

METALS

Project Name: SURFACE WATER
Project Number: SURFACE WATER

Lab Number: L1422838
Report Date: 10/07/14

SAMPLE RESULTS

Lab ID: L1422838-02
 Client ID: SW-1
 Sample Location: EAST NORTHPORT, NY
 Matrix: Water

Date Collected: 09/29/14 08:45
 Date Received: 09/29/14
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Hardness by SM 2340B - Westborough Lab											
Hardness	77.		mg/l	0.66	NA	1	10/03/14 10:28	10/04/14 08:59	EPA 3005A	1,6010C	BC



Project Name: SURFACE WATER
Project Number: SURFACE WATER

Lab Number: L1422838
Report Date: 10/07/14

SAMPLE RESULTS

Lab ID: L1422838-03
 Client ID: SW-2
 Sample Location: EAST NORTHPORT, NY
 Matrix: Water

Date Collected: 09/29/14 09:30
 Date Received: 09/29/14
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Hardness by SM 2340B - Westborough Lab											
Hardness	140		mg/l	0.66	NA	1	10/03/14 10:28	10/04/14 08:44	EPA 3005A	1,6010C	BC



Project Name: SURFACE WATER
Project Number: SURFACE WATER

Lab Number: L1422838
Report Date: 10/07/14

SAMPLE RESULTS

Lab ID: L1422838-04
Client ID: SW-3
Sample Location: EAST NORTHPORT, NY
Matrix: Water

Date Collected: 09/29/14 09:15
Date Received: 09/29/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Hardness by SM 2340B - Westborough Lab											
Hardness	86.		mg/l	0.66	NA	1	10/03/14 10:28	10/04/14 09:03	EPA 3005A	1,6010C	BC



Project Name: SURFACE WATER
Project Number: SURFACE WATER

Lab Number: L1422838
Report Date: 10/07/14

SAMPLE RESULTS

Lab ID: L1422838-05
Client ID: SW-4
Sample Location: EAST NORTHPORT, NY
Matrix: Water

Date Collected: 09/29/14 09:00
Date Received: 09/29/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Hardness by SM 2340B - Westborough Lab											
Hardness	110		mg/l	0.66	NA	1	10/03/14 10:28	10/04/14 09:07	EPA 3005A	1,6010C	BC



Project Name: SURFACE WATER

Lab Number: L1422838

Project Number: SURFACE WATER

Report Date: 10/07/14

SAMPLE RESULTS

Lab ID: L1422838-06

Date Collected: 09/29/14 10:00

Client ID: SW-5

Date Received: 09/29/14

Sample Location: EAST NORTHPORT, NY

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Hardness by SM 2340B - Westborough Lab											
Hardness	86.		mg/l	0.66	NA	1	10/03/14 10:28	10/04/14 09:27	EPA 3005A	1,6010C	BC



Project Name: SURFACE WATER

Lab Number: L1422838

Project Number: SURFACE WATER

Report Date: 10/07/14

SAMPLE RESULTS

Lab ID: L1422838-07

Date Collected: 09/29/14 09:45

Client ID: SW-6

Date Received: 09/29/14

Sample Location: EAST NORTHPORT, NY

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Hardness by SM 2340B - Westborough Lab											
Hardness	52.		mg/l	0.66	NA	1	10/03/14 10:28	10/04/14 09:31	EPA 3005A	1,6010C	BC



Project Name: SURFACE WATER
Project Number: SURFACE WATER

Lab Number: L1422838
Report Date: 10/07/14

SAMPLE RESULTS

Lab ID: L1422838-08
Client ID: SW-7
Sample Location: EAST NORTHPORT, NY
Matrix: Water

Date Collected: 09/29/14 08:30
Date Received: 09/29/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Hardness by SM 2340B - Westborough Lab											
Hardness	2100		mg/l	0.66	NA	1	10/03/14 10:28	10/04/14 09:35	EPA 3005A	1,6010C	BC



Project Name: SURFACE WATER
Project Number: SURFACE WATER

Lab Number: L1422838
Report Date: 10/07/14

SAMPLE RESULTS

Lab ID: L1422838-09
Client ID: SW-DUP
Sample Location: EAST NORTHPORT, NY
Matrix: Water

Date Collected: 09/29/14 00:00
Date Received: 09/29/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Hardness by SM 2340B - Westborough Lab											
Hardness	86.		mg/l	0.66	NA	1	10/03/14 10:28	10/04/14 09:39	EPA 3005A	1,6010C	BC



