



5301 Northshore Drive
North Little Rock, AR 72118
Telephone: 501-682-0744

Client Report For: Exxon Oil Spill 2014 1123-1129
Attention:
Client Address:

,

Report Date: April 24, 2014
LAB ID: AR14APR10-03
Comment:

Approved By: _____

Date: April 24, 2014

Client: Special Samples **Client Sample ID:** WS-011S
Lab ID: 2014-1123 **Collection Date:** 4/10/2014 9:58:00 AM
Matrix: Water

Analyses

<i>Dissolved Metals by EPA 200.8</i>		<i>EPA 200.8</i>	<i>Batch: 14041601 Run: 1</i>		
	Result	Reporting Limit	MDL	Qual	Unit
Aluminum	61.3	20	20		ug/L
Antimony	<5	5	1.0		ug/L
Arsenic	<0.5	0.5	0.2		ug/L
Barium	13.4	2	0.4		ug/L
Beryllium	<0.1	0.1	0.04		ug/L
Boron	16.9	5	2.0		ug/L
Cadmium	<0.1	0.1	0.05		ug/L
Calcium	3.60	0.03	0.03		mg/L
Chromium	<0.5	0.5	0.05		ug/L
Cobalt	<0.5	0.5	0.05		ug/L
Copper	0.65	0.5	0.2		ug/L
Iron	122	20	5.0		ug/L
Lead	<0.3	0.3	0.02		ug/L
Magnesium	1.84	0.02	0.01		mg/L
Manganese	10.6	0.3	0.07		ug/L
Nickel	0.69	0.5	0.15		ug/L
Potassium	2.28	0.02	0.01		mg/L
Selenium	<1	1	0.2		ug/L
Silicon Dioxide	2.27	0.05	0.01		mg/L
Silver	<0.5	0.5	0.02		ug/L
Sodium	6.88	0.02	0.01		mg/L
Thallium	<0.5	0.5	0.005		ug/L
Vanadium	<0.5	0.5	0.3		ug/L
Zinc	1.60	1	0.3		ug/L
Hardness	16.6	1	1.0		mg/L
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	Apr 14 2014 1:30PM				

Total Metals by EPA 200.8 *EPA 200.8* *Batch: 14041602 Run: 1*

	<u>Result</u>	<u>Reporting Limit</u>	<u>MDL</u>	<u>Qual</u>	<u>Unit</u>
Aluminum	190	20	20		ug/L
Antimony	<10	10	5		ug/L
Arsenic	<1	1	0.5		ug/L
Barium	18.1	10	2.0		ug/L
Beryllium	<0.5	0.5	0.1		ug/L
Boron	<25	25	5.0		ug/L
Cadmium	<1	1	0.3		ug/L
Calcium	3.34	0.04	0.04		mg/L
Chromium	<1	1	0.3		ug/L
Cobalt	<1	1	0.5		ug/L
Copper	<1	1	0.5		ug/L
Iron	628	20	10.0		ug/L
Lead	<1	1	0.1		ug/L
Magnesium	1.98	0.1	0.1		mg/L
Manganese	124	1	0.2		ug/L
Nickel	<2.5	2.5	0.5		ug/L
Potassium	2.21	1	0.05		mg/L
Selenium	<2	2	0.5		ug/L
Silver	<5	5	1.0		ug/L
Sodium	7.29	0.04	0.02		mg/L
Thallium	<2.5	2.5	0.05		ug/L
Vanadium	<2.5	2.5	1.0		ug/L
Zinc	3.37	3	2.0		ug/L
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	Apr 14 2014 4:20PM				
Prep By					
Prep Date/Time					

Client: Special Samples

Client Sample ID: WS-014S

Lab ID: 2014-1124

Collection Date: 4/10/2014 10:43:00 AM

Matrix: Water

Analyses

Dissolved Metals by EPA 200.8

EPA 200.8

Batch: 14041601 Run: 1

	Result	Reporting Limit	MDL	Qual	Unit
Aluminum	85.8	20	20		ug/L
Antimony	<5	5	1.0		ug/L
Arsenic	0.54	0.5	0.2		ug/L
Barium	12.7	2	0.4		ug/L
Beryllium	<0.1	0.1	0.04		ug/L
Boron	16.5	5	2.0		ug/L
Cadmium	<0.1	0.1	0.05		ug/L
Calcium	3.46	0.03	0.03		mg/L
Chromium	<0.5	0.5	0.05		ug/L
Cobalt	<0.5	0.5	0.05		ug/L
Copper	0.57	0.5	0.2		ug/L
Iron	167	20	5.0		ug/L
Lead	<0.3	0.3	0.02		ug/L
Magnesium	1.86	0.02	0.01		mg/L
Manganese	12.3	0.3	0.07		ug/L
Nickel	0.75	0.5	0.15		ug/L
Potassium	2.20	0.02	0.01		mg/L
Selenium	<1	1	0.2		ug/L
Silicon Dioxide	2.16	0.05	0.01		mg/L
Silver	<0.5	0.5	0.02		ug/L
Sodium	6.94	0.02	0.01		mg/L
Thallium	<0.5	0.5	0.005		ug/L
Vanadium	<0.5	0.5	0.3		ug/L
Zinc	1.26	1	0.3		ug/L
Hardness	16.3	1	1.0		mg/L
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	Apr 14 2014 1:37PM				

Total Metals by EPA 200.8

EPA 200.8

Batch: 14041602 Run: 1

Result Reporting MDL Qual Unit

		Limit		
Aluminum	151	20	20	ug/L
Antimony	<10	10	5	ug/L
Arsenic	<1	1	0.5	ug/L
Barium	17.0	10	2.0	ug/L
Beryllium	<0.5	0.5	0.1	ug/L
Boron	<25	25	5.0	ug/L
Cadmium	<1	1	0.3	ug/L
Calcium	3.46	0.04	0.04	mg/L
Chromium	<1	1	0.3	ug/L
Cobalt	<1	1	0.5	ug/L
Copper	<1	1	0.5	ug/L
Iron	626	20	10.0	ug/L
Lead	<1	1	0.1	ug/L
Magnesium	1.98	0.1	0.1	mg/L
Manganese	117	1	0.2	ug/L
Nickel	<2.5	2.5	0.5	ug/L
Potassium	2.26	1	0.05	mg/L
Selenium	<2	2	0.5	ug/L
Silver	<5	5	1.0	ug/L
Sodium	7.31	0.04	0.02	mg/L
Thallium	<2.5	2.5	0.05	ug/L
Vanadium	<2.5	2.5	1.0	ug/L
Zinc	<3	3	2.0	ug/L
Dilution Factor	1			
Analyzed By	Robert Graddy			
Analysis Date/Time	Apr 14 2014 4:26PM			
Prep By				
Prep Date/Time				

Client: Special Samples

Client Sample ID: WS-012S

Lab ID: 2014-1125

Collection Date: 4/10/2014 11:20:00 AM

Matrix: Water

Analyses

Dissolved Metals by EPA 200.8

EPA 200.8

Batch: 14041601 Run: 1

	Result	Reporting Limit	MDL	Qual	Unit
Aluminum	71.2	20	20		ug/L
Antimony	<5	5	1.0		ug/L
Arsenic	0.56	0.5	0.2		ug/L
Barium	13.0	2	0.4		ug/L
Beryllium	<0.1	0.1	0.04		ug/L
Boron	18.1	5	2.0		ug/L
Cadmium	<0.1	0.1	0.05		ug/L
Calcium	3.50	0.03	0.03		mg/L
Chromium	<0.5	0.5	0.05		ug/L
Cobalt	<0.5	0.5	0.05		ug/L
Copper	0.67	0.5	0.2		ug/L
Iron	189	20	5.0		ug/L
Lead	<0.3	0.3	0.02		ug/L
Magnesium	1.85	0.02	0.01		mg/L
Manganese	20.1	0.3	0.07		ug/L
Nickel	0.74	0.5	0.15		ug/L
Potassium	2.22	0.02	0.01		mg/L
Selenium	<1	1	0.2		ug/L
Silicon Dioxide	2.11	0.05	0.01		mg/L
Silver	<0.5	0.5	0.02		ug/L
Sodium	6.98	0.02	0.01		mg/L
Thallium	<0.5	0.5	0.005		ug/L
Vanadium	<0.5	0.5	0.3		ug/L
Zinc	1.27	1	0.3		ug/L
Hardness	16.3	1	1.0		mg/L
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	Apr 14 2014 2:03PM				

Total Metals by EPA 200.8

EPA 200.8

Batch: 14041602 Run: 1

Result Reporting MDL Qual Unit

		Limit		
Aluminum	158	20	20	ug/L
Antimony	<10	10	5	ug/L
Arsenic	<1	1	0.5	ug/L
Barium	17.2	10	2.0	ug/L
Beryllium	<0.5	0.5	0.1	ug/L
Boron	<25	25	5.0	ug/L
Cadmium	<1	1	0.3	ug/L
Calcium	3.67	0.04	0.04	mg/L
Chromium	<1	1	0.3	ug/L
Cobalt	<1	1	0.5	ug/L
Copper	<1	1	0.5	ug/L
Iron	665	20	10.0	ug/L
Lead	<1	1	0.1	ug/L
Magnesium	1.86	0.1	0.1	mg/L
Manganese	122	1	0.2	ug/L
Nickel	<2.5	2.5	0.5	ug/L
Potassium	2.23	1	0.05	mg/L
Selenium	<2	2	0.5	ug/L
Silver	<5	5	1.0	ug/L
Sodium	6.61	0.04	0.02	mg/L
Thallium	<2.5	2.5	0.05	ug/L
Vanadium	<2.5	2.5	1.0	ug/L
Zinc	<3	3	2.0	ug/L
Dilution Factor	1			
Analyzed By	Robert Graddy			
Analysis Date/Time	Apr 14 2014 5:31PM			
Prep By				
Prep Date/Time				

Client: Special Samples

Client Sample ID: WS-010S

Lab ID: 2014-1126

Collection Date: 4/10/2014 11:51:00 AM

Matrix: Water

Analyses

Dissolved Metals by EPA 200.8

EPA 200.8

Batch: 14041601 Run: 1

	Result	Reporting Limit	MDL	Qual	Unit
Aluminum	65.2	20	20		ug/L
Antimony	<5	5	1.0		ug/L
Arsenic	0.64	0.5	0.2		ug/L
Barium	14.0	2	0.4		ug/L
Beryllium	<0.1	0.1	0.04		ug/L
Boron	17.0	5	2.0		ug/L
Cadmium	<0.1	0.1	0.05		ug/L
Calcium	3.68	0.03	0.03		mg/L
Chromium	<0.5	0.5	0.05		ug/L
Cobalt	<0.5	0.5	0.05		ug/L
Copper	0.68	0.5	0.2		ug/L
Iron	209	20	5.0		ug/L
Lead	<0.3	0.3	0.02		ug/L
Magnesium	1.87	0.02	0.01		mg/L
Manganese	54.5	0.3	0.07		ug/L
Nickel	0.77	0.5	0.15		ug/L
Potassium	2.26	0.02	0.01		mg/L
Selenium	<1	1	0.2		ug/L
Silicon Dioxide	2.26	0.05	0.01		mg/L
Silver	<0.5	0.5	0.02		ug/L
Sodium	7.06	0.02	0.01		mg/L
Thallium	<0.5	0.5	0.005		ug/L
Vanadium	<0.5	0.5	0.3		ug/L
Zinc	1.66	1	0.3		ug/L
Hardness	16.9	1	1.0		mg/L
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	Apr 14 2014 2:10PM				

Total Metals by EPA 200.8

EPA 200.8

Batch: 14041602 Run: 1

Result Reporting MDL Qual Unit

		Limit		
Aluminum	203	20	20	ug/L
Antimony	<10	10	5	ug/L
Arsenic	<1	1	0.5	ug/L
Barium	18.9	10	2.0	ug/L
Beryllium	<0.5	0.5	0.1	ug/L
Boron	<25	25	5.0	ug/L
Cadmium	<1	1	0.3	ug/L
Calcium	3.66	0.04	0.04	mg/L
Chromium	<1	1	0.3	ug/L
Cobalt	<1	1	0.5	ug/L
Copper	<1	1	0.5	ug/L
Iron	834	20	10.0	ug/L
Lead	<1	1	0.1	ug/L
Magnesium	1.92	0.1	0.1	mg/L
Manganese	168	1	0.2	ug/L
Nickel	<2.5	2.5	0.5	ug/L
Potassium	2.21	1	0.05	mg/L
Selenium	<2	2	0.5	ug/L
Silver	<5	5	1.0	ug/L
Sodium	6.77	0.04	0.02	mg/L
Thallium	<2.5	2.5	0.05	ug/L
Vanadium	<2.5	2.5	1.0	ug/L
Zinc	<3	3	2.0	ug/L
Dilution Factor	1			
Analyzed By	Robert Graddy			
Analysis Date/Time	Apr 14 2014 5:38PM			
Prep By				
Prep Date/Time				

Client: Special Samples

Client Sample ID: WS-018S

Lab ID: 2014-1127

Collection Date: 4/10/2014 12:57:00 PM

Matrix: Water

Analyses

Dissolved Metals by EPA 200.8

EPA 200.8

Batch: 14041601 Run: 1

	Result	Reporting Limit	MDL	Qual	Unit
Aluminum	41.1	20	20		ug/L
Antimony	<5	5	1.0		ug/L
Arsenic	0.52	0.5	0.2		ug/L
Barium	13.4	2	0.4		ug/L
Beryllium	<0.1	0.1	0.04		ug/L
Boron	16.9	5	2.0		ug/L
Cadmium	<0.1	0.1	0.05		ug/L
Calcium	3.65	0.03	0.03		mg/L
Chromium	<0.5	0.5	0.05		ug/L
Cobalt	<0.5	0.5	0.05		ug/L
Copper	0.63	0.5	0.2		ug/L
Iron	102	20	5.0		ug/L
Lead	<0.3	0.3	0.02		ug/L
Magnesium	1.82	0.02	0.01		mg/L
Manganese	11.5	0.3	0.07		ug/L
Nickel	0.66	0.5	0.15		ug/L
Potassium	2.31	0.02	0.01		mg/L
Selenium	<1	1	0.2		ug/L
Silicon Dioxide	2.11	0.05	0.01		mg/L
Silver	<0.5	0.5	0.02		ug/L
Sodium	6.77	0.02	0.01		mg/L
Thallium	<0.5	0.5	0.005		ug/L
Vanadium	<0.5	0.5	0.3		ug/L
Zinc	2.90	1	0.3		ug/L
Hardness	16.6	1	1.0		mg/L
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	Apr 14 2014 2:29PM				

Total Metals by EPA 200.8

EPA 200.8

Batch: 14041602 Run: 1

Result Reporting MDL Qual Unit

Limit

Aluminum	148	20	20	ug/L
Antimony	<10	10	5	ug/L
Arsenic	<1	1	0.5	ug/L
Barium	17.3	10	2.0	ug/L
Beryllium	<0.5	0.5	0.1	ug/L
Boron	<25	25	5.0	ug/L
Cadmium	<1	1	0.3	ug/L
Calcium	3.56	0.04	0.04	mg/L
Chromium	<1	1	0.3	ug/L
Cobalt	<1	1	0.5	ug/L
Copper	<1	1	0.5	ug/L
Iron	503	20	10.0	ug/L
Lead	<1	1	0.1	ug/L
Magnesium	1.86	0.1	0.1	mg/L
Manganese	103	1	0.2	ug/L
Nickel	<2.5	2.5	0.5	ug/L
Potassium	2.23	1	0.05	mg/L
Selenium	<2	2	0.5	ug/L
Silver	<5	5	1.0	ug/L
Sodium	6.62	0.04	0.02	mg/L
Thallium	<2.5	2.5	0.05	ug/L
Vanadium	<2.5	2.5	1.0	ug/L
Zinc	4.05	3	2.0	ug/L
Dilution Factor	1			
Analyzed By	Robert Graddy			
Analysis Date/Time	Apr 14 2014 5:45PM			
Prep By				
Prep Date/Time				

Client: Special Samples

Client Sample ID: Metals Field Blank

Lab ID: 2014-1128

Collection Date: 4/10/2014 10:45:00 AM

Matrix: Water

Analyses

Dissolved Metals by EPA 200.8

EPA 200.8

Batch: 14041601 Run: 1

	<u>Result</u>	<u>Reporting Limit</u>	<u>MDL</u>	<u>Qual</u>	<u>Unit</u>
Aluminum	<20	20	20		ug/L
Antimony	<5	5	1.0		ug/L
Arsenic	<0.5	0.5	0.2		ug/L
Barium	<2	2	0.4		ug/L
Beryllium	<0.1	0.1	0.04		ug/L
Boron	<5	5	2.0		ug/L
Cadmium	<0.1	0.1	0.05		ug/L
Calcium	<0.03	0.03	0.03		mg/L
Chromium	<0.5	0.5	0.05		ug/L
Cobalt	<0.5	0.5	0.05		ug/L
Copper	<0.5	0.5	0.2		ug/L
Iron	<20	20	5.0		ug/L
Lead	<0.3	0.3	0.02		ug/L
Magnesium	<0.02	0.02	0.01		mg/L
Manganese	<0.3	0.3	0.07		ug/L
Nickel	<0.5	0.5	0.15		ug/L
Potassium	<0.02	0.02	0.01		mg/L
Selenium	<1	1	0.2		ug/L
Silicon Dioxide	<0.05	0.05	0.01		mg/L
Silver	<0.5	0.5	0.02		ug/L
Sodium	<0.02	0.02	0.01		mg/L
Thallium	<0.5	0.5	0.005		ug/L
Vanadium	<0.5	0.5	0.3		ug/L
Zinc	<1	1	0.3		ug/L
Hardness	<1	1	1.0		mg/L
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	Apr 14 2014 2:36PM				

