA 1311	PREP: TOXICITY CHARACTERISTIC LEACHING PROCEDURE	PA
EPA 1312	PREP: SYNTHETIC PRECIPITATION LEACHING PROCEDURE	PA	EPA 160.4	RESIDUE-VOLATILE	PA
EPA 1613 B	1,2,3,4,6,7,8,9-OCTACHLORODIBENZO-P-DIOXIN (OCDD)	PA	EPA 1613 B	1,2,3,4,6,7,8,9-OCTACHLORODIBENZOFURAN (OCDF)	PA
EPA 1613 B	1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN (1,2,3,4,6,7,8-HPCDD)	PA	EPA 1613 B	1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN (1,2,3,4,6,7,8-HPCDF)	PA
EPA 1613 B	1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN (1,2,3,4,7,8,9-HPCDF)	PA	EPA 1613 B	1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN (1,2,3,4,7,8-HXCDD)	PA
EPA 1613 B	1,2,3,4,7,8-HEXACHLORODIBENZOFURAN (1,2,3,4,7,8-HXCDF)	PA	EPA 1613 B	1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN(1,2,3,6,7,8-HXCDD)	PA
EPA 1613 B	1,2,3,6,7,8-HEXACHLORODIBENZOFURAN (1,2,3,6,7,8-HXCDF)	PA	EPA 1613 B	1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN (1,2,3,7,8,9-HXCDD)	PA

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EPA 1613 B	1,2,3,7,8,9-HEXACHLORODIBENZO FURAN (1,2,3,7,8,9-HXCDF)	PA	EPA 1613 B	1,2,3,7,8-PENTACHLORODIBENZO -P-DIOXIN (1,2,3,7,8-PECDD)	PA
EPA 1613 B	1,2,3,7,8-PENTACHLORODIBENZO FURAN (1,2,3,7,8-PECDF)	PA	EPA 1613 B	2,3,4,6,7,8-HEXACHLORODIBENZO FURAN (2,3,4,6,7,8-HXCDF)	PA
EPA 1613 B	2,3,4,7,8-PENTACHLORODIBENZO FURAN	PA	EPA 1613 B	2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN (2,3,7,8-TCDD)	PA
EPA 1613 B	2,3,7,8-TETRACHLORODIBENZOF URAN (2,3,7,8-TCDF)	PA	EPA 1631 E	MERCURY	PA
EPA 1664 A	OIL AND GREASE (AS HEM)	PA	EPA 1664 A	TOTAL PETROLEUM HYDROCARBONS (TPH) (AS NONPOLAR MATERIAL, SGT-HEM)	PA
EPA 1666 A	4-METHYL-2-PENTANONE (MIBK)	PA	EPA 1666 A	DI-ISOPROPYLETHER (DIPE, ISOPROPYL ETHER)	PA
EPA 1666 A	ETHYL ACETATE	PA	EPA 1666 A	ISOBUTYRALDEHYDE	PA
EPA 1666 A	ISOPROPYL ACETATE	PA	EPA 1666 A	ISOPROPYL ALCOHOL (2-PROPANOL, ISOPROPANOL)	PA
EPA 1666 A	METHYL FORMATE	PA	EPA 1666 A	N-AMYL ACETATE	PA
EPA 1666 A	N-AMYL ALCOHOL	PA	EPA 1666 A	N-BUTYL-ACETATE	PA
EPA 1666 A	N-HEPTANE	PA	EPA 1666 A	N-HEXANE	PA
EPA 1666 A	TERT-BUTYL ALCOHOL	PA	EPA 1666 A	TETRAHYDROFURAN (THF)	PA
EPA 1666 A	XYLENE (TOTAL)	PA	EPA 1668 A	2,2',3,3',4,4',5,5',6-NONACHLOROBI PHENYL (BZ-206)	PA
EPA 1668 A	2,2',3,3',4,4',5,5'-OCTACHLOROBIP HENYL (BZ-194)	PA	EPA 1668 A	2,2',3,3',4,4',5,6'-OCTACHLOROBIP HENYL (BZ-196)	PA
EPA 1668 A	2,2',3,3',4,4',5,6,6'-NONACHLOROBI PHENYL (BZ-207)	PA	EPA 1668 A	2,2',3,3',4,4',5,6-OCTACHLOROBIP HENYL BZ-195)	PA
EPA 1668 A	2,2',3,3',4,4',5-HEPTACHLOROBIPH ENYL (BZ-170)	PA	EPA 1668 A	2,2',3,3',4,4',6,6'-OCTACHLOROBIP HENYL (BZ-197)	PA
EPA 1668 A	2,2',3,3',4,4',6-HEPTACHLOROBIPH ENYL (BZ-171)	PA	EPA 1668 A	2,2',3,3',4,4'-HEXACHLOROBIPHEN YL (BZ-128)	PA
EPA 1668 A	2,2',3,3',4,5',6'-HEPTACHLOROBIP HENYL (BZ-177)	PA	EPA 1668 A	2,2',3,3',4,5',6,6'-OCTACHLOROBIP HENYL (BZ-201)	PA
EPA 1668 A	2,2',3,3',4,5',6-HEPTACHLOROBIPH ENYL (BZ-175)	PA	EPA 1668 A	2,2',3,3',4,5'-HEXACHLOROBIPHEN YL (BZ-130)	PA
EPA 1668 A	2,2',3,3',4,5,5',6'-OCTACHLOROBIP HENYL (BZ-199)	PA	EPA 1668 A	2,2',3,3',4,5,5',6,6'-NONACHLOROBI PHENYL (BZ-208)	PA
EPA 1668 A	2,2',3,3',4,5,5',6-OCTACHLOROBIP HENYL (BZ-198)	PA	EPA 1668 A	2,2',3,3',4,5,5'-HEPTACHLOROBIPH ENYL (BZ-172)	PA
EPA 1668 A	2,2',3,3',4,5,6'-HEPTACHLOROBIPH ENYL (BZ-174)	PA	EPA 1668 A	2,2',3,3',4,5,6,6'-OCTACHLOROBIP HENYL (BZ-200)	PA
EPA 1668 A	2,2',3,3',4,5,6-HEPTACHLOROBIPH ENYL (BZ-173)	PA	EPA 1668 A	2,2',3,3',4,5-HEXACHLOROBIPHEN YL (BZ-129)	PA
EPA 1668 A	2,2',3,3',4,6'-HEXACHLOROBIPHEN YL (BZ-132)	PA	EPA 1668 A	2,2',3,3',4,6,6'-HEPTACHLOROBIPH ENYL (BZ-176)	PA
EPA 1668 A	2,2',3,3',4,6-HEXACHLOROBIPHEN YL (BZ-131)	PA	EPA 1668 A	2,2',3,3',4-PENTACHLOROBIPHEN YL (BZ-82)	PA
EPA 1668 A	2,2',3,3',5,5',6,6'-OCTACHLOROBIP HENYL (BZ-202)	PA	EPA 1668 A	2,2',3,3',5,5',6-HEPTACHLOROBIPH ENYL (BZ-178)	PA

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EPA 1668 A	2,2',3,3',5,5'-HEXACHLOROBIPHENYL (BZ-133)	PA	EPA 1668 A	2,2',3,3',5,6'-HEXACHLOROBIPHENYL (BZ-135)	PA
EPA 1668 A	2,2',3,3',5,6,6'-HEPTACHLOROBIPHENYL (BZ-179)	PA	EPA 1668 A	2,2',3,3',5,6-HEXACHLOROBIPHENYL (BZ-134)	PA
EPA 1668 A	2,2',3,3',5-PENTACHLOROBIPHENYL (BZ-83)	PA	EPA 1668 A	2,2',3,3',6,6'-HEXACHLOROBIPHENYL (BZ-136)	PA
EPA 1668 A	2,2',3,3',6-PENTACHLOROBIPHENYL (BZ-84)	PA	EPA 1668 A	2,2',3,3'-TETRACHLOROBIPHENYL (BZ-40)	PA
EPA 1668 A	2,2',3,4',5',6-HEXACHLOROBIPHENYL (BZ-149)	PA	EPA 1668 A	2,2',3,4',5'-PENTACHLOROBIPHENYL (BZ-97)	PA
EPA 1668 A	2,2',3,4',5,5',6-HEPTACHLOROBIPHENYL (BZ-187)	PA	EPA 1668 A	2,2',3,4',5,5'-HEXACHLOROBIPHENYL (BZ-146)	PA
EPA 1668 A	2,2',3,4',5,6'-HEXACHLOROBIPHENYL (BZ-148)	PA	EPA 1668 A	2,2',3,4',5,6,6'-HEPTACHLOROBIPHENYL (BZ-188)	PA
EPA 1668 A	2,2',3,4',5,6-HEXACHLOROBIPHENYL (BZ-147)	PA	EPA 1668 A	2,2',3,4',5-PENTACHLOROBIPHENYL (BZ-90)	PA
EPA 1668 A	2,2',3,4',6'-PENTACHLOROBIPHENYL (BZ-98)	PA	EPA 1668 A	2,2',3,4',6,6'-HEXACHLOROBIPHENYL (BZ-150)	PA
EPA 1668 A	2,2',3,4',6-PENTACHLOROBIPHENYL (BZ-91)	PA	EPA 1668 A	2,2',3,4'-TETRACHLOROBIPHENYL (BZ-42)	PA
EPA 1668 A	2,2',3,4,4',5',6-HEPTACHLOROBIPHENYL (BZ-183)	PA	EPA 1668 A	2,2',3,4,4',5'-HEXACHLOROBIPHENYL (BZ-138)	PA
EPA 1668 A	2,2',3,4,4',5,5',6-OCTACHLOROBIPHENYL (BZ-203)	PA	EPA 1668 A	2,2',3,4,4',5,5'-HEPTACHLOROBIPHENYL (BZ-180)	PA
EPA 1668 A	2,2',3,4,4',5,6'-HEPTACHLOROBIPHENYL (BZ-182)	PA	EPA 1668 A	2,2',3,4,4',5,6,6'-OCTACHLOROBIPHENYL (BZ-204)	PA
EPA 1668 A	2,2',3,4,4',5,6-HEPTACHLOROBIPHENYL (BZ-181)	PA	EPA 1668 A	2,2',3,4,4',5-HEXACHLOROBIPHENYL (BZ-137)	PA
EPA 1668 A	2,2',3,4,4',6'-HEXACHLOROBIPHENYL (BZ-140)	PA	EPA 1668 A	2,2',3,4,4',6,6'-HEPTACHLOROBIPHENYL (BZ-184)	PA
EPA 1668 A	2,2',3,4,4',6-HEXACHLOROBIPHENYL (BZ-139)	PA	EPA 1668 A	2,2',3,4,4'-PENTACHLOROBIPHENYL (BZ-85)	PA
EPA 1668 A	2,2',3,4,5',6-HEXACHLOROBIPHENYL (BZ-144)	PA	EPA 1668 A	2,2',3,4,5'-PENTACHLOROBIPHENYL (BZ-87)	PA
EPA 1668 A	2,2',3,4,5,5',6-HEPTACHLOROBIPHENYL (BZ-185)	PA	EPA 1668 A	2,2',3,4,5,5'-HEXACHLOROBIPHENYL (BZ-141)	PA
EPA 1668 A	2,2',3,4,5,6'-HEXACHLOROBIPHENYL (BZ-143)	PA	EPA 1668 A	2,2',3,4,5,6,6'-HEPTACHLOROBIPHENYL (BZ-186)	PA
EPA 1668 A	2,2',3,4,5,6-HEXACHLOROBIPHENYL (BZ-142)	PA	EPA 1668 A	2,2',3,4,5-PENTACHLOROBIPHENYL (BZ-86)	PA
EPA 1668 A	2,2',3,4,6'-PENTACHLOROBIPHENYL (BZ-89)	PA	EPA 1668 A	2,2',3,4,6,6'-HEXACHLOROBIPHENYL (BZ-145)	PA
EPA 1668 A	2,2',3,4,6-PENTACHLOROBIPHENYL (BZ-88)	PA	EPA 1668 A	2,2',3,4-TETRACHLOROBIPHENYL (BZ-41)	PA
EPA 1668 A	2,2',3,5',6-PENTACHLOROBIPHENYL (BZ-95)	PA	EPA 1668 A	2,2',3,5'-TETRACHLOROBIPHENYL (BZ-44)	PA
EPA 1668 A	2,2',3,5,5',6-HEXACHLOROBIPHENYL (BZ-151)	PA	EPA 1668 A	2,2',3,5,5'-PENTACHLOROBIPHENYL (BZ-92)	PA
EPA 1668 A	2,2',3,5,6'-PENTACHLOROBIPHENYL (BZ-94)	PA	EPA 1668 A	2,2',3,5,6,6'-HEXACHLOROBIPHENYL (BZ-152)	PA

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EPA 1668 A	2,2',3,5,6-PENTACHLOROBIPHENYL (BZ-93)	PA	EPA 1668 A	2,2',3,5-TETRACHLOROBIPHENYL (BZ-43)	PA
EPA 1668 A	2,2',3,6'-TETRACHLOROBIPHENYL (BZ-46)	PA	EPA 1668 A	2,2',3,6,6'-PENTACHLOROBIPHENYL (BZ-96)	PA
EPA 1668 A	2,2',3,6-TETRACHLOROBIPHENYL (BZ-45)	PA	EPA 1668 A	2,2',3-TRICHLOROBIPHENYL (BZ-16)	PA
EPA 1668 A	2,2',4,4',5,5'-HEXACHLOROBIPHENYL (BZ-153)	PA	EPA 1668 A	2,2',4,4',5,6'-HEXACHLOROBIPHENYL (BZ-154)	PA
EPA 1668 A	2,2',4,4',5-PENTACHLOROBIPHENYL (BZ-99)	PA	EPA 1668 A	2,2',4,4',6,6'-HEXACHLOROBIPHENYL (BZ-155)	PA
EPA 1668 A	2,2',4,4',6-PENTACHLOROBIPHENYL (BZ-100)	PA	EPA 1668 A	2,2',4,4'-TETRACHLOROBIPHENYL (BZ-47)	PA
EPA 1668 A	2,2',4,5',6-PENTACHLOROBIPHENYL (BZ-103)	PA	EPA 1668 A	2,2',4,5'-TETRACHLOROBIPHENYL (BZ-49)	PA
EPA 1668 A	2,2',4,5,5'-PENTACHLOROBIPHENYL (BZ-101)	PA	EPA 1668 A	2,2',4,5,6'-PENTACHLOROBIPHENYL (BZ-102)	PA
EPA 1668 A	2,2',4,5-TETRACHLOROBIPHENYL (BZ-48)	PA	EPA 1668 A	2,2',4,6'-TETRACHLOROBIPHENYL (BZ-51)	PA
EPA 1668 A	2,2',4,6,6'-PENTACHLOROBIPHENYL (BZ-104)	PA	EPA 1668 A	2,2',4,6-TETRACHLOROBIPHENYL (BZ-50)	PA
EPA 1668 A	2,2',4-TRICHLOROBIPHENYL (BZ-17)	PA	EPA 1668 A	2,2',5,5'-TETRACHLOROBIPHENYL (BZ-52)	PA
EPA 1668 A	2,2',5,6'-TETRACHLOROBIPHENYL (BZ-53)	PA	EPA 1668 A	2,2',5-TRICHLOROBIPHENYL (BZ-18)	PA
EPA 1668 A	2,2',6,6'-TETRACHLOROBIPHENYL (BZ-54)	PA	EPA 1668 A	2,2',6-TRICHLOROBIPHENYL (BZ-19)	PA
EPA 1668 A	2,2'-DICHLOROBIPHENYL (BZ-4)	PA	EPA 1668 A	2,3',4',5,6-PENTACHLOROBIPHENYL (BZ-125)	PA
EPA 1668 A	2,3',4',5'-TETRACHLOROBIPHENYL (BZ-76)	PA	EPA 1668 A	2,3',4',5,5'-PENTACHLOROBIPHENYL (BZ-124)	PA
EPA 1668 A	2,3',4',5-TETRACHLOROBIPHENYL (BZ-70)	PA	EPA 1668 A	2,3',4',6-TETRACHLOROBIPHENYL (BZ-71)	PA
EPA 1668 A	2,3',4'-TRICHLOROBIPHENYL (BZ-33)	PA	EPA 1668 A	2,3',4,4',5',6-HEXACHLOROBIPHENYL (BZ-168)	PA
EPA 1668 A	2,3',4,4',5'-PENTACHLOROBIPHENYL (BZ-123)	PA	EPA 1668 A	2,3',4,4',5,5'-HEXACHLOROBIPHENYL (BZ-167)	PA
EPA 1668 A	2,3',4,4',5-PENTACHLOROBIPHENYL (BZ-118)	PA	EPA 1668 A	2,3',4,4',6-PENTACHLOROBIPHENYL (BZ-119)	PA
EPA 1668 A	2,3',4,4'-TETRACHLOROBIPHENYL (BZ-66)	PA	EPA 1668 A	2,3',4,5',6-PENTACHLOROBIPHENYL (BZ-121)	PA
EPA 1668 A	2,3',4,5'-TETRACHLOROBIPHENYL (BZ-68)	PA	EPA 1668 A	2,3',4,5,5'-PENTACHLOROBIPHENYL (BZ-120)	PA
EPA 1668 A	2,3',4,5-TETRACHLOROBIPHENYL (BZ-67)	PA	EPA 1668 A	2,3',4,6-TETRACHLOROBIPHENYL (BZ-69)	PA
EPA 1668 A	2,3',4-TRICHLOROBIPHENYL (BZ-25)	PA	EPA 1668 A	2,3',5',6-TETRACHLOROBIPHENYL (BZ-73)	PA
EPA 1668 A	2,3',5'-TRICHLOROBIPHENYL (BZ-34)	PA	EPA 1668 A	2,3',5,5'-TETRACHLOROBIPHENYL (BZ-72)	PA
EPA 1668 A	2,3',5-TRICHLOROBIPHENYL (BZ-26)	PA	EPA 1668 A	2,3',6-TRICHLOROBIPHENYL (BZ-27)	PA

Commonwealth of Virginia

Department of General Services
Division of Consolidated Laboratory Services

Scope of Accreditation

VELAP Certificate No.: 2914

EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC
2425 NEW HOLLAND PIKE
LANCASTER, PA 17601

Virginia Laboratory ID: 460182
Effective Date: June 15, 2014
Expiration Date: June 14, 2015

NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 1668 A	2,3'-DICHLOROBIPHENYL (BZ-6)	PA	EPA 1668 A	2,3,3',4',5',6-HEXACHLOROBIPHENYL (BZ-164)	PA
EPA 1668 A	2,3,3',4',5'-PENTACHLOROBIPHENYL (BZ-122)	PA	EPA 1668 A	2,3,3',4',5,5',6-HEPTACHLOROBIPHENYL (BZ-193)	PA
EPA 1668 A	2,3,3',4',5,5'-HEXACHLOROBIPHENYL (BZ-162)	PA	EPA 1668 A	2,3,3',4',5,6-HEXACHLOROBIPHENYL (BZ-163)	PA
EPA 1668 A	2,3,3',4',5-PENTACHLOROBIPHENYL (BZ-107)	PA	EPA 1668 A	2,3,3',4',6-PENTACHLOROBIPHENYL (BZ-110)	PA
EPA 1668 A	2,3,3',4'-TETRACHLOROBIPHENYL (BZ-56)	PA	EPA 1668 A	2,3,3',4,4',5',6-HEPTACHLOROBIPHENYL (BZ-191)	PA
EPA 1668 A	2,3,3',4,4',5'-HEXACHLOROBIPHENYL (BZ-157)	PA	EPA 1668 A	2,3,3',4,4',5,5',6-OCTACHLOROBIPHENYL (BZ-205)	PA
EPA 1668 A	2,3,3',4,4',5,5'-HEPTACHLOROBIPHENYL (BZ-189)	PA	EPA 1668 A	2,3,3',4,4',5,6-HEPTACHLOROBIPHENYL (BZ-190)	PA
EPA 1668 A	2,3,3',4,4',5-HEXACHLOROBIPHENYL (BZ-156)	PA	EPA 1668 A	2,3,3',4,4',6-HEXACHLOROBIPHENYL (BZ-158)	PA
EPA 1668 A	2,3,3',4,4'-PENTACHLOROBIPHENYL (BZ-105)	PA	EPA 1668 A	2,3,3',4,5',6-HEXACHLOROBIPHENYL (BZ-161)	PA
EPA 1668 A	2,3,3',4,5'-PENTACHLOROBIPHENYL (BZ-108)	PA	EPA 1668 A	2,3,3',4,5,5',6-HEPTACHLOROBIPHENYL (BZ-192)	PA
EPA 1668 A	2,3,3',4,5,5'-HEXACHLOROBIPHENYL (BZ-159)	PA	EPA 1668 A	2,3,3',4,5,6-HEXACHLOROBIPHENYL (BZ-160)	PA
EPA 1668 A	2,3,3',4,5-PENTACHLOROBIPHENYL (BZ-106)	PA	EPA 1668 A	2,3,3',4,6-PENTACHLOROBIPHENYL (BZ-109)	PA
EPA 1668 A	2,3,3',4-TETRACHLOROBIPHENYL (BZ-55)	PA	EPA 1668 A	2,3,3',5',6-PENTACHLOROBIPHENYL (BZ-113)	PA
EPA 1668 A	2,3,3',5'-TETRACHLOROBIPHENYL (BZ-58)	PA	EPA 1668 A	2,3,3',5,5',6-HEXACHLOROBIPHENYL (BZ-165)	PA
EPA 1668 A	2,3,3',5,5'-PENTACHLOROBIPHENYL (BZ-111)	PA	EPA 1668 A	2,3,3',5,6-PENTACHLOROBIPHENYL (BZ-112)	PA
EPA 1668 A	2,3,3',5-TETRACHLOROBIPHENYL (BZ-57)	PA	EPA 1668 A	2,3,3',6-TETRACHLOROBIPHENYL (BZ-59)	PA
EPA 1668 A	2,3,3'-TRICHLOROBIPHENYL (BZ-20)	PA	EPA 1668 A	2,3,4',5,6-PENTACHLOROBIPHENYL (BZ-117)	PA
EPA 1668 A	2,3,4',5-TETRACHLOROBIPHENYL (BZ-63)	PA	EPA 1668 A	2,3,4',6-TETRACHLOROBIPHENYL (BZ-64)	PA
EPA 1668 A	2,3,4'-TRICHLOROBIPHENYL (BZ-22)	PA	EPA 1668 A	2,3,4,4',5,6-HEXACHLOROBIPHENYL (BZ-166)	PA
EPA 1668 A	2,3,4,4',5-PENTACHLOROBIPHENYL (BZ-114)	PA	EPA 1668 A	2,3,4,4',6-PENTACHLOROBIPHENYL (BZ-115)	PA
EPA 1668 A	2,3,4,4'-TETRACHLOROBIPHENYL (BZ-60)	PA	EPA 1668 A	2,3,4,5,6-PENTACHLOROBIPHENYL (BZ-116)	PA
EPA 1668 A	2,3,4,5-TETRACHLOROBIPHENYL (BZ-61)	PA	EPA 1668 A	2,3,4,6-TETRACHLOROBIPHENYL (BZ-62)	PA
EPA 1668 A	2,3,4-TRICHLOROBIPHENYL (BZ-21)	PA	EPA 1668 A	2,3,5,6-TETRACHLOROBIPHENYL (BZ-65)	PA
EPA 1668 A	2,3,5-TRICHLOROBIPHENYL (BZ-23)	PA	EPA 1668 A	2,3,6-TRICHLOROBIPHENYL (BZ-24)	PA
EPA 1668 A	2,3-DICHLOROBIPHENYL (BZ-5)	PA	EPA 1668 A	2,4',5-TRICHLOROBIPHENYL (BZ-31)	PA

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METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 1668 A	2,4',6-TRICHLOROBIPHENYL (BZ-32)	PA	EPA 1668 A	2,4'-DICHLOROBIPHENYL (BZ-8)	PA
EPA 1668 A	2,4,4',5-TETRACHLOROBIPHENYL (BZ-74)	PA	EPA 1668 A	2,4,4',6-TETRACHLOROBIPHENYL (BZ-75)	PA
EPA 1668 A	2,4,4'-TRICHLOROBIPHENYL (BZ-28)	PA	EPA 1668 A	2,4,5-TRICHLOROBIPHENYL (BZ-29)	PA
EPA 1668 A	2,4,6-TRICHLOROBIPHENYL (BZ-30)	PA	EPA 1668 A	2,4-DICHLOROBIPHENYL (BZ-7)	PA
EPA 1668 A	2,5-DICHLOROBIPHENYL (BZ-9)	PA	EPA 1668 A	2,6-DICHLOROBIPHENYL (BZ-10)	PA
EPA 1668 A	2-CHLOROBIPHENYL (BZ-1)	PA	EPA 1668 A	3,3',4,4',5,5'-HEXACHLOROBIPHENYL (BZ-169)	PA
EPA 1668 A	3,3',4,4',5-PENTACHLOROBIPHENYL (BZ-126)	PA	EPA 1668 A	3,3',4,4'-TETRACHLOROBIPHENYL (BZ-77)	PA
EPA 1668 A	3,3',4,5'-TETRACHLOROBIPHENYL (BZ-79)	PA	EPA 1668 A	3,3',4,5,5'-PENTACHLOROBIPHENYL (BZ-127)	PA
EPA 1668 A	3,3',4,5-TETRACHLOROBIPHENYL (BZ-78)	PA	EPA 1668 A	3,3',4-TRICHLOROBIPHENYL (BZ-35)	PA
EPA 1668 A	3,3',5,5'-TETRACHLOROBIPHENYL (BZ-80)	PA	EPA 1668 A	3,3',5-TRICHLOROBIPHENYL (BZ-36)	PA
EPA 1668 A	3,3'-DICHLOROBIPHENYL (BZ-11)	PA	EPA 1668 A	3,4',5-TRICHLOROBIPHENYL (BZ-39)	PA
EPA 1668 A	3,4'-DICHLOROBIPHENYL (BZ-13)	PA	EPA 1668 A	3,4,4',5-TETRACHLOROBIPHENYL (BZ-81)	PA
EPA 1668 A	3,4,4'-TRICHLOROBIPHENYL (BZ-37)	PA	EPA 1668 A	3,4,5-TRICHLOROBIPHENYL (BZ-38)	PA
EPA 1668 A	3,4-DICHLOROBIPHENYL (BZ-12)	PA	EPA 1668 A	3,5-DICHLOROBIPHENYL (BZ-14)	PA
EPA 1668 A	3-CHLOROBIPHENYL (BZ-2)	PA	EPA 1668 A	4,4'-DICHLOROBIPHENYL (BZ-15)	PA
EPA 1668 A	4-CHLOROBIPHENYL (BZ-3)	PA	EPA 1668 A	DECACHLOROBIPHENYL (BZ-209)	PA
EPA 1671 A	ACETONITRILE	PA	EPA 1671 A	DIETHYLAMINE	PA
EPA 1671 A	DIMETHYL SULFOXIDE	PA	EPA 1671 A	ETHANOL	PA
EPA 1671 A	METHANOL	PA	EPA 1671 A	METHYL CELLOSOLVE	PA
EPA 1671 A	N-PROPANOL (1-PROPANOL)	PA	EPA 1671 A	TRIETHYLAMINE	PA
EPA 180.1 REV 2	TURBIDITY	PA	EPA 200.2 REV 2.8	PREP: SAMPLE PREPARATION PROCEDURE FOR SPECTROCHEMICAL DETERMINATION OF TOTAL RECOVERABLE ELEMENTS	PA
EPA 200.7 REV 4.4	ALUMINUM	PA	EPA 200.7 REV 4.4	ANTIMONY	PA
EPA 200.7 REV 4.4	ARSENIC	PA	EPA 200.7 REV 4.4	BARIUM	PA
EPA 200.7 REV 4.4	BERYLLIUM	PA	EPA 200.7 REV 4.4	BORON	PA
EPA 200.7 REV 4.4	CADMIUM	PA	EPA 200.7 REV 4.4	CALCIUM	PA
EPA 200.7 REV 4.4	CHROMIUM	PA	EPA 200.7 REV 4.4	COBALT	PA
EPA 200.7 REV 4.4	COPPER	PA	EPA 200.7 REV 4.4	IRON	PA
EPA 200.7 REV 4.4	LEAD	PA	EPA 200.7 REV 4.4	MAGNESIUM	PA
EPA 200.7 REV 4.4	MANGANESE	PA	EPA 200.7 REV 4.4	MOLYBDENUM	PA
EPA 200.7 REV 4.4	NICKEL	PA	EPA 200.7 REV 4.4	POTASSIUM	PA

Commonwealth of Virginia

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Scope of Accreditation

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 200.7 REV 4.4	SELENIUM	PA	EPA 200.7 REV 4.4	SILVER	PA
EPA 200.7 REV 4.4	SODIUM	PA	EPA 200.7 REV 4.4	THALLIUM	PA
EPA 200.7 REV 4.4	TIN	PA	EPA 200.7 REV 4.4	TITANIUM	PA
EPA 200.7 REV 4.4	VANADIUM	PA	EPA 200.7 REV 4.4	ZINC	PA
EPA 200.8 REV 5.4	ALUMINUM	PA	EPA 200.8 REV 5.4	ANTIMONY	PA
EPA 200.8 REV 5.4	ARSENIC	PA	EPA 200.8 REV 5.4	BARIUM	PA
EPA 200.8 REV 5.4	BERYLLIUM	PA	EPA 200.8 REV 5.4	CADMIUM	PA
EPA 200.8 REV 5.4	CHROMIUM	PA	EPA 200.8 REV 5.4	COBALT	PA
EPA 200.8 REV 5.4	COPPER	PA	EPA 200.8 REV 5.4	LEAD	PA
EPA 200.8 REV 5.4	MANGANESE	PA	EPA 200.8 REV 5.4	MOLYBDENUM	PA
EPA 200.8 REV 5.4	NICKEL	PA	EPA 200.8 REV 5.4	SELENIUM	PA
EPA 200.8 REV 5.4	SILVER	PA	EPA 200.8 REV 5.4	THALLIUM	PA
EPA 200.8 REV 5.4	VANADIUM	PA	EPA 200.8 REV 5.4	ZINC	PA
EPA 200.8 REV 5.4 - EXTENDED	BORON	PA	EPA 200.8 REV 5.4 - EXTENDED	CALCIUM	PA
EPA 200.8 REV 5.4 - EXTENDED	IRON	PA	EPA 200.8 REV 5.4 - EXTENDED	MAGNESIUM	PA
EPA 200.8 REV 5.4 - EXTENDED	POTASSIUM	PA	EPA 200.8 REV 5.4 - EXTENDED	SODIUM	PA
EPA 200.8 REV 5.4 - EXTENDED	TIN	PA	EPA 200.8 REV 5.4 - EXTENDED	TITANIUM	PA
EPA 245.1 REV 3	MERCURY	PA	EPA 300.0 REV 2.1	BROMIDE	PA
EPA 300.0 REV 2.1	CHLORIDE	PA	EPA 300.0 REV 2.1	FLUORIDE	PA
EPA 300.0 REV 2.1	NITRATE AS N	PA	EPA 300.0 REV 2.1	NITRITE AS N	PA
EPA 300.0 REV 2.1	ORTHOPHOSPHATE AS P	PA	EPA 300.0 REV 2.1	SULFATE	PA
EPA 3005 A	PREP: ACID DIGESTION OF WATERS FOR TOTAL RECOVERABLE OR DISSOLVED METALS	PA	EPA 3010 A	PREP: ACID DIGESTION OF AQUEOUS SAMPLES AND EXTRACTS FOR TOTAL METALS	PA
EPA 3020 A	PREP: ACID DIGESTION OF AQUEOUS SAMPLES AND EXTRACTS FOR TOTAL METALS	PA	EPA 335.4 REV 1.0	CYANIDE	PA
EPA 351.2 REV 2	KJELDAHL NITROGEN - TOTAL	PA	EPA 3510 C	PREP: LIQUID-LIQUID EXTRACTION	PA
EPA 3511	PREP: ORGANIC EXTRACTION AND SAMPLE PREPARATION	PA	EPA 3520 C	PREP: CONTINUOUS LIQUID-LIQUID EXTRACTION	PA
EPA 353.2 REV 2	NITRATE AS N	PA	EPA 353.2 REV 2	NITRATE/NITRITE	PA
EPA 353.2 REV 2	NITRITE AS N	PA	EPA 3620 C	PREP: FLORISIL CLEANUP	PA
EPA 3630 C	PREP: SILICA GEL CLEANUP	PA	EPA 365.1 REV 2	PHOSPHORUS, TOTAL	PA
EPA 365.3	ORTHOPHOSPHATE AS P	PA	EPA 410.4 REV 2	CHEMICAL OXYGEN DEMAND	PA
EPA 420.4 REV 1	TOTAL PHENOLICS	PA	EPA 5030	PREP: PURGE AND TRAP FOR AQUEOUS SAMPLES	PA
EPA 6010 B	ALUMINUM	PA	EPA 6010 B	ANTIMONY	PA
EPA 6010 B	ARSENIC	PA	EPA 6010 B	BARIUM	PA

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METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 6010 B	BERYLLIUM	PA	EPA 6010 B	BORON	PA
EPA 6010 B	CADMIUM	PA	EPA 6010 B	CALCIUM	PA
EPA 6010 B	CHROMIUM	PA	EPA 6010 B	COBALT	PA
EPA 6010 B	COPPER	PA	EPA 6010 B	IRON	PA
EPA 6010 B	LEAD	PA	EPA 6010 B	LITHIUM	PA
EPA 6010 B	MAGNESIUM	PA	EPA 6010 B	MANGANESE	PA
EPA 6010 B	MOLYBDENUM	PA	EPA 6010 B	NICKEL	PA
EPA 6010 B	POTASSIUM	PA	EPA 6010 B	SELENIUM	PA
EPA 6010 B	SILVER	PA	EPA 6010 B	SODIUM	PA
EPA 6010 B	STRONTIUM	PA	EPA 6010 B	THALLIUM	PA
EPA 6010 B	TIN	PA	EPA 6010 B	TITANIUM	PA
EPA 6010 B	VANADIUM	PA	EPA 6010 B	ZINC	PA
EPA 6010 C	ALUMINUM	PA	EPA 6010 C	ANTIMONY	PA
EPA 6010 C	ARSENIC	PA	EPA 6010 C	BARIUM	PA
EPA 6010 C	BERYLLIUM	PA	EPA 6010 C	BORON	PA
EPA 6010 C	CADMIUM	PA	EPA 6010 C	CALCIUM	PA
EPA 6010 C	CHROMIUM	PA	EPA 6010 C	COBALT	PA
EPA 6010 C	COPPER	PA	EPA 6010 C	IRON	PA
EPA 6010 C	LEAD	PA	EPA 6010 C	LITHIUM	PA
EPA 6010 C	MAGNESIUM	PA	EPA 6010 C	MANGANESE	PA
EPA 6010 C	MOLYBDENUM	PA	EPA 6010 C	NICKEL	PA
EPA 6010 C	POTASSIUM	PA	EPA 6010 C	SELENIUM	PA
EPA 6010 C	SILVER	PA	EPA 6010 C	SODIUM	PA
EPA 6010 C	STRONTIUM	PA	EPA 6010 C	THALLIUM	PA
EPA 6010 C	TIN	PA	EPA 6010 C	TITANIUM	PA
EPA 6010 C	VANADIUM	PA	EPA 6010 C	ZINC	PA
EPA 602	BENZENE	PA	EPA 602	ETHYLBENZENE	PA
EPA 602	TOLUENE	PA	EPA 602	XYLENE (TOTAL)	PA
EPA 6020 A	ALUMINUM	PA	EPA 6020 A	ANTIMONY	PA
EPA 6020 A	ARSENIC	PA	EPA 6020 A	BARIUM	PA
EPA 6020 A	BERYLLIUM	PA	EPA 6020 A	CADMIUM	PA
EPA 6020 A	CALCIUM	PA	EPA 6020 A	CHROMIUM	PA
EPA 6020 A	COBALT	PA	EPA 6020 A	COPPER	PA
EPA 6020 A	IRON	PA	EPA 6020 A	LEAD	PA
EPA 6020 A	MAGNESIUM	PA	EPA 6020 A	MANGANESE	PA
EPA 6020 A	NICKEL	PA	EPA 6020 A	POTASSIUM	PA
EPA 6020 A	SELENIUM	PA	EPA 6020 A	SILVER	PA
EPA 6020 A	SODIUM	PA	EPA 6020 A	THALLIUM	PA
EPA 6020 A	VANADIUM	PA	EPA 6020 A	ZINC	PA

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EPA 6020 A - EXTENDED	BORON	PA	EPA 6020 A - EXTENDED	MOLYBDENUM	PA
EPA 6020 A - EXTENDED	STRONTIUM	PA	EPA 6020 A - EXTENDED	TIN	PA
EPA 6020 A - EXTENDED	TITANIUM	PA	EPA 608	4,4'-DDD	PA
EPA 608	4,4'-DDE	PA	EPA 608	4,4'-DDT	PA
EPA 608	ALDRIN	PA	EPA 608	ALPHA-BHC (ALPHA-HEXACHLOROCYCLOHEXANE)	PA
EPA 608	AROCLOR-1016 (PCB-1016)	PA	EPA 608	AROCLOR-1221 (PCB-1221)	PA
EPA 608	AROCLOR-1232 (PCB-1232)	PA	EPA 608	AROCLOR-1242 (PCB-1242)	PA
EPA 608	AROCLOR-1248 (PCB-1248)	PA	EPA 608	AROCLOR-1254 (PCB-1254)	PA
EPA 608	AROCLOR-1260 (PCB-1260)	PA	EPA 608	BETA-BHC (BETA-HEXACHLOROCYCLOHEXANE)	PA
EPA 608	CHLORDANE (TECH.)	PA	EPA 608	DELTA-BHC	PA
EPA 608	DIELDRIN	PA	EPA 608	ENDOSULFAN I	PA
EPA 608	ENDOSULFAN II	PA	EPA 608	ENDOSULFAN SULFATE	PA
EPA 608	ENDRIN	PA	EPA 608	ENDRIN ALDEHYDE	PA
EPA 608	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	PA	EPA 608	HEPTACHLOR	PA
EPA 608	HEPTACHLOR EPOXIDE	PA	EPA 608	TOXAPHENE (CHLORINATED CAMPHENE)	PA
EPA 610 (HPLC)	ACENAPHTHENE	PA	EPA 610 (HPLC)	ACENAPHTHYLENE	PA
EPA 610 (HPLC)	ANTHRACENE	PA	EPA 610 (HPLC)	BENZO(A)ANTHRACENE	PA
EPA 610 (HPLC)	BENZO(A)PYRENE	PA	EPA 610 (HPLC)	BENZO(G,H,I)PERYLENE	PA
EPA 610 (HPLC)	BENZO(K)FLUORANTHENE	PA	EPA 610 (HPLC)	BENZO[B]FLUORANTHENE	PA
EPA 610 (HPLC)	CHRYSENE	PA	EPA 610 (HPLC)	DIBENZO(A,H) ANTHRACENE	PA
EPA 610 (HPLC)	FLUORANTHENE	PA	EPA 610 (HPLC)	FLUORENE	PA
EPA 610 (HPLC)	INDENO(1,2,3-CD) PYRENE	PA	EPA 610 (HPLC)	NAPHTHALENE	PA
EPA 610 (HPLC)	PHENANTHRENE	PA	EPA 610 (HPLC)	PYRENE	PA
EPA 622	AZINPHOS-METHYL (GUTHION)	PA	EPA 622	BOLSTAR (SULPROFOS)	PA
EPA 622	CHLORPYRIFOS	PA	EPA 622	DEMETON-O	PA
EPA 622	DEMETON-S	PA	EPA 622	DIAZINON	PA
EPA 622	DICHLOROVOS (DDVP, DICHLORVOS)	PA	EPA 622	DISULFOTON	PA
EPA 622	ETHOPROP	PA	EPA 622	FENSULFOTHION	PA
EPA 622	FENTHION	PA	EPA 622	MERPHOS	PA
EPA 622	METHYL PARATHION (PARATHION, METHYL)	PA	EPA 622	MEVINPHOS	PA
EPA 622	NALED	PA	EPA 622	PHORATE	PA
EPA 622	STIROFOS	PA	EPA 624	1,1,1-TRICHLOROETHANE	PA

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EPA 624	1,1,2,2-TETRACHLOROETHANE	PA	EPA 624	1,1,2-TRICHLOROETHANE	PA
EPA 624	1,1-DICHLOROETHANE	PA	EPA 624	1,2-DICHLOROBENZENE	PA
EPA 624	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	PA	EPA 624	1,2-DICHLOROPROPANE	PA
EPA 624	1,3-DICHLOROBENZENE	PA	EPA 624	1,4-DICHLOROBENZENE	PA
EPA 624	2-CHLOROETHYL VINYL ETHER	PA	EPA 624	ACROLEIN (PROPENAL)	PA
EPA 624	ACRYLONITRILE	PA	EPA 624	BENZENE	PA
EPA 624	BROMODICHLOROMETHANE	PA	EPA 624	BROMOFORM	PA
EPA 624	CARBON TETRACHLORIDE	PA	EPA 624	CHLOROBENZENE	PA
EPA 624	CHLORODIBROMOMETHANE	PA	EPA 624	CHLOROETHANE (ETHYL CHLORIDE)	PA
EPA 624	CHLOROFORM	PA	EPA 624	CIS-1,3-DICHLOROPROPENE	PA
EPA 624	ETHYLBENZENE	PA	EPA 624	METHYL BROMIDE (BROMOMETHANE)	PA
EPA 624	METHYL CHLORIDE (CHLOROMETHANE)	PA	EPA 624	METHYLENE CHLORIDE (DICHLOROMETHANE)	PA
EPA 624	TETRACHLOROETHENE (PERCHLOROETHENE)	PA	EPA 624	TOLUENE	PA
EPA 624	TRANS-1,2-DICHLOROETHENE	PA	EPA 624	TRANS-1,3-DICHLOROPROPENE	PA
EPA 624	TRICHLOROETHENE (TRICHLOROETHYLENE)	PA	EPA 624	TRICHLOROFLUOROMETHANE (FLUOROTRICHLOROMETHANE, FREON 11)	PA
EPA 624	VINYL CHLORIDE	PA	EPA 624 - EXTENDED	1,1-DICHLOROETHYLENE	PA
EPA 625	1,2,4-TRICHLOROBENZENE	PA	EPA 625	2,4,6-TRICHLOROPHENOL	PA
EPA 625	2,4-DICHLOROPHENOL	PA	EPA 625	2,4-DIMETHYLPHENOL	PA
EPA 625	2,4-DINITROPHENOL	PA	EPA 625	2,4-DINITROTOLUENE (2,4-DNT)	PA
EPA 625	2,6-DINITROTOLUENE (2,6-DNT)	PA	EPA 625	2-CHLORONAPHTHALENE	PA
EPA 625	2-CHLOROPHENOL	PA	EPA 625	2-METHYL-4,6-DINITROPHENOL (4,6-DINITRO-2-METHYLPHENOL)	PA
EPA 625	2-METHYLPHENOL (O-CRESOL)	PA	EPA 625	2-NITROPHENOL	PA
EPA 625	3,3'-DICHLOROBENZIDINE	PA	EPA 625	4-BROMOPHENYL PHENYL ETHER	PA
EPA 625	4-CHLORO-3-METHYLPHENOL	PA	EPA 625	4-CHLOROPHENYL PHENYLETHER	PA
EPA 625	4-NITROPHENOL	PA	EPA 625	ACENAPHTHENE	PA
EPA 625	ACENAPHTHYLENE	PA	EPA 625	ANTHRACENE	PA
EPA 625	BENZIDINE	PA	EPA 625	BENZO(A)ANTHRACENE	PA
EPA 625	BENZO(A)PYRENE	PA	EPA 625	BENZO(G,H,I)PERYLENE	PA
EPA 625	BENZO(K)FLUORANTHENE	PA	EPA 625	BENZO[B]FLUORANTHENE	PA
EPA 625	BIS(2-CHLOROETHOXY)METHANE	PA	EPA 625	BIS(2-CHLOROETHYL) ETHER	PA
EPA 625	BIS(2-CHLOROISOPROPYL) ETHER	PA	EPA 625	BIS(2-ETHYLHEXYL) PHTHALATE (DI(2-ETHYLHEXYL)PHTHALATE), (DEHP)	PA
EPA 625	BUTYL BENZYL PHTHALATE	PA	EPA 625	CHRYSENE	PA

Scope of Accreditation

VELAP Certificate No.: 2914

EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC
2425 NEW HOLLAND PIKE
LANCASTER, PA 17601

Virginia Laboratory ID: 460182
Effective Date: June 15, 2014
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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 625	DI-N-BUTYL PHTHALATE	PA	EPA 625	DI-N-OCTYL PHTHALATE	PA
EPA 625	DIBENZO(A,H) ANTHRACENE	PA	EPA 625	DIETHYL PHTHALATE	PA
EPA 625	DIMETHYL PHTHALATE	PA	EPA 625	FLUORANTHENE	PA
EPA 625	FLUORENE	PA	EPA 625	HEXACHLOROBENZENE	PA
EPA 625	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	PA	EPA 625	HEXACHLOROCYCLOPENTADIENE	PA
EPA 625	HEXACHLOROETHANE	PA	EPA 625	INDENO(1,2,3-CD) PYRENE	PA
EPA 625	ISOPHORONE	PA	EPA 625	N-NITROSODI-N-PROPYLAMINE	PA
EPA 625	N-NITROSODIMETHYLAMINE	PA	EPA 625	N-NITROSODIPHENYLAMINE	PA
EPA 625	NAPHTHALENE	PA	EPA 625	NITROBENZENE	PA
EPA 625	PENTACHLOROPHENOL	PA	EPA 625	PHENANTHRENE	PA
EPA 625	PHENOL	PA	EPA 625	PYRENE	PA
EPA 625 - EXTENDED	1,2-DIPHENYLHYDRAZINE	PA	EPA 625 - EXTENDED	4-METHYLPHENOL (P-CRESOL)	PA
EPA 625 - EXTENDED	ACETOPHENONE	PA	EPA 625 - EXTENDED	ANILINE	PA
EPA 625 - EXTENDED	CARBAZOLE	PA	EPA 625 - EXTENDED	N-DECANE	PA
EPA 625 - EXTENDED	N-OCTADECANE	PA	EPA 625 - EXTENDED	PYRIDINE	PA
EPA 6850	PERCHLORATE	PA	EPA 7196 A	CHROMIUM VI	PA
EPA 7470 A	MERCURY	PA	EPA 8011	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	PA
EPA 8011	1,2-DIBROMOETHANE (EDB, ETHYLENE DIBROMIDE)	PA	EPA 8015 B	DIESEL RANGE ORGANICS (DRO)	PA
EPA 8015 B	ETHANOL	PA	EPA 8015 B	ETHYLENE GLYCOL	PA
EPA 8015 B	GASOLINE RANGE ORGANICS (GRO)	PA	EPA 8015 B	ISOPROPYL ALCOHOL (2-PROPANOL, ISOPROPANOL)	PA
EPA 8015 B	METHANOL	PA	EPA 8015 C	DIESEL RANGE ORGANICS (DRO)	PA
EPA 8015 C	ETHANOL	PA	EPA 8015 C	ETHYLENE GLYCOL	PA
EPA 8015 C	GASOLINE RANGE ORGANICS (GRO)	PA	EPA 8015 C	ISOPROPYL ALCOHOL (2-PROPANOL, ISOPROPANOL)	PA
EPA 8015 C	METHANOL	PA	EPA 8015 D - EXTENDED	FORMIC ACID	PA
EPA 8021 B	BENZENE	PA	EPA 8021 B	ETHYLBENZENE	PA
EPA 8021 B	ISOPROPYLBENZENE	PA	EPA 8021 B	M+P-XYLENE	PA
EPA 8021 B	NAPHTHALENE	PA	EPA 8021 B	O-XYLENE	PA
EPA 8021 B	TOLUENE	PA	EPA 8021 B	XYLENE (TOTAL)	PA
EPA 8021 B - EXTENDED	METHYL TERT-BUTYL ETHER (MTBE)	PA	EPA 8081 A	4,4'-DDD	PA
EPA 8081 A	4,4'-DDE	PA	EPA 8081 A	4,4'-DDT	PA
EPA 8081 A	ALDRIN	PA	EPA 8081 A	ALPHA-BHC (ALPHA-HEXACHLOROCYCLOHEXANE)	PA
EPA 8081 A	ALPHA-CHLORDANE [CIS-CHLORDANE]	PA	EPA 8081 A	BETA-BHC (BETA-HEXACHLOROCYCLOHEXANE)	PA
EPA 8081 A	CHLORDANE (TECH.)	PA	EPA 8081 A	DELTA-BHC	PA