Project Name: SURFACE WATER

Lab Number: L1422838

Project Number: SURFACE WATER

Report Date: 10/07/14

Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Hardness by SM 2340B - Westborough Lab for sample(s): 02-09 Batch: WG727793-1									
Hardness	ND	mg/l	0.66	NA	1	10/03/14 10:28	10/04/14 09:23	1,6010C	BC

Prep Information

Digestion Method: EPA 3005A



Lab Control Sample Analysis
Batch Quality Control

Project Name: SURFACE WATER

Project Number: SURFACE WATER

Lab Number: L1422838

Report Date: 10/07/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Hardness by SM 2340B - Westborough Lab Associated sample(s): 02-09 Batch: WG727793-2								
Hardness	101				80-120			

Matrix Spike Analysis
Batch Quality Control

Project Name: SURFACE WATER
Project Number: SURFACE WATER

Lab Number: L1422838
Report Date: 10/07/14

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Hardness by SM 2340B - Westborough Lab Associated sample(s): 02-09 QC Batch ID: WG727793-3 WG727793-4 QC Sample: L1422838-03 Client ID: SW-2												
Hardness	140	66.2	200	91		200	91		75-125	0		20

INORGANICS & MISCELLANEOUS

Project Name: SURFACE WATER
Project Number: SURFACE WATER

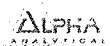
Lab Number: L1422838
Report Date: 10/07/14

SAMPLE RESULTS

Lab ID: L1422838-02
Client ID: SW-1
Sample Location: EAST NORTHPORT, NY
Matrix: Water

Date Collected: 09/29/14 08:45
Date Received: 09/29/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Bicarbonate	35.3		mg CaCO3/L	2.00	NA	1	-	09/30/14 09:11	30,2320B	SG
solids, Total Dissolved	210		mg/l	10	3.6	1	-	10/01/14 13:35	30,2540C	DW
Chloride	72		mg/l	1.0	0.20	1	-	10/02/14 12:29	30,4500CL-E	LA
Nitrogen, Ammonia	0.190		mg/l	0.075	0.021	1	09/30/14 14:00	09/30/14 22:21	30,4500NH3-BH	AT
Nitrogen, Nitrate	2.69		mg/l	0.100	0.015	1	-	10/01/14 07:40	30,4500NO3-F	A1
Sulfate	23		mg/l	10	3.1	1	10/01/14 12:30	10/01/14 12:30	30,4500SO4-E	SP



Project Name: SURFACE WATER
 Project Number: SURFACE WATER

Lab Number: L1422838
 Report Date: 10/07/14

SAMPLE RESULTS

Lab ID: L1422838-03
 Client ID: SW-2
 Sample Location: EAST NORTHPORT, NY
 Matrix: Water

Date Collected: 09/29/14 09:30
 Date Received: 09/29/14
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Bicarbonate	82.7		mg CaCO3/L	2.00	NA	1	-	09/30/14 09:11	30,2320B	SG
solids, Total Dissolved	320		mg/l	10	3.6	1	-	10/01/14 13:35	30,2540C	DW
Chloride	93		mg/l	1.0	0.20	1	-	10/02/14 12:32	30,4500CL-E	LA
nitrogen, Ammonia	0.123		mg/l	0.075	0.021	1	09/30/14 14:00	09/30/14 22:27	30,4500NH3-BH	AT
nitrogen, Nitrate	1.59		mg/l	0.100	0.015	1	-	10/01/14 07:49	30,4500NO3-F	A1
Sulfate	43		mg/l	20	6.2	2	10/01/14 12:30	10/01/14 12:30	30,4500SO4-E	SP



Project Name: SURFACE WATER
 Project Number: SURFACE WATER

Lab Number: L1422838
 Report Date: 10/07/14

SAMPLE RESULTS

Lab ID: L1422838-04
 Client ID: SW-3
 Sample Location: EAST NORTHPORT, NY
 Matrix: Water