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, AR 72118

Laboratory Contact: Jeff Ruehr
Ruehr@adeq.state.ar.us
501-682-0955

Client: Special Samples

Client Sample ID: WS-011S

Lab ID: 2014-1123

Collection Date: 4/10/2014 9:58:00 AM

Matrix: Water

Analyses

Turbidity

EPA 180.1

Batch: 14041404 Run: 1

	<u>Result</u>	<u>Reporting Limit</u>	<u>MDL</u>	<u>Qual</u>	<u>Unit</u>
Turbidity	8.67	0.02	0.02		NTU
Dilution Factor	1				
Analyzed By	Angela H. Rice				
Analysis Date/Time	4/10/2014 14:46				

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, AR 72118

Laboratory Contact: Jeff Ruehr
Ruehr@adeq.state.ar.us
501-682-0955

Client: Special Samples

Client Sample ID: WS-014S

Lab ID: 2014-1124

Collection Date: 4/10/2014 10:43:00 AM

Matrix: Water

Analyses

Turbidity

EPA 180.1

Batch: 14041404 Run: 1

	<u>Result</u>	<u>Reporting Limit</u>	<u>MDL</u>	<u>Qual</u>	<u>Unit</u>
Turbidity	7.23	0.02	0.02		NTU
Dilution Factor	1				
Analyzed By	Angela H. Rice				
Analysis Date/Time	4/10/2014 14:48				

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, AR 72118

Laboratory Contact: Jeff Ruehr
Ruehr@adeq.state.ar.us
501-682-0955

Client: Special Samples

Client Sample ID: WS-012S

Lab ID: 2014-1125

Collection Date: 4/10/2014 11:20:00 AM

Matrix: Water

Analyses

Turbidity

EPA 180.1

Batch: 14041404 Run: 1

	<u>Result</u>	<u>Reporting Limit</u>	<u>MDL</u>	<u>Qual</u>	<u>Unit</u>
Turbidity	8.75	0.02	0.02		NTU
Dilution Factor	1				
Analyzed By	Angela H. Rice				
Analysis Date/Time	4/10/2014 15:00				

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, AR 72118

Laboratory Contact: Jeff Ruehr
Ruehr@adeq.state.ar.us
501-682-0955

Client: Special Samples

Client Sample ID: WS-010S

Lab ID: 2014-1126

Collection Date: 4/10/2014 11:51:00 AM

Matrix: Water

Analyses

Turbidity

EPA 180.1

Batch: 14041404 Run: 1

	<u>Result</u>	<u>Reporting Limit</u>	<u>MDL</u>	<u>Qual</u>	<u>Unit</u>
Turbidity	10.4	0.02	0.02		NTU
Dilution Factor	1				
Analyzed By	Angela H. Rice				
Analysis Date/Time	4/10/2014 15:06				

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, AR 72118

Laboratory Contact: Jeff Ruehr
Ruehr@adeq.state.ar.us
501-682-0955

Client: Special Samples

Client Sample ID: WS-018S

Lab ID: 2014-1127

Collection Date: 4/10/2014 12:57:00 PM

Matrix: Water

Analyses

Turbidity

EPA 180.1

Batch: 14041404 Run: 1

	<u>Result</u>	<u>Reporting Limit</u>	<u>MDL</u>	<u>Qual</u>	<u>Unit</u>
Turbidity	7.77	0.02	0.02		NTU
Dilution Factor	1				
Analyzed By	Angela H. Rice				
Analysis Date/Time	4/10/2014 15:07				

Client: Special Samples

Client Sample ID: WS-011S

Lab ID: 2014-1123

Collection Date: 4/10/2014 9:58:00 AM

Matrix: Water

Analyses

Oil and Grease

EPA1664

Batch: 14041511 Run: 1

	Result	Reporting Limit	MDL	Qual	Unit
Oil and Grease	<2.5	2.5	2.5		mg/L
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	04-15-2014 1000				

Semi-Volatiles by GC/MS

EPA 3510C/EPA 8270D

Batch: 14041608 Run: 1

	Result	Reporting Limit	MDL	Qual	Unit
2-Fluorophenol (% Recovery)	28.8	40-110			%
Nitrobenzene-d5 (% Recovery)	53.3	50-110			%
2-Fluorobiphenyl (% Recovery)	54.2	50-110			%
2,4,6-Tribromophenol (% Recovery)	50.0	40-110			%
Terphenyl-d14 (% Recovery)	66.2	50-110			%
Methyl Methanesulfonate	<0.2	0.2	100		ug/L
Ethyl methanesulfonate	<0.2	0.2	100		ug/L
Phenol	<0.2	0.2	100		ug/L
Aniline	<0.2	0.2	100		ug/L
Bis(2-chloroethyl)ether	<0.2	0.2	100		ug/L
2-Chlorophenol	<0.2	0.2	100		ug/L
1,3-Dichlorobenzene	<0.12	0.12	60		ug/L
1,4-Dichlorobenzene	<0.12	0.12	60		ug/L
Benzyl alcohol	<0.16	0.16	80		ug/L
1,2-Dichlorobenzene	<0.12	0.12	60		ug/L
2-Methylphenol	<0.1	0.1	50		ug/L
Acetophenone	<0.1	0.1	50		ug/L
4-Methylphenol	<0.1	0.1	50		ug/L
N-Nitrosodi-n-propylamine	<0.2	0.2	100		ug/L
Hexachloroethane	<0.2	0.2	100		ug/L
Nitrobenzene	<0.2	0.2	100		ug/L
N-Nitrosopiperidine	<0.2	0.2	100		ug/L
Isophorone	<0.1	0.1	50		ug/L

2-Nitrophenol	<0.3	0.3	150	ug/L
2,4-Dimethylphenol	<0.1	0.1	50	ug/L
Bis(2-chloroethoxy)methane	<0.2	0.2	100	ug/L
2,4-Dichlorophenol	<0.2	0.2	100	ug/L
1,2,4-Trichlorobenzene	<0.12	0.12	60	ug/L
Naphthalene	<0.08	0.08	40	ug/L
4-Chloroaniline	<0.1	0.1	50	ug/L
2,6-Dichlorophenol	<0.2	0.2	100	ug/L
Hexachlorobutadiene	<0.2	0.2	100	ug/L
N-Nitrosodibutylamine	<0.2	0.2	100	ug/L
4-Chloro-3-methylphenol	<0.16	0.16	80	ug/L
2-Methylnaphthalene	<0.1	0.1	50	ug/L
1,2,4,5-Tetrachlorobenzene	<0.1	0.1	50	ug/L
Hexachlorocyclopentadiene	<0.16	0.16	80	ug/L
2,4,6-Trichlorophenol	<0.2	0.2	100	ug/L
2,4,5-Trichlorophenol	<0.2	0.2	100	ug/L
2-Chloronaphthalene	<0.1	0.1	50	ug/L
1-Chloronaphthalene	<0.1	0.1	50	ug/L
2-Nitroaniline	<0.2	0.2	100	ug/L
Dimethyl phthalate	<0.2	0.2	100	ug/L
2,6-Dinitrotoluene	<0.2	0.2	100	ug/L
Acenaphthylene	<0.08	0.08	40	ug/L
3-Nitroaniline	<0.2	0.2	100	ug/L
Acenaphthene	<0.1	0.1	50	ug/L
2,4-Dinitrophenol	<4	4	2000	ug/L
Pentachlorobenzene	<0.12	0.12	60	ug/L
4-Nitrophenol	<2	2	1000	ug/L
Dibenzofuran	<0.1	0.1	50	ug/L
2,4-Dinitrotoluene	<0.2	0.2	100	ug/L
2,3,4,6-Tetrachlorophenol	<0.6	0.6	300	ug/L
Diethyl phthalate	<0.2	0.2	100	ug/L
Fluorene	<0.1	0.1	50	ug/L
4-Chlorophenyl phenyl ether	<0.1	0.1	50	ug/L
4-Nitroaniline	<0.2	0.2	100	ug/L
4,6-Dinitro-2-methylphenol	<6	6	3000	ug/L
Diphenylamine	<0.1	0.1	50	ug/L
Azobenzene	<0.08	0.08	40	ug/L
4-Bromophenyl phenyl ether	<0.2	0.2	100	ug/L
Hexachlorobenzene	<0.16	0.16	80	ug/L
Pentachlorophenol	<1	1	500	ug/L

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Pentachloronitrobenzene	<0.2	0.2	100	ug/L
Pronamide	<0.2	0.2	100	ug/L
Phenanthrene	<0.08	0.08	40	ug/L
Anthracene	<0.08	0.08	40	ug/L
Carbazole	<0.1	0.1	50	ug/L
Di-n-butyl phthalate	<0.2	0.2	100	ug/L
Fluoranthene	<0.08	0.08	40	ug/L
Pyrene	<0.08	0.08	40	ug/L
Dimethylaminoazobenzene	<0.2	0.2	100	ug/L
Butyl benzyl phthalate	<0.3	0.3	150	ug/L
Benzo (a) anthracene	<0.1	0.1	50	ug/L
Chrysene	<0.1	0.1	50	ug/L
Bis(2-ethylhexyl)phthalate	<0.3	0.3	150	ug/L
Di-n-octyl phthalate	<0.3	0.3	150	ug/L
Benzo (b) fluoranthene	<0.16	0.16	80	ug/L
7,12-Dimethylbenz (a) anthracene	<0.2	0.2	100	ug/L
Benzo (k) fluoranthene	<0.16	0.16	80	ug/L
Benzo (a) pyrene	<0.16	0.16	80	ug/L
3-Methylcholanthrene	<0.2	0.2	100	ug/L
Indeno (1,2,3-cd) pyrene	<0.2	0.2	100	ug/L
Dibenzo (a,h) anthracene	<0.16	0.16	80	ug/L
Benzo (g,h,i) perylene	<0.16	0.16	80	ug/L
Initial Volume	500			mL
Final Volume	1			mL
Dilution Factor	1			
Analyzed By	Ed Harris			
Analysis Date/Time	4/16/2014 9:32 AM			
Prep By	Ed Harris			
Prep Date/Time	4/14/2014 08:00			

Client: Special Samples

Client Sample ID: WS-014S

Lab ID: 2014-1124

Collection Date: 4/10/2014 10:43:00 AM

Matrix: Water

Analyses

Oil and Grease

EPA1664

Batch: 14041511 Run: 1

	Result	Reporting Limit	MDL	Qual	Unit
Oil and Grease	<2.5	2.5	2.5		mg/L
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	04-15-2014 1000				

Semi-Volatiles by GC/MS

EPA 3510C/EPA 8270D

Batch: 14041608 Run: 1

	Result	Reporting Limit	MDL	Qual	Unit
2-Fluorophenol (% Recovery)	35.0	40-110			%
Nitrobenzene-d5 (% Recovery)	55.8	50-110			%
2-Fluorobiphenyl (% Recovery)	52.5	50-110			%
2,4,6-Tribromophenol (% Recovery)	52.0	40-110			%
Terphenyl-d14 (% Recovery)	76.3	50-110			%
Methyl Methanesulfonate	<0.2	0.2	100		ug/L
Ethyl methanesulfonate	<0.2	0.2	100		ug/L
Phenol	<0.2	0.2	100		ug/L
Aniline	<0.2	0.2	100		ug/L
Bis(2-chloroethyl)ether	<0.2	0.2	100		ug/L
2-Chlorophenol	<0.2	0.2	100		ug/L
1,3-Dichlorobenzene	<0.12	0.12	60		ug/L
1,4-Dichlorobenzene	<0.12	0.12	60		ug/L
Benzyl alcohol	<0.16	0.16	80		ug/L
1,2-Dichlorobenzene	<0.12	0.12	60		ug/L
2-Methylphenol	<0.1	0.1	50		ug/L
Acetophenone	<0.1	0.1	50		ug/L
4-Methylphenol	<0.1	0.1	50		ug/L
N-Nitrosodi-n-propylamine	<0.2	0.2	100		ug/L
Hexachloroethane	<0.2	0.2	100		ug/L
Nitrobenzene	<0.2	0.2	100		ug/L
N-Nitrosopiperidine	<0.2	0.2	100		ug/L
Isophorone	<0.1	0.1	50		ug/L

2-Nitrophenol	<0.3	0.3	150	ug/L
2,4-Dimethylphenol	<0.1	0.1	50	ug/L
Bis(2-chloroethoxy)methane	<0.2	0.2	100	ug/L
2,4-Dichlorophenol	<0.2	0.2	100	ug/L
1,2,4-Trichlorobenzene	<0.12	0.12	60	ug/L
Naphthalene	<0.08	0.08	40	ug/L
4-Chloroaniline	<0.1	0.1	50	ug/L
2,6-Dichlorophenol	<0.2	0.2	100	ug/L
Hexachlorobutadiene	<0.2	0.2	100	ug/L
N-Nitrosodibutylamine	<0.2	0.2	100	ug/L
4-Chloro-3-methylphenol	<0.16	0.16	80	ug/L
2-Methylnaphthalene	<0.1	0.1	50	ug/L
1,2,4,5-Tetrachlorobenzene	<0.1	0.1	50	ug/L
Hexachlorocyclopentadiene	<0.16	0.16	80	ug/L
2,4,6-Trichlorophenol	<0.2	0.2	100	ug/L
2,4,5-Trichlorophenol	<0.2	0.2	100	ug/L
2-Chloronaphthalene	<0.1	0.1	50	ug/L
1-Chloronaphthalene	<0.1	0.1	50	ug/L
2-Nitroaniline	<0.2	0.2	100	ug/L
Dimethyl phthalate	<0.2	0.2	100	ug/L
2,6-Dinitrotoluene	<0.2	0.2	100	ug/L
Acenaphthylene	<0.08	0.08	40	ug/L
3-Nitroaniline	<0.2	0.2	100	ug/L
Acenaphthene	<0.1	0.1	50	ug/L
2,4-Dinitrophenol	<4	4	2000	ug/L
Pentachlorobenzene	<0.12	0.12	60	ug/L
4-Nitrophenol	<2	2	1000	ug/L
Dibenzofuran	<0.1	0.1	50	ug/L
2,4-Dinitrotoluene	<0.2	0.2	100	ug/L
2,3,4,6-Tetrachlorophenol	<0.6	0.6	300	ug/L
Diethyl phthalate	<0.2	0.2	100	ug/L
Fluorene	<0.1	0.1	50	ug/L
4-Chlorophenyl phenyl ether	<0.1	0.1	50	ug/L
4-Nitroaniline	<0.2	0.2	100	ug/L
4,6-Dinitro-2-methylphenol	<6	6	3000	ug/L
Diphenylamine	<0.1	0.1	50	ug/L
Azobenzene	<0.08	0.08	40	ug/L
4-Bromophenyl phenyl ether	<0.2	0.2	100	ug/L
Hexachlorobenzene	<0.16	0.16	80	ug/L
Pentachlorophenol	<1	1	500	ug/L

Pentachloronitrobenzene	<0.2	0.2	100	ug/L
Pronamide	<0.2	0.2	100	ug/L
Phenanthrene	<0.08	0.08	40	ug/L
Anthracene	<0.08	0.08	40	ug/L
Carbazole	<0.1	0.1	50	ug/L
Di-n-butyl phthalate	<0.2	0.2	100	ug/L
Fluoranthene	<0.08	0.08	40	ug/L
Pyrene	<0.08	0.08	40	ug/L
Dimethylaminoazobenzene	<0.2	0.2	100	ug/L
Butyl benzyl phthalate	<0.3	0.3	150	ug/L
Benzo (a) anthracene	<0.1	0.1	50	ug/L
Chrysene	<0.1	0.1	50	ug/L
Bis(2-ethylhexyl)phthalate	<0.3	0.3	150	ug/L
Di-n-octyl phthalate	<0.3	0.3	150	ug/L
Benzo (b) fluoranthene	<0.16	0.16	80	ug/L
7,12-Dimethylbenz (a) anthracene	<0.2	0.2	100	ug/L
Benzo (k) fluoranthene	<0.16	0.16	80	ug/L
Benzo (a) pyrene	<0.16	0.16	80	ug/L
3-Methylcholanthrene	<0.2	0.2	100	ug/L
Indeno (1,2,3-cd) pyrene	<0.2	0.2	100	ug/L
Dibenzo (a,h) anthracene	<0.16	0.16	80	ug/L
Benzo (g,h,i) perylene	<0.16	0.16	80	ug/L
Initial Volume	500			mL
Final Volume	1			mL
Dilution Factor	1			
Analyzed By	Ed Harris			
Analysis Date/Time	4/16/2014 10:00 AM			
Prep By	Ed Harris			
Prep Date/Time	4/14/2014 08:00			

Client: Special Samples

Client Sample ID: WS-012S

Lab ID: 2014-1125

Collection Date: 4/10/2014 11:20:00 AM

Matrix: Water

Analyses

Oil and Grease

EPA1664

Batch: 14041511 Run: 1

	Result	Reporting Limit	MDL	Qual	Unit
Oil and Grease	<2.5	2.5	2.5		mg/L
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	04-15-2014 1000				