Commonwealth of Virginia

Department of General Services
Division of Consolidated Laboratory Services

Scope of Accreditation

VELAP Certificate No.: 2914

EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC
2425 NEW HOLLAND PIKE
LANCASTER, PA 17601

Virginia Laboratory ID: 460182
Effective Date: June 15, 2014
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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 8081 A	DIELDRIN	PA	EPA 8081 A	ENDOSULFAN I	PA
EPA 8081 A	ENDOSULFAN II	PA	EPA 8081 A	ENDOSULFAN SULFATE	PA
EPA 8081 A	ENDRIN	PA	EPA 8081 A	ENDRIN ALDEHYDE	PA
EPA 8081 A	ENDRIN KETONE	PA	EPA 8081 A	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	PA
EPA 8081 A	GAMMA-CHLORDANE [BETA-CHLORDANE, TRANS-CHLORDANE]	PA	EPA 8081 A	HEPTACHLOR	PA
EPA 8081 A	HEPTACHLOR EPOXIDE	PA	EPA 8081 A	METHOXYCHLOR	PA
EPA 8081 A	TOXAPHENE (CHLORINATED CAMPHENE)	PA	EPA 8081 B	4,4'-DDD	PA
EPA 8081 B	4,4'-DDE	PA	EPA 8081 B	4,4'-DDT	PA
EPA 8081 B	ALDRIN	PA	EPA 8081 B	ALPHA-BHC (ALPHA-HEXACHLOROCYCLOHEXANE)	PA
EPA 8081 B	ALPHA-CHLORDANE [CIS-CHLORDANE]	PA	EPA 8081 B	BETA-BHC (BETA-HEXACHLOROCYCLOHEXANE)	PA
EPA 8081 B	CHLORDANE (TECH.)	PA	EPA 8081 B	DELTA-BHC	PA
EPA 8081 B	DIELDRIN	PA	EPA 8081 B	ENDOSULFAN I	PA
EPA 8081 B	ENDOSULFAN II	PA	EPA 8081 B	ENDOSULFAN SULFATE	PA
EPA 8081 B	ENDRIN	PA	EPA 8081 B	ENDRIN ALDEHYDE	PA
EPA 8081 B	ENDRIN KETONE	PA	EPA 8081 B	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	PA
EPA 8081 B	GAMMA-CHLORDANE [BETA-CHLORDANE, TRANS-CHLORDANE]	PA	EPA 8081 B	HEPTACHLOR	PA
EPA 8081 B	HEPTACHLOR EPOXIDE	PA	EPA 8081 B	METHOXYCHLOR	PA
EPA 8081 B	TOXAPHENE (CHLORINATED CAMPHENE)	PA	EPA 8082 A	AROCLOR-1016 (PCB-1016)	PA
EPA 8082 A	AROCLOR-1221 (PCB-1221)	PA	EPA 8082 A	AROCLOR-1232 (PCB-1232)	PA
EPA 8082 A	AROCLOR-1242 (PCB-1242)	PA	EPA 8082 A	AROCLOR-1248 (PCB-1248)	PA
EPA 8082 A	AROCLOR-1254 (PCB-1254)	PA	EPA 8082 A	AROCLOR-1260 (PCB-1260)	PA
EPA 8082 A - EXTENDED	AROCLOR-1262 (PCB-1262)	PA	EPA 8082 A - EXTENDED	AROCLOR-1268 (PCB-1268)	PA
EPA 8141 A	ATRAZINE	PA	EPA 8141 A	BOLSTAR (SULPROFOS)	PA
EPA 8141 A	CHLORPYRIFOS	PA	EPA 8141 A	COUMAPHOS	PA
EPA 8141 A	DEMETON-O	PA	EPA 8141 A	DEMETON-S	PA
EPA 8141 A	DIAZINON	PA	EPA 8141 A	DICHLOROVOS (DDVP, DICHLORVOS)	PA
EPA 8141 A	DISULFOTON	PA	EPA 8141 A	ETHION	PA
EPA 8141 A	ETHOPROP	PA	EPA 8141 A	FAMPHUR	PA
EPA 8141 A	FENSULFOTHION	PA	EPA 8141 A	FENTHION	PA

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 8141 A	MALATHION	PA	EPA 8141 A	MERPHOS	PA
EPA 8141 A	METHYL PARATHION (PARATHION, METHYL)	PA	EPA 8141 A	MEVINPHOS	PA
EPA 8141 A	NALED	PA	EPA 8141 A	PARATHION (PARATHION - ETHYL)	PA
EPA 8141 A	PHORATE	PA	EPA 8141 A	RONNEL	PA
EPA 8141 A	SIMAZINE	PA	EPA 8141 A	TETRACHLORVINPHOS (STIROPHOS, GARDONA) Z-ISOMER	PA
EPA 8141 A	TOKUTHION (PROTHIOPHOS)	PA	EPA 8141 A	TRICHLORONATE	PA
EPA 8141 B	ATRAZINE	PA	EPA 8141 B	AZINPHOS-METHYL (GUTHION)	PA
EPA 8141 B	BOLSTAR (SULPROFOS)	PA	EPA 8141 B	CHLORPYRIFOS	PA
EPA 8141 B	COUMAPHOS	PA	EPA 8141 B	DEMETON-O	PA
EPA 8141 B	DEMETON-S	PA	EPA 8141 B	DICHLOROVOS (DDVP, DICHLORVOS)	PA
EPA 8141 B	DISULFOTON	PA	EPA 8141 B	EPN (PHOSPHONOTHIOIC ACID, PHENYL-, O-ETHYL O-(P-NITROPHENYL) ESTER)	PA
EPA 8141 B	ETHION	PA	EPA 8141 B	ETHOPROP	PA
EPA 8141 B	FAMPHUR	PA	EPA 8141 B	FENSULFOTHION	PA
EPA 8141 B	FENTHION	PA	EPA 8141 B	MALATHION	PA
EPA 8141 B	MERPHOS	PA	EPA 8141 B	METHYL PARATHION (PARATHION, METHYL)	PA
EPA 8141 B	MEVINPHOS	PA	EPA 8141 B	NALED	PA
EPA 8141 B	PARATHION (PARATHION - ETHYL)	PA	EPA 8141 B	PHORATE	PA
EPA 8141 B	RONNEL	PA	EPA 8141 B	SIMAZINE	PA
EPA 8141 B	TETRACHLORVINPHOS (STIROPHOS, GARDONA) Z-ISOMER	PA	EPA 8141 B	TOKUTHION (PROTHIOPHOS)	PA
EPA 8141 B	TRICHLORONATE	PA	EPA 8151 A	2,4,5-T	PA
EPA 8151 A	2,4-D	PA	EPA 8151 A	2,4-DB	PA
EPA 8151 A	DALAPON	PA	EPA 8151 A	DICAMBA	PA
EPA 8151 A	DICHLOROPROP (DICHLORPROP)	PA	EPA 8151 A	DINOSEB (2-SEC-BUTYL-4,6-DINITROPHENOL, DNBP)	PA
EPA 8151 A	MCPA	PA	EPA 8151 A	MCPP	PA
EPA 8151 A	PENTACHLOROPHENOL	PA	EPA 8151 A	PICLORAM	PA
EPA 8151 A	SILVEX (2,4,5-TP)	PA	EPA 8260 B	1,1,1,2-TETRACHLOROETHANE	PA
EPA 8260 B	1,1,1-TRICHLOROETHANE	PA	EPA 8260 B	1,1,2,2-TETRACHLOROETHANE	PA
EPA 8260 B	1,1,2-TRICHLOROETHANE	PA	EPA 8260 B	1,1-DICHLOROETHANE	PA
EPA 8260 B	1,1-DICHLOROETHYLENE	PA	EPA 8260 B	1,1-DICHLOROPROPENE	PA
EPA 8260 B	1,2,3-TRICHLOROBENZENE	PA	EPA 8260 B	1,2,3-TRICHLOROPROPANE	PA
EPA 8260 B	1,2,4-TRICHLOROBENZENE	PA	EPA 8260 B	1,2,4-TRIMETHYLBENZENE	PA

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 8260 B	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	PA	EPA 8260 B	1,2-DIBROMOETHANE (EDB, ETHYLENE DIBROMIDE)	PA
EPA 8260 B	1,2-DICHLOROBENZENE	PA	EPA 8260 B	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	PA
EPA 8260 B	1,2-DICHLOROPROPANE	PA	EPA 8260 B	1,3,5-TRIMETHYLBENZENE	PA
EPA 8260 B	1,3-DICHLOROBENZENE	PA	EPA 8260 B	1,3-DICHLOROPROPANE	PA
EPA 8260 B	1,4-DICHLOROBENZENE	PA	EPA 8260 B	1,4-DIOXANE (1,4-DIETHYLENEOXIDE)	PA
EPA 8260 B	1-BUTANOL (N-BUTANOL)	PA	EPA 8260 B	2,2-DICHLOROPROPANE	PA
EPA 8260 B	2-BUTANONE (METHYL ETHYL KETONE, MEK)	PA	EPA 8260 B	2-CHLOROETHYL VINYL ETHER	PA
EPA 8260 B	2-CHLOROTOLUENE	PA	EPA 8260 B	2-HEXANONE	PA
EPA 8260 B	2-NITROPROPANE	PA	EPA 8260 B	4-CHLOROTOLUENE	PA
EPA 8260 B	4-ISOPROPYLTOLUENE (P-CYMENE)	PA	EPA 8260 B	4-METHYL-2-PENTANONE (MIBK)	PA
EPA 8260 B	ACETONE	PA	EPA 8260 B	ACETONITRILE	PA
EPA 8260 B	ACROLEIN (PROPENAL)	PA	EPA 8260 B	ACRYLONITRILE	PA
EPA 8260 B	ALLYL CHLORIDE (3-CHLOROPROPENE)	PA	EPA 8260 B	BENZENE	PA
EPA 8260 B	BENZYL CHLORIDE	PA	EPA 8260 B	BROMOBENZENE	PA
EPA 8260 B	BROMOCHLOROMETHANE	PA	EPA 8260 B	BROMODICHLOROMETHANE	PA
EPA 8260 B	BROMOFORM	PA	EPA 8260 B	CARBON DISULFIDE	PA
EPA 8260 B	CARBON TETRACHLORIDE	PA	EPA 8260 B	CHLOROBENZENE	PA
EPA 8260 B	CHLORODIBROMOMETHANE	PA	EPA 8260 B	CHLOROETHANE (ETHYL CHLORIDE)	PA
EPA 8260 B	CHLOROFORM	PA	EPA 8260 B	CHLOROPRENE (2-CHLORO-1,3-BUTADIENE)	PA
EPA 8260 B	CIS-1,2-DICHLOROETHYLENE	PA	EPA 8260 B	CIS-1,3-DICHLOROPROPENE	PA
EPA 8260 B	DIBROMOMETHANE (METHYLENE BROMIDE)	PA	EPA 8260 B	DICHLORODIFLUOROMETHANE (FREON-12)	PA
EPA 8260 B	DIETHYL ETHER	PA	EPA 8260 B	EPICHLOROHYDRIN (1-CHLORO-2,3-EPOXYPROPANE)	PA
EPA 8260 B	ETHANOL	PA	EPA 8260 B	ETHYL ACETATE	PA
EPA 8260 B	ETHYL METHACRYLATE	PA	EPA 8260 B	ETHYL-T-BUTYLETHER (2-ETHOXY-2-METHYLPROPANE, ETBE)	PA
EPA 8260 B	ETHYLBENZENE	PA	EPA 8260 B	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	PA
EPA 8260 B	IODOMETHANE (METHYL IODIDE)	PA	EPA 8260 B	ISOBUTYL ALCOHOL (2-METHYL-1-PROPANOL)	PA
EPA 8260 B	ISOPROPYL ALCOHOL (2-PROPANOL, ISOPROPANOL)	PA	EPA 8260 B	ISOPROPYLBENZENE	PA
EPA 8260 B	M+P-XYLENE	PA	EPA 8260 B	METHACRYLONITRILE	PA
EPA 8260 B	METHYL BROMIDE (BROMOMETHANE)	PA	EPA 8260 B	METHYL CHLORIDE (CHLOROMETHANE)	PA
EPA 8260 B	METHYL METHACRYLATE	PA	EPA 8260 B	METHYL TERT-BUTYL ETHER (MTBE)	PA

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
			EPA 8260 B	METHYLENE CHLORIDE (DICHLOROMETHANE)	PA
EPA 8260 B	N-BUTYLBENZENE	PA	EPA 8260 B	N-PROPYLAMINE	PA
EPA 8260 B	N-PROPYLBENZENE	PA	EPA 8260 B	NAPHTHALENE	PA
EPA 8260 B	O-XYLENE	PA	EPA 8260 B	PENTACHLOROETHANE	PA
EPA 8260 B	PROPIONITRILE (ETHYL CYANIDE)	PA	EPA 8260 B	SEC-BUTYLBENZENE	PA
EPA 8260 B	STYRENE	PA	EPA 8260 B	TERT-BUTYL ALCOHOL	PA
EPA 8260 B	TERT-BUTYLBENZENE	PA	EPA 8260 B	TETRACHLOROETHENE (PERCHLOROETHENE)	PA
EPA 8260 B	TOLUENE	PA	EPA 8260 B	TRANS-1,2-DICHLOROETHENE	PA
EPA 8260 B	TRANS-1,3-DICHLOROPROPENE	PA	EPA 8260 B	TRANS-1,4-DICHLORO-2-BUTENE	PA
EPA 8260 B	TRICHLOROETHENE (TRICHLOROETHYLENE)	PA	EPA 8260 B	TRICHLOROFLUOROMETHANE (FLUOROTRICHLOROMETHANE, FREON 11)	PA
EPA 8260 B	VINYL ACETATE	PA	EPA 8260 B	VINYL CHLORIDE	PA
EPA 8260 B	XYLENE (TOTAL)	PA	EPA 8260 B - EXTENDED	1,1,2-TRICHLORO-1,2,2-TRIFLUOR OETHANE (FREON 113)	PA
EPA 8260 B - EXTENDED	1,3,5-TRICHLOROBENZENE	PA	EPA 8260 B - EXTENDED	CYCLOHEXANE	PA
EPA 8260 B - EXTENDED	DI-ISOPROPYLETHER (DIPE, ISOPROPYL ETHER)	PA	EPA 8260 B - EXTENDED	ETHYL-T-BUTYLETHER (2-ETHOXY-2-METHYLPROPANE, ETBE)	PA
EPA 8260 B - EXTENDED	GASOLINE RANGE ORGANICS (GRO)	PA	EPA 8260 B - EXTENDED	METHYL ACETATE	PA
EPA 8260 B - EXTENDED	METHYLCYCLOHEXANE	PA	EPA 8260 B - EXTENDED	N-HEXANE	PA
EPA 8260 B - EXTENDED	T-AMYL ALCOHOL (TAA)	PA	EPA 8260 B - EXTENDED	T-AMYLMETHYLETHER (TAME)	PA
EPA 8260 B - EXTENDED	TETRAHYDROFURAN (THF)	PA	EPA 8260 C	1,1,1,2-TETRACHLOROETHANE	PA
EPA 8260 C	1,1,1-TRICHLOROETHANE	PA	EPA 8260 C	1,1,2,2-TETRACHLOROETHANE	PA
EPA 8260 C	1,1,2-TRICHLOROETHANE	PA	EPA 8260 C	1,1-DICHLOROETHANE	PA
EPA 8260 C	1,1-DICHLOROETHYLENE	PA	EPA 8260 C	1,1-DICHLOROPROPENE	PA
EPA 8260 C	1,2,3-TRICHLOROBENZENE	PA	EPA 8260 C	1,2,3-TRICHLOROPROPANE	PA
EPA 8260 C	1,2,4-TRICHLOROBENZENE	PA	EPA 8260 C	1,2,4-TRIMETHYLBENZENE	PA
EPA 8260 C	1,2-DIBROMO-3-CHLOROPROPAN E (DBCP)	PA	EPA 8260 C	1,2-DIBROMOETHANE (EDB, ETHYLENE DIBROMIDE)	PA
EPA 8260 C	1,2-DICHLOROBENZENE	PA	EPA 8260 C	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	PA
EPA 8260 C	1,2-DICHLOROPROPANE	PA	EPA 8260 C	1,3,5-TRIMETHYLBENZENE	PA
EPA 8260 C	1,3-DICHLOROBENZENE	PA	EPA 8260 C	1,3-DICHLOROPROPANE	PA
EPA 8260 C	1,4-DICHLOROBENZENE	PA	EPA 8260 C	1,4-DIOXANE (1,4-DIETHYLENEOXIDE)	PA
EPA 8260 C	1-BUTANOL (N-BUTANOL)	PA	EPA 8260 C	2,2-DICHLOROPROPANE	PA

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 8260 C	2-BUTANONE (METHYL ETHYL KETONE, MEK)	PA	EPA 8260 C	2-CHLOROETHYL VINYL ETHER	PA
EPA 8260 C	2-CHLOROTOLUENE	PA	EPA 8260 C	2-HEXANONE	PA
EPA 8260 C	2-NITROPROPANE	PA	EPA 8260 C	4-CHLOROTOLUENE	PA
EPA 8260 C	4-ISOPROPYLTOLUENE (P-CYMENE)	PA	EPA 8260 C	4-METHYL-2-PENTANONE (MIBK)	PA
EPA 8260 C	ACETONE	PA	EPA 8260 C	ACETONITRILE	PA
EPA 8260 C	ACROLEIN (PROPENAL)	PA	EPA 8260 C	ACRYLONITRILE	PA
EPA 8260 C	ALLYL CHLORIDE (3-CHLOROPROPENE)	PA	EPA 8260 C	BENZENE	PA
EPA 8260 C	BENZYL CHLORIDE	PA	EPA 8260 C	BROMOBENZENE	PA
EPA 8260 C	BROMOCHLOROMETHANE	PA	EPA 8260 C	BROMODICHLOROMETHANE	PA
EPA 8260 C	BROMOFORM	PA	EPA 8260 C	CARBON DISULFIDE	PA
EPA 8260 C	CARBON TETRACHLORIDE	PA	EPA 8260 C	CHLOROBENZENE	PA
EPA 8260 C	CHLORODIBROMOMETHANE	PA	EPA 8260 C	CHLOROETHANE (ETHYL CHLORIDE)	PA
EPA 8260 C	CHLOROFORM	PA	EPA 8260 C	CHLOROPRENE (2-CHLORO-1,3-BUTADIENE)	PA
EPA 8260 C	CIS-1,2-DICHLOROETHYLENE	PA	EPA 8260 C	CIS-1,3-DICHLOROPROPENE	PA
EPA 8260 C	CYCLOHEXANE	PA	EPA 8260 C	DIBROMOMETHANE (METHYLENE BROMIDE)	PA
EPA 8260 C	DICHLORODIFLUOROMETHANE (FREON-12)	PA	EPA 8260 C	DIETHYL ETHER	PA
EPA 8260 C	EPICHLOROHYDRIN (1-CHLORO-2,3-EPOXYPROPANE)	PA	EPA 8260 C	ETHANOL	PA
EPA 8260 C	ETHYL ACETATE	PA	EPA 8260 C	ETHYL METHACRYLATE	PA
EPA 8260 C	ETHYL-T-BUTYLETHER (2-ETHOXY-2-METHYLPROPANE, ETBE)	PA	EPA 8260 C	ETHYLBENZENE	PA
EPA 8260 C	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	PA	EPA 8260 C	HEXACHLOROETHANE	PA
EPA 8260 C	IODOMETHANE (METHYL IODIDE)	PA	EPA 8260 C	ISOBUTYL ALCOHOL (2-METHYL-1-PROPANOL)	PA
EPA 8260 C	ISOPROPYL ALCOHOL (2-PROPANOL, ISOPROPANOL)	PA	EPA 8260 C	ISOPROPYLBENZENE	PA
EPA 8260 C	METHACRYLONITRILE	PA	EPA 8260 C	METHYL BROMIDE (BROMOMETHANE)	PA
EPA 8260 C	METHYL CHLORIDE (CHLOROMETHANE)	PA	EPA 8260 C	METHYL METHACRYLATE	PA
EPA 8260 C	METHYL TERT-BUTYL ETHER (MTBE)	PA	EPA 8260 C	METHYLCYCLOHEXANE	PA
EPA 8260 C	METHYLENE CHLORIDE (DICHLOROMETHANE)	PA	EPA 8260 C	N-BUTYLBENZENE	PA
EPA 8260 C	N-PROPYLBENZENE	PA	EPA 8260 C	NAPHTHALENE	PA
EPA 8260 C	PENTACHLOROETHANE	PA	EPA 8260 C	PROPIONITRILE (ETHYL CYANIDE)	PA
EPA 8260 C	SEC-BUTYLBENZENE	PA	EPA 8260 C	STYRENE	PA

Scope of Accreditation

VELAP Certificate No.: 2914

EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC
2425 NEW HOLLAND PIKE
LANCASTER, PA 17601

Virginia Laboratory ID: 460182
Effective Date: June 15, 2014
Expiration Date: June 14, 2015

NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 8260 C	T-AMYLMETHYLETHER (TAME)	PA	EPA 8260 C	TERT-BUTYL ALCOHOL	PA
EPA 8260 C	TERT-BUTYLBENZENE	PA	EPA 8260 C	TETRACHLOROETHENE (PERCHLOROETHENE)	PA
EPA 8260 C	TOLUENE	PA	EPA 8260 C	TRANS-1,2-DICHLOROETHENE	PA
EPA 8260 C	TRANS-1,3-DICHLOROPROPENE	PA	EPA 8260 C	TRANS-1,4-DICHLORO-2-BUTENE	PA
EPA 8260 C	TRICHLOROETHENE (TRICHLOROETHYLENE)	PA	EPA 8260 C	TRICHLOROFLUOROMETHANE (FLUOROTRICHLOROMETHANE, FREON 11)	PA
EPA 8260 C	VINYL ACETATE	PA	EPA 8260 C	VINYL CHLORIDE	PA
EPA 8260 C	XYLENE (TOTAL)	PA	EPA 8260 C - EXTENDED	1,1,2-TRICHLORO-1,2,2-TRIFLUOR OETHANE (FREON 113)	PA
EPA 8260 C - EXTENDED	CYCLOHEXANONE	PA	EPA 8260 C - EXTENDED	DI-ISOPROPYLETHER (DIPE, ISOPROPYL ETHER)	PA
EPA 8260 C - EXTENDED	DIMETHYL ETHER	PA	EPA 8260 C - EXTENDED	GASOLINE RANGE ORGANICS (GRO)	PA
EPA 8260 C - EXTENDED	METHYL ACETATE	PA	EPA 8260 C - EXTENDED	N-HEPTANE	PA
EPA 8260 C - EXTENDED	T-AMYL ALCOHOL (TAA)	PA	EPA 8260 C - EXTENDED	TETRAHYDROFURAN (THF)	PA
EPA 8270 C	1,2,4,5-TETRACHLOROBENZENE	PA	EPA 8270 C	1,2,4-TRICHLOROBENZENE	PA
EPA 8270 C	1,2-DICHLOROBENZENE	PA	EPA 8270 C	1,2-DIPHENYLHYDRAZINE	PA
EPA 8270 C	1,3,5-TRINITROBENZENE (1,3,5-TNB)	PA	EPA 8270 C	1,3-DICHLOROBENZENE	PA
EPA 8270 C	1,3-DINITROBENZENE (1,3-DNB)	PA	EPA 8270 C	1,4-DICHLOROBENZENE	PA
EPA 8270 C	1,4-DINITROBENZENE	PA	EPA 8270 C	1,4-NAPHTHOQUINONE	PA
EPA 8270 C	1,4-PHENYLENEDIAMINE	PA	EPA 8270 C	1-CHLORONAPHTHALENE	PA
EPA 8270 C	1-NAPHTHYLAMINE	PA	EPA 8270 C	2,3,4,6-TETRACHLOROPHENOL	PA
EPA 8270 C	2,4,5-TRICHLOROPHENOL	PA	EPA 8270 C	2,4,6-TRICHLOROPHENOL	PA
EPA 8270 C	2,4-DICHLOROPHENOL	PA	EPA 8270 C	2,4-DIMETHYLPHENOL	PA
EPA 8270 C	2,4-DINITROPHENOL	PA	EPA 8270 C	2,4-DINITROTOLUENE (2,4-DNT)	PA
EPA 8270 C	2,6-DICHLOROPHENOL	PA	EPA 8270 C	2,6-DINITROTOLUENE (2,6-DNT)	PA
EPA 8270 C	2-ACETYLAMINOFLUORENE	PA	EPA 8270 C	2-CHLORONAPHTHALENE	PA
EPA 8270 C	2-CHLOROPHENOL	PA	EPA 8270 C	2-METHYL-4,6-DINITROPHENOL (4,6-DINITRO-2-METHYLPHENOL)	PA
EPA 8270 C	2-METHYLNAPHTHALENE	PA	EPA 8270 C	2-METHYLPHENOL (O-CRESOL)	PA
EPA 8270 C	2-NAPHTHYLAMINE	PA	EPA 8270 C	2-NITROANILINE	PA
EPA 8270 C	2-NITROPHENOL	PA	EPA 8270 C	2-PICOLINE (2-METHYLPYRIDINE)	PA
EPA 8270 C	3,3'-DICHLOROBENZIDINE	PA	EPA 8270 C	3,3'-DIMETHYLBENZIDINE	PA
EPA 8270 C	3-METHYLCHOLANTHRENE	PA	EPA 8270 C	3-METHYLPHENOL (M-CRESOL)	PA
EPA 8270 C	3-NITROANILINE	PA	EPA 8270 C	4,4'-METHYLENEBIS(2-CHLOROAN ILINE)	PA
EPA 8270 C	4-AMINOBIPHENYL	PA	EPA 8270 C	4-BROMOPHENYL PHENYL ETHER	PA
EPA 8270 C	4-CHLORO-3-METHYLPHENOL	PA	EPA 8270 C	4-CHLOROANILINE	PA

VELAP Certificate No.: 2914

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 8270 C	4-CHLOROPHENYL PHENYLETHER	PA	EPA 8270 C	4-DIMETHYL AMINOAZOBENZENE	PA
EPA 8270 C	4-METHYLPHENOL (P-CRESOL)	PA	EPA 8270 C	4-NITROANILINE	PA
EPA 8270 C	4-NITROPHENOL	PA	EPA 8270 C	5-NITRO-O-TOLUIDINE	PA
EPA 8270 C	7,12-DIMETHYLBENZ(A) ANTHRACENE	PA	EPA 8270 C	A-A-DIMETHYLPHENETHYLAMINE	PA
EPA 8270 C	ACENAPHTHENE	PA	EPA 8270 C	ACENAPHTHYLENE	PA
EPA 8270 C	ACETOPHENONE	PA	EPA 8270 C	ANILINE	PA
EPA 8270 C	ANTHRACENE	PA	EPA 8270 C	ARAMITE	PA
EPA 8270 C	BENZIDINE	PA	EPA 8270 C	BENZO(A)ANTHRACENE	PA
EPA 8270 C	BENZO(A)PYRENE	PA	EPA 8270 C	BENZO(G,H,I)PERYLENE	PA
EPA 8270 C	BENZO(K)FLUORANTHENE	PA	EPA 8270 C	BENZOIC ACID	PA
EPA 8270 C	BENZO[B]FLUORANTHENE	PA	EPA 8270 C	BENZYL ALCOHOL	PA
EPA 8270 C	BIS(2-CHLOROETHOXY)METHANE	PA	EPA 8270 C	BIS(2-CHLOROETHYL) ETHER	PA
EPA 8270 C	BIS(2-CHLOROISOPROPYL) ETHER	PA	EPA 8270 C	BIS(2-ETHYLHEXYL) PHTHALATE (DI(2-ETHYLHEXYL)PHTHALATE), (DEHP)	PA
EPA 8270 C	BUTYL BENZYL PHTHALATE	PA	EPA 8270 C	CHLOROBENZILATE	PA
EPA 8270 C	CHRYSENE	PA	EPA 8270 C	DI-N-BUTYL PHTHALATE	PA
EPA 8270 C	DI-N-OCTYL PHTHALATE	PA	EPA 8270 C	DIALLATE	PA
EPA 8270 C	DIBENZ(A, J) ACRIDINE	PA	EPA 8270 C	DIBENZO(A,H) ANTHRACENE	PA
EPA 8270 C	DIBENZOFURAN	PA	EPA 8270 C	DIETHYL PHTHALATE	PA
EPA 8270 C	DIMETHOATE	PA	EPA 8270 C	DIMETHYL PHTHALATE	PA
EPA 8270 C	DIPHENYLAMINE	PA	EPA 8270 C	DISULFOTON	PA
EPA 8270 C	ETHYL METHANESULFONATE	PA	EPA 8270 C	FAMPHUR	PA
EPA 8270 C	FLUORANTHENE	PA	EPA 8270 C	FLUORENE	PA
EPA 8270 C	HEXACHLOROBENZENE	PA	EPA 8270 C	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	PA
EPA 8270 C	HEXACHLOROCYCLOPENTADIEN E	PA	EPA 8270 C	HEXACHLOROETHANE	PA
EPA 8270 C	HEXACHLOROPROPENE	PA	EPA 8270 C	INDENO(1,2,3-CD) PYRENE	PA
EPA 8270 C	ISODRIN	PA	EPA 8270 C	ISOPHORONE	PA
EPA 8270 C	ISOSAFROLE	PA	EPA 8270 C	KEPONE	PA
EPA 8270 C	METHAPYRILENE	PA	EPA 8270 C	METHYL METHANESULFONATE	PA
EPA 8270 C	METHYL PARATHION (PARATHION, METHYL)	PA	EPA 8270 C	N-NITROSO-DI-N-BUTYLAMINE	PA
EPA 8270 C	N-NITROSODI-N-PROPYLAMINE	PA	EPA 8270 C	N-NITROSODIETHYLAMINE	PA
EPA 8270 C	N-NITROSODIMETHYLAMINE	PA	EPA 8270 C	N-NITROSODIPHENYLAMINE	PA
EPA 8270 C	N-NITROSOMETHYLETHYLAMINE	PA	EPA 8270 C	N-NITROSOMORPHOLINE	PA
EPA 8270 C	N-NITROSOPIPERIDINE	PA	EPA 8270 C	N-NITROSOPYRROLIDINE	PA
EPA 8270 C	NAPHTHALENE	PA	EPA 8270 C	NITROBENZENE	PA
EPA 8270 C	NITROQUINOLINE-1-OXIDE	PA	EPA 8270 C	O,O,O-TRIETHYL PHOSPHOROTHIOATE	PA

Commonwealth of Virginia

Department of General Services
Division of Consolidated Laboratory Services

Scope of Accreditation

VELAP Certificate No.: 2914

EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC
2425 NEW HOLLAND PIKE
LANCASTER, PA 17601

Virginia Laboratory ID: 460182
Effective Date: June 15, 2014
Expiration Date: June 14, 2015

NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
			EPA 8270 C	O-TOLUIDINE (2-METHYLANILINE)	PA
EPA 8270 C	PARATHION (PARATHION - ETHYL)	PA	EPA 8270 C	PENTACHLOROBENZENE	PA
EPA 8270 C	PENTACHLORONITROBENZENE	PA	EPA 8270 C	PENTACHLOROPHENOL	PA
EPA 8270 C	PHENACETIN	PA	EPA 8270 C	PHENANTHRENE	PA
EPA 8270 C	PHENOL	PA	EPA 8270 C	PHORATE	PA
EPA 8270 C	PHTHALIC ANHYDRIDE	PA	EPA 8270 C	PRONAMIDE (KERB)	PA
EPA 8270 C	PYRENE	PA	EPA 8270 C	PYRIDINE	PA
EPA 8270 C	SAFROLE	PA	EPA 8270 C	THIONAZIN (ZINOPHOS)	PA
EPA 8270 C	THIOPHENOL (BENZENETHIOL)	PA	EPA 8270 C	TRIS-(2,3-DIBROMOPROPYL) PHOSPHATE (TRIS-BP)	PA
EPA 8270 C SIM	2-METHYLNAPHTHALENE	PA	EPA 8270 C SIM	ACENAPHTHENE	PA
EPA 8270 C SIM	ACENAPHTHYLENE	PA	EPA 8270 C SIM	ANTHRACENE	PA
EPA 8270 C SIM	BENZO(A)ANTHRACENE	PA	EPA 8270 C SIM	BENZO(A)PYRENE	PA
EPA 8270 C SIM	BENZO(G,H,I)PERYLENE	PA	EPA 8270 C SIM	BENZO(K)FLUORANTHENE	PA
EPA 8270 C SIM	BENZO[B]FLUORANTHENE	PA	EPA 8270 C SIM	CHRYSENE	PA
EPA 8270 C SIM	DIBENZO(A,H) ANTHRACENE	PA	EPA 8270 C SIM	FLUORANTHENE	PA
EPA 8270 C SIM	FLUORENE	PA	EPA 8270 C SIM	INDENO(1,2,3-CD) PYRENE	PA
EPA 8270 C SIM	NAPHTHALENE	PA	EPA 8270 C SIM	PHENANTHRENE	PA
EPA 8270 C SIM	PYRENE	PA	EPA 8270 C SIM - EXTENDED	1-METHYLNAPHTHALENE	PA
EPA 8270 D	1,2,4,5-TETRACHLOROBENZENE	PA	EPA 8270 D	1,2,4-TRICHLOROBENZENE	PA
EPA 8270 D	1,2-DICHLOROBENZENE	PA	EPA 8270 D	1,2-DIPHENYLHYDRAZINE	PA
EPA 8270 D	1,3,5-TRINITROBENZENE (1,3,5-TNB)	PA	EPA 8270 D	1,3-DICHLOROBENZENE	PA
EPA 8270 D	1,3-DINITROBENZENE (1,3-DNB)	PA	EPA 8270 D	1,4-DICHLOROBENZENE	PA
EPA 8270 D	1,4-DINITROBENZENE	PA	EPA 8270 D	1,4-NAPHTHOQUINONE	PA
EPA 8270 D	1,4-PHENYLENEDIAMINE	PA	EPA 8270 D	1-CHLORONAPHTHALENE	PA
EPA 8270 D	1-NAPHTHYLAMINE	PA	EPA 8270 D	2,3,4,6-TETRACHLOROPHENOL	PA
EPA 8270 D	2,4,5-TRICHLOROPHENOL	PA	EPA 8270 D	2,4,6-TRICHLOROPHENOL	PA
EPA 8270 D	2,4-DICHLOROPHENOL	PA	EPA 8270 D	2,4-DIMETHYLPHENOL	PA
EPA 8270 D	2,4-DINITROPHENOL	PA	EPA 8270 D	2,4-DINITROTOLUENE (2,4-DNT)	PA
EPA 8270 D	2,6-DICHLOROPHENOL	PA	EPA 8270 D	2,6-DINITROTOLUENE (2,6-DNT)	PA
EPA 8270 D	2-ACETYLAMINOFLUORENE	PA	EPA 8270 D	2-CHLORONAPHTHALENE	PA
EPA 8270 D	2-CHLOROPHENOL	PA	EPA 8270 D	2-METHYL-4,6-DINITROPHENOL (4,6-DINITRO-2-METHYLPHENOL)	PA
EPA 8270 D	2-METHYLNAPHTHALENE	PA	EPA 8270 D	2-METHYLPHENOL (O-CRESOL)	PA
EPA 8270 D	2-NAPHTHYLAMINE	PA	EPA 8270 D	2-NITROANILINE	PA
EPA 8270 D	2-NITROPHENOL	PA	EPA 8270 D	2-PICOLINE (2-METHYLPYRIDINE)	PA
EPA 8270 D	3,3'-DICHLOROBENZIDINE	PA	EPA 8270 D	3,3'-DIMETHYLBENZIDINE	PA
EPA 8270 D	3-METHYLCHOLANTHRENE	PA	EPA 8270 D	3-METHYLPHENOL (M-CRESOL)	PA

Scope of Accreditation

VELAP Certificate No.: 2914

EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC
2425 NEW HOLLAND PIKE
LANCASTER, PA 17601

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 8270 D	3-NITROANILINE	PA	EPA 8270 D	4,4'-METHYLENEBIS(2-CHLOROANILINE)	PA
EPA 8270 D	4-AMINOBIPHENYL	PA	EPA 8270 D	4-BROMOPHENYL PHENYL ETHER	PA
EPA 8270 D	4-CHLORO-3-METHYLPHENOL	PA	EPA 8270 D	4-CHLOROANILINE	PA
EPA 8270 D	4-CHLOROPHENYL PHENYLETHER	PA	EPA 8270 D	4-DIMETHYL AMINOAZOBENZENE	PA
EPA 8270 D	4-METHYLPHENOL (P-CRESOL)	PA	EPA 8270 D	4-NITROANILINE	PA
EPA 8270 D	4-NITROPHENOL	PA	EPA 8270 D	5-NITRO-O-TOLUIDINE	PA
EPA 8270 D	7,12-DIMETHYLBENZ(A) ANTHRACENE	PA	EPA 8270 D	A-A-DIMETHYLPHENETHYLAMINE	PA
EPA 8270 D	ACENAPHTHENE	PA	EPA 8270 D	ACENAPHTHYLENE	PA
EPA 8270 D	ACETOPHENONE	PA	EPA 8270 D	ANILINE	PA
EPA 8270 D	ANTHRACENE	PA	EPA 8270 D	ARAMITE	PA
EPA 8270 D	BENZIDINE	PA	EPA 8270 D	BENZO(A)ANTHRACENE	PA
EPA 8270 D	BENZO(A)PYRENE	PA	EPA 8270 D	BENZO(G,H,I)PERYLENE	PA
EPA 8270 D	BENZO(K)FLUORANTHENE	PA	EPA 8270 D	BENZOIC ACID	PA
EPA 8270 D	BENZO[B]FLUORANTHENE	PA	EPA 8270 D	BENZYL ALCOHOL	PA
EPA 8270 D	BIS(2-CHLOROETHOXY)METHANE	PA	EPA 8270 D	BIS(2-CHLOROETHYL) ETHER	PA
EPA 8270 D	BIS(2-CHLOROISOPROPYL) ETHER	PA	EPA 8270 D	BIS(2-ETHYLHEXYL) PHTHALATE (DI(2-ETHYLHEXYL)PHTHALATE), (DEHP)	PA
EPA 8270 D	BUTYL BENZYL PHTHALATE	PA	EPA 8270 D	CHLOROBENZILATE	PA
EPA 8270 D	CHRYSENE	PA	EPA 8270 D	DI-N-BUTYL PHTHALATE	PA
EPA 8270 D	DI-N-OCTYL PHTHALATE	PA	EPA 8270 D	DIALLATE	PA
EPA 8270 D	DIBENZ(A, J) ACRIDINE	PA	EPA 8270 D	DIBENZO(A,H) ANTHRACENE	PA
EPA 8270 D	DIBENZOFURAN	PA	EPA 8270 D	DIETHYL PHTHALATE	PA
EPA 8270 D	DIMETHOATE	PA	EPA 8270 D	DIMETHYL PHTHALATE	PA
EPA 8270 D	DINOSEB (2-SEC-BUTYL-4,6-DINITROPHENOL, DNBP)	PA	EPA 8270 D	DIPHENYLAMINE	PA
EPA 8270 D	DISULFOTON	PA	EPA 8270 D	ETHYL METHANESULFONATE	PA
EPA 8270 D	FAMPHUR	PA	EPA 8270 D	FLUORANTHENE	PA
EPA 8270 D	FLUORENE	PA	EPA 8270 D	HEXACHLOROBENZENE	PA
EPA 8270 D	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	PA	EPA 8270 D	HEXACHLOROCYCLOPENTADIENE	PA
EPA 8270 D	HEXACHLOROETHANE	PA	EPA 8270 D	HEXACHLOROPROPENE	PA
EPA 8270 D	INDENO(1,2,3-CD) PYRENE	PA	EPA 8270 D	ISODRIN	PA
EPA 8270 D	ISOPHORONE	PA	EPA 8270 D	ISOSAFROLE	PA
EPA 8270 D	KEPONE	PA	EPA 8270 D	METHAPYRILENE	PA
EPA 8270 D	METHYL METHANESULFONATE	PA	EPA 8270 D	METHYL PARATHION (PARATHION, METHYL)	PA
EPA 8270 D	N-NITROSO-DI-N-BUTYLAMINE	PA	EPA 8270 D	N-NITROSODI-N-PROPYLAMINE	PA

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 8270 D	N-NITROSODIETHYLAMINE	PA	EPA 8270 D	N-NITROSODIMETHYLAMINE	PA
EPA 8270 D	N-NITROSODIPHENYLAMINE	PA	EPA 8270 D	N-NITROSOMETHYLETHYLAMINE	PA
EPA 8270 D	N-NITROSOMORPHOLINE	PA	EPA 8270 D	N-NITROSOPIPERIDINE	PA
EPA 8270 D	N-NITROSOPYRROLIDINE	PA	EPA 8270 D	NAPHTHALENE	PA
EPA 8270 D	NITROBENZENE	PA	EPA 8270 D	NITROQUINOLINE-1-OXIDE	PA
EPA 8270 D	O,O,O-TRIETHYL PHOSPHOROTHIOATE	PA	EPA 8270 D	O-TOLUIDINE (2-METHYLANILINE)	PA
EPA 8270 D	PARATHION (PARATHION - ETHYL)	PA	EPA 8270 D	PENTACHLOROBENZENE	PA
EPA 8270 D	PENTACHLORONITROBENZENE	PA	EPA 8270 D	PENTACHLOROPHENOL	PA
EPA 8270 D	PHENACETIN	PA	EPA 8270 D	PHENANTHRENE	PA
EPA 8270 D	PHENOL	PA	EPA 8270 D	PHORATE	PA
EPA 8270 D	PHTHALIC ANHYDRIDE	PA	EPA 8270 D	PRONAMIDE (KERB)	PA
EPA 8270 D	PYRENE	PA	EPA 8270 D	SAFROLE	PA
EPA 8270 D	THIONAZIN (ZINOPHOS)	PA	EPA 8270 D	TRIS-(2,3-DIBROMOPROPYL) PHOSPHATE (TRIS-BP)	PA
EPA 8270 D - EXTENDED	1,1-BIPHENYL	PA	EPA 8270 D - EXTENDED	1-METHYLNAPHTHALENE	PA
EPA 8270 D - EXTENDED	ATRAZINE	PA	EPA 8270 D - EXTENDED	BENZALDEHYDE	PA
EPA 8270 D - EXTENDED	CAPROLACTAM	PA	EPA 8270 D - EXTENDED	CARBAZOLE	PA
EPA 8270 D - EXTENDED	PYRIDINE	PA	EPA 8270 D SIM	2-METHYLNAPHTHALENE	PA
EPA 8270 D SIM	ACENAPHTHENE	PA	EPA 8270 D SIM	ACENAPHTHYLENE	PA
EPA 8270 D SIM	ANTHRACENE	PA	EPA 8270 D SIM	BENZO(A)ANTHRACENE	PA
EPA 8270 D SIM	BENZO(A)PYRENE	PA	EPA 8270 D SIM	BENZO(G,H,I)PERYLENE	PA
EPA 8270 D SIM	BENZO(K)FLUORANTHENE	PA	EPA 8270 D SIM	BENZO[B]FLUORANTHENE	PA
EPA 8270 D SIM	CHRYSENE	PA	EPA 8270 D SIM	FLUORANTHENE	PA
EPA 8270 D SIM	FLUORENE	PA	EPA 8270 D SIM	INDENO(1,2,3-CD) PYRENE	PA
EPA 8270 D SIM	NAPHTHALENE	PA	EPA 8270 D SIM	PHENANTHRENE	PA
EPA 8270 D SIM	PYRENE	PA	EPA 8270 D SIM - EXTENDED	1-METHYLNAPHTHALENE	PA
EPA 8270 D SIM - EXTENDED	DIBENZO(A, H) PYRENE	PA	EPA 8290 A	1,2,3,4,6,7,8,9-OCTACHLORODIBENZO-P-DIOXIN (OCDD)	PA
EPA 8290 A	1,2,3,4,6,7,8,9-OCTACHLORODIBENZOFURAN (OCDF)	PA	EPA 8290 A	1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN (1,2,3,4,6,7,8-HPCDD)	PA
EPA 8290 A	1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN (1,2,3,4,6,7,8-HPCDF)	PA	EPA 8290 A	1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN (1,2,3,4,7,8,9-HPCDF)	PA
EPA 8290 A	1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN (1,2,3,4,7,8-HXCDD)	PA	EPA 8290 A	1,2,3,4,7,8-HEXACHLORODIBENZOFURAN (1,2,3,4,7,8-HXCDF)	PA
EPA 8290 A	1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN(1,2,3,6,7,8-HXCDD)	PA	EPA 8290 A	1,2,3,6,7,8-HEXACHLORODIBENZOFURAN (1,2,3,6,7,8-HXCDF)	PA
EPA 8290 A	1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN (1,2,3,7,8,9-HXCDD)	PA	EPA 8290 A	1,2,3,7,8,9-HEXACHLORODIBENZOFURAN (1,2,3,7,8,9-HXCDF)	PA

Commonwealth of Virginia

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Scope of Accreditation

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EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC
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LANCASTER, PA 17601

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 8290 A	1,2,3,7,8-PENTACHLORODIBENZO -P-DIOXIN (1,2,3,7,8-PECDD)	PA	EPA 8290 A	1,2,3,7,8-PENTACHLORODIBENZO FURAN (1,2,3,7,8-PECDF)	PA
EPA 8290 A	2,3,4,6,7,8-HEXACHLORODIBENZO FURAN (2,3,4,6,7,8-HXCDF)	PA	EPA 8290 A	2,3,4,7,8-PENTACHLORODIBENZO FURAN	PA
EPA 8290 A	2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN (2,3,7,8-TCDD)	PA	EPA 8290 A	2,3,7,8-TETRACHLORODIBENZOF URAN (2,3,7,8-TCDF)	PA
EPA 8315 A	ACETALDEHYDE	PA	EPA 8315 A	ACROLEIN (PROPENAL)	PA
EPA 8315 A	BENZALDEHYDE	PA	EPA 8315 A	BUTYLALDEHYDE (BUTANAL)	PA
EPA 8315 A	CROTONALDEHYDE	PA	EPA 8315 A	FORMALDEHYDE	PA
EPA 8315 A	HEXANALDEHYDE (HEXANAL)	PA	EPA 8315 A	ISOVALERALDEHYDE	PA
EPA 8315 A	M-TOLUALDEHYDE (1,3-TOLUALDEHYDE)	PA	EPA 8315 A	O-TOLUALDEHYDE (1,2-TOLUALDEHYDE)	PA
EPA 8315 A	P-TOLUALDEHYDE (1,4-TOLUALDEHYDE)	PA	EPA 8315 A	PENTANAL (VALERALDEHYDE)	PA
EPA 8315 A	PROPIONALDEHYDE (PROPANAL)	PA	EPA 8330 A	1,3,5-TRINITROBENZENE (1,3,5-TNB)	PA
EPA 8330 A	1,3-DINITROBENZENE (1,3-DNB)	PA	EPA 8330 A	2,4,6-TRINITROTOLUENE (2,4,6-TNT)	PA
EPA 8330 A	2,4-DINITROTOLUENE (2,4-DNT)	PA	EPA 8330 A	2,6-DINITROTOLUENE (2,6-DNT)	PA
EPA 8330 A	2-AMINO-4,6-DINITROTOLUENE (2-AM-DNT)	PA	EPA 8330 A	2-NITROTOLUENE	PA
EPA 8330 A	3-NITROTOLUENE	PA	EPA 8330 A	4-AMINO-2,6-DINITROTOLUENE (4-AM-DNT)	PA
EPA 8330 A	4-NITROTOLUENE	PA	EPA 8330 A	METHYL-2,4,6-TRINITROPHENYLN ITRAMINE (TETRYL)	PA
EPA 8330 A	NITROBENZENE	PA	EPA 8330 A	NITROGLYCERIN	PA
EPA 8330 A	OCTAHYDRO-1,3,5,7-TETRANITRO -1,3,5,7-TETRAZOCINE (HMX)	PA	EPA 8330 A	RDX (HEXAHYDRO-1,3,5-TRINITRO-1,3, 5-TRIAZINE)	PA
EPA 9012 A	TOTAL CYANIDE	PA	EPA 9012 B	TOTAL CYANIDE	PA
EPA 9040 C	PH	PA	EPA 9050 A	CONDUCTIVITY	PA
EPA 9056 A	BROMIDE	PA	EPA 9056 A	CHLORIDE	PA
EPA 9056 A	FLUORIDE	PA	EPA 9056 A	NITRATE AS N	PA
EPA 9056 A	NITRITE	PA	EPA 9056 A	ORTHOPHOSPHATE AS P	PA
EPA 9056 A	SULFATE	PA	EPA 9066	TOTAL PHENOLICS	PA
EPA 9095 B	FREE LIQUID	PA	RSK-175	ETHANE	PA
RSK-175	ETHENE	PA	RSK-175	METHANE	PA
SM 2120 B-2001	COLOR	PA	SM 2310 B-1997	ACIDITY, AS CACO3	PA
SM 2320 B-1997	ALKALINITY AS CACO3	PA	SM 2340 B-1997	TOTAL HARDNESS AS CACO3	PA
SM 2340 C-1997	TOTAL HARDNESS AS CACO3	PA	SM 2510 B-1997	CONDUCTIVITY	PA
SM 2540 B-1997	RESIDUE-TOTAL	PA	SM 2540 C-1997	RESIDUE-FILTERABLE (TDS)	PA
SM 2540 D-1997	RESIDUE-NONFILTERABLE (TSS)	PA	SM 2540 F-1997	RESIDUE-SETTLEABLE	PA
SM 3500-CR B-2009	CHROMIUM VI	PA	SM 4500-CN⁻ C-1999	CYANIDE	PA
SM 4500-CN⁻ E-1999	CYANIDE	PA	SM 4500-F⁻ B-1997	FLUORIDE	PA

