

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
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Monday, May 29, 2017

Plymouth Environmental Management
K. Towers/ 11 Lincoln St.
Plymouth, MA

ProjectName: GW Eel River

Comments:

Project Number:

Collection Date: 04/10/17 **Collection Time:** 10:00

Sampled By: Kim Tower

Lab Order Number: WW-170605

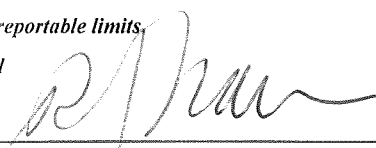
Date Received: 04/10/17

Sample Type	Sample Time	Sample Date	Comments			
A13 A	10:00	04/10/17				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
pH	pH units	5.14	NA	04/10/17	LL	SM 4500 H-B
Total Dissolved Solids	mg/L	298	6.0	04/12/17	KB	SM 2540 C
Specific Conductance	uhoms/cm	476	10	04/10/17	LL	EPA 120.1
Total Organic Carbon*	mg/L	1.3*	0.5	04/19/17	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	04/15/17	RIA*	*
Total Iron	mg/L	2.05	0.01	04/26/17	MC	EPA 200.7
Mercury*	mg/L	<0.0005*	0.0005	04/17/17	RIA*	EPA 245.1
Boron	mg/L	BRL	0.010	04/26/17	MC	EPA 200.7
Copper	mg/L	BRL	0.003	04/26/17	MC	EPA 200.7
Nitrate-N	mg/L	0.19	0.01	04/11/17	LL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	04/11/17	LL	EPA 300.0
Ammonia-N *	mg/L	0.14*	0.02	04/19/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.28	0.2	04/14/17	KB	SM4500-Norg B-C
Turbidity	NTU	BRL	1.0	04/10/17	LL	SM 2130 B
Chloride	mg/L	167	3.0	04/11/17	LL	EPA 300.0
Total Phosphorous (P)	mg/L	0.020	0.005	04/14/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.27	0.20	04/14/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	1.2*	0.50	04/19/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.33	NA	05/29/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.13	NA	05/29/17	MC	Calculation
Ortho Phosphorous (P)	mg/L	BRL	0.005	04/11/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	0.1	NA	05/29/17	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.01	NA	05/29/17	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.46	NA	04/21/17	KB	Calculation

BRL=below reportable limits

*see attached

By:


Ronald J. Saari
Laboratory Director

LABORATORY REPORT

Envirotech Laboratories, Inc.
Attn: Mr. Ron Saari
8 Jan Sebastian Drive
Sandwich, MA 02563

Date Received: 4/12/2017
Date Reported: 4/24/2017
P.O. Number

Work Order #: 1704-07589

Project Name: PLYMOUTH ENV.

Enclosed are the analytical results and Chain of Custody for your project referenced above. The sample(s) were analyzed by our Warwick, RI laboratory unless noted otherwise. When applicable, indication of sample analysis at our Hudson, MA laboratory and/or subcontracted results are noted and subcontracted reports are enclosed in their entirety.

All samples were analyzed within the established guidelines of US EPA approved methods with all requirements met, unless otherwise noted at the end of a given sample's analytical results or in a case narrative.

The Detection Limit is defined as the lowest level that can be reliably achieved during routine laboratory conditions.

These results only pertain to the samples submitted for this Work Order # and this report shall not be reproduced except in its entirety.

We certify that the following results are true and accurate to the best of our knowledge. If you have questions or need further assistance, please contact our Customer Service Department.

Approved by:



Yihai Ding
Technical Director

Laboratory Certification Numbers (as applicable to sample's origin state):

Warwick RI * RI LAI00033, MA M-RI015, CT PH-0508, ME RI00015, NH 2070, NY 11726
Hudson MA * M-MA1117, RI LAO00319

R.I. Analytical Laboratories, Inc.

Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1704-07589

Project Name: PLYMOUTH ENV.

Sample Number: 001
Sample Description: WW-170605 A13
Sample Type : GRAB
Sample Date / Time : 4/10/2017 @ 10:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED		ANALYST
Ammonia (as N)	0.14	0.02	mg/l	SM4500NH3-B,H 18-21ed	4/19/2017	11:54	KLE
TOC Low Level	1.3	0.5	mg/l	SM5310B 18-21ed	4/19/2017	17:00	TAS
Dissolved TOC	1.2	0.5	mg/l	EPA 415.1	4/19/2017	17:00	TAS
Volatile Organic Compounds							
Benzene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:27	WL
Bromobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:27	WL
Bromochloromethane	<1	1	ug/l	SW-846 8260C	4/15/2017	2:27	WL
Bromodichloromethane	<1	1	ug/l	SW-846 8260C	4/15/2017	2:27	WL
Bromoform	<1	1	ug/l	SW-846 8260C	4/15/2017	2:27	WL
Bromomethane	<5	5	ug/l	SW-846 8260C	4/15/2017	2:27	WL
n-Butylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:27	WL
Sec-butylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:27	WL
tert-Butylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:27	WL
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260C	4/15/2017	2:27	WL
Chlorobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:27	WL
Chloroethane	<5	5	ug/l	SW-846 8260C	4/15/2017	2:27	WL
Chloroform	<1	1	ug/l	SW-846 8260C	4/15/2017	2:27	WL
Chloromethane	<5	5	ug/l	SW-846 8260C	4/15/2017	2:27	WL
2-Chlorotoluene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:27	WL
4-Chlorotoluene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:27	WL
Dibromochloromethane	<1	1	ug/l	SW-846 8260C	4/15/2017	2:27	WL
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260C	4/15/2017	2:27	WL
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260C	4/15/2017	2:27	WL
Dibromomethane	<2	2	ug/l	SW-846 8260C	4/15/2017	2:27	WL
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:27	WL
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:27	WL
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:27	WL
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260C	4/15/2017	2:27	WL
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260C	4/15/2017	2:27	WL
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260C	4/15/2017	2:27	WL
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:27	WL
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:27	WL
trans-1,2-Dichloroethylene	<2	2	ug/l	SW-846 8260C	4/15/2017	2:27	WL
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260C	4/15/2017	2:27	WL
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260C	4/15/2017	2:27	WL
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260C	4/15/2017	2:27	WL
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:27	WL
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260C	4/15/2017	2:27	WL
Ethylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:27	WL
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:27	WL

R.I. Analytical Laboratories, Inc.

Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1704-07589

Project Name: PLYMOUTH ENV.

Sample Number: 001
Sample Description: WW-170605 A13
Sample Type : GRAB
Sample Date / Time : 4/10/2017 @ 10:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED		ANALYST
Isopropylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:27	WL
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:27	WL
Methylene Chloride	<5	5	ug/l	SW-846 8260C	4/15/2017	2:27	WL
Naphthalene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:27	WL
n-Propylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:27	WL
Styrene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:27	WL
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260C	4/15/2017	2:27	WL
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260C	4/15/2017	2:27	WL
Tetrachloroethene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:27	WL
Toluene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:27	WL
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:27	WL
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:27	WL
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260C	4/15/2017	2:27	WL
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260C	4/15/2017	2:27	WL
Trichloroethene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:27	WL
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260C	4/15/2017	2:27	WL
1,2,3-Trichloropropane	<2	2	ug/l	SW-846 8260C	4/15/2017	2:27	WL
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:27	WL
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:27	WL
Vinyl Chloride	<1	1	ug/l	SW-846 8260C	4/15/2017	2:27	WL
o-Xylene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:27	WL
m,p-Xylene	<2	2	ug/l	SW-846 8260C	4/15/2017	2:27	WL
MTBE	<2	2	ug/l	SW-846 8260C	4/15/2017	2:27	WL
Carbon Disulfide	<5	5	ug/l	SW-846 8260C	4/15/2017	2:27	WL
Acetone	<10	10	ug/l	SW-846 8260C	4/15/2017	2:27	WL
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260C	4/15/2017	2:27	WL
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260C	4/15/2017	2:27	WL
2-Hexanone	<10	10	ug/l	SW-846 8260C	4/15/2017	2:27	WL
cis-1,3-Dichloropropene	<0.4	0.4	ug/l	SW-846 8260C	4/15/2017	2:27	WL
trans-1,3-Dichloropropylene	<0.4	0.4	ug/l	SW-846 8260C	4/15/2017	2:27	WL
Vinyl Acetate	<50	50	ug/l	SW-846 8260C	4/15/2017	2:27	WL
Surrogates			RANGE				
Dibromofluoromethane	103		86-118%	SW-846 8260C	4/15/2017	2:27	WL
Toluene-d8	97		88-110%	SW-846 8260C	4/15/2017	2:27	WL
4-Bromofluorobenzene	101		86-115%	SW-846 8260C	4/15/2017	2:27	WL
1,2 Dichloroethane-d4	100		80-120%	SW-846 8260C	4/15/2017	2:27	WL
Total Metals							
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	4/17/2017	21:13	RAT
Mercury Digestion				EPA 245.1	4/17/2017	20:28	NS

ENVIROTECH LABORATORIES, INC.
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Monday, May 29, 2017

Plymouth Environmental Management
K. Towers/ 11 Lincoln St.
Plymouth, MA

ProjectName: GW Eel River

Comments:

Project Number:

Collection Date: 04/10/17 **Collection Time:** 12:10

Sampled By: Kim Tower

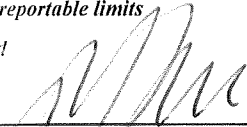
Lab Order Number: WW-170606

Date Received: 04/10/17

Sample Type	Sample Time	Sample Date	Comments			
A17 A	12:10	04/10/17	A17			
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
pH	pH units	5.36	NA	04/10/17	LL	SM 4500 H-B
Total Dissolved Solids	mg/L	274	6.0	04/12/17	KB	SM 2540 C
Specific Conductance	uhoms/cm	376	10	04/10/17	LL	EPA 120.1
Total Organic Carbon*	mg/L	<0.5*	0.5	04/19/17	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	04/15/17	RIA*	*
Total Iron	mg/L	0.42	0.01	04/26/17	MC	EPA 200.7
Mercury*	mg/L	<0.0005*	0.0005	04/17/17	RIA*	EPA 245.1
Boron	mg/L	BRL	0.010	04/26/17	MC	EPA 200.7
Copper	mg/L	BRL	0.003	04/26/17	MC	EPA 200.7
Nitrate-N	mg/L	2.46	0.01	04/11/17	LL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	04/11/17	LL	EPA 300.0
Ammonia-N *	mg/L	0.048*	0.02	04/19/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	BRL	0.2	04/14/17	KB	SM4500-Norg B-C
Turbidity	NTU	BRL	1.0	04/10/17	LL	SM 2130 B
Chloride	mg/L	124	3.0	04/11/17	LL	EPA 300.0
Total Phosphorous (P)	mg/L	0.009	0.005	04/14/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.20	04/14/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	<0.5*	0.50	04/19/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	2.51	NA	05/29/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	<0.15	NA	05/29/17	MC	Calculation
Ortho Phosphorous (P)	mg/L	BRL	0.005	04/11/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	ND	NA	05/29/17	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	ND	NA	05/29/17	RIA*	Calculation
Total Dissolved Nitrogen	mg/L	2.46	NA	04/21/17	KB	Calculation

BRL=below reportable limits

*see attached

By: 

Ronald J. Sagri
Laboratory Director

R.I. Analytical Laboratories, Inc.

Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1704-07589

Project Name: PLYMOUTH ENV.

Sample Number: 002
Sample Description: WW-170606 A17
Sample Type : GRAB
Sample Date / Time : 4/10/2017 @ 12:10

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED		ANALYST
Ammonia (as N)	0.048	0.02	mg/l	SM4500NH3-B,H 18-21ed	4/19/2017	11:54	KLE
TOC Low Level	<0.5	0.5	mg/l	SM5310B 18-21ed	4/19/2017	17:00	TAS
Dissolved TOC	<0.5	0.5	mg/l	EPA 415.1	4/19/2017	17:00	TAS
Volatile Organic Compounds							
Benzene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:56	WL
Bromobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:56	WL
Bromochloromethane	<1	1	ug/l	SW-846 8260C	4/15/2017	2:56	WL
Bromodichloromethane	<1	1	ug/l	SW-846 8260C	4/15/2017	2:56	WL
Bromoform	<1	1	ug/l	SW-846 8260C	4/15/2017	2:56	WL
Bromomethane	<5	5	ug/l	SW-846 8260C	4/15/2017	2:56	WL
n-Butylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:56	WL
Sec-butylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:56	WL
tert-Butylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:56	WL
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260C	4/15/2017	2:56	WL
Chlorobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:56	WL
Chloroethane	<5	5	ug/l	SW-846 8260C	4/15/2017	2:56	WL
Chloroform	<1	1	ug/l	SW-846 8260C	4/15/2017	2:56	WL
Chloromethane	<5	5	ug/l	SW-846 8260C	4/15/2017	2:56	WL
2-Chlorotoluene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:56	WL
4-Chlorotoluene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:56	WL
Dibromochloromethane	<1	1	ug/l	SW-846 8260C	4/15/2017	2:56	WL
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260C	4/15/2017	2:56	WL
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260C	4/15/2017	2:56	WL
Dibromomethane	<2	2	ug/l	SW-846 8260C	4/15/2017	2:56	WL
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:56	WL
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:56	WL
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:56	WL
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260C	4/15/2017	2:56	WL
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260C	4/15/2017	2:56	WL
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260C	4/15/2017	2:56	WL
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:56	WL
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:56	WL
trans-1,2-Dichloroethylene	<2	2	ug/l	SW-846 8260C	4/15/2017	2:56	WL
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260C	4/15/2017	2:56	WL
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260C	4/15/2017	2:56	WL
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260C	4/15/2017	2:56	WL
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:56	WL
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260C	4/15/2017	2:56	WL
Ethylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:56	WL
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:56	WL

R.I. Analytical Laboratories, Inc.

Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1704-07589

Project Name: PLYMOUTH ENV.

Sample Number: 002
Sample Description: WW-170606 A17
Sample Type : GRAB
Sample Date / Time : 4/10/2017 @ 12:10

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED		ANALYST
Isopropylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:56	WL
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:56	WL
Methylene Chloride	<5	5	ug/l	SW-846 8260C	4/15/2017	2:56	WL
Naphthalene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:56	WL
n-Propylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:56	WL
Styrene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:56	WL
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260C	4/15/2017	2:56	WL
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260C	4/15/2017	2:56	WL
Tetrachloroethene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:56	WL
Toluene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:56	WL
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:56	WL
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:56	WL
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260C	4/15/2017	2:56	WL
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260C	4/15/2017	2:56	WL
Trichloroethene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:56	WL
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260C	4/15/2017	2:56	WL
1,2,3-Trichloropropane	<2	2	ug/l	SW-846 8260C	4/15/2017	2:56	WL
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:56	WL
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:56	WL
Vinyl Chloride	<1	1	ug/l	SW-846 8260C	4/15/2017	2:56	WL
o-Xylene	<1	1	ug/l	SW-846 8260C	4/15/2017	2:56	WL
m,p-Xylene	<2	2	ug/l	SW-846 8260C	4/15/2017	2:56	WL
MTBE	<2	2	ug/l	SW-846 8260C	4/15/2017	2:56	WL
Carbon Disulfide	<5	5	ug/l	SW-846 8260C	4/15/2017	2:56	WL
Acetone	<10	10	ug/l	SW-846 8260C	4/15/2017	2:56	WL
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260C	4/15/2017	2:56	WL
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260C	4/15/2017	2:56	WL
2-Hexanone	<10	10	ug/l	SW-846 8260C	4/15/2017	2:56	WL
cis-1,3-Dichloropropene	<0.4	0.4	ug/l	SW-846 8260C	4/15/2017	2:56	WL
trans-1,3-Dichloropropylene	<0.4	0.4	ug/l	SW-846 8260C	4/15/2017	2:56	WL
Vinyl Acetate	<50	50	ug/l	SW-846 8260C	4/15/2017	2:56	WL
Surrogates			RANGE				
Dibromofluoromethane	102		86-118%	SW-846 8260C	4/15/2017	2:56	WL
Toluene-d8	97		88-110%	SW-846 8260C	4/15/2017	2:56	WL
4-Bromofluorobenzene	102		86-115%	SW-846 8260C	4/15/2017	2:56	WL
1,2 Dichloroethane-d4	99		80-120%	SW-846 8260C	4/15/2017	2:56	WL
Total Metals							
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	4/17/2017	21:14	RAT
Mercury Digestion				EPA 245.1	4/17/2017	20:28	NS

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of Custody

Client:

Town of Plymouth - Department of Marine & Environmental Affairs Attn: Kim Tower
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, ktower@townhall.plymouth.ma.us
Project Name: **GW Eel River - Plymouth MA**
Sampler: **Kim Tower (KT)**

WW-170605

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
4/10/17	1000	A13	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN - Total Nitrogen	H2SO4
			1	500ml Plastic	Ph/cond, turb, NO ₂ , NO ₃	NONE
			1	500ml Plastic	B, Cu, Hg, NO ₃ , NO ₂ , Ch, TDS, FE	NONE
			1	Plastic	TOC	H2SO4
			1	Glass	Ortho-phosphate	NONE
4/10/17	1210	A17	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN - Total Nitrogen	H2SO4
			1	500ml Plastic	Ph/cond, turb, NO ₂ , NO ₃	NONE
			1	500ml Plastic	B, Cu, Hg, NO ₃ , NO ₂ , Ch, TDS, FE	NONE
			1	Plastic	TOC	H2SO4
			1	Glass	Ortho-phosphate	NONE

WW-170605A
WW-170606

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Boron, Chloride, Copper, Iron, Mercury, VOC

Relinquished By: Date/Time

Kim Tower

Received By: Date/Time:

Plawaly 04/10/17 1430

ENVIROTECH LABORATORIES, INC.**MA CERT. NO.: M-MA 063**

**8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446**

Monday, May 29, 2017

Plymouth Environmental Management

K. Towers/ 11 Lincoln St.

Plymouth, MA

ProjectName: GW Eel River

Comments:

Project Number:

Collection Date: 04/10/17 **Collection Time:** 13:00

Sampled By: KimTower

Lab Order Number: WW-170607

Date Received: 04/10/17

Sample Type	Sample Time	Sample Date	Comments			
2SR A	13:00	04/10/17	2SR			
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
pH	pH units	5.36	NA	04/10/17	LL	SM 4500 H-B
Total Dissolved Solids	mg/L	47	6.0	04/12/17	KB	SM 2540 C
Specific Conductance	uhoms/cm	74	10	04/10/17	LL	EPA 120.1
Total Organic Carbon*	mg/L	0.70*	0.5	04/19/17	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	04/15/17	RIA*	*
Total Iron	mg/L	0.07	0.01	04/26/17	MC	EPA 200.7
Mercury*	mg/L	<0.0005*	0.0005	04/17/17	RIA*	EPA 245.1
Boron	mg/L	BRL	0.010	04/26/17	MC	EPA 200.7
Copper	mg/L	BRL	0.003	04/26/17	MC	EPA 200.7
Nitrate-N	mg/L	1.27	0.01	04/11/17	LL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	04/11/17	LL	EPA 300.0
Ammonia-N *	mg/L	0.051*	0.02	04/19/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	BRL	0.2	04/14/17	KB	SM4500-Norg B-C
Turbidity	NTU	BRL	1.0	04/10/17	LL	SM 2130 B
Chloride	mg/L	15.8	3.0	04/11/17	LL	EPA 300.0
Total Phosphorous (P)	mg/L	BRL	0.005	04/14/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.20	04/14/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	0.60*	0.50	04/19/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	1.32	NA	05/29/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	<0.15	NA	05/29/17	MC	Calculation
Ortho Phosphorous (P)	mg/L	BRL	0.005	04/11/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	0.1	NA	05/29/17	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	ND	NA	05/29/17	RIA*	Calculation
Total Dissolved Nitrogen	mg/L	1.27	NA	04/21/17	KB	Calculation

BRL=below reportable limits

**see attached*

By: 

Ronald J. Saari
Laboratory Director

R.I. Analytical Laboratories, Inc.

Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1704-07589

Project Name: PLYMOUTH ENV.

Sample Number: 003
Sample Description: WW-170607 2SR
Sample Type : GRAB
Sample Date / Time : 4/10/2017 @ 13:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED		ANALYST
Ammonia (as N)	0.051	0.02	mg/l	SM4500NH3-B,H 18-21ed	4/19/2017	11:54	KLE
TOC Low Level	0.70	0.5	mg/l	SM5310B 18-21ed	4/19/2017	17:00	TAS
Dissolved TOC	0.60	0.5	mg/l	EPA 415.1	4/19/2017	17:00	TAS
Volatile Organic Compounds							
Benzene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:25	WL
Bromobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:25	WL
Bromochloromethane	<1	1	ug/l	SW-846 8260C	4/15/2017	3:25	WL
Bromodichloromethane	<1	1	ug/l	SW-846 8260C	4/15/2017	3:25	WL
Bromoform	<1	1	ug/l	SW-846 8260C	4/15/2017	3:25	WL
Bromomethane	<5	5	ug/l	SW-846 8260C	4/15/2017	3:25	WL
n-Butylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:25	WL
Sec-butylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:25	WL
tert-Butylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:25	WL
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260C	4/15/2017	3:25	WL
Chlorobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:25	WL
Chloroethane	<5	5	ug/l	SW-846 8260C	4/15/2017	3:25	WL
Chloroform	<1	1	ug/l	SW-846 8260C	4/15/2017	3:25	WL
Chloromethane	<5	5	ug/l	SW-846 8260C	4/15/2017	3:25	WL
2-Chlorotoluene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:25	WL
4-Chlorotoluene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:25	WL
Dibromochloromethane	<1	1	ug/l	SW-846 8260C	4/15/2017	3:25	WL
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260C	4/15/2017	3:25	WL
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260C	4/15/2017	3:25	WL
Dibromomethane	<2	2	ug/l	SW-846 8260C	4/15/2017	3:25	WL
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:25	WL
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:25	WL
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:25	WL
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260C	4/15/2017	3:25	WL
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260C	4/15/2017	3:25	WL
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260C	4/15/2017	3:25	WL
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:25	WL
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:25	WL
trans-1,2-Dichloroethylene	<2	2	ug/l	SW-846 8260C	4/15/2017	3:25	WL
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260C	4/15/2017	3:25	WL
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260C	4/15/2017	3:25	WL
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260C	4/15/2017	3:25	WL
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:25	WL
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260C	4/15/2017	3:25	WL
Ethylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:25	WL
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:25	WL

R.I. Analytical Laboratories, Inc.

Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1704-07589

Project Name: PLYMOUTH ENV.

Sample Number: 003
Sample Description: WW-170607 2SR
Sample Type : GRAB
Sample Date / Time : 4/10/2017 @ 13:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED		ANALYST
Isopropylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:25	WL
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:25	WL
Methylene Chloride	<5	5	ug/l	SW-846 8260C	4/15/2017	3:25	WL
Naphthalene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:25	WL
n-Propylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:25	WL
Styrene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:25	WL
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260C	4/15/2017	3:25	WL
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260C	4/15/2017	3:25	WL
Tetrachloroethene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:25	WL
Toluene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:25	WL
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:25	WL
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:25	WL
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260C	4/15/2017	3:25	WL
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260C	4/15/2017	3:25	WL
Trichloroethene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:25	WL
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260C	4/15/2017	3:25	WL
1,2,3-Trichloropropane	<2	2	ug/l	SW-846 8260C	4/15/2017	3:25	WL
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:25	WL
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:25	WL
Vinyl Chloride	<1	1	ug/l	SW-846 8260C	4/15/2017	3:25	WL
o-Xylene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:25	WL
m,p-Xylene	<2	2	ug/l	SW-846 8260C	4/15/2017	3:25	WL
MTBE	<2	2	ug/l	SW-846 8260C	4/15/2017	3:25	WL
Carbon Disulfide	<5	5	ug/l	SW-846 8260C	4/15/2017	3:25	WL
Acetone	<10	10	ug/l	SW-846 8260C	4/15/2017	3:25	WL
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260C	4/15/2017	3:25	WL
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260C	4/15/2017	3:25	WL
2-Hexanone	<10	10	ug/l	SW-846 8260C	4/15/2017	3:25	WL
cis-1,3-Dichloropropene	<0.4	0.4	ug/l	SW-846 8260C	4/15/2017	3:25	WL
trans-1,3-Dichloropropylene	<0.4	0.4	ug/l	SW-846 8260C	4/15/2017	3:25	WL
Vinyl Acetate	<50	50	ug/l	SW-846 8260C	4/15/2017	3:25	WL
Surrogates			RANGE				
Dibromofluoromethane	104		86-118%	SW-846 8260C	4/15/2017	3:25	WL
Toluene-d8	97		88-110%	SW-846 8260C	4/15/2017	3:25	WL
4-Bromofluorobenzene	101		86-115%	SW-846 8260C	4/15/2017	3:25	WL
1,2 Dichloroethane-d4	102		80-120%	SW-846 8260C	4/15/2017	3:25	WL
Total Metals							
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	4/17/2017	21:18	RAT
Mercury Digestion				EPA 245.1	4/17/2017	20:28	NS

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
 Sandwich, MA 02563
 (508)888-6460 1-800-339-6460
 FAX (508)888-6446

Monday, May 29, 2017

Plymouth Environmental Management
 K.Towers/ 11 Lincoln St.
 Plymouth, MA

ProjectName: GW Eel River

Comments:

Project Number:

Collection Date: 04/10/17 **Collection Time:** 13:40

Sampled By: Kim Tower

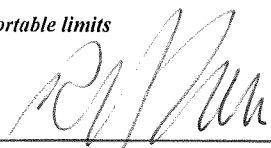
Lab Order Number: WW-170608

Date Received: 04/10/17

Sample Type	Sample Time	Sample Date	Comments			
2D2 A	13:40	04/10/17	2D2			
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
pH	pH units	5.69	NA	04/10/17	LL	SM 4500 H-B
Total Dissolved Solids	mg/L	129	6.0	04/12/17	KB	SM 2540 C
Specific Conductance	uhoms/cm	212	10	04/10/17	LL	EPA 120.1
Total Organic Carbon*	mg/L	1.1*	0.5	04/19/17	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	04/15/17	RIA*	*
Total Iron	mg/L	6.45	0.01	04/26/17	MC	EPA 200.7
Mercury*	mg/L	<0.0005*	0.0005	04/17/17	RIA*	EPA 245.1
Boron	mg/L	BRL	0.010	04/26/17	MC	EPA 200.7
Copper	mg/L	BRL	0.003	04/26/17	MC	EPA 200.7
Nitrate-N	mg/L	BRL	0.01	04/11/17	LL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	04/11/17	LL	EPA 300.0
Ammonia-N *	mg/L	0.092*	0.02	04/19/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	BRL	0.2	04/14/17	KB	SM4500-Norg B-C
Turbidity	NTU	BRL	1.0	04/10/17	LL	SM 2130 B
Chloride	mg/L	66.0	3.0	04/11/17	LL	EPA 300.0
Total Phosphorous (P)	mg/L	0.044	0.005	04/14/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.20	04/14/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	0.94*	0.50	04/19/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.092	NA	05/29/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	<0.11	NA	05/29/17	MC	Calculation
Ortho Phosphorous (P)	mg/L	BRL	0.005	04/11/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	0.2	NA	05/29/17	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	ND	NA	05/29/17	RIA*	Calculation
Total Dissolved Nitrogen	mg/L	<0.22	NA	04/21/17	KB	Calculation

BRL=below reportable limits

*see attached

By: 
 Ronald J. Saari
 Laboratory Director

R.I. Analytical Laboratories, Inc.

Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1704-07589

Project Name: PLYMOUTH ENV.

Sample Number: 004
Sample Description: WW-170608 2DR
Sample Type : GRAB
Sample Date / Time : 4/10/2017 @ 13:40

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED		ANALYST
Ammonia (as N)	0.092	0.02	mg/l	SM4500NH3-B,H 18-21ed	4/19/2017	11:54	KLE
TOC Low Level	1.1	0.5	mg/l	SM5310B 18-21ed	4/19/2017	17:00	TAS
Dissolved TOC	0.94	0.5	mg/l	EPA 415.1	4/19/2017	17:00	TAS
Volatile Organic Compounds							
Benzene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:53	WL
Bromobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:53	WL
Bromochloromethane	<1	1	ug/l	SW-846 8260C	4/15/2017	3:53	WL
Bromodichloromethane	<1	1	ug/l	SW-846 8260C	4/15/2017	3:53	WL
Bromoform	<1	1	ug/l	SW-846 8260C	4/15/2017	3:53	WL
Bromomethane	<5	5	ug/l	SW-846 8260C	4/15/2017	3:53	WL
n-Butylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:53	WL
Sec-butylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:53	WL
tert-Butylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:53	WL
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260C	4/15/2017	3:53	WL
Chlorobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:53	WL
Chloroethane	<5	5	ug/l	SW-846 8260C	4/15/2017	3:53	WL
Chloroform	<1	1	ug/l	SW-846 8260C	4/15/2017	3:53	WL
Chloromethane	<5	5	ug/l	SW-846 8260C	4/15/2017	3:53	WL
2-Chlorotoluene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:53	WL
4-Chlorotoluene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:53	WL
Dibromochloromethane	<1	1	ug/l	SW-846 8260C	4/15/2017	3:53	WL
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260C	4/15/2017	3:53	WL
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260C	4/15/2017	3:53	WL
Dibromomethane	<2	2	ug/l	SW-846 8260C	4/15/2017	3:53	WL
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:53	WL
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:53	WL
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:53	WL
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260C	4/15/2017	3:53	WL
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260C	4/15/2017	3:53	WL
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260C	4/15/2017	3:53	WL
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:53	WL
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:53	WL
trans-1,2-Dichloroethylene	<2	2	ug/l	SW-846 8260C	4/15/2017	3:53	WL
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260C	4/15/2017	3:53	WL
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260C	4/15/2017	3:53	WL
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260C	4/15/2017	3:53	WL
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:53	WL
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260C	4/15/2017	3:53	WL
Ethylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:53	WL
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:53	WL

R.I. Analytical Laboratories, Inc.

Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1704-07589

Project Name: PLYMOUTH ENV.

Sample Number: 004
Sample Description: WW-170608 2DR
Sample Type : GRAB
Sample Date / Time : 4/10/2017 @ 13:40

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED		ANALYST
Isopropylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:53	WL
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:53	WL
Methylene Chloride	<5	5	ug/l	SW-846 8260C	4/15/2017	3:53	WL
Naphthalene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:53	WL
n-Propylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:53	WL
Styrene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:53	WL
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260C	4/15/2017	3:53	WL
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260C	4/15/2017	3:53	WL
Tetrachloroethene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:53	WL
Toluene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:53	WL
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:53	WL
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:53	WL
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260C	4/15/2017	3:53	WL
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260C	4/15/2017	3:53	WL
Trichloroethene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:53	WL
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260C	4/15/2017	3:53	WL
1,2,3-Trichloropropane	<2	2	ug/l	SW-846 8260C	4/15/2017	3:53	WL
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:53	WL
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:53	WL
Vinyl Chloride	<1	1	ug/l	SW-846 8260C	4/15/2017	3:53	WL
o-Xylene	<1	1	ug/l	SW-846 8260C	4/15/2017	3:53	WL
m,p-Xylene	<2	2	ug/l	SW-846 8260C	4/15/2017	3:53	WL
MTBE	<2	2	ug/l	SW-846 8260C	4/15/2017	3:53	WL
Carbon Disulfide	<5	5	ug/l	SW-846 8260C	4/15/2017	3:53	WL
Acetone	<10	10	ug/l	SW-846 8260C	4/15/2017	3:53	WL
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260C	4/15/2017	3:53	WL
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260C	4/15/2017	3:53	WL
2-Hexanone	<10	10	ug/l	SW-846 8260C	4/15/2017	3:53	WL
cis-1,3-Dichloropropene	<0.4	0.4	ug/l	SW-846 8260C	4/15/2017	3:53	WL
trans-1,3-Dichloropropylene	<0.4	0.4	ug/l	SW-846 8260C	4/15/2017	3:53	WL
Vinyl Acetate	<50	50	ug/l	SW-846 8260C	4/15/2017	3:53	WL
Surrogates			RANGE				
Dibromofluoromethane	102		86-118%	SW-846 8260C	4/15/2017	3:53	WL
Toluene-d8	97		88-110%	SW-846 8260C	4/15/2017	3:53	WL
4-Bromofluorobenzene	101		86-115%	SW-846 8260C	4/15/2017	3:53	WL
1,2 Dichloroethane-d4	101		80-120%	SW-846 8260C	4/15/2017	3:53	WL
Total Metals							
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	4/17/2017	21:21	RAT
Mercury Digestion				EPA 245.1	4/17/2017	20:28	NS

R.I. Analytical Laboratories, Inc.

Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1704-07589

Project Name: PLYMOUTH ENV.

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of Custody

Client:

Town of Plymouth - Department of Marine & Environmental Affairs Attn: Kim Tower
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, ktower@townhall.plymouth.ma.us
Project Name: **GW Eel River - Plymouth MA**
Sampler: **Kim Tower (KT)**

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
4/10/17	1300	252	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN - Total Nitrogen	H2SO4
			1	500ml Plastic	Ph/cond, turb, NO ₂ , NO ₃	NONE
			1	500ml Plastic	B, Cu, Hg, NO ₃ , NO ₂ , Ch, TDS, FE	NONE
			1	Plastic	TOC	H2SO4
			1	Glass	Ortho-phosphate	NONE
4/10/17	1340	252	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN - Total Nitrogen	H2SO4
			1	500ml Plastic	Ph/cond, turb, NO ₂ , NO ₃	NONE
			1	500ml Plastic	B, Cu, Hg, NO ₃ , NO ₂ , Ch, TDS, FE	NONE
			1	Plastic	TOC	H2SO4
			1	Glass	Ortho-phosphate	NONE

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Boron, Chloride, Copper, Iron, Mercury, VOC

Relinquished By: Date/Time

Kim Tower

Received By: Date/Time:

Blawie 04/10/17 1430

ENVIROTECH LABS, INC.

RI Analytical

MRI 015

Address 41 Illinois Avenue

Warwick, RI 02888

Phone# 401-737-8500

Fax# 401-738-1970

Analysis requested

Ammonia-N (0.02 mdl)

TOC total low detection

TOC dissolved

Mercury

EPA 8260 Extended

Ammonia-N (0.02 mdl)

TOC total low detection

TOC dissolved

Mercury

EPA 8260 Extended

Ammonia-N (0.02 mdl)

TOC total low detection

TOC dissolved

Mercury

EPA 8260 Extended

Ammonia-N low level 0.02 mg/L

Total TOC low level 0.5 mg/L

dissolved TOC low level 0.5 mg/L

Relinquished:

Received: 

Date/Time	4/12/17	1645
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J. Garfield

Relinquished:

Received:

4/13/17 19842



TOC dissolved samples are filtered

Contact lab with any exceeded MCL

PV#07582 Page 1 of 2 1704-67589

Page 1 of 2

ENVIROTECH LABORATORIES, INC.**MA CERT. NO.: M-MA 063**

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Monday, July 17, 2017

Plymouth Environmental Management

K. Towers/ 11 Lincoln St.

Plymouth, MA

ProjectName: GW Eel River**Comments:****Project Number:** A15**Collection Date:** 04/11/17 **Collection Time:** 09:45**Sampled By:** Kim Tower**Lab Order Number:** WW-170616**Date Received:** 04/11/17

Sample Type	Sample Time	Sample Date	Comments			
A15 A	09:45	04/11/17	A15			
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
pH	pH units	6.05	NA	04/11/17	LL	SM 4500 H-B
Total Dissolved Solids	mg/L	139	6.0	04/12/17	KB	SM 2540 C
Specific Conductance	uhoms/cm	200	10	04/11/17	LL	EPA 120.1
Total Organic Carbon*	mg/L	0.52*	0.5	04/19/17	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	04/15/17	RIA*	*
Total Iron	mg/L	0.04	0.01	04/26/17	MC	EPA 200.7
Mercury*	mg/L	<0.0005*	0.0005	04/14/17	RIA*	EPA 245.1
Boron	mg/L	BRL	0.010	04/26/17	MC	EPA 200.7
Copper	mg/L	BRL	0.003	04/26/17	MC	EPA 200.7
Nitrate-N	mg/L	2.83	0.01	04/11/17	LL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	04/11/17	LL	EPA 300.0
Ammonia-N *	mg/L	0.036*	0.02	04/19/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	BRL	0.2	04/14/17	KB	SM4500-Norg B-C
Turbidity	NTU	1.4	1.0	04/11/17	LL	SM 2130 B
Chloride	mg/L	48.2	3.0	04/11/17	LL	EPA 300.0
Total Phosphorous (P)	mg/L	0.033	0.005	04/14/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.20	04/14/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	0.51*	0.50	06/09/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	2.87	NA	06/19/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	<0.2	NA	06/19/17	MC	Calculation
Ortho Phosphorous (P)	mg/L	BRL	0.005	04/11/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	0.01	NA	07/16/17	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	ND	NA	07/16/17	RIA*	Calculation
Total Dissolved Nitrogen	mg/L	2.8	NA	06/19/17	KB	Calculation

BRL=below reportable limits

*see attached

By:

Ronald J. Sauri

Laboratory Director

R.I. Analytical Laboratories, Inc.

Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1704-07584

Project Name: PLYMOUTH ENV.

Sample Number: 001
Sample Description: WW-170616 A15
Sample Type : GRAB
Sample Date / Time : 4/11/2017 @ 09:45

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED		ANALYST
Ammonia (as N)	0.036	0.02	mg/l	SM4500NH3-B,H 18-21ed	4/19/2017	11:54	KLE
TOC Low Level	0.52	0.5	mg/l	SM5310B 18-21ed	4/19/2017	17:00	TAS
Volatile Organic Compounds							
Benzene	<1	1	ug/l	SW-846 8260C	4/15/2017	12:33	WL
Bromobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	12:33	WL
Bromochloromethane	<1	1	ug/l	SW-846 8260C	4/15/2017	12:33	WL
Bromodichloromethane	<1	1	ug/l	SW-846 8260C	4/15/2017	12:33	WL
Bromoform	<1	1	ug/l	SW-846 8260C	4/15/2017	12:33	WL
Bromomethane	<5	5	ug/l	SW-846 8260C	4/15/2017	12:33	WL
n-Butylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	12:33	WL
Sec-butylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	12:33	WL
tert-Butylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	12:33	WL
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260C	4/15/2017	12:33	WL
Chlorobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	12:33	WL
Chloroethane	<5	5	ug/l	SW-846 8260C	4/15/2017	12:33	WL
Chloroform	<1	1	ug/l	SW-846 8260C	4/15/2017	12:33	WL
Chloromethane	<5	5	ug/l	SW-846 8260C	4/15/2017	12:33	WL
2-Chlorotoluene	<1	1	ug/l	SW-846 8260C	4/15/2017	12:33	WL
4-Chlorotoluene	<1	1	ug/l	SW-846 8260C	4/15/2017	12:33	WL
Dibromochloromethane	<1	1	ug/l	SW-846 8260C	4/15/2017	12:33	WL
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260C	4/15/2017	12:33	WL
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260C	4/15/2017	12:33	WL
Dibromomethane	<2	2	ug/l	SW-846 8260C	4/15/2017	12:33	WL
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	12:33	WL
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	12:33	WL
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	12:33	WL
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260C	4/15/2017	12:33	WL
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260C	4/15/2017	12:33	WL
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260C	4/15/2017	12:33	WL
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260C	4/15/2017	12:33	WL
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260C	4/15/2017	12:33	WL
trans-1,2-Dichloroethylene	<2	2	ug/l	SW-846 8260C	4/15/2017	12:33	WL
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260C	4/15/2017	12:33	WL
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260C	4/15/2017	12:33	WL
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260C	4/15/2017	12:33	WL
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260C	4/15/2017	12:33	WL
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260C	4/15/2017	12:33	WL
Ethylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	12:33	WL
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260C	4/15/2017	12:33	WL
Isopropylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	12:33	WL

R.I. Analytical Laboratories, Inc.

Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1704-07584

Project Name: PLYMOUTH ENV.

Sample Number: 001
Sample Description: WW-170616 A15
Sample Type : GRAB
Sample Date / Time : 4/11/2017 @ 09:45

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED		ANALYST
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260C	4/15/2017	12:33	WL
Methylene Chloride	<5	5	ug/l	SW-846 8260C	4/15/2017	12:33	WL
Naphthalene	<1	1	ug/l	SW-846 8260C	4/15/2017	12:33	WL
n-Propylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	12:33	WL
Styrene	<1	1	ug/l	SW-846 8260C	4/15/2017	12:33	WL
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260C	4/15/2017	12:33	WL
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260C	4/15/2017	12:33	WL
Tetrachloroethene	<1	1	ug/l	SW-846 8260C	4/15/2017	12:33	WL
Toluene	<1	1	ug/l	SW-846 8260C	4/15/2017	12:33	WL
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	12:33	WL
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	12:33	WL
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260C	4/15/2017	12:33	WL
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260C	4/15/2017	12:33	WL
Trichloroethene	<1	1	ug/l	SW-846 8260C	4/15/2017	12:33	WL
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260C	4/15/2017	12:33	WL
1,2,3-Trichloropropane	<2	2	ug/l	SW-846 8260C	4/15/2017	12:33	WL
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	12:33	WL
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	12:33	WL
Vinyl Chloride	<1	1	ug/l	SW-846 8260C	4/15/2017	12:33	WL
o-Xylene	<1	1	ug/l	SW-846 8260C	4/15/2017	12:33	WL
m,p-Xylene	<2	2	ug/l	SW-846 8260C	4/15/2017	12:33	WL
MTBE	<2	2	ug/l	SW-846 8260C	4/15/2017	12:33	WL
Carbon Disulfide	<5	5	ug/l	SW-846 8260C	4/15/2017	12:33	WL
Acetone	<10	10	ug/l	SW-846 8260C	4/15/2017	12:33	WL
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260C	4/15/2017	12:33	WL
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260C	4/15/2017	12:33	WL
2-Hexanone	<10	10	ug/l	SW-846 8260C	4/15/2017	12:33	WL
cis-1,3-Dichloropropene	<0.4	0.4	ug/l	SW-846 8260C	4/15/2017	12:33	WL
trans-1,3-Dichloropropylene	<0.4	0.4	ug/l	SW-846 8260C	4/15/2017	12:33	WL
Vinyl Acetate	<50	50	ug/l	SW-846 8260C	4/15/2017	12:33	WL
Surrogates			RANGE				
Dibromofluoromethane	103		86-118%	SW-846 8260C	4/15/2017	12:33	WL
Toluene-d8	97		88-110%	SW-846 8260C	4/15/2017	12:33	WL
4-Bromofluorobenzene	102		86-115%	SW-846 8260C	4/15/2017	12:33	WL
1,2 Dichloroethane-d4	102		80-120%	SW-846 8260C	4/15/2017	12:33	WL
Total Metals							
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	4/14/2017	20:28	RAT
Mercury Digestion				EPA 245.1	4/14/2017	17:51	NS

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
 Sandwich, MA 02563
 (508)888-6460 1-800-339-6460
 FAX (508)888-6446

Monday, July 17, 2017

Plymouth Environmental Management
 K. Towers/ 11 Lincoln St.
 Plymouth, MA

ProjectName: GW Eel River **Comments:**
Project Number: A21-A
Collection Date: 04/11/17 **Collection Time:** 11:00
Sampled By: Kim Tower
Lab Order Number: WW-170617
Date Received: 04/11/17

Sample Type	Sample Time	Sample Date	Comments			
A21A A	11:00	04/11/17	A21A			
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
pH	pH units	6.38	NA	04/11/17	LL	SM 4500 H-B
Total Dissolved Solids	mg/L	63	6.0	04/12/17	KB	SM 2540 C
Specific Conductance	uhoms/cm	111	10	04/11/17	LL	EPA 120.1
Total Organic Carbon*	mg/L	0.74*	0.5	04/19/17	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	04/15/17	RIA*	*
Total Iron	mg/L	1.24	0.01	04/26/17	MC	EPA 200.7
Mercury*	mg/L	<0.0005*	0.0005	04/14/17	RIA*	EPA 245.1
Boron	mg/L	BRL	0.010	04/26/17	MC	EPA 200.7
Copper	mg/L	BRL	0.003	04/26/17	MC	EPA 200.7
Nitrate-N	mg/L	0.10	0.01	04/12/17	LL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	04/12/17	LL	EPA 300.0
Ammonia-N *	mg/L	0.12*	0.02	04/19/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.27	0.2	04/19/17	KB	SM4500-Norg B-C
Turbidity	NTU	1.9	1.0	04/11/17	LL	SM 2130 B
Chloride	mg/L	27.5	3.0	04/12/17	LL	EPA 300.0
Total Phosphorous (P)	mg/L	0.018	0.005	04/14/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.26	0.20	04/19/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	0.82*	0.50	06/09/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.22	NA	05/29/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.14	NA	05/29/17	MC	Calculation
Ortho Phosphorous (P)	mg/L	BRL	0.005	04/11/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	ND	NA	07/16/17	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.01	NA	07/16/17	RIA*	Calculation
Total Dissolved Nitrogen	mg/L	0.36	NA	04/19/17	KB	Calculation

BRL=below reportable limits

*see attached

By: 
 Ronald J. Saari
 Laboratory Director

R.I. Analytical Laboratories, Inc.

Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1704-07584

Project Name: PLYMOUTH ENV.

Sample Number: 002
Sample Description: WW-170617 A21-A
Sample Type : GRAB
Sample Date / Time : 4/11/2017 @ 11:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED		ANALYST
Ammonia (as N)	0.12	0.02	mg/l	SM4500NH3-B,H 18-21ed	4/19/2017	11:54	KLE
TOC Low Level	0.74	0.5	mg/l	SM5310B 18-21ed	4/19/2017	17:00	TAS
Volatile Organic Compounds							
Benzene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:02	WL
Bromobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:02	WL
Bromochloromethane	<1	1	ug/l	SW-846 8260C	4/15/2017	1:02	WL
Bromodichloromethane	<1	1	ug/l	SW-846 8260C	4/15/2017	1:02	WL
Bromoform	<1	1	ug/l	SW-846 8260C	4/15/2017	1:02	WL
Bromomethane	<5	5	ug/l	SW-846 8260C	4/15/2017	1:02	WL
n-Butylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:02	WL
Sec-butylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:02	WL
tert-Butylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:02	WL
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260C	4/15/2017	1:02	WL
Chlorobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:02	WL
Chloroethane	<5	5	ug/l	SW-846 8260C	4/15/2017	1:02	WL
Chloroform	<1	1	ug/l	SW-846 8260C	4/15/2017	1:02	WL
Chloromethane	<5	5	ug/l	SW-846 8260C	4/15/2017	1:02	WL
2-Chlorotoluene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:02	WL
4-Chlorotoluene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:02	WL
Dibromochloromethane	<1	1	ug/l	SW-846 8260C	4/15/2017	1:02	WL
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260C	4/15/2017	1:02	WL
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260C	4/15/2017	1:02	WL
Dibromomethane	<2	2	ug/l	SW-846 8260C	4/15/2017	1:02	WL
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:02	WL
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:02	WL
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:02	WL
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260C	4/15/2017	1:02	WL
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260C	4/15/2017	1:02	WL
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260C	4/15/2017	1:02	WL
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:02	WL
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:02	WL
trans-1,2-Dichloroethylene	<2	2	ug/l	SW-846 8260C	4/15/2017	1:02	WL
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260C	4/15/2017	1:02	WL
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260C	4/15/2017	1:02	WL
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260C	4/15/2017	1:02	WL
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:02	WL
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260C	4/15/2017	1:02	WL
Ethylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:02	WL
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:02	WL
Isopropylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:02	WL

R.I. Analytical Laboratories, Inc.

Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1704-07584

Project Name: PLYMOUTH ENV.

Sample Number: 002
 Sample Description: WW-170617 A21-A
 Sample Type : GRAB
 Sample Date / Time : 4/11/2017 @ 11:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED		ANALYST
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:02	WL
Methylene Chloride	<5	5	ug/l	SW-846 8260C	4/15/2017	1:02	WL
Naphthalene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:02	WL
n-Propylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:02	WL
Styrene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:02	WL
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260C	4/15/2017	1:02	WL
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260C	4/15/2017	1:02	WL
Tetrachloroethene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:02	WL
Toluene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:02	WL
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:02	WL
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:02	WL
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260C	4/15/2017	1:02	WL
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260C	4/15/2017	1:02	WL
Trichloroethene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:02	WL
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260C	4/15/2017	1:02	WL
1,2,3-Trichloropropane	<2	2	ug/l	SW-846 8260C	4/15/2017	1:02	WL
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:02	WL
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:02	WL
Vinyl Chloride	<1	1	ug/l	SW-846 8260C	4/15/2017	1:02	WL
o-Xylene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:02	WL
m,p-Xylene	<2	2	ug/l	SW-846 8260C	4/15/2017	1:02	WL
MTBE	<2	2	ug/l	SW-846 8260C	4/15/2017	1:02	WL
Carbon Disulfide	<5	5	ug/l	SW-846 8260C	4/15/2017	1:02	WL
Acetone	<10	10	ug/l	SW-846 8260C	4/15/2017	1:02	WL
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260C	4/15/2017	1:02	WL
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260C	4/15/2017	1:02	WL
2-Hexanone	<10	10	ug/l	SW-846 8260C	4/15/2017	1:02	WL
cis-1,3-Dichloropropene	<0.4	0.4	ug/l	SW-846 8260C	4/15/2017	1:02	WL
trans-1,3-Dichloropropylene	<0.4	0.4	ug/l	SW-846 8260C	4/15/2017	1:02	WL
Vinyl Acetate	<50	50	ug/l	SW-846 8260C	4/15/2017	1:02	WL
Surrogates			RANGE				
Dibromofluoromethane	101		86-118%	SW-846 8260C	4/15/2017	1:02	WL
Toluene-d8	96		88-110%	SW-846 8260C	4/15/2017	1:02	WL
4-Bromofluorobenzene	100		86-115%	SW-846 8260C	4/15/2017	1:02	WL
1,2 Dichloroethane-d4	102		80-120%	SW-846 8260C	4/15/2017	1:02	WL
Total Metals							
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	4/14/2017	20:29	RAT
Mercury Digestion				EPA 245.1	4/14/2017	17:51	NS

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
 Sandwich, MA 02563
 (508)888-6460 1-800-339-6460
 FAX (508)888-6446

Monday, July 17, 2017

Plymouth Environmental Management
 K. Towers/ 11 Lincoln St.
 Plymouth, MA

ProjectName: GW Eel River **Comments:**
Project Number: 5S
Collection Date: 04/11/17 **Collection Time:** 12:25
Sampled By: Kim Tower
Lab Order Number: WW-170618
Date Received: 04/11/17

Sample Type	Sample Time	Sample Date	Comments			
5S A	12:25	04/11/17	5S;**Chloroform			
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
pH	pH units	5.16	NA	04/11/17	LL	SM 4500 H-B
Total Dissolved Solids	mg/L	854	6.0	04/12/17	KB	SM 2540 C
Specific Conductance	uhoms/cm	1,540	10	04/12/17	LL	EPA 120.1
Total Organic Carbon*	mg/L	0.72*	0.5	04/19/17	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	3.5**	*	04/15/17	RIA*	*
Total Iron	mg/L	0.02	0.01	04/26/17	MC	EPA 200.7
Mercury*	mg/L	<0.0005*	0.0005	04/14/17	RIA*	EPA 245.1
Boron	mg/L	BRL	0.010	04/26/17	MC	EPA 200.7
Copper	mg/L	BRL	0.003	04/26/17	MC	EPA 200.7
Nitrate-N	mg/L	0.48	0.01	04/12/17	LL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	04/12/17	LL	EPA 300.0
Ammonia-N *	mg/L	0.024*	0.02	04/19/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	BRL	0.2	04/19/17	KB	SM4500-Norg B-C
Turbidity	NTU	1.2	1.0	04/11/17	LL	SM 2130 B
Chloride	mg/L	513	3.0	04/12/17	LL	EPA 300.0
Total Phosphorous (P)	mg/L	0.014	0.005	04/14/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.20	04/19/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	0.81*	0.50	06/09/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.50	NA	05/29/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	<0.18	NA	05/29/17	MC	Calculation
Ortho Phosphorous (P)	mg/L	BRL	0.005	04/11/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	ND	NA	07/16/17	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	ND	NA	05/29/17	RIA*	Calculation
Total Dissolved Nitrogen	mg/L	0.48	NA	04/19/17	KB	Calculation

BRL=below reportable limits

*see attached

By:


 Ronald J. Sadri
 Laboratory Director

R.I. Analytical Laboratories, Inc.

Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1704-07584

Project Name: PLYMOUTH ENV.

Sample Number: 003
Sample Description: WW-170618 5S
Sample Type : GRAB
Sample Date / Time : 4/11/2017 @ 12:25

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED		ANALYST
Ammonia (as N)	0.024	0.02	mg/l	SM4500NH3-B,H 18-21ed	4/19/2017	11:54	KLE
TOC Low Level	0.72	0.5	mg/l	SM5310B 18-21ed	4/19/2017	17:00	TAS
Volatile Organic Compounds							
Benzene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:30	WL
Bromobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:30	WL
Bromochloromethane	<1	1	ug/l	SW-846 8260C	4/15/2017	1:30	WL
Bromodichloromethane	<1	1	ug/l	SW-846 8260C	4/15/2017	1:30	WL
Bromoform	<1	1	ug/l	SW-846 8260C	4/15/2017	1:30	WL
Bromomethane	<5	5	ug/l	SW-846 8260C	4/15/2017	1:30	WL
n-Butylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:30	WL
Sec-butylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:30	WL
tert-Butylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:30	WL
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260C	4/15/2017	1:30	WL
Chlorobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:30	WL
Chloroethane	<5	5	ug/l	SW-846 8260C	4/15/2017	1:30	WL
Chloroform	3.5	1	ug/l	SW-846 8260C	4/15/2017	1:30	WL
Chloromethane	<5	5	ug/l	SW-846 8260C	4/15/2017	1:30	WL
2-Chlorotoluene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:30	WL
4-Chlorotoluene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:30	WL
Dibromochloromethane	<1	1	ug/l	SW-846 8260C	4/15/2017	1:30	WL
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260C	4/15/2017	1:30	WL
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260C	4/15/2017	1:30	WL
Dibromomethane	<2	2	ug/l	SW-846 8260C	4/15/2017	1:30	WL
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:30	WL
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:30	WL
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:30	WL
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260C	4/15/2017	1:30	WL
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260C	4/15/2017	1:30	WL
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260C	4/15/2017	1:30	WL
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:30	WL
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:30	WL
trans-1,2-Dichloroethylene	<2	2	ug/l	SW-846 8260C	4/15/2017	1:30	WL
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260C	4/15/2017	1:30	WL
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260C	4/15/2017	1:30	WL
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260C	4/15/2017	1:30	WL
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:30	WL
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260C	4/15/2017	1:30	WL
Ethylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:30	WL
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:30	WL
Isopropylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:30	WL

R.I. Analytical Laboratories, Inc.

Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1704-07584

Project Name: PLYMOUTH ENV.

Sample Number: 003
 Sample Description: WW-170618 5S
 Sample Type : GRAB
 Sample Date / Time : 4/11/2017 @ 12:25

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED		ANALYST
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:30	WL
Methylene Chloride	<5	5	ug/l	SW-846 8260C	4/15/2017	1:30	WL
Naphthalene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:30	WL
n-Propylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:30	WL
Styrene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:30	WL
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260C	4/15/2017	1:30	WL
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260C	4/15/2017	1:30	WL
Tetrachloroethene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:30	WL
Toluene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:30	WL
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:30	WL
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:30	WL
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260C	4/15/2017	1:30	WL
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260C	4/15/2017	1:30	WL
Trichloroethene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:30	WL
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260C	4/15/2017	1:30	WL
1,2,3-Trichloropropane	<2	2	ug/l	SW-846 8260C	4/15/2017	1:30	WL
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:30	WL
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:30	WL
Vinyl Chloride	<1	1	ug/l	SW-846 8260C	4/15/2017	1:30	WL
o-Xylene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:30	WL
m,p-Xylene	<2	2	ug/l	SW-846 8260C	4/15/2017	1:30	WL
MTBE	<2	2	ug/l	SW-846 8260C	4/15/2017	1:30	WL
Carbon Disulfide	<5	5	ug/l	SW-846 8260C	4/15/2017	1:30	WL
Acetone	<10	10	ug/l	SW-846 8260C	4/15/2017	1:30	WL
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260C	4/15/2017	1:30	WL
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260C	4/15/2017	1:30	WL
2-Hexanone	<10	10	ug/l	SW-846 8260C	4/15/2017	1:30	WL
cis-1,3-Dichloropropene	<0.4	0.4	ug/l	SW-846 8260C	4/15/2017	1:30	WL
trans-1,3-Dichloropropylene	<0.4	0.4	ug/l	SW-846 8260C	4/15/2017	1:30	WL
Vinyl Acetate	<50	50	ug/l	SW-846 8260C	4/15/2017	1:30	WL
Surrogates			RANGE				
Dibromofluoromethane	103		86-118%	SW-846 8260C	4/15/2017	1:30	WL
Toluene-d8	97		88-110%	SW-846 8260C	4/15/2017	1:30	WL
4-Bromofluorobenzene	101		86-115%	SW-846 8260C	4/15/2017	1:30	WL
1,2 Dichloroethane-d4	101		80-120%	SW-846 8260C	4/15/2017	1:30	WL
Total Metals							
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	4/14/2017	20:30	RAT
Mercury Digestion				EPA 245.1	4/14/2017	17:51	NS

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
 Sandwich, MA 02563
 (508)888-6460 1-800-339-6460
 FAX (508)888-6446

Monday, July 17, 2017

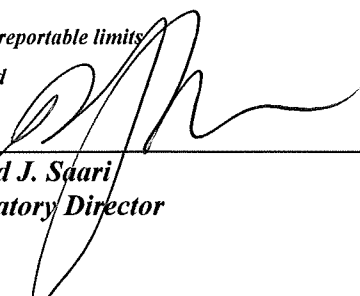
Plymouth Environmental Management
 K. Towers/ 11 Lincoln St.
 Plymouth, MA

ProjectName: GW Eel River **Comments:**
Project Number: A19
Collection Date: 04/11/17 **Collection Time:** 13:25
Sampled By: Kim Tower
Lab Order Number: WW-170619
Date Received: 04/11/17

Sample Type	Sample Time	Sample Date	Comments			
A19 A	13:25	04/11/17	A19			
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
pH	pH units	5.55	NA	04/11/17	LL	SM 4500 H-B
Total Dissolved Solids	mg/L	105	6.0	04/12/17	KB	SM 2540 C
Specific Conductance	uhoms/cm	152	10	04/11/17	LL	EPA 120.1
Total Organic Carbon*	mg/L	0.54*	0.5	04/19/17	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	04/15/17	RIA*	*
Total Iron	mg/L	0.10	0.01	04/26/17	MC	EPA 200.7
Mercury*	mg/L	<0.0005*	0.0005	04/14/17	RIA*	EPA 245.1
Boron	mg/L	BRL	0.010	04/26/17	MC	EPA 200.7
Copper	mg/L	BRL	0.003	04/26/17	MC	EPA 200.7
Nitrate-N	mg/L	1.17	0.01	04/12/17	LL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	04/12/17	LL	EPA 300.0
Ammonia-N *	mg/L	0.034*	0.02	04/19/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	BRL	0.2	04/19/17	KB	SM4500-Norg B-C
Turbidity	NTU	3.3	1.0	04/11/17	LL	SM 2130 B
Chloride	mg/L	43.0	3.0	04/12/17	LL	EPA 300.0
Total Phosphorous (P)	mg/L	0.011	0.005	04/14/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.20	04/19/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	0.56*	0.50	06/09/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	1.20	NA	05/29/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	<0.17	NA	05/29/17	MC	Calculation
Ortho Phosphorous (P)	mg/L	0.005	0.005	04/11/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	ND	NA	07/16/17	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	ND	NA	05/29/17	RIA*	Calculation
Total Dissolved Nitrogen	mg/L	1.2	NA	04/19/17	KB	Calculation

BRL=below reportable limits

*see attached

By: 
 Ronald J. Saari
 Laboratory Director

R.I. Analytical Laboratories, Inc.

Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1704-07584

Project Name: PLYMOUTH ENV.

Sample Number: 004
Sample Description: WW-170619 A19
Sample Type : GRAB
Sample Date / Time : 4/11/2017 @ 13:25

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED		ANALYST
Ammonia (as N)	0.034	0.02	mg/l	SM4500NH3-B,H 18-21ed	4/19/2017	11:54	KLE
TOC Low Level	0.54	0.5	mg/l	SM5310B 18-21ed	4/19/2017	17:00	TAS
Volatile Organic Compounds							
Benzene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:59	WL
Bromobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:59	WL
Bromochloromethane	<1	1	ug/l	SW-846 8260C	4/15/2017	1:59	WL
Bromodichloromethane	<1	1	ug/l	SW-846 8260C	4/15/2017	1:59	WL
Bromoform	<1	1	ug/l	SW-846 8260C	4/15/2017	1:59	WL
Bromomethane	<5	5	ug/l	SW-846 8260C	4/15/2017	1:59	WL
n-Butylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:59	WL
Sec-butylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:59	WL
tert-Butylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:59	WL
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260C	4/15/2017	1:59	WL
Chlorobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:59	WL
Chloroethane	<5	5	ug/l	SW-846 8260C	4/15/2017	1:59	WL
Chloroform	<1	1	ug/l	SW-846 8260C	4/15/2017	1:59	WL
Chloromethane	<5	5	ug/l	SW-846 8260C	4/15/2017	1:59	WL
2-Chlorotoluene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:59	WL
4-Chlorotoluene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:59	WL
Dibromochloromethane	<1	1	ug/l	SW-846 8260C	4/15/2017	1:59	WL
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260C	4/15/2017	1:59	WL
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260C	4/15/2017	1:59	WL
Dibromomethane	<2	2	ug/l	SW-846 8260C	4/15/2017	1:59	WL
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:59	WL
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:59	WL
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:59	WL
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260C	4/15/2017	1:59	WL
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260C	4/15/2017	1:59	WL
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260C	4/15/2017	1:59	WL
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:59	WL
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:59	WL
trans-1,2-Dichloroethylene	<2	2	ug/l	SW-846 8260C	4/15/2017	1:59	WL
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260C	4/15/2017	1:59	WL
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260C	4/15/2017	1:59	WL
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260C	4/15/2017	1:59	WL
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:59	WL
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260C	4/15/2017	1:59	WL
Ethylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:59	WL
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:59	WL
Isopropylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:59	WL

R.I. Analytical Laboratories, Inc.

Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1704-07584

Project Name: PLYMOUTH ENV.

Sample Number: 004
Sample Description: WW-170619 A19
Sample Type : GRAB
Sample Date / Time : 4/11/2017 @ 13:25

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED		ANALYST
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:59	WL
Methylene Chloride	<5	5	ug/l	SW-846 8260C	4/15/2017	1:59	WL
Naphthalene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:59	WL
n-Propylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:59	WL
Styrene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:59	WL
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260C	4/15/2017	1:59	WL
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260C	4/15/2017	1:59	WL
Tetrachloroethene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:59	WL
Toluene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:59	WL
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:59	WL
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:59	WL
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260C	4/15/2017	1:59	WL
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260C	4/15/2017	1:59	WL
Trichloroethene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:59	WL
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260C	4/15/2017	1:59	WL
1,2,3-Trichloropropane	<2	2	ug/l	SW-846 8260C	4/15/2017	1:59	WL
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:59	WL
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:59	WL
Vinyl Chloride	<1	1	ug/l	SW-846 8260C	4/15/2017	1:59	WL
o-Xylene	<1	1	ug/l	SW-846 8260C	4/15/2017	1:59	WL
m,p-Xylene	<2	2	ug/l	SW-846 8260C	4/15/2017	1:59	WL
MTBE	<2	2	ug/l	SW-846 8260C	4/15/2017	1:59	WL
Carbon Disulfide	<5	5	ug/l	SW-846 8260C	4/15/2017	1:59	WL
Acetone	<10	10	ug/l	SW-846 8260C	4/15/2017	1:59	WL
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260C	4/15/2017	1:59	WL
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260C	4/15/2017	1:59	WL
2-Hexanone	<10	10	ug/l	SW-846 8260C	4/15/2017	1:59	WL
cis-1,3-Dichloropropene	<0.4	0.4	ug/l	SW-846 8260C	4/15/2017	1:59	WL
trans-1,3-Dichloropropylene	<0.4	0.4	ug/l	SW-846 8260C	4/15/2017	1:59	WL
Vinyl Acetate	<50	50	ug/l	SW-846 8260C	4/15/2017	1:59	WL
Surrogates			RANGE				
Dibromofluoromethane	103		86-118%	SW-846 8260C	4/15/2017	1:59	WL
Toluene-d8	96		88-110%	SW-846 8260C	4/15/2017	1:59	WL
4-Bromofluorobenzene	100		86-115%	SW-846 8260C	4/15/2017	1:59	WL
1,2 Dichloroethane-d4	100		80-120%	SW-846 8260C	4/15/2017	1:59	WL
Total Metals							
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	4/14/2017	20:36	RAT
Mercury Digestion				EPA 245.1	4/14/2017	17:51	NS

R.I. Analytical Laboratories, Inc.

Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1704-07584

Project Name: PLYMOUTH ENV.

Filtered TOC samples were not provided for all requested Dissolved TOC analyses.

LABORATORY REPORT

Envirotech Laboratories, Inc.
Attn: Mr. Ron Saari
8 Jan Sebastian Drive
Sandwich, MA 02563

Date Received: 6/5/2017
Date Reported: 6/13/2017
P.O. Number

Work Order #: 1706-11716

Project Name: PLYMOUTH ENV.

Enclosed are the analytical results and Chain of Custody for your project referenced above. The sample(s) were analyzed by our Warwick, RI laboratory unless noted otherwise. When applicable, indication of sample analysis at our Hudson, MA laboratory and/or subcontracted results are noted and subcontracted reports are enclosed in their entirety.

All samples were analyzed within the established guidelines of US EPA approved methods with all requirements met, unless otherwise noted at the end of a given sample's analytical results or in a case narrative.

The Detection Limit is defined as the lowest level that can be reliably achieved during routine laboratory conditions.

These results only pertain to the samples submitted for this Work Order # and this report shall not be reproduced except in its entirety.

We certify that the following results are true and accurate to the best of our knowledge. If you have questions or need further assistance, please contact our Customer Service Department.

Approved by:



Dawne E. Smart
Data Reporting Manager

Laboratory Certification Numbers (as applicable to sample's origin state):

Warwick RI * RI LAI00033, MA M-RI015, CT PH-0508, ME RI00015, NH 2070, NY 11726

Hudson MA * M-MA1117, RI LAO00319

R.I. Analytical Laboratories, Inc.

Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1706-11716

Project Name: PLYMOUTH ENV.

Sample Number: 001
Sample Description: WW-170616 A15
Sample Type : GRAB
Sample Date / Time : 4/11/2017 @ 09:45

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Dissolved TOC	0.51	0.5	mg/l	EPA 415.1	6/9/2017 8:38	DEL

Sample Number: 002
Sample Description: WW-170617 A21-A
Sample Type : GRAB
Sample Date / Time : 4/11/2017 @ 11:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Dissolved TOC	0.82	0.5	mg/l	EPA 415.1	6/9/2017 8:38	DEL

Sample Number: 003
Sample Description: WW-170618 5S
Sample Type : GRAB
Sample Date / Time : 4/11/2017 @ 12:25

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Dissolved TOC	0.81	0.5	mg/l	EPA 415.1	6/9/2017 8:38	DEL

Sample Number: 004
Sample Description: WW-170619 A19
Sample Type : GRAB
Sample Date / Time : 4/11/2017 @ 13:25

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Dissolved TOC	0.56	0.5	mg/l	EPA 415.1	6/9/2017 8:38	DEL

Samples were received outside of the recommended hold time for the dissolved TOC analysis.

ENVIROTECH LABS, INC.

RI Analytical

WRI 015

41 Illinois Avenue
Warwick, RI 02888

401-737-8500

401-738-1970

Analysis requested

TOC dissolved low detection

TOC dissolved low detection

TOC dissolved low detection

TOC dissolved low detection

Sample Dissolved

1706-11716

TOC dissolved samples are filtered

Contact lab with any exceeded MCL

Page 1 of 2

Hand
type 4/20

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of Custody

Client:

Town of Plymouth - Department of Marine & Environmental Affairs Attn: Kim Tower
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, ktower@townhall.plymouth.ma.us
Project Name: **GW Eel River -Plymouth MA**
Sampler: Kim Tower (KT)

WW170614

(2)

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
4/11/17	0945	A15	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN - Total Nitrogen	H2SO4
			1	500ml Plastic	Ph/cond, turb, NO ₂ , NO ₃	NONE
			1	500ml Plastic	B, Cu, Hg, NO ₃ , NO ₂ , Ch, TDS, FE	NONE
			1	Plastic	TOC	H2SO4
			1	Glass	Ortho-phosphate	NONE
4/11/17	1100	A21-A	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN - Total Nitrogen	H2SO4
			1	500ml Plastic	Ph/cond, turb, NO ₂ , NO ₃	NONE
			1	500ml Plastic	B, Cu, Hg, NO ₃ , NO ₂ , Ch, TDS, FE	NONE
			1	Plastic	TOC	H2SO4
			1	Glass	Ortho-phosphate	NONE

WW170618

(2)

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Boron, Chloride, Copper, Iron, Mercury, VOC

Relinquished By: Date/Time

Kim Tower 4/11/17 1430

Received By: Date/Time:

[Signature] 4/11/17 1430

need
Car Fl
4/24

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of Custody

Client:

Town of Plymouth - Department of Marine & Environmental Affairs Attn: Kim Tower
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, ktower@townhall.plymouth.ma.us
Project Name: **GW Eel River -Plymouth MA**
Sampler: **Kim Tower (KT)**

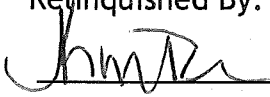
WW170618

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
4/11/17	1225	55	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN - Total Nitrogen	H2SO4
			1	500ml Plastic	Ph/cond, turb, NO ₂ , NO ₃	NONE
			1	500ml Plastic	B, Cu, Hg, NO ₃ , NO ₂ , Ch, TDS, FE	NONE
			1	Plastic	TOC	H2SO4
			1	Glass	Ortho-phosphate	NONE
4/11/17	1325	A19	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN - Total Nitrogen	H2SO4
			1	500ml Plastic	Ph/cond, turb, NO ₂ , NO ₃	NONE
			1	500ml Plastic	B, Cu, Hg, NO ₃ , NO ₂ , Ch, TDS, FE	NONE
			1	Plastic	TOC	H2SO4
			1	Glass	Ortho-phosphate	NONE

WW170619

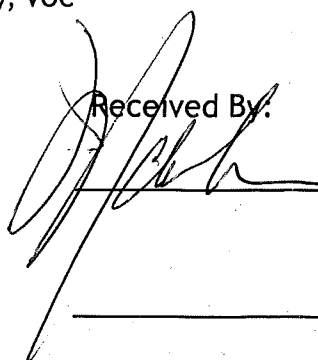
NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Boron, Chloride, Copper, Iron, Mercury, VOC

Relinquished By: Date/Time

 4/11/17 1430

Received By:

Date/Time:

 4/11/17 1430

LABORATORY REPORT

Envirotech Laboratories, Inc.
Attn: Mr. Ron Saari
8 Jan Sebastian Drive
Sandwich, MA 02563

Date Received: 4/12/2017
Date Reported: 5/5/2017
P.O. Number

Work Order #: 1704-07584

Project Name: PLYMOUTH ENV.

Enclosed are the analytical results and Chain of Custody for your project referenced above. The sample(s) were analyzed by our Warwick, RI laboratory unless noted otherwise. When applicable, indication of sample analysis at our Hudson, MA laboratory and/or subcontracted results are noted and subcontracted reports are enclosed in their entirety.

All samples were analyzed within the established guidelines of US EPA approved methods with all requirements met, unless otherwise noted at the end of a given sample's analytical results or in a case narrative.

The Detection Limit is defined as the lowest level that can be reliably achieved during routine laboratory conditions.

These results only pertain to the samples submitted for this Work Order # and this report shall not be reproduced except in its entirety.

We certify that the following results are true and accurate to the best of our knowledge. If you have questions or need further assistance, please contact our Customer Service Department.

Approved by:



Melissa A. Manamon
QA /QC Officer

Laboratory Certification Numbers (as applicable to sample's origin state):

Warwick RI * RI LAI00033, MA M-RI015, CT PH-0508, ME RI00015, NH 2070, NY 11726
Hudson MA * M-MA1117, RI LAO00319

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
 Sandwich, MA 02563
 (508)888-6460 1-800-339-6460
 FAX (508)888-6446

Wednesday, July 19, 2017

Plymouth Environmental Management
 K. Towers/ 11 Lincoln St.
 Plymouth, MA

ProjectName: GW Eel River
Project Number: DW-1
Collection Date: 04/12/17
Sampled By: Kim Tower
Lab Order Number: WW-170633
Date Received: 04/12/17

Comments:

Sample Type	Sample Time	Sample Date	Comments			
DW-1 A	12:00	04/12/17	DW-1			
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
pH	pH units	5.18	NA	04/12/17	LL	SM 4500 H-B
Total Dissolved Solids	mg/L	567	6.0	04/18/17	KB	SM 2540 C
Specific Conductance	uhoms/cm	1,050	10	04/13/17	LL	EPA 120.1
Total Organic Carbon*	mg/L	0.53*	0.5	04/20/17	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	04/19/17	RIA*	*
Total Iron	mg/L	BRL	0.01	04/26/17	MC	EPA 200.7
Mercury*	mg/L	<0.0005*	0.0005	04/18/17	RIA*	EPA 245.1
Boron	mg/L	BRL	0.010	04/26/17	MC	EPA 200.7
Copper	mg/L	BRL	0.003	04/26/17	MC	EPA 200.7
Nitrate-N	mg/L	0.32	0.01	04/13/17	LL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	04/13/17	LL	EPA 300.0
Ammonia-N *	mg/L	0.080*	0.02	04/19/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	BRL	0.2	04/19/17	KB	SM4500-Norg B-C
Turbidity	NTU	BRL	1.0	04/13/17	LL	SM 2130 B
Chloride	mg/L	350	3.0	04/13/17	LL	EPA 300.0
Total Phosphorous (P)	mg/L	BRL	0.005	04/14/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.20	04/19/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	<0.5*	0.50	04/20/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.40	NA	05/29/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	<0.12	NA	05/29/17	MC	Calculation
Ortho Phosphorous (P)	mg/L	BRL	0.005	04/13/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	<0.03	NA	05/29/17	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	ND	NA	05/29/17	RIA*	Calculation
Total Dissolved Nitrogen	mg/L	0.32	NA	04/21/17	KB	Calculation

BRL=below reportable limits

*see attached

By: 
 Ronald J. Saari
 Laboratory Director

R.I. Analytical Laboratories, Inc.

Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1704-07844

Project Name: PLYMOUTH ENV.

Sample Number: 001
Sample Description: WW-170633 DW-1
Sample Type : GRAB
Sample Date / Time : 4/12/2017 @ 12:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.080	0.02	mg/l	SM4500NH3-B,H 18-21ed	4/19/2017 11:54	KLE
TOC Low Level	0.53	0.5	mg/l	SM5310B 18-21ed	4/20/2017 18:35	TAS
Dissolved TOC	<0.5	0.5	mg/l	EPA 415.1	4/20/2017 18:35	TAS
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260C	4/19/2017 15:59	WL
Bromobenzene	<1	1	ug/l	SW-846 8260C	4/19/2017 15:59	WL
Bromochloromethane	<1	1	ug/l	SW-846 8260C	4/19/2017 15:59	WL
Bromodichloromethane	<1	1	ug/l	SW-846 8260C	4/19/2017 15:59	WL
Bromoform	<1	1	ug/l	SW-846 8260C	4/19/2017 15:59	WL
Bromomethane	<5	5	ug/l	SW-846 8260C	4/19/2017 15:59	WL
n-Butylbenzene	<1	1	ug/l	SW-846 8260C	4/19/2017 15:59	WL
Sec-butylbenzene	<1	1	ug/l	SW-846 8260C	4/19/2017 15:59	WL
tert-Butylbenzene	<1	1	ug/l	SW-846 8260C	4/19/2017 15:59	WL
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260C	4/19/2017 15:59	WL
Chlorobenzene	<1	1	ug/l	SW-846 8260C	4/19/2017 15:59	WL
Chloroethane	<5	5	ug/l	SW-846 8260C	4/19/2017 15:59	WL
Chloroform	<1	1	ug/l	SW-846 8260C	4/19/2017 15:59	WL
Chloromethane	<5	5	ug/l	SW-846 8260C	4/19/2017 15:59	WL
2-Chlorotoluene	<1	1	ug/l	SW-846 8260C	4/19/2017 15:59	WL
4-Chlorotoluene	<1	1	ug/l	SW-846 8260C	4/19/2017 15:59	WL
Dibromochloromethane	<1	1	ug/l	SW-846 8260C	4/19/2017 15:59	WL
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260C	4/19/2017 15:59	WL
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260C	4/19/2017 15:59	WL
Dibromomethane	<2	2	ug/l	SW-846 8260C	4/19/2017 15:59	WL
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	4/19/2017 15:59	WL
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	4/19/2017 15:59	WL
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	4/19/2017 15:59	WL
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260C	4/19/2017 15:59	WL
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260C	4/19/2017 15:59	WL
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260C	4/19/2017 15:59	WL
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260C	4/19/2017 15:59	WL
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260C	4/19/2017 15:59	WL
trans-1,2-Dichloroethylene	<2	2	ug/l	SW-846 8260C	4/19/2017 15:59	WL
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260C	4/19/2017 15:59	WL
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260C	4/19/2017 15:59	WL
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260C	4/19/2017 15:59	WL
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260C	4/19/2017 15:59	WL
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260C	4/19/2017 15:59	WL
Ethylbenzene	<1	1	ug/l	SW-846 8260C	4/19/2017 15:59	WL
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260C	4/19/2017 15:59	WL

R.I. Analytical Laboratories, Inc.

Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1704-07844

Project Name: PLYMOUTH ENV.

Sample Number: 001
Sample Description: WW-170633 DW-1
Sample Type : GRAB
Sample Date / Time : 4/12/2017 @ 12:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED		ANALYST
Isopropylbenzene	<1	1	ug/l	SW-846 8260C	4/19/2017	15:59	WL
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260C	4/19/2017	15:59	WL
Methylene Chloride	<5	5	ug/l	SW-846 8260C	4/19/2017	15:59	WL
Naphthalene	<1	1	ug/l	SW-846 8260C	4/19/2017	15:59	WL
n-Propylbenzene	<1	1	ug/l	SW-846 8260C	4/19/2017	15:59	WL
Styrene	<1	1	ug/l	SW-846 8260C	4/19/2017	15:59	WL
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260C	4/19/2017	15:59	WL
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260C	4/19/2017	15:59	WL
Tetrachloroethene	<1	1	ug/l	SW-846 8260C	4/19/2017	15:59	WL
Toluene	<1	1	ug/l	SW-846 8260C	4/19/2017	15:59	WL
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260C	4/19/2017	15:59	WL
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260C	4/19/2017	15:59	WL
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260C	4/19/2017	15:59	WL
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260C	4/19/2017	15:59	WL
Trichloroethene	<1	1	ug/l	SW-846 8260C	4/19/2017	15:59	WL
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260C	4/19/2017	15:59	WL
1,2,3-Trichloropropane	<2	2	ug/l	SW-846 8260C	4/19/2017	15:59	WL
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260C	4/19/2017	15:59	WL
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260C	4/19/2017	15:59	WL
Vinyl Chloride	<1	1	ug/l	SW-846 8260C	4/19/2017	15:59	WL
o-Xylene	<1	1	ug/l	SW-846 8260C	4/19/2017	15:59	WL
m,p-Xylene	<2	2	ug/l	SW-846 8260C	4/19/2017	15:59	WL
MTBE	<2	2	ug/l	SW-846 8260C	4/19/2017	15:59	WL
Carbon Disulfide	<5	5	ug/l	SW-846 8260C	4/19/2017	15:59	WL
Acetone	<10	10	ug/l	SW-846 8260C	4/19/2017	15:59	WL
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260C	4/19/2017	15:59	WL
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260C	4/19/2017	15:59	WL
2-Hexanone	<10	10	ug/l	SW-846 8260C	4/19/2017	15:59	WL
cis-1,3-Dichloropropene	<0.4	0.4	ug/l	SW-846 8260C	4/19/2017	15:59	WL
trans-1,3-Dichloropropylene	<0.4	0.4	ug/l	SW-846 8260C	4/19/2017	15:59	WL
Vinyl Acetate	<50	50	ug/l	SW-846 8260C	4/19/2017	15:59	WL
Surrogates			RANGE				
Dibromofluoromethane	105		86-118%	SW-846 8260C	4/19/2017	15:59	WL
Toluene-d8	99		88-110%	SW-846 8260C	4/19/2017	15:59	WL
4-Bromofluorobenzene	104		86-115%	SW-846 8260C	4/19/2017	15:59	WL
1,2 Dichloroethane-d4	96		80-120%	SW-846 8260C	4/19/2017	15:59	WL
Total Metals							
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	4/18/2017	18:54	RAT
Mercury Digestion				EPA 245.1	4/18/2017	18:02	NS

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Monday, July 17, 2017

Plymouth Environmental Management
K. Towers/ 11 Lincoln St.
Plymouth, MA

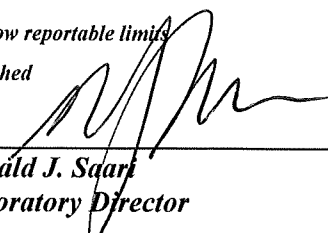
ProjectName: GW Eel River
Project Number: 7SR
Collection Date: 04/12/17
Sampled By: Kim Tower
Lab Order Number: WW-170634
Date Received: 04/12/17

Comments:

Sample Type	Sample Time	Sample Date	Comments			
7SR A	13:40	04/12/17	7SR			
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
pH	pH units	5.19	NA	04/12/17	LL	SM 4500 H-B
Total Dissolved Solids	mg/L	580	6.0	04/18/17	KB	SM 2540 C
Specific Conductance	uhoms/cm	1,030	10	04/13/17	LL	EPA 120.1
Total Organic Carbon*	mg/L	<0.5*	0.5	04/20/17	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	04/19/17	RIA*	*
Total Iron	mg/L	BRL	0.01	04/26/17	MC	EPA 200.7
Mercury*	mg/L	<0.0005*	0.0005	04/18/17	RIA*	EPA 245.1
Boron	mg/L	BRL	0.010	04/26/17	MC	EPA 200.7
Copper	mg/L	BRL	0.003	04/26/17	MC	EPA 200.7
Nitrate-N	mg/L	0.32	0.01	04/13/17	LL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	04/13/17	LL	EPA 300.0
Ammonia-N *	mg/L	0.032*	0.02	04/19/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	BRL	0.2	04/19/17	KB	SM4500-Norg B-C
Turbidity	NTU	BRL	1.0	04/13/17	LL	SM 2130 B
Chloride	mg/L	355	3.0	04/13/17	LL	EPA 300.0
Total Phosphorous (P)	mg/L	BRL	0.005	04/14/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.20	04/19/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	<0.5*	0.50	04/20/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.35	NA	05/29/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	<0.17	NA	05/29/17	MC	Calculation
Ortho Phosphorous (P)	mg/L	BRL	0.005	04/13/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	ND	NA	05/29/17	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	ND	NA	05/29/17	RIA*	Calculation
Total Dissolved Nitrogen	mg/L	0.32	NA	04/19/17	KB	Calculation

BRL=below reportable limits

*see attached

By: 
Ronald J. Sarti
Laboratory Director

LABORATORY REPORT

Envirotech Laboratories, Inc.
Attn: Mr. Ron Saari
8 Jan Sebastian Drive
Sandwich, MA 02563

Date Received: 4/14/2017
Date Reported: 4/27/2017
P.O. Number

Work Order #: 1704-07844

Project Name: PLYMOUTH ENV.

Enclosed are the analytical results and Chain of Custody for your project referenced above. The sample(s) were analyzed by our Warwick, RI laboratory unless noted otherwise. When applicable, indication of sample analysis at our Hudson, MA laboratory and/or subcontracted results are noted and subcontracted reports are enclosed in their entirety.

All samples were analyzed within the established guidelines of US EPA approved methods with all requirements met, unless otherwise noted at the end of a given sample's analytical results or in a case narrative.

The Detection Limit is defined as the lowest level that can be reliably achieved during routine laboratory conditions.

These results only pertain to the samples submitted for this Work Order # and this report shall not be reproduced except in its entirety.

We certify that the following results are true and accurate to the best of our knowledge. If you have questions or need further assistance, please contact our Customer Service Department.

Approved by:



Dawne E. Smart
Data Reporting Manager

Laboratory Certification Numbers (as applicable to sample's origin state):

Warwick RI * RI LAI00033, MA M-RI015, CT PH-0508, ME RI00015, NH 2070, NY 11726

Hudson MA * M-MA1117, RI LAO00319

R.I. Analytical Laboratories, Inc.

Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1704-07844

Project Name: PLYMOUTH ENV.

Sample Number: 002
Sample Description: WW-170634 7SR
Sample Type : GRAB
Sample Date / Time : 4/12/2017 @ 13:40

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.032	0.02	mg/l	SM4500NH3-B,H 18-21ed	4/19/2017 11:54	KLE
TOC Low Level	<0.5	0.5	mg/l	SM5310B 18-21ed	4/20/2017 18:35	TAS
Dissolved TOC	<0.5	0.5	mg/l	EPA 415.1	4/20/2017 18:35	TAS
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260C	4/19/2017 16:27	WL
Bromobenzene	<1	1	ug/l	SW-846 8260C	4/19/2017 16:27	WL
Bromochloromethane	<1	1	ug/l	SW-846 8260C	4/19/2017 16:27	WL
Bromodichloromethane	<1	1	ug/l	SW-846 8260C	4/19/2017 16:27	WL
Bromoform	<1	1	ug/l	SW-846 8260C	4/19/2017 16:27	WL
Bromomethane	<5	5	ug/l	SW-846 8260C	4/19/2017 16:27	WL
n-Butylbenzene	<1	1	ug/l	SW-846 8260C	4/19/2017 16:27	WL
Sec-butylbenzene	<1	1	ug/l	SW-846 8260C	4/19/2017 16:27	WL
tert-Butylbenzene	<1	1	ug/l	SW-846 8260C	4/19/2017 16:27	WL
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260C	4/19/2017 16:27	WL
Chlorobenzene	<1	1	ug/l	SW-846 8260C	4/19/2017 16:27	WL
Chloroethane	<5	5	ug/l	SW-846 8260C	4/19/2017 16:27	WL
Chloroform	<1	1	ug/l	SW-846 8260C	4/19/2017 16:27	WL
Chloromethane	<5	5	ug/l	SW-846 8260C	4/19/2017 16:27	WL
2-Chlorotoluene	<1	1	ug/l	SW-846 8260C	4/19/2017 16:27	WL
4-Chlorotoluene	<1	1	ug/l	SW-846 8260C	4/19/2017 16:27	WL
Dibromochloromethane	<1	1	ug/l	SW-846 8260C	4/19/2017 16:27	WL
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260C	4/19/2017 16:27	WL
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260C	4/19/2017 16:27	WL
Dibromomethane	<2	2	ug/l	SW-846 8260C	4/19/2017 16:27	WL
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	4/19/2017 16:27	WL
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	4/19/2017 16:27	WL
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	4/19/2017 16:27	WL
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260C	4/19/2017 16:27	WL
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260C	4/19/2017 16:27	WL
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260C	4/19/2017 16:27	WL
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260C	4/19/2017 16:27	WL
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260C	4/19/2017 16:27	WL
trans-1,2-Dichloroethylene	<2	2	ug/l	SW-846 8260C	4/19/2017 16:27	WL
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260C	4/19/2017 16:27	WL
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260C	4/19/2017 16:27	WL
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260C	4/19/2017 16:27	WL
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260C	4/19/2017 16:27	WL
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260C	4/19/2017 16:27	WL
Ethylbenzene	<1	1	ug/l	SW-846 8260C	4/19/2017 16:27	WL
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260C	4/19/2017 16:27	WL

R.I. Analytical Laboratories, Inc.

Laboratory Report

Envirotech Laboratories, Inc.

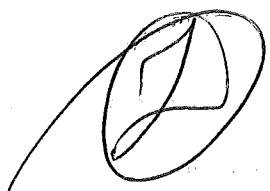
Work Order #: 1704-07844

Project Name: PLYMOUTH ENV.

Sample Number: 002
Sample Description: WW-170634 7SR
Sample Type : GRAB
Sample Date / Time : 4/12/2017 @ 13:40

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED		ANALYST
Isopropylbenzene	<1	1	ug/l	SW-846 8260C	4/19/2017	16:27	WL
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260C	4/19/2017	16:27	WL
Methylene Chloride	<5	5	ug/l	SW-846 8260C	4/19/2017	16:27	WL
Naphthalene	<1	1	ug/l	SW-846 8260C	4/19/2017	16:27	WL
n-Propylbenzene	<1	1	ug/l	SW-846 8260C	4/19/2017	16:27	WL
Styrene	<1	1	ug/l	SW-846 8260C	4/19/2017	16:27	WL
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260C	4/19/2017	16:27	WL
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260C	4/19/2017	16:27	WL
Tetrachloroethene	<1	1	ug/l	SW-846 8260C	4/19/2017	16:27	WL
Toluene	<1	1	ug/l	SW-846 8260C	4/19/2017	16:27	WL
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260C	4/19/2017	16:27	WL
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260C	4/19/2017	16:27	WL
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260C	4/19/2017	16:27	WL
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260C	4/19/2017	16:27	WL
Trichloroethene	<1	1	ug/l	SW-846 8260C	4/19/2017	16:27	WL
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260C	4/19/2017	16:27	WL
1,2,3-Trichloropropane	<2	2	ug/l	SW-846 8260C	4/19/2017	16:27	WL
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260C	4/19/2017	16:27	WL
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260C	4/19/2017	16:27	WL
Vinyl Chloride	<1	1	ug/l	SW-846 8260C	4/19/2017	16:27	WL
o-Xylene	<1	1	ug/l	SW-846 8260C	4/19/2017	16:27	WL
m,p-Xylene	<2	2	ug/l	SW-846 8260C	4/19/2017	16:27	WL
MTBE	<2	2	ug/l	SW-846 8260C	4/19/2017	16:27	WL
Carbon Disulfide	<5	5	ug/l	SW-846 8260C	4/19/2017	16:27	WL
Acetone	<10	10	ug/l	SW-846 8260C	4/19/2017	16:27	WL
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260C	4/19/2017	16:27	WL
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260C	4/19/2017	16:27	WL
2-Hexanone	<10	10	ug/l	SW-846 8260C	4/19/2017	16:27	WL
cis-1,3-Dichloropropene	<0.4	0.4	ug/l	SW-846 8260C	4/19/2017	16:27	WL
trans-1,3-Dichloropropylene	<0.4	0.4	ug/l	SW-846 8260C	4/19/2017	16:27	WL
Vinyl Acetate	<50	50	ug/l	SW-846 8260C	4/19/2017	16:27	WL
Surrogates			RANGE				
Dibromofluoromethane	105		86-118%	SW-846 8260C	4/19/2017	16:27	WL
Toluene-d8	101		88-110%	SW-846 8260C	4/19/2017	16:27	WL
4-Bromofluorobenzene	104		86-115%	SW-846 8260C	4/19/2017	16:27	WL
1,2 Dichloroethane-d4	98		80-120%	SW-846 8260C	4/19/2017	16:27	WL
Total Metals							
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	4/18/2017	18:58	RAT
Mercury Digestion				EPA 245.1	4/18/2017	18:02	NS

Cu Re 4/26



Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of Custody

Client:

Town of Plymouth - Department of Marine & Environmental Affairs Attn: Kim Tower
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, ktower@townhall.plymouth.ma.us
Project Name: **GW Eel River -Plymouth MA**
Sampler: **Kim Tower (KT)**

NW-170633

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
4/12/17	1200	DW-1	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN - Total Nitrogen	H2SO4
			1	500ml Plastic	Ph/cond, turb, NO ₂ , NO ₃	NONE
			1	500ml Plastic	B, Cu, Hg, NO ₃ , NO ₂ , Ch, TDS, FE	NONE
			1	Plastic	TOC	H2SO4
			1	Glass	Ortho-phosphate	NONE
4/12/17	1340	7SR	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN - Total Nitrogen	H2SO4
			1	500ml Plastic	Ph/cond, turb, NO ₂ , NO ₃	NONE
			1	500ml Plastic	B, Cu, Hg, NO ₃ , NO ₂ , Ch, TDS, FE	NONE
			1	Plastic	TOC	H2SO4
			1	Glass	Ortho-phosphate	NONE

NW-170634

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Boron, Chloride, Copper, Iron, Mercury, VOC

Relinquished By: Date/Time

Kim Tower

Received By: Date/Time:

J. Lavalley 4/12/17 1415

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
 Sandwich, MA 02563
 (508)888-6460 1-800-339-6460
 FAX (508)888-6446

Monday, July 17, 2017

Plymouth Environmental Management
 K. Towers/ 11 Lincoln St.
 Plymouth, MA

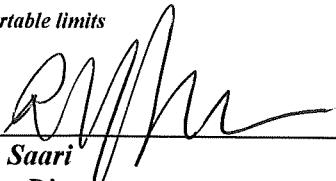
ProjectName: GW Eel River
Project Number: Bradford
Collection Date: 04/13/17 **Collection Time:** 08:00
Sampled By: Kim Tower
Lab Order Number: WW-170642
Date Received: 04/13/17

Comments:

Sample Type	Sample Time	Sample Date	Comments			
Bradford A	08:00	04/13/17	Bradford			
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
pH	pH units	5.87	NA	04/13/17	LL	SM 4500 H-B
Total Dissolved Solids	mg/L	45	6.0	04/18/17	KB	SM 2540 C
Specific Conductance	uhoms/cm	60	10	04/13/17	LL	EPA 120.1
Total Organic Carbon*	mg/L	0.63*	0.5	04/20/17	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	04/19/17	RIA*	*
Total Iron	mg/L	3.43	0.01	04/26/17	MC	EPA 200.7
Mercury*	mg/L	<0.0005*	0.0005	04/18/17	RIA*	EPA 245.1
Boron	mg/L	BRL	0.010	04/26/17	MC	EPA 200.7
Copper	mg/L	0.007	0.003	04/26/17	MC	EPA 200.7
Nitrate-N	mg/L	0.11	0.01	04/14/17	LL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	04/14/17	LL	EPA 300.0
Ammonia-N *	mg/L	0.11*	0.02	04/24/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.21	0.2	04/28/17	KB	SM4500-Norg B-C
Turbidity	NTU	8.3	1.0	04/14/17	LL	SM 2130 B
Chloride	mg/L	12.3	3.0	04/14/17	LL	EPA 300.0
Total Phosphorous (P)	mg/L	0.057	0.005	04/14/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.20	04/28/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	<0.5*	0.50	04/20/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.22	NA	05/29/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	<0.09	NA	05/29/17	MC	Calculation
Ortho Phosphorous (P)	mg/L	0.026	0.005	04/13/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	<0.13	NA	05/29/17	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	<0.01	NA	05/29/17	RIA*	Calculation
Total Dissolved Nitrogen	mg/L	<0.32	NA	04/28/17	KB	Calculation

BRL=below reportable limits

*see attached

By: 
 Ronald J. Saari
 Laboratory Director

R.I. Analytical Laboratories, Inc.

Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1704-07844

Project Name: PLYMOUTH ENV.