Semi-Volatiles by GC/MS

EPA 3510C/EPA 8270D

Batch: 14041608 Run: 1

	Result	Reporting Limit	MDL	Qual	Unit
2-Fluorophenol (% Recovery)	28.1	40-110			%
Nitrobenzene-d5 (% Recovery)	59.8	50-110			%
2-Fluorobiphenyl (% Recovery)	57.6	50-110			%
2,4,6-Tribromophenol (% Recovery)	63.1	40-110			%
Terphenyl-d14 (% Recovery)	80.2	50-110			%
Methyl Methanesulfonate	<0.2	0.2	100		ug/L
Ethyl methanesulfonate	<0.2	0.2	100		ug/L
Phenol	<0.2	0.2	100		ug/L
Aniline	<0.2	0.2	100		ug/L
Bis(2-chloroethyl)ether	<0.2	0.2	100		ug/L
2-Chlorophenol	<0.2	0.2	100		ug/L
1,3-Dichlorobenzene	<0.12	0.12	60		ug/L
1,4-Dichlorobenzene	<0.12	0.12	60		ug/L
Benzyl alcohol	<0.16	0.16	80		ug/L
1,2-Dichlorobenzene	<0.12	0.12	60		ug/L
2-Methylphenol	<0.1	0.1	50		ug/L
Acetophenone	<0.1	0.1	50		ug/L
4-Methylphenol	<0.1	0.1	50		ug/L
N-Nitrosodi-n-propylamine	<0.2	0.2	100		ug/L
Hexachloroethane	<0.2	0.2	100		ug/L
Nitrobenzene	<0.2	0.2	100		ug/L
N-Nitrosopiperidine	<0.2	0.2	100		ug/L
Isophorone	<0.1	0.1	50		ug/L

2-Nitrophenol	<0.3	0.3	150	ug/L
2,4-Dimethylphenol	<0.1	0.1	50	ug/L
Bis(2-chloroethoxy)methane	<0.2	0.2	100	ug/L
2,4-Dichlorophenol	<0.2	0.2	100	ug/L
1,2,4-Trichlorobenzene	<0.12	0.12	60	ug/L
Naphthalene	<0.08	0.08	40	ug/L
4-Chloroaniline	<0.1	0.1	50	ug/L
2,6-Dichlorophenol	<0.2	0.2	100	ug/L
Hexachlorobutadiene	<0.2	0.2	100	ug/L
N-Nitrosodibutylamine	<0.2	0.2	100	ug/L
4-Chloro-3-methylphenol	<0.16	0.16	80	ug/L
2-Methylnaphthalene	<0.1	0.1	50	ug/L
1,2,4,5-Tetrachlorobenzene	<0.1	0.1	50	ug/L
Hexachlorocyclopentadiene	<0.16	0.16	80	ug/L
2,4,6-Trichlorophenol	<0.2	0.2	100	ug/L
2,4,5-Trichlorophenol	<0.2	0.2	100	ug/L
2-Chloronaphthalene	<0.1	0.1	50	ug/L
1-Chloronaphthalene	<0.1	0.1	50	ug/L
2-Nitroaniline	<0.2	0.2	100	ug/L
Dimethyl phthalate	<0.2	0.2	100	ug/L
2,6-Dinitrotoluene	<0.2	0.2	100	ug/L
Acenaphthylene	<0.08	0.08	40	ug/L
3-Nitroaniline	<0.2	0.2	100	ug/L
Acenaphthene	<0.1	0.1	50	ug/L
2,4-Dinitrophenol	<4	4	2000	ug/L
Pentachlorobenzene	<0.12	0.12	60	ug/L
4-Nitrophenol	<2	2	1000	ug/L
Dibenzofuran	<0.1	0.1	50	ug/L
2,4-Dinitrotoluene	<0.2	0.2	100	ug/L
2,3,4,6-Tetrachlorophenol	<0.6	0.6	300	ug/L
Diethyl phthalate	<0.2	0.2	100	ug/L
Fluorene	<0.1	0.1	50	ug/L
4-Chlorophenyl phenyl ether	<0.1	0.1	50	ug/L
4-Nitroaniline	<0.2	0.2	100	ug/L
4,6-Dinitro-2-methylphenol	<6	6	3000	ug/L
Diphenylamine	<0.1	0.1	50	ug/L
Azobenzene	<0.08	0.08	40	ug/L
4-Bromophenyl phenyl ether	<0.2	0.2	100	ug/L
Hexachlorobenzene	<0.16	0.16	80	ug/L
Pentachlorophenol	<1	1	500	ug/L

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Pentachloronitrobenzene	<0.2	0.2	100	ug/L
Pronamide	<0.2	0.2	100	ug/L
Phenanthrene	<0.08	0.08	40	ug/L
Anthracene	<0.08	0.08	40	ug/L
Carbazole	<0.1	0.1	50	ug/L
Di-n-butyl phthalate	<0.2	0.2	100	ug/L
Fluoranthene	<0.08	0.08	40	ug/L
Pyrene	<0.08	0.08	40	ug/L
Dimethylaminoazobenzene	<0.2	0.2	100	ug/L
Butyl benzyl phthalate	<0.3	0.3	150	ug/L
Benzo (a) anthracene	<0.1	0.1	50	ug/L
Chrysene	<0.1	0.1	50	ug/L
Bis(2-ethylhexyl)phthalate	<0.3	0.3	150	ug/L
Di-n-octyl phthalate	<0.3	0.3	150	ug/L
Benzo (b) fluoranthene	<0.16	0.16	80	ug/L
7,12-Dimethylbenz (a) anthracene	<0.2	0.2	100	ug/L
Benzo (k) fluoranthene	<0.16	0.16	80	ug/L
Benzo (a) pyrene	<0.16	0.16	80	ug/L
3-Methylcholanthrene	<0.2	0.2	100	ug/L
Indeno (1,2,3-cd) pyrene	<0.2	0.2	100	ug/L
Dibenzo (a,h) anthracene	<0.16	0.16	80	ug/L
Benzo (g,h,i) perylene	<0.16	0.16	80	ug/L
Initial Volume	500			mL
Final Volume	1			mL
Dilution Factor	1			
Analyzed By	Ed Harris			
Analysis Date/Time	4/16/2014 11:53 AM			
Prep By	Ed Harris			
Prep Date/Time	4/14/2014 08:00			

Client: Special Samples

Client Sample ID: WS-010S

Lab ID: 2014-1126

Collection Date: 4/10/2014 11:51:00 AM

Matrix: Water

Analyses

Oil and Grease

EPA1664

Batch: 14041511 Run: 1

	Result	Reporting Limit	MDL	Qual	Unit
Oil and Grease	<2.5	2.5	2.5		mg/L
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	04-15-2014 1000				

Semi-Volatiles by GC/MS

EPA 3510C/EPA 8270D

Batch: 14041608 Run: 1

	Result	Reporting Limit	MDL	Qual	Unit
2-Fluorophenol (% Recovery)	31.2	40-110			%
Nitrobenzene-d5 (% Recovery)	55.0	50-110			%
2-Fluorobiphenyl (% Recovery)	52.9	50-110			%
2,4,6-Tribromophenol (% Recovery)	56.8	40-110			%
Terphenyl-d14 (% Recovery)	65.7	50-110			%
Methyl Methanesulfonate	<0.2	0.2	100		ug/L
Ethyl methanesulfonate	<0.2	0.2	100		ug/L
Phenol	<0.2	0.2	100		ug/L
Aniline	<0.2	0.2	100		ug/L
Bis(2-chloroethyl)ether	<0.2	0.2	100		ug/L
2-Chlorophenol	<0.2	0.2	100		ug/L
1,3-Dichlorobenzene	<0.12	0.12	60		ug/L
1,4-Dichlorobenzene	<0.12	0.12	60		ug/L
Benzyl alcohol	<0.16	0.16	80		ug/L
1,2-Dichlorobenzene	<0.12	0.12	60		ug/L
2-Methylphenol	<0.1	0.1	50		ug/L
Acetophenone	<0.1	0.1	50		ug/L
4-Methylphenol	<0.1	0.1	50		ug/L
N-Nitrosodi-n-propylamine	<0.2	0.2	100		ug/L
Hexachloroethane	<0.2	0.2	100		ug/L
Nitrobenzene	<0.2	0.2	100		ug/L
N-Nitrosopiperidine	<0.2	0.2	100		ug/L
Isophorone	<0.1	0.1	50		ug/L

2-Nitrophenol	<0.3	0.3	150	ug/L
2,4-Dimethylphenol	<0.1	0.1	50	ug/L
Bis(2-chloroethoxy)methane	<0.2	0.2	100	ug/L
2,4-Dichlorophenol	<0.2	0.2	100	ug/L
1,2,4-Trichlorobenzene	<0.12	0.12	60	ug/L
Naphthalene	<0.08	0.08	40	ug/L
4-Chloroaniline	<0.1	0.1	50	ug/L
2,6-Dichlorophenol	<0.2	0.2	100	ug/L
Hexachlorobutadiene	<0.2	0.2	100	ug/L
N-Nitrosodibutylamine	<0.2	0.2	100	ug/L
4-Chloro-3-methylphenol	<0.16	0.16	80	ug/L
2-Methylnaphthalene	<0.1	0.1	50	ug/L
1,2,4,5-Tetrachlorobenzene	<0.1	0.1	50	ug/L
Hexachlorocyclopentadiene	<0.16	0.16	80	ug/L
2,4,6-Trichlorophenol	<0.2	0.2	100	ug/L
2,4,5-Trichlorophenol	<0.2	0.2	100	ug/L
2-Chloronaphthalene	<0.1	0.1	50	ug/L
1-Chloronaphthalene	<0.1	0.1	50	ug/L
2-Nitroaniline	<0.2	0.2	100	ug/L
Dimethyl phthalate	<0.2	0.2	100	ug/L
2,6-Dinitrotoluene	<0.2	0.2	100	ug/L
Acenaphthylene	<0.08	0.08	40	ug/L
3-Nitroaniline	<0.2	0.2	100	ug/L
Acenaphthene	<0.1	0.1	50	ug/L
2,4-Dinitrophenol	<4	4	2000	ug/L
Pentachlorobenzene	<0.12	0.12	60	ug/L
4-Nitrophenol	<2	2	1000	ug/L
Dibenzofuran	<0.1	0.1	50	ug/L
2,4-Dinitrotoluene	<0.2	0.2	100	ug/L
2,3,4,6-Tetrachlorophenol	<0.6	0.6	300	ug/L
Diethyl phthalate	<0.2	0.2	100	ug/L
Fluorene	<0.1	0.1	50	ug/L
4-Chlorophenyl phenyl ether	<0.1	0.1	50	ug/L
4-Nitroaniline	<0.2	0.2	100	ug/L
4,6-Dinitro-2-methylphenol	<6	6	3000	ug/L
Diphenylamine	<0.1	0.1	50	ug/L
Azobenzene	<0.08	0.08	40	ug/L
4-Bromophenyl phenyl ether	<0.2	0.2	100	ug/L
Hexachlorobenzene	<0.16	0.16	80	ug/L
Pentachlorophenol	<1	1	500	ug/L

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Laboratory Contact: Jeff Ruehr
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Pentachloronitrobenzene	<0.2	0.2	100	ug/L
Pronamide	<0.2	0.2	100	ug/L
Phenanthrene	<0.08	0.08	40	ug/L
Anthracene	<0.08	0.08	40	ug/L
Carbazole	<0.1	0.1	50	ug/L
Di-n-butyl phthalate	<0.2	0.2	100	ug/L
Fluoranthene	<0.08	0.08	40	ug/L
Pyrene	<0.08	0.08	40	ug/L
Dimethylaminoazobenzene	<0.2	0.2	100	ug/L
Butyl benzyl phthalate	<0.3	0.3	150	ug/L
Benzo (a) anthracene	<0.1	0.1	50	ug/L
Chrysene	<0.1	0.1	50	ug/L
Bis(2-ethylhexyl)phthalate	<0.3	0.3	150	ug/L
Di-n-octyl phthalate	<0.3	0.3	150	ug/L
Benzo (b) fluoranthene	<0.16	0.16	80	ug/L
7,12-Dimethylbenz (a) anthracene	<0.2	0.2	100	ug/L
Benzo (k) fluoranthene	<0.16	0.16	80	ug/L
Benzo (a) pyrene	<0.16	0.16	80	ug/L
3-Methylcholanthrene	<0.2	0.2	100	ug/L
Indeno (1,2,3-cd) pyrene	<0.2	0.2	100	ug/L
Dibenzo (a,h) anthracene	<0.16	0.16	80	ug/L
Benzo (g,h,i) perylene	<0.16	0.16	80	ug/L
Initial Volume	500			mL
Final Volume	1			mL
Dilution Factor	1			
Analyzed By	Ed Harris			
Analysis Date/Time	4/16/2014 12:21 PM			
Prep By	Ed Harris			
Prep Date/Time	4/14/2014 08:00			

Client: Special Samples

Client Sample ID: WS-018S

Lab ID: 2014-1127

Collection Date: 4/10/2014 12:57:00 PM

Matrix: Water

Analyses

Oil and Grease

EPA1664

Batch: 14041511 Run: 1

	Result	Reporting Limit	MDL	Qual	Unit
Oil and Grease	<2.5	2.5	2.5		mg/L
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	04-15-2014 1000				

Semi-Volatiles by GC/MS

EPA 3510C/EPA 8270D

Batch: 14041608 Run: 1

	Result	Reporting Limit	MDL	Qual	Unit
2-Fluorophenol (% Recovery)	41.5	40-110			%
Nitrobenzene-d5 (% Recovery)	74.4	50-110			%
2-Fluorobiphenyl (% Recovery)	74.2	50-110			%
2,4,6-Tribromophenol (% Recovery)	87.0	40-110			%
Terphenyl-d14 (% Recovery)	81.7	50-110			%
Methyl Methanesulfonate	<0.2	0.2	100		ug/L
Ethyl methanesulfonate	<0.2	0.2	100		ug/L
Phenol	<0.2	0.2	100		ug/L
Aniline	<0.2	0.2	100		ug/L
Bis(2-chloroethyl)ether	<0.2	0.2	100		ug/L
2-Chlorophenol	<0.2	0.2	100		ug/L
1,3-Dichlorobenzene	<0.12	0.12	60		ug/L
1,4-Dichlorobenzene	<0.12	0.12	60		ug/L
Benzyl alcohol	<0.16	0.16	80		ug/L
1,2-Dichlorobenzene	<0.12	0.12	60		ug/L
2-Methylphenol	<0.1	0.1	50		ug/L
Acetophenone	<0.1	0.1	50		ug/L
4-Methylphenol	<0.1	0.1	50		ug/L
N-Nitrosodi-n-propylamine	<0.2	0.2	100		ug/L
Hexachloroethane	<0.2	0.2	100		ug/L
Nitrobenzene	<0.2	0.2	100		ug/L
N-Nitrosopiperidine	<0.2	0.2	100		ug/L
Isophorone	<0.1	0.1	50		ug/L

2-Nitrophenol	<0.3	0.3	150	ug/L
2,4-Dimethylphenol	<0.1	0.1	50	ug/L
Bis(2-chloroethoxy)methane	<0.2	0.2	100	ug/L
2,4-Dichlorophenol	<0.2	0.2	100	ug/L
1,2,4-Trichlorobenzene	<0.12	0.12	60	ug/L
Naphthalene	<0.08	0.08	40	ug/L
4-Chloroaniline	<0.1	0.1	50	ug/L
2,6-Dichlorophenol	<0.2	0.2	100	ug/L
Hexachlorobutadiene	<0.2	0.2	100	ug/L
N-Nitrosodibutylamine	<0.2	0.2	100	ug/L
4-Chloro-3-methylphenol	<0.16	0.16	80	ug/L
2-Methylnaphthalene	<0.1	0.1	50	ug/L
1,2,4,5-Tetrachlorobenzene	<0.1	0.1	50	ug/L
Hexachlorocyclopentadiene	<0.16	0.16	80	ug/L
2,4,6-Trichlorophenol	<0.2	0.2	100	ug/L
2,4,5-Trichlorophenol	<0.2	0.2	100	ug/L
2-Chloronaphthalene	<0.1	0.1	50	ug/L
1-Chloronaphthalene	<0.1	0.1	50	ug/L
2-Nitroaniline	<0.2	0.2	100	ug/L
Dimethyl phthalate	<0.2	0.2	100	ug/L
2,6-Dinitrotoluene	<0.2	0.2	100	ug/L
Acenaphthylene	<0.08	0.08	40	ug/L
3-Nitroaniline	<0.2	0.2	100	ug/L
Acenaphthene	<0.1	0.1	50	ug/L
2,4-Dinitrophenol	<4	4	2000	ug/L
Pentachlorobenzene	<0.12	0.12	60	ug/L
4-Nitrophenol	<2	2	1000	ug/L
Dibenzofuran	<0.1	0.1	50	ug/L
2,4-Dinitrotoluene	<0.2	0.2	100	ug/L
2,3,4,6-Tetrachlorophenol	<0.6	0.6	300	ug/L
Diethyl phthalate	<0.2	0.2	100	ug/L
Fluorene	<0.1	0.1	50	ug/L
4-Chlorophenyl phenyl ether	<0.1	0.1	50	ug/L
4-Nitroaniline	<0.2	0.2	100	ug/L
4,6-Dinitro-2-methylphenol	<6	6	3000	ug/L
Diphenylamine	<0.1	0.1	50	ug/L
Azobenzene	<0.08	0.08	40	ug/L
4-Bromophenyl phenyl ether	<0.2	0.2	100	ug/L
Hexachlorobenzene	<0.16	0.16	80	ug/L
Pentachlorophenol	<1	1	500	ug/L