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
SM 4500-F⁻ C-1997	FLUORIDE	PA	SM 4500-NH3 B-1997	AMMONIA AS N	PA
SM 4500-NH3 D-1997	AMMONIA AS N	PA	SM 4500-P E-1999	ORTHOPHOSPHATE AS P	PA
SM 4500-P F-1999	PHOSPHORUS, TOTAL	PA	SM 4500-S2⁻ D-2000	SULFIDE	PA
SM 4500-SIO2 C-1997	SILICA AS SIO2	PA	SM 5210 B-2001	BIOCHEMICAL OXYGEN DEMAND	PA
SM 5210 B-2001	CARBONACEOUS BOD, CBOD	PA	SM 5310 C-2000	TOTAL ORGANIC CARBON	PA
SM 5540 C-2000	SURFACTANTS - MBAS	PA	SM 9222 D-1997	FECAL COLIFORMS	PA

SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 1010 A	FLASHPOINT	PA	EPA 1311	PREP: TOXICITY CHARACTERISTIC LEACHING PROCEDURE	PA
EPA 1312	PREP: SYNTHETIC PRECIPITATION LEACHING PROCEDURE	PA	EPA 1668 A	2,2',3,3',4,4',5,5',6-NONACHLOROBIPHENYL (BZ-206)	PA
EPA 1668 A	2,2',3,3',4,4',5,5'-OCTACHLOROBIPHENYL (BZ-194)	PA	EPA 1668 A	2,2',3,3',4,4',5,6'-OCTACHLOROBIPHENYL (BZ-196)	PA
EPA 1668 A	2,2',3,3',4,4',5,6,6'-NONACHLOROBIPHENYL (BZ-207)	PA	EPA 1668 A	2,2',3,3',4,4',5,6-OCTACHLOROBIPHENYL BZ-195)	PA
EPA 1668 A	2,2',3,3',4,4',5-HEPTACHLOROBIPHENYL (BZ-170)	PA	EPA 1668 A	2,2',3,3',4,4',6,6'-OCTACHLOROBIPHENYL (BZ-197)	PA
EPA 1668 A	2,2',3,3',4,4',6-HEPTACHLOROBIPHENYL (BZ-171)	PA	EPA 1668 A	2,2',3,3',4,4'-HEXACHLOROBIPHENYL (BZ-128)	PA
EPA 1668 A	2,2',3,3',4,5',6'-HEPTACHLOROBIPHENYL (BZ-177)	PA	EPA 1668 A	2,2',3,3',4,5',6,6'-OCTACHLOROBIPHENYL (BZ-201)	PA
EPA 1668 A	2,2',3,3',4,5',6-HEPTACHLOROBIPHENYL (BZ-175)	PA	EPA 1668 A	2,2',3,3',4,5'-HEXACHLOROBIPHENYL (BZ-130)	PA
EPA 1668 A	2,2',3,3',4,5,5',6'-OCTACHLOROBIPHENYL (BZ-199)	PA	EPA 1668 A	2,2',3,3',4,5,5',6,6'-NONACHLOROBIPHENYL (BZ-208)	PA
EPA 1668 A	2,2',3,3',4,5,5',6-OCTACHLOROBIPHENYL (BZ-198)	PA	EPA 1668 A	2,2',3,3',4,5,5'-HEPTACHLOROBIPHENYL (BZ-172)	PA
EPA 1668 A	2,2',3,3',4,5,6'-HEPTACHLOROBIPHENYL (BZ-174)	PA	EPA 1668 A	2,2',3,3',4,5,6,6'-OCTACHLOROBIPHENYL (BZ-200)	PA
EPA 1668 A	2,2',3,3',4,5,6-HEPTACHLOROBIPHENYL (BZ-173)	PA	EPA 1668 A	2,2',3,3',4,5-HEXACHLOROBIPHENYL (BZ-129)	PA
EPA 1668 A	2,2',3,3',4,6'-HEXACHLOROBIPHENYL (BZ-132)	PA	EPA 1668 A	2,2',3,3',4,6,6'-HEPTACHLOROBIPHENYL (BZ-176)	PA
EPA 1668 A	2,2',3,3',4,6-HEXACHLOROBIPHENYL (BZ-131)	PA	EPA 1668 A	2,2',3,3',4-PENTACHLOROBIPHENYL (BZ-82)	PA
EPA 1668 A	2,2',3,3',5,5',6,6'-OCTACHLOROBIPHENYL (BZ-202)	PA	EPA 1668 A	2,2',3,3',5,5',6-HEPTACHLOROBIPHENYL (BZ-178)	PA
EPA 1668 A	2,2',3,3',5,5'-HEXACHLOROBIPHENYL (BZ-133)	PA	EPA 1668 A	2,2',3,3',5,6'-HEXACHLOROBIPHENYL (BZ-135)	PA
EPA 1668 A	2,2',3,3',5,6,6'-HEPTACHLOROBIPHENYL (BZ-179)	PA	EPA 1668 A	2,2',3,3',5,6-HEXACHLOROBIPHENYL (BZ-134)	PA
EPA 1668 A	2,2',3,3',5-PENTACHLOROBIPHENYL (BZ-83)	PA	EPA 1668 A	2,2',3,3',6,6'-HEXACHLOROBIPHENYL (BZ-136)	PA

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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 1668 A	2,2',3,3',6-PENTACHLOROBIPHENYL (BZ-84)	PA	EPA 1668 A	2,2',3,3'-TETRACHLOROBIPHENYL (BZ-40)	PA
EPA 1668 A	2,2',3,4',5',6-HEXACHLOROBIPHENYL (BZ-149)	PA	EPA 1668 A	2,2',3,4',5'-PENTACHLOROBIPHENYL (BZ-97)	PA
EPA 1668 A	2,2',3,4',5,5',6-HEPTACHLOROBIPHENYL (BZ-187)	PA	EPA 1668 A	2,2',3,4',5,5'-HEXACHLOROBIPHENYL (BZ-146)	PA
EPA 1668 A	2,2',3,4',5,6'-HEXACHLOROBIPHENYL (BZ-148)	PA	EPA 1668 A	2,2',3,4',5,6,6'-HEPTACHLOROBIPHENYL (BZ-188)	PA
EPA 1668 A	2,2',3,4',5,6-HEXACHLOROBIPHENYL (BZ-147)	PA	EPA 1668 A	2,2',3,4',5-PENTACHLOROBIPHENYL (BZ-90)	PA
EPA 1668 A	2,2',3,4',6'-PENTACHLOROBIPHENYL (BZ-98)	PA	EPA 1668 A	2,2',3,4',6,6'-HEXACHLOROBIPHENYL (BZ-150)	PA
EPA 1668 A	2,2',3,4',6-PENTACHLOROBIPHENYL (BZ-91)	PA	EPA 1668 A	2,2',3,4'-TETRACHLOROBIPHENYL (BZ-42)	PA
EPA 1668 A	2,2',3,4,4',5',6-HEPTACHLOROBIPHENYL (BZ-183)	PA	EPA 1668 A	2,2',3,4,4',5'-HEXACHLOROBIPHENYL (BZ-138)	PA
EPA 1668 A	2,2',3,4,4',5,5',6-OCTACHLOROBIPHENYL (BZ-203)	PA	EPA 1668 A	2,2',3,4,4',5,5'-HEPTACHLOROBIPHENYL (BZ-180)	PA
EPA 1668 A	2,2',3,4,4',5,6'-HEPTACHLOROBIPHENYL (BZ-182)	PA	EPA 1668 A	2,2',3,4,4',5,6,6'-OCTACHLOROBIPHENYL (BZ-204)	PA
EPA 1668 A	2,2',3,4,4',5,6-HEPTACHLOROBIPHENYL (BZ-181)	PA	EPA 1668 A	2,2',3,4,4',5-HEXACHLOROBIPHENYL (BZ-137)	PA
EPA 1668 A	2,2',3,4,4',6'-HEXACHLOROBIPHENYL (BZ-140)	PA	EPA 1668 A	2,2',3,4,4',6,6'-HEPTACHLOROBIPHENYL (BZ-184)	PA
EPA 1668 A	2,2',3,4,4',6-HEXACHLOROBIPHENYL (BZ-139)	PA	EPA 1668 A	2,2',3,4,4'-PENTACHLOROBIPHENYL (BZ-85)	PA
EPA 1668 A	2,2',3,4,5',6-HEXACHLOROBIPHENYL (BZ-144)	PA	EPA 1668 A	2,2',3,4,5'-PENTACHLOROBIPHENYL (BZ-87)	PA
EPA 1668 A	2,2',3,4,5,5',6-HEPTACHLOROBIPHENYL (BZ-185)	PA	EPA 1668 A	2,2',3,4,5,5'-HEXACHLOROBIPHENYL (BZ-141)	PA
EPA 1668 A	2,2',3,4,5,6'-HEXACHLOROBIPHENYL (BZ-143)	PA	EPA 1668 A	2,2',3,4,5,6,6'-HEPTACHLOROBIPHENYL (BZ-186)	PA
EPA 1668 A	2,2',3,4,5,6-HEXACHLOROBIPHENYL (BZ-142)	PA	EPA 1668 A	2,2',3,4,5-PENTACHLOROBIPHENYL (BZ-86)	PA
EPA 1668 A	2,2',3,4,6'-PENTACHLOROBIPHENYL (BZ-89)	PA	EPA 1668 A	2,2',3,4,6,6'-HEXACHLOROBIPHENYL (BZ-145)	PA
EPA 1668 A	2,2',3,4,6-PENTACHLOROBIPHENYL (BZ-88)	PA	EPA 1668 A	2,2',3,4-TETRACHLOROBIPHENYL (BZ-41)	PA
EPA 1668 A	2,2',3,5',6-PENTACHLOROBIPHENYL (BZ-95)	PA	EPA 1668 A	2,2',3,5'-TETRACHLOROBIPHENYL (BZ-44)	PA
EPA 1668 A	2,2',3,5,5',6-HEXACHLOROBIPHENYL (BZ-151)	PA	EPA 1668 A	2,2',3,5,5'-PENTACHLOROBIPHENYL (BZ-92)	PA
EPA 1668 A	2,2',3,5,6'-PENTACHLOROBIPHENYL (BZ-94)	PA	EPA 1668 A	2,2',3,5,6,6'-HEXACHLOROBIPHENYL (BZ-152)	PA
EPA 1668 A	2,2',3,5,6-PENTACHLOROBIPHENYL (BZ-93)	PA	EPA 1668 A	2,2',3,5-TETRACHLOROBIPHENYL (BZ-43)	PA
EPA 1668 A	2,2',3,6'-TETRACHLOROBIPHENYL (BZ-46)	PA	EPA 1668 A	2,2',3,6,6'-PENTACHLOROBIPHENYL (BZ-96)	PA
EPA 1668 A	2,2',3,6-TETRACHLOROBIPHENYL (BZ-45)	PA	EPA 1668 A	2,2',3-TRICHLOROBIPHENYL (BZ-16)	PA

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EPA 1668 A	2,2',4,4',5,5'-HEXACHLOROBIPHENYL (BZ-153)	PA	EPA 1668 A	2,2',4,4',5,6'-HEXACHLOROBIPHENYL (BZ-154)	PA
EPA 1668 A	2,2',4,4',5-PENTACHLOROBIPHENYL (BZ-99)	PA	EPA 1668 A	2,2',4,4',6,6'-HEXACHLOROBIPHENYL (BZ-155)	PA
EPA 1668 A	2,2',4,4',6-PENTACHLOROBIPHENYL (BZ-100)	PA	EPA 1668 A	2,2',4,4'-TETRACHLOROBIPHENYL (BZ-47)	PA
EPA 1668 A	2,2',4,5',6-PENTACHLOROBIPHENYL (BZ-103)	PA	EPA 1668 A	2,2',4,5'-TETRACHLOROBIPHENYL (BZ-49)	PA
EPA 1668 A	2,2',4,5,5'-PENTACHLOROBIPHENYL (BZ-101)	PA	EPA 1668 A	2,2',4,5,6'-PENTACHLOROBIPHENYL (BZ-102)	PA
EPA 1668 A	2,2',4,5-TETRACHLOROBIPHENYL (BZ-48)	PA	EPA 1668 A	2,2',4,6'-TETRACHLOROBIPHENYL (BZ-51)	PA
EPA 1668 A	2,2',4,6,6'-PENTACHLOROBIPHENYL (BZ-104)	PA	EPA 1668 A	2,2',4,6-TETRACHLOROBIPHENYL (BZ-50)	PA
EPA 1668 A	2,2',4-TRICHLOROBIPHENYL (BZ-17)	PA	EPA 1668 A	2,2',5,5'-TETRACHLOROBIPHENYL (BZ-52)	PA
EPA 1668 A	2,2',5,6'-TETRACHLOROBIPHENYL (BZ-53)	PA	EPA 1668 A	2,2',5-TRICHLOROBIPHENYL (BZ-18)	PA
EPA 1668 A	2,2',6,6'-TETRACHLOROBIPHENYL (BZ-54)	PA	EPA 1668 A	2,2',6-TRICHLOROBIPHENYL (BZ-19)	PA
EPA 1668 A	2,2'-DICHLOROBIPHENYL (BZ-4)	PA	EPA 1668 A	2,3',4',5',6-PENTACHLOROBIPHENYL (BZ-125)	PA
EPA 1668 A	2,3',4',5'-TETRACHLOROBIPHENYL (BZ-76)	PA	EPA 1668 A	2,3',4',5,5'-PENTACHLOROBIPHENYL (BZ-124)	PA
EPA 1668 A	2,3',4',5-TETRACHLOROBIPHENYL (BZ-70)	PA	EPA 1668 A	2,3',4',6-TETRACHLOROBIPHENYL (BZ-71)	PA
EPA 1668 A	2,3',4'-TRICHLOROBIPHENYL (BZ-33)	PA	EPA 1668 A	2,3',4,4',5',6-HEXACHLOROBIPHENYL (BZ-168)	PA
EPA 1668 A	2,3',4,4',5'-PENTACHLOROBIPHENYL (BZ-123)	PA	EPA 1668 A	2,3',4,4',5,5'-HEXACHLOROBIPHENYL (BZ-167)	PA
EPA 1668 A	2,3',4,4',5-PENTACHLOROBIPHENYL (BZ-118)	PA	EPA 1668 A	2,3',4,4',6-PENTACHLOROBIPHENYL (BZ-119)	PA
EPA 1668 A	2,3',4,4'-TETRACHLOROBIPHENYL (BZ-66)	PA	EPA 1668 A	2,3',4,5',6-PENTACHLOROBIPHENYL (BZ-121)	PA
EPA 1668 A	2,3',4,5'-TETRACHLOROBIPHENYL (BZ-68)	PA	EPA 1668 A	2,3',4,5,5'-PENTACHLOROBIPHENYL (BZ-120)	PA
EPA 1668 A	2,3',4,5-TETRACHLOROBIPHENYL (BZ-67)	PA	EPA 1668 A	2,3',4,6-TETRACHLOROBIPHENYL (BZ-69)	PA
EPA 1668 A	2,3',4-TRICHLOROBIPHENYL (BZ-25)	PA	EPA 1668 A	2,3',5',6-TETRACHLOROBIPHENYL (BZ-73)	PA
EPA 1668 A	2,3',5'-TRICHLOROBIPHENYL (BZ-34)	PA	EPA 1668 A	2,3',5,5'-TETRACHLOROBIPHENYL (BZ-72)	PA
EPA 1668 A	2,3',5-TRICHLOROBIPHENYL (BZ-26)	PA	EPA 1668 A	2,3',6-TRICHLOROBIPHENYL (BZ-27)	PA
EPA 1668 A	2,3'-DICHLOROBIPHENYL (BZ-6)	PA	EPA 1668 A	2,3,3',4',5',6-HEXACHLOROBIPHENYL (BZ-164)	PA
EPA 1668 A	2,3,3',4',5'-PENTACHLOROBIPHENYL (BZ-122)	PA	EPA 1668 A	2,3,3',4',5,5',6-HEPTACHLOROBIPHENYL (BZ-193)	PA
EPA 1668 A	2,3,3',4',5,5'-HEXACHLOROBIPHENYL (BZ-162)	PA	EPA 1668 A	2,3,3',4',5,6-HEXACHLOROBIPHENYL (BZ-163)	PA

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EPA 1668 A	2,3,3',4',5-PENTACHLOROBIPHENYL (BZ-107)	PA	EPA 1668 A	2,3,3',4',6-PENTACHLOROBIPHENYL (BZ-110)	PA
EPA 1668 A	2,3,3',4'-TETRACHLOROBIPHENYL (BZ-56)	PA	EPA 1668 A	2,3,3',4,4',5',6-HEPTACHLOROBIPHENYL (BZ-191)	PA
EPA 1668 A	2,3,3',4,4',5'-HEXACHLOROBIPHENYL (BZ-157)	PA	EPA 1668 A	2,3,3',4,4',5,5',6-OCTACHLOROBIPHENYL (BZ-205)	PA
EPA 1668 A	2,3,3',4,4',5,5'-HEPTACHLOROBIPHENYL (BZ-189)	PA	EPA 1668 A	2,3,3',4,4',5,6-HEPTACHLOROBIPHENYL (BZ-190)	PA
EPA 1668 A	2,3,3',4,4',5-HEXACHLOROBIPHENYL (BZ-156)	PA	EPA 1668 A	2,3,3',4,4',6-HEXACHLOROBIPHENYL (BZ-158)	PA
EPA 1668 A	2,3,3',4,4'-PENTACHLOROBIPHENYL (BZ-105)	PA	EPA 1668 A	2,3,3',4,5',6-HEXACHLOROBIPHENYL (BZ-161)	PA
EPA 1668 A	2,3,3',4,5'-PENTACHLOROBIPHENYL (BZ-108)	PA	EPA 1668 A	2,3,3',4,5,5',6-HEPTACHLOROBIPHENYL (BZ-192)	PA
EPA 1668 A	2,3,3',4,5,5'-HEXACHLOROBIPHENYL (BZ-159)	PA	EPA 1668 A	2,3,3',4,5,6-HEXACHLOROBIPHENYL (BZ-160)	PA
EPA 1668 A	2,3,3',4,5-PENTACHLOROBIPHENYL (BZ-106)	PA	EPA 1668 A	2,3,3',4,6-PENTACHLOROBIPHENYL (BZ-109)	PA
EPA 1668 A	2,3,3',4-TETRACHLOROBIPHENYL (BZ-55)	PA	EPA 1668 A	2,3,3',5',6-PENTACHLOROBIPHENYL (BZ-113)	PA
EPA 1668 A	2,3,3',5'-TETRACHLOROBIPHENYL (BZ-58)	PA	EPA 1668 A	2,3,3',5,5',6-HEXACHLOROBIPHENYL (BZ-165)	PA
EPA 1668 A	2,3,3',5,5'-PENTACHLOROBIPHENYL (BZ-111)	PA	EPA 1668 A	2,3,3',5,6-PENTACHLOROBIPHENYL (BZ-112)	PA
EPA 1668 A	2,3,3',5-TETRACHLOROBIPHENYL (BZ-57)	PA	EPA 1668 A	2,3,3',6-TETRACHLOROBIPHENYL (BZ-59)	PA
EPA 1668 A	2,3,3'-TRICHLOROBIPHENYL (BZ-20)	PA	EPA 1668 A	2,3,4',5,6-PENTACHLOROBIPHENYL (BZ-117)	PA
EPA 1668 A	2,3,4',5-TETRACHLOROBIPHENYL (BZ-63)	PA	EPA 1668 A	2,3,4',6-TETRACHLOROBIPHENYL (BZ-64)	PA
EPA 1668 A	2,3,4'-TRICHLOROBIPHENYL (BZ-22)	PA	EPA 1668 A	2,3,4,4',5,6-HEXACHLOROBIPHENYL (BZ-166)	PA
EPA 1668 A	2,3,4,4',5-PENTACHLOROBIPHENYL (BZ-114)	PA	EPA 1668 A	2,3,4,4',6-PENTACHLOROBIPHENYL (BZ-115)	PA
EPA 1668 A	2,3,4,4'-TETRACHLOROBIPHENYL (BZ-60)	PA	EPA 1668 A	2,3,4,5,6-PENTACHLOROBIPHENYL (BZ-116)	PA
EPA 1668 A	2,3,4,5-TETRACHLOROBIPHENYL (BZ-61)	PA	EPA 1668 A	2,3,4,6-TETRACHLOROBIPHENYL (BZ-62)	PA
EPA 1668 A	2,3,4-TRICHLOROBIPHENYL (BZ-21)	PA	EPA 1668 A	2,3,5,6-TETRACHLOROBIPHENYL (BZ-65)	PA
EPA 1668 A	2,3,5-TRICHLOROBIPHENYL (BZ-23)	PA	EPA 1668 A	2,3,6-TRICHLOROBIPHENYL (BZ-24)	PA
EPA 1668 A	2,3-DICHLOROBIPHENYL (BZ-5)	PA	EPA 1668 A	2,4',5-TRICHLOROBIPHENYL (BZ-31)	PA
EPA 1668 A	2,4',6-TRICHLOROBIPHENYL (BZ-32)	PA	EPA 1668 A	2,4'-DICHLOROBIPHENYL (BZ-8)	PA
EPA 1668 A	2,4,4',5-TETRACHLOROBIPHENYL (BZ-74)	PA	EPA 1668 A	2,4,4',6-TETRACHLOROBIPHENYL (BZ-75)	PA
EPA 1668 A	2,4,4'-TRICHLOROBIPHENYL (BZ-28)	PA	EPA 1668 A	2,4,5-TRICHLOROBIPHENYL (BZ-29)	PA

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EPA 1668 A	2,4,6-TRICHLOROBIPHENYL (BZ-30)	PA	EPA 1668 A	2,4-DICHLOROBIPHENYL (BZ-7)	PA
EPA 1668 A	2,5-DICHLOROBIPHENYL (BZ-9)	PA	EPA 1668 A	2,6-DICHLOROBIPHENYL (BZ-10)	PA
EPA 1668 A	2-CHLOROBIPHENYL (BZ-1)	PA	EPA 1668 A	3,3',4,4',5,5'-HEXACHLOROBIPHENYL (BZ-169)	PA
EPA 1668 A	3,3',4,4',5-PENTACHLOROBIPHENYL (BZ-126)	PA	EPA 1668 A	3,3',4,4'-TETRACHLOROBIPHENYL (BZ-77)	PA
EPA 1668 A	3,3',4,5'-TETRACHLOROBIPHENYL (BZ-79)	PA	EPA 1668 A	3,3',4,5,5'-PENTACHLOROBIPHENYL (BZ-127)	PA
EPA 1668 A	3,3',4,5-TETRACHLOROBIPHENYL (BZ-78)	PA	EPA 1668 A	3,3',4-TRICHLOROBIPHENYL (BZ-35)	PA
EPA 1668 A	3,3',5,5'-TETRACHLOROBIPHENYL (BZ-80)	PA	EPA 1668 A	3,3',5-TRICHLOROBIPHENYL (BZ-36)	PA
EPA 1668 A	3,3'-DICHLOROBIPHENYL (BZ-11)	PA	EPA 1668 A	3,4',5-TRICHLOROBIPHENYL (BZ-39)	PA
EPA 1668 A	3,4'-DICHLOROBIPHENYL (BZ-13)	PA	EPA 1668 A	3,4,4',5-TETRACHLOROBIPHENYL (BZ-81)	PA
EPA 1668 A	3,4,4'-TRICHLOROBIPHENYL (BZ-37)	PA	EPA 1668 A	3,4,5-TRICHLOROBIPHENYL (BZ-38)	PA
EPA 1668 A	3,4-DICHLOROBIPHENYL (BZ-12)	PA	EPA 1668 A	3,5-DICHLOROBIPHENYL (BZ-14)	PA
EPA 1668 A	3-CHLOROBIPHENYL (BZ-2)	PA	EPA 1668 A	4,4'-DICHLOROBIPHENYL (BZ-15)	PA
EPA 1668 A	4-CHLOROBIPHENYL (BZ-3)	PA	EPA 1668 A	DECACHLOROBIPHENYL (BZ-209)	PA
EPA 3010 A	PREP: ACID DIGESTION OF AQUEOUS SAMPLES AND EXTRACTS FOR TOTAL METALS	PA	EPA 3050 B	PREP: ACID DIGESTION OF SEDIMENTS, SLUDGES, AND SOILS	PA
EPA 3540 C	PREP: SOXHLET EXTRACTION	PA	EPA 3546	PREP: MICROWAVE EXTRACTION	PA
EPA 3550 B	PREP: ULTRASONIC EXTRACTION	PA	EPA 3620 B	PREP: FLORISIL CLEANUP	PA
EPA 3630 C	PREP: SILICA GEL CLEANUP	PA	EPA 3640 A	PREP: GEL PERMEATION CLEANUP	PA
EPA 3660 B	PREP: SULFUR CLEANUP	PA	EPA 3665 A	SULFURIC ACID/PERMANGANATE CLEAN-UP	PA
EPA 5030 B	PREP: PURGE AND TRAP FOR AQUEOUS SAMPLES	PA	EPA 5035	PREP: CLOSED-SYSTEM PURGE AND TRAP AND EXTRACTION	PA
EPA 6010 B	ALUMINUM	PA	EPA 6010 B	ANTIMONY	PA
EPA 6010 B	ARSENIC	PA	EPA 6010 B	BARIUM	PA
EPA 6010 B	BERYLLIUM	PA	EPA 6010 B	BORON	PA
EPA 6010 B	CADMIUM	PA	EPA 6010 B	CALCIUM	PA
EPA 6010 B	CHROMIUM	PA	EPA 6010 B	COBALT	PA
EPA 6010 B	COPPER	PA	EPA 6010 B	IRON	PA
EPA 6010 B	LEAD	PA	EPA 6010 B	MAGNESIUM	PA
EPA 6010 B	MANGANESE	PA	EPA 6010 B	MOLYBDENUM	PA
EPA 6010 B	NICKEL	PA	EPA 6010 B	POTASSIUM	PA
EPA 6010 B	SELENIUM	PA	EPA 6010 B	SILVER	PA
EPA 6010 B	SODIUM	PA	EPA 6010 B	STRONTIUM	PA
EPA 6010 B	THALLIUM	PA	EPA 6010 B	TIN	PA

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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 6010 B	TITANIUM	PA	EPA 6010 B	VANADIUM	PA
EPA 6010 B	ZINC	PA	EPA 6010 C	ALUMINUM	PA
EPA 6010 C	ANTIMONY	PA	EPA 6010 C	ARSENIC	PA
EPA 6010 C	BARIUM	PA	EPA 6010 C	BERYLLIUM	PA
EPA 6010 C	BORON	PA	EPA 6010 C	CADMIUM	PA
EPA 6010 C	CALCIUM	PA	EPA 6010 C	CHROMIUM	PA
EPA 6010 C	COBALT	PA	EPA 6010 C	COPPER	PA
EPA 6010 C	IRON	PA	EPA 6010 C	LEAD	PA
EPA 6010 C	MAGNESIUM	PA	EPA 6010 C	MANGANESE	PA
EPA 6010 C	MOLYBDENUM	PA	EPA 6010 C	NICKEL	PA
EPA 6010 C	POTASSIUM	PA	EPA 6010 C	SELENIUM	PA
EPA 6010 C	SILVER	PA	EPA 6010 C	SODIUM	PA
EPA 6010 C	STRONTIUM	PA	EPA 6010 C	THALLIUM	PA
EPA 6010 C	TIN	PA	EPA 6010 C	TITANIUM	PA
EPA 6010 C	VANADIUM	PA	EPA 6010 C	ZINC	PA
EPA 6020 A	ALUMINUM	PA	EPA 6020 A	ANTIMONY	PA
EPA 6020 A	ARSENIC	PA	EPA 6020 A	BERYLLIUM	PA
EPA 6020 A	CADMIUM	PA	EPA 6020 A	CALCIUM	PA
EPA 6020 A	CHROMIUM	PA	EPA 6020 A	COBALT	PA
EPA 6020 A	COPPER	PA	EPA 6020 A	IRON	PA
EPA 6020 A	LEAD	PA	EPA 6020 A	MAGNESIUM	PA
EPA 6020 A	MANGANESE	PA	EPA 6020 A	NICKEL	PA
EPA 6020 A	POTASSIUM	PA	EPA 6020 A	SELENIUM	PA
EPA 6020 A	SILVER	PA	EPA 6020 A	SODIUM	PA
EPA 6020 A	THALLIUM	PA	EPA 6020 A	VANADIUM	PA
EPA 6020 A	ZINC	PA	EPA 6020 A - EXTENDED	BORON	PA
EPA 6020 A - EXTENDED	STRONTIUM	PA	EPA 6020 A - EXTENDED	TIN	PA
EPA 6020 A - EXTENDED	TITANIUM	PA	EPA 6850	PERCHLORATE	PA
EPA 7196 A	CHROMIUM VI	PA	EPA 7471 A	MERCURY	PA
EPA 7471 B	MERCURY	PA	EPA 8015 B	DIESEL RANGE ORGANICS (DRO)	PA
EPA 8015 B	ETHANOL	PA	EPA 8015 B	ETHYLENE GLYCOL	PA
EPA 8015 B	GASOLINE RANGE ORGANICS (GRO)	PA	EPA 8015 B	ISOPROPYL ALCOHOL (2-PROPANOL, ISOPROPANOL)	PA
EPA 8015 B	METHANOL	PA	EPA 8015 B	TERT-BUTYL ALCOHOL	PA
EPA 8015 C	ETHANOL	PA	EPA 8015 C	ETHYLENE GLYCOL	PA
EPA 8015 C	ISOPROPYL ALCOHOL (2-PROPANOL, ISOPROPANOL)	PA	EPA 8015 C	METHANOL	PA
EPA 8015 C	TERT-BUTYL ALCOHOL	PA	EPA 8015 D - EXTENDED	FORMIC ACID	PA

Commonwealth of Virginia

Department of General Services
Division of Consolidated Laboratory Services

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EPA 8021 B	BENZENE	PA	EPA 8021 B	ETHYLBENZENE	PA
EPA 8021 B	ISOPROPYLBENZENE	PA	EPA 8021 B	M+P-XYLENE	PA
EPA 8021 B	NAPHTHALENE	PA	EPA 8021 B	O-XYLENE	PA
EPA 8021 B	TOLUENE	PA	EPA 8021 B	XYLENE (TOTAL)	PA
EPA 8021 B - EXTENDED	METHYL TERT-BUTYL ETHER (MTBE)	PA	EPA 8081 A	4,4'-DDD	PA
EPA 8081 A	4,4'-DDE	PA	EPA 8081 A	4,4'-DDT	PA
EPA 8081 A	ALDRIN	PA	EPA 8081 A	ALPHA-BHC (ALPHA-HEXACHLOROCYCLOHEXANE)	PA
EPA 8081 A	ALPHA-CHLORDANE [CIS-CHLORDANE]	PA	EPA 8081 A	BETA-BHC (BETA-HEXACHLOROCYCLOHEXANE)	PA
EPA 8081 A	CHLORDANE (TECH.)	PA	EPA 8081 A	DELTA-BHC	PA
EPA 8081 A	DIELDRIN	PA	EPA 8081 A	ENDOSULFAN I	PA
EPA 8081 A	ENDOSULFAN II	PA	EPA 8081 A	ENDOSULFAN SULFATE	PA
EPA 8081 A	ENDRIN	PA	EPA 8081 A	ENDRIN ALDEHYDE	PA
EPA 8081 A	ENDRIN KETONE	PA	EPA 8081 A	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	PA
EPA 8081 A	GAMMA-CHLORDANE [BETA-CHLORDANE, TRANS-CHLORDANE]	PA	EPA 8081 A	HEPTACHLOR	PA
EPA 8081 A	HEPTACHLOR EPOXIDE	PA	EPA 8081 A	METHOXYCHLOR	PA
EPA 8081 A	TOXAPHENE (CHLORINATED CAMPHENE)	PA	EPA 8081 B	4,4'-DDD	PA
EPA 8081 B	4,4'-DDE	PA	EPA 8081 B	4,4'-DDT	PA
EPA 8081 B	ALDRIN	PA	EPA 8081 B	ALPHA-BHC (ALPHA-HEXACHLOROCYCLOHEXANE)	PA
EPA 8081 B	ALPHA-CHLORDANE [CIS-CHLORDANE]	PA	EPA 8081 B	BETA-BHC (BETA-HEXACHLOROCYCLOHEXANE)	PA
EPA 8081 B	CHLORDANE (TECH.)	PA	EPA 8081 B	DELTA-BHC	PA
EPA 8081 B	DIELDRIN	PA	EPA 8081 B	ENDOSULFAN I	PA
EPA 8081 B	ENDOSULFAN II	PA	EPA 8081 B	ENDOSULFAN SULFATE	PA
EPA 8081 B	ENDRIN	PA	EPA 8081 B	ENDRIN ALDEHYDE	PA
EPA 8081 B	ENDRIN KETONE	PA	EPA 8081 B	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	PA
EPA 8081 B	GAMMA-CHLORDANE [BETA-CHLORDANE, TRANS-CHLORDANE]	PA	EPA 8081 B	HEPTACHLOR	PA
EPA 8081 B	HEPTACHLOR EPOXIDE	PA	EPA 8081 B	METHOXYCHLOR	PA
EPA 8081 B	TOXAPHENE (CHLORINATED CAMPHENE)	PA	EPA 8081 B - EXTENDED	KEPONE	PA

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EPA 8081 B - EXTENDED	MIREX	PA	EPA 8082 - OIL A	AROCLOR-1016 (PCB-1016)	PA
EPA 8082 - OIL A	AROCLOR-1221 (PCB-1221)	PA	EPA 8082 - OIL A	AROCLOR-1232 (PCB-1232)	PA
EPA 8082 - OIL A	AROCLOR-1242 (PCB-1242)	PA	EPA 8082 - OIL A	AROCLOR-1248 (PCB-1248)	PA
EPA 8082 - OIL A	AROCLOR-1254 (PCB-1254)	PA	EPA 8082 - OIL A	AROCLOR-1260 (PCB-1260)	PA
EPA 8082 A	AROCLOR-1016 (PCB-1016)	PA	EPA 8082 A	AROCLOR-1221 (PCB-1221)	PA
EPA 8082 A	AROCLOR-1232 (PCB-1232)	PA	EPA 8082 A	AROCLOR-1242 (PCB-1242)	PA
EPA 8082 A	AROCLOR-1248 (PCB-1248)	PA	EPA 8082 A	AROCLOR-1254 (PCB-1254)	PA
EPA 8082 A	AROCLOR-1260 (PCB-1260)	PA	EPA 8082 A - EXTENDED	AROCLOR-1262 (PCB-1262)	PA
EPA 8082 A - EXTENDED	AROCLOR-1268 (PCB-1268)	PA	EPA 8141 A	ATRAZINE	PA
EPA 8141 A	BOLSTAR (SULPROFOS)	PA	EPA 8141 A	CHLORPYRIFOS	PA
EPA 8141 A	COUMAPHOS	PA	EPA 8141 A	DEMETON-O	PA
EPA 8141 A	DEMETON-S	PA	EPA 8141 A	DIAZINON	PA
EPA 8141 A	DICHLOROVOS (DDVP, DICHLORVOS)	PA	EPA 8141 A	DISULFOTON	PA
EPA 8141 A	EPN (PHOSPHONOTHIOIC ACID, PHENYL-, O-ETHYL O-(P-NITROPHENYL) ESTER)	PA	EPA 8141 A	ETHION	PA
EPA 8141 A	ETHOPROP	PA	EPA 8141 A	FAMPHUR	PA
EPA 8141 A	FENSULFOTHION	PA	EPA 8141 A	FENTHION	PA
EPA 8141 A	MALATHION	PA	EPA 8141 A	MERPHOS	PA
EPA 8141 A	METHYL PARATHION (PARATHION, METHYL)	PA	EPA 8141 A	MEVINPHOS	PA
EPA 8141 A	NALED	PA	EPA 8141 A	PARATHION (PARATHION - ETHYL)	PA
EPA 8141 A	PHORATE	PA	EPA 8141 A	RONNEL	PA
EPA 8141 A	SIMAZINE	PA	EPA 8141 A	TETRACHLORVINPHOS (STIROPHOS, GARDONA) Z-ISOMER	PA
EPA 8141 A	TOKUTHION (PROTHIOPHOS)	PA	EPA 8141 A	TRICHLORONATE	PA
EPA 8141 B	ATRAZINE	PA	EPA 8141 B	BOLSTAR (SULPROFOS)	PA
EPA 8141 B	COUMAPHOS	PA	EPA 8141 B	DEMETON-O	PA
EPA 8141 B	DEMETON-S	PA	EPA 8141 B	DIAZINON	PA
EPA 8141 B	DICHLOROVOS (DDVP, DICHLORVOS)	PA	EPA 8141 B	DISULFOTON	PA
EPA 8141 B	EPN (PHOSPHONOTHIOIC ACID, PHENYL-, O-ETHYL O-(P-NITROPHENYL) ESTER)	PA	EPA 8141 B	ETHION	PA
EPA 8141 B	ETHOPROP	PA	EPA 8141 B	FAMPHUR	PA
EPA 8141 B	FENSULFOTHION	PA	EPA 8141 B	FENTHION	PA
EPA 8141 B	MALATHION	PA	EPA 8141 B	MERPHOS	PA
EPA 8141 B	METHYL PARATHION (PARATHION, METHYL)	PA	EPA 8141 B	MEVINPHOS	PA

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EPA 8141 B	NALED	PA	EPA 8141 B	PARATHION (PARATHION - ETHYL)	PA
EPA 8141 B	PHORATE	PA	EPA 8141 B	RONNEL	PA
EPA 8141 B	SIMAZINE	PA	EPA 8141 B	TETRACHLORVINPHOS (STIROPHOS, GARDONA) Z-ISOMER	PA
EPA 8141 B	TOKUTHION (PROTHIOPHOS)	PA	EPA 8141 B	TRICHLORONATE	PA
EPA 8151 A	2,4,5-T	PA	EPA 8151 A	2,4-D	PA
EPA 8151 A	2,4-DB	PA	EPA 8151 A	DALAPON	PA
EPA 8151 A	DICAMBA	PA	EPA 8151 A	DICHLOROPROP (DICHLORPROP)	PA
EPA 8151 A	DINOSEB (2-SEC-BUTYL-4,6-DINITROPHENOL, DNBP)	PA	EPA 8151 A	MCPA	PA
EPA 8151 A	MCPP	PA	EPA 8151 A	PENTACHLOROPHENOL	PA
EPA 8151 A	PICLORAM	PA	EPA 8151 A	SILVEX (2,4,5-TP)	PA
EPA 8260 B	1,1,1,2-TETRACHLOROETHANE	PA	EPA 8260 B	1,1,1-TRICHLOROETHANE	PA
EPA 8260 B	1,1,2,2-TETRACHLOROETHANE	PA	EPA 8260 B	1,1,2-TRICHLOROETHANE	PA
EPA 8260 B	1,1-DICHLOROETHANE	PA	EPA 8260 B	1,1-DICHLOROETHYLENE	PA
EPA 8260 B	1,1-DICHLOROPROPENE	PA	EPA 8260 B	1,2,3-TRICHLOROBENZENE	PA
EPA 8260 B	1,2,3-TRICHLOROPROPANE	PA	EPA 8260 B	1,2,4-TRICHLOROBENZENE	PA
EPA 8260 B	1,2,4-TRIMETHYLBENZENE	PA	EPA 8260 B	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	PA
EPA 8260 B	1,2-DIBROMOETHANE (EDB, ETHYLENE DIBROMIDE)	PA	EPA 8260 B	1,2-DICHLOROBENZENE	PA
EPA 8260 B	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	PA	EPA 8260 B	1,2-DICHLOROPROPANE	PA
EPA 8260 B	1,3,5-TRIMETHYLBENZENE	PA	EPA 8260 B	1,3-DICHLOROBENZENE	PA
EPA 8260 B	1,3-DICHLOROPROPANE	PA	EPA 8260 B	1,4-DICHLOROBENZENE	PA
EPA 8260 B	1,4-DIOXANE (1,4-DIETHYLENEOXIDE)	PA	EPA 8260 B	1-BUTANOL (N-BUTANOL)	PA
EPA 8260 B	2,2-DICHLOROPROPANE	PA	EPA 8260 B	2-BUTANONE (METHYL ETHYL KETONE, MEK)	PA
EPA 8260 B	2-CHLOROETHYL VINYL ETHER	PA	EPA 8260 B	2-CHLOROTOLUENE	PA
EPA 8260 B	2-HEXANONE	PA	EPA 8260 B	4-CHLOROTOLUENE	PA
EPA 8260 B	4-ISOPROPYLTOLUENE (P-CYMENE)	PA	EPA 8260 B	4-METHYL-2-PENTANONE (MIBK)	PA
EPA 8260 B	ACETONE	PA	EPA 8260 B	ACETONITRILE	PA
EPA 8260 B	ACROLEIN (PROPENAL)	PA	EPA 8260 B	ACRYLONITRILE	PA
EPA 8260 B	ALLYL CHLORIDE (3-CHLOROPROPENE)	PA	EPA 8260 B	BENZENE	PA
EPA 8260 B	BENZYL CHLORIDE	PA	EPA 8260 B	BROMOBENZENE	PA
EPA 8260 B	BROMOCHLOROMETHANE	PA	EPA 8260 B	BROMODICHLOROMETHANE	PA
EPA 8260 B	BROMOFORM	PA	EPA 8260 B	CARBON DISULFIDE	PA
EPA 8260 B	CARBON TETRACHLORIDE	PA	EPA 8260 B	CHLOROBENZENE	PA

Commonwealth of Virginia

Department of General Services
Division of Consolidated Laboratory Services

Scope of Accreditation

VELAP Certificate No.: 2914

EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC
2425 NEW HOLLAND PIKE
LANCASTER, PA 17601

Virginia Laboratory ID: 460182
Effective Date: June 15, 2014
Expiration Date: June 14, 2015

SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 8260 B	CHLORODIBROMOMETHANE	PA	EPA 8260 B	CHLOROETHANE (ETHYL CHLORIDE)	PA
EPA 8260 B	CHLOROFORM	PA	EPA 8260 B	CHLOROPRENE (2-CHLORO-1,3-BUTADIENE)	PA
EPA 8260 B	CIS-1,2-DICHLOROETHYLENE	PA	EPA 8260 B	CIS-1,3-DICHLOROPROPENE	PA
EPA 8260 B	DIBROMOMETHANE (METHYLENE BROMIDE)	PA	EPA 8260 B	DICHLORODIFLUOROMETHANE (FREON-12)	PA
EPA 8260 B	EPICHLOROHYDRIN (1-CHLORO-2,3-EPOXYPROPANE)	PA	EPA 8260 B	ETHANOL	PA
EPA 8260 B	ETHYL ACETATE	PA	EPA 8260 B	ETHYL METHACRYLATE	PA
EPA 8260 B	ETHYLBENZENE	PA	EPA 8260 B	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	PA
EPA 8260 B	IODOMETHANE (METHYL IODIDE)	PA	EPA 8260 B	ISOBUTYL ALCOHOL (2-METHYL-1-PROPANOL)	PA
EPA 8260 B	ISOPROPYL ALCOHOL (2-PROPANOL, ISOPROPANOL)	PA	EPA 8260 B	ISOPROPYLBENZENE	PA
EPA 8260 B	M+P-XYLENE	PA	EPA 8260 B	METHACRYLONITRILE	PA
EPA 8260 B	METHYL BROMIDE (BROMOMETHANE)	PA	EPA 8260 B	METHYL CHLORIDE (CHLOROMETHANE)	PA
EPA 8260 B	METHYL METHACRYLATE	PA	EPA 8260 B	METHYL TERT-BUTYL ETHER (MTBE)	PA
EPA 8260 B	METHYLENE CHLORIDE (DICHLOROMETHANE)	PA	EPA 8260 B	N-BUTYLBENZENE	PA
EPA 8260 B	N-PROPYLBENZENE	PA	EPA 8260 B	NAPHTHALENE	PA
EPA 8260 B	O-XYLENE	PA	EPA 8260 B	PENTACHLOROETHANE	PA
EPA 8260 B	PROPIONITRILE (ETHYL CYANIDE)	PA	EPA 8260 B	SEC-BUTYLBENZENE	PA
EPA 8260 B	STYRENE	PA	EPA 8260 B	TERT-BUTYL ALCOHOL	PA
EPA 8260 B	TERT-BUTYLBENZENE	PA	EPA 8260 B	TETRACHLOROETHENE (PERCHLOROETHENE)	PA
EPA 8260 B	TOLUENE	PA	EPA 8260 B	TRANS-1,2-DICHLOROETHENE	PA
EPA 8260 B	TRANS-1,3-DICHLOROPROPENE	PA	EPA 8260 B	TRANS-1,4-DICHLORO-2-BUTENE	PA
EPA 8260 B	TRICHLOROETHENE (TRICHLOROETHYLENE)	PA	EPA 8260 B	TRICHLOROFLUOROMETHANE (FLUOROTRICHLOROMETHANE, FREON 11)	PA
EPA 8260 B	VINYL ACETATE	PA	EPA 8260 B	VINYL CHLORIDE	PA
EPA 8260 B	XYLENE (TOTAL)	PA	EPA 8260 B - EXTENDED	1,1,2-TRICHLORO-1,2,2-TRIFLUOR OETHANE (FREON 113)	PA
EPA 8260 B - EXTENDED	CYCLOHEXANE	PA	EPA 8260 B - EXTENDED	CYCLOHEXANONE	PA
EPA 8260 B - EXTENDED	DI-ISOPROPYLETHER (DIPE, ISOPROPYL ETHER)	PA	EPA 8260 B - EXTENDED	ETHYL-T-BUTYLETHER (2-ETHOXY-2-METHYLPROPANE, ETBE)	PA
EPA 8260 B - EXTENDED	GASOLINE RANGE ORGANICS (GRO)	PA	EPA 8260 B - EXTENDED	METHYL ACETATE	PA
EPA 8260 B - EXTENDED	METHYLCYCLOHEXANE	PA	EPA 8260 B - EXTENDED	T-AMYL ALCOHOL (TAA)	PA

Scope of Accreditation

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EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC
2425 NEW HOLLAND PIKE
LANCASTER, PA 17601

Virginia Laboratory ID: 460182
Effective Date: June 15, 2014
Expiration Date: June 14, 2015

SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 8260 B - EXTENDED	T-AMYLMETHYLETHER (TAME)	PA	EPA 8260 B - EXTENDED	TETRAHYDROFURAN (THF)	PA
EPA 8260 C	1,1,1,2-TETRACHLOROETHANE	PA	EPA 8260 C	1,1,1-TRICHLOROETHANE	PA
EPA 8260 C	1,1,2,2-TETRACHLOROETHANE	PA	EPA 8260 C	1,1,2-TRICHLOROETHANE	PA
EPA 8260 C	1,1-DICHLOROETHANE	PA	EPA 8260 C	1,1-DICHLOROETHYLENE	PA
EPA 8260 C	1,1-DICHLOROPROPENE	PA	EPA 8260 C	1,2,3-TRICHLOROBENZENE	PA
EPA 8260 C	1,2,3-TRICHLOROPROPANE	PA	EPA 8260 C	1,2,4-TRICHLOROBENZENE	PA
EPA 8260 C	1,2,4-TRIMETHYLBENZENE	PA	EPA 8260 C	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	PA
EPA 8260 C	1,2-DIBROMOETHANE (EDB, ETHYLENE DIBROMIDE)	PA	EPA 8260 C	1,2-DICHLOROBENZENE	PA
EPA 8260 C	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	PA	EPA 8260 C	1,2-DICHLOROPROPANE	PA
EPA 8260 C	1,3,5-TRIMETHYLBENZENE	PA	EPA 8260 C	1,3-DICHLOROBENZENE	PA
EPA 8260 C	1,3-DICHLOROPROPANE	PA	EPA 8260 C	1,4-DICHLOROBENZENE	PA
EPA 8260 C	1,4-DIOXANE (1,4-DIETHYLENEOXIDE)	PA	EPA 8260 C	2,2-DICHLOROPROPANE	PA
EPA 8260 C	2-BUTANONE (METHYL ETHYL KETONE, MEK)	PA	EPA 8260 C	2-CHLOROETHYL VINYL ETHER	PA
EPA 8260 C	2-CHLOROTOLUENE	PA	EPA 8260 C	2-HEXANONE	PA
EPA 8260 C	4-CHLOROTOLUENE	PA	EPA 8260 C	4-ISOPROPYLTOLUENE (P-CYMENE)	PA
EPA 8260 C	4-METHYL-2-PENTANONE (MIBK)	PA	EPA 8260 C	ACETONE	PA
EPA 8260 C	ACETONITRILE	PA	EPA 8260 C	ACROLEIN (PROPENAL)	PA
EPA 8260 C	ACRYLONITRILE	PA	EPA 8260 C	ALLYL CHLORIDE (3-CHLOROPROPENE)	PA
EPA 8260 C	BENZENE	PA	EPA 8260 C	BENZYL CHLORIDE	PA
EPA 8260 C	BROMOBENZENE	PA	EPA 8260 C	BROMOCHLOROMETHANE	PA
EPA 8260 C	BROMODICHLOROMETHANE	PA	EPA 8260 C	BROMOFORM	PA
EPA 8260 C	CARBON DISULFIDE	PA	EPA 8260 C	CARBON TETRACHLORIDE	PA
EPA 8260 C	CHLOROBENZENE	PA	EPA 8260 C	CHLORODIBROMOMETHANE	PA
EPA 8260 C	CHLOROETHANE (ETHYL CHLORIDE)	PA	EPA 8260 C	CHLOROFORM	PA
EPA 8260 C	CHLOROPRENE (2-CHLORO-1,3-BUTADIENE)	PA	EPA 8260 C	CIS-1,2-DICHLOROETHYLENE	PA
EPA 8260 C	CIS-1,3-DICHLOROPROPENE	PA	EPA 8260 C	CYCLOHEXANE	PA
EPA 8260 C	DIBROMOMETHANE (METHYLENE BROMIDE)	PA	EPA 8260 C	DICHLORODIFLUOROMETHANE (FREON-12)	PA
EPA 8260 C	EPICHLOROHYDRIN (1-CHLORO-2,3-EPOXYPROPANE)	PA	EPA 8260 C	ETHANOL	PA
EPA 8260 C	ETHYL ACETATE	PA	EPA 8260 C	ETHYL METHACRYLATE	PA
EPA 8260 C	ETHYL-T-BUTYLETHER (2-ETHOXY-2-METHYLPROPANE, ETBE)	PA	EPA 8260 C	ETHYLBENZENE	PA
EPA 8260 C	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	PA	EPA 8260 C	HEXACHLOROETHANE	PA

Commonwealth of Virginia

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Scope of Accreditation

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EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC
2425 NEW HOLLAND PIKE
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Virginia Laboratory ID: 460182
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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 8260 C	IODOMETHANE (METHYL IODIDE)	PA	EPA 8260 C	ISOBUTYL ALCOHOL (2-METHYL-1-PROPANOL)	PA
EPA 8260 C	ISOPROPYL ALCOHOL (2-PROPANOL, ISOPROPANOL)	PA	EPA 8260 C	ISOPROPYLBENZENE	PA
EPA 8260 C	METHACRYLONITRILE	PA	EPA 8260 C	METHYL BROMIDE (BROMOMETHANE)	PA
EPA 8260 C	METHYL CHLORIDE (CHLOROMETHANE)	PA	EPA 8260 C	METHYL METHACRYLATE	PA
EPA 8260 C	METHYL TERT-BUTYL ETHER (MTBE)	PA	EPA 8260 C	METHYLCYCLOHEXANE	PA
EPA 8260 C	METHYLENE CHLORIDE (DICHLOROMETHANE)	PA	EPA 8260 C	N-BUTYLBENZENE	PA
EPA 8260 C	N-PROPYLBENZENE	PA	EPA 8260 C	NAPHTHALENE	PA
EPA 8260 C	PENTACHLOROETHANE	PA	EPA 8260 C	PROPIONITRILE (ETHYL CYANIDE)	PA
EPA 8260 C	SEC-BUTYLBENZENE	PA	EPA 8260 C	STYRENE	PA
EPA 8260 C	T-AMYLMETHYLETHER (TAME)	PA	EPA 8260 C	TERT-BUTYL ALCOHOL	PA
EPA 8260 C	TETRACHLOROETHENE (PERCHLOROETHENE)	PA	EPA 8260 C	TOLUENE	PA
EPA 8260 C	TRANS-1,2-DICHLOROETHENE	PA	EPA 8260 C	TRANS-1,3-DICHLOROPROPENE	PA
EPA 8260 C	TRANS-1,4-DICHLORO-2-BUTENE	PA	EPA 8260 C	TRICHLOROETHENE (TRICHLOROETHYLENE)	PA
EPA 8260 C	TRICHLOROFLUOROMETHANE (FLUOROTRICHLOROMETHANE, FREON 11)	PA	EPA 8260 C	VINYL ACETATE	PA
EPA 8260 C	VINYL CHLORIDE	PA	EPA 8260 C	XYLENE (TOTAL)	PA
EPA 8260 C - EXTENDED	1,1,2-TRICHLORO-1,2,2-TRIFLUOR OETHANE (FREON 113)	PA	EPA 8260 C - EXTENDED	DI-ISOPROPYLETHER (DIPE, ISOPROPYL ETHER)	PA
EPA 8260 C - EXTENDED	GASOLINE RANGE ORGANICS (GRO)	PA	EPA 8260 C - EXTENDED	METHYL ACETATE	PA
EPA 8260 C - EXTENDED	T-AMYL ALCOHOL (TAA)	PA	EPA 8260 C - EXTENDED	TETRAHYDROFURAN (THF)	PA
EPA 8270 C	1,2,4,5-TETRACHLOROBENZENE	PA	EPA 8270 C	1,2,4-TRICHLOROBENZENE	PA
EPA 8270 C	1,2-DICHLOROBENZENE	PA	EPA 8270 C	1,2-DINITROBENZENE	PA
EPA 8270 C	1,2-DIPHENYLHYDRAZINE	PA	EPA 8270 C	1,3,5-TRINITROBENZENE (1,3,5-TNB)	PA
EPA 8270 C	1,3-DICHLOROBENZENE	PA	EPA 8270 C	1,3-DINITROBENZENE (1,3-DNB)	PA
EPA 8270 C	1,4-DICHLOROBENZENE	PA	EPA 8270 C	1,4-DINITROBENZENE	PA
EPA 8270 C	1,4-NAPHTHOQUINONE	PA	EPA 8270 C	1,4-PHENYLENEDIAMINE	PA
EPA 8270 C	1-CHLORONAPHTHALENE	PA	EPA 8270 C	1-NAPHTHYLAMINE	PA
EPA 8270 C	2,3,4,6-TETRACHLOROPHENOL	PA	EPA 8270 C	2,4,5-TRICHLOROPHENOL	PA
EPA 8270 C	2,4,6-TRICHLOROPHENOL	PA	EPA 8270 C	2,4-DICHLOROPHENOL	PA
EPA 8270 C	2,4-DIMETHYLPHENOL	PA	EPA 8270 C	2,4-DINITROPHENOL	PA
EPA 8270 C	2,4-DINITROTOLUENE (2,4-DNT)	PA	EPA 8270 C	2,6-DICHLOROPHENOL	PA
EPA 8270 C	2,6-DINITROTOLUENE (2,6-DNT)	PA	EPA 8270 C	2-ACETYLAMINOFLUORENE	PA
EPA 8270 C	2-CHLORONAPHTHALENE	PA	EPA 8270 C	2-CHLOROPHENOL	PA

Scope of Accreditation

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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 8270 C	2-METHYL-4,6-DINITROPHENOL (4,6-DINITRO-2-METHYLPHENOL)	PA	EPA 8270 C	2-METHYLNAPHTHALENE	PA
EPA 8270 C	2-METHYLPHENOL (O-CRESOL)	PA	EPA 8270 C	2-NAPHTHYLAMINE	PA
EPA 8270 C	2-NITROANILINE	PA	EPA 8270 C	2-NITROPHENOL	PA
EPA 8270 C	2-PICOLINE (2-METHYLPYRIDINE)	PA	EPA 8270 C	3,3'-DICHLOROBENZIDINE	PA
EPA 8270 C	3,3'-DIMETHOXYBENZIDINE	PA	EPA 8270 C	3,3'-DIMETHYLBENZIDINE	PA
EPA 8270 C	3-METHYLCHOLANTHRENE	PA	EPA 8270 C	3-METHYLPHENOL (M-CRESOL)	PA
EPA 8270 C	3-NITROANILINE	PA	EPA 8270 C	4,4'-METHYLENEBIS(2-CHLOROANILINE)	PA
EPA 8270 C	4-AMINOBIPHENYL	PA	EPA 8270 C	4-BROMOPHENYL PHENYL ETHER	PA
EPA 8270 C	4-CHLORO-3-METHYLPHENOL	PA	EPA 8270 C	4-CHLOROANILINE	PA
EPA 8270 C	4-CHLOROPHENYL PHENYLETHER	PA	EPA 8270 C	4-DIMETHYL AMINOAZOBENZENE	PA
EPA 8270 C	4-METHYLPHENOL (P-CRESOL)	PA	EPA 8270 C	4-NITROANILINE	PA
EPA 8270 C	4-NITROPHENOL	PA	EPA 8270 C	5-NITRO-O-TOLUIDINE	PA
EPA 8270 C	7,12-DIMETHYLBENZ(A) ANTHRACENE	PA	EPA 8270 C	A-A-DIMETHYLPHENETHYLAMINE	PA
EPA 8270 C	ACENAPHTHENE	PA	EPA 8270 C	ACENAPHTHYLENE	PA
EPA 8270 C	ACETOPHENONE	PA	EPA 8270 C	ANILINE	PA
EPA 8270 C	ANTHRACENE	PA	EPA 8270 C	ARAMITE	PA
EPA 8270 C	BENZIDINE	PA	EPA 8270 C	BENZO(A)ANTHRACENE	PA
EPA 8270 C	BENZO(A)PYRENE	PA	EPA 8270 C	BENZO(G,H,I)PERYLENE	PA
EPA 8270 C	BENZO(K)FLUORANTHENE	PA	EPA 8270 C	BENZOIC ACID	PA
EPA 8270 C	BENZO[B]FLUORANTHENE	PA	EPA 8270 C	BENZYL ALCOHOL	PA
EPA 8270 C	BIS(2-CHLOROETHOXY)METHANE	PA	EPA 8270 C	BIS(2-CHLOROETHYL) ETHER	PA
EPA 8270 C	BIS(2-CHLOROISOPROPYL) ETHER	PA	EPA 8270 C	BIS(2-ETHYLHEXYL) PHTHALATE (DI(2-ETHYLHEXYL)PHTHALATE), (DEHP)	PA
EPA 8270 C	BUTYL BENZYL PHTHALATE	PA	EPA 8270 C	CHLOROBENZILATE	PA
EPA 8270 C	CHRYSENE	PA	EPA 8270 C	DI-N-BUTYL PHTHALATE	PA
EPA 8270 C	DI-N-OCTYL PHTHALATE	PA	EPA 8270 C	DIALLATE	PA
EPA 8270 C	DIBENZ(A, J) ACRIDINE	PA	EPA 8270 C	DIBENZO(A,H) ANTHRACENE	PA
EPA 8270 C	DIBENZOFURAN	PA	EPA 8270 C	DIETHYL PHTHALATE	PA
EPA 8270 C	DIMETHOATE	PA	EPA 8270 C	DIMETHYL PHTHALATE	PA
EPA 8270 C	DINOSEB (2-SEC-BUTYL-4,6-DINITROPHENOL, DNBP)	PA	EPA 8270 C	DIPHENYLAMINE	PA
EPA 8270 C	DISULFOTON	PA	EPA 8270 C	ETHYL METHANESULFONATE	PA
EPA 8270 C	FAMPHUR	PA	EPA 8270 C	FLUORANTHENE	PA
EPA 8270 C	FLUORENE	PA	EPA 8270 C	HEXACHLOROBENZENE	PA
EPA 8270 C	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	PA	EPA 8270 C	HEXACHLOROCYCLOPENTADIENE	PA

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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 8270 C	HEXACHLOROETHANE	PA	EPA 8270 C	HEXACHLOROPROPENE	PA
EPA 8270 C	INDENO(1,2,3-CD) PYRENE	PA	EPA 8270 C	ISODRIN	PA
EPA 8270 C	ISOPHORONE	PA	EPA 8270 C	ISOSAFROLE	PA
EPA 8270 C	KEPONE	PA	EPA 8270 C	METHAPYRILENE	PA
EPA 8270 C	METHYL METHANESULFONATE	PA	EPA 8270 C	METHYL PARATHION (PARATHION, METHYL)	PA
EPA 8270 C	N-NITROSO-DI-N-BUTYLAMINE	PA	EPA 8270 C	N-NITROSODI-N-PROPYLAMINE	PA
EPA 8270 C	N-NITROSODIETHYLAMINE	PA	EPA 8270 C	N-NITROSODIMETHYLAMINE	PA
EPA 8270 C	N-NITROSODIPHENYLAMINE	PA	EPA 8270 C	N-NITROSOMETHYLETHYLAMINE	PA
EPA 8270 C	N-NITROSOMORPHOLINE	PA	EPA 8270 C	N-NITROSOPIPERIDINE	PA
EPA 8270 C	N-NITROSOPYRROLIDINE	PA	EPA 8270 C	NAPHTHALENE	PA
EPA 8270 C	NITROBENZENE	PA	EPA 8270 C	NITROQUINOLINE-1-OXIDE	PA
EPA 8270 C	O,O,O-TRIETHYL PHOSPHOROTHIOATE	PA	EPA 8270 C	O-TOLUIDINE (2-METHYLANILINE)	PA
EPA 8270 C	PARATHION (PARATHION - ETHYL)	PA	EPA 8270 C	PENTACHLOROBENZENE	PA
EPA 8270 C	PENTACHLORONITROBENZENE	PA	EPA 8270 C	PENTACHLOROPHENOL	PA
EPA 8270 C	PHENACETIN	PA	EPA 8270 C	PHENANTHRENE	PA
EPA 8270 C	PHENOL	PA	EPA 8270 C	PHORATE	PA
EPA 8270 C	PHTHALIC ANHYDRIDE	PA	EPA 8270 C	PRONAMIDE (KERB)	PA
EPA 8270 C	PYRENE	PA	EPA 8270 C	PYRIDINE	PA
EPA 8270 C	SAFROLE	PA	EPA 8270 C	THIONAZIN (ZINOPHOS)	PA
EPA 8270 C	TRIS-(2,3-DIBROMOPROPYL) PHOSPHATE (TRIS-BP)	PA	EPA 8270 C SIM	2-METHYLNAPHTHALENE	PA
EPA 8270 C SIM	ACENAPHTHENE	PA	EPA 8270 C SIM	ACENAPHTHYLENE	PA
EPA 8270 C SIM	ANTHRACENE	PA	EPA 8270 C SIM	BENZO(A)ANTHRACENE	PA
EPA 8270 C SIM	BENZO(A)PYRENE	PA	EPA 8270 C SIM	BENZO(G,H,I)PERYLENE	PA
EPA 8270 C SIM	BENZO(K)FLUORANTHENE	PA	EPA 8270 C SIM	BENZO[B]FLUORANTHENE	PA
EPA 8270 C SIM	CHRYSENE	PA	EPA 8270 C SIM	DIBENZO(A,H) ANTHRACENE	PA
EPA 8270 C SIM	FLUORANTHENE	PA	EPA 8270 C SIM	FLUORENE	PA
EPA 8270 C SIM	INDENO(1,2,3-CD) PYRENE	PA	EPA 8270 C SIM	NAPHTHALENE	PA
EPA 8270 C SIM	PHENANTHRENE	PA	EPA 8270 C SIM	PYRENE	PA
EPA 8270 C SIM - EXTENDED	1-METHYLNAPHTHALENE	PA	EPA 8270 D	1,2,4,5-TETRACHLOROBENZENE	PA
EPA 8270 D	1,2,4-TRICHLOROBENZENE	PA	EPA 8270 D	1,2-DICHLOROBENZENE	PA
EPA 8270 D	1,2-DINITROBENZENE	PA	EPA 8270 D	1,2-DIPHENYLHYDRAZINE	PA
EPA 8270 D	1,3,5-TRINITROBENZENE (1,3,5-TNB)	PA	EPA 8270 D	1,3-DICHLOROBENZENE	PA
EPA 8270 D	1,3-DINITROBENZENE (1,3-DNB)	PA	EPA 8270 D	1,4-DICHLOROBENZENE	PA
EPA 8270 D	1,4-DINITROBENZENE	PA	EPA 8270 D	1,4-NAPHTHOQUINONE	PA
EPA 8270 D	1,4-PHENYLENEDIAMINE	PA	EPA 8270 D	1-CHLORONAPHTHALENE	PA
EPA 8270 D	1-NAPHTHYLAMINE	PA	EPA 8270 D	2,3,4,6-TETRACHLOROPHENOL	PA

Commonwealth of Virginia

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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 8270 D	2,4,5-TRICHLOROPHENOL	PA	EPA 8270 D	2,4,6-TRICHLOROPHENOL	PA
EPA 8270 D	2,4-DICHLOROPHENOL	PA	EPA 8270 D	2,4-DIMETHYLPHENOL	PA
EPA 8270 D	2,4-DINITROPHENOL	PA	EPA 8270 D	2,4-DINITROTOLUENE (2,4-DNT)	PA
EPA 8270 D	2,6-DICHLOROPHENOL	PA	EPA 8270 D	2,6-DINITROTOLUENE (2,6-DNT)	PA
EPA 8270 D	2-ACETYLAMINOFLUORENE	PA	EPA 8270 D	2-CHLORONAPHTHALENE	PA
EPA 8270 D	2-CHLOROPHENOL	PA	EPA 8270 D	2-METHYL-4,6-DINITROPHENOL (4,6-DINITRO-2-METHYLPHENOL)	PA
EPA 8270 D	2-METHYLNAPHTHALENE	PA	EPA 8270 D	2-METHYLPHENOL (O-CRESOL)	PA
EPA 8270 D	2-NAPHTHYLAMINE	PA	EPA 8270 D	2-NITROANILINE	PA
EPA 8270 D	2-NITROPHENOL	PA	EPA 8270 D	2-PICOLINE (2-METHYLPYRIDINE)	PA
EPA 8270 D	3,3'-DICHLOROBENZIDINE	PA	EPA 8270 D	3,3'-DIMETHOXYBENZIDINE	PA
EPA 8270 D	3,3'-DIMETHYLBENZIDINE	PA	EPA 8270 D	3-METHYLCHOLANTHRENE	PA
EPA 8270 D	3-METHYLPHENOL (M-CRESOL)	PA	EPA 8270 D	3-NITROANILINE	PA
EPA 8270 D	4,4'-METHYLENEBIS(2-CHLOROANILINE)	PA	EPA 8270 D	4-AMINOBIPHENYL	PA
EPA 8270 D	4-BROMOPHENYL PHENYL ETHER	PA	EPA 8270 D	4-CHLORO-3-METHYLPHENOL	PA
EPA 8270 D	4-CHLOROANILINE	PA	EPA 8270 D	4-CHLOROPHENYL PHENYLETHER	PA
EPA 8270 D	4-DIMETHYL AMINOAZOBENZENE	PA	EPA 8270 D	4-METHYLPHENOL (P-CRESOL)	PA
EPA 8270 D	4-NITROANILINE	PA	EPA 8270 D	4-NITROPHENOL	PA
EPA 8270 D	5-NITRO-O-TOLUIDINE	PA	EPA 8270 D	7,12-DIMETHYLBENZ(A) ANTHRACENE	PA
EPA 8270 D	A-A-DIMETHYLPHENETHYLAMINE	PA	EPA 8270 D	ACENAPHTHENE	PA
EPA 8270 D	ACENAPHTHYLENE	PA	EPA 8270 D	ACETOPHENONE	PA
EPA 8270 D	ANILINE	PA	EPA 8270 D	ANTHRACENE	PA
EPA 8270 D	ARAMITE	PA	EPA 8270 D	BENZIDINE	PA
EPA 8270 D	BENZO(A)ANTHRACENE	PA	EPA 8270 D	BENZO(A)PYRENE	PA
EPA 8270 D	BENZO(G,H,I)PERYLENE	PA	EPA 8270 D	BENZO(K)FLUORANTHENE	PA
EPA 8270 D	BENZOIC ACID	PA	EPA 8270 D	BENZO[B]FLUORANTHENE	PA
EPA 8270 D	BENZYL ALCOHOL	PA	EPA 8270 D	BIS(2-CHLOROETHOXY)METHANE	PA
EPA 8270 D	BIS(2-CHLOROETHYL) ETHER	PA	EPA 8270 D	BIS(2-CHLOROISOPROPYL) ETHER	PA
EPA 8270 D	BIS(2-ETHYLHEXYL) PHTHALATE (DI(2-ETHYLHEXYL)PHTHALATE), (DEHP)	PA	EPA 8270 D	BUTYL BENZYL PHTHALATE	PA
EPA 8270 D	CHLOROBENZILATE	PA	EPA 8270 D	CHRYSENE	PA
EPA 8270 D	DI-N-BUTYL PHTHALATE	PA	EPA 8270 D	DI-N-OCTYL PHTHALATE	PA
EPA 8270 D	DIALLATE	PA	EPA 8270 D	DIBENZ(A, J) ACRIDINE	PA
EPA 8270 D	DIBENZO(A,H) ANTHRACENE	PA	EPA 8270 D	DIBENZOFURAN	PA
EPA 8270 D	DIETHYL PHTHALATE	PA	EPA 8270 D	DIMETHOATE	PA
EPA 8270 D	DIMETHYL PHTHALATE	PA			

VELAP Certificate No.: 2914

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2425 NEW HOLLAND PIKE
LANCASTER, PA 17601

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Expiration Date: June 14, 2015

SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 8270 D	DINOSEB (2-SEC-BUTYL-4,6-DINITROPHENOL, DNBP)	PA	EPA 8270 D	DIPHENYLAMINE	PA
EPA 8270 D	DISULFOTON	PA	EPA 8270 D	ETHYL METHANESULFONATE	PA
EPA 8270 D	FAMPHUR	PA	EPA 8270 D	FLUORANTHENE	PA
EPA 8270 D	FLUORENE	PA	EPA 8270 D	HEXACHLOROBENZENE	PA
EPA 8270 D	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	PA	EPA 8270 D	HEXACHLOROCYCLOPENTADIENE	PA
EPA 8270 D	HEXACHLOROETHANE	PA	EPA 8270 D	HEXACHLOROPROPENE	PA
EPA 8270 D	INDENO(1,2,3-CD) PYRENE	PA	EPA 8270 D	ISODRIN	PA
EPA 8270 D	ISOPHORONE	PA	EPA 8270 D	ISOSAFROLE	PA
EPA 8270 D	KEPONE	PA	EPA 8270 D	METHAPYRILENE	PA
EPA 8270 D	METHYL METHANESULFONATE	PA	EPA 8270 D	METHYL PARATHION (PARATHION, METHYL)	PA
EPA 8270 D	N-NITROSO-DI-N-BUTYLAMINE	PA	EPA 8270 D	N-NITROSODI-N-PROPYLAMINE	PA
EPA 8270 D	N-NITROSODIETHYLAMINE	PA	EPA 8270 D	N-NITROSODIMETHYLAMINE	PA
EPA 8270 D	N-NITROSODIPHENYLAMINE	PA	EPA 8270 D	N-NITROSOMETHYLETHYLAMINE	PA
EPA 8270 D	N-NITROSOMORPHOLINE	PA	EPA 8270 D	N-NITROSOPIPERIDINE	PA
EPA 8270 D	N-NITROSOPYRROLIDINE	PA	EPA 8270 D	NAPHTHALENE	PA
EPA 8270 D	NITROBENZENE	PA	EPA 8270 D	NITROQUINOLINE-1-OXIDE	PA
EPA 8270 D	O,O,O-TRIETHYL PHOSPHOROTHIOATE	PA	EPA 8270 D	O-TOLUIDINE (2-METHYLANILINE)	PA
EPA 8270 D	PARATHION (PARATHION - ETHYL)	PA	EPA 8270 D	PENTACHLOROBENZENE	PA
EPA 8270 D	PENTACHLORONITROBENZENE	PA	EPA 8270 D	PENTACHLOROPHENOL	PA
EPA 8270 D	PHENACETIN	PA	EPA 8270 D	PHENANTHRENE	PA
EPA 8270 D	PHENOL	PA	EPA 8270 D	PHORATE	PA
EPA 8270 D	PHTHALIC ANHYDRIDE	PA	EPA 8270 D	PRONAMIDE (KERB)	PA
EPA 8270 D	PYRENE	PA	EPA 8270 D	SAFROLE	PA
EPA 8270 D	THIONAZIN (ZINOPHOS)	PA	EPA 8270 D	TRIS-(2,3-DIBROMOPROPYL) PHOSPHATE (TRIS-BP)	PA
EPA 8270 D - EXTENDED	1,1-BIPHENYL	PA	EPA 8270 D - EXTENDED	1-METHYLNAPHTHALENE	PA
EPA 8270 D - EXTENDED	ATRAZINE	PA	EPA 8270 D - EXTENDED	BENZALDEHYDE	PA
EPA 8270 D - EXTENDED	BIS(2-ETHYLHEXYL)ADIPATE (DI(2-ETHYLHEXYL)ADIPATE)	PA	EPA 8270 D - EXTENDED	CAPROLACTAM	PA
EPA 8270 D - EXTENDED	CARBAZOLE	PA	EPA 8270 D - EXTENDED	PYRIDINE	PA
EPA 8270 D SIM	2-METHYLNAPHTHALENE	PA	EPA 8270 D SIM	ACENAPHTHENE	PA
EPA 8270 D SIM	ACENAPHTHYLENE	PA	EPA 8270 D SIM	ANTHRACENE	PA
EPA 8270 D SIM	BENZO(A)ANTHRACENE	PA	EPA 8270 D SIM	BENZO(A)PYRENE	PA
EPA 8270 D SIM	BENZO(G,H,I)PERYLENE	PA	EPA 8270 D SIM	BENZO(K)FLUORANTHENE	PA
EPA 8270 D SIM	BENZO[B]FLUORANTHENE	PA	EPA 8270 D SIM	CHRYSENE	PA

Commonwealth of Virginia

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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 8270 D SIM	DIBENZO(A,H) ANTHRACENE	PA	EPA 8270 D SIM	FLUORANTHENE	PA
EPA 8270 D SIM	FLUORENE	PA	EPA 8270 D SIM	INDENO(1,2,3-CD) PYRENE	PA
EPA 8270 D SIM	NAPHTHALENE	PA	EPA 8270 D SIM	PHENANTHRENE	PA
EPA 8270 D SIM	PYRENE	PA	EPA 8270 D SIM - EXTENDED	1-METHYLNAPHTHALENE	PA
EPA 8290 A	1,2,3,4,6,7,8,9-OCTACHLORODIBENZO-P-DIOXIN (OCDD)	PA	EPA 8290 A	1,2,3,4,6,7,8,9-OCTACHLORODIBENZOFURAN (OCDF)	PA
EPA 8290 A	1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN (1,2,3,4,6,7,8-HPCDD)	PA	EPA 8290 A	1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN (1,2,3,4,6,7,8-HPCDF)	PA
EPA 8290 A	1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN (1,2,3,4,7,8,9-HPCDF)	PA	EPA 8290 A	1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN (1,2,3,4,7,8-HXCDD)	PA
EPA 8290 A	1,2,3,4,7,8-HEXACHLORODIBENZOFURAN (1,2,3,4,7,8-HXCDF)	PA	EPA 8290 A	1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN(1,2,3,6,7,8-HXCDD)	PA
EPA 8290 A	1,2,3,6,7,8-HEXACHLORODIBENZOFURAN (1,2,3,6,7,8-HXCDF)	PA	EPA 8290 A	1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN (1,2,3,7,8,9-HXCDD)	PA
EPA 8290 A	1,2,3,7,8,9-HEXACHLORODIBENZOFURAN (1,2,3,7,8,9-HXCDF)	PA	EPA 8290 A	1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN (1,2,3,7,8-PECDD)	PA
EPA 8290 A	1,2,3,7,8-PENTACHLORODIBENZOFURAN (1,2,3,7,8-PECDF)	PA	EPA 8290 A	2,3,4,6,7,8-HEXACHLORODIBENZOFURAN (2,3,4,6,7,8-HXCDF)	PA
EPA 8290 A	2,3,4,7,8-PENTACHLORODIBENZOFURAN	PA	EPA 8290 A	2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN (2,3,7,8-TCDD)	PA
EPA 8290 A	2,3,7,8-TETRACHLORODIBENZOFURAN (2,3,7,8-TCDF)	PA	EPA 8315 A	2,5-DIMETHYLBENZALDEHYDE	PA
EPA 8315 A	ACETALDEHYDE	PA	EPA 8315 A	ACROLEIN (PROPENAL)	PA
EPA 8315 A	BENZALDEHYDE	PA	EPA 8315 A	BUTYLALDEHYDE (BUTANAL)	PA
EPA 8315 A	CROTONALDEHYDE	PA	EPA 8315 A	FORMALDEHYDE	PA
EPA 8315 A	HEXANALDEHYDE (HEXANAL)	PA	EPA 8315 A	ISOVALERALDEHYDE	PA
EPA 8315 A	M-TOLUALDEHYDE (1,3-TOLUALDEHYDE)	PA	EPA 8315 A	O-TOLUALDEHYDE (1,2-TOLUALDEHYDE)	PA
EPA 8315 A	P-TOLUALDEHYDE (1,4-TOLUALDEHYDE)	PA	EPA 8315 A	PENTANAL (VALERALDEHYDE)	PA
EPA 8315 A	PROPIONALDEHYDE (PROPANAL)	PA	EPA 8330	NITROGLYCERIN	PA
EPA 8330 A	1,3,5-TRINITROBENZENE (1,3,5-TNB)	PA	EPA 8330 A	1,3-DINITROBENZENE (1,3-DNB)	PA
EPA 8330 A	2,4,6-TRINITROTOLUENE (2,4,6-TNT)	PA	EPA 8330 A	2,4-DINITROTOLUENE (2,4-DNT)	PA
EPA 8330 A	2,6-DINITROTOLUENE (2,6-DNT)	PA	EPA 8330 A	2-AMINO-4,6-DINITROTOLUENE (2-AM-DNT)	PA
EPA 8330 A	2-NITROTOLUENE	PA	EPA 8330 A	3-NITROTOLUENE	PA
EPA 8330 A	4-AMINO-2,6-DINITROTOLUENE (4-AM-DNT)	PA	EPA 8330 A	4-NITROTOLUENE	PA
EPA 8330 A	METHYL-2,4,6-TRINITROPHENYLNITRAMINE (TETRYL)	PA	EPA 8330 A	NITROBENZENE	PA
EPA 8330 A	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	PA	EPA 8330 A	RDX (HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE)	PA
EPA 9012 A	CYANIDE	PA	EPA 9040 B	PH	PA
EPA 9045 C	PH	PA			

Commonwealth of Virginia

Department of General Services
Division of Consolidated Laboratory Services

Scope of Accreditation

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2425 NEW HOLLAND PIKE
LANCASTER, PA 17601

Virginia Laboratory ID: 460182
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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 9045 D	PH	PA	EPA 9050 A	CONDUCTIVITY	PA
EPA 9060	TOTAL ORGANIC CARBON	PA	EPA 9066	TOTAL PHENOLICS	PA
EPA 9071 B	OIL AND GREASE (AS HEM)	PA	EPA 9081	CATION EXCHANGE CAPACITY	PA
EPA 9095 B	FREE LIQUID	PA			

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF GENERAL SERVICES
DIVISION OF CONSOLIDATED LABORATORY SERVICES

Certifies that

VA Laboratory ID#: 460187
Microbac Laboratories, Inc.

158 Starlite Drive
Marietta, OH 45750

Owner: J. TREVOR BOYCE
Operator: DAVID E. VANDENBERG
Responsible Official: LESLIE BUCINA

Having met the requirements of 1 VAC 30-46
and the National Environmental Laboratory Accreditation Conference 2003 Standard
is hereby approved as an

Accredited Laboratory

As more fully described in the attached Scope of Accreditation

Effective Date: **September 15, 2014**
Expiration Date: **September 14, 2015**
Certificate # 6338

Denise M. Toney, Ph.D., HCLD
DGS Deputy Director for Laboratories

Continued accreditation status depends on successful ongoing participation in the program.
Certificate to be conspicuously displayed at the laboratory.
Not valid unless accompanied by a valid Virginia Environmental Laboratory Accreditation Program (VELAP) Scope of Accreditation.
Customers are urged to verify the laboratory's current accreditation status.

Certificate Not Transferable

Surrender Upon Revocation

Commonwealth of Virginia

Department of General Services
Division of Consolidated Laboratory Services

Scope of Accreditation

VELAP Certificate No.: 6338

Microbac Laboratories, Inc.
158 Starlite Drive
Marietta, OH 45750

Virginia Laboratory ID: 460187
Effective Date: September 15, 2014
Expiration Date: September 14, 2015

NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 1010	FLASHPOINT	FL
EPA 160.4	RESIDUE-VOLATILE	FL
EPA 1664 A	TOTAL PETROLEUM HYDROCARBONS (TPH) (AS NONPOLAR MATERIAL, SGT-HEM)	FL
EPA 200.7 REV 4.4	ALUMINUM	FL
EPA 200.7 REV 4.4	ARSENIC	FL
EPA 200.7 REV 4.4	BERYLLIUM	FL
EPA 200.7 REV 4.4	CADMIUM	FL
EPA 200.7 REV 4.4	CHROMIUM	FL
EPA 200.7 REV 4.4	COPPER	FL
EPA 200.7 REV 4.4	LEAD	FL
EPA 200.7 REV 4.4	MANGANESE	FL
EPA 200.7 REV 4.4	NICKEL	FL
EPA 200.7 REV 4.4	POTASSIUM	FL
EPA 200.7 REV 4.4	SILICA AS SIO2	FL
EPA 200.7 REV 4.4	SODIUM	FL
EPA 200.7 REV 4.4	TIN	FL
EPA 200.7 REV 4.4	TOTAL HARDNESS AS CACO3	FL
EPA 200.7 REV 4.4	ZINC	FL
EPA 200.8 REV 5.4	ARSENIC	FL
EPA 200.8 REV 5.4	CADMIUM	FL
EPA 200.8 REV 5.4	COBALT	FL
EPA 200.8 REV 5.4	LEAD	FL
EPA 200.8 REV 5.4	NICKEL	FL
EPA 200.8 REV 5.4	SILVER	FL
EPA 200.8 REV 5.4	VANADIUM	FL
EPA 245.1 REV 3	MERCURY	FL
EPA 300.0 REV 2.1	CHLORIDE	FL
EPA 300.0 REV 2.1	NITRATE AS N	FL
EPA 300.0 REV 2.1	SULFATE	FL
EPA 350.1 REV 2	AMMONIA AS N	FL
EPA 353.2 REV 2	NITRATE AS N	FL
EPA 365.4	PHOSPHORUS, TOTAL	FL
EPA 6010 B	ALUMINUM	FL
EPA 6010 B	ARSENIC	FL
EPA 6010 B	BERYLLIUM	FL
EPA 6010 B	CADMIUM	FL
EPA 6010 B	CHROMIUM	FL
EPA 120.1	CONDUCTIVITY	FL
EPA 1664 A	OIL AND GREASE (AS HEM)	FL
EPA 180.1 REV 2	TURBIDITY	FL
EPA 200.7 REV 4.4	ANTIMONY	FL
EPA 200.7 REV 4.4	BARIUM	FL
EPA 200.7 REV 4.4	BORON	FL
EPA 200.7 REV 4.4	CALCIUM	FL
EPA 200.7 REV 4.4	COBALT	FL
EPA 200.7 REV 4.4	IRON	FL
EPA 200.7 REV 4.4	MAGNESIUM	FL
EPA 200.7 REV 4.4	MOLYBDENUM	FL
EPA 200.7 REV 4.4	PHOSPHORUS, TOTAL	FL
EPA 200.7 REV 4.4	SELENIUM	FL
EPA 200.7 REV 4.4	SILVER	FL
EPA 200.7 REV 4.4	THALLIUM	FL
EPA 200.7 REV 4.4	TITANIUM	FL
EPA 200.7 REV 4.4	VANADIUM	FL
EPA 200.8 REV 5.4	ANTIMONY	FL
EPA 200.8 REV 5.4	BARIUM	FL
EPA 200.8 REV 5.4	CHROMIUM	FL
EPA 200.8 REV 5.4	COPPER	FL
EPA 200.8 REV 5.4	MANGANESE	FL
EPA 200.8 REV 5.4	SELENIUM	FL
EPA 200.8 REV 5.4	THALLIUM	FL
EPA 200.8 REV 5.4	ZINC	FL
EPA 300.0 REV 2.1	BROMIDE	FL
EPA 300.0 REV 2.1	FLUORIDE	FL
EPA 300.0 REV 2.1	NITRITE AS N	FL
EPA 310.2	ALKALINITY AS CACO3	FL
EPA 351.2 REV 2	KJELDAHL NITROGEN - TOTAL	FL
EPA 353.2 REV 2	NITRATE/NITRITE	FL
EPA 410.4 REV 2	CHEMICAL OXYGEN DEMAND	FL
EPA 6010 B	ANTIMONY	FL
EPA 6010 B	BARIUM	FL
EPA 6010 B	BORON	FL
EPA 6010 B	CALCIUM	FL

Commonwealth of Virginia

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 6010 B	COBALT	FL
EPA 6010 B	IRON	FL
EPA 6010 B	LITHIUM	FL
EPA 6010 B	MANGANESE	FL
EPA 6010 B	NICKEL	FL
EPA 6010 B	POTASSIUM	FL
EPA 6010 B	SILICA AS SIO2	FL
EPA 6010 B	SODIUM	FL
EPA 6010 B	THALLIUM	FL
EPA 6010 B	TITANIUM	FL
EPA 6010 B	ZINC	FL
EPA 6010 C	ANTIMONY	FL
EPA 6010 C	BARIUM	FL
EPA 6010 C	BORON	FL
EPA 6010 C	CALCIUM	FL
EPA 6010 C	COBALT	FL
EPA 6010 C	IRON	FL
EPA 6010 C	LITHIUM	FL
EPA 6010 C	MANGANESE	FL
EPA 6010 C	NICKEL	FL
EPA 6010 C	POTASSIUM	FL
EPA 6010 C	SILICA AS SIO2	FL
EPA 6010 C	SODIUM	FL
EPA 6010 C	THALLIUM	FL
EPA 6010 C	TITANIUM	FL
EPA 6010 C	ZINC	FL
EPA 6020	ANTIMONY	FL
EPA 6020	BARIUM	FL
EPA 6020	CHROMIUM	FL
EPA 6020	COPPER	FL
EPA 6020	MANGANESE	FL
EPA 6020	SILVER	FL
EPA 6020	ZINC	FL
EPA 6020 A	ARSENIC	FL
EPA 6020 A	CADMIUM	FL
EPA 6020 A	COBALT	FL
EPA 6020 A	LEAD	FL
EPA 6020 A	NICKEL	FL
EPA 6010 B	COPPER	FL
EPA 6010 B	LEAD	FL
EPA 6010 B	MAGNESIUM	FL
EPA 6010 B	MOLYBDENUM	FL
EPA 6010 B	PHOSPHORUS, TOTAL	FL
EPA 6010 B	SELENIUM	FL
EPA 6010 B	SILVER	FL
EPA 6010 B	STRONTIUM	FL
EPA 6010 B	TIN	FL
EPA 6010 B	VANADIUM	FL
EPA 6010 C	ALUMINUM	FL
EPA 6010 C	ARSENIC	FL
EPA 6010 C	BERYLLIUM	FL
EPA 6010 C	CADMIUM	FL
EPA 6010 C	CHROMIUM	FL
EPA 6010 C	COPPER	FL
EPA 6010 C	LEAD	FL
EPA 6010 C	MAGNESIUM	FL
EPA 6010 C	MOLYBDENUM	FL
EPA 6010 C	PHOSPHORUS, TOTAL	FL
EPA 6010 C	SELENIUM	FL
EPA 6010 C	SILVER	FL
EPA 6010 C	STRONTIUM	FL
EPA 6010 C	TIN	FL
EPA 6010 C	VANADIUM	FL
EPA 6010 C - EXTENDED	SILICON	FL
EPA 6020	ARSENIC	FL
EPA 6020	CADMIUM	FL
EPA 6020	COBALT	FL
EPA 6020	LEAD	FL
EPA 6020	NICKEL	FL
EPA 6020	THALLIUM	FL
EPA 6020 A	ANTIMONY	FL
EPA 6020 A	BARIUM	FL
EPA 6020 A	CHROMIUM	FL
EPA 6020 A	COPPER	FL
EPA 6020 A	MANGANESE	FL
EPA 6020 A	SELENIUM	FL

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 6020 A	SILVER	FL
EPA 6020 A	VANADIUM	FL
EPA 6020 A - EXTENDED	URANIUM	FL
EPA 608	4,4'-DDE	FL
EPA 608	ALDRIN	FL
EPA 608	AROCLOR-1016 (PCB-1016)	FL
EPA 608	AROCLOR-1232 (PCB-1232)	FL
EPA 608	AROCLOR-1248 (PCB-1248)	FL
EPA 608	AROCLOR-1260 (PCB-1260)	FL
EPA 608	CHLORDANE (TECH.)	FL
EPA 608	DIELDRIN	FL
EPA 608	ENDOSULFAN II	FL
EPA 608	ENDRIN	FL
EPA 608	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	FL
EPA 608	HEPTACHLOR EPOXIDE	FL
EPA 624	1,1,1-TRICHLOROETHANE	FL
EPA 624	1,1,2-TRICHLOROETHANE	FL
EPA 624	1,2-DICHLOROBENZENE	FL
EPA 624	1,2-DICHLOROPROPANE	FL
EPA 624	1,4-DICHLOROBENZENE	FL
EPA 624	ACROLEIN (PROPENAL)	FL
EPA 624	BENZENE	FL
EPA 624	BROMOFORM	FL
EPA 624	CHLOROBENZENE	FL
EPA 624	CHLOROETHANE (ETHYL CHLORIDE)	FL
EPA 624	CIS-1,3-DICHLOROPROPENE	FL
EPA 624	METHYL BROMIDE (BROMOMETHANE)	FL
EPA 624	METHYLENE CHLORIDE (DICHLOROMETHANE)	FL
EPA 624	TOLUENE	FL
EPA 624	TRANS-1,3-DICHLOROPROPENE	FL

METHOD	ANALYTE	PRIMARY
EPA 6020 A	THALLIUM	FL
EPA 6020 A	ZINC	FL
EPA 608	4,4'-DDD	FL
EPA 608	4,4'-DDT	FL
EPA 608	ALPHA-BHC (ALPHA-HEXACHLOROCYCLOHEXANE)	FL
EPA 608	AROCLOR-1221 (PCB-1221)	FL
EPA 608	AROCLOR-1242 (PCB-1242)	FL
EPA 608	AROCLOR-1254 (PCB-1254)	FL
EPA 608	BETA-BHC (BETA-HEXACHLOROCYCLOHEXANE)	FL
EPA 608	DELTA-BHC	FL
EPA 608	ENDOSULFAN I	FL
EPA 608	ENDOSULFAN SULFATE	FL
EPA 608	ENDRIN ALDEHYDE	FL
EPA 608	HEPTACHLOR	FL
EPA 608	TOXAPHENE (CHLORINATED CAMPHENE)	FL
EPA 624	1,1,2,2-TETRACHLOROETHANE	FL
EPA 624	1,1-DICHLOROETHANE	FL
EPA 624	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	FL
EPA 624	1,3-DICHLOROBENZENE	FL
EPA 624	2-CHLOROETHYL VINYL ETHER	FL
EPA 624	ACRYLONITRILE	FL
EPA 624	BROMODICHLOROMETHANE	FL
EPA 624	CARBON TETRACHLORIDE	FL
EPA 624	CHLORODIBROMOMETHANE	FL
EPA 624	CHLOROFORM	FL
EPA 624	ETHYLBENZENE	FL
EPA 624	METHYL CHLORIDE (CHLOROMETHANE)	FL
EPA 624	TETRACHLOROETHENE (PERCHLOROETHENE)	FL
EPA 624	TRANS-1,2-DICHLOROETHENE	FL
EPA 624	TRICHLOROETHENE (TRICHLOROETHYLENE)	FL