Sample Number: 003
Sample Description: WW-170642 BRADFORD
Sample Type : GRAB
Sample Date / Time : 4/13/2017 @ 08:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.11	0.02	mg/l	SM4500NH3-B,H 18-21ed	4/24/2017 17:43	MFH
TOC Low Level	0.63	0.5	mg/l	SM5310B 18-21ed	4/20/2017 18:35	TAS
Dissolved TOC	<0.5	0.5	mg/l	EPA 415.1	4/20/2017 18:35	TAS
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260C	4/19/2017 16:55	WL
Bromobenzene	<1	1	ug/l	SW-846 8260C	4/19/2017 16:55	WL
Bromochloromethane	<1	1	ug/l	SW-846 8260C	4/19/2017 16:55	WL
Bromodichloromethane	<1	1	ug/l	SW-846 8260C	4/19/2017 16:55	WL
Bromoform	<1	1	ug/l	SW-846 8260C	4/19/2017 16:55	WL
Bromomethane	<5	5	ug/l	SW-846 8260C	4/19/2017 16:55	WL
n-Butylbenzene	<1	1	ug/l	SW-846 8260C	4/19/2017 16:55	WL
Sec-butylbenzene	<1	1	ug/l	SW-846 8260C	4/19/2017 16:55	WL
tert-Butylbenzene	<1	1	ug/l	SW-846 8260C	4/19/2017 16:55	WL
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260C	4/19/2017 16:55	WL
Chlorobenzene	<1	1	ug/l	SW-846 8260C	4/19/2017 16:55	WL
Chloroethane	<5	5	ug/l	SW-846 8260C	4/19/2017 16:55	WL
Chloroform	<1	1	ug/l	SW-846 8260C	4/19/2017 16:55	WL
Chloromethane	<5	5	ug/l	SW-846 8260C	4/19/2017 16:55	WL
2-Chlorotoluene	<1	1	ug/l	SW-846 8260C	4/19/2017 16:55	WL
4-Chlorotoluene	<1	1	ug/l	SW-846 8260C	4/19/2017 16:55	WL
Dibromochloromethane	<1	1	ug/l	SW-846 8260C	4/19/2017 16:55	WL
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260C	4/19/2017 16:55	WL
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260C	4/19/2017 16:55	WL
Dibromomethane	<2	2	ug/l	SW-846 8260C	4/19/2017 16:55	WL
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	4/19/2017 16:55	WL
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	4/19/2017 16:55	WL
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	4/19/2017 16:55	WL
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260C	4/19/2017 16:55	WL
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260C	4/19/2017 16:55	WL
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260C	4/19/2017 16:55	WL
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260C	4/19/2017 16:55	WL
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260C	4/19/2017 16:55	WL
trans-1,2-Dichloroethylene	<2	2	ug/l	SW-846 8260C	4/19/2017 16:55	WL
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260C	4/19/2017 16:55	WL
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260C	4/19/2017 16:55	WL
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260C	4/19/2017 16:55	WL
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260C	4/19/2017 16:55	WL
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260C	4/19/2017 16:55	WL
Ethylbenzene	<1	1	ug/l	SW-846 8260C	4/19/2017 16:55	WL
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260C	4/19/2017 16:55	WL

R.I. Analytical Laboratories, Inc.

Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1704-07844

Project Name: PLYMOUTH ENV.

Sample Number: 003
Sample Description: WW-170642 BRADFORD
Sample Type : GRAB
Sample Date / Time : 4/13/2017 @ 08:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED		ANALYST
Isopropylbenzene	<1	1	ug/l	SW-846 8260C	4/19/2017	16:55	WL
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260C	4/19/2017	16:55	WL
Methylene Chloride	<5	5	ug/l	SW-846 8260C	4/19/2017	16:55	WL
Naphthalene	<1	1	ug/l	SW-846 8260C	4/19/2017	16:55	WL
n-Propylbenzene	<1	1	ug/l	SW-846 8260C	4/19/2017	16:55	WL
Styrene	<1	1	ug/l	SW-846 8260C	4/19/2017	16:55	WL
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260C	4/19/2017	16:55	WL
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260C	4/19/2017	16:55	WL
Tetrachloroethene	<1	1	ug/l	SW-846 8260C	4/19/2017	16:55	WL
Toluene	<1	1	ug/l	SW-846 8260C	4/19/2017	16:55	WL
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260C	4/19/2017	16:55	WL
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260C	4/19/2017	16:55	WL
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260C	4/19/2017	16:55	WL
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260C	4/19/2017	16:55	WL
Trichloroethene	<1	1	ug/l	SW-846 8260C	4/19/2017	16:55	WL
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260C	4/19/2017	16:55	WL
1,2,3-Trichloropropane	<2	2	ug/l	SW-846 8260C	4/19/2017	16:55	WL
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260C	4/19/2017	16:55	WL
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260C	4/19/2017	16:55	WL
Vinyl Chloride	<1	1	ug/l	SW-846 8260C	4/19/2017	16:55	WL
o-Xylene	<1	1	ug/l	SW-846 8260C	4/19/2017	16:55	WL
m,p-Xylene	<2	2	ug/l	SW-846 8260C	4/19/2017	16:55	WL
MTBE	<2	2	ug/l	SW-846 8260C	4/19/2017	16:55	WL
Carbon Disulfide	<5	5	ug/l	SW-846 8260C	4/19/2017	16:55	WL
Acetone	<10	10	ug/l	SW-846 8260C	4/19/2017	16:55	WL
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260C	4/19/2017	16:55	WL
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260C	4/19/2017	16:55	WL
2-Hexanone	<10	10	ug/l	SW-846 8260C	4/19/2017	16:55	WL
cis-1,3-Dichloropropene	<0.4	0.4	ug/l	SW-846 8260C	4/19/2017	16:55	WL
trans-1,3-Dichloropropylene	<0.4	0.4	ug/l	SW-846 8260C	4/19/2017	16:55	WL
Vinyl Acetate	<50	50	ug/l	SW-846 8260C	4/19/2017	16:55	WL
Surrogates			RANGE				
Dibromofluoromethane	105		86-118%	SW-846 8260C	4/19/2017	16:55	WL
Toluene-d8	99		88-110%	SW-846 8260C	4/19/2017	16:55	WL
4-Bromofluorobenzene	104		86-115%	SW-846 8260C	4/19/2017	16:55	WL
1,2 Dichloroethane-d4	97		80-120%	SW-846 8260C	4/19/2017	16:55	WL
Total Metals							
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	4/18/2017	18:59	RAT
Mercury Digestion				EPA 245.1	4/18/2017	18:02	NS

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
 Sandwich, MA 02563
 (508)888-6460 1-800-339-6460
 FAX (508)888-6446

Monday, July 17, 2017

Plymouth Environmental Management
 K. Towers/ 11 Lincoln St.
 Plymouth, MA

ProjectName: GW Eel River

Comments:

Project Number: GW-1

Collection Date: 04/13/17 **Collection Time:** 08:30

Sampled By: Kim Tower

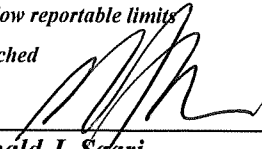
Lab Order Number: WW-170643

Date Received: 04/13/17

Sample Type	Sample Time	Sample Date	Comments			
GW-1 A	08:30	04/13/17	GW-1			
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
pH	pH units	7.79	NA	04/13/17	LL	SM 4500 H-B
Total Dissolved Solids	mg/L	10	6.0	04/18/17	KB	SM 2540 C
Specific Conductance	uhoms/cm	BRL	10	04/13/17	LL	EPA 120.1
Total Organic Carbon*	mg/L	<0.5*	0.5	04/20/17	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	04/19/17	RIA*	*
Total Iron	mg/L	BRL	0.01	04/26/17	MC	EPA 200.7
Mercury*	mg/L	<0.0005*	0.0005	04/18/17	RIA*	EPA 245.1
Boron	mg/L	BRL	0.010	04/26/17	MC	EPA 200.7
Copper	mg/L	BRL	0.003	04/26/17	MC	EPA 200.7
Nitrate-N	mg/L	BRL	0.01	04/14/17	LL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	04/14/17	LL	EPA 300.0
Ammonia-N *	mg/L	0.094*	0.02	04/24/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	BRL	0.2	04/28/17	KB	SM4500-Norg B-C
Turbidity	NTU	BRL	1.0	04/14/17	LL	SM 2130 B
Chloride	mg/L	BRL	3.0	04/14/17	LL	EPA 300.0
Total Phosphorous (P)	mg/L	BRL	0.005	04/14/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.20	04/28/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	<0.5*	0.50	04/20/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.094	NA	05/29/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	<0.11	NA	05/29/17	MC	Calculation
Ortho Phosphorous (P)	mg/L	BRL	0.005	04/13/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	ND	NA	05/29/17	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	ND	NA	05/29/17	RIA*	Calculation
Total Dissolved Nitrogen	mg/L	<0.21	NA	04/29/17	KB	Calculation

BRL=below reportable limits

*see attached

By: 
 Ronald J. Scari
 Laboratory Director

R.I. Analytical Laboratories, Inc.

Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1704-07844

Project Name: PLYMOUTH ENV.

Sample Number: 004
Sample Description: WW-170643 GW-1
Sample Type : GRAB
Sample Date / Time : 4/13/2017 @ 08:30

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.094	0.02	mg/l	SM4500NH3-B,H 18-21ed	4/24/2017 17:43	MFH
TOC Low Level	<0.5	0.5	mg/l	SM5310B 18-21ed	4/20/2017 18:35	TAS
Dissolved TOC	<0.5	0.5	mg/l	EPA 415.1	4/20/2017 18:35	TAS
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260C	4/19/2017 17:23	WL
Bromobenzene	<1	1	ug/l	SW-846 8260C	4/19/2017 17:23	WL
Bromochloromethane	<1	1	ug/l	SW-846 8260C	4/19/2017 17:23	WL
Bromodichloromethane	<1	1	ug/l	SW-846 8260C	4/19/2017 17:23	WL
Bromoform	<1	1	ug/l	SW-846 8260C	4/19/2017 17:23	WL
Bromomethane	<5	5	ug/l	SW-846 8260C	4/19/2017 17:23	WL
n-Butylbenzene	<1	1	ug/l	SW-846 8260C	4/19/2017 17:23	WL
Sec-butylbenzene	<1	1	ug/l	SW-846 8260C	4/19/2017 17:23	WL
tert-Butylbenzene	<1	1	ug/l	SW-846 8260C	4/19/2017 17:23	WL
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260C	4/19/2017 17:23	WL
Chlorobenzene	<1	1	ug/l	SW-846 8260C	4/19/2017 17:23	WL
Chloroethane	<5	5	ug/l	SW-846 8260C	4/19/2017 17:23	WL
Chloroform	<1	1	ug/l	SW-846 8260C	4/19/2017 17:23	WL
Chloromethane	<5	5	ug/l	SW-846 8260C	4/19/2017 17:23	WL
2-Chlorotoluene	<1	1	ug/l	SW-846 8260C	4/19/2017 17:23	WL
4-Chlorotoluene	<1	1	ug/l	SW-846 8260C	4/19/2017 17:23	WL
Dibromochloromethane	<1	1	ug/l	SW-846 8260C	4/19/2017 17:23	WL
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260C	4/19/2017 17:23	WL
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260C	4/19/2017 17:23	WL
Dibromomethane	<2	2	ug/l	SW-846 8260C	4/19/2017 17:23	WL
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	4/19/2017 17:23	WL
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	4/19/2017 17:23	WL
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	4/19/2017 17:23	WL
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260C	4/19/2017 17:23	WL
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260C	4/19/2017 17:23	WL
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260C	4/19/2017 17:23	WL
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260C	4/19/2017 17:23	WL
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260C	4/19/2017 17:23	WL
trans-1,2-Dichloroethylene	<2	2	ug/l	SW-846 8260C	4/19/2017 17:23	WL
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260C	4/19/2017 17:23	WL
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260C	4/19/2017 17:23	WL
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260C	4/19/2017 17:23	WL
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260C	4/19/2017 17:23	WL
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260C	4/19/2017 17:23	WL
Ethylbenzene	<1	1	ug/l	SW-846 8260C	4/19/2017 17:23	WL
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260C	4/19/2017 17:23	WL

R.I. Analytical Laboratories, Inc.

Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1704-07844

Project Name: PLYMOUTH ENV.

Sample Number: 004
Sample Description: WW-170643 GW-1
Sample Type : GRAB
Sample Date / Time : 4/13/2017 @ 08:30

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Isopropylbenzene	<1	1	ug/l	SW-846 8260C	4/19/2017 17:23	WL
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260C	4/19/2017 17:23	WL
Methylene Chloride	<5	5	ug/l	SW-846 8260C	4/19/2017 17:23	WL
Naphthalene	<1	1	ug/l	SW-846 8260C	4/19/2017 17:23	WL
n-Propylbenzene	<1	1	ug/l	SW-846 8260C	4/19/2017 17:23	WL
Styrene	<1	1	ug/l	SW-846 8260C	4/19/2017 17:23	WL
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260C	4/19/2017 17:23	WL
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260C	4/19/2017 17:23	WL
Tetrachloroethene	<1	1	ug/l	SW-846 8260C	4/19/2017 17:23	WL
Toluene	<1	1	ug/l	SW-846 8260C	4/19/2017 17:23	WL
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260C	4/19/2017 17:23	WL
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260C	4/19/2017 17:23	WL
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260C	4/19/2017 17:23	WL
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260C	4/19/2017 17:23	WL
Trichloroethene	<1	1	ug/l	SW-846 8260C	4/19/2017 17:23	WL
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260C	4/19/2017 17:23	WL
1,2,3-Trichloropropane	<2	2	ug/l	SW-846 8260C	4/19/2017 17:23	WL
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260C	4/19/2017 17:23	WL
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260C	4/19/2017 17:23	WL
Vinyl Chloride	<1	1	ug/l	SW-846 8260C	4/19/2017 17:23	WL
o-Xylene	<1	1	ug/l	SW-846 8260C	4/19/2017 17:23	WL
m,p-Xylene	<2	2	ug/l	SW-846 8260C	4/19/2017 17:23	WL
MTBE	<2	2	ug/l	SW-846 8260C	4/19/2017 17:23	WL
Carbon Disulfide	<5	5	ug/l	SW-846 8260C	4/19/2017 17:23	WL
Acetone	<10	10	ug/l	SW-846 8260C	4/19/2017 17:23	WL
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260C	4/19/2017 17:23	WL
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260C	4/19/2017 17:23	WL
2-Hexanone	<10	10	ug/l	SW-846 8260C	4/19/2017 17:23	WL
cis-1,3-Dichloropropene	<0.4	0.4	ug/l	SW-846 8260C	4/19/2017 17:23	WL
trans-1,3-Dichloropropylene	<0.4	0.4	ug/l	SW-846 8260C	4/19/2017 17:23	WL
Vinyl Acetate	<50	50	ug/l	SW-846 8260C	4/19/2017 17:23	WL
Surrogates			RANGE			
Dibromofluoromethane	104		86-118%	SW-846 8260C	4/19/2017 17:23	WL
Toluene-d8	100		88-110%	SW-846 8260C	4/19/2017 17:23	WL
4-Bromofluorobenzene	105		86-115%	SW-846 8260C	4/19/2017 17:23	WL
1,2 Dichloroethane-d4	97		80-120%	SW-846 8260C	4/19/2017 17:23	WL
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	4/18/2017 19:02	RAT
Mercury Digestion				EPA 245.1	4/18/2017 18:02	NS

R.I. Analytical Laboratories, Inc.

Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1704-07844

Project Name: PLYMOUTH ENV.

ENVIROTECH LABS, INC.

RI Analytical

MR1015

**41 Illinois Avenue
Warwick, RI 02888**

401-737-8500

401-738-1970

Analysis requested

Ammonia-N (0.02 mdll)

TOC total low detection

TOC dissolved

Mercury

EPA 8260 Extended

Ammonia-N (0.02 md/l)

TOC total low detection

TOC dissolved

Mercury

EPA 8260 Extended

Ammonia-N low level 0.02 mg/L

Total TOC low level 0.5 mg/L

dissolved TOC low level 0.5 mg/L

Relinquished:

L. Swall,

Date/Time

4/14/07 1436

Received:

Signature

Relinquished:

Quished: *Frank O'Back*

Date/Time

47/17124

Received:

Received: 5/2/2019

~~DOC~~ dissolved samples are filtered

Contact lab with any exceeded MCI

Page 2 of 2

1704-078-44

need Cu₂Pc 6/24

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of Custody

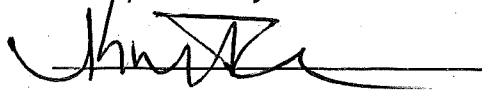
Client:

Town of Plymouth - Department of Marine & Environmental Affairs Attn: Kim Tower
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, ktower@townhall.plymouth.ma.us
Project Name: GW Eel River -Plymouth MA
Sampler: Kim Tower (KT)

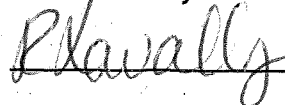
Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
4/13/17	0800	Bradford	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN - Total Nitrogen	H2SO4
			1	500ml Plastic	Ph/cond, turb, NO ₂ , NO ₃	NONE
			1	500ml Plastic	B, Cu, Hg, NO ₃ , NO ₂ , Ch, TDS, FE	NONE
			1	Plastic	TOC	H2SO4
			1	Glass	Ortho-phosphate	NONE
4/13/17	0830	GW-1	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN - Total Nitrogen	H2SO4
			1	500ml Plastic	Ph/cond, turb, NO ₂ , NO ₃	NONE
			1	500ml Plastic	B, Cu, Hg, NO ₃ , NO ₂ , Ch, TDS, FE	NONE
			1	Plastic	TOC	H2SO4
			1	Glass	Ortho-phosphate	NONE

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Boron, Chloride, Copper, Iron, Mercury, VOC

Relinquished By: Date/Time



Received By: Date/Time:

 04/13/17 1450

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Wednesday, July 19, 2017

Plymouth Environmental Management

K.Towers/ 11 Lincoln St.