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Laboratory Contact: Jeff Ruehr
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Pentachloronitrobenzene	<0.2	0.2	100	ug/L
Pronamide	<0.2	0.2	100	ug/L
Phenanthrene	<0.08	0.08	40	ug/L
Anthracene	<0.08	0.08	40	ug/L
Carbazole	<0.1	0.1	50	ug/L
Di-n-butyl phthalate	<0.2	0.2	100	ug/L
Fluoranthene	<0.08	0.08	40	ug/L
Pyrene	<0.08	0.08	40	ug/L
Dimethylaminoazobenzene	<0.2	0.2	100	ug/L
Butyl benzyl phthalate	<0.3	0.3	150	ug/L
Benzo (a) anthracene	<0.1	0.1	50	ug/L
Chrysene	<0.1	0.1	50	ug/L
Bis(2-ethylhexyl)phthalate	<0.3	0.3	150	ug/L
Di-n-octyl phthalate	<0.3	0.3	150	ug/L
Benzo (b) fluoranthene	<0.16	0.16	80	ug/L
7,12-Dimethylbenz (a) anthracene	<0.2	0.2	100	ug/L
Benzo (k) fluoranthene	<0.16	0.16	80	ug/L
Benzo (a) pyrene	<0.16	0.16	80	ug/L
3-Methylcholanthrene	<0.2	0.2	100	ug/L
Indeno (1,2,3-cd) pyrene	<0.2	0.2	100	ug/L
Dibenzo (a,h) anthracene	<0.16	0.16	80	ug/L
Benzo (g,h,i) perylene	<0.16	0.16	80	ug/L
Initial Volume	500			mL
Final Volume	1			mL
Dilution Factor	1			
Analyzed By	Ed Harris			
Analysis Date/Time	4/16/2014 12:49 PM			
Prep By	Ed Harris			
Prep Date/Time	4/14/2014 08:00			

Client: Special Samples

Client Sample ID: WS-011S

Lab ID: 2014-1123

Collection Date: 4/10/2014 9:58:00 AM

Matrix: Water

Analyses

Volatile Organics by GCMS

EPA 8260C

Batch: 14041516 Run: 1

	Result	Reporting Limit	MDL	Qual	Unit
Dibromofluoromethane (% Recovery)	109	70-130			%
1,2-Dichloroethane-d4 (% Recovery)	101	70-130			%
Toluene-d8 (% Recovery)	101	70-130			%
4-Bromofluorobenzene (% Recovery)	107	70-130			%
Dichlorodifluoromethane	<1.12	1.12	1.12		ug/L
Chloromethane	<0.58	0.58	0.58		ug/L
Vinyl chloride	<0.82	0.82	0.82		ug/L
Bromomethane	<3.9	3.9	3.90		ug/L
Chloroethane	<2.68	2.68	2.68		ug/L
Trichlorofluoromethane	<0.51	0.51	0.51		ug/L
1,1-Dichloroethene	<0.43	0.43	0.43		ug/L
Acetone	<10.5	10.5	10.5		ug/L
Methylene chloride	<2.5	2.5	2.5		ug/L
Methyl tert-butyl ether	<0.83	0.83	0.83		ug/L
trans-1,2-Dichloroethene	<0.59	0.59	0.59		ug/L
1,1-Dichloroethane	<0.42	0.42	0.42		ug/L
Methyl ethyl ketone	<12.8	12.8	12.8		ug/L
cis-1,2-Dichloroethene	<1.15	1.15	1.15		ug/L
2,2-Dichloropropane	<0.81	0.81	0.81		ug/L
Bromochloromethane	<0.66	0.66	0.66		ug/L
Chloroform	<0.27	0.27	0.27		ug/L
1,1,1-Trichloroethane	<0.46	0.46	0.46		ug/L
1,1-Dichloropropene	<0.59	0.59	0.59		ug/L
Carbon tetrachloride	<0.6	0.6	0.6		ug/L
Benzene	<0.66	0.66	0.66		ug/L
1,2-Dichloroethane	<1.15	1.15	1.15		ug/L
Trichloroethene	<0.6	0.6	0.60		ug/L
1,2-Dichloropropane	<0.98	0.98	0.98		ug/L
Dibromomethane	<1.78	1.78	1.78		ug/L
Bromodichloromethane	<0.65	0.65	0.65		ug/L
cis-1,3-Dichloropropene	<0.86	0.86	0.86		ug/L
Methyl isobutyl ketone	<8.1	8.1	8.10		ug/L

Toluene	<0.57	0.57	0.57	ug/L
trans-1,3-Dichloropropene	<0.84	0.84	0.84	ug/L
1,1,2-Trichloroethane	<0.78	0.78	0.78	ug/L
2-Hexanone	<9.5	9.5	9.5	ug/L
Tetrachloroethene	<0.96	0.96	0.96	ug/L
1,3-Dichloropropane	<0.94	0.94	0.94	ug/L
Dibromochloromethane	<1.25	1.25	1.25	ug/L
1,2-Dibromoethane (EDB)	<0.68	0.68	0.68	ug/L
Chlorobenzene	<0.62	0.62	0.62	ug/L
Ethylbenzene	<0.51	0.51	0.51	ug/L
1,1,1,2-Tetrachloroethane	<0.57	0.57	0.57	ug/L
m,p-Xylene	<1.2	1.2	1.2	ug/L
o-Xylene	<0.5	0.5	0.5	ug/L
Styrene	<0.53	0.53	0.53	ug/L
Bromoform	<1.56	1.56	1.56	ug/L
Isopropylbenzene	<0.59	0.59	0.59	ug/L
1,1,1,2,2-Tetrachloroethane	<0.39	0.39	0.39	ug/L
1,2,3-Trichloropropane	<1.83	1.83	1.83	ug/L
n-Propylbenzene	<0.49	0.49	0.49	ug/L
Bromobenzene	<0.5	0.5	0.5	ug/L
1,3,5-Trimethylbenzene	<0.3	0.3	0.30	ug/L
2-Chlorotoluene	<0.66	0.66	0.66	ug/L
4-Chlorotoluene	<0.8	0.8	0.80	ug/L
tert-Butylbenzene	<0.85	0.85	0.85	ug/L
1,2,4-Trimethylbenzene	<0.46	0.46	0.46	ug/L
sec-Butylbenzene	<0.63	0.63	0.63	ug/L
p-Isopropyltoluene	<0.59	0.59	0.59	ug/L
1,3-Dichlorobenzene	<0.7	0.7	0.70	ug/L
1,4-Dichlorobenzene	<0.53	0.53	0.53	ug/L
n-Butylbenzene	<0.72	0.72	0.72	ug/L
1,2-Dichlorobenzene	<0.7	0.7	0.70	ug/L
1,2-Dibromo-3-chloropropane	<0.86	0.86	0.86	ug/L
1,2,4-Trichlorobenzene	<1.14	1.14	1.14	ug/L
Hexachlorobutadiene	<0.96	0.96	0.96	ug/L
Naphthalene	<1.53	1.53	1.53	ug/L
1,2,3-Trichlorobenzene	<1.3	1.3	1.3	ug/L
Dilution Factor	1			
Analyzed By	Jeff Ruehr			
Analysis Date/Time	4/14/2014 5:33 PM			

Client: Special Samples

Client Sample ID: WS-014S

Lab ID: 2014-1124

Collection Date: 4/10/2014 10:43:00 AM

Matrix: Water

Analyses

Volatile Organics by GCMS

EPA 8260C

Batch: 14041516 Run: 1

	Result	Reporting Limit	MDL	Qual	Unit
<i>Dibromofluoromethane (% Recovery)</i>	106	70-130			%
<i>1,2-Dichloroethane-d4 (% Recovery)</i>	101	70-130			%
<i>Toluene-d8 (% Recovery)</i>	99.8	70-130			%
<i>4-Bromofluorobenzene (% Recovery)</i>	108	70-130			%
Dichlorodifluoromethane	<1.12	1.12	1.12		ug/L
Chloromethane	<0.58	0.58	0.58		ug/L
Vinyl chloride	<0.82	0.82	0.82		ug/L
Bromomethane	<3.9	3.9	3.90		ug/L
Chloroethane	<2.68	2.68	2.68		ug/L
Trichlorofluoromethane	<0.51	0.51	0.51		ug/L
1,1-Dichloroethene	<0.43	0.43	0.43		ug/L
Acetone	<10.5	10.5	10.5		ug/L
Methylene chloride	<2.5	2.5	2.5		ug/L
Methyl tert-butyl ether	<0.83	0.83	0.83		ug/L
trans-1,2-Dichloroethene	<0.59	0.59	0.59		ug/L
1,1-Dichloroethane	<0.42	0.42	0.42		ug/L
Methyl ethyl ketone	<12.8	12.8	12.8		ug/L
cis-1,2-Dichloroethene	<1.15	1.15	1.15		ug/L
2,2-Dichloropropane	<0.81	0.81	0.81		ug/L
Bromochloromethane	<0.66	0.66	0.66		ug/L
Chloroform	<0.27	0.27	0.27		ug/L
1,1,1-Trichloroethane	<0.46	0.46	0.46		ug/L
1,1-Dichloropropene	<0.59	0.59	0.59		ug/L
Carbon tetrachloride	<0.6	0.6	0.6		ug/L
Benzene	<0.66	0.66	0.66		ug/L
1,2-Dichloroethane	<1.15	1.15	1.15		ug/L
Trichloroethene	<0.6	0.6	0.60		ug/L
1,2-Dichloropropane	<0.98	0.98	0.98		ug/L
Dibromomethane	<1.78	1.78	1.78		ug/L
Bromodichloromethane	<0.65	0.65	0.65		ug/L
cis-1,3-Dichloropropene	<0.86	0.86	0.86		ug/L
Methyl isobutyl ketone	<8.1	8.1	8.10		ug/L

Toluene	<0.57	0.57	0.57	ug/L
trans-1,3-Dichloropropene	<0.84	0.84	0.84	ug/L
1,1,2-Trichloroethane	<0.78	0.78	0.78	ug/L
2-Hexanone	<9.5	9.5	9.5	ug/L
Tetrachloroethene	<0.96	0.96	0.96	ug/L
1,3-Dichloropropane	<0.94	0.94	0.94	ug/L
Dibromochloromethane	<1.25	1.25	1.25	ug/L
1,2-Dibromoethane (EDB)	<0.68	0.68	0.68	ug/L
Chlorobenzene	<0.62	0.62	0.62	ug/L
Ethylbenzene	<0.51	0.51	0.51	ug/L
1,1,1,2-Tetrachloroethane	<0.57	0.57	0.57	ug/L
m,p-Xylene	<1.2	1.2	1.2	ug/L
o-Xylene	<0.5	0.5	0.5	ug/L
Styrene	<0.53	0.53	0.53	ug/L
Bromoform	<1.56	1.56	1.56	ug/L
Isopropylbenzene	<0.59	0.59	0.59	ug/L
1,1,1,2,2-Tetrachloroethane	<0.39	0.39	0.39	ug/L
1,2,3-Trichloropropane	<1.83	1.83	1.83	ug/L
n-Propylbenzene	<0.49	0.49	0.49	ug/L
Bromobenzene	<0.5	0.5	0.5	ug/L
1,3,5-Trimethylbenzene	<0.3	0.3	0.30	ug/L
2-Chlorotoluene	<0.66	0.66	0.66	ug/L
4-Chlorotoluene	<0.8	0.8	0.80	ug/L
tert-Butylbenzene	<0.85	0.85	0.85	ug/L
1,2,4-Trimethylbenzene	<0.46	0.46	0.46	ug/L
sec-Butylbenzene	<0.63	0.63	0.63	ug/L
p-Isopropyltoluene	<0.59	0.59	0.59	ug/L
1,3-Dichlorobenzene	<0.7	0.7	0.70	ug/L
1,4-Dichlorobenzene	<0.53	0.53	0.53	ug/L
n-Butylbenzene	<0.72	0.72	0.72	ug/L
1,2-Dichlorobenzene	<0.7	0.7	0.70	ug/L
1,2-Dibromo-3-chloropropane	<0.86	0.86	0.86	ug/L
1,2,4-Trichlorobenzene	<1.14	1.14	1.14	ug/L
Hexachlorobutadiene	<0.96	0.96	0.96	ug/L
Naphthalene	<1.53	1.53	1.53	ug/L
1,2,3-Trichlorobenzene	<1.3	1.3	1.3	ug/L
Dilution Factor	1			
Analyzed By	Jeff Ruehr			
Analysis Date/Time	4/14/2014 7:15 PM			

Client: Special Samples

Client Sample ID: WS-012S

Lab ID: 2014-1125

Collection Date: 4/10/2014 11:20:00 AM

Matrix: Water

Analyses

Volatile Organics by GCMS

EPA 8260C

Batch: 14041516 Run: 1

	Result	Reporting Limit	MDL	Qual	Unit
Dibromofluoromethane (% Recovery)	107	70-130			%
1,2-Dichloroethane-d4 (% Recovery)	97.3	70-130			%
Toluene-d8 (% Recovery)	99.2	70-130			%
4-Bromofluorobenzene (% Recovery)	103	70-130			%
Dichlorodifluoromethane	<1.12	1.12	1.12		ug/L
Chloromethane	<0.58	0.58	0.58		ug/L
Vinyl chloride	<0.82	0.82	0.82		ug/L
Bromomethane	<3.9	3.9	3.90		ug/L
Chloroethane	<2.68	2.68	2.68		ug/L
Trichlorofluoromethane	<0.51	0.51	0.51		ug/L
1,1-Dichloroethene	<0.43	0.43	0.43		ug/L
Acetone	<10.5	10.5	10.5		ug/L
Methylene chloride	<2.5	2.5	2.5		ug/L
Methyl tert-butyl ether	<0.83	0.83	0.83		ug/L
trans-1,2-Dichloroethene	<0.59	0.59	0.59		ug/L
1,1-Dichloroethane	<0.42	0.42	0.42		ug/L
Methyl ethyl ketone	<12.8	12.8	12.8		ug/L
cis-1,2-Dichloroethene	<1.15	1.15	1.15		ug/L
2,2-Dichloropropane	<0.81	0.81	0.81		ug/L
Bromochloromethane	<0.66	0.66	0.66		ug/L
Chloroform	<0.27	0.27	0.27		ug/L
1,1,1-Trichloroethane	<0.46	0.46	0.46		ug/L
1,1-Dichloropropene	<0.59	0.59	0.59		ug/L
Carbon tetrachloride	<0.6	0.6	0.6		ug/L
Benzene	<0.66	0.66	0.66		ug/L
1,2-Dichloroethane	<1.15	1.15	1.15		ug/L
Trichloroethene	<0.6	0.6	0.60		ug/L
1,2-Dichloropropane	<0.98	0.98	0.98		ug/L
Dibromomethane	<1.78	1.78	1.78		ug/L
Bromodichloromethane	<0.65	0.65	0.65		ug/L
cis-1,3-Dichloropropene	<0.86	0.86	0.86		ug/L
Methyl isobutyl ketone	<8.1	8.1	8.10		ug/L

Toluene	<0.57	0.57	0.57	ug/L
trans-1,3-Dichloropropene	<0.84	0.84	0.84	ug/L
1,1,2-Trichloroethane	<0.78	0.78	0.78	ug/L
2-Hexanone	<9.5	9.5	9.5	ug/L
Tetrachloroethene	<0.96	0.96	0.96	ug/L
1,3-Dichloropropane	<0.94	0.94	0.94	ug/L
Dibromochloromethane	<1.25	1.25	1.25	ug/L
1,2-Dibromoethane (EDB)	<0.68	0.68	0.68	ug/L
Chlorobenzene	<0.62	0.62	0.62	ug/L
Ethylbenzene	<0.51	0.51	0.51	ug/L
1,1,1,2-Tetrachloroethane	<0.57	0.57	0.57	ug/L
m,p-Xylene	<1.2	1.2	1.2	ug/L
o-Xylene	<0.5	0.5	0.5	ug/L
Styrene	<0.53	0.53	0.53	ug/L
Bromoform	<1.56	1.56	1.56	ug/L
Isopropylbenzene	<0.59	0.59	0.59	ug/L
1,1,1,2,2-Tetrachloroethane	<0.39	0.39	0.39	ug/L
1,2,3-Trichloropropane	<1.83	1.83	1.83	ug/L
n-Propylbenzene	<0.49	0.49	0.49	ug/L
Bromobenzene	<0.5	0.5	0.5	ug/L
1,3,5-Trimethylbenzene	<0.3	0.3	0.30	ug/L
2-Chlorotoluene	<0.66	0.66	0.66	ug/L
4-Chlorotoluene	<0.8	0.8	0.80	ug/L
tert-Butylbenzene	<0.85	0.85	0.85	ug/L
1,2,4-Trimethylbenzene	<0.46	0.46	0.46	ug/L
sec-Butylbenzene	<0.63	0.63	0.63	ug/L
p-Isopropyltoluene	<0.59	0.59	0.59	ug/L
1,3-Dichlorobenzene	<0.7	0.7	0.70	ug/L
1,4-Dichlorobenzene	<0.53	0.53	0.53	ug/L
n-Butylbenzene	<0.72	0.72	0.72	ug/L
1,2-Dichlorobenzene	<0.7	0.7	0.70	ug/L
1,2-Dibromo-3-chloropropane	<0.86	0.86	0.86	ug/L
1,2,4-Trichlorobenzene	<1.14	1.14	1.14	ug/L
Hexachlorobutadiene	<0.96	0.96	0.96	ug/L
Naphthalene	<1.53	1.53	1.53	ug/L
1,2,3-Trichlorobenzene	<1.3	1.3	1.3	ug/L
Dilution Factor	1			
Analyzed By	Jeff Ruehr			
Analysis Date/Time	4/14/2014 5:59 PM			