Date Collected: 09/29/14 09:15
 Date Received: 09/29/14
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Bicarbonate	34.7		mg CaCO3/L	2.00	NA	1	-	09/30/14 09:11	30,2320B	SG
solids, Total Dissolved	200		mg/l	10	3.6	1	-	10/01/14 13:35	30,2540C	DW
Chloride	56.		mg/l	1.0	0.20	1	-	10/02/14 13:17	30,4500CL-E	LA
Nitrogen, Ammonia	0.093		mg/l	0.075	0.021	1	09/30/14 14:00	09/30/14 22:22	30,4500NH3-BH	AT
Nitrogen, Nitrate	3.62		mg/l	0.100	0.015	1	-	10/01/14 07:53	30,4500NO3-F	A1
Sulfate	26.		mg/l	10	3.1	1	10/01/14 12:30	10/01/14 12:30	30,4500SO4-E	SP



Project Name: SURFACE WATER
 Project Number: SURFACE WATER

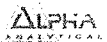
Lab Number: L1422838
 Report Date: 10/07/14

SAMPLE RESULTS

Lab ID: L1422838-05
 Client ID: SW-4
 Sample Location: EAST NORTHPORT, NY
 Matrix: Water

Date Collected: 09/29/14 09:00
 Date Received: 09/29/14
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Bicarbonate	45.7		mg CaCO3/L	2.00	NA	1	-	09/30/14 09:11	30,2320B	SG
solids, Total Dissolved	250		mg/l	10	3.6	1	-	10/03/14 12:05	30,2540C	DW
Chloride	72.		mg/l	1.0	0.20	1	-	10/02/14 12:35	30,4500CL-E	LA
nitrogen, Ammonia	0.134		mg/l	0.075	0.021	1	09/30/14 14:00	09/30/14 22:23	30,4500NH3-BH	AT
nitrogen, Nitrate	3.04		mg/l	0.100	0.015	1	-	10/01/14 07:54	30,4500NO3-F	A1
Sulfate	32.		mg/l	10	3.1	1	10/01/14 12:30	10/01/14 12:30	30,4500SO4-E	SP



Project Name: SURFACE WATER
Project Number: SURFACE WATER

Lab Number: L1422838
Report Date: 10/07/14

SAMPLE RESULTS

Lab ID: L1422838-06
Client ID: SW-5
Sample Location: EAST NORTHPORT, NY
Matrix: Water

Date Collected: 09/29/14 10:00
Date Received: 09/29/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Bicarbonate	44.2		mg CaCO3/L	2.00	NA	1	-	09/30/14 09:11	30,2320B	SG
solids, Total Dissolved	220		mg/l	10	3.6	1	-	10/03/14 12:05	30,2540C	DW
Chloride	69.		mg/l	1.0	0.20	1	-	10/02/14 12:36	30,4500CL-E	LA
Nitrogen, Ammonia	0.274		mg/l	0.075	0.021	1	09/30/14 14:00	09/30/14 22:24	30,4500NH3-BH	AT
Nitrogen, Nitrate	ND		mg/l	0.100	0.015	1	-	10/01/14 07:55	30,4500NO3-F	A1
Sulfate	24.		mg/l	10	3.1	1	10/01/14 12:30	10/01/14 12:30	30,4500SO4-E	SP



Project Name: SURFACE WATER
 Project Number: SURFACE WATER

Lab Number: L1422838
 Report Date: 10/07/14

SAMPLE RESULTS

Lab ID: L1422838-07
 Client ID: SW-6
 Sample Location: EAST NORTHPORT, NY
 Matrix: Water

Date Collected: 09/29/14 09:45
 Date Received: 09/29/14
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Bicarbonate	43.9		mg CaCO3/L	2.00	NA	1	-	09/30/14 09:11	30,2320B	SG
solids, Total Dissolved	160		mg/l	10	3.6	1	-	10/03/14 12:05	30,2540C	DW
Chloride	66.		mg/l	1.0	0.20	1	-	10/02/14 12:36	30,4500CL-E	LA
nitrogen, Ammonia	0.184		mg/l	0.075	0.021	1	09/30/14 14:00	09/30/14 22:25	30,4500NH3-BH	AT
nitrogen, Nitrate	ND		mg/l	0.100	0.015	1	-	10/01/14 07:57	30,4500NO3-F	A1
sulfate	10.		mg/l	10	3.1	1	10/01/14 12:30	10/01/14 12:30	30,4500SO4-E	SP

Project Name: SURFACE WATER
 Project Number: SURFACE WATER

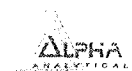
Lab Number: L1422838
 Report Date: 10/07/14