Commonwealth of Virginia

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 624	TRICHLOROFLUOROMETHANE (FLUOROTRICHLOROMETHANE, FREON 11)	FL
EPA 624 - EXTENDED	1,1-DICHLOROETHYLENE	FL
EPA 625	1,2,4-TRICHLOROBENZENE	FL
EPA 625	2,4-DICHLOROPHENOL	FL
EPA 625	2,4-DINITROPHENOL	FL
EPA 625	2,6-DINITROTOLUENE (2,6-DNT)	FL
EPA 625	2-CHLOROPHENOL	FL
EPA 625	2-NITROPHENOL	FL
EPA 625	4-BROMOPHENYL PHENYL ETHER	FL
EPA 625	4-CHLOROPHENYL PHENYLETHER	FL
EPA 625	ACENAPHTHENE	FL
EPA 625	ANTHRACENE	FL
EPA 625	BENZO(A)ANTHRACENE	FL
EPA 625	BENZO(B)FLUORANTHENE	FL
EPA 625	BENZO(K)FLUORANTHENE	FL
EPA 625	BIS(2-CHLOROETHYL) ETHER	FL
EPA 625	BIS(2-ETHYLHEXYL) PHTHALATE (DI(2-ETHYLHEXYL)PHTHALATE), (DEHP)	FL
EPA 625	CHRYSENE	FL
EPA 625	DI-N-OCTYL PHTHALATE	FL
EPA 625	DIETHYL PHTHALATE	FL
EPA 625	FLUORANTHENE	FL
EPA 625	HEXACHLOROBENZENE	FL
EPA 625	HEXACHLOROCYCLOPENTADIENE	FL
EPA 625	INDENO(1,2,3-CD) PYRENE	FL
EPA 625	N-NITROSODI-N-PROPYLAMINE	FL
EPA 625	N-NITROSODIPHENYLAMINE	FL
EPA 625	NITROBENZENE	FL
EPA 625	PHENANTHRENE	FL
EPA 625	PYRENE	FL
EPA 7196 A	CHROMIUM VI	FL
EPA 8011	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	FL
EPA 8015 B	DIESEL RANGE ORGANICS (DRO)	FL
EPA 8015 C	DIESEL RANGE ORGANICS (DRO)	FL
EPA 8015 C	GASOLINE RANGE ORGANICS (GRO)	FL
EPA 624	VINYL CHLORIDE	FL
EPA 624 - EXTENDED	XYLENE (TOTAL)	FL
EPA 625	2,4,6-TRICHLOROPHENOL	FL
EPA 625	2,4-DIMETHYLPHENOL	FL
EPA 625	2,4-DINITROTOLUENE (2,4-DNT)	FL
EPA 625	2-CHLORONAPHTHALENE	FL
EPA 625	2-METHYL-4,6-DINITROPHENOL (4,6-DINITRO-2-METHYLPHENOL)	FL
EPA 625	3,3'-DICHLOROBENZIDINE	FL
EPA 625	4-CHLORO-3-METHYLPHENOL	FL
EPA 625	4-NITROPHENOL	FL
EPA 625	ACENAPHTHYLENE	FL
EPA 625	BENZIDINE	FL
EPA 625	BENZO(A)PYRENE	FL
EPA 625	BENZO(G,H,I)PERYLENE	FL
EPA 625	BIS(2-CHLOROETHOXY)METHANE	FL
EPA 625	BIS(2-CHLOROISOPROPYL) ETHER	FL
EPA 625	BUTYL BENZYL PHTHALATE	FL
EPA 625	DI-N-BUTYL PHTHALATE	FL
EPA 625	DIBENZO(A,H) ANTHRACENE	FL
EPA 625	DIMETHYL PHTHALATE	FL
EPA 625	FLUORENE	FL
EPA 625	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	FL
EPA 625	HEXACHLOROETHANE	FL
EPA 625	ISOPHORONE	FL
EPA 625	N-NITROSODIMETHYLAMINE	FL
EPA 625	NAPHTHALENE	FL
EPA 625	PENTACHLOROPHENOL	FL
EPA 625	PHENOL	FL
EPA 6850	PERCHLORATE	FL
EPA 7470 A	MERCURY	FL
EPA 8011	1,2-DIBROMOETHANE (EDB, ETHYLENE DIBROMIDE)	FL
EPA 8015 B	ETHANOL	FL
EPA 8015 C	ETHANOL	FL
EPA 8015 C	ISOPROPYL ALCOHOL (2-PROPANOL, ISOPROPANOL)	FL

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 8015 C	METHANOL	FL
EPA 8015 D	ETHANOL	FL
EPA 8015 D	ISOPROPYL ALCOHOL (2-PROPANOL, ISOPROPANOL)	FL
EPA 8081 A	4,4'-DDD	FL
EPA 8081 A	4,4'-DDT	FL
EPA 8081 A	ALPHA-BHC (ALPHA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 A	BETA-BHC (BETA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 A	DELTA-BHC	FL
EPA 8081 A	ENDOSULFAN I	FL
EPA 8081 A	ENDOSULFAN SULFATE	FL
EPA 8081 A	ENDRIN ALDEHYDE	FL
EPA 8081 A	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 A	HEPTACHLOR	FL
EPA 8081 A	METHOXYCHLOR	FL
EPA 8081 B	4,4'-DDD	FL
EPA 8081 B	4,4'-DDT	FL
EPA 8081 B	ALPHA-BHC (ALPHA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 B	BETA-BHC (BETA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 B	DELTA-BHC	FL
EPA 8081 B	ENDOSULFAN I	FL
EPA 8081 B	ENDOSULFAN SULFATE	FL
EPA 8081 B	ENDRIN ALDEHYDE	FL
EPA 8081 B	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 B	HEPTACHLOR	FL
EPA 8081 B	METHOXYCHLOR	FL
EPA 8082	AROCLOR-1016 (PCB-1016)	FL
EPA 8082	AROCLOR-1232 (PCB-1232)	FL
EPA 8082	AROCLOR-1248 (PCB-1248)	FL
EPA 8082	AROCLOR-1260 (PCB-1260)	FL
EPA 8015 D	DIESEL RANGE ORGANICS (DRO)	FL
EPA 8015 D	GASOLINE RANGE ORGANICS (GRO)	FL
EPA 8015 D	METHANOL	FL
EPA 8081 A	4,4'-DDE	FL
EPA 8081 A	ALDRIN	FL
EPA 8081 A	ALPHA-CHLORDANE [CIS-CHLORDANE]	FL
EPA 8081 A	CHLORDANE (TECH.)	FL
EPA 8081 A	DIELDRIN	FL
EPA 8081 A	ENDOSULFAN II	FL
EPA 8081 A	ENDRIN	FL
EPA 8081 A	ENDRIN KETONE	FL
EPA 8081 A	GAMMA-CHLORDANE [BETA-CHLORDANE, TRANS-CHLORDANE]	FL
EPA 8081 A	HEPTACHLOR EPOXIDE	FL
EPA 8081 A	TOXAPHENE (CHLORINATED CAMPHENE)	FL
EPA 8081 B	4,4'-DDE	FL
EPA 8081 B	ALDRIN	FL
EPA 8081 B	ALPHA-CHLORDANE [CIS-CHLORDANE]	FL
EPA 8081 B	CHLORDANE (TECH.)	FL
EPA 8081 B	DIELDRIN	FL
EPA 8081 B	ENDOSULFAN II	FL
EPA 8081 B	ENDRIN	FL
EPA 8081 B	ENDRIN KETONE	FL
EPA 8081 B	GAMMA-CHLORDANE [BETA-CHLORDANE, TRANS-CHLORDANE]	FL
EPA 8081 B	HEPTACHLOR EPOXIDE	FL
EPA 8081 B	TOXAPHENE (CHLORINATED CAMPHENE)	FL
EPA 8082	AROCLOR-1221 (PCB-1221)	FL
EPA 8082	AROCLOR-1242 (PCB-1242)	FL
EPA 8082	AROCLOR-1254 (PCB-1254)	FL
EPA 8082 A	AROCLOR-1016 (PCB-1016)	FL

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METHOD	ANALYTE	PRIMARY
EPA 8082 A	AROCLOR-1221 (PCB-1221)	FL
EPA 8082 A	AROCLOR-1242 (PCB-1242)	FL
EPA 8082 A	AROCLOR-1254 (PCB-1254)	FL
EPA 8151 A	2,4,5-T	FL
EPA 8151 A	2,4-DB	FL
EPA 8151 A	DICAMBA	FL
EPA 8151 A	DINOSEB (2-SEC-BUTYL-4,6-DINITROPHENOL, DNBP)	FL
EPA 8151 A	MCPP	FL
EPA 8151 A	SILVEX (2,4,5-TP)	FL
EPA 8260 B	1,1,1-TRICHLOROETHANE	FL
EPA 8260 B	1,1,2-TRICHLOROETHANE	FL
EPA 8260 B	1,1-DICHLOROETHYLENE	FL
EPA 8260 B	1,2,3-TRICHLOROBENZENE	FL
EPA 8260 B	1,2,4-TRICHLOROBENZENE	FL
EPA 8260 B	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	FL
EPA 8260 B	1,2-DICHLOROBENZENE	FL
EPA 8260 B	1,2-DICHLOROPROPANE	FL
EPA 8260 B	1,3-DICHLOROBENZENE	FL
EPA 8260 B	1,4-DICHLOROBENZENE	FL
EPA 8260 B	1-BUTANOL (N-BUTANOL)	FL
EPA 8260 B	2,2-DICHLOROPROPANE	FL
EPA 8260 B	2-CHLOROETHYL VINYL ETHER	FL
EPA 8260 B	2-HEXANONE	FL
EPA 8260 B	4-CHLOROTOLUENE	FL
EPA 8260 B	4-METHYL-2-PENTANONE (MIBK)	FL
EPA 8260 B	ACETONITRILE	FL
EPA 8260 B	ACRYLONITRILE	FL
EPA 8260 B	BENZENE	FL
EPA 8260 B	BROMOCHLOROMETHANE	FL
EPA 8260 B	BROMOFORM	FL
EPA 8260 B	CARBON TETRACHLORIDE	FL
EPA 8260 B	CHLORODIBROMOMETHANE	FL
EPA 8260 B	CHLOROFORM	FL

METHOD	ANALYTE	PRIMARY
EPA 8082 A	AROCLOR-1232 (PCB-1232)	FL
EPA 8082 A	AROCLOR-1248 (PCB-1248)	FL
EPA 8082 A	AROCLOR-1260 (PCB-1260)	FL
EPA 8151 A	2,4-D	FL
EPA 8151 A	DALAPON	FL
EPA 8151 A	DICHLOROPROP (DICHLORPROP)	FL
EPA 8151 A	MCPA	FL
EPA 8151 A	PENTACHLOROPHENOL	FL
EPA 8260 B	1,1,1,2-TETRACHLOROETHANE	FL
EPA 8260 B	1,1,2,2-TETRACHLOROETHANE	FL
EPA 8260 B	1,1-DICHLOROETHANE	FL
EPA 8260 B	1,1-DICHLOROPROPENE	FL
EPA 8260 B	1,2,3-TRICHLOROPROPANE	FL
EPA 8260 B	1,2,4-TRIMETHYLBENZENE	FL
EPA 8260 B	1,2-DIBROMOETHANE (EDB, ETHYLENE DIBROMIDE)	FL
EPA 8260 B	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	FL
EPA 8260 B	1,3,5-TRIMETHYLBENZENE	FL
EPA 8260 B	1,3-DICHLOROPROPANE	FL
EPA 8260 B	1,4-DIOXANE (1,4-DIETHYLENEOXIDE)	FL
EPA 8260 B	1-CHLOROHEXANE	FL
EPA 8260 B	2-BUTANONE (METHYL ETHYL KETONE, MEK)	FL
EPA 8260 B	2-CHLOROTOLUENE	FL
EPA 8260 B	2-NITROPROPANE	FL
EPA 8260 B	4-ISOPROPYLTOLUENE (P-CYMENE)	FL
EPA 8260 B	ACETONE	FL
EPA 8260 B	ACROLEIN (PROPENAL)	FL
EPA 8260 B	ALLYL CHLORIDE (3-CHLOROPROPENE)	FL
EPA 8260 B	BROMOBENZENE	FL
EPA 8260 B	BROMODICHLOROMETHANE	FL
EPA 8260 B	CARBON DISULFIDE	FL
EPA 8260 B	CHLOROBENZENE	FL
EPA 8260 B	CHLOROETHANE (ETHYL CHLORIDE)	FL
EPA 8260 B	CHLOROPRENE (2-CHLORO-1,3-BUTADIENE)	FL

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 8260 B	CIS-1,2-DICHLOROETHYLENE	FL
EPA 8260 B	DIBROMOFLUOROMETHANE	FL
EPA 8260 B	DICHLORODIFLUOROMETHANE (FREON-12)	FL
EPA 8260 B	ETHYL ACETATE	FL
EPA 8260 B	ETHYLBENZENE	FL
EPA 8260 B	IODOMETHANE (METHYL IODIDE)	FL
EPA 8260 B	ISOPROPYLBENZENE	FL
EPA 8260 B	METHACRYLONITRILE	FL
EPA 8260 B	METHYL CHLORIDE (CHLOROMETHANE)	FL
EPA 8260 B	METHYL TERT-BUTYL ETHER (MTBE)	FL
EPA 8260 B	N-BUTYLBENZENE	FL
EPA 8260 B	NAPHTHALENE	FL
EPA 8260 B	PROPIONITRILE (ETHYL CYANIDE)	FL
EPA 8260 B	STYRENE	FL
EPA 8260 B	TERT-BUTYLBENZENE	FL
EPA 8260 B	TOLUENE	FL
EPA 8260 B	TRANS-1,3-DICHLOROPROPENE	FL
EPA 8260 B	TRICHLOROETHENE (TRICHLOROETHYLENE)	FL
EPA 8260 B	VINYL ACETATE	FL
EPA 8260 B	XYLENE (TOTAL)	FL
EPA 8270 C	1,2,4-TRICHLOROBENZENE	FL
EPA 8270 C	1,2-DIPHENYLHYDRAZINE	FL
EPA 8270 C	1,3-DICHLOROBENZENE	FL
EPA 8270 C	1,4-DICHLOROBENZENE	FL
EPA 8270 C	1,4-PHENYLENEDIAMINE	FL
EPA 8270 C	2,3,4,6-TETRACHLOROPHENOL	FL
EPA 8270 C	2,4,6-TRICHLOROPHENOL	FL
EPA 8270 C	2,4-DIMETHYLPHENOL	FL
EPA 8270 C	2,4-DINITROTOLUENE (2,4-DNT)	FL
EPA 8270 C	2,6-DINITROTOLUENE (2,6-DNT)	FL
EPA 8270 C	2-CHLORONAPHTHALENE	FL
EPA 8270 C	2-METHYL-4,6-DINITROPHENOL (4,6-DINITRO-2-METHYLPHENOL)	FL
EPA 8260 B	CIS-1,3-DICHLOROPROPENE	FL
EPA 8260 B	DIBROMOMETHANE (METHYLENE BROMIDE)	FL
EPA 8260 B	DIETHYL ETHER	FL
EPA 8260 B	ETHYL METHACRYLATE	FL
EPA 8260 B	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	FL
EPA 8260 B	ISOBUTYL ALCOHOL (2-METHYL-1-PROPANOL)	FL
EPA 8260 B	M+P-XYLENE	FL
EPA 8260 B	METHYL BROMIDE (BROMOMETHANE)	FL
EPA 8260 B	METHYL METHACRYLATE	FL
EPA 8260 B	METHYLENE CHLORIDE (DICHLOROMETHANE)	FL
EPA 8260 B	N-PROPYLBENZENE	FL
EPA 8260 B	O-XYLENE	FL
EPA 8260 B	SEC-BUTYLBENZENE	FL
EPA 8260 B	TERT-BUTYL ALCOHOL	FL
EPA 8260 B	TETRACHLOROETHENE (PERCHLOROETHENE)	FL
EPA 8260 B	TRANS-1,2-DICHLOROETHENE	FL
EPA 8260 B	TRANS-1,4-DICHLORO-2-BUTENE	FL
EPA 8260 B	TRICHLOROFLUOROMETHANE (FLUOROTRICHLOROMETHANE, FREON 11)	FL
EPA 8260 B	VINYL CHLORIDE	FL
EPA 8270 C	1,2,4,5-TETRACHLOROBENZENE	FL
EPA 8270 C	1,2-DICHLOROBENZENE	FL
EPA 8270 C	1,3,5-TRINITROBENZENE (1,3,5-TNB)	FL
EPA 8270 C	1,3-DINITROBENZENE (1,3-DNB)	FL
EPA 8270 C	1,4-NAPHTHOQUINONE	FL
EPA 8270 C	1-NAPHTHYLAMINE	FL
EPA 8270 C	2,4,5-TRICHLOROPHENOL	FL
EPA 8270 C	2,4-DICHLOROPHENOL	FL
EPA 8270 C	2,4-DINITROPHENOL	FL
EPA 8270 C	2,6-DICHLOROPHENOL	FL
EPA 8270 C	2-ACETYLAMINOFLUORENE	FL
EPA 8270 C	2-CHLOROPHENOL	FL
EPA 8270 C	2-METHYLNAPHTHALENE	FL

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METHOD	ANALYTE	PRIMARY
EPA 8270 C	2-METHYLPHENOL (O-CRESOL)	FL
EPA 8270 C	2-NITROANILINE	FL
EPA 8270 C	2-PICOLINE (2-METHYLPYRIDINE)	FL
EPA 8270 C	3,3'-DIMETHYLBENZIDINE	FL
EPA 8270 C	3-METHYLPHENOL (M-CRESOL)	FL
EPA 8270 C	4-AMINOBIPHENYL	FL
EPA 8270 C	4-CHLORO-3-METHYLPHENOL	FL
EPA 8270 C	4-CHLOROPHENYL PHENYLETHER	FL
EPA 8270 C	4-METHYLPHENOL (P-CRESOL)	FL
EPA 8270 C	4-NITROPHENOL	FL
EPA 8270 C	7,12-DIMETHYLBENZ(A) ANTHRACENE	FL
EPA 8270 C	ACENAPHTHENE	FL
EPA 8270 C	ACETOPHENONE	FL
EPA 8270 C	ANTHRACENE	FL
EPA 8270 C	BENZIDINE	FL
EPA 8270 C	BENZO(A)PYRENE	FL
EPA 8270 C	BENZO(G,H,I)PERYLENE	FL
EPA 8270 C	BENZOIC ACID	FL
EPA 8270 C	BIS(2-CHLOROETHOXY)METHANE	FL
EPA 8270 C	BIS(2-CHLOROISOPROPYL) ETHER	FL
EPA 8270 C	BUTYL BENZYL PHTHALATE	FL
EPA 8270 C	CHRYSENE	FL
EPA 8270 C	DI-N-OCTYL PHTHALATE	FL
EPA 8270 C	DIBENZO(A,H) ANTHRACENE	FL
EPA 8270 C	DIETHYL PHTHALATE	FL
EPA 8270 C	DIMETHYL PHTHALATE	FL
EPA 8270 C	DIPHENYLAMINE	FL
EPA 8270 C	ETHYL METHANESULFONATE	FL
EPA 8270 C	FLUORANTHENE	FL
EPA 8270 C	HEXACHLOROBENZENE	FL
EPA 8270 C	HEXACHLOROCYCLOPENTADIENE	FL
EPA 8270 C	HEXACHLOROPHENE	FL
EPA 8270 C	INDENO(1,2,3-CD) PYRENE	FL
EPA 8270 C	ISOPHORONE	FL
EPA 8270 C	KEPONE	FL
EPA 8270 C	2-NAPHTHYLAMINE	FL
EPA 8270 C	2-NITROPHENOL	FL
EPA 8270 C	3,3'-DICHLOROBENZIDINE	FL
EPA 8270 C	3-METHYLCHOLANTHRENE	FL
EPA 8270 C	3-NITROANILINE	FL
EPA 8270 C	4-BROMOPHENYL PHENYL ETHER	FL
EPA 8270 C	4-CHLOROANILINE	FL
EPA 8270 C	4-DIMETHYL AMINOAZOBENZENE	FL
EPA 8270 C	4-NITROANILINE	FL
EPA 8270 C	5-NITRO-O-TOLUIDINE	FL
EPA 8270 C	A-A-DIMETHYLPHENETHYLAMINE	FL
EPA 8270 C	ACENAPHTHYLENE	FL
EPA 8270 C	ANILINE	FL
EPA 8270 C	ARAMITE	FL
EPA 8270 C	BENZO(A)ANTHRACENE	FL
EPA 8270 C	BENZO(B)FLUORANTHENE	FL
EPA 8270 C	BENZO(K)FLUORANTHENE	FL
EPA 8270 C	BENZYL ALCOHOL	FL
EPA 8270 C	BIS(2-CHLOROETHYL) ETHER	FL
EPA 8270 C	BIS(2-ETHYLHEXYL) PHTHALATE (DI(2-ETHYLHEXYL)PHTHALATE), (DEHP)	FL
EPA 8270 C	CHLOROBENZILATE	FL
EPA 8270 C	DI-N-BUTYL PHTHALATE	FL
EPA 8270 C	DIALLATE	FL
EPA 8270 C	DIBENZOFURAN	FL
EPA 8270 C	DIMETHOATE	FL
EPA 8270 C	DINOSEB (2-SEC-BUTYL-4,6-DINITROPHENOL, DNBP)	FL
EPA 8270 C	DISULFOTON	FL
EPA 8270 C	FAMPHUR	FL
EPA 8270 C	FLUORENE	FL
EPA 8270 C	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	FL
EPA 8270 C	HEXACHLOROETHANE	FL
EPA 8270 C	HEXACHLOROPROPENE	FL
EPA 8270 C	ISODRIN	FL
EPA 8270 C	ISOSAFROLE	FL
EPA 8270 C	MALATHION	FL

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 8270 C	METHAPYRILENE	FL
EPA 8270 C	METHYL PARATHION (PARATHION, METHYL)	FL
EPA 8270 C	N-NITROSODI-N-PROPYLAMINE	FL
EPA 8270 C	N-NITROSODIMETHYLAMINE	FL
EPA 8270 C	N-NITROSOMETHYLETHYLAMINE	FL
EPA 8270 C	N-NITROSOPIPERIDINE	FL
EPA 8270 C	NAPHTHALENE	FL
EPA 8270 C	NITROQUINOLINE-1-OXIDE	FL
EPA 8270 C	O-TOLUIDINE (2-METHYLANILINE)	FL
EPA 8270 C	PENTACHLORONITROBENZENE	FL
EPA 8270 C	PHENACETIN	FL
EPA 8270 C	PHENOL	FL
EPA 8270 C	PRONAMIDE (KERB)	FL
EPA 8270 C	PYRIDINE	FL
EPA 8270 C	SULFOTEPP (TETRAETHYL DITHIOPYROPHOSPHATE)	FL
EPA 8270 C	TETRAETHYL PYROPHOSPHATE (TEPP)	FL
EPA 8270 D	1,2,4,5-TETRACHLOROBENZENE	FL
EPA 8270 D	1,2-DICHLOROBENZENE	FL
EPA 8270 D	1,3,5-TRINITROBENZENE (1,3,5-TNB)	FL
EPA 8270 D	1,3-DINITROBENZENE (1,3-DNB)	FL
EPA 8270 D	1,4-NAPHTHOQUINONE	FL
EPA 8270 D	1-NAPHTHYLAMINE	FL
EPA 8270 D	2,4,5-TRICHLOROPHENOL	FL
EPA 8270 D	2,4-DICHLOROPHENOL	FL
EPA 8270 D	2,4-DINITROPHENOL	FL
EPA 8270 D	2,6-DICHLOROPHENOL	FL
EPA 8270 D	2-ACETYLAMINOFLUORENE	FL
EPA 8270 D	2-CHLOROPHENOL	FL
EPA 8270 D	2-METHYLNAPHTHALENE	FL
EPA 8270 D	2-NAPHTHYLAMINE	FL
EPA 8270 D	2-NITROPHENOL	FL
EPA 8270 D	3,3'-DICHLOROBENZIDINE	FL
EPA 8270 D	3-METHYLCHOLANTHRENE	FL
EPA 8270 D	4-AMINOBIPHENYL	FL
EPA 8270 D	4-CHLORO-3-METHYLPHENOL	FL
EPA 8270 C	METHYL METHANESULFONATE	FL
EPA 8270 C	N-NITROSO-DI-N-BUTYLAMINE	FL
EPA 8270 C	N-NITROSODIETHYLAMINE	FL
EPA 8270 C	N-NITROSODIPHENYLAMINE	FL
EPA 8270 C	N-NITROSOMORPHOLINE	FL
EPA 8270 C	N-NITROSOPYRROLIDINE	FL
EPA 8270 C	NITROBENZENE	FL
EPA 8270 C	O,O,O-TRIETHYL PHOSPHOROTHIOATE	FL
EPA 8270 C	PARATHION (PARATHION - ETHYL)	FL
EPA 8270 C	PENTACHLOROPHENOL	FL
EPA 8270 C	PHENANTHRENE	FL
EPA 8270 C	PHORATE	FL
EPA 8270 C	PYRENE	FL
EPA 8270 C	SAFROLE	FL
EPA 8270 C	TETRACHLORVINPHOS (STIROPHOS, GARDONA) Z-ISOMER	FL
EPA 8270 C	THIONAZIN (ZINOPHOS)	FL
EPA 8270 D	1,2,4-TRICHLOROBENZENE	FL
EPA 8270 D	1,2-DIPHENYLHYDRAZINE	FL
EPA 8270 D	1,3-DICHLOROBENZENE	FL
EPA 8270 D	1,4-DICHLOROBENZENE	FL
EPA 8270 D	1,4-PHENYLENEDIAMINE	FL
EPA 8270 D	2,3,4,6-TETRACHLOROPHENOL	FL
EPA 8270 D	2,4,6-TRICHLOROPHENOL	FL
EPA 8270 D	2,4-DIMETHYLPHENOL	FL
EPA 8270 D	2,4-DINITROTOLUENE (2,4-DNT)	FL
EPA 8270 D	2,6-DINITROTOLUENE (2,6-DNT)	FL
EPA 8270 D	2-CHLORONAPHTHALENE	FL
EPA 8270 D	2-METHYL-4,6-DINITROPHENOL (4,6-DINITRO-2-METHYLPHENOL)	FL
EPA 8270 D	2-METHYLPHENOL (O-CRESOL)	FL
EPA 8270 D	2-NITROANILINE	FL
EPA 8270 D	2-PICOLINE (2-METHYLPYRIDINE)	FL
EPA 8270 D	3,3'-DIMETHYLBENZIDINE	FL
EPA 8270 D	3-NITROANILINE	FL
EPA 8270 D	4-BROMOPHENYL PHENYL ETHER	FL
EPA 8270 D	4-CHLOROANILINE	FL

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 8270 D	4-CHLOROPHENYL PHENYLETHER	FL
EPA 8270 D	4-METHYLPHENOL (P-CRESOL)	FL
EPA 8270 D	4-NITROPHENOL	FL
EPA 8270 D	7,12-DIMETHYLBENZ(A) ANTHRACENE	FL
EPA 8270 D	ACENAPHTHENE	FL
EPA 8270 D	ACETOPHENONE	FL
EPA 8270 D	ANTHRACENE	FL
EPA 8270 D	BENZIDINE	FL
EPA 8270 D	BENZO(A)PYRENE	FL
EPA 8270 D	BENZO(G,H,I)PERYLENE	FL
EPA 8270 D	BENZOIC ACID	FL
EPA 8270 D	BIS(2-CHLOROETHOXY)METHANE	FL
EPA 8270 D	BIS(2-CHLOROISOPROPYL) ETHER	FL
EPA 8270 D	BUTYL BENZYL PHTHALATE	FL
EPA 8270 D	CHRYSENE	FL
EPA 8270 D	DI-N-OCTYL PHTHALATE	FL
EPA 8270 D	DIBENZO(A,H) ANTHRACENE	FL
EPA 8270 D	DIETHYL PHTHALATE	FL
EPA 8270 D	DIMETHYL PHTHALATE	FL
EPA 8270 D	DIPHENYLAMINE	FL
EPA 8270 D	ETHYL METHANESULFONATE	FL
EPA 8270 D	FLUORANTHENE	FL
EPA 8270 D	HEXACHLOROBENZENE	FL
EPA 8270 D	HEXACHLOROCYCLOPENTADIENE	FL
EPA 8270 D	HEXACHLOROPHENE	FL
EPA 8270 D	INDENO(1,2,3-CD) PYRENE	FL
EPA 8270 D	ISOPHORONE	FL
EPA 8270 D	KEPONE	FL
EPA 8270 D	METHAPYRILENE	FL
EPA 8270 D	METHYL PARATHION (PARATHION, METHYL)	FL
EPA 8270 D	N-NITROSODI-N-PROPYLAMINE	FL
EPA 8270 D	N-NITROSODIMETHYLAMINE	FL
EPA 8270 D	N-NITROSOMETHYLETHYLAMINE	FL
EPA 8270 D	N-NITROSOPIPERIDINE	FL
EPA 8270 D	4-DIMETHYL AMINOAZOBENZENE	FL
EPA 8270 D	4-NITROANILINE	FL
EPA 8270 D	5-NITRO-O-TOLUIDINE	FL
EPA 8270 D	A-A-DIMETHYLPHENETHYLAMINE	FL
EPA 8270 D	ACENAPHTHYLENE	FL
EPA 8270 D	ANILINE	FL
EPA 8270 D	ARAMITE	FL
EPA 8270 D	BENZO(A)ANTHRACENE	FL
EPA 8270 D	BENZO(B)FLUORANTHENE	FL
EPA 8270 D	BENZO(K)FLUORANTHENE	FL
EPA 8270 D	BENZYL ALCOHOL	FL
EPA 8270 D	BIS(2-CHLOROETHYL) ETHER	FL
EPA 8270 D	BIS(2-ETHYLHEXYL) PHTHALATE (DI(2-ETHYLHEXYL)PHTHALATE), (DEHP)	FL
EPA 8270 D	CHLOROBENZILATE	FL
EPA 8270 D	DI-N-BUTYL PHTHALATE	FL
EPA 8270 D	DIALLATE	FL
EPA 8270 D	DIBENZOFURAN	FL
EPA 8270 D	DIMETHOATE	FL
EPA 8270 D	DINOSEB (2-SEC-BUTYL-4,6-DINITROPHENOL, DNBP)	FL
EPA 8270 D	DISULFOTON	FL
EPA 8270 D	FAMPHUR	FL
EPA 8270 D	FLUORENE	FL
EPA 8270 D	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	FL
EPA 8270 D	HEXACHLOROETHANE	FL
EPA 8270 D	HEXACHLOROPROPENE	FL
EPA 8270 D	ISODRIN	FL
EPA 8270 D	ISOSAFROLE	FL
EPA 8270 D	MALATHION	FL
EPA 8270 D	METHYL METHANESULFONATE	FL
EPA 8270 D	N-NITROSO-DI-N-BUTYLAMINE	FL
EPA 8270 D	N-NITROSODIETHYLAMINE	FL
EPA 8270 D	N-NITROSODIPHENYLAMINE	FL
EPA 8270 D	N-NITROSOMORPHOLINE	FL
EPA 8270 D	N-NITROSOPYRROLIDINE	FL

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 8270 D	NAPHTHALENE	FL
EPA 8270 D	NITROQUINOLINE-1-OXIDE	FL
EPA 8270 D	O-TOLUIDINE (2-METHYLANILINE)	FL
EPA 8270 D	PENTACHLORONITROBENZENE	FL
EPA 8270 D	PHENACETIN	FL
EPA 8270 D	PHENOL	FL
EPA 8270 D	PRONAMIDE (KERB)	FL
EPA 8270 D	SAFROLE	FL
EPA 8270 D	TETRACHLORVINPHOS (STIROPHOS, GARDONA) Z-ISOMER	FL
EPA 8270 D	THIONAZIN (ZINOPHOS)	FL
EPA 8270 D - EXTENDED	CARBAZOLE	FL
EPA 8330 A	1,3,5-TRINITROBENZENE (1,3,5-TNB)	FL
EPA 8330 A	2,4,6-TRINITROTOLUENE (2,4,6-TNT)	FL
EPA 8330 A	2,6-DINITROTOLUENE (2,6-DNT)	FL
EPA 8330 A	2-NITROTOLUENE	FL
EPA 8330 A	4-AMINO-2,6-DINITROTOLUENE (4-AM-DNT)	FL
EPA 8330 A	METHYL-2,4,6-TRINITROPHENYLNITRAMINE (TETRYL)	FL
EPA 8330 A	NITROGLYCERIN	FL
EPA 8330 A	RDX (HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE)	FL
EPA 8330 B	1,3-DINITROBENZENE (1,3-DNB)	FL
EPA 8330 B	2,4-DINITROTOLUENE (2,4-DNT)	FL
EPA 8330 B	2-AMINO-4,6-DINITROTOLUENE (2-AM-DNT)	FL
EPA 8330 B	3-NITROTOLUENE	FL
EPA 8330 B	4-NITROTOLUENE	FL
EPA 8330 B	NITROBENZENE	FL
EPA 8330 B	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	FL
EPA 8330 B	RDX (HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE)	FL
EPA 9056	BROMIDE	FL
EPA 9056	FLUORIDE	FL
EPA 8270 D	NITROBENZENE	FL
EPA 8270 D	O,O,O-TRIETHYL PHOSPHOROTHIOATE	FL
EPA 8270 D	PARATHION (PARATHION - ETHYL)	FL
EPA 8270 D	PENTACHLOROPHENOL	FL
EPA 8270 D	PHENANTHRENE	FL
EPA 8270 D	PHORATE	FL
EPA 8270 D	PYRENE	FL
EPA 8270 D	SULFOTEPP (TETRAETHYL DITHIOPYROPHOSPHATE)	FL
EPA 8270 D	TETRAETHYL PYROPHOSPHATE (TEPP)	FL
EPA 8270 D - EXTENDED	3+4-METHYL PHENOL (M+P CRESOL)	FL
EPA 8315 A	FORMALDEHYDE	FL
EPA 8330 A	1,3-DINITROBENZENE (1,3-DNB)	FL
EPA 8330 A	2,4-DINITROTOLUENE (2,4-DNT)	FL
EPA 8330 A	2-AMINO-4,6-DINITROTOLUENE (2-AM-DNT)	FL
EPA 8330 A	3-NITROTOLUENE	FL
EPA 8330 A	4-NITROTOLUENE	FL
EPA 8330 A	NITROBENZENE	FL
EPA 8330 A	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	FL
EPA 8330 B	1,3,5-TRINITROBENZENE (1,3,5-TNB)	FL
EPA 8330 B	2,4,6-TRINITROTOLUENE (2,4,6-TNT)	FL
EPA 8330 B	2,6-DINITROTOLUENE (2,6-DNT)	FL
EPA 8330 B	2-NITROTOLUENE	FL
EPA 8330 B	4-AMINO-2,6-DINITROTOLUENE (4-AM-DNT)	FL
EPA 8330 B	METHYL-2,4,6-TRINITROPHENYLNITRAMINE (TETRYL)	FL
EPA 8330 B	NITROGLYCERIN	FL
EPA 8330 B	PENTAERYTHRITOLTETRANITRATE	FL
EPA 9014	AMENABLE CYANIDE	FL
EPA 9056	CHLORIDE	FL
EPA 9056	NITRITE	FL

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 9056	SULFATE	FL
EPA 9060 A	TOTAL ORGANIC CARBON	FL
OVL HPLC07/HPLC-MS-MS	HEXAMETHYLPHOSPHORAMIDE (HMPA)	FL
OVL HPLC07/HPLC-MS-MS	TETRAMETHYLPHOSPHORAMIDE (TMPA)	FL
RSK-175	ETHANE	FL
RSK-175	METHANE	FL
SM 2310 B-2011	ACIDITY, AS CACO3	FL
SM 2340 C-2011	TOTAL HARDNESS AS CACO3	FL
SM 2540 D-2011	RESIDUE-NONFILTERABLE (TSS)	FL
SM 3500-CR B-2011	CHROMIUM VI	FL
SM 4500-CN^- E-2011	CYANIDE	FL
SM 4500-F^- C-2011	FLUORIDE	FL
SM 4500-$NO3^-$ E-2011	NITRATE AS N	FL
SM 4500-$S2^-$ F-2011	SULFIDE	FL
SM 5210 B-2011	CARBONACEOUS BOD, CBOD	FL
SM 5540 C-2011	SURFACTANTS - MBAS	FL

METHOD	ANALYTE	PRIMARY
EPA 9056 A	NITRATE AS N	FL
HACH 8000	CHEMICAL OXYGEN DEMAND	FL
OVL HPLC07/HPLC-MS-MS	PENTAMETHYLPHOSPHORAMIDE (PMPA)	FL
OVL HPLC07/HPLC-MS-MS	TRIMETHYLPHOSPHORAMIDE (TRIMPA)	FL
RSK-175	ETHENE	FL
SM 2120 B-2011	COLOR	FL
SM 2320 B-2011	ALKALINITY AS CACO3	FL
SM 2540 B-2011	RESIDUE-TOTAL	FL
SM 2540 F-2011	RESIDUE-SETTLEABLE	FL
SM 4500-CL^- E-2011	CHLORIDE	FL
SM 4500-CN^- G-2011	AMENABLE CYANIDE	FL
SM 4500-$NO2^-$ B-2011	NITRITE AS N	FL
SM 4500-P E-2011	ORTHOPHOSPHATE AS P	FL
SM 5210 B-2011	BIOCHEMICAL OXYGEN DEMAND	FL
SM 5310 C-2011	TOTAL ORGANIC CARBON	FL

SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 1010 A	FLASHPOINT	FL
EPA 1312	PREP: SYNTHETIC PRECIPITATION LEACHING PROCEDURE	FL
EPA 6010 B	ANTIMONY	FL
EPA 6010 B	BARIUM	FL
EPA 6010 B	BORON	FL
EPA 6010 B	CALCIUM	FL
EPA 6010 B	COBALT	FL
EPA 6010 B	IRON	FL
EPA 6010 B	LITHIUM	FL
EPA 6010 B	MANGANESE	FL
EPA 6010 B	NICKEL	FL
EPA 6010 B	POTASSIUM	FL
EPA 6010 B	SILVER	FL
EPA 6010 B	STRONTIUM	FL
EPA 6010 B	TIN	FL
EPA 6010 B	VANADIUM	FL
EPA 6010 C	ALUMINUM	FL

METHOD	ANALYTE	PRIMARY
EPA 1311	PREP: TOXICITY CHARACTERISTIC LEACHING PROCEDURE	FL
EPA 6010 B	ALUMINUM	FL
EPA 6010 B	ARSENIC	FL
EPA 6010 B	BERYLLIUM	FL
EPA 6010 B	CADMIUM	FL
EPA 6010 B	CHROMIUM	FL
EPA 6010 B	COPPER	FL
EPA 6010 B	LEAD	FL
EPA 6010 B	MAGNESIUM	FL
EPA 6010 B	MOLYBDENUM	FL
EPA 6010 B	PHOSPHORUS, TOTAL	FL
EPA 6010 B	SELENIUM	FL
EPA 6010 B	SODIUM	FL
EPA 6010 B	THALLIUM	FL
EPA 6010 B	TITANIUM	FL
EPA 6010 B	ZINC	FL
EPA 6010 C	ANTIMONY	FL

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METHOD	ANALYTE	PRIMARY
EPA 6010 C	ARSENIC	FL
EPA 6010 C	BERYLLIUM	FL
EPA 6010 C	CADMIUM	FL
EPA 6010 C	CHROMIUM	FL
EPA 6010 C	COPPER	FL
EPA 6010 C	LEAD	FL
EPA 6010 C	MAGNESIUM	FL
EPA 6010 C	MOLYBDENUM	FL
EPA 6010 C	PHOSPHORUS, TOTAL	FL
EPA 6010 C	SELENIUM	FL
EPA 6010 C	SODIUM	FL
EPA 6010 C	THALLIUM	FL
EPA 6010 C	TITANIUM	FL
EPA 6010 C	ZINC	FL
EPA 6020	ARSENIC	FL
EPA 6020	CADMIUM	FL
EPA 6020	COBALT	FL
EPA 6020	LEAD	FL
EPA 6020	NICKEL	FL
EPA 6020	THALLIUM	FL
EPA 6020 - EXTENDED	URANIUM	FL
EPA 6020 A	ARSENIC	FL
EPA 6020 A	CADMIUM	FL
EPA 6020 A	COBALT	FL
EPA 6020 A	LEAD	FL
EPA 6020 A	NICKEL	FL
EPA 6020 A	SILVER	FL
EPA 6020 A	VANADIUM	FL
EPA 6020 A - EXTENDED	URANIUM	FL
EPA 7196 A	CHROMIUM VI	FL
EPA 7471 B	MERCURY	FL
EPA 8015 B	ETHANOL	FL
EPA 8015 B	GASOLINE RANGE ORGANICS (GRO)	FL
EPA 8015 C	ETHANOL	FL
EPA 8015 C	GASOLINE RANGE ORGANICS (GRO)	FL
EPA 8015 D	METHANOL	FL
EPA 8081 A	4,4'-DDE	FL

METHOD	ANALYTE	PRIMARY
EPA 6010 C	BARIUM	FL
EPA 6010 C	BORON	FL
EPA 6010 C	CALCIUM	FL
EPA 6010 C	COBALT	FL
EPA 6010 C	IRON	FL
EPA 6010 C	LITHIUM	FL
EPA 6010 C	MANGANESE	FL
EPA 6010 C	NICKEL	FL
EPA 6010 C	POTASSIUM	FL
EPA 6010 C	SILVER	FL
EPA 6010 C	STRONTIUM	FL
EPA 6010 C	TIN	FL
EPA 6010 C	VANADIUM	FL
EPA 6020	ANTIMONY	FL
EPA 6020	BARIUM	FL
EPA 6020	CHROMIUM	FL
EPA 6020	COPPER	FL
EPA 6020	MANGANESE	FL
EPA 6020	SILVER	FL
EPA 6020	ZINC	FL
EPA 6020 A	ANTIMONY	FL
EPA 6020 A	BARIUM	FL
EPA 6020 A	CHROMIUM	FL
EPA 6020 A	COPPER	FL
EPA 6020 A	MANGANESE	FL
EPA 6020 A	SELENIUM	FL
EPA 6020 A	THALLIUM	FL
EPA 6020 A	ZINC	FL
EPA 6850	PERCHLORATE	FL
EPA 7471 A	MERCURY	FL
EPA 8015 B	DIESEL RANGE ORGANICS (DRO)	FL
EPA 8015 B	ETHYLENE GLYCOL	FL
EPA 8015 B	ISOPROPYL ALCOHOL (2-PROPANOL, ISOPROPANOL)	FL
EPA 8015 C	ETHYLENE GLYCOL	FL
EPA 8015 D	ETHANOL	FL
EPA 8081 A	4,4'-DDD	FL
EPA 8081 A	4,4'-DDT	FL

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METHOD	ANALYTE	PRIMARY
EPA 8081 A	ALDRIN	FL
EPA 8081 A	ALPHA-CHLORDANE [CIS-CHLORDANE]	FL
EPA 8081 A	CHLORDANE (TECH.)	FL
EPA 8081 A	DIELDRIN	FL
EPA 8081 A	ENDOSULFAN II	FL
EPA 8081 A	ENDRIN	FL
EPA 8081 A	ENDRIN KETONE	FL
EPA 8081 A	GAMMA-CHLORDANE [BETA-CHLORDANE, TRANS-CHLORDANE]	FL
EPA 8081 A	HEPTACHLOR EPOXIDE	FL
EPA 8081 A	TOXAPHENE (CHLORINATED CAMPHENE)	FL
EPA 8081 B	4,4'-DDE	FL
EPA 8081 B	ALDRIN	FL
EPA 8081 B	ALPHA-CHLORDANE [CIS-CHLORDANE]	FL
EPA 8081 B	CHLORDANE (TECH.)	FL
EPA 8081 B	DIELDRIN	FL
EPA 8081 B	ENDOSULFAN II	FL
EPA 8081 B	ENDRIN	FL
EPA 8081 B	ENDRIN KETONE	FL
EPA 8081 B	GAMMA-CHLORDANE [BETA-CHLORDANE, TRANS-CHLORDANE]	FL
EPA 8081 B	HEPTACHLOR EPOXIDE	FL
EPA 8081 B	TOXAPHENE (CHLORINATED CAMPHENE)	FL
EPA 8082	AROCLOR-1221 (PCB-1221)	FL
EPA 8082	AROCLOR-1242 (PCB-1242)	FL
EPA 8082	AROCLOR-1254 (PCB-1254)	FL
EPA 8082 A	AROCLOR-1016 (PCB-1016)	FL
EPA 8082 A	AROCLOR-1232 (PCB-1232)	FL
EPA 8082 A	AROCLOR-1248 (PCB-1248)	FL
EPA 8081 A	ALPHA-BHC (ALPHA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 A	BETA-BHC (BETA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 A	DELTA-BHC	FL
EPA 8081 A	ENDOSULFAN I	FL
EPA 8081 A	ENDOSULFAN SULFATE	FL
EPA 8081 A	ENDRIN ALDEHYDE	FL
EPA 8081 A	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 A	HEPTACHLOR	FL
EPA 8081 A	METHOXYCHLOR	FL
EPA 8081 B	4,4'-DDD	FL
EPA 8081 B	4,4'-DDT	FL
EPA 8081 B	ALPHA-BHC (ALPHA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 B	BETA-BHC (BETA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 B	DELTA-BHC	FL
EPA 8081 B	ENDOSULFAN I	FL
EPA 8081 B	ENDOSULFAN SULFATE	FL
EPA 8081 B	ENDRIN ALDEHYDE	FL
EPA 8081 B	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 B	HEPTACHLOR	FL
EPA 8081 B	METHOXYCHLOR	FL
EPA 8082	AROCLOR-1016 (PCB-1016)	FL
EPA 8082	AROCLOR-1232 (PCB-1232)	FL
EPA 8082	AROCLOR-1248 (PCB-1248)	FL
EPA 8082	AROCLOR-1260 (PCB-1260)	FL
EPA 8082 A	AROCLOR-1221 (PCB-1221)	FL
EPA 8082 A	AROCLOR-1242 (PCB-1242)	FL
EPA 8082 A	AROCLOR-1254 (PCB-1254)	FL

Commonwealth of Virginia

Department of General Services
Division of Consolidated Laboratory Services

Scope of Accreditation

VELAP Certificate No.: 6338

Microbac Laboratories, Inc.
158 Starlite Drive
Marietta, OH 45750

Virginia Laboratory ID: 460187
Effective Date: September 15, 2014
Expiration Date: September 14, 2015

SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 8082 A	AROCLOR-1260 (PCB-1260)	FL
EPA 8151 A	2,4-D	FL
EPA 8151 A	DALAPON	FL
EPA 8151 A	DICHLOROPROP (DICHLORPROP)	FL
EPA 8151 A	MCPA	FL
EPA 8151 A	PENTACHLOROPHENOL	FL
EPA 8260 B	1,1,1,2-TETRACHLOROETHANE	FL
EPA 8260 B	1,1,2,2-TETRACHLOROETHANE	FL
EPA 8260 B	1,1-DICHLOROETHANE	FL
EPA 8260 B	1,1-DICHLOROPROPENE	FL
EPA 8260 B	1,2,3-TRICHLOROPROPANE	FL
EPA 8260 B	1,2,4-TRIMETHYLBENZENE	FL
EPA 8260 B	1,2-DIBROMOETHANE (EDB, ETHYLENE DIBROMIDE)	FL
EPA 8260 B	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	FL
EPA 8260 B	1,3,5-TRIMETHYLBENZENE	FL
EPA 8260 B	1,3-DICHLOROPROPANE	FL
EPA 8260 B	1,4-DIOXANE (1,4-DIETHYLENEOXIDE)	FL
EPA 8260 B	1-CHLOROHEXANE	FL
EPA 8260 B	2-BUTANONE (METHYL ETHYL KETONE, MEK)	FL
EPA 8260 B	2-CHLOROTOLUENE	FL
EPA 8260 B	2-NITROPROPANE	FL
EPA 8260 B	4-ISOPROPYLTOLUENE (P-CYMENE)	FL
EPA 8260 B	ACETONE	FL
EPA 8260 B	ACROLEIN (PROPENAL)	FL
EPA 8260 B	ALLYL CHLORIDE (3-CHLOROPROPENE)	FL
EPA 8260 B	BROMOBENZENE	FL
EPA 8260 B	BROMODICHLOROMETHANE	FL
EPA 8260 B	CARBON DISULFIDE	FL
EPA 8260 B	CHLOROBENZENE	FL
EPA 8260 B	CHLOROETHANE (ETHYL CHLORIDE)	FL
EPA 8260 B	CHLOROPRENE (2-CHLORO-1,3-BUTADIENE)	FL
EPA 8260 B	CIS-1,3-DICHLOROPROPENE	FL
EPA 8151 A	2,4,5-T	FL
EPA 8151 A	2,4-DB	FL
EPA 8151 A	DICAMBA	FL
EPA 8151 A	DINOSEB (2-SEC-BUTYL-4,6-DINITROPHENOL, DNBP)	FL
EPA 8151 A	MCPP	FL
EPA 8151 A	SILVEX (2,4,5-TP)	FL
EPA 8260 B	1,1,1-TRICHLOROETHANE	FL
EPA 8260 B	1,1,2-TRICHLOROETHANE	FL
EPA 8260 B	1,1-DICHLOROETHYLENE	FL
EPA 8260 B	1,2,3-TRICHLOROBENZENE	FL
EPA 8260 B	1,2,4-TRICHLOROBENZENE	FL
EPA 8260 B	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	FL
EPA 8260 B	1,2-DICHLOROBENZENE	FL
EPA 8260 B	1,2-DICHLOROPROPANE	FL
EPA 8260 B	1,3-DICHLOROBENZENE	FL
EPA 8260 B	1,4-DICHLOROBENZENE	FL
EPA 8260 B	1-BUTANOL (N-BUTANOL)	FL
EPA 8260 B	2,2-DICHLOROPROPANE	FL
EPA 8260 B	2-CHLOROETHYL VINYL ETHER	FL
EPA 8260 B	2-HEXANONE	FL
EPA 8260 B	4-CHLOROTOLUENE	FL
EPA 8260 B	4-METHYL-2-PENTANONE (MIBK)	FL
EPA 8260 B	ACETONITRILE	FL
EPA 8260 B	ACRYLONITRILE	FL
EPA 8260 B	BENZENE	FL
EPA 8260 B	BROMOCHLOROMETHANE	FL
EPA 8260 B	BROMOFORM	FL
EPA 8260 B	CARBON TETRACHLORIDE	FL
EPA 8260 B	CHLORODIBROMOMETHANE	FL
EPA 8260 B	CHLOROFORM	FL
EPA 8260 B	CIS-1,2-DICHLOROETHYLENE	FL
EPA 8260 B	DIBROMOFLUOROMETHANE	FL