Client: Special Samples

Client Sample ID: WS-010S

Lab ID: 2014-1126

Collection Date: 4/10/2014 11:51:00 AM

Matrix: Water

Analyses

Volatile Organics by GCMS

EPA 8260C

Batch: 14041516 Run: 1

	Result	Reporting Limit	MDL	Qual	Unit
<i>Dibromofluoromethane (% Recovery)</i>	108	70-130			%
<i>1,2-Dichloroethane-d4 (% Recovery)</i>	100	70-130			%
<i>Toluene-d8 (% Recovery)</i>	101	70-130			%
<i>4-Bromofluorobenzene (% Recovery)</i>	106	70-130			%
Dichlorodifluoromethane	<1.12	1.12	1.12		ug/L
Chloromethane	<0.58	0.58	0.58		ug/L
Vinyl chloride	<0.82	0.82	0.82		ug/L
Bromomethane	<3.9	3.9	3.90		ug/L
Chloroethane	<2.68	2.68	2.68		ug/L
Trichlorofluoromethane	<0.51	0.51	0.51		ug/L
1,1-Dichloroethene	<0.43	0.43	0.43		ug/L
Acetone	<10.5	10.5	10.5		ug/L
Methylene chloride	<2.5	2.5	2.5		ug/L
Methyl tert-butyl ether	<0.83	0.83	0.83		ug/L
trans-1,2-Dichloroethene	<0.59	0.59	0.59		ug/L
1,1-Dichloroethane	<0.42	0.42	0.42		ug/L
Methyl ethyl ketone	<12.8	12.8	12.8		ug/L
cis-1,2-Dichloroethene	<1.15	1.15	1.15		ug/L
2,2-Dichloropropane	<0.81	0.81	0.81		ug/L
Bromochloromethane	<0.66	0.66	0.66		ug/L
Chloroform	<0.27	0.27	0.27		ug/L
1,1,1-Trichloroethane	<0.46	0.46	0.46		ug/L
1,1-Dichloropropene	<0.59	0.59	0.59		ug/L
Carbon tetrachloride	<0.6	0.6	0.6		ug/L
Benzene	<0.66	0.66	0.66		ug/L
1,2-Dichloroethane	<1.15	1.15	1.15		ug/L
Trichloroethene	<0.6	0.6	0.60		ug/L
1,2-Dichloropropane	<0.98	0.98	0.98		ug/L
Dibromomethane	<1.78	1.78	1.78		ug/L
Bromodichloromethane	<0.65	0.65	0.65		ug/L
cis-1,3-Dichloropropene	<0.86	0.86	0.86		ug/L
Methyl isobutyl ketone	<8.1	8.1	8.10		ug/L

Toluene	<0.57	0.57	0.57	ug/L
trans-1,3-Dichloropropene	<0.84	0.84	0.84	ug/L
1,1,2-Trichloroethane	<0.78	0.78	0.78	ug/L
2-Hexanone	<9.5	9.5	9.5	ug/L
Tetrachloroethene	<0.96	0.96	0.96	ug/L
1,3-Dichloropropane	<0.94	0.94	0.94	ug/L
Dibromochloromethane	<1.25	1.25	1.25	ug/L
1,2-Dibromoethane (EDB)	<0.68	0.68	0.68	ug/L
Chlorobenzene	<0.62	0.62	0.62	ug/L
Ethylbenzene	<0.51	0.51	0.51	ug/L
1,1,1,2-Tetrachloroethane	<0.57	0.57	0.57	ug/L
m,p-Xylene	<1.2	1.2	1.2	ug/L
o-Xylene	<0.5	0.5	0.5	ug/L
Styrene	<0.53	0.53	0.53	ug/L
Bromoform	<1.56	1.56	1.56	ug/L
Isopropylbenzene	<0.59	0.59	0.59	ug/L
1,1,1,2,2-Tetrachloroethane	<0.39	0.39	0.39	ug/L
1,2,3-Trichloropropane	<1.83	1.83	1.83	ug/L
n-Propylbenzene	<0.49	0.49	0.49	ug/L
Bromobenzene	<0.5	0.5	0.5	ug/L
1,3,5-Trimethylbenzene	<0.3	0.3	0.30	ug/L
2-Chlorotoluene	<0.66	0.66	0.66	ug/L
4-Chlorotoluene	<0.8	0.8	0.80	ug/L
tert-Butylbenzene	<0.85	0.85	0.85	ug/L
1,2,4-Trimethylbenzene	<0.46	0.46	0.46	ug/L
sec-Butylbenzene	<0.63	0.63	0.63	ug/L
p-Isopropyltoluene	<0.59	0.59	0.59	ug/L
1,3-Dichlorobenzene	<0.7	0.7	0.70	ug/L
1,4-Dichlorobenzene	<0.53	0.53	0.53	ug/L
n-Butylbenzene	<0.72	0.72	0.72	ug/L
1,2-Dichlorobenzene	<0.7	0.7	0.70	ug/L
1,2-Dibromo-3-chloropropane	<0.86	0.86	0.86	ug/L
1,2,4-Trichlorobenzene	<1.14	1.14	1.14	ug/L
Hexachlorobutadiene	<0.96	0.96	0.96	ug/L
Naphthalene	<1.53	1.53	1.53	ug/L
1,2,3-Trichlorobenzene	<1.3	1.3	1.3	ug/L
Dilution Factor	1			
Analyzed By	Jeff Ruehr			
Analysis Date/Time	4/14/2014 6:24 PM			

Client: Special Samples

Client Sample ID: WS-018S

Lab ID: 2014-1127

Collection Date: 4/10/2014 12:57:00 PM

Matrix: Water

Analyses

Volatile Organics by GCMS

EPA 8260C

Batch: 14041516 Run: 1

	Result	Reporting Limit	MDL	Qual	Unit
Dibromofluoromethane (% Recovery)	106	70-130			%
1,2-Dichloroethane-d4 (% Recovery)	101	70-130			%
Toluene-d8 (% Recovery)	97.7	70-130			%
4-Bromofluorobenzene (% Recovery)	110	70-130			%
Dichlorodifluoromethane	<1.12	1.12	1.12		ug/L
Chloromethane	<0.58	0.58	0.58		ug/L
Vinyl chloride	<0.82	0.82	0.82		ug/L
Bromomethane	<3.9	3.9	3.90		ug/L
Chloroethane	<2.68	2.68	2.68		ug/L
Trichlorofluoromethane	<0.51	0.51	0.51		ug/L
1,1-Dichloroethene	<0.43	0.43	0.43		ug/L
Acetone	<10.5	10.5	10.5		ug/L
Methylene chloride	<2.5	2.5	2.5		ug/L
Methyl tert-butyl ether	<0.83	0.83	0.83		ug/L
trans-1,2-Dichloroethene	<0.59	0.59	0.59		ug/L
1,1-Dichloroethane	<0.42	0.42	0.42		ug/L
Methyl ethyl ketone	<12.8	12.8	12.8		ug/L
cis-1,2-Dichloroethene	<1.15	1.15	1.15		ug/L
2,2-Dichloropropane	<0.81	0.81	0.81		ug/L
Bromochloromethane	<0.66	0.66	0.66		ug/L
Chloroform	<0.27	0.27	0.27		ug/L
1,1,1-Trichloroethane	<0.46	0.46	0.46		ug/L
1,1-Dichloropropene	<0.59	0.59	0.59		ug/L
Carbon tetrachloride	<0.6	0.6	0.6		ug/L
Benzene	<0.66	0.66	0.66		ug/L
1,2-Dichloroethane	<1.15	1.15	1.15		ug/L
Trichloroethene	<0.6	0.6	0.60		ug/L
1,2-Dichloropropane	<0.98	0.98	0.98		ug/L
Dibromomethane	<1.78	1.78	1.78		ug/L
Bromodichloromethane	<0.65	0.65	0.65		ug/L
cis-1,3-Dichloropropene	<0.86	0.86	0.86		ug/L
Methyl isobutyl ketone	<8.1	8.1	8.10		ug/L

Toluene	<0.57	0.57	0.57	ug/L
trans-1,3-Dichloropropene	<0.84	0.84	0.84	ug/L
1,1,2-Trichloroethane	<0.78	0.78	0.78	ug/L
2-Hexanone	<9.5	9.5	9.5	ug/L
Tetrachloroethene	<0.96	0.96	0.96	ug/L
1,3-Dichloropropane	<0.94	0.94	0.94	ug/L
Dibromochloromethane	<1.25	1.25	1.25	ug/L
1,2-Dibromoethane (EDB)	<0.68	0.68	0.68	ug/L
Chlorobenzene	<0.62	0.62	0.62	ug/L
Ethylbenzene	<0.51	0.51	0.51	ug/L
1,1,1,2-Tetrachloroethane	<0.57	0.57	0.57	ug/L
m,p-Xylene	<1.2	1.2	1.2	ug/L
o-Xylene	<0.5	0.5	0.5	ug/L
Styrene	<0.53	0.53	0.53	ug/L
Bromoform	<1.56	1.56	1.56	ug/L
Isopropylbenzene	<0.59	0.59	0.59	ug/L
1,1,1,2,2-Tetrachloroethane	<0.39	0.39	0.39	ug/L
1,2,3-Trichloropropane	<1.83	1.83	1.83	ug/L
n-Propylbenzene	<0.49	0.49	0.49	ug/L
Bromobenzene	<0.5	0.5	0.5	ug/L
1,3,5-Trimethylbenzene	<0.3	0.3	0.30	ug/L
2-Chlorotoluene	<0.66	0.66	0.66	ug/L
4-Chlorotoluene	<0.8	0.8	0.80	ug/L
tert-Butylbenzene	<0.85	0.85	0.85	ug/L
1,2,4-Trimethylbenzene	<0.46	0.46	0.46	ug/L
sec-Butylbenzene	<0.63	0.63	0.63	ug/L
p-Isopropyltoluene	<0.59	0.59	0.59	ug/L
1,3-Dichlorobenzene	<0.7	0.7	0.70	ug/L
1,4-Dichlorobenzene	<0.53	0.53	0.53	ug/L
n-Butylbenzene	<0.72	0.72	0.72	ug/L
1,2-Dichlorobenzene	<0.7	0.7	0.70	ug/L
1,2-Dibromo-3-chloropropane	<0.86	0.86	0.86	ug/L
1,2,4-Trichlorobenzene	<1.14	1.14	1.14	ug/L
Hexachlorobutadiene	<0.96	0.96	0.96	ug/L
Naphthalene	<1.53	1.53	1.53	ug/L
1,2,3-Trichlorobenzene	<1.3	1.3	1.3	ug/L
Dilution Factor	1			
Analyzed By	Jeff Ruehr			
Analysis Date/Time	4/14/2014 6:49 PM			

Client: Special Samples

Client Sample ID: Volatiles Trip Blank

Lab ID: 2014-1129

Collection Date: 4/10/2014 10:45:00 AM

Matrix: Water

Analyses

Volatile Organics by GCMS

EPA 8260C

Batch: 14041516 Run: 1

	Result	Reporting Limit	MDL	Qual	Unit
<i>Dibromofluoromethane (% Recovery)</i>	106	70-130			%
<i>1,2-Dichloroethane-d4 (% Recovery)</i>	98.8	70-130			%
<i>Toluene-d8 (% Recovery)</i>	99.7	70-130			%
<i>4-Bromofluorobenzene (% Recovery)</i>	103	70-130			%
Dichlorodifluoromethane	<1.12	1.12	1.12		ug/L
Chloromethane	<0.58	0.58	0.58		ug/L
Vinyl chloride	<0.82	0.82	0.82		ug/L
Bromomethane	<3.9	3.9	3.90		ug/L
Chloroethane	<2.68	2.68	2.68		ug/L
Trichlorofluoromethane	<0.51	0.51	0.51		ug/L
1,1-Dichloroethene	<0.43	0.43	0.43		ug/L
Acetone	<10.5	10.5	10.5		ug/L
Methylene chloride	<2.5	2.5	2.5		ug/L
Methyl tert-butyl ether	<0.83	0.83	0.83		ug/L
trans-1,2-Dichloroethene	<0.59	0.59	0.59		ug/L
1,1-Dichloroethane	<0.42	0.42	0.42		ug/L
Methyl ethyl ketone	<12.8	12.8	12.8		ug/L
cis-1,2-Dichloroethene	<1.15	1.15	1.15		ug/L
2,2-Dichloropropane	<0.81	0.81	0.81		ug/L
Bromochloromethane	<0.66	0.66	0.66		ug/L
Chloroform	<0.27	0.27	0.27		ug/L
1,1,1-Trichloroethane	<0.46	0.46	0.46		ug/L
1,1-Dichloropropene	<0.59	0.59	0.59		ug/L
Carbon tetrachloride	<0.6	0.6	0.6		ug/L
Benzene	<0.66	0.66	0.66		ug/L
1,2-Dichloroethane	<1.15	1.15	1.15		ug/L
Trichloroethene	<0.6	0.6	0.60		ug/L
1,2-Dichloropropane	<0.98	0.98	0.98		ug/L
Dibromomethane	<1.78	1.78	1.78		ug/L
Bromodichloromethane	<0.65	0.65	0.65		ug/L
cis-1,3-Dichloropropene	<0.86	0.86	0.86		ug/L
Methyl isobutyl ketone	<8.1	8.1	8.10		ug/L

Toluene	<0.57	0.57	0.57	ug/L
trans-1,3-Dichloropropene	<0.84	0.84	0.84	ug/L
1,1,2-Trichloroethane	<0.78	0.78	0.78	ug/L
2-Hexanone	<9.5	9.5	9.5	ug/L
Tetrachloroethene	<0.96	0.96	0.96	ug/L
1,3-Dichloropropane	<0.94	0.94	0.94	ug/L
Dibromochloromethane	<1.25	1.25	1.25	ug/L
1,2-Dibromoethane (EDB)	<0.68	0.68	0.68	ug/L
Chlorobenzene	<0.62	0.62	0.62	ug/L
Ethylbenzene	<0.51	0.51	0.51	ug/L
1,1,1,2-Tetrachloroethane	<0.57	0.57	0.57	ug/L
m,p-Xylene	<1.2	1.2	1.2	ug/L
o-Xylene	<0.5	0.5	0.5	ug/L
Styrene	<0.53	0.53	0.53	ug/L
Bromoform	<1.56	1.56	1.56	ug/L
Isopropylbenzene	<0.59	0.59	0.59	ug/L
1,1,1,2-Tetrachloroethane	<0.39	0.39	0.39	ug/L
1,2,3-Trichloropropane	<1.83	1.83	1.83	ug/L
n-Propylbenzene	<0.49	0.49	0.49	ug/L
Bromobenzene	<0.5	0.5	0.5	ug/L
1,3,5-Trimethylbenzene	<0.3	0.3	0.30	ug/L
2-Chlorotoluene	<0.66	0.66	0.66	ug/L
4-Chlorotoluene	<0.8	0.8	0.80	ug/L
tert-Butylbenzene	<0.85	0.85	0.85	ug/L
1,2,4-Trimethylbenzene	<0.46	0.46	0.46	ug/L
sec-Butylbenzene	<0.63	0.63	0.63	ug/L
p-Isopropyltoluene	<0.59	0.59	0.59	ug/L
1,3-Dichlorobenzene	<0.7	0.7	0.70	ug/L
1,4-Dichlorobenzene	<0.53	0.53	0.53	ug/L
n-Butylbenzene	<0.72	0.72	0.72	ug/L
1,2-Dichlorobenzene	<0.7	0.7	0.70	ug/L
1,2-Dibromo-3-chloropropane	<0.86	0.86	0.86	ug/L
1,2,4-Trichlorobenzene	<1.14	1.14	1.14	ug/L
Hexachlorobutadiene	<0.96	0.96	0.96	ug/L
Naphthalene	<1.53	1.53	1.53	ug/L
1,2,3-Trichlorobenzene	<1.3	1.3	1.3	ug/L
Dilution Factor	1			
Analyzed By	Jeff Ruehr			
Analysis Date/Time	4/14/2014 5:08 PM			