SAMPLE RESULTS

Lab ID: L1422838-08
 Client ID: SW-7
 Sample Location: EAST NORTHPORT, NY
 Matrix: Water

Date Collected: 09/29/14 08:30
 Date Received: 09/29/14
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Bicarbonate	75.6		mg CaCO3/L	2.00	NA	1	-	09/30/14 09:11	30,2320B	SG
solids, Total Dissolved	16000		mg/l	10	3.6	1	-	10/03/14 12:05	30,2540C	DW
Chloride	7800		mg/l	100	20.	100	-	10/02/14 13:16	30,4500CL-E	LA
nitrogen, Ammonia	0.288		mg/l	0.075	0.021	1	09/30/14 14:00	09/30/14 22:26	30,4500NH3-BH	AT
nitrogen, Nitrate	ND		mg/l	0.100	0.015	1	-	10/01/14 07:58	30,4500NO3-F	A1
Sulfate	1200		mg/l	500	160	50	10/01/14 12:30	10/01/14 12:30	30,4500SO4-E	SP



Project Name: SURFACE WATER
 Project Number: SURFACE WATER

Lab Number: L1422838
 Report Date: 10/07/14

SAMPLE RESULTS

Lab ID: L1422838-09
 Client ID: SW-DUP
 Sample Location: EAST NORTHPORT, NY
 Matrix: Water

Date Collected: 09/29/14 00:00
 Date Received: 09/29/14
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Bicarbonate	36.2		mg CaCO3/L	2.00	NA	1	-	09/30/14 09:11	30,2320B	SG
solids, Total Dissolved	160		mg/l	10	3.6	1	-	10/03/14 12:05	30,2540C	DW
Chloride	57.		mg/l	1.0	0.20	1	-	10/02/14 13:19	30,4500CL-E	LA
nitrogen, Ammonia	0.091		mg/l	0.075	0.021	1	09/30/14 14:00	09/30/14 22:13	30,4500NH3-BH	AT
nitrogen, Nitrate	3.79		mg/l	0.100	0.015	1	-	10/01/14 07:59	30,4500NO3-F	A1
Sulfate	25.		mg/l	10	3.1	1	10/01/14 12:30	10/01/14 12:30	30,4500SO4-E	SP



Project Name: SURFACE WATER
 Project Number: SURFACE WATER

Lab Number: L1422838
 Report Date: 10/07/14

**Method Blank Analysis
 Batch Quality Control**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analys
General Chemistry - Westborough Lab for sample(s): 02-09 Batch: WG726638-1										
Alkalinity, Bicarbonate	ND		mg CaCO3/L	2.00	NA	1	-	09/30/14 09:11	30,2320B	SG
General Chemistry - Westborough Lab for sample(s): 02,04-08 Batch: WG726705-1										
Ammonia, Ammonia	ND		mg/l	0.075	0.021	1	09/30/14 14:00	09/30/14 21:58	30,4500NH3-BH	AT
General Chemistry - Westborough Lab for sample(s): 03,09 Batch: WG726706-1										
Ammonia, Ammonia	ND		mg/l	0.075	0.021	1	09/30/14 14:00	09/30/14 21:59	30,4500NH3-BH	AT
General Chemistry - Westborough Lab for sample(s): 02-09 Batch: WG726799-1										
Nitrate, Nitrate	ND		mg/l	0.100	0.015	1	-	10/01/14 03:54	30,4500NO3-F	A1
General Chemistry - Westborough Lab for sample(s): 02-04 Batch: WG726922-1										
Total Dissolved Solids	ND		mg/l	10	3.6	1	-	10/01/14 13:35	30,2540C	DW
General Chemistry - Westborough Lab for sample(s): 02-09 Batch: WG727004-1										
Sulfate	ND		mg/l	10	3.1	1	10/01/14 12:30	10/01/14 12:30	30,4500SO4-E	SP
General Chemistry - Westborough Lab for sample(s): 02-09 Batch: WG727368-1										
Chloride	0.20	J	mg/l	1.0	0.20	1	-	10/02/14 12:07	30,4500CL-E	LA
General Chemistry - Westborough Lab for sample(s): 05-09 Batch: WG727737-1										
Total Dissolved Solids	5.0	J	mg/l	10	3.6	1	-	10/03/14 12:05	30,2540C	DW