Commonwealth of Virginia

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Scope of Accreditation

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Microbac Laboratories, Inc.
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Expiration Date: September 14, 2015

SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 8260 B	DIBROMOMETHANE (METHYLENE BROMIDE)	FL
EPA 8260 B	DIETHYL ETHER	FL
EPA 8260 B	ETHYL METHACRYLATE	FL
EPA 8260 B	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	FL
EPA 8260 B	ISOBUTYL ALCOHOL (2-METHYL-1-PROPANOL)	FL
EPA 8260 B	METHACRYLONITRILE	FL
EPA 8260 B	METHYL CHLORIDE (CHLOROMETHANE)	FL
EPA 8260 B	METHYL TERT-BUTYL ETHER (MTBE)	FL
EPA 8260 B	N-BUTYLBENZENE	FL
EPA 8260 B	NAPHTHALENE	FL
EPA 8260 B	SEC-BUTYLBENZENE	FL
EPA 8260 B	TERT-BUTYL ALCOHOL	FL
EPA 8260 B	TETRACHLOROETHENE (PERCHLOROETHENE)	FL
EPA 8260 B	TRANS-1,2-DICHLOROETHENE	FL
EPA 8260 B	TRANS-1,4-DICHLORO-2-BUTENE	FL
EPA 8260 B	TRICHLOROFLUOROMETHANE (FLUOROTRICHLOROMETHANE, FREON 11)	FL
EPA 8260 B	VINYL CHLORIDE	FL
EPA 8270 C	1,2,4,5-TETRACHLOROBENZENE	FL
EPA 8270 C	1,2-DICHLOROBENZENE	FL
EPA 8270 C	1,3,5-TRINITROBENZENE (1,3,5-TNB)	FL
EPA 8270 C	1,3-DINITROBENZENE (1,3-DNB)	FL
EPA 8270 C	1,4-NAPHTHOQUINONE	FL
EPA 8270 C	1-NAPHTHYLAMINE	FL
EPA 8270 C	2,4,5-TRICHLOROPHENOL	FL
EPA 8270 C	2,4-DICHLOROPHENOL	FL
EPA 8270 C	2,4-DINITROPHENOL	FL
EPA 8270 C	2,6-DICHLOROPHENOL	FL
EPA 8270 C	2-ACETYLAMINOFLUORENE	FL
EPA 8270 C	2-CHLOROPHENOL	FL
EPA 8270 C	2-METHYLNAPHTHALENE	FL
EPA 8270 C	2-NAPHTHYLAMINE	FL
EPA 8270 C	2-NITROPHENOL	FL

METHOD	ANALYTE	PRIMARY
EPA 8260 B	DICHLORODIFLUOROMETHANE (FREON-12)	FL
EPA 8260 B	ETHYL ACETATE	FL
EPA 8260 B	ETHYLBENZENE	FL
EPA 8260 B	IODOMETHANE (METHYL IODIDE)	FL
EPA 8260 B	ISOPROPYLBENZENE	FL
EPA 8260 B	METHYL BROMIDE (BROMOMETHANE)	FL
EPA 8260 B	METHYL METHACRYLATE	FL
EPA 8260 B	METHYLENE CHLORIDE (DICHLOROMETHANE)	FL
EPA 8260 B	N-PROPYLBENZENE	FL
EPA 8260 B	PROPIONITRILE (ETHYL CYANIDE)	FL
EPA 8260 B	STYRENE	FL
EPA 8260 B	TERT-BUTYLBENZENE	FL
EPA 8260 B	TOLUENE	FL
EPA 8260 B	TRANS-1,3-DICHLOROPROPENE	FL
EPA 8260 B	TRICHLOROETHENE (TRICHLOROETHYLENE)	FL
EPA 8260 B	VINYL ACETATE	FL
EPA 8260 B	XYLENE (TOTAL)	FL
EPA 8270 C	1,2,4-TRICHLOROBENZENE	FL
EPA 8270 C	1,2-DIPHENYLHYDRAZINE	FL
EPA 8270 C	1,3-DICHLOROBENZENE	FL
EPA 8270 C	1,4-DICHLOROBENZENE	FL
EPA 8270 C	1,4-PHENYLENEDIAMINE	FL
EPA 8270 C	2,3,4,6-TETRACHLOROPHENOL	FL
EPA 8270 C	2,4,6-TRICHLOROPHENOL	FL
EPA 8270 C	2,4-DIMETHYLPHENOL	FL
EPA 8270 C	2,4-DINITROTOLUENE (2,4-DNT)	FL
EPA 8270 C	2,6-DINITROTOLUENE (2,6-DNT)	FL
EPA 8270 C	2-CHLORONAPHTHALENE	FL
EPA 8270 C	2-METHYL-4,6-DINITROPHENOL (4,6-DINITRO-2-METHYLPHENOL)	FL
EPA 8270 C	2-METHYLPHENOL (O-CRESOL)	FL
EPA 8270 C	2-NITROANILINE	FL
EPA 8270 C	2-PICOLINE (2-METHYLPYRIDINE)	FL

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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 8270 C	3,3'-DICHLOROBENZIDINE	FL
EPA 8270 C	3-METHYLCHOLANTHRENE	FL
EPA 8270 C	3-NITROANILINE	FL
EPA 8270 C	4-BROMOPHENYL PHENYL ETHER	FL
EPA 8270 C	4-CHLOROANILINE	FL
EPA 8270 C	4-DIMETHYL AMINOAZOBENZENE	FL
EPA 8270 C	4-NITROANILINE	FL
EPA 8270 C	5-NITRO-O-TOLUIDINE	FL
EPA 8270 C	A-A-DIMETHYLPHENETHYLAMINE	FL
EPA 8270 C	ACENAPHTHYLENE	FL
EPA 8270 C	ANILINE	FL
EPA 8270 C	ARAMITE	FL
EPA 8270 C	BENZO(A)ANTHRACENE	FL
EPA 8270 C	BENZO(B)FLUORANTHENE	FL
EPA 8270 C	BENZO(K)FLUORANTHENE	FL
EPA 8270 C	BENZYL ALCOHOL	FL
EPA 8270 C	BIS(2-CHLOROETHYL) ETHER	FL
EPA 8270 C	BIS(2-ETHYLHEXYL) PHTHALATE (DI(2-ETHYLHEXYL)PHTHALATE), (DEHP)	FL
EPA 8270 C	CHLOROBENZILATE	FL
EPA 8270 C	DI-N-BUTYL PHTHALATE	FL
EPA 8270 C	DIALLATE	FL
EPA 8270 C	DIBENZOFURAN	FL
EPA 8270 C	DIMETHOATE	FL
EPA 8270 C	DINOSEB (2-SEC-BUTYL-4,6-DINITROPHENOL, DNBP)	FL
EPA 8270 C	DISULFOTON	FL
EPA 8270 C	FAMPHUR	FL
EPA 8270 C	FLUORENE	FL
EPA 8270 C	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	FL
EPA 8270 C	HEXACHLOROETHANE	FL
EPA 8270 C	HEXACHLOROPROPENE	FL
EPA 8270 C	INDENO(1,2,3-CD) PYRENE	FL
EPA 8270 C	ISOPHORONE	FL
EPA 8270 C	KEPONE	FL
EPA 8270 C	METHAPYRILENE	FL
EPA 8270 C	3,3'-DIMETHYLBENZIDINE	FL
EPA 8270 C	3-METHYLPHENOL (M-CRESOL)	FL
EPA 8270 C	4-AMINOBIPHENYL	FL
EPA 8270 C	4-CHLORO-3-METHYLPHENOL	FL
EPA 8270 C	4-CHLOROPHENYL PHENYLETHER	FL
EPA 8270 C	4-METHYLPHENOL (P-CRESOL)	FL
EPA 8270 C	4-NITROPHENOL	FL
EPA 8270 C	7,12-DIMETHYLBENZ(A) ANTHRACENE	FL
EPA 8270 C	ACENAPHTHENE	FL
EPA 8270 C	ACETOPHENONE	FL
EPA 8270 C	ANTHRACENE	FL
EPA 8270 C	BENZIDINE	FL
EPA 8270 C	BENZO(A)PYRENE	FL
EPA 8270 C	BENZO(G,H,I)PERYLENE	FL
EPA 8270 C	BENZOIC ACID	FL
EPA 8270 C	BIS(2-CHLOROETHOXY)METHANE	FL
EPA 8270 C	BIS(2-CHLOROISOPROPYL) ETHER	FL
EPA 8270 C	BUTYL BENZYL PHTHALATE	FL
EPA 8270 C	CHRYSENE	FL
EPA 8270 C	DI-N-OCTYL PHTHALATE	FL
EPA 8270 C	DIBENZO(A,H) ANTHRACENE	FL
EPA 8270 C	DIETHYL PHTHALATE	FL
EPA 8270 C	DIMETHYL PHTHALATE	FL
EPA 8270 C	DIPHENYLAMINE	FL
EPA 8270 C	ETHYL METHANESULFONATE	FL
EPA 8270 C	FLUORANTHENE	FL
EPA 8270 C	HEXACHLOROBENZENE	FL
EPA 8270 C	HEXACHLOROCYCLOPENTADIENE	FL
EPA 8270 C	HEXACHLOROPHENE	FL
EPA 8270 C	HEXAMETHYLPHOSPHORAMIDE (HMPA)	FL
EPA 8270 C	ISODRIN	FL
EPA 8270 C	ISOSAFROLE	FL
EPA 8270 C	MALATHION	FL
EPA 8270 C	METHYL METHANESULFONATE	FL

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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 8270 C	METHYL PARATHION (PARATHION, METHYL)	FL
EPA 8270 C	N-NITROSODI-N-PROPYLAMINE	FL
EPA 8270 C	N-NITROSODIMETHYLAMINE	FL
EPA 8270 C	N-NITROSOMETHYLETHYLAMINE	FL
EPA 8270 C	N-NITROSOPIPERIDINE	FL
EPA 8270 C	NAPHTHALENE	FL
EPA 8270 C	NITROQUINOLINE-1-OXIDE	FL
EPA 8270 C	O-TOLUIDINE (2-METHYLANILINE)	FL
EPA 8270 C	PENTACHLOROBENZENE	FL
EPA 8270 C	PENTACHLOROPHENOL	FL
EPA 8270 C	PHENANTHRENE	FL
EPA 8270 C	PHORATE	FL
EPA 8270 C	PYRENE	FL
EPA 8270 C	SAFROLE	FL
EPA 8270 C	TETRACHLORVINPHOS (STIROPHOS, GARDONA) Z-ISOMER	FL
EPA 8270 C	THIONAZIN (ZINOPHOS)	FL
EPA 8270 D	1,2,4,5-TETRACHLOROBENZENE	FL
EPA 8270 D	1,2-DICHLOROBENZENE	FL
EPA 8270 D	1,3,5-TRINITROBENZENE (1,3,5-TNB)	FL
EPA 8270 D	1,3-DINITROBENZENE (1,3-DNB)	FL
EPA 8270 D	1,4-NAPHTHOQUINONE	FL
EPA 8270 D	1-NAPHTHYLAMINE	FL
EPA 8270 D	2,4,5-TRICHLOROPHENOL	FL
EPA 8270 D	2,4-DICHLOROPHENOL	FL
EPA 8270 D	2,4-DINITROPHENOL	FL
EPA 8270 D	2,6-DICHLOROPHENOL	FL
EPA 8270 D	2-ACETYLAMINOFLUORENE	FL
EPA 8270 D	2-CHLOROPHENOL	FL
EPA 8270 D	2-METHYLNAPHTHALENE	FL
EPA 8270 D	2-NAPHTHYLAMINE	FL
EPA 8270 D	2-NITROPHENOL	FL
EPA 8270 D	3,3'-DICHLOROBENZIDINE	FL
EPA 8270 D	3-METHYLCHOLANTHRENE	FL
EPA 8270 D	3-NITROANILINE	FL
EPA 8270 D	4-BROMOPHENYL PHENYL ETHER	FL
EPA 8270 C	N-NITROSO-DI-N-BUTYLAMINE	FL
EPA 8270 C	N-NITROSODIETHYLAMINE	FL
EPA 8270 C	N-NITROSODIPHENYLAMINE	FL
EPA 8270 C	N-NITROSOMORPHOLINE	FL
EPA 8270 C	N-NITROSOPYRROLIDINE	FL
EPA 8270 C	NITROBENZENE	FL
EPA 8270 C	O,O,O-TRIETHYL PHOSPHOROTHIOATE	FL
EPA 8270 C	PARATHION (PARATHION - ETHYL)	FL
EPA 8270 C	PENTACHLORONITROBENZENE	FL
EPA 8270 C	PHENACETIN	FL
EPA 8270 C	PHENOL	FL
EPA 8270 C	PRONAMIDE (KERB)	FL
EPA 8270 C	PYRIDINE	FL
EPA 8270 C	SULFOTEPP (TETRAETHYL DITHIOPYROPHOSPHATE)	FL
EPA 8270 C	TETRAETHYL PYROPHOSPHATE (TEPP)	FL
EPA 8270 C - EXTENDED	CARBAZOLE	FL
EPA 8270 D	1,2,4-TRICHLOROBENZENE	FL
EPA 8270 D	1,2-DIPHENYLHYDRAZINE	FL
EPA 8270 D	1,3-DICHLOROBENZENE	FL
EPA 8270 D	1,4-DICHLOROBENZENE	FL
EPA 8270 D	1,4-PHENYLENEDIAMINE	FL
EPA 8270 D	2,3,4,6-TETRACHLOROPHENOL	FL
EPA 8270 D	2,4,6-TRICHLOROPHENOL	FL
EPA 8270 D	2,4-DIMETHYLPHENOL	FL
EPA 8270 D	2,4-DINITROTOLUENE (2,4-DNT)	FL
EPA 8270 D	2,6-DINITROTOLUENE (2,6-DNT)	FL
EPA 8270 D	2-CHLORONAPHTHALENE	FL
EPA 8270 D	2-METHYL-4,6-DINITROPHENOL (4,6-DINITRO-2-METHYLPHENOL)	FL
EPA 8270 D	2-METHYLPHENOL (O-CRESOL)	FL
EPA 8270 D	2-NITROANILINE	FL
EPA 8270 D	2-PICOLINE (2-METHYLPYRIDINE)	FL
EPA 8270 D	3,3'-DIMETHYLBENZIDINE	FL
EPA 8270 D	3-METHYLPHENOL (M-CRESOL)	FL
EPA 8270 D	4-AMINOBIPHENYL	FL
EPA 8270 D	4-CHLORO-3-METHYLPHENOL	FL

Commonwealth of Virginia

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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 8270 D	4-CHLOROANILINE	FL
EPA 8270 D	4-DIMETHYL AMINOAZOBENZENE	FL
EPA 8270 D	4-NITROANILINE	FL
EPA 8270 D	5-NITRO-O-TOLUIDINE	FL
EPA 8270 D	A-A-DIMETHYLPHENETHYLAMINE	FL
EPA 8270 D	ACENAPHTHYLENE	FL
EPA 8270 D	ANILINE	FL
EPA 8270 D	ARAMITE	FL
EPA 8270 D	BENZO(A)ANTHRACENE	FL
EPA 8270 D	BENZO(B)FLUORANTHENE	FL
EPA 8270 D	BENZO(K)FLUORANTHENE	FL
EPA 8270 D	BENZYL ALCOHOL	FL
EPA 8270 D	BIS(2-CHLOROETHYL) ETHER	FL
EPA 8270 D	BIS(2-ETHYLHEXYL) PHTHALATE (DI(2-ETHYLHEXYL)PHTHALATE), (DEHP)	FL
EPA 8270 D	CHLOROBENZILATE	FL
EPA 8270 D	DI-N-BUTYL PHTHALATE	FL
EPA 8270 D	DIALLATE	FL
EPA 8270 D	DIBENZOFURAN	FL
EPA 8270 D	DIMETHOATE	FL
EPA 8270 D	DINOSEB (2-SEC-BUTYL-4,6-DINITROPHENOL, DNBP)	FL
EPA 8270 D	DISULFOTON	FL
EPA 8270 D	FAMPHUR	FL
EPA 8270 D	FLUORENE	FL
EPA 8270 D	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	FL
EPA 8270 D	HEXACHLOROETHANE	FL
EPA 8270 D	HEXACHLOROPROPENE	FL
EPA 8270 D	INDENO(1,2,3-CD) PYRENE	FL
EPA 8270 D	ISOPHORONE	FL
EPA 8270 D	KEPONE	FL
EPA 8270 D	METHAPYRILENE	FL
EPA 8270 D	METHYL PARATHION (PARATHION, METHYL)	FL
EPA 8270 D	N-NITROSODI-N-PROPYLAMINE	FL
EPA 8270 D	N-NITROSODIMETHYLAMINE	FL
EPA 8270 D	N-NITROSOMETHYLETHYLAMINE	FL
EPA 8270 D	4-CHLOROPHENYL PHENYLETHER	FL
EPA 8270 D	4-METHYLPHENOL (P-CRESOL)	FL
EPA 8270 D	4-NITROPHENOL	FL
EPA 8270 D	7,12-DIMETHYLBENZ(A) ANTHRACENE	FL
EPA 8270 D	ACENAPHTHENE	FL
EPA 8270 D	ACETOPHENONE	FL
EPA 8270 D	ANTHRACENE	FL
EPA 8270 D	BENZIDINE	FL
EPA 8270 D	BENZO(A)PYRENE	FL
EPA 8270 D	BENZO(G,H,I)PERYLENE	FL
EPA 8270 D	BENZOIC ACID	FL
EPA 8270 D	BIS(2-CHLOROETHOXY)METHANE	FL
EPA 8270 D	BIS(2-CHLOROISOPROPYL) ETHER	FL
EPA 8270 D	BUTYL BENZYL PHTHALATE	FL
EPA 8270 D	CHRYSENE	FL
EPA 8270 D	DI-N-OCTYL PHTHALATE	FL
EPA 8270 D	DIBENZO(A,H) ANTHRACENE	FL
EPA 8270 D	DIETHYL PHTHALATE	FL
EPA 8270 D	DIMETHYL PHTHALATE	FL
EPA 8270 D	DIPHENYLAMINE	FL
EPA 8270 D	ETHYL METHANESULFONATE	FL
EPA 8270 D	FLUORANTHENE	FL
EPA 8270 D	HEXACHLOROBENZENE	FL
EPA 8270 D	HEXACHLOROCYCLOPENTADIENE	FL
EPA 8270 D	HEXACHLOROPHENE	FL
EPA 8270 D	HEXAMETHYLPHOSPHORAMIDE (HMPA)	FL
EPA 8270 D	ISODRIN	FL
EPA 8270 D	ISOSAFROLE	FL
EPA 8270 D	MALATHION	FL
EPA 8270 D	METHYL METHANESULFONATE	FL
EPA 8270 D	N-NITROSO-DI-N-BUTYLAMINE	FL
EPA 8270 D	N-NITROSODIETHYLAMINE	FL
EPA 8270 D	N-NITROSODIPHENYLAMINE	FL
EPA 8270 D	N-NITROSOMORPHOLINE	FL

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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 8270 D	N-NITROSOPIPERIDINE	FL
EPA 8270 D	NAPHTHALENE	FL
EPA 8270 D	NITROQUINOLINE-1-OXIDE	FL
EPA 8270 D	O-TOLUIDINE (2-METHYLANILINE)	FL
EPA 8270 D	PENTACHLOROBENZENE	FL
EPA 8270 D	PENTACHLOROPHENOL	FL
EPA 8270 D	PHENANTHRENE	FL
EPA 8270 D	PHORATE	FL
EPA 8270 D	PYRENE	FL
EPA 8270 D	SULFOTEPP (TETRAETHYL DITHIOPYROPHOSPHATE)	FL
EPA 8270 D	TETRAETHYL PYROPHOSPHATE (TEPP)	FL
EPA 8270 D - EXTENDED	CARBAZOLE	FL
EPA 8270 D SIM	DIMETHOATE	FL
EPA 8270 D SIM	FAMPHUR	FL
EPA 8270 D SIM	METHYL PARATHION (PARATHION, METHYL)	FL
EPA 8315 A	FORMALDEHYDE	FL
EPA 8330 A	1,3-DINITROBENZENE (1,3-DNB)	FL
EPA 8330 A	2,4-DINITROTOLUENE (2,4-DNT)	FL
EPA 8330 A	2-AMINO-4,6-DINITROTOLUENE (2-AM-DNT)	FL
EPA 8330 A	3-NITROTOLUENE	FL
EPA 8330 A	4-NITROTOLUENE	FL
EPA 8330 A	NITROBENZENE	FL
EPA 8330 A	OCTAHYDRO-1,3,5,7-TETRANITRO-1 ,3,5,7-TETRAZOCINE (HMX)	FL
EPA 8330 B	1,3,5-TRINITROBENZENE (1,3,5-TNB)	FL
EPA 8330 B	2,4,6-TRINITROTOLUENE (2,4,6-TNT)	FL
EPA 8330 B	2,6-DINITROTOLUENE (2,6-DNT)	FL
EPA 8330 B	2-NITROTOLUENE	FL
EPA 8330 B	4-AMINO-2,6-DINITROTOLUENE (4-AM-DNT)	FL
EPA 8330 B	METHYL-2,4,6-TRINITROPHENYLNIT RAMINE (TETRYL)	FL
EPA 8330 B	NITROGLYCERIN	FL

METHOD	ANALYTE	PRIMARY
EPA 8270 D	N-NITROSOPYRROLIDINE	FL
EPA 8270 D	NITROBENZENE	FL
EPA 8270 D	O,O,O-TRIETHYL PHOSPHOROTHIOATE	FL
EPA 8270 D	PARATHION (PARATHION - ETHYL)	FL
EPA 8270 D	PENTACHLORONITROBENZENE	FL
EPA 8270 D	PHENACETIN	FL
EPA 8270 D	PHENOL	FL
EPA 8270 D	PRONAMIDE (KERB)	FL
EPA 8270 D	SAFROLE	FL
EPA 8270 D	TETRACHLORVINPHOS (STIROPHOS, GARDONA) Z-ISOMER	FL
EPA 8270 D	THIONAZIN (ZINOPHOS)	FL
EPA 8270 D SIM	DIALLATE	FL
EPA 8270 D SIM	DISULFOTON	FL
EPA 8270 D SIM	KEPONE	FL
EPA 8270 D SIM	PHORATE	FL
EPA 8330 A	1,3,5-TRINITROBENZENE (1,3,5-TNB)	FL
EPA 8330 A	2,4,6-TRINITROTOLUENE (2,4,6-TNT)	FL
EPA 8330 A	2,6-DINITROTOLUENE (2,6-DNT)	FL
EPA 8330 A	2-NITROTOLUENE	FL
EPA 8330 A	4-AMINO-2,6-DINITROTOLUENE (4-AM-DNT)	FL
EPA 8330 A	METHYL-2,4,6-TRINITROPHENYLNIT RAMINE (TETRYL)	FL
EPA 8330 A	NITROGLYCERIN	FL
EPA 8330 A	RDX (HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE)	FL
EPA 8330 B	1,3-DINITROBENZENE (1,3-DNB)	FL
EPA 8330 B	2,4-DINITROTOLUENE (2,4-DNT)	FL
EPA 8330 B	2-AMINO-4,6-DINITROTOLUENE (2-AM-DNT)	FL
EPA 8330 B	3-NITROTOLUENE	FL
EPA 8330 B	4-NITROTOLUENE	FL
EPA 8330 B	NITROBENZENE	FL
EPA 8330 B	OCTAHYDRO-1,3,5,7-TETRANITRO-1 ,3,5,7-TETRAZOCINE (HMX)	FL

Commonwealth of Virginia

Department of General Services
Division of Consolidated Laboratory Services

Scope of Accreditation

VELAP Certificate No.: 6338

Microbac Laboratories, Inc.
158 Starlite Drive
Marietta, OH 45750

Virginia Laboratory ID: 460187
Effective Date: September 15, 2014
Expiration Date: September 14, 2015

SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 8330 B	PENTAERYTHRITOLTETRANITRATE	FL
EPA 8330 B	RDX (HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE)	FL
EPA 9010 B	CYANIDE	FL
EPA 9014	CYANIDE	FL
EPA 9030 B	PREP: SULFIDE	FL
EPA 9034	TOTAL SULFIDES	FL
EPA 9040 C	PH	FL
EPA 9045 D	PH	FL
EPA 9056	BROMIDE	FL
EPA 9056	CHLORIDE	FL
EPA 9056	FLUORIDE	FL
EPA 9056	NITRITE	FL
EPA 9056	SULFATE	FL
EPA 9056 A	BROMIDE	FL
EPA 9056 A	CHLORIDE	FL
EPA 9056 A	FLUORIDE	FL
EPA 9056 A	NITRATE AS N	FL
EPA 9056 A	NITRITE	FL
EPA 9056 A	SULFATE	FL
EPA 9095 B	FREE LIQUID	FL

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF GENERAL SERVICES
DIVISION OF CONSOLIDATED LABORATORY SERVICES

Certifies that

VA Laboratory ID#: 460165
PACE ANALYTICAL SERVICES, INC (FLORIDA)

8 E. TOWER CIRCLE
ORMOND BEACH, FL 32174

Owner: STEVE VANDERBOOM
Operator: BOB DEMPSEY
Responsible Official: BOB DEMPSEY

Having met the requirements of 1 VAC 30-46
and the National Environmental Laboratory Accreditation Conference 2003 Standard

is hereby approved as an

Accredited Laboratory

As more fully described in the attached Scope of Accreditation

Effective Date: **June 15, 2014**
Expiration Date: **June 14, 2015**
Certificate # 2912

Denise M. Toney

Denise M. Toney, Ph.D.
DGS Deputy Director for Laboratories, Acting

Continued accreditation status depends on successful ongoing participation in the program.
Certificate to be conspicuously displayed at the laboratory.
Not valid unless accompanied by a valid Virginia Environmental Laboratory Accreditation Program (VELAP) Scope of Accreditation.
Customers are urged to verify the laboratory's current accreditation status.

Certificate Not Transferable

Surrender Upon Revocation

Commonwealth of Virginia

Department of General Services
Division of Consolidated Laboratory Services

Scope of Accreditation

VELAP Certificate No.: 2912

PACE ANALYTICAL SERVICES, INC (FLORIDA)
8 E. TOWER CIRCLE
ORMOND BEACH, FL 32174

Virginia Laboratory ID: 460165
Effective Date: June 15, 2014
Expiration Date: June 14, 2015

DRINKING WATER

METHOD	ANALYTE	PRIMARY
EPA 180.1 REV 2	TURBIDITY	FL
EPA 200.7 REV 4.4	BARIUM	FL
EPA 200.7 REV 4.4	CADMIUM	FL
EPA 200.7 REV 4.4	CHROMIUM	FL
EPA 200.7 REV 4.4	IRON	FL
EPA 200.7 REV 4.4	MANGANESE	FL
EPA 200.7 REV 4.4	SILICA AS SIO2	FL
EPA 200.7 REV 4.4	SODIUM	FL
EPA 200.8 REV 5.4	ALUMINUM	FL
EPA 200.8 REV 5.4	ARSENIC	FL
EPA 200.8 REV 5.4	BERYLLIUM	FL
EPA 200.8 REV 5.4	CHROMIUM	FL
EPA 200.8 REV 5.4	LEAD	FL
EPA 200.8 REV 5.4	MERCURY	FL
EPA 200.8 REV 5.4	SELENIUM	FL
EPA 200.8 REV 5.4	THALLIUM	FL
EPA 200.8 REV 5.4	ZINC	FL
EPA 300.0 REV 2.1	BROMIDE	FL
EPA 300.0 REV 2.1	FLUORIDE	FL
EPA 300.0 REV 2.1	NITRATE/NITRITE	FL
EPA 300.0 REV 2.1	ORTHOPHOSPHATE AS P	FL
EPA 300.1	BROMATE	FL
EPA 300.1	CHLORIDE	FL
EPA 335.4 REV 1.0	CYANIDE	FL
EPA 353.2 REV 2	NITRATE/NITRITE	FL
EPA 365.1 REV 2	ORTHOPHOSPHATE AS P	FL
EPA 504.1 REV 1.1	1,2-DIBROMOETHANE (EDB, ETHYLENE DIBROMIDE)	FL
EPA 508.1 REV 2	AROCLOR-1016 (PCB-1016)	FL
EPA 508.1 REV 2	AROCLOR-1232 (PCB-1232)	FL
EPA 508.1 REV 2	AROCLOR-1248 (PCB-1248)	FL
EPA 508.1 REV 2	AROCLOR-1260 (PCB-1260)	FL
EPA 508.1 REV 2	CHLORDANE (TECH.)	FL
EPA 508.1 REV 2	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	FL
EPA 508.1 REV 2	HEPTACHLOR EPOXIDE	FL
EPA 508.1 REV 2	HEXACHLOROCYCLOPENTADIENE	FL

METHOD	ANALYTE	PRIMARY
EPA 200.7 REV 4.4	ALUMINUM	FL
EPA 200.7 REV 4.4	BERYLLIUM	FL
EPA 200.7 REV 4.4	CALCIUM	FL
EPA 200.7 REV 4.4	COPPER	FL
EPA 200.7 REV 4.4	MAGNESIUM	FL
EPA 200.7 REV 4.4	NICKEL	FL
EPA 200.7 REV 4.4	SILVER	FL
EPA 200.7 REV 4.4	ZINC	FL
EPA 200.8 REV 5.4	ANTIMONY	FL
EPA 200.8 REV 5.4	BARIUM	FL
EPA 200.8 REV 5.4	CADMIUM	FL
EPA 200.8 REV 5.4	COPPER	FL
EPA 200.8 REV 5.4	MANGANESE	FL
EPA 200.8 REV 5.4	NICKEL	FL
EPA 200.8 REV 5.4	SILVER	FL
EPA 200.8 REV 5.4	URANIUM	FL
EPA 245.1 REV 3	MERCURY	FL
EPA 300.0 REV 2.1	CHLORIDE	FL
EPA 300.0 REV 2.1	NITRATE AS N	FL
EPA 300.0 REV 2.1	NITRITE AS N	FL
EPA 300.0 REV 2.1	SULFATE	FL
EPA 300.1	BROMIDE	FL
EPA 300.1	CHLORITE	FL
EPA 353.2 REV 2	NITRATE AS N	FL
EPA 353.2 REV 2	NITRITE AS N	FL
EPA 504.1 REV 1.1	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	FL
EPA 508.1 REV 2	ALACHLOR	FL
EPA 508.1 REV 2	AROCLOR-1221 (PCB-1221)	FL
EPA 508.1 REV 2	AROCLOR-1242 (PCB-1242)	FL
EPA 508.1 REV 2	AROCLOR-1254 (PCB-1254)	FL
EPA 508.1 REV 2	ATRAZINE	FL
EPA 508.1 REV 2	ENDRIN	FL
EPA 508.1 REV 2	HEPTACHLOR	FL
EPA 508.1 REV 2	HEXACHLOROBENZENE	FL
EPA 508.1 REV 2	METHOXYCHLOR	FL

Commonwealth of Virginia

Department of General Services
Division of Consolidated Laboratory Services

Scope of Accreditation

VELAP Certificate No.: 2912

PACE ANALYTICAL SERVICES, INC (FLORIDA)
8 E. TOWER CIRCLE
ORMOND BEACH, FL 32174

Virginia Laboratory ID: 460165
Effective Date: June 15, 2014
Expiration Date: June 14, 2015

DRINKING WATER

METHOD	ANALYTE	PRIMARY
EPA 508.1 REV 2	SIMAZINE	FL
EPA 515.3 REV 1	2,4-D	FL
EPA 515.3 REV 1	DINOSEB (2-SEC-BUTYL-4,6-DINITROPHENOL, DNBP)	FL
EPA 515.3 REV 1	PICLORAM	FL
EPA 524.2 REV 4.1	1,1,1-TRICHLOROETHANE	FL
EPA 524.2 REV 4.1	1,1-DICHLOROETHYLENE	FL
EPA 524.2 REV 4.1	1,2-DICHLOROBENZENE	FL
EPA 524.2 REV 4.1	1,2-DICHLOROPROPANE	FL
EPA 524.2 REV 4.1	BENZENE	FL
EPA 524.2 REV 4.1	BROMOFORM	FL
EPA 524.2 REV 4.1	CHLOROBENZENE	FL
EPA 524.2 REV 4.1	CHLOROFORM	FL
EPA 524.2 REV 4.1	ETHYLBENZENE	FL
EPA 524.2 REV 4.1	STYRENE	FL
EPA 524.2 REV 4.1	TOLUENE	FL
EPA 524.2 REV 4.1	TRANS-1,2-DICHLOROETHENE	FL
EPA 524.2 REV 4.1	VINYL CHLORIDE	FL
EPA 525.2 REV 2	BENZO(A)PYRENE	FL
EPA 525.2 REV 2	BIS(2-ETHYLHEXYL)ADIPATE (DI(2-ETHYLHEXYL)ADIPATE)	FL
EPA 531.1 REV 3.1	OXAMYL	FL
EPA 548.1 REV 1	ENDOTHALL	FL
EPA 552.2 REV 1	BROMOACETIC ACID	FL
EPA 552.2 REV 1	DALAPON	FL
EPA 552.2 REV 1	DICHLOROACETIC ACID	FL
EPA 552.2 REV 1	TRICHLOROACETIC ACID	FL
SM 2130 B-2011	TURBIDITY	FL
SM 2320 B-2011	ALKALINITY AS CACO3	FL
SM 2540 C-2011	RESIDUE-FILTERABLE (TDS)	FL
SM 5310 B-2011	TOTAL ORGANIC CARBON	FL
SM 5910 B-2011	UV 254	FL
SM 9223 COLILERT P/A	TOTAL COLIFORMS	FL
SM 9223 COLISURE®	TOTAL COLIFORMS	FL
EPA 508.1 REV 2	TOXAPHENE (CHLORINATED CAMPHENE)	FL
EPA 515.3 REV 1	DALAPON	FL
EPA 515.3 REV 1	PENTACHLOROPHENOL	FL
EPA 515.3 REV 1	SILVEX (2,4,5-TP)	FL
EPA 524.2 REV 4.1	1,1,2-TRICHLOROETHANE	FL
EPA 524.2 REV 4.1	1,2,4-TRICHLOROBENZENE	FL
EPA 524.2 REV 4.1	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	FL
EPA 524.2 REV 4.1	1,4-DICHLOROBENZENE	FL
EPA 524.2 REV 4.1	BROMODICHLOROMETHANE	FL
EPA 524.2 REV 4.1	CARBON TETRACHLORIDE	FL
EPA 524.2 REV 4.1	CHLORODIBROMOMETHANE	FL
EPA 524.2 REV 4.1	CIS-1,2-DICHLOROETHYLENE	FL
EPA 524.2 REV 4.1	METHYLENE CHLORIDE (DICHLOROMETHANE)	FL
EPA 524.2 REV 4.1	TETRACHLOROETHENE (PERCHLOROETHENE)	FL
EPA 524.2 REV 4.1	TOTAL TRIHALOMETHANES	FL
EPA 524.2 REV 4.1	TRICHLOROETHENE (TRICHLOROETHYLENE)	FL
EPA 524.2 REV 4.1	XYLENE (TOTAL)	FL
EPA 525.2 REV 2	BIS(2-ETHYLHEXYL) PHTHALATE (DI(2-ETHYLHEXYL)PHTHALATE), (DEHP)	FL
EPA 531.1 REV 3.1	CARBOFURAN (FURADEN)	FL
EPA 547	GLYPHOSATE	FL
EPA 549.2 REV 1	DIQUAT	FL
EPA 552.2 REV 1	CHLOROACETIC ACID	FL
EPA 552.2 REV 1	DIBROMOACETIC ACID	FL
EPA 552.2 REV 1	TOTAL HALOACETIC ACIDS	FL
SM 2120 B-2011	COLOR	FL
SM 2150 B - 2011	ODOR	FL
SM 2510 B-2011	CONDUCTIVITY	FL
SM 5310 B-2011	DISSOLVED ORGANIC CARBON (DOC)	FL
SM 5540 C-2011	SURFACTANTS - MBAS	FL
SM 9223 COLILERT P/A	ESCHERICHIA COLI	FL
SM 9223 COLISURE®	ESCHERICHIA COLI	FL

Commonwealth of Virginia

Department of General Services
Division of Consolidated Laboratory Services

Scope of Accreditation

VELAP Certificate No.: 2912

PACE ANALYTICAL SERVICES, INC (FLORIDA)
8 E. TOWER CIRCLE
ORMOND BEACH, FL 32174

Virginia Laboratory ID: 460165
Effective Date: June 15, 2014
Expiration Date: June 14, 2015

NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 1010	FLASHPOINT	FL	EPA 120.1	CONDUCTIVITY	FL
EPA 160.4	RESIDUE-VOLATILE	FL	EPA 1664 A	OIL AND GREASE (AS HEM)	FL
EPA 1664 A	TOTAL PETROLEUM HYDROCARBONS (TPH) (AS NONPOLAR MATERIAL, SGT-HEM)	FL	EPA 180.1 REV 2	TURBIDITY	FL
EPA 200.7 REV 4.4	ALUMINUM	FL	EPA 200.7 REV 4.4	ANTIMONY	FL
EPA 200.7 REV 4.4	ARSENIC	FL	EPA 200.7 REV 4.4	BARIUM	FL
EPA 200.7 REV 4.4	BERYLLIUM	FL	EPA 200.7 REV 4.4	BORON	FL
EPA 200.7 REV 4.4	CADMIUM	FL	EPA 200.7 REV 4.4	CALCIUM	FL
EPA 200.7 REV 4.4	CHROMIUM	FL	EPA 200.7 REV 4.4	COBALT	FL
EPA 200.7 REV 4.4	COPPER	FL	EPA 200.7 REV 4.4	IRON	FL
EPA 200.7 REV 4.4	LEAD	FL	EPA 200.7 REV 4.4	MAGNESIUM	FL
EPA 200.7 REV 4.4	MANGANESE	FL	EPA 200.7 REV 4.4	MOLYBDENUM	FL
EPA 200.7 REV 4.4	NICKEL	FL	EPA 200.7 REV 4.4	POTASSIUM	FL
EPA 200.7 REV 4.4	SELENIUM	FL	EPA 200.7 REV 4.4	SILICA AS SIO2	FL
EPA 200.7 REV 4.4	SILVER	FL	EPA 200.7 REV 4.4	SODIUM	FL
EPA 200.7 REV 4.4	THALLIUM	FL	EPA 200.7 REV 4.4	TIN	FL
EPA 200.7 REV 4.4	TITANIUM	FL	EPA 200.7 REV 4.4	VANADIUM	FL
EPA 200.7 REV 4.4	ZINC	FL	EPA 200.8 REV 5.4	ALUMINUM	FL
EPA 200.8 REV 5.4	ANTIMONY	FL	EPA 200.8 REV 5.4	ARSENIC	FL
EPA 200.8 REV 5.4	BARIUM	FL	EPA 200.8 REV 5.4	BERYLLIUM	FL
EPA 200.8 REV 5.4	CADMIUM	FL	EPA 200.8 REV 5.4	CHROMIUM	FL
EPA 200.8 REV 5.4	COBALT	FL	EPA 200.8 REV 5.4	COPPER	FL
EPA 200.8 REV 5.4	LEAD	FL	EPA 200.8 REV 5.4	MANGANESE	FL
EPA 200.8 REV 5.4	MOLYBDENUM	FL	EPA 200.8 REV 5.4	NICKEL	FL
EPA 200.8 REV 5.4	SELENIUM	FL	EPA 200.8 REV 5.4	SILVER	FL
EPA 200.8 REV 5.4	THALLIUM	FL	EPA 200.8 REV 5.4	VANADIUM	FL
EPA 200.8 REV 5.4	ZINC	FL	EPA 245.1 REV 3	MERCURY	FL
EPA 300.0 REV 2.1	BROMIDE	FL	EPA 300.0 REV 2.1	CHLORIDE	FL
EPA 300.0 REV 2.1	FLUORIDE	FL	EPA 300.0 REV 2.1	NITRATE AS N	FL
EPA 300.0 REV 2.1	NITRATE/NITRITE	FL	EPA 300.0 REV 2.1	NITRITE AS N	FL
EPA 300.0 REV 2.1	ORTHOPHOSPHATE AS P	FL	EPA 300.0 REV 2.1	SULFATE	FL
EPA 300.1 (LIMITED USE)	CHLORATE	FL	EPA 300.1 (LIMITED USE)	CHLORITE	FL
EPA 335.4 REV 1.0	CYANIDE	FL	EPA 350.1 REV 2	AMMONIA AS N	FL
EPA 351.2 REV 2	KJELDAHL NITROGEN - TOTAL	FL	EPA 353.2 REV 2	NITRATE AS N	FL
EPA 353.2 REV 2	NITRATE/NITRITE	FL	EPA 353.2 REV 2	NITRITE AS N	FL
EPA 365.1 REV 2	ORTHOPHOSPHATE AS P	FL	EPA 365.3	PHOSPHORUS, TOTAL	FL
EPA 365.4	PHOSPHORUS, TOTAL	FL	EPA 410.4 REV 2	CHEMICAL OXYGEN DEMAND	FL
EPA 420.4 REV 1	TOTAL PHENOLICS	FL	EPA 6010 C	ALUMINUM	FL

Commonwealth of Virginia

Department of General Services
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Scope of Accreditation

VELAP Certificate No.: 2912

PACE ANALYTICAL SERVICES, INC (FLORIDA)
8 E. TOWER CIRCLE
ORMOND BEACH, FL 32174

Virginia Laboratory ID: 460165
Effective Date: June 15, 2014
Expiration Date: June 14, 2015

NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 6010 C	ANTIMONY	FL
EPA 6010 C	BARIUM	FL
EPA 6010 C	BORON	FL
EPA 6010 C	CALCIUM	FL
EPA 6010 C	COBALT	FL
EPA 6010 C	IRON	FL
EPA 6010 C	MAGNESIUM	FL
EPA 6010 C	MOLYBDENUM	FL
EPA 6010 C	POTASSIUM	FL
EPA 6010 C	SILICA AS SIO2	FL
EPA 6010 C	SODIUM	FL
EPA 6010 C	THALLIUM	FL
EPA 6010 C	TITANIUM	FL
EPA 6010 C	ZINC	FL
EPA 6020	ALUMINUM	FL
EPA 6020	ARSENIC	FL
EPA 6020	BERYLLIUM	FL
EPA 6020	CHROMIUM	FL
EPA 6020	COPPER	FL
EPA 6020	MANGANESE	FL
EPA 6020	SILVER	FL
EPA 6020	ZINC	FL
EPA 6020 - EXTENDED	MERCURY	FL
EPA 6020 - EXTENDED	SELENIUM	FL
EPA 608	4,4'-DDD	FL
EPA 608	4,4'-DDT	FL
EPA 608	ALPHA-BHC (ALPHA-HEXACHLOROCYCLOHEXANE)	FL
EPA 608	AROCLOR-1221 (PCB-1221)	FL
EPA 608	AROCLOR-1242 (PCB-1242)	FL
EPA 608	AROCLOR-1254 (PCB-1254)	FL
EPA 608	BETA-BHC (BETA-HEXACHLOROCYCLOHEXANE)	FL
EPA 608	DELTA-BHC	FL
EPA 608	ENDOSULFAN I	FL
EPA 608	ENDOSULFAN SULFATE	FL
EPA 608	ENDRIN ALDEHYDE	FL

METHOD	ANALYTE	PRIMARY
EPA 6010 C	ARSENIC	FL
EPA 6010 C	BERYLLIUM	FL
EPA 6010 C	CADMIUM	FL
EPA 6010 C	CHROMIUM	FL
EPA 6010 C	COPPER	FL
EPA 6010 C	LEAD	FL
EPA 6010 C	MANGANESE	FL
EPA 6010 C	NICKEL	FL
EPA 6010 C	SELENIUM	FL
EPA 6010 C	SILVER	FL
EPA 6010 C	STRONTIUM	FL
EPA 6010 C	TIN	FL
EPA 6010 C	VANADIUM	FL
EPA 6010 C - EXTENDED	SILICON	FL
EPA 6020	ANTIMONY	FL
EPA 6020	BARIUM	FL
EPA 6020	CADMIUM	FL
EPA 6020	COBALT	FL
EPA 6020	LEAD	FL
EPA 6020	NICKEL	FL
EPA 6020	THALLIUM	FL
EPA 6020 - EXTENDED	IRON	FL
EPA 6020 - EXTENDED	MOLYBDENUM	FL
EPA 6020 - EXTENDED	VANADIUM	FL
EPA 608	4,4'-DDE	FL
EPA 608	ALDRIN	FL
EPA 608	AROCLOR-1016 (PCB-1016)	FL
EPA 608	AROCLOR-1232 (PCB-1232)	FL
EPA 608	AROCLOR-1248 (PCB-1248)	FL
EPA 608	AROCLOR-1260 (PCB-1260)	FL
EPA 608	CHLORDANE (TECH.)	FL
EPA 608	DIELDRIN	FL
EPA 608	ENDOSULFAN II	FL
EPA 608	ENDRIN	FL
EPA 608	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	FL

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 608	HEPTACHLOR	FL
EPA 608	TOXAPHENE (CHLORINATED CAMPHENE)	FL
EPA 624	1,1,2,2-TETRACHLOROETHANE	FL
EPA 624	1,1-DICHLOROETHANE	FL
EPA 624	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	FL
EPA 624	1,3-DICHLOROBENZENE	FL
EPA 624	2-CHLOROETHYL VINYL ETHER	FL
EPA 624	ACRYLONITRILE	FL
EPA 624	BROMODICHLOROMETHANE	FL
EPA 624	CARBON TETRACHLORIDE	FL
EPA 624	CHLORODIBROMOMETHANE	FL
EPA 624	CHLOROFORM	FL
EPA 624	ETHYLBENZENE	FL
EPA 624	METHYL CHLORIDE (CHLOROMETHANE)	FL
EPA 624	TOLUENE	FL
EPA 624	TRANS-1,3-DICHLOROPROPENE	FL
EPA 624	TRICHLOROFLUOROMETHANE (FLUOROTRICHLOROMETHANE, FREON 11)	FL
EPA 624 - EXTENDED	1,1-DICHLOROETHYLENE	FL
EPA 624 - EXTENDED	XYLENE (TOTAL)	FL
EPA 625	2,4,6-TRICHLOROPHENOL	FL
EPA 625	2,4-DIMETHYLPHENOL	FL
EPA 625	2,4-DINITROTOLUENE (2,4-DNT)	FL
EPA 625	2-CHLORONAPHTHALENE	FL
EPA 625	2-METHYL-4,6-DINITROPHENOL (4,6-DINITRO-2-METHYLPHENOL)	FL
EPA 625	2-NITROPHENOL	FL
EPA 625	4-BROMOPHENYL PHENYL ETHER	FL
EPA 625	4-CHLOROPHENYL PHENYLETHER	FL
EPA 625	ACENAPHTHENE	FL
EPA 625	ANTHRACENE	FL
EPA 625	BENZO(A)ANTHRACENE	FL
EPA 625	BENZO(G,H,I)PERYLENE	FL
EPA 625	BENZO[B]FLUORANTHENE	FL
EPA 608	HEPTACHLOR EPOXIDE	FL
EPA 624	1,1,1-TRICHLOROETHANE	FL
EPA 624	1,1,2-TRICHLOROETHANE	FL
EPA 624	1,2-DICHLOROBENZENE	FL
EPA 624	1,2-DICHLOROPROPANE	FL
EPA 624	1,4-DICHLOROBENZENE	FL
EPA 624	ACROLEIN (PROPENAL)	FL
EPA 624	BENZENE	FL
EPA 624	BROMOFORM	FL
EPA 624	CHLOROBENZENE	FL
EPA 624	CHLOROETHANE (ETHYL CHLORIDE)	FL
EPA 624	CIS-1,3-DICHLOROPROPENE	FL
EPA 624	METHYL BROMIDE (BROMOMETHANE)	FL
EPA 624	TETRACHLOROETHENE (PERCHLOROETHENE)	FL
EPA 624	TRANS-1,2-DICHLOROETHENE	FL
EPA 624	TRICHLOROETHENE (TRICHLOROETHYLENE)	FL
EPA 624	VINYL CHLORIDE	FL
EPA 624 - EXTENDED	METHYL TERT-BUTYL ETHER (MTBE)	FL
EPA 625	1,2,4-TRICHLOROBENZENE	FL
EPA 625	2,4-DICHLOROPHENOL	FL
EPA 625	2,4-DINITROPHENOL	FL
EPA 625	2,6-DINITROTOLUENE (2,6-DNT)	FL
EPA 625	2-CHLOROPHENOL	FL
EPA 625	2-METHYLPHENOL (O-CRESOL)	FL
EPA 625	3,3'-DICHLOROBENZIDINE	FL
EPA 625	4-CHLORO-3-METHYLPHENOL	FL
EPA 625	4-NITROPHENOL	FL
EPA 625	ACENAPHTHYLENE	FL
EPA 625	BENZIDINE	FL
EPA 625	BENZO(A)PYRENE	FL
EPA 625	BENZO(K)FLUORANTHENE	FL
EPA 625	BIS(2-CHLOROETHOXY)METHANE	FL