Analytical Quality Control Results Report

Batch: 14041608	Semi-VOA water (Prep)
WS-014S	LIMS ID: 2014-1124

Semi Volatiles - water DUP

Run: 1

<i>Parameter</i>	<i>Result</i>	<i>DL</i>	<i>RL</i>	<i>Accuracy Control</i>	<i>Precision Control</i>
Initial Volume	500 mL				
Final Volume	1 mL				
Prep By	Ed Harris				
Prep Date/Time	4/14/2014 08:00				
2-Fluorophenol (% Recovery)	30.6 %			40 - 110	
Nitrobenzene-d5 (% Recovery)	54.6 %			40 - 125	
2-Fluorobiphenyl (% Recovery)	49.9 %			40 - 110	
2,4,6-Tribromophenol (% Recovery)	56.0 %			40 - 110	
Terphenyl-d14 (% Recovery)	64.7 %			40 - 125	
Methyl Methanesulfonate (RPD)	0 %				0 - 40
Ethyl methanesulfonate (RPD)	0 %				0 - 40
Phenol (RPD)	19.1 %				0 - 40
Aniline (RPD)	0 %				0 - 40
Bis(2-chloroethyl)ether (RPD)	0 %				0 - 40
2-Chlorophenol (RPD)	0 %				0 - 40
1,3-Dichlorobenzene (RPD)	0 %				0 - 40
1,4-Dichlorobenzene (RPD)	0 %				0 - 40
Benzyl alcohol (RPD)	3.8 %				0 - 40
1,2-Dichlorobenzene (RPD)	0 %				0 - 40
2-Methylphenol (RPD)	0 %				0 - 40
Acetophenone (RPD)	15.2 %				0 - 40
4-Methylphenol (RPD)	0 %				0 - 40
N-Nitrosodi-n-propylamine (RPD)	0 %				0 - 40
Hexachloroethane (RPD)	0 %				0 - 40
Nitrobenzene (RPD)	0 %				0 - 40
N-Nitrosopiperidine (RPD)	0 %				0 - 40
Isophorone (RPD)	0 %				0 - 40
2-Nitrophenol (RPD)	200 %				0 - 40
2,4-Dimethylphenol (RPD)	0 %				0 - 40
Bis(2-chloroethoxy)methane (RPD)	0 %				0 - 40
2,4-Dichlorophenol (RPD)	0 %				0 - 40

1,2,4-Trichlorobenzene (RPD)	0 %	0 - 40
Naphthalene (RPD)	0 %	0 - 40
4-Chloroaniline (RPD)	0 %	0 - 40
2,6-Dichlorophenol (RPD)	0 %	0 - 40
Hexachlorobutadiene (RPD)	0 %	0 - 40
N-Nitrosodibutylamine (RPD)	0 %	0 - 40
4-Chloro-3-methylphenol (RPD)	0 %	0 - 40
2-Methylnaphthalene (RPD)	0 %	0 - 40
1,2,4,5-Tetrachlorobenzene (RPD)	0 %	0 - 40
Hexachlorocyclopentadiene (RPD)	0 %	0 - 40
2,4,6-Trichlorophenol (RPD)	0 %	0 - 40
2,4,5-Trichlorophenol (RPD)	0 %	0 - 40
2-Chloronaphthalene (RPD)	0 %	0 - 40
1-Chloronaphthalene (RPD)	0 %	0 - 40
2-Nitroaniline (RPD)	0 %	0 - 40
Dimethyl phthalate (RPD)	0 %	0 - 40
2,6-Dinitrotoluene (RPD)	0 %	0 - 40
Acenaphthylene (RPD)	0 %	0 - 40
3-Nitroaniline (RPD)	0 %	0 - 40
Acenaphthene (RPD)	0 %	0 - 40
2,4-Dinitrophenol (RPD)	0 %	0 - 40
Pentachlorobenzene (RPD)	0 %	0 - 40
4-Nitrophenol (RPD)	0 %	0 - 40
Dibenzofuran (RPD)	0 %	0 - 40
2,4-Dinitrotoluene (RPD)	0 %	0 - 40
2,3,4,6-Tetrachlorophenol (RPD)	0 %	0 - 40
Diethyl phthalate (RPD)	0 %	0 - 40
Fluorene (RPD)	0 %	0 - 40
4-Chlorophenyl phenyl ether (RPD)	0 %	0 - 40
4-Nitroaniline (RPD)	0 %	0 - 40
4,6-Dinitro-2-methylphenol (RPD)	0 %	0 - 40
Diphenylamine (RPD)	0 %	0 - 40
Azobenzene (RPD)	0 %	0 - 40
4-Bromophenyl phenyl ether (RPD)	0 %	0 - 40
Hexachlorobenzene (RPD)	0 %	0 - 40
Pentachlorophenol (RPD)	0 %	0 - 40
Pentachloronitrobenzene (RPD)	0 %	0 - 40
Pronamide (RPD)	0 %	0 - 40
Phenanthrene (RPD)	0 %	0 - 40
Anthracene (RPD)	0 %	0 - 40

Carbazole (RPD)	0 %	0 - 40
Di-n-butyl phthalate (RPD)	66.2 %	0 - 40
Fluoranthene (RPD)	0 %	0 - 40
Pyrene (RPD)	0 %	0 - 40
Dimethylaminoazobenzene (RPD)	0 %	0 - 40
Butyl benzyl phthalate (RPD)	0 %	0 - 40
Benzo (a) anthracene (RPD)	0 %	0 - 40
Chrysene (RPD)	0 %	0 - 40
Bis(2-ethylhexyl)phthalate (RPD)	33.2 %	0 - 40
Di-n-octyl phthalate (RPD)	2.3 %	0 - 40
Benzo (b) fluoranthene (RPD)	0 %	0 - 40
7,12-Dimethylbenz (a) anthracene (RPD)	0 %	0 - 40
Benzo (k) fluoranthene (RPD)	0 %	0 - 40
Benzo (a) pyrene (RPD)	0 %	0 - 40
3-Methylcholanthrene (RPD)	0 %	0 - 40
Indeno (1,2,3-cd) pyrene (RPD)	200 %	0 - 40
Dibenzo (a,h) anthracene (RPD)	0 %	0 - 40
Benzo (g,h,i) perylene (RPD)	0 %	0 - 40
Dilution Factor	1	
Analyzed By	Ed Harris	
Analysis Date/Time	4/16/2014 10:28 AM	

WS-014S **LIMS ID: 2014-1124**

Semi Volatiles - water MS

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Initial Volume	500 mL				
Final Volume	1 mL				
Prep By	Ed Harris				
Prep Date/Time	4/14/2014 08:00				
2-Fluorophenol (% Recovery)	29.6 %			40 - 110	
Nitrobenzene-d5 (% Recovery)	62.7 %			40 - 125	
2-Fluorobiphenyl (% Recovery)	54.3 %			40 - 125	
2,4,6-Tribromophenol (% Recovery)	55.0 %			40 - 125	
Terphenyl-d14 (% Recovery)	77.1 %			40 - 125	
Phenol (% Recovery)	20.0 %			25 - 125	
2-Chlorophenol (% Recovery)	42.4 %			25 - 125	
1,4-Dichlorobenzene (% Recovery)	47.0 %			25 - 125	
N-Nitrosodi-n-propylamine (% Recovery)	61.9 %			25 - 125	
1,2,4-Trichlorobenzene (% Recovery)	55.9 %			25 - 125	

4-Chloro-3-methylphenol (% Recovery)	50.7 %	25 - 125
Acenaphthene (% Recovery)	48.6 %	25 - 125
4-Nitrophenol (% Recovery)	36.6 %	25 - 125
2,4-Dinitrotoluene (% Recovery)	56.4 %	25 - 125
Pentachlorophenol (% Recovery)	72.9 %	25 - 125
Pyrene (% Recovery)	69.3 %	25 - 125
Dilution Factor	1	
Analyzed By	Ed Harris	
Analysis Date/Time	4/16/2014 10:56 AM	

WS-014S **LIMS ID: 2014-1124**

Semi Volatiles - water MSD

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Initial Volume	500 mL				
Final Volume	1 mL				
Prep By	Ed Harris				
Prep Date/Time	4/14/2014 08:00				
2-Fluorophenol (% Recovery)	31.2 %			40 - 110	
Nitrobenzene-d5 (% Recovery)	59.7 %			40 - 125	
2-Fluorobiphenyl (% Recovery)	58.1 %			40 - 125	
2,4,6-Tribromophenol (% Recovery)	59.3 %			40 - 125	
Terphenyl-d14 (% Recovery)	74.3 %			40 - 125	
Phenol (% Recovery)	21.1 %			25 - 125	
Phenol (RPD)	5.0 %				0 - 40
2-Chlorophenol (% Recovery)	48.3 %			25 - 125	
2-Chlorophenol (RPD)	13.1 %				0 - 40
1,4-Dichlorobenzene (% Recovery)	53.4 %			25 - 125	
1,4-Dichlorobenzene (RPD)	12.7 %				0 - 40
N-Nitrosodi-n-propylamine (% Recovery)	57.0 %			25 - 125	
N-Nitrosodi-n-propylamine (RPD)	8.2 %				0 - 40
1,2,4-Trichlorobenzene (RPD)	7.3 %				0 - 40
1,2,4-Trichlorobenzene (% Recovery)	52.0 %			25 - 125	
4-Chloro-3-methylphenol (% Recovery)	49.0 %			25 - 125	
4-Chloro-3-methylphenol (RPD)	3.2 %				0 - 40
Acenaphthene (% Recovery)	54.4 %			25 - 125	
Acenaphthene (RPD)	11.4 %				0 - 40
4-Nitrophenol (% Recovery)	34.5 %			25 - 125	
4-Nitrophenol (RPD)	5.9 %				0 - 40
2,4-Dinitrotoluene (% Recovery)	55.3 %			25 - 125	

2,4-Dinitrotoluene (RPD)	1.9 %	0 - 40
Pentachlorophenol (% Recovery)	74.5 %	25 - 125
Pentachlorophenol (RPD)	2.2 %	0 - 40
Pyrene (% Recovery)	67.4 %	25 - 125
Pyrene (RPD)	2.8 %	0 - 40
Dilution Factor	1	
Analyzed By	Ed Harris	
Analysis Date/Time	4/16/2014 11:25	

MB **LIMS ID: 14041608-MB-01**

Semi Volatiles - water MB

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Initial Volume	500 mL				
Final Volume	1 mL				
Prep By	Ed Harris				
Prep Date/Time	4/14/2014 08:00				
2-Fluorophenol (% Recovery)	52.4 %			40 - 110	
Nitrobenzene-d5 (% Recovery)	82.4 %			40 - 125	
2-Fluorobiphenyl (% Recovery)	76.3 %			40 - 125	
2,4,6-Tribromophenol (% Recovery)	60.8 %			40 - 125	
Terphenyl-d14 (% Recovery)	86.4 %			40 - 125	
Methyl Methanesulfonate	<0.2 ug/L	0.2	0.2		
Ethyl methanesulfonate	<0.2 ug/L	0.2	0.2		
Phenol	<0.2 ug/L	0.2	0.2		
Aniline	<0.2 ug/L	0.2	0.2		
Bis(2-chloroethyl)ether	<0.2 ug/L	0.2	0.2		
2-Chlorophenol	<0.2 ug/L	0.2	0.2		
1,3-Dichlorobenzene	<0.12 ug/L	0.12	0.12		
1,4-Dichlorobenzene	<0.12 ug/L	0.12	0.12		
Benzyl alcohol	<0.16 ug/L	0.16	0.16		
1,2-Dichlorobenzene	<0.12 ug/L	0.12	0.12		
2-Methylphenol	<0.1 ug/L	0.1	0.1		
Acetophenone	<0.1 ug/L	0.1	0.1		
4-Methylphenol	<0.1 ug/L	0.1	0.1		
N-Nitrosodi-n-propylamine	<0.2 ug/L	0.2	0.2		
Hexachloroethane	<0.2 ug/L	0.2	0.2		
Nitrobenzene	<0.2 ug/L	0.2	0.2		
N-Nitrosopiperidine	<0.2 ug/L	0.2	0.2		
Isophorone	<0.1 ug/L	0.1	0.1		

2-Nitrophenol	<0.3 ug/L	0.3	0.3
2,4-Dimethylphenol	<0.1 ug/L	0.1	0.1
Bis(2-chloroethoxy)methane	<0.2 ug/L	0.2	0.2
2,4-Dichlorophenol	<0.2 ug/L	0.2	0.2
1,2,4-Trichlorobenzene	<0.12 ug/L	0.12	0.12
Naphthalene	<0.08 ug/L	0.08	0.08
4-Chloroaniline	<0.1 ug/L	0.1	0.1
2,6-Dichlorophenol	<0.2 ug/L	0.2	0.2
Hexachlorobutadiene	<0.2 ug/L	0.2	0.2
N-Nitrosodibutylamine	<0.2 ug/L	0.2	0.2
4-Chloro-3-methylphenol	<0.16 ug/L	0.16	0.16
2-Methylnaphthalene	<0.12 ug/L	0.12	0.12
1,2,4,5-Tetrachlorobenzene	<0.1 ug/L	0.1	0.1
Hexachlorocyclopentadiene	<0.16 ug/L	0.16	0.16
2,4,6-Trichlorophenol	<0.2 ug/L	0.2	0.2
2,4,5-Trichlorophenol	<0.2 ug/L	0.2	0.2
2-Chloronaphthalene	<0.1 ug/L	0.1	0.1
1-Chloronaphthalene	<0.1 ug/L	0.1	0.1
2-Nitroaniline	<0.2 ug/L	0.2	0.2
Dimethyl phthalate	<0.2 ug/L	0.2	0.2
2,6-Dinitrotoluene	<0.2 ug/L	0.2	0.2
Acenaphthylene	<0.08 ug/L	0.08	0.08
3-Nitroaniline	<0.2 ug/L	0.2	0.2
Acenaphthene	<0.1 ug/L	0.1	0.1
2,4-Dinitrophenol	<4 ug/L	4	4
Pentachlorobenzene	<0.12 ug/L	0.12	0.12
4-Nitrophenol	<2 ug/L	2	2
Dibenzofuran	<0.1 ug/L	0.1	0.1
2,4-Dinitrotoluene	<0.2 ug/L	0.2	0.2
2,3,4,6-Tetrachlorophenol	<0.6 ug/L	0.6	0.6
Diethyl phthalate	<0.2 ug/L	0.2	0.2
Fluorene	<0.1 ug/L	0.1	0.1
4-Chlorophenyl phenyl ether	<0.1 ug/L	0.1	0.1
4-Nitroaniline	<0.2 ug/L	0.2	0.2
4,6-Dinitro-2-methylphenol	<6 ug/L	6	6
Diphenylamine	<0.1 ug/L	0.1	0.1
Azobenzene	<0.08 ug/L	0.08	0.08
4-Bromophenyl phenyl ether	<0.2 ug/L	0.2	0.2
Hexachlorobenzene	<0.16 ug/L	0.16	0.16
Pentachlorophenol	<1 ug/L	1	1

Pentachloronitrobenzene	<0.2 ug/L	0.2	0.2
Pronamide	<0.2 ug/L	0.2	0.2
Phenanthrene	<0.08 ug/L	0.08	0.08
Anthracene	<0.08 ug/L	0.08	0.08
Carbazole	<0.1 ug/L	0.1	0.1
Di-n-butyl phthalate	0.775 ug/L	0.2	0.2
Fluoranthene	<0.08 ug/L	0.08	0.08
Pyrene	<0.08 ug/L	0.08	0.08
Dimethylaminoazobenzene	<0.2 ug/L	0.2	0.2
Butyl benzyl phthalate	<0.3 ug/L	0.3	0.3
Benzo (a) anthracene	<0.2 ug/L	0.2	0.2
Chrysene	<0.1 ug/L	0.1	0.1
Bis(2-ethylhexyl)phthalate	<0.3 ug/L	0.3	0.3
Di-n-octyl phthalate	<0.3 ug/L	0.3	0.3
Benzo (b) fluoranthene	<0.16 ug/L	0.16	0.16
7,12-Dimethylbenz (a) anthracene	<0.2 ug/L	0.2	0.2
Benzo (k) fluoranthene	<0.16 ug/L	0.16	0.16
Benzo (a) pyrene	<0.16 ug/L	0.16	0.16
3-Methylcholanthrene	<0.2 ug/L	0.2	0.2
Indeno (1,2,3-cd) pyrene	<0.2 ug/L	0.2	0.2
Dibenzo (a,h) anthracene	<0.16 ug/L	0.16	0.16
Benzo (g,h,i) perylene	<0.16 ug/L	0.16	0.16
Dilution Factor	1		
Analyzed By	Ed Harris		
Analysis Date/Time	4/16/2014 8:36		

LCS **LIMS ID: 14041608-LCS-01**

Semi Volatiles - water LCS

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Initial Volume	500 mL				
Final Volume	1 mL				
Prep By	Ed Harris				
Prep Date/Time	4/14/2014 08:00				
2-Fluorophenol (% Recovery)	44.7 %			40 - 110	
Nitrobenzene-d5 (% Recovery)	82.0 %			50 - 125	
2-Fluorobiphenyl (% Recovery)	78.1 %			50 - 125	
2,4,6-Tribromophenol (% Recovery)	76.0 %			40 - 125	
Terphenyl-d14 (% Recovery)	82.5 %			50 - 125	
Methyl Methanesulfonate (% Recovery)	70.9 %			50 - 150	