Lab Control Sample Analysis

Batch Quality Control

Project Name: SURFACE WATER

Lab Number: L1422838

Project Number: SURFACE WATER

Report Date: 10/07/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 02,04-08 Batch: WG726705-2								
Nitrogen, Ammonia	106		-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 03,09 Batch: WG726706-2								
Nitrogen, Ammonia	106		-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 02-09 Batch: WG726799-2								
Nitrogen, Nitrate	91		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 02-04 Batch: WG726922-2								
Solids, Total Dissolved	94		-		80-120	-		
General Chemistry - Westborough Lab Associated sample(s): 02-09 Batch: WG727004-2								
Sulfate	95		-		84-121	-		
General Chemistry - Westborough Lab Associated sample(s): 02-09 Batch: WG727368-2								
Chloride	107		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 05-09 Batch: WG727737-2								
Solids, Total Dissolved	94		-		80-120	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: SURFACE WATER
Project Number: SURFACE WATER

Lab Number: L1422838
Report Date: 10/07/14

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 02,04-08 QC Batch ID: WG726705-4 QC Sample: L1422829-02 Client ID: MS Sample												
Nitrogen, Ammonia	11.9	4	16.1	105	-	-	-	-	80-120	-	-	20
General Chemistry - Westborough Lab Associated sample(s): 03,09 QC Batch ID: WG726706-4 QC Sample: L1422838-03 Client ID: SW-2												
Nitrogen, Ammonia	0.123	4	3.86	93	-	-	-	-	80-120	-	-	20
General Chemistry - Westborough Lab Associated sample(s): 02-09 QC Batch ID: WG726799-4 QC Sample: L1422838-03 Client ID: SW-2												
Nitrogen, Nitrate	1.59	4	4.45	72	Q	-	-	-	83-113	-	-	17
General Chemistry - Westborough Lab Associated sample(s): 02-09 QC Batch ID: WG727004-4 QC Sample: L1422838-03 Client ID: SW-2												
Sulfate	43.	200	230	95	-	-	-	-	55-147	-	-	14
General Chemistry - Westborough Lab Associated sample(s): 02-09 QC Batch ID: WG727368-4 QC Sample: L1422838-03 Client ID: SW-2												
Chloride	93.	20	110	85	-	-	-	-	58-140	-	-	7

Project Name: SURFACE WATER
Project Number: SURFACE WATER

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L1422838
Report Date: 10/07/14

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 02-09 QC Batch ID: WG726638-2 QC Sample: L1422838-03 Client ID: SW-2						
Alkalinity, Bicarbonate	82.7	80.0	mg CaCO3/L	3		
General Chemistry - Westborough Lab Associated sample(s): 02,04-08 QC Batch ID: WG726705-3 QC Sample: L1422829-02 Client ID: DUP Sample						
Nitrogen, Ammonia	11.9	12.6	mg/l	6		20
General Chemistry - Westborough Lab Associated sample(s): 03,09 QC Batch ID: WG726706-3 QC Sample: L1422838-03 Client ID: SW-2						
Nitrogen, Ammonia	0.123	0.115	mg/l	7		20
General Chemistry - Westborough Lab Associated sample(s): 02-09 QC Batch ID: WG726799-3 QC Sample: L1422838-03 Client ID: SW-2						
Nitrogen, Nitrate	1.59	1.59	mg/l	0		17
General Chemistry - Westborough Lab Associated sample(s): 02-04 QC Batch ID: WG726922-3 QC Sample: L1422838-03 Client ID: SW-2						
Solids, Total Dissolved	320	320	mg/l	0		17
General Chemistry - Westborough Lab Associated sample(s): 02-09 QC Batch ID: WG727004-3 QC Sample: L1422838-03 Client ID: SW-2						
Sulfate	43.	45	mg/l	5		14
General Chemistry - Westborough Lab Associated sample(s): 02-09 QC Batch ID: WG727368-3 QC Sample: L1422838-03 Client ID: SW-2						
Chloride	93.	93	mg/l	0		7
General Chemistry - Westborough Lab Associated sample(s): 05-09 QC Batch ID: WG727737-3 QC Sample: L1422838-07 Client ID: SW-6						
Solids, Total Dissolved	160	170	mg/l	6		17