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 625	BIS(2-CHLOROETHYL) ETHER	FL
EPA 625	BIS(2-ETHYLHEXYL) PHTHALATE (DI(2-ETHYLHEXYL)PHTHALATE), (DEHP)	FL
EPA 625	CHRYSENE	FL
EPA 625	DI-N-OCTYL PHTHALATE	FL
EPA 625	DIETHYL PHTHALATE	FL
EPA 625	FLUORANTHENE	FL
EPA 625	HEXACHLOROBENZENE	FL
EPA 625	HEXACHLOROCYCLOPENTADIENE	FL
EPA 625	INDENO(1,2,3-CD) PYRENE	FL
EPA 625	N-NITROSODI-N-PROPYLAMINE	FL
EPA 625	N-NITROSODIPHENYLAMINE	FL
EPA 625	NITROBENZENE	FL
EPA 625	PHENANTHRENE	FL
EPA 625	PYRENE	FL
EPA 625 - EXTENDED	CARBAZOLE	FL
EPA 625 - EXTENDED	N-OCTADECANE	FL
EPA 8011	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	FL
EPA 8011 - EXTENDED	1,2,3-TRICHLOROPROPANE	FL
EPA 8081 B	4,4'-DDE	FL
EPA 8081 B	ALDRIN	FL
EPA 8081 B	ALPHA-CHLORDANE [CIS-CHLORDANE]	FL
EPA 8081 B	CHLORDANE (TECH.)	FL
EPA 8081 B	DELTA-BHC	FL
EPA 8081 B	ENDOSULFAN I	FL
EPA 8081 B	ENDOSULFAN SULFATE	FL
EPA 8081 B	ENDRIN ALDEHYDE	FL
EPA 8081 B	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 B	HEPTACHLOR	FL
EPA 8081 B	ISODRIN	FL
EPA 8081 B	TOXAPHENE (CHLORINATED CAMPHENE)	FL
EPA 8081 B - EXTENDED	KEPONE	FL

METHOD	ANALYTE	PRIMARY
EPA 625	BIS(2-CHLOROISOPROPYL) ETHER	FL
EPA 625	BUTYL BENZYL PHTHALATE	FL
EPA 625	DI-N-BUTYL PHTHALATE	FL
EPA 625	DIBENZO(A,H) ANTHRACENE	FL
EPA 625	DIMETHYL PHTHALATE	FL
EPA 625	FLUORENE	FL
EPA 625	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	FL
EPA 625	HEXACHLOROETHANE	FL
EPA 625	ISOPHORONE	FL
EPA 625	N-NITROSODIMETHYLAMINE	FL
EPA 625	NAPHTHALENE	FL
EPA 625	PENTACHLOROPHENOL	FL
EPA 625	PHENOL	FL
EPA 625 - EXTENDED	ACETOPHENONE	FL
EPA 625 - EXTENDED	N-DECANE	FL
EPA 7470 A	MERCURY	FL
EPA 8011	1,2-DIBROMOETHANE (EDB, ETHYLENE DIBROMIDE)	FL
EPA 8081 B	4,4'-DDD	FL
EPA 8081 B	4,4'-DDT	FL
EPA 8081 B	ALPHA-BHC (ALPHA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 B	BETA-BHC (BETA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 B	CHLOROBENZILATE	FL
EPA 8081 B	DIELDRIN	FL
EPA 8081 B	ENDOSULFAN II	FL
EPA 8081 B	ENDRIN	FL
EPA 8081 B	ENDRIN KETONE	FL
EPA 8081 B	GAMMA-CHLORDANE [BETA-CHLORDANE, TRANS-CHLORDANE]	FL
EPA 8081 B	HEPTACHLOR EPOXIDE	FL
EPA 8081 B	METHOXYCHLOR	FL
EPA 8081 B - EXTENDED	ALACHLOR	FL
EPA 8081 B - EXTENDED	MIREX	FL

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 8082 A	AROCLOR-1016 (PCB-1016)	FL
EPA 8082 A	AROCLOR-1221 (PCB-1221)	FL
EPA 8082 A	AROCLOR-1232 (PCB-1232)	FL
EPA 8082 A	AROCLOR-1242 (PCB-1242)	FL
EPA 8082 A	AROCLOR-1248 (PCB-1248)	FL
EPA 8082 A	AROCLOR-1254 (PCB-1254)	FL
EPA 8082 A	AROCLOR-1260 (PCB-1260)	FL
EPA 8141 B	ASPON	FL
EPA 8141 B	ATRAZINE	FL
EPA 8141 B	AZINPHOS-ETHYL (ETHYL GUTHION)	FL
EPA 8141 B	AZINPHOS-METHYL (GUTHION)	FL
EPA 8141 B	BOLSTAR (SULPROFOS)	FL
EPA 8141 B	CARBOPHENOTHION	FL
EPA 8141 B	CHLORFENVINPHOS	FL
EPA 8141 B	CHLORPYRIFOS	FL
EPA 8141 B	CHLORPYRIFOS-METHYL	FL
EPA 8141 B	COUMAPHOS	FL
EPA 8141 B	CROTOXYPHOS	FL
EPA 8141 B	DEMETON-O	FL
EPA 8141 B	DEMETON-S	FL
EPA 8141 B	DIAZINON	FL
EPA 8141 B	DICHLOROFENTHION	FL
EPA 8141 B	DICHLOROVOS (DDVP, DICHLORVOS)	FL
EPA 8141 B	DICROTOPHOS	FL
EPA 8141 B	DIMETHOATE	FL
EPA 8141 B	DIOXATHION	FL
EPA 8141 B	DISULFOTON	FL
EPA 8141 B	EPN (PHOSPHONOTHIOIC ACID, PHENYL-, O-ETHYL O-(P-NITROPHENYL) ESTER)	FL
EPA 8141 B	ETHION	FL
EPA 8141 B	ETHOPROP	FL
EPA 8141 B	FAMPHUR	FL
EPA 8141 B	FENITROTHION	FL
EPA 8141 B	FENSULFOTHION	FL
EPA 8141 B	FENTHION	FL
EPA 8141 B	FONOPHOS (FONOFOS)	FL
EPA 8141 B	LEPTOPHOS	FL
EPA 8141 B	MALATHION	FL
EPA 8141 B	MERPHOS	FL
EPA 8141 B	METHYL PARATHION (PARATHION, METHYL)	FL
EPA 8141 B	MEVINPHOS	FL
EPA 8141 B	MONOCROTOPHOS	FL
EPA 8141 B	NALED	FL
EPA 8141 B	PARATHION (PARATHION - ETHYL)	FL
EPA 8141 B	PHORATE	FL
EPA 8141 B	PHOSMET (IMIDAN)	FL
EPA 8141 B	PHOSPHAMIDON	FL
EPA 8141 B	RONNEL	FL
EPA 8141 B	SIMAZINE	FL
EPA 8141 B	SULFOTEPP (TETRAETHYL DITHIOPYROPHOSPHATE)	FL
EPA 8141 B	TERBUFOS	FL
EPA 8141 B	TETRAETHYL PYROPHOSPHATE (TEPP)	FL
EPA 8141 B	THIONAZIN (ZINOPHOS)	FL
EPA 8141 B	TOKUTHION (PROTHIOPHOS)	FL
EPA 8141 B	TRICHLORFON	FL
EPA 8141 B	TRICHLORONATE	FL
EPA 8141 B - EXTENDED	STIROFOS	FL
EPA 8151 A	2,4,5-T	FL
EPA 8151 A	2,4-D	FL
EPA 8151 A	2,4-DB	FL
EPA 8151 A	BENTAZON	FL
EPA 8151 A	DALAPON	FL
EPA 8151 A	DICAMBA	FL
EPA 8151 A	DICHLOROPROP (DICHLORPROP)	FL
EPA 8151 A	DINOSEB (2-SEC-BUTYL-4,6-DINITROPHENOL, DNBP)	FL
EPA 8151 A	MCPA	FL
EPA 8151 A	MCPP	FL

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 8151 A	PENTACHLOROPHENOL	FL
EPA 8151 A	SILVEX (2,4,5-TP)	FL
EPA 8260 B	1,1,1-TRICHLOROETHANE	FL
EPA 8260 B	1,1,2-TRICHLOROETHANE	FL
EPA 8260 B	1,1-DICHLOROETHYLENE	FL
EPA 8260 B	1,2,3-TRICHLOROBENZENE	FL
EPA 8260 B	1,2,4-TRICHLOROBENZENE	FL
EPA 8260 B	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	FL
EPA 8260 B	1,2-DICHLOROBENZENE	FL
EPA 8260 B	1,2-DICHLOROPROPANE	FL
EPA 8260 B	1,3-DICHLOROBENZENE	FL
EPA 8260 B	1,4-DIOXANE (1,4-DIETHYLENEOXIDE)	FL
EPA 8260 B	1-CHLOROHEXANE	FL
EPA 8260 B	2-BUTANONE (METHYL ETHYL KETONE, MEK)	FL
EPA 8260 B	2-CHLOROTOLUENE	FL
EPA 8260 B	4-CHLOROTOLUENE	FL
EPA 8260 B	4-METHYL-2-PENTANONE (MIBK)	FL
EPA 8260 B	ACETONITRILE	FL
EPA 8260 B	ACRYLONITRILE	FL
EPA 8260 B	BENZENE	FL
EPA 8260 B	BROMOCHLOROMETHANE	FL
EPA 8260 B	BROMOFORM	FL
EPA 8260 B	CARBON TETRACHLORIDE	FL
EPA 8260 B	CHLORODIBROMOMETHANE	FL
EPA 8260 B	CHLOROFORM	FL
EPA 8260 B	CIS-1,2-DICHLOROETHYLENE	FL
EPA 8260 B	CIS-1,4-DICHLORO-2-BUTENE	FL
EPA 8260 B	DICHLORODIFLUOROMETHANE (FREON-12)	FL
EPA 8260 B	ETHANOL	FL
EPA 8260 B	ETHYL METHACRYLATE	FL
EPA 8260 B	ETHYLBENZENE	FL
EPA 8260 B	IODOMETHANE (METHYL IODIDE)	FL
EPA 8260 B	PICLORAM	FL
EPA 8260 B	1,1,1,2-TETRACHLOROETHANE	FL
EPA 8260 B	1,1,2,2-TETRACHLOROETHANE	FL
EPA 8260 B	1,1-DICHLOROETHANE	FL
EPA 8260 B	1,1-DICHLOROPROPENE	FL
EPA 8260 B	1,2,3-TRICHLOROPROPANE	FL
EPA 8260 B	1,2,4-TRIMETHYLBENZENE	FL
EPA 8260 B	1,2-DIBROMOETHANE (EDB, ETHYLENE DIBROMIDE)	FL
EPA 8260 B	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	FL
EPA 8260 B	1,3,5-TRIMETHYLBENZENE	FL
EPA 8260 B	1,4-DICHLOROBENZENE	FL
EPA 8260 B	1-BUTANOL (N-BUTANOL)	FL
EPA 8260 B	2,2-DICHLOROPROPANE	FL
EPA 8260 B	2-CHLOROETHYL VINYL ETHER	FL
EPA 8260 B	2-HEXANONE	FL
EPA 8260 B	4-ISOPROPYLTOLUENE (P-CYMENE)	FL
EPA 8260 B	ACETONE	FL
EPA 8260 B	ACROLEIN (PROPENAL)	FL
EPA 8260 B	ALLYL CHLORIDE (3-CHLOROPROPENE)	FL
EPA 8260 B	BROMOBENZENE	FL
EPA 8260 B	BROMODICHLOROMETHANE	FL
EPA 8260 B	CARBON DISULFIDE	FL
EPA 8260 B	CHLOROBENZENE	FL
EPA 8260 B	CHLOROETHANE (ETHYL CHLORIDE)	FL
EPA 8260 B	CHLOROPRENE (2-CHLORO-1,3-BUTADIENE)	FL
EPA 8260 B	CIS-1,3-DICHLOROPROPENE	FL
EPA 8260 B	DIBROMOMETHANE (METHYLENE BROMIDE)	FL
EPA 8260 B	DIETHYL ETHER	FL
EPA 8260 B	ETHYL ACETATE	FL
EPA 8260 B	ETHYL-T-BUTYLETHER (2-ETHOXY-2-METHYLPROPANE, ETBE)	FL
EPA 8260 B	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	FL

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 8260 B	ISOBUTYL ALCOHOL (2-METHYL-1-PROPANOL)	FL
EPA 8260 B	M+P-XYLENE	FL
EPA 8260 B	METHYL BROMIDE (BROMOMETHANE)	FL
EPA 8260 B	METHYL METHACRYLATE	FL
EPA 8260 B	METHYLENE CHLORIDE (DICHLOROMETHANE)	FL
EPA 8260 B	N-PROPYLBENZENE	FL
EPA 8260 B	O-XYLENE	FL
EPA 8260 B	PROPIONITRILE (ETHYL CYANIDE)	FL
EPA 8260 B	STYRENE	FL
EPA 8260 B	TERT-BUTYLBENZENE	FL
EPA 8260 B	TOLUENE	FL
EPA 8260 B	TRANS-1,3-DICHLOROPROPENE	FL
EPA 8260 B	TRICHLOROETHENE (TRICHLOROETHYLENE)	FL
EPA 8260 B	VINYL ACETATE	FL
EPA 8260 B	XYLENE (TOTAL)	FL
EPA 8260 B - EXTENDED	3,3-DIMETHYL-1-BUTANOL	FL
EPA 8260 B - EXTENDED	DI-ISOPROPYLETHER (DIPE, ISOPROPYL ETHER)	FL
EPA 8260 B - EXTENDED	METHYLCYCLOHEXANE	FL
EPA 8260 B - EXTENDED	T-AMYL ALCOHOL (TAA)	FL
EPA 8260 B - EXTENDED	TERT-BUTYL FORMATE	FL
EPA 8270 D	1,2,4,5-TETRACHLOROBENZENE	FL
EPA 8270 D	1,2-DICHLOROBENZENE	FL
EPA 8270 D	1,2-DIPHENYLHYDRAZINE	FL
EPA 8270 D	1,3-DICHLOROBENZENE	FL
EPA 8270 D	1,4-DICHLOROBENZENE	FL
EPA 8270 D	1,4-PHENYLENEDIAMINE	FL
EPA 8270 D	2,3,4,6-TETRACHLOROPHENOL	FL
EPA 8270 D	2,4,6-TRICHLOROPHENOL	FL
EPA 8270 D	2,4-DIMETHYLPHENOL	FL
EPA 8270 D	2,4-DINITROTOLUENE (2,4-DNT)	FL
EPA 8270 D	2,6-DINITROTOLUENE (2,6-DNT)	FL
EPA 8260 B	ISOPROPYLBENZENE	FL
EPA 8260 B	METHACRYLONITRILE	FL
EPA 8260 B	METHYL CHLORIDE (CHLOROMETHANE)	FL
EPA 8260 B	METHYL TERT-BUTYL ETHER (MTBE)	FL
EPA 8260 B	N-BUTYLBENZENE	FL
EPA 8260 B	NAPHTHALENE	FL
EPA 8260 B	PENTACHLOROETHANE	FL
EPA 8260 B	SEC-BUTYLBENZENE	FL
EPA 8260 B	TERT-BUTYL ALCOHOL	FL
EPA 8260 B	TETRACHLOROETHENE (PERCHLOROETHENE)	FL
EPA 8260 B	TRANS-1,2-DICHLOROETHENE	FL
EPA 8260 B	TRANS-1,4-DICHLORO-2-BUTENE	FL
EPA 8260 B	TRICHLOROFLUOROMETHANE (FLUOROTRICHLOROMETHANE, FREON 11)	FL
EPA 8260 B	VINYL CHLORIDE	FL
EPA 8260 B - EXTENDED	1,1,2-TRICHLORO-1,2,2-TRIFLUOR OETHANE (FREON 113)	FL
EPA 8260 B - EXTENDED	CYCLOHEXANE	FL
EPA 8260 B - EXTENDED	METHYL ACETATE	FL
EPA 8260 B - EXTENDED	N-HEXANE	FL
EPA 8260 B - EXTENDED	T-AMYLMETHYLETHER (TAME)	FL
EPA 8260 B - EXTENDED	TETRAHYDROFURAN (THF)	FL
EPA 8270 D	1,2,4-TRICHLOROBENZENE	FL
EPA 8270 D	1,2-DINITROBENZENE	FL
EPA 8270 D	1,3,5-TRINITROBENZENE (1,3,5-TNB)	FL
EPA 8270 D	1,3-DINITROBENZENE (1,3-DNB)	FL
EPA 8270 D	1,4-NAPHTHOQUINONE	FL
EPA 8270 D	1-NAPHTHYLAMINE	FL
EPA 8270 D	2,4,5-TRICHLOROPHENOL	FL
EPA 8270 D	2,4-DICHLOROPHENOL	FL
EPA 8270 D	2,4-DINITROPHENOL	FL
EPA 8270 D	2,6-DICHLOROPHENOL	FL
EPA 8270 D	2-ACETYLAMINOFLUORENE	FL

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NON-POTABLE WATER

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EPA 8270 D	2-CHLORONAPHTHALENE	FL
EPA 8270 D	2-METHYL-4,6-DINITROPHENOL (4,6-DINITRO-2-METHYLPHENOL)	FL
EPA 8270 D	2-METHYLPHENOL (O-CRESOL)	FL
EPA 8270 D	2-NITROANILINE	FL
EPA 8270 D	2-PICOLINE (2-METHYLPYRIDINE)	FL
EPA 8270 D	3,3'-DIMETHYLBENZIDINE	FL
EPA 8270 D	3-METHYLPHENOL (M-CRESOL)	FL
EPA 8270 D	4-AMINOBIPHENYL	FL
EPA 8270 D	4-CHLORO-3-METHYLPHENOL	FL
EPA 8270 D	4-CHLOROPHENYL PHENYLETHER	FL
EPA 8270 D	4-METHYLPHENOL (P-CRESOL)	FL
EPA 8270 D	4-NITROPHENOL	FL
EPA 8270 D	7,12-DIMETHYLBENZ(A) ANTHRACENE	FL
EPA 8270 D	ACENAPHTHENE	FL
EPA 8270 D	ACETOPHENONE	FL
EPA 8270 D	ANTHRACENE	FL
EPA 8270 D	BENZIDINE	FL
EPA 8270 D	BENZO(A)PYRENE	FL
EPA 8270 D	BENZO(K)FLUORANTHENE	FL
EPA 8270 D	BENZO[B]FLUORANTHENE	FL
EPA 8270 D	BIS(2-CHLOROETHOXY)METHANE	FL
EPA 8270 D	BIS(2-CHLOROISOPROPYL) ETHER	FL
EPA 8270 D	BUTYL BENZYL PHTHALATE	FL
EPA 8270 D	DI-N-BUTYL PHTHALATE	FL
EPA 8270 D	DIALLATE	FL
EPA 8270 D	DIBENZOFURAN	FL
EPA 8270 D	DIMETHYL PHTHALATE	FL
EPA 8270 D	ETHYL METHANESULFONATE	FL
EPA 8270 D	FLUORENE	FL
EPA 8270 D	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	FL
EPA 8270 D	HEXACHLOROETHANE	FL
EPA 8270 D	INDENO(1,2,3-CD) PYRENE	FL
EPA 8270 D	ISOPHORONE	FL
EPA 8270 D	KEPONE	FL

METHOD	ANALYTE	PRIMARY
EPA 8270 D	2-CHLOROPHENOL	FL
EPA 8270 D	2-METHYLNAPHTHALENE	FL
EPA 8270 D	2-NAPHTHYLAMINE	FL
EPA 8270 D	2-NITROPHENOL	FL
EPA 8270 D	3,3'-DICHLOROBENZIDINE	FL
EPA 8270 D	3-METHYLCHOLANTHRENE	FL
EPA 8270 D	3-NITROANILINE	FL
EPA 8270 D	4-BROMOPHENYL PHENYL ETHER	FL
EPA 8270 D	4-CHLOROANILINE	FL
EPA 8270 D	4-DIMETHYL AMINOAZOBENZENE	FL
EPA 8270 D	4-NITROANILINE	FL
EPA 8270 D	5-NITRO-O-TOLUIDINE	FL
EPA 8270 D	A-A-DIMETHYLPHENETHYLAMINE	FL
EPA 8270 D	ACENAPHTHYLENE	FL
EPA 8270 D	ANILINE	FL
EPA 8270 D	ARAMITE	FL
EPA 8270 D	BENZO(A)ANTHRACENE	FL
EPA 8270 D	BENZO(G,H,I)PERYLENE	FL
EPA 8270 D	BENZOIC ACID	FL
EPA 8270 D	BENZYL ALCOHOL	FL
EPA 8270 D	BIS(2-CHLOROETHYL) ETHER	FL
EPA 8270 D	BIS(2-ETHYLHEXYL) PHTHALATE (DI(2-ETHYLHEXYL)PHTHALATE), (DEHP)	FL
EPA 8270 D	CHRYSENE	FL
EPA 8270 D	DI-N-OCTYL PHTHALATE	FL
EPA 8270 D	DIBENZO(A,H) ANTHRACENE	FL
EPA 8270 D	DIETHYL PHTHALATE	FL
EPA 8270 D	DINOSEB (2-SEC-BUTYL-4,6-DINITROPHENOL, DNBP)	FL
EPA 8270 D	FLUORANTHENE	FL
EPA 8270 D	HEXACHLOROBENZENE	FL
EPA 8270 D	HEXACHLOROCYCLOPENTADIENE	FL
EPA 8270 D	HEXACHLOROPROPENE	FL
EPA 8270 D	ISODRIN	FL
EPA 8270 D	ISOSAFROLE	FL
EPA 8270 D	METHAPYRILENE	FL

Scope of Accreditation

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PACE ANALYTICAL SERVICES, INC (FLORIDA)
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ORMOND BEACH, FL 32174

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 8270 D	METHYL METHANESULFONATE	FL
EPA 8270 D	N-NITROSODI-N-PROPYLAMINE	FL
EPA 8270 D	N-NITROSODIMETHYLAMINE	FL
EPA 8270 D	N-NITROSOMETHYLETHYLAMINE	FL
EPA 8270 D	N-NITROSOPIPERIDINE	FL
EPA 8270 D	NAPHTHALENE	FL
EPA 8270 D	NITROQUINOLINE-1-OXIDE	FL
EPA 8270 D	O-TOLUIDINE (2-METHYLANILINE)	FL
EPA 8270 D	PENTACHLORONITROBENZENE	FL
EPA 8270 D	PHENACETIN	FL
EPA 8270 D	PHENOL	FL
EPA 8270 D	PYRENE	FL
EPA 8270 D	THIONAZIN (ZINOPHOS)	FL
EPA 8270 D - EXTENDED	2,3-DICHLOROANILINE	FL
EPA 8270 D - EXTENDED	CARBAZOLE	FL
EPA 9012 A	TOTAL CYANIDE	FL
EPA 9040 C	PH	FL
EPA 9056 A	BROMIDE	FL
EPA 9056 A	FLUORIDE	FL
EPA 9056 A	NITRITE	FL
EPA 9056 A	SULFATE	FL
SM 2120 B-2011	COLOR	FL
SM 2340 B-2011	TOTAL HARDNESS AS CACO3	FL
SM 2540 B-2011	RESIDUE-TOTAL	FL
SM 2540 D-2011	RESIDUE-NONFILTERABLE (TSS)	FL
SM 4500-CN⁻ E-2011	TOTAL CYANIDE	FL
SM 4500-SIO2 C-2011	SILICA AS SIO2	FL
SM 5210 B-2011	CARBONACEOUS BOD, CBOD	FL
SM 5540 C-2011	SURFACTANTS - MBAS	FL
SM 6630 C-2000	4,4'-DDE	FL
SM 6630 C-2000	ALDRIN	FL
SM 6630 C-2000	BETA-BHC (BETA-HEXACHLOROCYCLOHEXANE)	FL
SM 6630 C-2000	DIELDRIN	FL
SM 6630 C-2000	ENDOSULFAN II	FL

METHOD	ANALYTE	PRIMARY
EPA 8270 D	N-NITROSO-DI-N-BUTYLAMINE	FL
EPA 8270 D	N-NITROSODIETHYLAMINE	FL
EPA 8270 D	N-NITROSODIPHENYLAMINE	FL
EPA 8270 D	N-NITROSOMORPHOLINE	FL
EPA 8270 D	N-NITROSOPYRROLIDINE	FL
EPA 8270 D	NITROBENZENE	FL
EPA 8270 D	O,O,O-TRIETHYL PHOSPHOROTHIOATE	FL
EPA 8270 D	PENTACHLOROBENZENE	FL
EPA 8270 D	PENTACHLOROPHENOL	FL
EPA 8270 D	PHENANTHRENE	FL
EPA 8270 D	PRONAMIDE (KERB)	FL
EPA 8270 D	SAFROLE	FL
EPA 8270 D - EXTENDED	1-METHYLNAPHTHALENE	FL
EPA 8270 D - EXTENDED	3+4-METHYL PHENOL (M+P CRESOL)	FL
EPA 8270 D - EXTENDED	PYRIDINE	FL
EPA 9034	TOTAL SULFIDES	FL
EPA 9050 A	CONDUCTIVITY	FL
EPA 9056 A	CHLORIDE	FL
EPA 9056 A	NITRATE AS N	FL
EPA 9056 A	ORTHOPHOSPHATE AS P	FL
EPA 9066	TOTAL PHENOLICS	FL
SM 2320 B-2011	ALKALINITY AS CACO3	FL
SM 2510 B-2011	CONDUCTIVITY	FL
SM 2540 C-2011	RESIDUE-FILTERABLE (TDS)	FL
SM 3500-CR B-2011	CHROMIUM VI	FL
SM 4500-S2⁻ F-2011	SULFIDE	FL
SM 5210 B-2011	BIOCHEMICAL OXYGEN DEMAND	FL
SM 5310 C-2011	TOTAL ORGANIC CARBON	FL
SM 6630 C-2000	4,4'-DDD	FL
SM 6630 C-2000	4,4'-DDT	FL
SM 6630 C-2000	ALPHA-BHC (ALPHA-HEXACHLOROCYCLOHEXANE)	FL
SM 6630 C-2000	DELTA-BHC	FL
SM 6630 C-2000	ENDOSULFAN I	FL
SM 6630 C-2000	ENDOSULFAN SULFATE	FL

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
SM 6630 C-2000	ENDRIN	FL
SM 6630 C-2000	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	FL
SM 6630 C-2000	HEPTACHLOR EPOXIDE	FL
SM 9222 D-1997	FECAL COLIFORMS	FL
SM 6630 C-2000	ENDRIN ALDEHYDE	FL
SM 6630 C-2000	HEPTACHLOR	FL
SM 6630 C-2000	METHOXYCHLOR	FL

SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 1010 A	FLASHPOINT	FL
EPA 1311	PREP: TOXICITY CHARACTERISTIC LEACHING PROCEDURE	FL
EPA 350.1 REV 2	AMMONIA AS N	FL
EPA 365.4	PHOSPHORUS, TOTAL	FL
EPA 6010 B	ANTIMONY	FL
EPA 6010 B	BARIUM	FL
EPA 6010 B	BORON	FL
EPA 6010 B	CALCIUM	FL
EPA 6010 B	COBALT	FL
EPA 6010 B	IRON	FL
EPA 6010 B	MAGNESIUM	FL
EPA 6010 B	MOLYBDENUM	FL
EPA 6010 B	POTASSIUM	FL
EPA 6010 B	SILVER	FL
EPA 6010 B	STRONTIUM	FL
EPA 6010 B	TIN	FL
EPA 6010 B	VANADIUM	FL
EPA 6020	ARSENIC	FL
EPA 6020	BERYLLIUM	FL
EPA 6020	CHROMIUM	FL
EPA 6020	COPPER	FL
EPA 6020	MANGANESE	FL
EPA 6020	THALLIUM	FL
EPA 6020 - EXTENDED	SELENIUM	FL
EPA 7471 A	MERCURY	FL
EPA 8081 B	4,4'-DDE	FL
EPA 8081 B	ALDRIN	FL
EPA 8081 B	ALPHA-CHLORDANE [CIS-CHLORDANE]	FL
EPA 1030	IGNITABILITY	FL
EPA 1312	PREP: SYNTHETIC PRECIPITATION LEACHING PROCEDURE	FL
EPA 351.2 REV 2	KJELDAHL NITROGEN - TOTAL	FL
EPA 6010 B	ALUMINUM	FL
EPA 6010 B	ARSENIC	FL
EPA 6010 B	BERYLLIUM	FL
EPA 6010 B	CADMIUM	FL
EPA 6010 B	CHROMIUM	FL
EPA 6010 B	COPPER	FL
EPA 6010 B	LEAD	FL
EPA 6010 B	MANGANESE	FL
EPA 6010 B	NICKEL	FL
EPA 6010 B	SELENIUM	FL
EPA 6010 B	SODIUM	FL
EPA 6010 B	THALLIUM	FL
EPA 6010 B	TITANIUM	FL
EPA 6010 B	ZINC	FL
EPA 6020	BARIUM	FL
EPA 6020	CADMIUM	FL
EPA 6020	COBALT	FL
EPA 6020	LEAD	FL
EPA 6020	NICKEL	FL
EPA 6020	ZINC	FL
EPA 6020 - EXTENDED	VANADIUM	FL
EPA 8081 B	4,4'-DDD	FL
EPA 8081 B	4,4'-DDT	FL
EPA 8081 B	ALPHA-BHC (ALPHA-HEXACHLOROCYCLOHEXANE)	FL

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METHOD	ANALYTE	PRIMARY
EPA 8081 B	BETA-BHC (BETA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 B	DELTA-BHC	FL
EPA 8081 B	ENDOSULFAN I	FL
EPA 8081 B	ENDOSULFAN SULFATE	FL
EPA 8081 B	ENDRIN ALDEHYDE	FL
EPA 8081 B	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 B	HEPTACHLOR	FL
EPA 8081 B	ISODRIN	FL
EPA 8081 B	TOXAPHENE (CHLORINATED CAMPHENE)	FL
EPA 8081 B - EXTENDED	MIREX	FL
EPA 8082 - OIL A	AROCLOR-1221 (PCB-1221)	FL
EPA 8082 - OIL A	AROCLOR-1242 (PCB-1242)	FL
EPA 8082 - OIL A	AROCLOR-1254 (PCB-1254)	FL
EPA 8082 A	AROCLOR-1016 (PCB-1016)	FL
EPA 8082 A	AROCLOR-1232 (PCB-1232)	FL
EPA 8082 A	AROCLOR-1248 (PCB-1248)	FL
EPA 8082 A	AROCLOR-1260 (PCB-1260)	FL
EPA 8141 B	ATRAZINE	FL
EPA 8141 B	AZINPHOS-METHYL (GUTHION)	FL
EPA 8141 B	CARBOPHENOTHION	FL
EPA 8141 B	CHLORPYRIFOS	FL
EPA 8141 B	COUMAPHOS	FL
EPA 8141 B	DEMETON-O	FL
EPA 8141 B	DIAZINON	FL
EPA 8141 B	DICHLOROVOS (DDVP, DICHLORVOS)	FL
EPA 8141 B	DIMETHOATE	FL
EPA 8141 B	EPN (PHOSPHONOTHIOIC ACID, PHENYL-, O-ETHYL O-(P-NITROPHENYL) ESTER)	FL
EPA 8141 B	ETHOPROP	FL
EPA 8141 B	FENITROTHION	FL
EPA 8141 B	FENTHION	FL
EPA 8141 B	LEPTOPHOS	FL
EPA 8141 B	MERPHOS	FL
EPA 8141 B	MEVINPHOS	FL
EPA 8081 B	CHLORDANE (TECH.)	FL
EPA 8081 B	DIELDRIN	FL
EPA 8081 B	ENDOSULFAN II	FL
EPA 8081 B	ENDRIN	FL
EPA 8081 B	ENDRIN KETONE	FL
EPA 8081 B	GAMMA-CHLORDANE [BETA-CHLORDANE, TRANS-CHLORDANE]	FL
EPA 8081 B	HEPTACHLOR EPOXIDE	FL
EPA 8081 B	METHOXYCHLOR	FL
EPA 8081 B - EXTENDED	ALACHLOR	FL
EPA 8082 - OIL A	AROCLOR-1016 (PCB-1016)	FL
EPA 8082 - OIL A	AROCLOR-1232 (PCB-1232)	FL
EPA 8082 - OIL A	AROCLOR-1248 (PCB-1248)	FL
EPA 8082 - OIL A	AROCLOR-1260 (PCB-1260)	FL
EPA 8082 A	AROCLOR-1221 (PCB-1221)	FL
EPA 8082 A	AROCLOR-1242 (PCB-1242)	FL
EPA 8082 A	AROCLOR-1254 (PCB-1254)	FL
EPA 8141 B	ASPON	FL
EPA 8141 B	AZINPHOS-ETHYL (ETHYL GUTHION)	FL
EPA 8141 B	BOLSTAR (SULPROFOS)	FL
EPA 8141 B	CHLORFENVINPHOS	FL
EPA 8141 B	CHLORPYRIFOS-METHYL	FL
EPA 8141 B	CROTOXYPHOS	FL
EPA 8141 B	DEMETON-S	FL
EPA 8141 B	DICHLOROFENTHION	FL
EPA 8141 B	DICROTOPHOS	FL
EPA 8141 B	DISULFOTON	FL
EPA 8141 B	ETHION	FL
EPA 8141 B	FAMPHUR	FL
EPA 8141 B	FENSULFOTHION	FL
EPA 8141 B	FONOPHOS (FONOFOS)	FL
EPA 8141 B	MALATHION	FL
EPA 8141 B	METHYL PARATHION (PARATHION, METHYL)	FL

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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 8141 B	MONOCROTOPHOS	FL
EPA 8141 B	PARATHION (PARATHION - ETHYL)	FL
EPA 8141 B	PHOSMET (IMIDAN)	FL
EPA 8141 B	RONNEL	FL
EPA 8141 B	SULFOTEPP (TETRAETHYL DITHIOPYROPHOSPHATE)	FL
EPA 8141 B	TETRAETHYL PYROPHOSPHATE (TEPP)	FL
EPA 8141 B	TOKUTHION (PROTHIOPHOS)	FL
EPA 8141 B	TRICHLORONATE	FL
EPA 8151 A	2,4-D	FL
EPA 8151 A	BENTAZON	FL
EPA 8151 A	DICAMBA	FL
EPA 8151 A	DINOSEB (2-SEC-BUTYL-4,6-DINITROPHENOL, DNBP)	FL
EPA 8151 A	MCPP	FL
EPA 8151 A	PICLORAM	FL
EPA 8260 B	1,1,1,2-TETRACHLOROETHANE	FL
EPA 8260 B	1,1,2,2-TETRACHLOROETHANE	FL
EPA 8260 B	1,1-DICHLOROETHANE	FL
EPA 8260 B	1,1-DICHLOROPROPENE	FL
EPA 8260 B	1,2,3-TRICHLOROPROPANE	FL
EPA 8260 B	1,2,4-TRIMETHYLBENZENE	FL
EPA 8260 B	1,2-DIBROMOETHANE (EDB, ETHYLENE DIBROMIDE)	FL
EPA 8260 B	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	FL
EPA 8260 B	1,3,5-TRIMETHYLBENZENE	FL
EPA 8260 B	1,3-DICHLOROPROPANE	FL
EPA 8260 B	1-BUTANOL (N-BUTANOL)	FL
EPA 8260 B	2,2-DICHLOROPROPANE	FL
EPA 8260 B	2-CHLOROETHYL VINYL ETHER	FL
EPA 8260 B	2-HEXANONE	FL
EPA 8260 B	4-ISOPROPYLTOLUENE (P-CYMENE)	FL
EPA 8260 B	ACETONE	FL
EPA 8260 B	ACROLEIN (PROPENAL)	FL
EPA 8260 B	ALLYL CHLORIDE (3-CHLOROPROPENE)	FL
EPA 8260 B	BROMOBENZENE	FL
EPA 8141 B	NALED	FL
EPA 8141 B	PHORATE	FL
EPA 8141 B	PHOSPHAMIDON	FL
EPA 8141 B	SIMAZINE	FL
EPA 8141 B	TERBUFOS	FL
EPA 8141 B	THIONAZIN (ZINOPHOS)	FL
EPA 8141 B	TRICHLORFON	FL
EPA 8151 A	2,4,5-T	FL
EPA 8151 A	2,4-DB	FL
EPA 8151 A	DALAPON	FL
EPA 8151 A	DICHLOROPROP (DICHLORPROP)	FL
EPA 8151 A	MCPA	FL
EPA 8151 A	PENTACHLOROPHENOL	FL
EPA 8151 A	SILVEX (2,4,5-TP)	FL
EPA 8260 B	1,1,1-TRICHLOROETHANE	FL
EPA 8260 B	1,1,2-TRICHLOROETHANE	FL
EPA 8260 B	1,1-DICHLOROETHYLENE	FL
EPA 8260 B	1,2,3-TRICHLOROBENZENE	FL
EPA 8260 B	1,2,4-TRICHLOROBENZENE	FL
EPA 8260 B	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	FL
EPA 8260 B	1,2-DICHLOROBENZENE	FL
EPA 8260 B	1,2-DICHLOROPROPANE	FL
EPA 8260 B	1,3-DICHLOROBENZENE	FL
EPA 8260 B	1,4-DICHLOROBENZENE	FL
EPA 8260 B	1-CHLOROHEXANE	FL
EPA 8260 B	2-BUTANONE (METHYL ETHYL KETONE, MEK)	FL
EPA 8260 B	2-CHLOROTOLUENE	FL
EPA 8260 B	4-CHLOROTOLUENE	FL
EPA 8260 B	4-METHYL-2-PENTANONE (MIBK)	FL
EPA 8260 B	ACETONITRILE	FL
EPA 8260 B	ACRYLONITRILE	FL
EPA 8260 B	BENZENE	FL
EPA 8260 B	BROMOCHLOROMETHANE	FL

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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 8260 B	BROMODICHLOROMETHANE	FL
EPA 8260 B	CARBON DISULFIDE	FL
EPA 8260 B	CHLOROBENZENE	FL
EPA 8260 B	CHLOROETHANE (ETHYL CHLORIDE)	FL
EPA 8260 B	CHLOROPRENE (2-CHLORO-1,3-BUTADIENE)	FL
EPA 8260 B	CIS-1,3-DICHLOROPROPENE	FL
EPA 8260 B	DIBROMOMETHANE (METHYLENE BROMIDE)	FL
EPA 8260 B	DIETHYL ETHER	FL
EPA 8260 B	ETHYL ACETATE	FL
EPA 8260 B	ETHYL-T-BUTYLETHER (2-ETHOXY-2-METHYLPROPANE, ETBE)	FL
EPA 8260 B	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	FL
EPA 8260 B	ISOBUTYL ALCOHOL (2-METHYL-1-PROPANOL)	FL
EPA 8260 B	M+P-XYLENE	FL
EPA 8260 B	METHYL BROMIDE (BROMOMETHANE)	FL
EPA 8260 B	METHYL METHACRYLATE	FL
EPA 8260 B	METHYLENE CHLORIDE (DICHLOROMETHANE)	FL
EPA 8260 B	N-PROPYLBENZENE	FL
EPA 8260 B	O-XYLENE	FL
EPA 8260 B	PROPIONITRILE (ETHYL CYANIDE)	FL
EPA 8260 B	STYRENE	FL
EPA 8260 B	TERT-BUTYLBENZENE	FL
EPA 8260 B	TOLUENE	FL
EPA 8260 B	TRANS-1,3-DICHLOROPROPENE	FL
EPA 8260 B	TRICHLOROETHENE (TRICHLOROETHYLENE)	FL
EPA 8260 B	VINYL ACETATE	FL
EPA 8260 B	XYLENE (TOTAL)	FL
EPA 8260 B - EXTENDED	3,3-DIMETHYL-1-BUTANOL	FL
EPA 8260 B - EXTENDED	DI-ISOPROPYLETHER (DIPE, ISOPROPYL ETHER)	FL
EPA 8260 B - EXTENDED	METHYLCYCLOHEXANE	FL
EPA 8260 B	BROMOFORM	FL
EPA 8260 B	CARBON TETRACHLORIDE	FL
EPA 8260 B	CHLORODIBROMOMETHANE	FL
EPA 8260 B	CHLOROFORM	FL
EPA 8260 B	CIS-1,2-DICHLOROETHYLENE	FL
EPA 8260 B	CIS-1,4-DICHLORO-2-BUTENE	FL
EPA 8260 B	DICHLORODIFLUOROMETHANE (FREON-12)	FL
EPA 8260 B	ETHANOL	FL
EPA 8260 B	ETHYL METHACRYLATE	FL
EPA 8260 B	ETHYLBENZENE	FL
EPA 8260 B	IODOMETHANE (METHYL IODIDE)	FL
EPA 8260 B	ISOPROPYLBENZENE	FL
EPA 8260 B	METHACRYLONITRILE	FL
EPA 8260 B	METHYL CHLORIDE (CHLOROMETHANE)	FL
EPA 8260 B	METHYL TERT-BUTYL ETHER (MTBE)	FL
EPA 8260 B	N-BUTYLBENZENE	FL
EPA 8260 B	NAPHTHALENE	FL
EPA 8260 B	PENTACHLOROETHANE	FL
EPA 8260 B	SEC-BUTYLBENZENE	FL
EPA 8260 B	TERT-BUTYL ALCOHOL	FL
EPA 8260 B	TETRACHLOROETHENE (PERCHLOROETHENE)	FL
EPA 8260 B	TRANS-1,2-DICHLOROETHENE	FL
EPA 8260 B	TRANS-1,4-DICHLORO-2-BUTENE	FL
EPA 8260 B	TRICHLOROFLUOROMETHANE (FLUOROTRICHLOROMETHANE, FREON 11)	FL
EPA 8260 B	VINYL CHLORIDE	FL
EPA 8260 B - EXTENDED	1,1,2-TRICHLORO-1,2,2-TRIFLUOR OETHANE (FREON 113)	FL
EPA 8260 B - EXTENDED	CYCLOHEXANE	FL
EPA 8260 B - EXTENDED	METHYL ACETATE	FL
EPA 8260 B - EXTENDED	N-HEXANE	FL

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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 8260 B - EXTENDED	T-AMYL ALCOHOL (TAA)	FL
EPA 8260 B - EXTENDED	TERT-BUTYL FORMATE	FL
EPA 8270 D	1,2,4-TRICHLOROBENZENE	FL
EPA 8270 D	1,2-DIPHENYLHYDRAZINE	FL
EPA 8270 D	1,4-DICHLOROBENZENE	FL
EPA 8270 D	2,4,5-TRICHLOROPHENOL	FL
EPA 8270 D	2,4-DICHLOROPHENOL	FL
EPA 8270 D	2,4-DINITROPHENOL	FL
EPA 8270 D	2,6-DINITROTOLUENE (2,6-DNT)	FL
EPA 8270 D	2-CHLOROPHENOL	FL
EPA 8270 D	2-METHYLNAPHTHALENE	FL
EPA 8270 D	2-NAPHTHYLAMINE	FL
EPA 8270 D	2-NITROPHENOL	FL
EPA 8270 D	3-NITROANILINE	FL
EPA 8270 D	4-CHLORO-3-METHYLPHENOL	FL
EPA 8270 D	4-CHLOROPHENYL PHENYLETHER	FL
EPA 8270 D	4-NITROPHENOL	FL
EPA 8270 D	ACENAPHTHYLENE	FL
EPA 8270 D	ANILINE	FL
EPA 8270 D	BENZIDINE	FL
EPA 8270 D	BENZO(A)PYRENE	FL
EPA 8270 D	BENZO(K)FLUORANTHENE	FL
EPA 8270 D	BENZO[B]FLUORANTHENE	FL
EPA 8270 D	BIS(2-CHLOROETHOXY)METHANE	FL
EPA 8270 D	BIS(2-CHLOROISOPROPYL) ETHER	FL
EPA 8270 D	BUTYL BENZYL PHTHALATE	FL
EPA 8270 D	DI-N-BUTYL PHTHALATE	FL
EPA 8270 D	DIBENZO(A,H) ANTHRACENE	FL
EPA 8270 D	DIETHYL PHTHALATE	FL
EPA 8270 D	FLUORANTHENE	FL
EPA 8270 D	HEXACHLOROBENZENE	FL
EPA 8270 D	HEXACHLOROCYCLOPENTADIENE	FL
EPA 8270 D	INDENO(1,2,3-CD) PYRENE	FL
EPA 8270 D	N-NITROSODI-N-PROPYLAMINE	FL
EPA 8260 B - EXTENDED	T-AMYLMETHYLETHER (TAME)	FL
EPA 8260 B - EXTENDED	TETRAHYDROFURAN (THF)	FL
EPA 8270 D	1,2-DICHLOROBENZENE	FL
EPA 8270 D	1,3-DICHLOROBENZENE	FL
EPA 8270 D	2,3,4,6-TETRACHLOROPHENOL	FL
EPA 8270 D	2,4,6-TRICHLOROPHENOL	FL
EPA 8270 D	2,4-DIMETHYLPHENOL	FL
EPA 8270 D	2,4-DINITROTOLUENE (2,4-DNT)	FL
EPA 8270 D	2-CHLORONAPHTHALENE	FL
EPA 8270 D	2-METHYL-4,6-DINITROPHENOL (4,6-DINITRO-2-METHYLPHENOL)	FL
EPA 8270 D	2-METHYLPHENOL (O-CRESOL)	FL
EPA 8270 D	2-NITROANILINE	FL
EPA 8270 D	3,3'-DICHLOROBENZIDINE	FL
EPA 8270 D	4-BROMOPHENYL PHENYL ETHER	FL
EPA 8270 D	4-CHLOROANILINE	FL
EPA 8270 D	4-NITROANILINE	FL
EPA 8270 D	ACENAPHTHENE	FL
EPA 8270 D	ACETOPHENONE	FL
EPA 8270 D	ANTHRACENE	FL
EPA 8270 D	BENZO(A)ANTHRACENE	FL
EPA 8270 D	BENZO(G,H,I)PERYLENE	FL
EPA 8270 D	BENZOIC ACID	FL
EPA 8270 D	BENZYL ALCOHOL	FL
EPA 8270 D	BIS(2-CHLOROETHYL) ETHER	FL
EPA 8270 D	BIS(2-ETHYLHEXYL) PHTHALATE (DI(2-ETHYLHEXYL)PHTHALATE), (DEHP)	FL
EPA 8270 D	CHRYSENE	FL
EPA 8270 D	DI-N-OCTYL PHTHALATE	FL
EPA 8270 D	DIBENZOFURAN	FL
EPA 8270 D	DIMETHYL PHTHALATE	FL
EPA 8270 D	FLUORENE	FL
EPA 8270 D	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	FL
EPA 8270 D	HEXACHLOROETHANE	FL
EPA 8270 D	ISOPHORONE	FL
EPA 8270 D	N-NITROSODIMETHYLAMINE	FL

Commonwealth of Virginia

Department of General Services
Division of Consolidated Laboratory Services

Scope of Accreditation

VELAP Certificate No.: 2912

PACE ANALYTICAL SERVICES, INC (FLORIDA)
8 E. TOWER CIRCLE
ORMOND BEACH, FL 32174

Virginia Laboratory ID: 460165
Effective Date: June 15, 2014
Expiration Date: June 14, 2015

SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 8270 D	N-NITROSODIPHENYLAMINE	FL
EPA 8270 D	NITROBENZENE	FL
EPA 8270 D	PHENANTHRENE	FL
EPA 8270 D	PYRENE	FL
EPA 8270 D - EXTENDED	3+4-METHYL PHENOL (M+P CRESOL)	FL
EPA 8270 D - EXTENDED	PYRIDINE	FL
EPA 9030 A	TOTAL SULFIDES	FL
EPA 9040 B	PH	FL
EPA 9056 A	BROMIDE	FL
EPA 9056 A	FLUORIDE	FL
EPA 9056 A	NITRITE	FL
EPA 9056 A	SULFATE	FL
EPA 9071 B	OIL AND GREASE (AS HEM)	FL
EPA 8270 D	NAPHTHALENE	FL
EPA 8270 D	PENTACHLOROPHENOL	FL
EPA 8270 D	PHENOL	FL
EPA 8270 D - EXTENDED	1-METHYLNAPHTHALENE	FL
EPA 8270 D - EXTENDED	CARBAZOLE	FL
EPA 9012 B	TOTAL CYANIDE	FL
EPA 9034	TOTAL SULFIDES	FL
EPA 9045 D	PH	FL
EPA 9056 A	CHLORIDE	FL
EPA 9056 A	NITRATE AS N	FL
EPA 9056 A	ORTHOPHOSPHATE AS P	FL
EPA 9066	TOTAL PHENOLICS	FL
EPA 9095 B	FREE LIQUID	FL

COMMONWEALTH of VIRGINIA

Department of General Services

Division of Consolidated Laboratory Services

600 North 5th Street
Richmond, Virginia 23219-3691
(804) 648-4480
FAX (804) 692-0416

06/11/2014

Bob Dempsey
PACE ANALYTICAL SERVICES, INC (FLORIDA)
8 E. Tower Circle
Ormond Beach FL 32174

VELAP ID: 460165

Dear Bob Dempsey:

PACE ANALYTICAL SERVICES, INC (FLORIDA) has been granted secondary accreditation pursuant to the provisions of 1VAC30-46 and the National Environmental Laboratory Accreditation Program (NELAP) by the Division of Consolidated Laboratory Services (DCLS). Enclosed please find Certificate 2912 and the corresponding Scope of Accreditation which are valid until 06/14/2015. The certificate must be conspicuously displayed in the laboratory along with the associated Scope of Accreditation.