Ethyl methanesulfonate (% Recovery)	94.7 %	50 - 150
Phenol (% Recovery)	39.1 %	50 - 150
Aniline (% Recovery)	45.7 %	50 - 150
Bis(2-chloroethyl)ether (% Recovery)	101 %	50 - 150
2-Chlorophenol (% Recovery)	93.2 %	50 - 150
1,3-Dichlorobenzene (% Recovery)	75.9 %	50 - 150
1,4-Dichlorobenzene (% Recovery)	79.4 %	50 - 150
Benzyl alcohol (% Recovery)	82.0 %	50 - 150
1,2-Dichlorobenzene (% Recovery)	80.7 %	50 - 150
2-Methylphenol (% Recovery)	83.9 %	50 - 150
Acetophenone (% Recovery)	102 %	50 - 150
4-Methylphenol (% Recovery)	72.3 %	50 - 150
N-Nitrosodi-n-propylamine (% Recovery)	99.9 %	50 - 150
Hexachloroethane (% Recovery)	63.0 %	50 - 150
Nitrobenzene (% Recovery)	96.8 %	50 - 150
N-Nitrosopiperidine (% Recovery)	102 %	50 - 150
Isophorone (% Recovery)	105 %	50 - 150
2-Nitrophenol (% Recovery)	103 %	50 - 150
2,4-Dimethylphenol (% Recovery)	8.3 %	50 - 150
Bis(2-chloroethoxy)methane (% Recovery)	88.1 %	50 - 150
2,4-Dichlorophenol (% Recovery)	95.7 %	50 - 150
1,2,4-Trichlorobenzene (% Recovery)	85.6 %	50 - 150
Naphthalene (% Recovery)	89.5 %	50 - 150
4-Chloroaniline (% Recovery)	79.7 %	50 - 150
2,6-Dichlorophenol (% Recovery)	96.6 %	50 - 150
Hexachlorobutadiene (% Recovery)	67.3 %	50 - 150
N-Nitrosodibutylamine (% Recovery)	107 %	50 - 150
4-Chloro-3-methylphenol (% Recovery)	94.6 %	50 - 150
2-Methylnaphthalene (% Recovery)	93.2 %	50 - 150
1,2,4,5-Tetrachlorobenzene (% Recovery)	78.7 %	50 - 150
Hexachlorocyclopentadiene (% Recovery)	46.4 %	50 - 150
2,4,6-Trichlorophenol (% Recovery)	98.0 %	50 - 150
2,4,5-Trichlorophenol (% Recovery)	100 %	50 - 150
2-Chloronaphthalene (% Recovery)	85.9 %	50 - 150
1-Chloronaphthalene (% Recovery)	87.9 %	50 - 150
2-Nitroaniline (% Recovery)	100 %	50 - 150
Dimethyl phthalate (% Recovery)	98.3 %	50 - 150
2,6-Dinitrotoluene (% Recovery)	98.3 %	50 - 150
Acenaphthylene (% Recovery)	98.4 %	50 - 150
3-Nitroaniline (% Recovery)	97.2 %	50 - 150

Acenaphthene (% Recovery)	90.1 %	50 - 150
2,4-Dinitrophenol (% Recovery)	103 %	50 - 150
Pentachlorobenzene (% Recovery)	91.6 %	50 - 150
4-Nitrophenol (% Recovery)	43.6 %	50 - 150
Dibenzofuran (% Recovery)	98.7 %	50 - 150
2,4-Dinitrotoluene (% Recovery)	97.5 %	50 - 150
2,3,4,6-Tetrachlorophenol (% Recovery)	97.5 %	50 - 150
Diethyl phthalate (% Recovery)	102 %	50 - 150
Fluorene (% Recovery)	102 %	50 - 150
4-Chlorophenyl phenyl ether (% Recovery)	94.2 %	50 - 150
4-Nitroaniline (% Recovery)	101 %	50 - 150
4,6-Dinitro-2-methylphenol (% Recovery)	102 %	50 - 150
Diphenylamine (% Recovery)	95.2 %	50 - 150
Azobenzene (% Recovery)	92.9 %	50 - 150
4-Bromophenyl phenyl ether (% Recovery)	100 %	50 - 150
Hexachlorobenzene (% Recovery)	82.5 %	50 - 150
Pentachlorophenol (% Recovery)	87.1 %	50 - 150
Pentachloronitrobenzene (% Recovery)	90.7 %	50 - 150
Pronamide (% Recovery)	104 %	50 - 150
Phenanthrene (% Recovery)	94.3 %	50 - 150
Anthracene (% Recovery)	94.4 %	50 - 150
Carbazole (% Recovery)	108 %	50 - 150
Di-n-butyl phthalate (% Recovery)	139 %	50 - 150
Fluoranthene (% Recovery)	98.2 %	50 - 150
Pyrene (% Recovery)	96.3 %	50 - 150
Dimethylaminoazobenzene (% Recovery)	106 %	50 - 150
Butyl benzyl phthalate (% Recovery)	102 %	50 - 150
Benzo (a) anthracene (% Recovery)	92.7 %	50 - 150
Chrysene (% Recovery)	96.9 %	50 - 150
Bis(2-ethylhexyl)phthalate (% Recovery)	99.7 %	50 - 150
Di-n-octyl phthalate (% Recovery)	95.9 %	50 - 150
Benzo (b) fluoranthene (% Recovery)	93.3 %	50 - 150
7,12-Dimethylbenz (a) anthracene (% Recovery)	83.1 %	50 - 150
Benzo (k) fluoranthene (% Recovery)	88.5 %	50 - 150
Benzo (a) pyrene (% Recovery)	80.4 %	50 - 150
3-Methylcholanthrene (% Recovery)	78.5 %	50 - 150
Indeno (1,2,3-cd) pyrene (% Recovery)	68.5 %	50 - 150
Dibenzo (a,h) anthracene (% Recovery)	69.7 %	50 - 150
Benzo (g,h,i) perylene (% Recovery)	61.6 %	50 - 150
Dilution Factor	1	

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, AR 72118

Laboratory Contact: Jeff Ruehr
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501-682-0955

Analyzed By	Ed Harris
Analysis Date/Time	4/16/2014 9:04

Analytical Quality Control Results Report

Batch: 14041516	VOA - water
WS-014S	LIMS ID: 2014-1124

Volatiles - water DUP

Run: 1

<i>Parameter</i>	<i>Result</i>	<i>DL</i>	<i>RL</i>	<i>Accuracy Control</i>	<i>Precision Control</i>
Dibromofluoromethane (% Recovery)	105 %			70 - 130	
1,2-Dichloroethane-d4 (% Recovery)	98.1 %			70 - 130	
Toluene-d8 (% Recovery)	98.7 %			70 - 130	
4-Bromofluorobenzene (% Recovery)	103 %			70 - 130	
Dichlorodifluoromethane (RPD)	0 %				0 - 20
Chloromethane (RPD)	0 %				0 - 20
Vinyl chloride (RPD)	0 %				0 - 20
Bromomethane (RPD)	0 %				0 - 20
Chloroethane (RPD)	0 %				0 - 20
Trichlorofluoromethane (RPD)	0 %				0 - 20
1,1-Dichloroethene (RPD)	0 %				0 - 20
Acetone (RPD)	0 %				0 - 20
Methylene chloride (RPD)	0 %				0 - 20
Methyl tert-butyl ether (RPD)	0 %				0 - 20
trans-1,2-Dichloroethene (RPD)	0 %				0 - 20
1,1-Dichloroethane (RPD)	0 %				0 - 20
Methyl ethyl ketone (RPD)	0 %				0 - 20
cis-1,2-Dichloroethene (RPD)	0 %				0 - 20
2,2-Dichloropropane (RPD)	0 %				0 - 20
Bromochloromethane (RPD)	0 %				0 - 20
Chloroform (RPD)	0 %				0 - 20
1,1,1-Trichloroethane (RPD)	0 %				0 - 20
1,1-Dichloropropene (RPD)	0 %				0 - 20
Carbon tetrachloride (RPD)	0 %				0 - 20
Benzene (RPD)	0 %				0 - 20
1,2-Dichloroethane (RPD)	0 %				0 - 20
Trichloroethene (RPD)	0 %				0 - 20
1,2-Dichloropropane (RPD)	0 %				0 - 20
Dibromomethane (RPD)	0 %				0 - 20
Bromodichloromethane (RPD)	0 %				0 - 20
cis-1,3-Dichloropropene (RPD)	0 %				0 - 20
Methyl isobutyl ketone (RPD)	0 %				0 - 20
Toluene (RPD)	0 %				0 - 20

trans-1,3-Dichloropropene (RPD)	0 %	0 - 20
1,1,2-Trichloroethane (RPD)	0 %	0 - 20
2-Hexanone (RPD)	0 %	0 - 20
Tetrachloroethene (RPD)	0 %	0 - 20
1,3-Dichloropropane (RPD)	0 %	0 - 20
Dibromochloromethane (RPD)	0 %	0 - 20
1,2-Dibromoethane (EDB) (RPD)	0 %	0 - 20
Chlorobenzene (RPD)	0 %	0 - 20
Ethylbenzene (RPD)	0 %	0 - 20
1,1,1,2-Tetrachloroethane (RPD)	0 %	0 - 20
m,p-Xylene (RPD)	0 %	0 - 20
o-Xylene (RPD)	0 %	0 - 20
Styrene (RPD)	0 %	0 - 20
Bromoform (RPD)	0 %	0 - 20
Isopropylbenzene (RPD)	0 %	0 - 20
1,1,2,2-Tetrachloroethane (RPD)	0 %	0 - 20
1,2,3-Trichloropropane (RPD)	0 %	0 - 20
n-Propylbenzene (RPD)	0 %	0 - 20
Bromobenzene (RPD)	0 %	0 - 20
1,3,5-Trimethylbenzene (RPD)	0 %	0 - 20
2-Chlorotoluene (RPD)	0 %	0 - 20
4-Chlorotoluene (RPD)	0 %	0 - 20
tert-Butylbenzene (RPD)	0 %	0 - 20
1,2,4-Trimethylbenzene (RPD)	0 %	0 - 20
sec-Butylbenzene (RPD)	0 %	0 - 20
p-Isopropyltoluene (RPD)	0 %	0 - 20
1,3-Dichlorobenzene (RPD)	0 %	0 - 20
1,4-Dichlorobenzene (RPD)	0 %	0 - 20
n-Butylbenzene (RPD)	0 %	0 - 20
1,2-Dichlorobenzene (RPD)	0 %	0 - 20
1,2-Dibromo-3-chloropropane (RPD)	0 %	0 - 20
1,2,4-Trichlorobenzene (RPD)	0 %	0 - 20
Hexachlorobutadiene (RPD)	0 %	0 - 20
Naphthalene (RPD)	0 %	0 - 20
1,2,3-Trichlorobenzene (RPD)	0 %	0 - 20
Dilution Factor	1	
Analyzed By	Jeff Ruehr	
Analysis Date/Time	4/14/2014 7:40 PM	

Volatiles - water MS

Run: 1

<i>Parameter</i>	<i>Result</i>	<i>DL</i>	<i>RL</i>	<i>Accuracy Control</i>	<i>Precision Control</i>
Dibromofluoromethane (% Recovery)	106 %			70 - 130	
1,2-Dichloroethane-d4 (% Recovery)	100 %			70 - 130	
Toluene-d8 (% Recovery)	102 %			70 - 130	
4-Bromofluorobenzene (% Recovery)	106 %			70 - 130	
1,1-Dichloroethene (% Recovery)	113 %			70 - 130	
Benzene (% Recovery)	101 %			70 - 130	
Trichloroethene (% Recovery)	99.5 %			70 - 130	
Toluene (% Recovery)	96.2 %			70 - 130	
Chlorobenzene (% Recovery)	99.0 %			70 - 130	
Dilution Factor	1				
Analyzed By	Jeff Ruehr				
Analysis Date/Time	4/14/2014 8:05 PM				

WS-014S **LIMS ID: 2014-1124**

Volatiles - water MSD

Run: 1

<i>Parameter</i>	<i>Result</i>	<i>DL</i>	<i>RL</i>	<i>Accuracy Control</i>	<i>Precision Control</i>
Dibromofluoromethane (% Recovery)	106 %			70 - 130	
1,2-Dichloroethane-d4 (% Recovery)	102 %			70 - 130	
Toluene-d8 (% Recovery)	100 %			70 - 130	
4-Bromofluorobenzene (% Recovery)	110 %			70 - 130	
1,1-Dichloroethene (RPD)	0.3 %				0 - 20
1,1-Dichloroethene (% Recovery)	114 %			70 - 130	
Benzene (RPD)	4.4 %				0 - 20
Benzene (% Recovery)	106 %			70 - 130	
Trichloroethene (% Recovery)	105 %			70 - 130	
Trichloroethene (RPD)	5.6 %				0 - 20
Toluene (RPD)	1.4 %				0 - 20
Toluene (% Recovery)	97.6 %			70 - 130	
Chlorobenzene (% Recovery)	104 %			70 - 130	
Chlorobenzene (RPD)	4.4 %				0 - 20
Dilution Factor	1				
Analyzed By	Jeff Ruehr				
Analysis Date/Time	4/14/2014 8:30 PM				

LCS **LIMS ID: 14041516-LCS-01**

Volatiles - water LCS

Run: 1

<i>Parameter</i>	<i>Result</i>	<i>DL</i>	<i>RL</i>	<i>Accuracy Control</i>	<i>Precision Control</i>
Dibromofluoromethane (% Recovery)	103 %			70 - 130	
1,2-Dichloroethane-d4 (% Recovery)	103 %			70 - 130	
Toluene-d8 (% Recovery)	99.5 %			70 - 130	
4-Bromofluorobenzene (% Recovery)	97.8 %			70 - 130	
Dichlorodifluoromethane (% Recovery)	84.6 %			60 - 130	
Chloromethane (% Recovery)	90.4 %			60 - 130	
Vinyl chloride (% Recovery)	95.1 %			60 - 130	
Bromomethane (% Recovery)	78.0 %			60 - 130	
Chloroethane (% Recovery)	96.2 %			60 - 130	
Trichlorofluoromethane (% Recovery)	97.4 %			60 - 130	
1,1-Dichloroethene (% Recovery)	100 %			60 - 130	
Acetone (% Recovery)	87.6 %			60 - 130	
Methylene chloride (% Recovery)	100 %			60 - 130	
Methyl tert-butyl ether (% Recovery)	99.6 %			60 - 130	
trans-1,2-Dichloroethene (% Recovery)	97.1 %			60 - 130	
1,1-Dichloroethane (% Recovery)	100 %			60 - 130	
Methyl ethyl ketone (% Recovery)	90.4 %			60 - 130	
cis-1,2-Dichloroethene (% Recovery)	99.5 %			60 - 130	
2,2-Dichloropropane (% Recovery)	97.2 %			60 - 130	
Bromochloromethane (% Recovery)	98.0 %			60 - 130	
Chloroform (% Recovery)	98.0 %			60 - 130	
1,1,1-Trichloroethane (% Recovery)	97.9 %			60 - 130	
1,1-Dichloropropene (% Recovery)	98.2 %			60 - 130	
Carbon tetrachloride (% Recovery)	97.6 %			60 - 130	
Benzene (% Recovery)	98.1 %			60 - 130	
1,2-Dichloroethane (% Recovery)	101 %			60 - 130	
Trichloroethene (% Recovery)	95.9 %			60 - 130	
1,2-Dichloropropane (% Recovery)	98.3 %			60 - 130	
Dibromomethane (% Recovery)	94.6 %			60 - 130	
Bromodichloromethane (% Recovery)	97.0 %			60 - 130	
cis-1,3-Dichloropropene (% Recovery)	96.4 %			60 - 130	
Methyl isobutyl ketone (% Recovery)	98.4 %			60 - 130	
Toluene (% Recovery)	98.4 %			60 - 130	
trans-1,3-Dichloropropene (% Recovery)	97.3 %			60 - 130	
1,1,2-Trichloroethane (% Recovery)	95.4 %			60 - 130	
2-Hexanone (% Recovery)	86.0 %			60 - 130	
Tetrachloroethene (% Recovery)	98.9 %			60 - 130	
1,3-Dichloropropane (% Recovery)	98.3 %			60 - 130	
Dibromochloromethane (% Recovery)	97.1 %			60 - 130	

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1,2-Dibromoethane (EDB) (% Recovery)	96.5 %	60 - 130
Chlorobenzene (% Recovery)	96.9 %	60 - 130
Ethylbenzene (% Recovery)	96.6 %	60 - 130
1,1,1,2-Tetrachloroethane (% Recovery)	97.7 %	60 - 130
m,p-Xylene (% Recovery)	99.1 %	60 - 130
o-Xylene (% Recovery)	98.3 %	60 - 130
Styrene (% Recovery)	92.6 %	60 - 130
Bromoform (% Recovery)	97.3 %	60 - 130
Isopropylbenzene (% Recovery)	97.5 %	60 - 130
1,1,1,2,2-Tetrachloroethane (% Recovery)	100 %	60 - 130
1,2,3-Trichloropropane (% Recovery)	102 %	60 - 130
n-Propylbenzene (% Recovery)	95.1 %	60 - 130
Bromobenzene (% Recovery)	101 %	60 - 130
1,3,5-Trimethylbenzene (% Recovery)	100 %	60 - 130
2-Chlorotoluene (% Recovery)	101 %	60 - 130
4-Chlorotoluene (% Recovery)	95.1 %	60 - 130
tert-Butylbenzene (% Recovery)	92.5 %	60 - 130
1,2,4-Trimethylbenzene (% Recovery)	99.2 %	60 - 130
sec-Butylbenzene (% Recovery)	94.8 %	60 - 130
p-Isopropyltoluene (% Recovery)	98.3 %	60 - 130
1,3-Dichlorobenzene (% Recovery)	95.5 %	60 - 130
1,4-Dichlorobenzene (% Recovery)	95.3 %	60 - 130
n-Butylbenzene (% Recovery)	94.0 %	60 - 130
1,2-Dichlorobenzene (% Recovery)	94.7 %	60 - 130
1,2-Dibromo-3-chloropropane (% Recovery)	104 %	60 - 130
1,2,4-Trichlorobenzene (% Recovery)	93.2 %	60 - 130
Hexachlorobutadiene (% Recovery)	93.3 %	60 - 130
Naphthalene (% Recovery)	95.2 %	60 - 130
1,2,3-Trichlorobenzene (% Recovery)	96.1 %	60 - 130
Dilution Factor	1	
Analyzed By	Jeff Ruehr	
Analysis Date/Time	4/14/2014 9:10	