Project Name: SURFACE WATER
 Project Number: SURFACE WATER

Lab Number: L1422838
 Report Date: 10/07/14

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent
 B Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1422838-01A	Vial Na2S2O3 preserved	B	N/A	4.4	Y	Absent	624(3)
L1422838-01B	Vial Na2S2O3 preserved	B	N/A	4.4	Y	Absent	624(3)
L1422838-02A	Vial Na2S2O3 preserved	A	N/A	3.6	Y	Absent	624(3)
L1422838-02B	Vial Na2S2O3 preserved	A	N/A	3.6	Y	Absent	624(3)
L1422838-02C	Vial Na2S2O3 preserved	A	N/A	3.6	Y	Absent	624(3)
L1422838-02D	Plastic 250ml unpreserved	A	N/A	3.6	Y	Absent	ALK-HCO3-2320(14)
L1422838-02E	Plastic 250ml unpreserved	A	7	3.6	Y	Absent	CL-4500(28),NO3-4500(2)
L1422838-02F	Plastic 500ml H2SO4 preserved	A	<2	3.6	Y	Absent	NH3-4500(28)
L1422838-02G	Plastic 500ml HNO3 preserved	A	<2	3.6	Y	Absent	HARDT(180)
L1422838-02H	Plastic 1000ml unpreserved	A	7	3.6	Y	Absent	SO4-4500(28),TDS-2540(7)
L1422838-03A	Vial Na2S2O3 preserved	B	N/A	4.4	Y	Absent	624(3)
L1422838-03A1	Vial Na2S2O3 preserved	B	N/A	4.4	Y	Absent	624(3)
L1422838-03A2	Vial Na2S2O3 preserved	B	N/A	4.4	Y	Absent	624(3)
L1422838-03B	Vial Na2S2O3 preserved	B	N/A	4.4	Y	Absent	624(3)
L1422838-03B1	Vial Na2S2O3 preserved	B	N/A	4.4	Y	Absent	624(3)
L1422838-03B2	Vial Na2S2O3 preserved	B	N/A	4.4	Y	Absent	624(3)
L1422838-03C	Vial Na2S2O3 preserved	B	N/A	4.4	Y	Absent	624(3)
L1422838-03C1	Vial Na2S2O3 preserved	B	N/A	4.4	Y	Absent	624(3)
L1422838-03C2	Vial Na2S2O3 preserved	B	N/A	4.4	Y	Absent	624(3)
L1422838-03D	Plastic 250ml unpreserved	B	N/A	4.4	Y	Absent	ALK-HCO3-2320(14)
L1422838-03D1	Plastic 250ml unpreserved	B	N/A	4.4	Y	Absent	ALK-HCO3-2320(14)
L1422838-03D2	Plastic 250ml unpreserved	B	N/A	4.4	Y	Absent	ALK-HCO3-2320(14)
L1422838-03E	Plastic 250ml unpreserved	B	7	4.4	Y	Absent	CL-4500(28),NO3-4500(2)
L1422838-03E1	Plastic 250ml unpreserved	B	7	4.4	Y	Absent	CL-4500(28),NO3-4500(2)
L1422838-03E2	Plastic 250ml unpreserved	B	7	4.4	Y	Absent	CL-4500(28),NO3-4500(2)
L1422838-03F	Plastic 500ml H2SO4 preserved	B	<2	4.4	Y	Absent	NH3-4500(28)