Your laboratory is required to notify the DCLS Virginia Environmental Laboratory Accreditation Program (VELAP) in writing of any changes in key accreditation criteria within 30 calendar days of the change per 1VAC30-46-90 A. This requirement includes changes in ownership, location, key personnel, and major instrumentation.

If your laboratory wishes to change its scope of accreditation an application must be submitted in accordance with the provisions of 1VAC30-46-90 B. These changes are subject to fees as outlined in 1VAC30-46-150 F 1.

Additionally, a laboratory holding secondary accreditation with DCLS is responsible for assuring that DCLS has current information regarding the laboratory's primary accreditation. Upon any change in the status of any field of accreditation, a secondary laboratory must notify DCLS of the exact nature of the change and provide a copy of the laboratory's new primary certificate.

If you have any questions, please contact the VELAP program office at (804)648-4480.

Sincerely yours,

Cathy Westerman
Manager, Virginia Environmental Laboratory Accreditation Program

Enclosures

APPENDIX D
CORRESPONDENCE
(CD-ROM)

- **VDEQ Correspondence dated June 12, 2014 (Open Burning Ground-Unit 13, Class 1 Hazardous Waste Permit Modification – Approval)**
- **Draper Aden Associates Correspondence dated May 20, 2014 (Open Burning Ground – Corrective Action Groundwater Monitoring Event Notification)**
- **Draper Aden Associates Correspondence dated November 5, 2014 (Open Burning Ground – Corrective Action Groundwater Monitoring Event Notification)**

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
Street address: 629 East Main Street, Richmond, Virginia 23219
Mailing address: P.O. Box 1105, Richmond, Virginia 23218
Fax: 804-698-4019 - TDD (804) 698-4021
www.deq.virginia.gov

Molly Joseph Ward
Secretary of Natural Resources

David K. Paylor
Director

(804) 698-4020
1-800-592-5482

Office of Waste Permitting and Compliance

Land Protection and Remediation Division

June 12, 2014

VIA ELECTRONIC MAIL
Mr. Jay Stewart
Environmental Manager
BAE Systems, Ordnance Systems, Inc.
Radford Army Ammunition Plant
4050 Pepper's Ferry Road
Radford, Virginia 24141

Re: Radford Army Ammunition Plant, Radford, VA
EPA ID No.VA1210020730, Approval of Class 1 Permit Modifications
Hazardous Waste Management Open Burning Ground (OBG) Operating Permit

Dear Mr. Stewart:

Enclosed are the final Class 1 Modifications to the Open Burning Grounds (OBG) Permit for hazardous waste treatment at the Radford Army Ammunition Plant (RAAP), Radford, Virginia, facility. The final Class 1 Modifications to the Permit have been approved.

The Virginia Department of Environmental Quality (DEQ) received the Class 1 Permit modification request addressing the hazardous waste Open Burning Ground (OBG) that was communicated to the DEQ in a letter dated April 15, 2014, from the RAAP, Radford, Virginia, facility.

In the letter dated April 15, 2014, RAAP requested the following changes to the facility's hazardous waste Open Burning Ground Permit:

- (1) Update of the Action Levels listed in Attachment II.C., Soil Monitoring Plan of the

OB Permit to the new Action Levels established in the November 2013 US Environmental Protection Agency Regional Screening Table developed by Oak Ridge Laboratory, as applicable and update of the analytical methods applicable to perchlorate and nitroglycerin, and;

- (2) Update of groundwater analytical methods listed in Attachment VII.C- Corrective Action Program - Annual Groundwater Monitoring List for Radford OBG#13 and Attachment **VII.B -** Semi-Annually Monitored Natural Attenuation Parameters and Analytical Methods. In particular, the only commercial laboratory conducting nitroglycerin analysis by SW-846 Method 8332 (Attachment VII.C) has indicated that they will no longer support the analysis. SW-846 Method 8330 (as updated) is the proposed method for nitroglycerin analysis in groundwater. Action Levels and historical laboratory quantitation and method detection limits will continue to be achieved by Method 8330.

The first set of changes represents a Class 1 modification under 40 CFR § 270.42 Appendix I.B.1.a – *General Facility Standards – Changes to waste sampling or analysis methods to conform to agency guidance or regulations*. In addition, Section 3.3 of the Soil Monitoring Plan – Attachment II.C states, "... RFAAP will re-evaluate the OBG Soil Monitoring Program every three years and at that time may request to modify the monitoring and sampling locations and/or constituent list in accordance with 40 CFR 270.42." The Department last approved these types of permit changes in September, 2011.

The second set of changes represents a Class 1 modification under 40 CFR § 270.42 Appendix I.C.2 – *Changes in groundwater sampling or analysis procedures or monitoring schedule, with prior approval of the Director.*

Based on the above justification, this April 15, 2014, letter requesting changes in the soil monitoring plan and certain groundwater analytical methods; the RAAP has established sufficient documentation for approval of all requested changes. In accordance with the VHWMR, under 40 CFR § 270.42, Appendix I, Sections B.1.a, and C.2 and based upon the accuracy of the information contained in the Permittee's correspondence dated April 15, 2014, the requested Class 1 modifications to the permit are approved.

Enclosed are the final modified pages in electronic format to be inserted into the RAAP's copy of the hazardous waste permit.

All conditions and requirements of the facility Permit shall remain in effect for the duration of the Permit unless the existing Permit is modified, revoked and reissued, or terminated in accordance with 40 CFR § 124.5, and 40 CFR § 270.41 through 270.42, or continued in accordance with 9 VAC 20-60-270.B.5.

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have 30 days from the date of service of this decision to initiate a legal appeal by filing a notice of appeal with:

David K. Paylor, Director
Department of Environmental Quality
629 East Main Street
P.O. Box 1105
Richmond, VA 23218

In the event that this decision is served to you by mail, the date of service will be calculated as three days after the postmark date. Please refer to Part 2A of the Rules of the Supreme Court of Virginia, which describes the required content of the Notice of Appeal, including specifications of the Circuit Court to which the appeal is taken, and additional requirements concerning appeals from decisions of administrative agencies.

This above Class 1 permit modification under 40 CFR § 270.42(a)(1) requires the Permittee to send a notice of the modification to all persons on the facility mailing list (attached) within 90 days after the change is put into effect. In addition, RAAP must provide documentation to this Office regarding compliance with the public notice requirement. Please submit evidence of this mailing (return receipts, copy of the notification letter) when it is available.

If you should have any questions regarding these matters, please contact Russell McAvoy, Jr., PE, Environmental Engineer Senior, at (804) 698-4194 or by e-mail at russell.mcavoy@deq.virginia.gov.

Sincerely,

Leslie A. Romanchik

Leslie A. Romanchik
Hazardous Waste Program Manager
Office of Waste Permitting and Compliance

Enclosures: Facility Mailing List, Modified Permit Pages

cc: Andrea Barbieri – EPA, Region III (3LC50) e/enclosures
Jutta Schneider – DEQ, CO
Kurt Kochan – DEQ, CO
Aziz Farahmand – DEQ, BRRO
Elizabeth Lohman – DEQ, BRRO
Julia King–Collins – DEQ, CO
Central Hazardous Waste Files

May 20, 2014

Mr. Jay Stewart
Environmental Manager
BAE Systems, Ordnance Systems Inc.
Radford Army Ammunition Plant
4050 Peppers Ferry Road
Radford, Virginia 24141

RE: Open Burning Ground – Corrective Action Groundwater Monitoring Event Notification
Radford Army Ammunition Plant, Radford, Virginia
EPA ID#: VA1210020730
DAA Job Number: B03204-12

Dear Mr. Stewart:

During Second Quarter 2014, Draper Aden Associates completed the semiannual Corrective Action groundwater monitoring event for the Open Burning Ground located at the Radford Army Ammunition Plant (Radford AAP) in Radford, Virginia. The Second Quarter 2014 groundwater monitoring activities were conducted on April 29, 2014, in accordance with the Corrective Action Program approved by VDEQ September 27, 2011 (as revised in the VDEQ-approved Class 2 Permit Modification dated June 18, 2013) and incorporated into the Permit.

Groundwater samples collected during the Second Quarter 2014 semiannual monitoring event were analyzed for the constituents listed in Permit Attachment VII.B (*Semi-Annually Monitored Natural Attenuation Parameters and Analytical Methods*). The final analytical data were received from the laboratory on May 19, 2014. This letter notifies BAE Systems, Ordnance Systems Inc. which constituents were reported during the monitoring event. Groundwater monitoring results are summarized on the attached table. The data are in the process of data validation.

Carbon tetrachloride was detected in compliance well 13MW3 at a concentration of 8.2 µg/l, which is greater than the groundwater protection standard (GPS) of 5 µg/l. The carbon tetrachloride concentration in well 13MW3 is consistent with previous concentrations detected in this well. Carbon tetrachloride was not detected at concentrations greater than the respective GPS in the other wells comprising the Corrective Action groundwater monitoring network. Perchlorate was not detected at a concentration greater than the newly revised GPS of 15 µg/l. Additionally, no other target analytes were identified at concentrations greater than their respective GPSs during the monitoring event. Therefore, no further action is required.

Complete details regarding the Second Quarter 2014 groundwater monitoring event (field data, laboratory data, and data validation reports) will be forwarded to the VDEQ in the forthcoming *Annual Groundwater Monitoring Report for the Open Burning Ground (Hazardous Waste Management Unit 13) – Calendar Year 2014)* which is due to the VDEQ by March 1, 2015.

The next semiannual Corrective Action groundwater monitoring event for the Open Burning Ground is scheduled for Fourth Quarter 2014, and will include annual monitoring for the constituents listed in Permit Attachment VII.C (*Corrective Action Program - Annual Groundwater Monitoring List for Radford OBG#13*).

If you have any questions, please contact me at (540) 552-0444.

Sincerely,
DRAPER ADEN ASSOCIATES

Michael D. Lawless, P.G; C.P.G.
Environmental Division Manager

Enclosures

cc: Matt Alberts, BAE
Ross Miller, Draper Aden Associates
Janet Frazier, Draper Aden Associates

Table 1: Semiannually Monitored Natural Attenuation Parameters Analytical Results - CY 2014
Radford Army Ammunition Plant - Open Burning Ground - Corrective Action Groundwater Monitoring
Upgradient wells = 13MW1 and 13MW2 (*no longer monitored as of 6/13)*

Analyte/Quarter	13MW1 Q	13MW2 Q	13MW3 Q	13MW4 Q	13MW5 Q	13MW6 Q	13MW7 Q	13MW8 Q	QL	Units	BKG	GPS	Method
Perchlorate					CAS # 14797-73-0								
Second Quarter 2014	-	2.14	1.1	12.1	2.48	1.15	1.18	1.89	0.2	ug/L	4	15	6850
Chlorate					CAS # 7790-93-4								
Second Quarter 2014	-	U	U	U	U	U	U	U	5	ug/L		-	300.1
Chlorite					CAS #								
Second Quarter 2014	-	U	U	U	U	U	U	U	5	ug/L		-	300.1
Chloride					CAS # 16887-00-6								
Second Quarter 2014	-	5.7	4.5 J	4.9 J	3.6 J	6.7	3.4 J	5.02	5	mg/L		-	300.0
Carbon tetrachloride					CAS # 56-23-5								
Second Quarter 2014	-	0.1 J	8.2	0.3 J	U	U	U	0.5 J	1	ug/l	5	5	8260C
Chloroform					CAS # 67-66-3								
Second Quarter 2014	-	U	0.6	U	U	U	U	U	0.5	ug/l	1	80	8260C
Methylene chloride					CAS # 75-09-2								
Second Quarter 2014	-	U	U	U	U	U	U	U	1	ug/l	5	5	8260C
Chloromethane					CAS # 74-87-3								
Second Quarter 2014	-	U	U	U	U	U	U	U	0.5	ug/l	5	58.1	8260C
Methane					CAS # 74-82-8								
Second Quarter 2014	-	U	U	U	U	U	U	U	5	ug/l		-	RSK175M
Total Organic Carbon (Rep 1)					CAS #								
Second Quarter 2014	-	-	3.38	3.79	2.08	2.79	1.57	1.34	1	mg/L		-	9060A
Dissolved Organic Carbon					CAS #								
Second Quarter 2014	-	-	2.65	2.45	1.51	1.78	1.72	6.41	1	mg/L		-	9060A
Iron, Dissolved					CAS # 7439-89-6								
Second Quarter 2014	-	-	U	U	U	U	U	U	400	ug/l		-	6010C
Manganese, Dissolved					CAS # 7439-96-5								
Second Quarter 2014	-	-	U	U	U	U	U	54.4	10	ug/l		-	6010C
Nitrate (as N)					CAS # 14797-55-8								
Second Quarter 2014	-	-	1.6	0.79	0.55	0.83	0.62	0.19	0.05	mg/L	2.4	-	300.0
Sulfate					CAS # 14808-79-8								
Second Quarter 2014	-	-	112	50.7	75	174	91.5	292	5	mg/L		-	300.0
Alkalinity					CAS #								
Second Quarter 2014	-	-	218	166	253	277	206	172	5	mg/L		-	2320B

Definitions: QL Denotes quantitation limit. **U** Denotes analyte not detected at or above the detection limit or QL. **UA** Denotes analyte not detected at or above adjusted sample detection limit or QL. **J** Denotes analyte estimated due to quality control reasons. When used with "U" (i.e., "**UJ**"), denotes analyte not detected at or above detection limit or QL and the detection limit and QL are estimated due to quality control reasons. When used with "UA" (i.e., "**UAJ**"), denotes analyte not detected at or above adjusted detection limit or QL and adjusted detection limit and QL are estimated due to quality control reasons. **R** Denotes result rejected. **Q** Denotes data validation qualifier. **NS** denotes not sampled. **NA** denotes not analyzed. GPS Denotes Groundwater Protection Standard. **BKG** Denotes Background

Note TOC (rep 1) denotes average of 4 replicate results presented.

See Definitions on Last Page of This Report.

Draper Aden Associates
Engineering • Surveying • Environmental Services

2206 South Main Street
Blacksburg, Virginia 24060
(540) 552-0444 • Fax (540) 552-0291
www.daa.com

November 5, 2014

Mr. Jay Stewart
Environmental Manager
BAE Systems, Ordnance Systems Inc.
Radford Army Ammunition Plant
4050 Peppers Ferry Road
Radford, Virginia 24141

RE: Open Burning Ground – Corrective Action Groundwater Monitoring Event Notification
Radford Army Ammunition Plant, Radford, Virginia
EPA ID#: VA1210020730
ELECTRONIC COPY ONLY
DAA Job Number: B03204-12

Dear Mr. Stewart:

During Fourth Quarter 2014, Draper Aden Associates completed the semiannual Corrective Action groundwater monitoring event for the Open Burning Ground located at the Radford Army Ammunition Plant (Radford AAP) in Radford, Virginia. The Fourth Quarter 2014 groundwater monitoring activities were conducted on October 13, 2014, in accordance with the Permit-specified Corrective Action Program (as revised in the VDEQ-approved Class 2 Permit dated June 18, 2013, and the VDEQ-approved Class 1 Permit Modification dated June 12, 2014) and incorporated into the Permit.

Groundwater samples collected from the Corrective Action monitoring well network during the Fourth Quarter 2014 semiannual monitoring event were analyzed for the constituents listed in Permit Attachment VII.B (*Semi-Annually Monitored Natural Attenuation Parameters and Analytical Methods*). Additionally, groundwater samples collected from the point of compliance wells (wells 13MW3 through 13MW7) were analyzed for the constituents listed in Permit Attachment VII.C (*Corrective Action Program - Annual Groundwater Monitoring List for Radford OBG#13*). The final analytical data were received from the laboratory on November 3, 2014. This letter notifies BAE Systems, Ordnance Systems Inc. which constituents were reported during the monitoring event. Groundwater monitoring results are summarized on the attached tables. The data are in the process of data validation.

Carbon tetrachloride was detected in point of compliance well 13MW3 at a concentration of 5.7 µg/l, which is greater than the Groundwater Protection Standard (GPS) of 5 µg/l and consistent with previous carbon tetrachloride concentrations detected in this well. No other target analytes were identified at concentrations greater than their respective GPSs during the Fourth Quarter 2014 semiannual monitoring event. Therefore, no further action is required.

Complete details regarding the Fourth Quarter 2014 groundwater monitoring event (field data, laboratory data, and data validation reports) will be forwarded to the VDEQ in the forthcoming *Annual Groundwater Monitoring Report for the Open Burning Ground (Hazardous Waste Management Unit 13) – Calendar Year 2014)* which is due to the VDEQ by March 1, 2015.

If you have any questions, please contact me at (540) 552-0444.

Sincerely,
DRAPER ADEN ASSOCIATES

Michael D. Lawless, C.P.G., P.G
Environmental Division Manager

Enclosures

cc: Matt Alberts, BAE
Ross Miller, Draper Aden Associates
Janet Frazier, Draper Aden Associates

Table 1: Semiannually Monitored Natural Attenuation Parameters Analytical Results - CY 2014
Radford Army Ammunition Plant - Open Burning Ground - Corrective Action Groundwater Monitoring
Upgradient wells = 13MW1 and 13MW2 (*no longer monitored as of 6/13)*

Analyte/Quarter	13MW1 Q	13MW2 Q	13MW3 Q	13MW4 Q	13MW5 Q	13MW6 Q	13MW7 Q	13MW8 Q	QL	Units	BKG	GPS	Method
Perchlorate					CAS # 14797-73-0								
Fourth Quarter 2014	-	0.59	1.86	13.6	1.17	0.672	1.21	4.48	0.2	ug/L	4	15	6850
Second Quarter 2014	-	2.14	1.1	12.1	2.48	1.15	1.18	1.89	0.2	ug/L	4	15	6850
Chlorate					CAS # 7790-93-4								
Fourth Quarter 2014	-	U	U	U	U	U	U	U	5	ug/L		-	300.1
Second Quarter 2014	-	U	U	U	U	U	U	U	5	ug/L		-	300.1
Chlorite					CAS #								
Fourth Quarter 2014	-	U	U	U	U	U	U	U	5	ug/L		-	300.1
Second Quarter 2014	-	U	U	U	U	U	U	U	5	ug/L		-	300.1
Chloride					CAS # 16887-00-6								
Fourth Quarter 2014	-	U	U	U	U	7.3	U	U	5	mg/L		-	300.0
Second Quarter 2014	-	5.7	4.5 J	4.9 J	3.6 J	6.7	3.4 J	5.02	5	mg/L		-	300.0
Carbon tetrachloride					CAS # 56-23-5								
Fourth Quarter 2014	-	U	5.7	U	0.1 J	U	U	0.3 J	1	ug/l	5	5	8260C
Second Quarter 2014	-	0.1 J	8.2	0.3 J	U	U	U	0.5 J	1	ug/l	5	5	8260C
Chloroform					CAS # 67-66-3								
Fourth Quarter 2014	-	U	0.6	U	U	U	U	U	0.5	ug/l	1	80	8260C
Second Quarter 2014	-	U	0.6	U	U	U	U	U	0.5	ug/l	1	80	8260C
Methylene chloride					CAS # 75-09-2								
Fourth Quarter 2014	-	U	U	U	U	U	U	U	1	ug/l	5	5	8260C
Second Quarter 2014	-	U	U	U	U	U	U	U	1	ug/l	5	5	8260C
Chloromethane					CAS # 74-87-3								
Fourth Quarter 2014	-	U	U	U	U	U	U	U	0.5	ug/l	5	58.1	8260C
Second Quarter 2014	-	U	U	U	U	U	U	U	0.5	ug/l	5	58.1	8260C
Methane					CAS # 74-82-8								
Fourth Quarter 2014	-	U	U	U	U	U	U	U	5	ug/l		-	RSK175 M
Second Quarter 2014	-	U	U	U	U	U	U	U	5	ug/l		-	RSK175M
Total Organic Carbon (Rep 1)					CAS #								
Fourth Quarter 2014	-	-	13	4.94	8.72	4.2	3.04	2.03	1	mg/L		-	9060A
Second Quarter 2014	-	-	3.38	3.79	2.08	2.79	1.57	1.34	1	mg/L		-	9060A
Dissolved Organic Carbon					CAS #								
Fourth Quarter 2014	-	-	7.23	7.47	2.18	7.08	4.18	3.34	1	mg/L		-	9060A
Second Quarter 2014	-	-	2.65	2.45	1.51	1.78	1.72	6.41	1	mg/L		-	9060A
Iron, Dissolved					CAS # 7439-89-6								
Fourth Quarter 2014	-	-	U	U	U	U	U	U	200	UG/L		-	6010C
Second Quarter 2014	-	-	U	U	U	U	U	U	400	ug/l		-	6010C
Manganese, Dissolved					CAS # 7439-96-5								
Fourth Quarter 2014	-	-	0.184 J	0.173 J	0.12 J	0.098 J	0.17 J	6.93 J	10	UG/L		-	6010C
Second Quarter 2014	-	-	U	U	U	U	U	54.4	10	ug/l		-	6010C
Nitrate (as N)					CAS # 14797-55-8								
Fourth Quarter 2014	-	-	1.6	0.66	0.59	0.74	0.93	0.19	0.05	mg/L	2.4	-	300.0
Second Quarter 2014	-	-	1.6	0.79	0.55	0.83	0.62	0.19	0.05	mg/L	2.4	-	300.0
Sulfate					CAS # 14808-79-8								
Fourth Quarter 2014	-	-	104	55.9	182	196	153	336	5	mg/L		-	300.0
Second Quarter 2014	-	-	112	50.7	75	174	91.5	292	5	mg/L		-	300.0

See Definitions on Last Page of This Report.

Table 1: Semiannually Monitored Natural Attenuation Parameters Analytical Results - CY 2014
Radford Army Ammunition Plant - Open Burning Ground - Corrective Action Groundwater Monitoring
Upgradient wells = 13MW1 and 13MW2 (*no longer monitored as of 6/13)*

Analyte/Quarter	13MW1 Q	13MW2 Q	13MW3 Q	13MW4 Q	13MW5 Q	13MW6 Q	13MW7 Q	13MW8 Q	QL	Units	BKG	GPS	Method
Alkalinity					CAS #								
Fourth Quarter 2014	-	-	227	202	208	273	229	200	5	mg/L		-	2320B
Second Quarter 2014	-	-	218	166	253	277	206	172	5	mg/L		-	2320B

Definitions: QL Denotes quantitation limit. **U** Denotes analyte not detected at or above the detection limit or QL. **UA** Denotes analyte not detected at or above adjusted sample detection limit or QL. **J** Denotes analyte estimated due to quality control reasons. When used with "U" (i.e., "**UJ**"), denotes analyte not detected at or above detection limit or QL and the detection limit and QL are estimated due to quality control reasons. When used with "UA" (i.e., "**UAJ**"), denotes analyte not detected at or above adjusted detection limit or QL and adjusted detection limit and QL are estimated due to quality control reasons. **R** Denotes result rejected. **Q** Denotes data validation qualifier. **NS** denotes not sampled. **NA** denotes not analyzed. GPS Denotes Groundwater Protection Standard.
BKG Denotes Background

Note TOC (rep 1) denotes average of 4 replicate results presented.

Annual Groundwater Monitoring List -

Radford Army Ammunition Plant - Open Burning Ground - Corrective Action Program

*Upgradient wells = 13MW1 * and 13MW2 (*No longer monitored as of 6/13)*

Analyte/Quarter	13MW1 Q	13MW2 Q	13MW3 Q	13MW4 Q	13MW5 Q	13MW6 Q	13MW7 Q	13MW8 Q	QL	Units	BKG	GPS	Method
Antimony					CAS # 7440-36-0								
Fourth Quarter 2014	-	-	U	0.186 J	U	U	U	-	5	UG/L	6	6	6020A
Arsenic					CAS # 7440-38-2								
Fourth Quarter 2014	-	-	0.209 J	0.284 J	0.291J	0.27J	0.247J	-	5	UG/L	5	10	6020A
Barium					CAS # 7440-39-3								
Fourth Quarter 2014	-	-	102	57.6	107	82.4	138	-	10	UG/L	205.9	2000	6020A
Cadmium					CAS # 7440-43-9								
Fourth Quarter 2014	-	-	U	U	U	U	U	-	1	UG/L	1	5	6020A
Chromium					CAS # 7440-47-3								
Fourth Quarter 2014	-	-	1.94 J	2.59 J	1.95J	1.18J	0.788J	-	5	UG/L	112	112	6020A
Lead					CAS # 7439-92-1								
Fourth Quarter 2014	-	-	U	0.131 J	0.076J	U	U	-	5	UG/L	14	15	6020A
Mercury					CAS # 7439-97-6								
Fourth Quarter 2014	-	-	U	U	U	U	U	-	0.5	UG/L	2.52	2.52	7470A
Nickel					CAS # 7440-02-0								
Fourth Quarter 2014	-	-	0.786 J	2.77 J	1.78J	1.06J	12.7	-	5	UG/L	5	313	6020A
Selenium					CAS # 7782-49-2								
Fourth Quarter 2014	-	-	0.605 J	0.4 J	1.12J	1.94J	1.48J	-	5	UG/L	5	50	6020A
Silver					CAS # 7440-22-4								
Fourth Quarter 2014	-	-	U	U	U	U	U	-	2	UG/L	2.4	78.3	6020A
Zinc					CAS # 7440-66-6								
Fourth Quarter 2014	-	-	2.33 J	2.21 J	1.3 J	1.21J	4.56J	-	5	UG/L	5	4695	6020A
Benzo[a]anthracene					CAS # 56-55-3								
Fourth Quarter 2014	-	-	U	U	U	U	U	-	5	ug/l	10	0.0917	8270D
Benzo[a]pyrene					CAS # 50-32-8								
Fourth Quarter 2014	-	-	U	U	U	U	U	-	0.5	ug/l	10	0.2	8270D
Benzo[b]fluoranthene					CAS # 205-99-2								
Fourth Quarter 2014	-	-	U	U	U	U	U	-	5	ug/l	10	0.0917	8270D
Benzo[k]fluoranthene					CAS # 207-08-9								
Fourth Quarter 2014	-	-	U	U	U	U	U	-	5	ug/l	10	0.917	8270D
Dibenz(a,h)anthracene					CAS # 53-70-3								
Fourth Quarter 2014	-	-	U	U	U	U	U	-	5	ug/l	10	0.00917	8270D
Fluoranthene					CAS # 206-44-0								
Fourth Quarter 2014	-	-	U	U	U	U	U	-	5	ug/l	10	626	8270D
Indeno[1,2,3-cd]pyrene					CAS # 193-39-5								
Fourth Quarter 2014	-	-	U	U	U	U	U	-	5	ug/l	10	0.0917	8270D
Pyrene					CAS # 129-00-0								
Fourth Quarter 2014	-	-	U	U	U	U	U	-	5	ug/l	10	67.1	8270D
sym-Trinitrobenzene					CAS # 99-35-4								
Fourth Quarter 2014	-	-	U	U	U	U	U	-	1	ug/L	2.5	470	8330B
m-Dinitrobenzene					CAS # 99-65-0								
Fourth Quarter 2014	-	-	U	U	U	U	U	-	1	ug/L	2.5	1.57	8330B
2,4-Dinitrotoluene					CAS # 121-14-2								
Fourth Quarter 2014	-	-	U	U	U	U	U	-	1	ug/L	10	31.3	8330B
2,6-Dinitrotoluene					CAS # 606-20-2								
Fourth Quarter 2014	-	-	U	U	U	U	U	-	1	ug/L	5	15.7	8330B
Nitroglycerin					CAS # 55-63-0								
Fourth Quarter 2014	-	-	U	U	U	U	U	-	1	UG/L	10000	10000	8330B
Acetophenone					CAS # 98-86-2								
Fourth Quarter 2014	-	-	U	U	U	U	U	-	5	ug/l	10	224	8270D
bis(2-Ethylhexyl)phthalate					CAS # 117-81-7								
Fourth Quarter 2014	-	-	U	U	U	U	U	-	5	ug/l	6	6	8270D

See Definitions on Last Page of This Report.

Annual Groundwater Monitoring List -

Radford Army Ammunition Plant - Open Burning Ground - Corrective Action Program

*Upgradient wells = 13MW1 * and 13MW2 (*No longer monitored as of 6/13)*

Analyte/Quarter	13MW1 Q	13MW2 Q	13MW3 Q	13MW4 Q	13MW5 Q	13MW6 Q	13MW7 Q	13MW8 Q	QL	Units	BKG	GPS	Method
Butyl benzyl phthalate					CAS # 85-68-7								
Fourth Quarter 2014	-	-	U	U	U	U	U	-	5	ug/l	10	3130	8270D
2-Chlorophenol					CAS # 95-57-8								
Fourth Quarter 2014	-	-	U	U	U	U	U	-	5	ug/l	10	11.2	8270D
Dibenzofuran					CAS # 132-64-9								
Fourth Quarter 2014	-	-	U	U	U	U	U	-	5	ug/l	10	10	8270D
Diethyl phthalate					CAS # 84-66-2								
Fourth Quarter 2014	-	-	U	U	U	U	U	-	5	ug/l	10	12500	8270D
3,3'-Dimethylbenzidine					CAS # 119-93-7								
Fourth Quarter 2014	-	-	U	U	U	U	U	-	75	ug/l	10	10	8270D
Dimethyl phthalate					CAS # 131-11-3								
Fourth Quarter 2014	-	-	U	U	U	U	U	-	5	ug/l	10	10	8270D
Di-n-butyl phthalate					CAS # 84-74-2								
Fourth Quarter 2014	-	-	U	U	U	U	U	-	5	ug/l	10	1570	8270D
Di-n-octyl phthalate					CAS # 117-84-0								
Fourth Quarter 2014	-	-	U	U	U	U	U	-	5	ug/l	10	313	8270D
2,4-Dichlorophenol					CAS # 120-83-2								
Fourth Quarter 2014	-	-	U	U	U	U	U	-	5	ug/l	10	47	8270D
Diphenylamine					CAS # 122-39-4								
Fourth Quarter 2014	-	-	U	U	U	U	U	-	5	ug/l	10	391	8270D
Hexachloroethane					CAS # 67-72-1								
Fourth Quarter 2014	-	-	U	U	U	U	U	-	5	ug/l	10	4.78	8270D
3 & 4-Methylphenol					CAS # 106-44-5								
Fourth Quarter 2014	-	-	U	U	U	U	U	-	5	ug/l	20	78.3	8270D
Nitrobenzene					CAS # 98-95-3								
Fourth Quarter 2014	-	-	U	U	U	U	U	-	5	ug/l	10	1.3	8270D
p-Nitrophenol					CAS # 100-02-7								
Fourth Quarter 2014	-	-	U	U	U	U	U	-	30	ug/l	20	20	8270D
Phenol					CAS # 108-95-2								
Fourth Quarter 2014	-	-	U	U	U	U	2 J	-	5	ug/l	10	4700	8270D
Benzene					CAS # 71-43-2								
Fourth Quarter 2014	-	-	0.1 J	U	U	U	U	-	0.5	ug/l	5	5	8260C
Benzyl chloride					CAS # 100-44-7								
Fourth Quarter 2014	-	-	U	U	U	U	U	-	0.5	ug/l	5	5	8260C
Chlorobenzene					CAS # 108-90-7								
Fourth Quarter 2014	-	-	U	U	U	U	U	-	0.5	ug/l	5	100	8260C
1,1-Dichloroethane					CAS # 75-34-3								
Fourth Quarter 2014	-	-	U	U	U	U	U	-	1	ug/l	1	2.42	8260C
1,2-Dichloroethane					CAS # 107-06-2								
Fourth Quarter 2014	-	-	U	U	U	U	U	-	0.5	ug/l	1	5	8260C
1,1-Dichloroethene					CAS # 75-35-4								
Fourth Quarter 2014	-	-	U	U	U	U	U	-	0.5	ug/l	1	7	8260C
Bromomethane					CAS # 74-83-9								
Fourth Quarter 2014	-	-	U	U	U	U	U	-	0.5	ug/l	1	3.13	8260C
Naphthalene					CAS # 91-20-3								
Fourth Quarter 2014	-	-	U	U	U	U	U	-	0.5	ug/l	1	2.33	8260C
Tetrachloroethene					CAS # 127-18-4								
Fourth Quarter 2014	-	-	U	U	U	U	U	-	1	ug/l	1	5	8260C
Toluene					CAS # 108-88-3								
Fourth Quarter 2014	-	-	2.5	U	U	U	U	-	1	ug/l	5	1000	8260C
1,1,1-Trichloroethane					CAS # 71-55-6								
Fourth Quarter 2014	-	-	U	U	U	U	U	-	1	ug/l	1	200	8260C

Annual Groundwater Monitoring List -

Radford Army Ammunition Plant - Open Burning Ground - Corrective Action Program

Upgradient wells = 13MW1 * and 13MW2 (*No longer monitored as of 6/13)

Analyte/Quarter	*13MW1 Q*	*13MW2 Q*	*13MW3 Q*	*13MW4 Q*	*13MW5 Q*	*13MW6 Q*	*13MW7 Q*	*13MW8 Q*	*QL*	*Units*	*BKG*	*GPS*	*Method*
Trichloroethene					*CAS # 79-01-6*								
Fourth Quarter 2014	-	-	1.1	1.3	U	U	0.5 J	-	1	ug/l	1	5	8260C
Trichlorofluoromethane					*CAS # 75-69-4*								
Fourth Quarter 2014	-	-	0.2 J	U	U	U	U	-	1	ug/l	1	1113	8260C
Vinyl chloride					*CAS # 75-01-4*								
Fourth Quarter 2014	-	-	U	U	U	U	U	-	0.5	ug/l	1	2	8260C

Definitions: QL Denotes quantitation limit. **U** Denotes analyte not detected at or above the detection limit or QL. **UA** Denotes analyte not detected at or above adjusted sample detection limit or QL. **J** Denotes analyte estimated due to quality control reasons. When used with "U" (i.e., "**UJ**"), denotes analyte not detected at or above detection limit or QL and the detection limit and QL are estimated due to quality control reasons. When used with "UA" (i.e., "**UAJ**"), denotes analyte not detected at or above adjusted detection limit or QL and adjusted detection limit and QL are estimated due to quality control reasons. **R** Denotes result rejected. **Q** Denotes data validation qualifier. **NS** denotes not sampled. **NA** denotes not analyzed. GPS Denotes Groundwater Protection Standard (as of 2014).

APPENDIX E

HISTORICAL PERCHLORATE AND CARBON TETRACHLORIDE CONCENTRATIONS IN GROUNDWATER (2003-2014)

TABLE 1

OPEN BURNING GROUND
SUMMARY OF PERCHLORATE CONCENTRATIONS IN GROUNDWATER 2003-2014
RADFORD ARMY AMMUNITION PLANT, RADFORD, VIRGINIA

Monitoring Event	Perchlorate Concentrations in ug/l								GPS ug/l
	13MW1	13MW2	13MW3	13MW4	13MW5	13MW6	13MW7	13MW8	
4th Qtr 2003	~	~	4.3	140	6.9	~	~	na	na
1st Qtr 2004	~	~	~	76.6	9.9	~	~	na	na
2nd Qtr 2004	~	~	~	123	~	~	~	na	na
3rd Qtr 2004	~	~	~	132	9.9	~	~	na	na
4th Qtr 2004	~	~	~	90.1	10	~	~	na	na
1st Qtr 2005	~	~	~	90.1	8.2	~	~	na	na
2nd Qtr 2005	~	~	~	109	9.4	11.6	~	na	na
3rd Qtr 2005	~	~	~	89	8.7	~	~	na	na
4th Qtr 2005	~	~	~	46.3	8.1	~	~	na	na
2nd Qtr 2006	~	~	~	43.1	7.1 J	~	~	na	na
4th Qtr 2006	~	~	~	67.8	~	~	~	na	na
2nd Qtr 2007	~	~	~	**66.4**	~	~	~	na	24.5
4th Qtr 2007	~	~	~	**58**	13.1	~	~	na	26
2nd Qtr 2008	~	~	~	**81.9**	~	~	~	na	26
4th Qtr 2008	~	~	~	**82.7**	~	~	~	na	26
2nd Qtr 2009	~	~	~	**127**	~	~	~	na	26
4th Qtr 2009	~	~	~	**132**	~	5.2	~	na	26
2nd Qtr 2010	~	~	~	**143**	~	~	~	na	26
4th Qtr 2010	~	~	~	**34.1 J**	6.4 J	~	~	na	26
2nd Qtr 2011	~	~	~	**36**	~	~	~	na	26
4th Qtr 2011	~	~	~	15	~	~	~	na	26
2nd Qtr 2012	0.61	1.64	1.55	**30.8**	2.44	1.33	1.05	na	26
4th Qtr 2012	0.21	0.52	1.88	12.8	3.28	0.17 J	1.15	na	26
2nd Qtr 2013	2.77	2.29	2.53	**28.3**	3.35	1.51	1.21	na	15
4th Qtr 2013	na	1.14	1.79	12.1	2.77	0.956	2.71	2.45	15
2nd Qtr 2014	na	2.14	1.1	12.1	2.48	1.15	1.18	1.89	15
4th Qtr 2014	na	0.59	1.86	13.6	1.17	0.67	1.21	4.48	15

NOTES:

Groundwater at the OBG was not sampled for perchlorate prior to 4th Quarter 2003.

Wells 13MW1 and 13MW2 were the upgradient monitoring wells for the OBG prior to VDEQ approval of Class 2 Permit Modification (June 18, 2013) which reclassified 13MW1 as an observation well for measurement of static water levels only.

Plume monitoring well 13MW8 added to the monitoring well network beginning in 4th Quarter 2013.

Proposed GPS of 24.5 ug/l used beginning in 2nd Quarter 2007. In correspondence dated October 24, 2007, VDEQ indicated that EPA Region III RBC of 26 ug/l should be used as GPS; therefore, 26 ug/l was used as GPS beginning in 4th Quarter 2007. GPS revised to 15 ug/l following VDEQ approval of Class 2 Permit Modification (June 18, 2013).

~: Not detected at or above the Quantitation Limit (QL).

J: Perchlorate was detected at or above the QL and the associated result is estimated due to quality control issues.

na: Not applicable.

Concentrations in bold denote greater than the GPS.

Perchlorate analyses conducted using EPA Method 314.0 from 4th Quarter 2003 through 4th Quarter 2011.

Perchlorate analyses conducted using EPA Method 6850 beginning 2nd Quarter 2012.

OBG - Perchlorate Concentrations in Groundwater 2003-2014

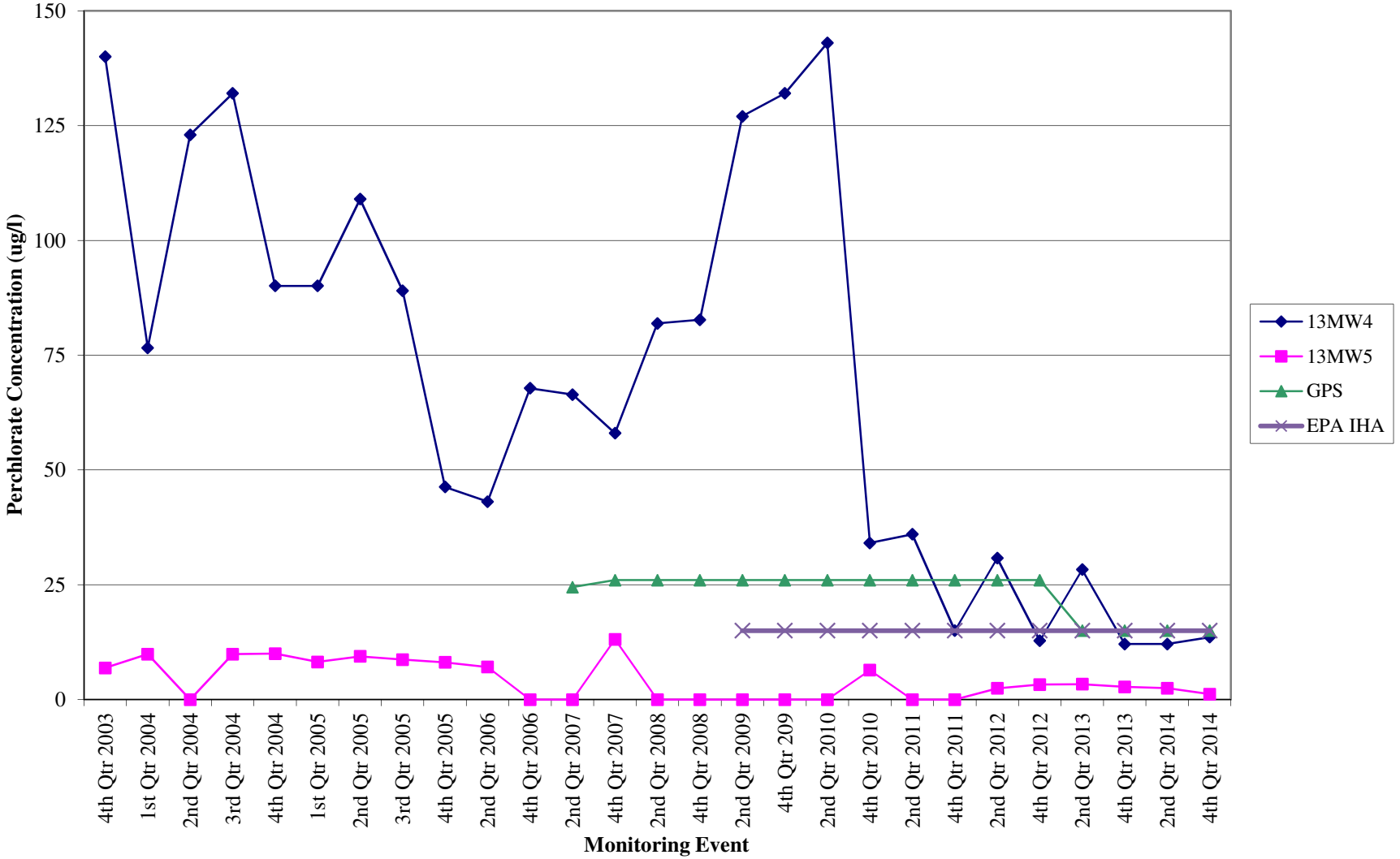

TABLE 2

OPEN BURNING GROUND
SUMMARY OF CARBON TETRACHLORIDE CONCENTRATIONS IN GROUNDWATER 2003-2014
RADFORD ARMY AMMUNITION PLANT, RADFORD, VIRGINIA

Monitoring Event	Carbon Tetrachloride Concentrations in ug/l								GPS ug/l
	13MW1	13MW2	13MW3	13MW4	13MW5	13MW6	13MW7	13MW8	
4th Qtr 2003	~	~	9.4	~	~	~	~	na	na
1st Qtr 2004	~	~	~	~	~	~	~	na	na
2nd Qtr 2004	~	~	7.4	~	~	~	~	na	na
3rd Qtr 2004	~	~	5.6 J	~	~	~	~	na	na
4th Qtr 2004	~	~	5.4	~	~	~	~	na	na
1st Qtr 2005	~	~	6.5	~	~	~	~	na	na
2nd Qtr 2005	~	~	10	~	~	~	~	na	na
3rd Qtr 2005	~	~	7.9	~	~	~	~	na	na
4th Qtr 2005	~	~	5.5	~	~	~	~	na	na
1st Qtr 2006	~	~	5.3	~	~	~	~	na	na
2nd Qtr 2006	~	~	6	~	~	~	~	na	na
3rd Qtr 2006	~	~	NA	NA	NA	NA	NA	na	na
4th Qtr 2006	~	~	~	~	~	~	~	na	na
2nd Qtr 2007	~	~	4.8	~	~	~	~	na	5
4th Qtr 2007	~	~	~	~	~	~	~	na	5
2nd Qtr 2008	~	~	4.3	~	~	~	~	na	5
4th Qtr 2008	~	~	5.4	~	~	~	~	na	5
2nd Qtr 2009	~	~	6.6	~	~	~	~	na	5
4th Qtr 209	~	~	5.7	~	~	~	~	na	5
2nd Qtr 2010	~	~	7.9	~	~	~	~	na	5
4th Qtr 2010	~	~	4.2	~	~	~	~	na	5
2nd Qtr 2011	~	~	4	~	~	~	~	na	5
4th Qtr 2011	~	~	4.4	~	~	~	~	na	5
2nd Qtr 2012	~	0.1 J	7.3	0.1 J	~	~	~	na	5
4th Qtr 2012	~	~	4	~	0.1 J	~	~	na	5
2nd Qtr 2013	~	0.3 J	5.7	0.2 J	~	~	~	na	5
4th Qtr 2013	na	0.1 J	5.9	0.1 J	0.1 J	~	~	0.2 J	5
2nd Qtr 2014	na	0.1 J	8.2	0.3 J	~	~	~	0.5 J	5
4th Qtr 2014	na	~	5.7	~	0.1 J	~	~	0.3 J	5

NOTES:

Groundwater at the OBG was not sampled for carbon tetrachloride prior to 4th Quarter 2003.

Wells 13MW1 and 13MW2 were the upgradient monitoring wells for the OBG prior to VDEQ approval of Class 2 Permit Modification (June 18, 2013) which reclassified 13MW1 as an observation well for measurement of static water levels only.

Plume monitoring well 13MW8 added to the monitoring well network beginning in 4th Quarter 2013.

~: Not detected at or above the Quantitation Limit (QL).

J: Carbon tetrachloride was detected at or above the QL and the associated result is estimated due to quality control issues.

NA: Not analyzed. The downgradient monitoring wells at the OBG were not analyzed for carbon tetrachloride during 3rd Quarter 2006.

na: Not applicable.

OBG - Carbon Tetrachloride Concentrations in Groundwater 2003-2014