Analytical Quality Control Results Report

Batch: 14041601	ICP Metals - water (Diss.)
WS-014S	LIMS ID: 2014-1124

ICP Metals - water (Dissolved) DUP

Run: 1

<i>Parameter</i>	<i>Result</i>	<i>DL</i>	<i>RL</i>	<i>Accuracy Control</i>	<i>Precision Control</i>
Aluminum	51.2 ug/L	20	20		
Aluminum (RPD)	50.6 %				0 - 20
Antimony (RPD)	2.1 %				0 - 20
Antimony	<5 ug/L	1	5		
Arsenic	0.51 ug/L	0.2	0.5		
Arsenic (RPD)	6.5 %				0 - 20
Barium (RPD)	1.6 %				0 - 20
Barium	12.5 ug/L	0.4	2		
Beryllium	<0.1 ug/L	0.04	0.1		
Beryllium (RPD)	22.2 %				0 - 20
Boron (RPD)	0.9 %				0 - 20
Boron	16.4 ug/L	2	5		
Cadmium (RPD)	0 %				0 - 20
Cadmium	<0.1 ug/L	0.05	0.1		
Calcium	3.39 mg/L	0.03	0.03		
Calcium (RPD)	2.3 %				0 - 20
Chromium (RPD)	25.3 %				0 - 20
Chromium	<0.5 ug/L	0.05	0.5		
Cobalt	<0.5 ug/L	0.05	0.5		
Cobalt (RPD)	5.2 %				0 - 20
Copper (RPD)	53.7 %				0 - 20
Copper	0.98 ug/L	0.2	0.5		
Iron	151 ug/L	5	20		
Iron (RPD)	10.5 %				0 - 20
Lead (RPD)	11.1 %				0 - 20
Lead	<0.3 ug/L	0.02	0.3		
Magnesium	1.86 mg/L	0.01	0.02		
Magnesium (RPD)	0.2 %				0 - 20
Manganese (RPD)	3.0 %				0 - 20
Manganese	13 ug/L	0.07	0.3		
Nickel	0.69 ug/L	0.15	0.5		
Nickel (RPD)	9.2 %				0 - 20
Potassium (RPD)	2.9 %				0 - 20

Potassium	2.14 mg/L	0.01	0.02	
Selenium (RPD)	19.8 %			0 - 20
Selenium	<1 ug/L	0.2	1	
Silicon Dioxide	1.98 mg/L	0.01	0.05	
Silicon Dioxide (RPD)	8.6 %			0 - 20
Silver (RPD)	66.7 %			0 - 20
Silver	<0.5 ug/L	0.02	0.5	
Sodium	6.89 mg/L	0.01	0.02	
Sodium (RPD)	0.7 %			0 - 20
Thallium (RPD)	0 %			0 - 20
Thallium	<0.5 ug/L	0	0.5	
Vanadium (RPD)	27.6 %			0 - 20
Vanadium	<0.5 ug/L	0.3	0.5	
Zinc	<1 ug/L	0.3	1	
Zinc (RPD)	54.2 %			0 - 20
Hardness (RPD)	1 %			0 - 20
Hardness	16 mg/L	1	1	
Dilution Factor	1			
Analyzed By	Robert Graddy			
Analysis Date/Time	Apr 14 2014 1:44PM			

WS-014S **LIMS ID: 2014-1124**

ICP Metals - water (Dissolved) MS

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Aluminum (% Recovery)	76.8 %			70 - 130	
Antimony (% Recovery)	97.1 %			70 - 130	
Arsenic (% Recovery)	98.3 %			70 - 130	
Barium (% Recovery)	91.3 %			70 - 130	
Beryllium (% Recovery)	93.7 %			70 - 130	
Boron (% Recovery)	98.9 %			70 - 130	
Cadmium (% Recovery)	97.0 %			70 - 130	
Calcium (% Recovery)	84.4 %			70 - 130	
Chromium (% Recovery)	97.0 %			70 - 130	
Cobalt (% Recovery)	93.0 %			70 - 130	
Copper (% Recovery)	93.3 %			70 - 130	
Iron (% Recovery)	84.2 %			70 - 130	
Lead (% Recovery)	89.1 %			70 - 130	
Magnesium (% Recovery)	96.1 %			70 - 130	
Manganese (% Recovery)	93 %			70 - 130	

Nickel (% Recovery)	93 %	70 - 130
Potassium (% Recovery)	86.8 %	70 - 130
Selenium (% Recovery)	105 %	70 - 130
Silver (% Recovery)	88.7 %	70 - 130
Sodium (% Recovery)	100 %	70 - 130
Thallium (% Recovery)	81.9 %	70 - 130
Vanadium (% Recovery)	96.9 %	70 - 130
Zinc (% Recovery)	99.2 %	70 - 130
Dilution Factor	1	
Analyzed By	Robert Graddy	
Analysis Date/Time	Apr 14 2014 1:50PM	

WS-014S	LIMS ID: 2014-1124
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ICP Metals - water (Dissolved) MSD

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Aluminum (% Recovery)	76.8 %			70 - 130	
Aluminum (RPD)	0.1 %				0 - 20
Antimony (% Recovery)	97.0 %			70 - 130	
Antimony (RPD)	0.2 %				0 - 20
Arsenic (% Recovery)	99.4 %			70 - 130	
Arsenic (RPD)	1.1 %				0 - 20
Barium (% Recovery)	91.8 %			70 - 130	
Barium (RPD)	0.6 %				0 - 20
Beryllium (% Recovery)	93.2 %			70 - 130	
Beryllium (RPD)	0.6 %				0 - 20
Boron (% Recovery)	99.5 %			70 - 130	
Boron (RPD)	0.5 %				0 - 20
Cadmium (% Recovery)	95.9 %			70 - 130	
Cadmium (RPD)	1.1 %				0 - 20
Calcium (% Recovery)	85.5 %			70 - 130	
Calcium (RPD)	1.0 %				0 - 20
Chromium (% Recovery)	96.3 %			70 - 130	
Chromium (RPD)	0.7 %				0 - 20
Cobalt (% Recovery)	94.1 %			70 - 130	
Cobalt (RPD)	1.1 %				0 - 20
Copper (% Recovery)	95.7 %			70 - 130	
Copper (RPD)	2.4 %				0 - 20
Iron (% Recovery)	83.7 %			70 - 130	
Iron (RPD)	0.3 %				0 - 20

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Lead (% Recovery)	92.6 %	70 - 130	
Lead (RPD)	3.8 %		0 - 20
Magnesium (% Recovery)	95.2 %	70 - 130	
Magnesium (RPD)	0.8 %		0 - 20
Manganese (% Recovery)	93 %	70 - 130	
Manganese (RPD)	0.3 %		0 - 20
Nickel (% Recovery)	94 %	70 - 130	
Nickel (RPD)	1.7 %		0 - 20
Potassium (% Recovery)	88.5 %	70 - 130	
Potassium (RPD)	1.6 %		0 - 20
Selenium (% Recovery)	106 %	70 - 130	
Selenium (RPD)	0.5 %		0 - 20
Silver (% Recovery)	86.8 %	70 - 130	
Silver (RPD)	2.2 %		0 - 20
Sodium (% Recovery)	97.2 %	70 - 130	
Sodium (RPD)	1.7 %		0 - 20
Thallium (% Recovery)	89.7 %	70 - 130	
Thallium (RPD)	9.1 %		0 - 20
Vanadium (% Recovery)	96.7 %	70 - 130	
Vanadium (RPD)	0.2 %		0 - 20
Zinc (% Recovery)	102 %	70 - 130	
Zinc (RPD)	2.9 %		0 - 20
Dilution Factor	1		
Analyzed By	Robert Graddy		
Analysis Date/Time	Apr 14 2014 1:57PM		

Analytical Quality Control Results Report

Batch: 14041602	ICP Metals - water (total)
WS-014S	LIMS ID: 2014-1124

ICP Metals - water (Total) DUP

Run: 1

<i>Parameter</i>	<i>Result</i>	<i>DL</i>	<i>RL</i>	<i>Accuracy Control</i>	<i>Precision Control</i>
Aluminum	171 ug/L	20	20		
Aluminum (RPD)	12.6 %				0 - 20
Antimony (RPD)	9.3 %				0 - 20
Antimony	<10 ug/L	5	10		
Arsenic	<1 ug/L	0.5	1		
Arsenic (RPD)	4.3 %				0 - 20
Barium (RPD)	1.1 %				0 - 20
Barium	17.2 ug/L	2	10		
Beryllium	<0.5 ug/L	0.1	0.5		
Beryllium (RPD)	0 %				0 - 20
Boron (RPD)	0.4 %				0 - 20
Boron	<25 ug/L	5	25		
Cadmium (RPD)	0 %				0 - 20
Cadmium	<1 ug/L	0.3	1		
Calcium	3.28 mg/L	0.04	0.04		
Calcium (RPD)	5.2 %				0 - 20
Chromium (RPD)	15.6 %				0 - 20
Chromium	<1 ug/L	0.3	1		
Cobalt	<1 ug/L	0.5	1		
Cobalt (RPD)	5.6 %				0 - 20
Copper	<1 ug/L	0.5	1		
Copper (RPD)	1.4 %				0 - 20
Iron (RPD)	1.6 %				0 - 20
Iron	616 ug/L	10	20		
Lead	<1 ug/L	0.1	1		
Lead (RPD)	4.4 %				0 - 20
Magnesium (RPD)	6.4 %				0 - 20
Magnesium	2.12 mg/L	0.1	0.1		
Manganese	110 ug/L	0.2	1		
Manganese (RPD)	4.5 %				0 - 20
Nickel (RPD)	2.2 %				0 - 20
Nickel	<2.5 ug/L	0.5	2.5		
Potassium	2.16 mg/L	0.05	1		

Potassium (RPD)	4.4 %			0 - 20
Selenium (RPD)	40.0 %			0 - 20
Selenium	<2 ug/L	0.5	2	
Silver	<5 ug/L	1	5	
Silver (RPD)	0 %			0 - 20
Sodium (RPD)	8.8 %			0 - 20
Sodium	7.99 mg/L	0.02	0.04	
Thallium	<2.5 ug/L	0.05	2.5	
Thallium (RPD)	40.0 %			0 - 20
Vanadium (RPD)	13.3 %			0 - 20
Vanadium	<2.5 ug/L	1	2.5	
Zinc	<3 ug/L	2	3	
Zinc (RPD)	3.1 %			0 - 20
Dilution Factor	1			
Analyzed By	Robert Graddy			
Analysis Date/Time	Apr 14 2014 4:33PM			

WS-014S	LIMS ID: 2014-1124
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ICP Metals - water (Total) MS

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Aluminum (% Recovery)	112 %			70 - 130	
Antimony (% Recovery)	96.3 %			70 - 130	
Arsenic (% Recovery)	107 %			70 - 130	
Barium (% Recovery)	98.1 %			70 - 130	
Beryllium (% Recovery)	97.9 %			70 - 130	
Boron (% Recovery)	101 %			70 - 130	
Cadmium (% Recovery)	102 %			70 - 130	
Calcium (% Recovery)	88.7 %			70 - 130	
Chromium (% Recovery)	109 %			70 - 130	
Cobalt (% Recovery)	110 %			70 - 130	
Copper (% Recovery)	108 %			70 - 130	
Iron (% Recovery)	130 %			70 - 130	
Lead (% Recovery)	101 %			70 - 130	
Magnesium (% Recovery)	104 %			70 - 130	
Manganese (% Recovery)	120 %			70 - 130	
Nickel (% Recovery)	110 %			70 - 130	
Potassium (% Recovery)	93.2 %			70 - 130	
Selenium (% Recovery)	110 %			70 - 130	
Silver (% Recovery)	93.5 %			70 - 130	

Sodium (% Recovery)	109 %	70 - 130
Thallium (% Recovery)	100 %	70 - 130
Vanadium (% Recovery)	109 %	70 - 130
Zinc (% Recovery)	115 %	70 - 130
Dilution Factor	1	
Analyzed By	Robert Graddy	
Analysis Date/Time	Apr 14 2014 4:39PM	

WS-014S **LIMS ID: 2014-1124**

ICP Metals - water (Total) MSD

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Aluminum (% Recovery)	107 %			70 - 130	
Aluminum (RPD)	3.6 %				0 - 20
Antimony (% Recovery)	98.2 %			70 - 130	
Antimony (RPD)	2.0 %				0 - 20
Arsenic (% Recovery)	105 %			70 - 130	
Arsenic (RPD)	1.7 %				0 - 20
Barium (% Recovery)	99.6 %			70 - 130	
Barium (RPD)	1.4 %				0 - 20
Beryllium (% Recovery)	98.5 %			70 - 130	
Beryllium (RPD)	0.6 %				0 - 20
Boron (% Recovery)	102 %			70 - 130	
Boron (RPD)	0.7 %				0 - 20
Cadmium (% Recovery)	103 %			70 - 130	
Cadmium (RPD)	0.9 %				0 - 20
Calcium (% Recovery)	81.8 %			70 - 130	
Calcium (RPD)	5.8 %				0 - 20
Chromium (% Recovery)	112 %			70 - 130	
Chromium (RPD)	2.8 %				0 - 20
Cobalt (% Recovery)	109 %			70 - 130	
Cobalt (RPD)	0.7 %				0 - 20
Copper (% Recovery)	108 %			70 - 130	
Copper (RPD)	0.3 %				0 - 20
Iron (% Recovery)	138 %			70 - 130	
Iron (RPD)	1.7 %				0 - 20
Lead (% Recovery)	91.3 %			70 - 130	
Lead (RPD)	9.6 %				0 - 20
Magnesium (% Recovery)	108 %			70 - 130	
Magnesium (RPD)	3.1 %				0 - 20

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Manganese (% Recovery)	120 %	70 - 130	
Manganese (RPD)	0.2 %		0 - 20
Nickel (% Recovery)	110 %	70 - 130	
Nickel (RPD)	0.2 %		0 - 20
Potassium (% Recovery)	88.2 %	70 - 130	
Potassium (RPD)	4.4 %		0 - 20
Selenium (% Recovery)	112 %	70 - 130	
Selenium (RPD)	2.3 %		0 - 20
Silver (% Recovery)	94.4 %	70 - 130	
Silver (RPD)	1.0 %		0 - 20
Sodium (% Recovery)	117 %	70 - 130	
Sodium (RPD)	4.0 %		0 - 20
Thallium (% Recovery)	85.0 %	70 - 130	
Thallium (RPD)	16.4 %		0 - 20
Vanadium (% Recovery)	114 %	70 - 130	
Vanadium (RPD)	4.1 %		0 - 20
Zinc (% Recovery)	112 %	70 - 130	
Zinc (RPD)	2.3 %		0 - 20
Dilution Factor	1		
Analysis Date/Time	Apr 14 2014 4:46PM		
Analyzed By	Robert Graddy		

Analytical Quality Control Results Report

Batch: 14041511	Oil and Grease - water
WS-014S	LIMS ID: 2014-1124

Oil and Grease - water DUP

Run: 1

<i>Parameter</i>	<i>Result</i>	<i>DL</i>	<i>RL</i>	<i>Accuracy Control</i>	<i>Precision Control</i>
Oil and Grease	<2.5 mg/L	2.5	2.5		
Oil and Grease (RPD)	0 %				0 - 20
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	04-15-2014 1000				

WS-014S	LIMS ID: 2014-1124
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Oil and Grease - water MS

Run: 1

<i>Parameter</i>	<i>Result</i>	<i>DL</i>	<i>RL</i>	<i>Accuracy Control</i>	<i>Precision Control</i>
Oil and Grease (% Recovery)	108 %			70 - 130	
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	04-15-2014 1000				

WS-014S	LIMS ID: 2014-1124
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Oil and Grease - water MSD

Run: 1

<i>Parameter</i>	<i>Result</i>	<i>DL</i>	<i>RL</i>	<i>Accuracy Control</i>	<i>Precision Control</i>
Oil and Grease (% Recovery)	104 %			70 - 130	
Oil and Grease (RPD)	3.8 %				0 - 20
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	04-15-2014 1000				

MB	LIMS ID: 14041511-MB-01
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Oil and Grease - water MB

Run: 1

<i>Parameter</i>	<i>Result</i>	<i>DL</i>	<i>RL</i>	<i>Accuracy Control</i>	<i>Precision Control</i>
Oil and Grease	<2.5 mg/L	2.5	2.5		
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	04-15-2014 1000				

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LCS

LIMS ID: 14041511-LCS-01

Oil and Grease - water LCS

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Oil and Grease (% Recovery)	95.5 %			70 - 130	
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	04-15-2014 1000				

Analytical Quality Control Results Report

Batch: 14041404	Turbidity - water
WS-014S	LIMS ID: 2014-1124

Turbidity - water DUP

Run: 1

<i>Parameter</i>	<i>Result</i>	<i>DL</i>	<i>RL</i>	<i>Accuracy Control</i>	<i>Precision Control</i>
Turbidity	7.37 NTU	0.02	0.02		
Turbidity (RPD)	1.9 %				0 - 20
Dilution Factor	1				
Analyzed By	Angela H. Rice				
Analysis Date/Time	4/10/2014 14:50				