*Values in parentheses indicate holding time in days



Project Name: SURFACE WATER
Project Number: SURFACE WATER

Lab Number: L1422838
Report Date: 10/07/14

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1422838-03F1	Plastic 500ml H2SO4 preserved	B	<2	4.4	Y	Absent	NH3-4500(28)
L1422838-03F2	Plastic 500ml H2SO4 preserved	B	<2	4.4	Y	Absent	NH3-4500(28)
L1422838-03G	Plastic 500ml HNO3 preserved	B	<2	4.4	Y	Absent	HARDT(180)
L1422838-03G1	Plastic 500ml HNO3 preserved	B	<2	4.4	Y	Absent	HARDT(180)
L1422838-03G2	Plastic 500ml HNO3 preserved	B	<2	4.4	Y	Absent	HARDT(180)
L1422838-03H	Plastic 1000ml unpreserved	B	7	4.4	Y	Absent	SO4-4500(28),TDS-2540(7)
L1422838-03H1	Plastic 1000ml unpreserved	B	7	4.4	Y	Absent	SO4-4500(28),TDS-2540(7)
L1422838-03H2	Plastic 1000ml unpreserved	B	7	4.4	Y	Absent	SO4-4500(28),TDS-2540(7)
L1422838-04A	Vial Na2S2O3 preserved	A	N/A	3.6	Y	Absent	624(3)
L1422838-04B	Vial Na2S2O3 preserved	A	N/A	3.6	Y	Absent	624(3)
L1422838-04C	Vial Na2S2O3 preserved	A	N/A	3.6	Y	Absent	624(3)
L1422838-04D	Plastic 250ml unpreserved	A	N/A	3.6	Y	Absent	ALK-HCO3-2320(14)
L1422838-04E	Plastic 250ml unpreserved	A	7	3.6	Y	Absent	CL-4500(28),NO3-4500(2)
L1422838-04F	Plastic 500ml H2SO4 preserved	A	<2	3.6	Y	Absent	NH3-4500(28)
L1422838-04G	Plastic 500ml HNO3 preserved	A	<2	3.6	Y	Absent	HARDT(180)
L1422838-04H	Plastic 1000ml unpreserved	A	7	3.6	Y	Absent	SO4-4500(28),TDS-2540(7)
L1422838-05A	Vial Na2S2O3 preserved	B	N/A	4.4	Y	Absent	624(3)
L1422838-05B	Vial Na2S2O3 preserved	B	N/A	4.4	Y	Absent	624(3)
L1422838-05C	Vial Na2S2O3 preserved	B	N/A	4.4	Y	Absent	624(3)
L1422838-05D	Plastic 250ml unpreserved	B	N/A	4.4	Y	Absent	ALK-HCO3-2320(14)
L1422838-05E	Plastic 250ml unpreserved	B	7	4.4	Y	Absent	CL-4500(28),NO3-4500(2)
L1422838-05F	Plastic 500ml H2SO4 preserved	B	<2	4.4	Y	Absent	NH3-4500(28)
L1422838-05G	Plastic 500ml HNO3 preserved	B	<2	4.4	Y	Absent	HARDT(180)
L1422838-05H	Plastic 1000ml unpreserved	B	7	4.4	Y	Absent	SO4-4500(28),TDS-2540(7)
L1422838-06A	Vial Na2S2O3 preserved	A	N/A	3.6	Y	Absent	624(3)
L1422838-06B	Vial Na2S2O3 preserved	A	N/A	3.6	Y	Absent	624(3)
L1422838-06C	Vial Na2S2O3 preserved	A	N/A	3.6	Y	Absent	624(3)
L1422838-06D	Plastic 250ml unpreserved	A	N/A	3.6	Y	Absent	ALK-HCO3-2320(14)
L1422838-06E	Plastic 250ml unpreserved	A	7	3.6	Y	Absent	CL-4500(28),NO3-4500(2)
L1422838-06F	Plastic 500ml H2SO4 preserved	A	<2	3.6	Y	Absent	NH3-4500(28)
L1422838-06G	Plastic 500ml HNO3 preserved	A	<2	3.6	Y	Absent	HARDT(180)
L1422838-06H	Plastic 1000ml unpreserved	A	7	3.6	Y	Absent	SO4-4500(28),TDS-2540(7)
L1422838-07A	Vial Na2S2O3 preserved	B	N/A	4.4	Y	Absent	624(3)
L1422838-07B	Vial Na2S2O3 preserved	B	N/A	4.4	Y	Absent	624(3)
L1422838-07C	Vial Na2S2O3 preserved	B	N/A	4.4	Y	Absent	624(3)
L1422838-07D	Plastic 250ml unpreserved	B	N/A	4.4	Y	Absent	ALK-HCO3-2320(14)

*Values in parentheses indicate holding time in days



Project Name: SURFACE WATER
 Project Number: SURFACE WATER

Lab Number: L1422838
 Report Date: 10/07/14

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1422838-07E	Plastic 250ml unpreserved	B	7	4.4	Y	Absent	CL-4500(28),NO3-4500(2)
L1422838-07F	Plastic 500ml H2SO4 preserved	B	<2	4.4	Y	Absent	NH3-4500(28)
L1422838-07G	Plastic 500ml HNO3 preserved	B	<2	4.4	Y	Absent	HARDT(180)
L1422838-07H	Plastic 1000ml unpreserved	B	7	4.4	Y	Absent	SO4-4500(28),TDS-2540(7)
L1422838-08A	Vial Na2S2O3 preserved	A	N/A	3.6	Y	Absent	624(3)
L1422838-08B	Vial Na2S2O3 preserved	A	N/A	3.6	Y	Absent	624(3)
L1422838-08C	Vial Na2S2O3 preserved	A	N/A	3.6	Y	Absent	624(3)
L1422838-08D	Plastic 250ml unpreserved	A	N/A	3.6	Y	Absent	ALK-HCO3-2320(14)
L1422838-08E	Plastic 250ml unpreserved	A	7	3.6	Y	Absent	CL-4500(28),NO3-4500(2)
L1422838-08F	Plastic 500ml H2SO4 preserved	A	<2	3.6	Y	Absent	NH3-4500(28)
L1422838-08G	Plastic 500ml HNO3 preserved	A	<2	3.6	Y	Absent	HARDT(180)
L1422838-08H	Plastic 1000ml unpreserved	A	7	3.6	Y	Absent	SO4-4500(28),TDS-2540(7)
L1422838-09A	Vial Na2S2O3 preserved	A	N/A	3.6	Y	Absent	624(3)
L1422838-09B	Vial Na2S2O3 preserved	A	N/A	3.6	Y	Absent	624(3)
L1422838-09C	Vial Na2S2O3 preserved	A	N/A	3.6	Y	Absent	624(3)
L1422838-09D	Plastic 250ml unpreserved	A	N/A	3.6	Y	Absent	ALK-HCO3-2320(14)
L1422838-09E	Plastic 250ml unpreserved	A	7	3.6	Y	Absent	CL-4500(28),NO3-4500(2)
L1422838-09F	Plastic 500ml H2SO4 preserved	A	<2	3.6	Y	Absent	NH3-4500(28)
L1422838-09G	Plastic 500ml HNO3 preserved	A	<2	3.6	Y	Absent	HARDT(180)
L1422838-09H	Plastic 1000ml unpreserved	A	7	3.6	Y	Absent	SO4-4500(28),TDS-2540(7)

*Values in parentheses indicate holding time in days

Project Name: SURFACE WATER
Project Number: SURFACE WATER

Lab Number: L1422838
Report Date: 10/07/14

GLOSSARY

Acronyms

- EDL** - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
- EPA** - Environmental Protection Agency.
- LCS** - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
- LCS D** - Laboratory Control Sample Duplicate: Refer to LCS.
- LFB** - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
- MDL** - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
- MS** - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
- MS D** - Matrix Spike Sample Duplicate: Refer to MS.
- NA** - Not Applicable.
- NC** - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
- NI** - Not Ignitable.
- RL** - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
- RPD** - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
- SRM** - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

- 1** - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

Report Format: DU Report with 'J' Qualifiers



Project Name: SURFACE WATER
Project Number: SURFACE WATER

Lab Number: L1422838
Report Date: 10/07/14

Data Qualifiers

- G** -The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.
- H** -The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** -The lower value for the two columns has been reported due to obvious interference.
- M** -Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** -Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** -The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** -The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** -Analytical results are from sample re-analysis.
- RE** -Analytical results are from sample re-extraction.
- S** -Analytical results are from modified screening analysis.
- J** -Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** -Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Project Name: SURFACE WATER
Project Number: SURFACE WATER

Lab Number: L1422838
Report Date: 10/07/14

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 5 Methods for the Organic Chemical Analysis of Municipal and Industrial Wastewater. Appendix A, Part 136, 40 CFR (Code of Federal Regulations).
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

Last revised April 15, 2014

The following analytes are not included in our NELAP Scope of Accreditation:

Westborough Facility

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.

EPA 8260C: 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene, Iodomethane (methyl iodide), Methyl methacrylate, Azobenzene.

EPA 8330A/B: PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT.

EPA 8270D: 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 625: 4-Chloroaniline, 4-Methylphenol.

SM4500: Soil: Total Phosphorus, TKN, NO₂, NO₃.

EPA 9071: Total Petroleum Hydrocarbons, Oil & Grease.

Mansfield Facility

EPA 8270D: Biphenyl.

EPA 2540D: TSS

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water

EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Ti; **EPA 200.7:** Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury; **EPA 300.0:** Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

EPA 332: Perchlorate.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water

EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;

EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;

EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC,

SM426C, SM4500NH3-BH, EPA 350.1: Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F,**

EPA 353.2: Nitrate-N, **SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4,**

SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

EPA 624: Volatile Halocarbons & Aromatics,

EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,

Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF.**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