Plymouth, MA

ProjectName: Eel River SW Sampling

Comments:

Project Number: S-8 B

Collection Date: 05/04/17 **Collection Time:** 10:00

Sampled By: K Tower

Lab Order Number: WW-170796

Date Received: 05/04/17

Sample Type	Sample Time	Sample Date	Comments			
S-8B A	10:00	05/14/17	S-8 B			
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
pH	pH units	6.88	NA	05/04/17	LL	SM 4500 H-B
Specific Conductance	uhoms/cm	BRL	10	05/04/17	LL	EPA 120.1
Total Organic Carbon*	mg/L	<0.5*	0.5	05/16/17	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	05/15/17	MC	EPA 200.7
Nitrate-N	mg/L	BRL	0.01	05/04/17	LL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	05/04/17	LL	EPA 300.0
Ammonia-N *	mg/L	0.13*	0.02	05/09/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	BRL	0.2	05/10/17	KB	SM4500-Norg B-C
Turbidity	NTU	BRL	1.0	05/04/17	LL	SM 2130 B
Chloride	mg/L	BRL	3.0	05/04/17	LL	EPA 300.0
Total Phosphorous (P)	mg/L	BRL	0.005	05/18/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.20	05/10/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	<0.5*	0.50	05/16/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.13	NA	05/29/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	<0.13	NA	06/19/17	KB	Calculation
Chlorophyll-a	*	ND*	*	05/08/17	Alpha*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	05/04/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	ND	NA	05/29/17	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	ND	NA	06/19/17	KB	Calculation
Total Dissolved Nitrogen	mg/L	<0.20	NA	06/19/17	KB	Calculation
E coli	CFU/100mL	<5	<1	05/04/17	MC	EPA 1603

BRL=below reportable limits

*see attached

By:

Ronald J. Satri
Laboratory Director

Serial_No:05101714:01

Project Name: PLYMOUTH ENVIRONMENTAL MGMT

Lab Number: L1714541

Project Number: Not Specified

Report Date: 05/10/17

SAMPLE RESULTS

Lab ID: L1714541-01

Date Collected: 05/04/17 10:00

Client ID: WW-170796

Date Received: 05/05/17

Sample Location: S-8B

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	ND		mg/m3	2.00	NA	1	05/05/17 16:40	05/08/17 09:50	121, 10200H	DW



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Monday, June 19, 2017

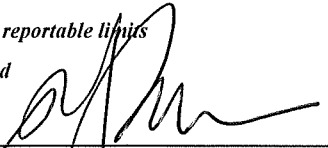
Plymouth Environmental Management
K. Towers/ 11 Lincoln St.
Plymouth, MA

ProjectName: Eel River SW Sampling **Comments:**
Project Number: S-5 B
Collection Date: 05/04/17 **Collection Time:** 10:20
Sampled By: K Tower
Lab Order Number: WW-170797
Date Received: 05/04/17

Sample Type		Sample Time	Sample Date	Comments		
S 5B	A	10:20	05/04/17	S-5 B		
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
pH	pH units	6.94	NA	05/04/17	LL	SM 4500 H-B
Specific Conductance	uhoms/cm	160	10	05/04/17	LL	EPA 120.1
Total Organic Carbon*	mg/L	4.4*	0.5	05/16/17	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	05/15/17	MC	EPA 200.7
Nitrate-N	mg/L	0.15	0.01	05/04/17	LL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	05/04/17	LL	EPA 300.0
Ammonia-N *	mg/L	0.061*	0.02	05/09/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.52	0.2	05/10/17	KB	SM4500-Norg B-C
Turbidity	NTU	3.9	1.0	05/04/17	LL	SM 2130 B
Chloride	mg/L	45	3.0	05/04/17	LL	EPA 300.0
Total Phosphorous (P)	mg/L	0.028	0.005	05/18/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.36	0.20	05/10/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	4.0*	0.50	05/16/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.21	NA	05/29/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.30	NA	06/19/17	KB	Calculation
Chlorophyll-a	*	16.7*	*	05/08/17	Alpha*	*
Ortho Phosphorous (P)	mg/L	0.007	0.005	05/04/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	0.4	NA	05/29/17	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.16	NA	06/19/17	KB	Calculation
Total Dissolved Nitrogen	mg/L	0.51	NA	06/19/17	KB	Calculation
E coli	CFU/100mL	70	<1	05/04/17	MC	EPA 1603

BRL=below reportable limits

*see attached

By: 
Ronald J. Saari
Laboratory Director

Serial_No:05101714:01

Project Name: PLYMOUTH ENVIRONMENTAL MGMT

Lab Number: L1714541

Project Number: Not Specified

Report Date: 05/10/17

SAMPLE RESULTS

Lab ID: L1714541-02

Date Collected: 05/04/17 10:20

Client ID: WW-170797

Date Received: 05/05/17

Sample Location: S-5B

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	16.7		mg/m3	2.00	NA	1	05/05/17 16:40	05/08/17 09:50	121, 10200H	DW



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Monday, June 19, 2017

Plymouth Environmental Management
 K.Towers/ 11 Lincoln St.
 Plymouth, MA

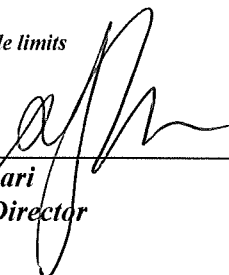
ProjectName: Eel River SW Sampling **Comments:**
Project Number: S-4A
Collection Date: 05/04/17 **Collection Time:** 10:40
Sampled By: K Tower
Lab Order Number: WW-170798
Date Received: 05/04/17

Sample Type	Sample Time	Sample Date	Comments			
S 4A A	10:40	05/04/17	S 4A			
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
pH	pH units	6.85	NA	05/04/17	LL	SM 4500 H-B
Specific Conductance	uhoms/cm	120	10	05/04/17	LL	EPA 120.1
Total Organic Carbon*	mg/L	4.3*	0.5	05/16/17	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	05/15/17	MC	EPA 200.7
Nitrate-N	mg/L	0.12	0.01	05/04/17	LL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	05/04/17	LL	EPA 300.0
Ammonia-N *	mg/L	0.15*	0.02	05/09/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.42	0.2	05/11/17	KB	SM4500-Norg B-C
Turbidity	NTU	2.4	1.0	05/04/17	LL	SM 2130 B
Chloride	mg/L	33	3.0	05/04/17	RL	EPA 300.0
Total Phosphorous (P)	mg/L	0.030	0.005	05/18/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.36	0.20	05/11/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	4.0*	0.50	05/16/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.27	NA	05/29/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.21	NA	06/19/17	KB	Calculation
Chlorophyll-a	*	16.6*	*	05/08/17	Alpha*	*
Ortho Phosphorous (P)	mg/L	0.008	0.005	05/04/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	0.3	NA	05/29/17	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.11	NA	06/19/17	KB	Calculation
Total Dissolved Nitrogen	mg/L	0.49	NA	06/19/17	KB	Calculation
E coli	CFU/100mL	5	<1	05/04/17	MC	EPA 1603

BRL=below reportable limits

*see attached

By:


 Ronald J. Saari
 Laboratory Director

Serial_No:05101714:01

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Lab Number: L1714541
Report Date: 05/10/17

SAMPLE RESULTS

Lab ID: L1714541-03
Client ID: WW-170798
Sample Location: S-4A
Matrix: Water

Date Collected: 05/04/17 10:40
Date Received: 05/05/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	16.6		mg/m3	2.00	NA	1	05/05/17 16:40	05/08/17 09:50	121, 10200H	DW



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Monday, June 19, 2017

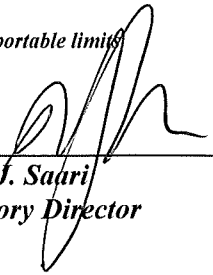
Plymouth Environmental Management
K. Towers/ 11 Lincoln St.
Plymouth, MA

ProjectName: Eel River SW Sampling **Comments:**
Project Number: S-3A
Collection Date: 05/04/17 **Collection Time:** 10:55
Sampled By: K Tower
Lab Order Number: WW-170799
Date Received: 05/04/17

Sample Type	Sample Time	Sample Date	Comments			
S 3A A	10:55	05/04/17	S-3A			
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
pH	pH units	6.80	NA	05/04/17	LL	SM 4500 H-B
Specific Conductance	uhoms/cm	120	10	05/04/17	LL	EPA 120.1
Total Organic Carbon*	mg/L	2.1*	0.5	05/16/17	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	05/15/17	MC	EPA 200.7
Nitrate-N	mg/L	0.18	0.01	05/04/17	LL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	05/04/17	LL	EPA 300.0
Ammonia-N *	mg/L	0.062*	0.02	05/09/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.49	0.2	05/10/17	KB	SM4500-Norg B-C
Turbidity	NTU	3.3	1.0	05/04/17	LL	SM 2130 B
Chloride	mg/L	33	3.0	05/04/17	LL	EPA 300.0
Total Phosphorous (P)	mg/L	0.020	0.005	05/18/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.32	0.20	05/10/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	1.6*	0.50	05/16/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.24	NA	05/29/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.26	NA	06/19/17	KB	Calculation
Chlorophyll-a	*	16.8*	*	05/08/17	Alpha*	*
Ortho Phosphorous (P)	mg/L	0.009	0.005	05/04/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	0.5	NA	05/29/17	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.17	NA	06/19/17	KB	Calculation
Total Dissolved Nitrogen	mg/L	0.50	NA	06/19/17	KB	Calculation
E coli	CFU/100mL	5	<1	05/04/17	MC	EPA 1603

BRL=below reportable limits

*see attached

By: 
Ronald J. Saari
Laboratory Director

Serial_No:05101714:01

Project Name: PLYMOUTH ENVIRONMENTAL MGMT

Lab Number: L1714541

Project Number: Not Specified

Report Date: 05/10/17

SAMPLE RESULTS

Lab ID: L1714541-04

Date Collected: 05/04/17 10:55

Client ID: WW-170799

Date Received: 05/05/17

Sample Location: S-3A

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	16.8		mg/m3	2.00	NA	1	05/05/17 16:40	05/08/17 09:50	121, 10200H	DW



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Monday, June 19, 2017

Plymouth Environmental Management
K. Towers/ 11 Lincoln St.
Plymouth, MA

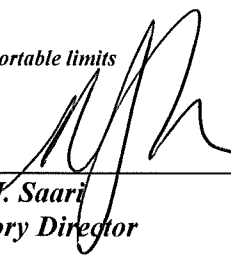
ProjectName: Eel River SW Sampling **Comments:**
Project Number: S-2 C
Collection Date: 05/04/17 **Collection Time:** 11:25
Sampled By: K Tower
Lab Order Number: WW-170800
Date Received: 05/04/17

Sample Type		Sample Time	Sample Date	Comments		
S 2C	A	11:25	05/04/17	S-2 C		
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
pH	pH units	6.91	NA	05/04/17	LL	SM 4500 H-B
Specific Conductance	uhoms/cm	110	10	05/04/17	LL	EPA 120.1
Total Organic Carbon*	mg/L	2.1*	0.5	05/16/17	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	05/15/17	MC	EPA 200.7
Nitrate-N	mg/L	0.08	0.01	05/04/17	LL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	05/04/17	LL	EPA 300.0
Ammonia-N *	mg/L	0.059*	0.02	05/09/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.41	0.2	05/10/17	KB	SM4500-Norg B-C
Turbidity	NTU	3.3	1.0	05/04/17	LL	SM 2130 B
Chloride	mg/L	28	3.0	05/04/17	LL	EPA 300.0
Total Phosphorous (P)	mg/L	0.022	0.005	05/18/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.20	05/10/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	1.6*	0.50	05/16/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.14	NA	05/29/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	<0.14	NA	06/19/17	KB	Calculation
Chlorophyll-a	*	17.9*	*	05/08/17	Alpha*	*
Ortho Phosphorous (P)	mg/L	0.009	0.005	05/04/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	0.5	NA	05/29/17	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	<0.21	NA	06/19/17	KB	Calculation
Total Dissolved Nitrogen	mg/L	<0.29	NA	06/19/17	KB	Calculation
E coli	CFU/100mL	5	<1	05/04/17	MC	EPA 1603

BRL=below reportable limits

*see attached

By:


Ronald J. Saari
Laboratory Director

Serial_No:05101714:01

Project Name: PLYMOUTH ENVIRONMENTAL MGMT

Lab Number: L1714541

Project Number: Not Specified

Report Date: 05/10/17

SAMPLE RESULTS

Lab ID: L1714541-05

Date Collected: 05/04/17 11:25

Client ID: WW-170800

Date Received: 05/05/17

Sample Location: S-2C

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	17.9		mg/m3	2.00	NA	1	05/05/17 16:40	05/08/17 09:50	121, 10200H	DW



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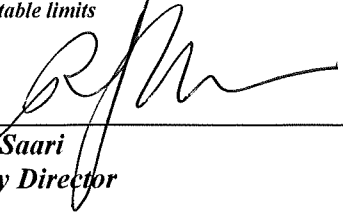
Plymouth Environmental Management
 K.Towers/ 11 Lincoln St.
 Plymouth, MA

ProjectName: Eel River SW Sampling **Comments:**
Project Number: S-6 A
Collection Date: 05/04/17 **Collection Time:** 12:10
Sampled By: K Tower
Lab Order Number: WW-170801
Date Received: 05/04/17

Sample Type	Sample Time	Sample Date	Comments			
S 6A A	12:10	05/04/17	S-6 A			
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
pH	pH units	6.47	NA	05/04/17	LL	SM 4500 H-B
Specific Conductance	uhoms/cm	83	10	05/04/17	LL	EPA 120.1
Total Organic Carbon*	mg/L	2.0*	0.5	05/16/17	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	05/15/17	MC	EPA 200.7
Nitrate-N	mg/L	0.24	0.01	05/04/17	LL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	05/04/17	LL	EPA 300.0
Ammonia-N *	mg/L	0.051*	0.02	05/09/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.21	0.2	05/10/17	KB	SM4500-Norg B-C
Turbidity	NTU	1.0	1.0	05/04/17	LL	SM 2130 B
Chloride	mg/L	21	3.0	05/04/17	LL	EPA 300.0
Total Phosphorous (P)	mg/L	0.015	0.005	05/18/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.20	05/10/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	1.6*	0.50	05/16/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.29	NA	05/29/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	<0.15	NA	06/19/17	KB	Calculation
Chlorophyll-a	*	3.23*	*	05/08/17	Alpha*	*
Ortho Phosphorous (P)	mg/L	0.010	0.005	05/04/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	0.4	NA	05/29/17	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	<0.16	NA	06/19/17	KB	Calculation
Total Dissolved Nitrogen	mg/L	0.24	NA	06/19/17	KB	Calculation
E coli	CFU/100mL	10	<1	05/04/17	MC	EPA 1603

BRL=below reportable limits

*see attached

By: 
 Ronald J. Saari
 Laboratory Director

Serial_No:05101714:01

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Lab Number: L1714541
Report Date: 05/10/17

SAMPLE RESULTS

Lab ID: L1714541-06
Client ID: WW-170801
Sample Location: S-6A
Matrix: Water

Date Collected: 05/04/17 12:10
Date Received: 05/05/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	3.23		mg/m3	2.00	NA	1	05/05/17 16:40	05/08/17 09:50	121, 10200H	DW



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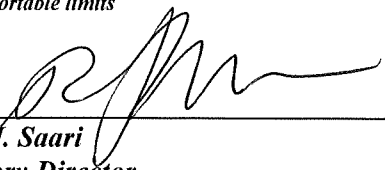
Plymouth Environmental Management
 K.Towers/ 11 Lincoln St.
 Plymouth, MA

ProjectName: Eel River SW Sampling **Comments:**
Project Number: S-12
Collection Date: 05/04/17 **Collection Time:** 12:30
Sampled By: K Tower
Lab Order Number: WW-170802
Date Received: 05/04/17

Sample Type		Sample Time	Sample Date	Comments		
S 12	A	12:30	05/04/17	S 12		
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
pH	pH units	6.63	NA	05/04/17	LL	SM 4500 H-B
Specific Conductance	uhoms/cm	77	10	05/04/17	LL	EPA 120.1
Total Organic Carbon*	mg/L	2.2*	0.5	05/16/17	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	05/15/17	MC	EPA 200.7
Nitrate-N	mg/L	0.23	0.01	05/04/17	LL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	05/04/17	LL	EPA 300.0
Ammonia-N *	mg/L	0.047*	0.02	05/09/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.31	0.2	05/12/17	KB	SM4500-Norg B-C
Turbidity	NTU	1.5	1.0	05/04/17	LL	SM 2130 B
Chloride	mg/L	20	3.0	05/04/17	LL	EPA 300.0
Total Phosphorous (P)	mg/L	0.017	0.005	05/18/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.24	0.20	05/12/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	2.0*	0.50	05/16/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.28	NA	05/29/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.19	NA	06/19/17	KB	Calculation
Chlorophyll-a	*	4.16*	*	05/08/17	Alpha*	*
Ortho Phosphorous (P)	mg/L	0.009	0.005	05/04/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	0.2	NA	05/29/17	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.07	NA	06/19/17	KB	Calculation
Total Dissolved Nitrogen	mg/L	0.47	NA	06/19/17	KB	Calculation
E coli	CFU/100mL	<5	<1	05/04/17	MC	EPA 1603

BRL=below reportable limits

*see attached

By: 
 Ronald J. Saari
 Laboratory Director

Serial_No:05101714:01

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Lab Number: L1714541
Report Date: 05/10/17

SAMPLE RESULTS

Lab ID: L1714541-07
Client ID: WW-170802
Sample Location: S-12
Matrix: Water

Date Collected: 05/04/17 12:30
Date Received: 05/05/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	4.16		mg/m3	2.00	NA	1	05/05/17 16:40	05/08/17 09:50	121, 10200H	DW



ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
 Sandwich, MA 02563
 (508)888-6460 1-800-339-6460
 FAX (508)888-6446

Monday, June 19, 2017

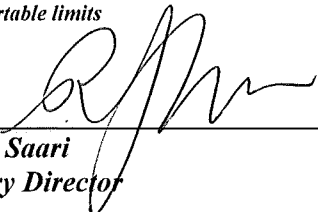
Plymouth Environmental Management
 K. Towers/ 11 Lincoln St.
 Plymouth, MA

ProjectName: Eel River SW Sampling **Comments:**
Project Number: S-8A
Collection Date: 05/04/17 **Collection Time:** 12:45
Sampled By: K Tower
Lab Order Number: WW-170803
Date Received: 05/04/17

Sample Type		Sample Time	Sample Date	Comments		
S 8A	A	12:45	05/04/17	S 8A		
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
pH	pH units	6.63	NA	05/04/17	LL	SM 4500 H-B
Specific Conductance	uhoms/cm	78	10	05/04/17	LL	EPA 120.1
Total Organic Carbon*	mg/L	2.2*	0.5	05/16/17	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	05/15/17	MC	EPA 200.7
Nitrate-N	mg/L	0.23	0.01	05/04/17	LL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	05/04/17	LL	EPA 300.0
Ammonia-N *	mg/L	0.049*	0.02	05/09/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.25	0.2	05/12/17	KB	SM4500-Norg B-C
Turbidity	NTU	1.50	1.0	05/04/17	LL	SM 2130 B
Chloride	mg/L	20	3.0	05/04/17	LL	EPA 300.0
Total Phosphorous (P)	mg/L	0.013	0.005	05/18/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.20	05/12/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	2.0*	0.50	05/16/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.28	NA	05/29/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	<0.15	NA	06/19/17	KB	Calculation
Chlorophyll-a	*	4.54*	*	05/08/17	Alpha*	*
Ortho Phosphorous (P)	mg/L	0.007	0.005	05/04/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	0.2	NA	05/29/17	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	<0.20	NA	06/19/17	KB	Calculation
Total Dissolved Nitrogen	mg/L	0.23	NA	06/19/17	KB	Calculation
E coli	CFU/100mL	15	<1	05/04/17	MC	EPA 1603

BRL=below reportable limits

*see attached

By: 
 Ronald J. Saari
 Laboratory Director

Serial_No:05101714:01

Project Name: PLYMOUTH ENVIRONMENTAL MGMT

Lab Number: L1714541

Project Number: Not Specified

Report Date: 05/10/17

SAMPLE RESULTS

Lab ID: L1714541-08

Date Collected: 05/04/17 12:45

Client ID: WW-170803

Date Received: 05/05/17

Sample Location: S-8A

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	4.54		mg/m3	2.00	NA	1	05/05/17 16:40	05/08/17 09:50	121, 10200H	DW



LABORATORY REPORT

Envirotech Laboratories, Inc.
Attn: Mr. Ron Saari
8 Jan Sebastian Drive
Sandwich, MA 02563

Date Received: 5/8/2017
Date Reported: 5/17/2017
P.O. Number

Work Order #: 1705-09578

Project Name: PLYMOUTH ENV.

Enclosed are the analytical results and Chain of Custody for your project referenced above. The sample(s) were analyzed by our Warwick, RI laboratory unless noted otherwise. When applicable, indication of sample analysis at our Hudson, MA laboratory and/or subcontracted results are noted and subcontracted reports are enclosed in their entirety.

All samples were analyzed within the established guidelines of US EPA approved methods with all requirements met, unless otherwise noted at the end of a given sample's analytical results or in a case narrative.

The Detection Limit is defined as the lowest level that can be reliably achieved during routine laboratory conditions.

These results only pertain to the samples submitted for this Work Order # and this report shall not be reproduced except in its entirety.

We certify that the following results are true and accurate to the best of our knowledge. If you have questions or need further assistance, please contact our Customer Service Department.

Approved by:



Dawne E. Smart
Data Reporting Manager

Laboratory Certification Numbers (as applicable to sample's origin state):
Warwick RI * RI LAI00033, MA M-RI015, CT PH-0508, ME RI00015, NH 2070, NY 11726
Hudson MA * M-MA1117, RI LAO00319

R.I. Analytical Laboratories, Inc.

Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1705-09578

Project Name: PLYMOUTH ENV.

Sample Number: 001
Sample Description: WW-170769 S-8B
Sample Type : GRAB
Sample Date / Time : 5/04/2017 @ 10:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.13	0.02	mg/l	SM4500NH3-B,H 18-21ed	5/9/2017 16:05	MFH
TOC Low Level	<0.5	0.5	mg/l	SM5310B 18-21ed	5/16/2017 9:37	DEL
Dissolved TOC	<0.5	0.5	mg/l	EPA 415.1	5/16/2017 9:37	DEL

Sample Number: 002
Sample Description: WW-170797 S-5B
Sample Type : GRAB
Sample Date / Time : 5/04/2017 @ 10:20

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.061	0.02	mg/l	SM4500NH3-B,H 18-21ed	5/9/2017 16:05	MFH
TOC Low Level	4.4	0.5	mg/l	SM5310B 18-21ed	5/16/2017 9:37	DEL
Dissolved TOC	4.0	0.5	mg/l	EPA 415.1	5/16/2017 9:37	DEL

Sample Number: 003
Sample Description: WW-170798 S-4A
Sample Type : GRAB
Sample Date / Time : 5/04/2017 @ 10:40

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.15	0.02	mg/l	SM4500NH3-B,H 18-21ed	5/9/2017 16:05	MFH
TOC Low Level	4.3	0.5	mg/l	SM5310B 18-21ed	5/16/2017 9:37	DEL
Dissolved TOC	4.0	0.5	mg/l	EPA 415.1	5/16/2017 9:37	DEL

Sample Number: 004
Sample Description: WW-170799 S-3A
Sample Type : GRAB
Sample Date / Time : 5/04/2017 @ 10:55

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.062	0.02	mg/l	SM4500NH3-B,H 18-21ed	5/9/2017 16:05	MFH
TOC Low Level	2.1	0.5	mg/l	SM5310B 18-21ed	5/16/2017 9:37	DEL
Dissolved TOC	1.6	0.5	mg/l	EPA 415.1	5/16/2017 9:37	DEL

R.I. Analytical Laboratories, Inc.

Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1705-09578

Project Name: PLYMOUTH ENV.

Sample Number: 005
Sample Description: WW-170800 S-2C
Sample Type : GRAB
Sample Date / Time : 5/04/2017 @ 11:25

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.059	0.02	mg/l	SM4500NH3-B,H 18-21ed	5/9/2017 16:05	MFH
TOC Low Level	2.1	0.5	mg/l	SM5310B 18-21ed	5/16/2017 9:37	DEL
Dissolved TOC	1.6	0.5	mg/l	EPA 415.1	5/16/2017 9:37	DEL

Sample Number: 006
Sample Description: WW-170801 S-6A
Sample Type : GRAB
Sample Date / Time : 5/04/2017 @ 12:10

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.051	0.02	mg/l	SM4500NH3-B,H 18-21ed	5/9/2017 16:05	MFH
TOC Low Level	2.0	0.5	mg/l	SM5310B 18-21ed	5/16/2017 9:37	DEL
Dissolved TOC	1.6	0.5	mg/l	EPA 415.1	5/16/2017 9:37	DEL

Sample Number: 007
Sample Description: WW-170802 S-12
Sample Type : GRAB
Sample Date / Time : 5/04/2017 @ 12:30

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.047	0.02	mg/l	SM4500NH3-B,H 18-21ed	5/9/2017 16:05	MFH
TOC Low Level	2.2	0.5	mg/l	SM5310B 18-21ed	5/16/2017 9:37	DEL
Dissolved TOC	2.0	0.5	mg/l	EPA 415.1	5/16/2017 9:37	DEL

Sample Number: 008
Sample Description: WW-170803 S-8A
Sample Type : GRAB
Sample Date / Time : 5/04/2017 @ 12:45

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.049	0.02	mg/l	SM4500NH3-B,H 18-21ed	5/9/2017 16:05	MFH
TOC Low Level	2.2	0.5	mg/l	SM5310B 18-21ed	5/16/2017 9:37	DEL
Dissolved TOC	2.0	0.5	mg/l	EPA 415.1	5/16/2017 9:37	DEL



ANALYTICAL REPORT

Lab Number:	L1714541
Client:	Envirotech Laboratories, Inc. 8 Jan Sebastian Drive Unit 12 Sandwich, MA 02563
ATTN:	Ron Saari
Phone:	(800) 339-6460
Project Name:	PLYMOUTH ENVIRONMENTAL MGMT
Project Number:	Not Specified
Report Date:	05/10/17

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), NJ NELAP (MA935), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-14-00197).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Serial_No:05101714:01

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Lab Number: L1714541
Report Date: 05/10/17

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1714541-01	WW-170796	WATER	S-8B	05/04/17 10:00	05/05/17
L1714541-02	WW-170797	WATER	S-5B	05/04/17 10:20	05/05/17
L1714541-03	WW-170798	WATER	S-4A	05/04/17 10:40	05/05/17
L1714541-04	WW-170799	WATER	S-3A	05/04/17 10:55	05/05/17
L1714541-05	WW-170800	WATER	S-2C	05/04/17 11:25	05/05/17
L1714541-06	WW-170801	WATER	S-6A	05/04/17 12:10	05/05/17
L1714541-07	WW-170802	WATER	S-12	05/04/17 12:30	05/05/17
L1714541-08	WW-170803	WATER	S-8A	05/04/17 12:45	05/05/17

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Lab Number: L1714541
Report Date: 05/10/17

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEX data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

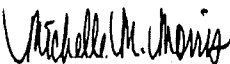
Lab Number: L1714541
Report Date: 05/10/17

Case Narrative (continued)

Chlorophyll A

L1714541-01 through -08 were analyzed with the method required holding time exceeded.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Michelle M. Morris

Title: Technical Director/Representative

Date: 05/10/17

INORGANICS & MISCELLANEOUS

Serial_No:05101714:01

Project Name: PLYMOUTH ENVIRONMENTAL MGMT

Lab Number: L1714541

Project Number: Not Specified

Report Date: 05/10/17

Method Blank Analysis
Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-08 Batch: WG1000846-1									
Chlorophyll A	ND	mg/m3	2.00	NA	1	05/05/17 16:40	05/08/17 09:50	121, 10200H	DW



Serial_No:05101714:01

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L1714541
Report Date: 05/10/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG1000846-2 QC Sample: L1714541-03 Client ID: WW-170798						
Chlorophyll A	16.6	6.94	mg/m3	82		

Project Name: PLYMOUTH ENVIRONMENTAL MGMT**Lab Number:** L1714541**Project Number:** Not Specified**Report Date:** 05/10/17**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information Custody Seal**Cooler**

A

Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1714541-01A	Brown Plastic 1000ml unpreserved	A	N/A	3.0	Y	Absent	CHLORO-A(1)
L1714541-01B	Brown Plastic 1000ml unpreserved	A	N/A	3.0	Y	Absent	CHLORO-A(1)
L1714541-02A	Brown Plastic 1000ml unpreserved	A	N/A	3.0	Y	Absent	CHLORO-A(1)
L1714541-02B	Brown Plastic 1000ml unpreserved	A	N/A	3.0	Y	Absent	CHLORO-A(1)
L1714541-03A	Brown Plastic 1000ml unpreserved	A	N/A	3.0	Y	Absent	CHLORO-A(1)
L1714541-03B	Brown Plastic 1000ml unpreserved	A	N/A	3.0	Y	Absent	CHLORO-A(1)
L1714541-04A	Brown Plastic 1000ml unpreserved	A	N/A	3.0	Y	Absent	CHLORO-A(1)
L1714541-04B	Brown Plastic 1000ml unpreserved	A	N/A	3.0	Y	Absent	CHLORO-A(1)
L1714541-05A	Brown Plastic 1000ml unpreserved	A	N/A	3.0	Y	Absent	CHLORO-A(1)
L1714541-05B	Brown Plastic 1000ml unpreserved	A	N/A	3.0	Y	Absent	CHLORO-A(1)
L1714541-06A	Brown Plastic 1000ml unpreserved	A	N/A	3.0	Y	Absent	CHLORO-A(1)
L1714541-06B	Brown Plastic 1000ml unpreserved	A	N/A	3.0	Y	Absent	CHLORO-A(1)
L1714541-07A	Brown Plastic 1000ml unpreserved	A	N/A	3.0	Y	Absent	CHLORO-A(1)
L1714541-07B	Brown Plastic 1000ml unpreserved	A	N/A	3.0	Y	Absent	CHLORO-A(1)
L1714541-08A	Brown Plastic 1000ml unpreserved	A	N/A	3.0	Y	Absent	CHLORO-A(1)
L1714541-08B	Brown Plastic 1000ml unpreserved	A	N/A	3.0	Y	Absent	CHLORO-A(1)

*Values in parentheses indicate holding time in days



Project Name: PLYMOUTH ENVIRONMENTAL MGMT**Lab Number:** L1714541**Project Number:** Not Specified**Report Date:** 05/10/17

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.
LCSD	- 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.
MSD	- 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.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
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.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

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

Report Format: Data Usability Report



Project Name: PLYMOUTH ENVIRONMENTAL MGMT**Lab Number:** L1714541**Project Number:** Not Specified**Report Date:** 05/10/17**Data Qualifiers**

- 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.
 - 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. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
 - ND** - Not detected at the reporting limit (RL) for the sample.

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Lab Number: L1714541
Report Date: 05/10/17

REFERENCES

- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

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

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

Westborough Facility

EPA 624: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.
EPA 300: DW: Bromide
EPA 6860: NPW and SCM: Perchlorate
EPA 9010: NPW and SCM: Amenable Cyanide Distillation
EPA 9012B: NPW: Total Cyanide
EPA 9050A: NPW: Specific Conductance
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO₂, NO₃.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility

SM 2540D: TSS
EPA 3005A NPW
EPA 8082A: NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.
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.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

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; EPA 524.2: THMs and VOCs; EPA 504.1: EDB, DBCP.
Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH₃-BH, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, SM4500NO₃-F, EPA 353.2: Nitrate-N, EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO₄-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, 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, SM9221E.

Mansfield Facility:

Drinking Water

EPA 200.7: Ba, Be, Cd, Cr, Cu, Ni, Na, Ca. EPA 200.8: Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, TL. EPA 245.1 Hg.

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.
EPA 245.1 Hg.
SM2340B

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

Page 21 of 24

Laboratory:

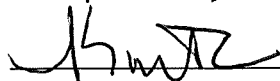
Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of Custody**Client:**

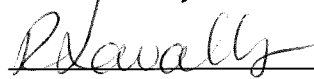
Town of Plymouth - Marine & Environmental Affairs Attn: Kim Tower
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, ktower@townhall.plymouth.ma.us
Project Name: **Eel River SW Sampling -Plymouth MA**
Sampler: Kim Tower (KT)

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
5/4/17	1000	S-8B	1	1 Liter Plastic	Dissolved	NONE
			1	500mL Plastic	Chloride, Boron, pH, Cond, Turbidity NO3, NO2	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			1	250mL Glass	Orthophosphate	NONE
			2	1 Liter Amber	Chlorophyll-a	NONE
			1	250mL Plastic	TOC	H2SO4
			1	100mL Plastic	Bacteria <i>EC₁₀₀ < 5</i>	NONE
5/4/17	1020	S-5B	1	1 Liter Plastic	Dissolved ,Chloride, Boron	NONE
			1	500mL Plastic	Chloride, Boron, pH, Cond, Turbidity NO3, NO2	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			1	250mL Glass	Orthophosphate	NONE
			2	1 Liter Amber	Chlorophyll-a	NONE
			1	250mL Plastic	TOC	H2SO4
			1	100mL Plastic	Bacteria <i>EC₁₀₀ = 70</i>	NONE

Relinquished By: Date/Time



Received By: Date/Time:

 05/04/17 1345

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of CustodyClient:

Town of Plymouth - Marine & Environmental Affairs Attn: Kim Tower
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, ktower@townhall.plymouth.ma.us
Project Name: **Eel River SW Sampling -Plymouth MA**
Sampler: Kim Tower (KT)

WW-170798
(2)

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
5/4/17	1040	S-4A	1	1 Liter Plastic	Dissolved	NONE
			1	500mL Plastic	Chloride, Boron, pH, Cond, Turbidity NO3, NO2	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			1	250mL Glass	Orthophosphate	NONE
			2	1 Liter Amber	Chlorophyll-a	NONE
			1	250mL Plastic	TOC	H2SO4
			1	100mL Plastic	Bacteria <i>26.5</i>	NONE
5/4/17	1055	S-3A	1	1 Liter Plastic	Dissolved ,Chloride, Boron	NONE
			1	500mL Plastic	Chloride, Boron, pH, Cond, Turbidity NO3, NO2	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			1	250mL Glass	Orthophosphate	NONE
			2	1 Liter Amber	Chlorophyll-a	NONE
			1	250mL Plastic	TOC	H2SO4
			1	100mL Plastic	Bacteria <i>26.5</i>	NONE

WW-170799
(2)

Relinquished By: Date/Time

Kim Tower

Received By: Date/Time:

Blawie 05/04/17 1345

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of CustodyClient:

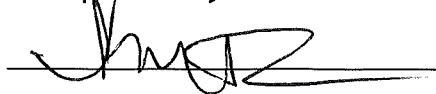
Town of Plymouth - Marine & Environmental Affairs Attn: Kim Tower
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, ktower@townhall.plymouth.ma.us
Project Name: Eel River SW Sampling -Plymouth MA
Sampler: Kim Tower (KT)

ww-170800 (2)

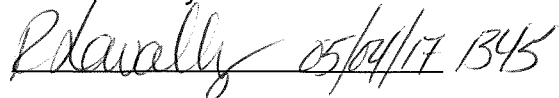
Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
5/4/17	S-2C	1125	1	1 Liter Plastic	Dissolved	NONE
			1	500mL Plastic	Chloride, Boron, pH, Cond, Turbidity NO3, NO2	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			1	250mL Glass	Orthophosphate	NONE
			2	1 Liter Amber	Chlorophyll-a	NONE
			1	250mL Plastic	TOC	H2SO4
			1	100mL Plastic	Bacteria 5	NONE
5/4/17	S-6A	1210	1	1 Liter Plastic	Dissolved ,Chloride, Boron	NONE
			1	500mL Plastic	Chloride, Boron, pH, Cond, Turbidity NO3, NO2	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			1	250mL Glass	Orthophosphate	NONE
			2	1 Liter Amber	Chlorophyll-a	NONE
			1	250mL Plastic	TOC	H2SO4
			1	100mL Plastic	Bacteria 10	NONE

ww-170800 (2)

Relinquished By: Date/Time



Received By: Date/Time:

 05/04/17 1345

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of Custody

Client:

Town of Plymouth - Marine & Environmental Affairs Attn: Kim Tower

11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, ktower@townhall.plymouth.ma.us

Project Name: Eel River SW Sampling -Plymouth MA

Sampler: Kim Tower (KT)

lw-170802 (S)

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
5/4/17	1230	S-12	1	1 Liter Plastic	Dissolved	NONE
			1	500mL Plastic	Chloride, Boron, pH, Cond, Turbidity NO3, NO2	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			1	250mL Glass	Orthophosphate	NONE
			2	1 Liter Amber	Chlorophyll-a	NONE
			1	250mL Plastic	TOC	H2SO4
			1	100mL Plastic	Bacteria EC ₁₀₀ = 15	NONE
5/4/17	1245	S-0A	1	1 Liter Plastic	Dissolved ,Chloride, Boron	NONE
			1	500mL Plastic	Chloride, Boron, pH, Cond, Turbidity NO3, NO2	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			1	250mL Glass	Orthophosphate	NONE
			2	1 Liter Amber	Chlorophyll-a	NONE
			1	250mL Plastic	TOC	H2SO4
			1	100mL Plastic	Bacteria EC ₁₀₀ 15	NONE

lw-170803 (S)

Relinquished By: Date/Time

[Signature]

Received By: Date/Time:

[Signature] 05/04/17 1345

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
 Sandwich, MA 02563
 (508)888-6460 1-800-339-6460
 FAX (508)888-6446

Monday, July 17, 2017

Plymouth Environmental Management
 K. Towers/ 11 Lincoln St.
 Plymouth, MA

ProjectName: Eel River SW

Comments:

Project Number:

Collection Date: 05/30/17 **Collection Time:** 10:30

Sampled By: Kim Tower

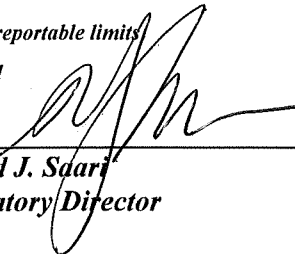
Lab Order Number: WW-171147

Date Received: 05/30/17

Sample Type	Sample Time	Sample Date	Comments			
S-8B A	10:30	05/30/17	Eel River SW			
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	BRL	6.0	06/07/17	KB	SM 2540 C
Total Organic Carbon*	mg/L	<0.5*	0.5	06/06/17	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	06/08/17	MC	EPA 200.7
Nitrate-N	mg/L	BRL	0.01	05/30/17	LL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	05/30/17	LL	EPA 300.0
Ammonia-N *	mg/L	0.052*	0.02	06/06/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	BRL	0.2	06/02/17	KB	SM4500-Norg B-C
Chloride	mg/L	BRL	3.0	05/30/17	LL	EPA 300.0
Total Phosphorous (P)	mg/L	BRL	0.005	06/07/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.20	06/02/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	<0.5*	0.50	06/06/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.07	NA	06/30/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	<0.20	NA	06/30/17	MC	Calculation
Chlorophyll-a	*	ND*	*	06/02/17	Alpha*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	05/31/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	ND	NA	07/16/17	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	ND	NA	07/16/17	KB	Calculation
Total Dissolved Nitrogen	mg/L	<0.2	NA	07/16/17	KB	Calculation
E coli	CFU/100mL	<5	<1	05/30/17	MC	EPA 1603

BRL=below reportable limits

*see attached

By: 

Ronald J. Saari
 Laboratory Director

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Lab Number: L1717772
Report Date: 06/06/17

SAMPLE RESULTS

Lab ID: L1717772-01
Client ID: WW-171147
Sample Location: S-8B
Matrix: Water

Date Collected: 05/30/17 10:30
Date Received: 05/31/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	ND		mg/m3	2.00	NA	1	05/31/17 16:15	06/02/17 11:05	121, 10200H	DW



ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
 Sandwich, MA 02563
 (508)888-6460 1-800-339-6460
 FAX (508)888-6446

Monday, July 17, 2017

Plymouth Environmental Management
 K. Towers/ 11 Lincoln St.
 Plymouth, MA

ProjectName: Eel River SW

Comments:

Project Number:

Collection Date: 05/30/17 **Collection Time:** 11:15

Sampled By: Kim Tower

Lab Order Number: WW-171148

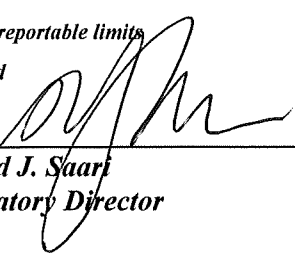
Date Received: 05/30/17

Sample Type	Sample Time	Sample Date	Comments			
S-5B A	11:15	05/30/17	Eel River SW			
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	142	6.0	06/07/17	KB	SM 2540 C
Total Organic Carbon*	mg/L	3.6*	0.5	06/06/17	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	06/08/17	MC	EPA 200.7
Nitrate-N	mg/L	0.15	0.01	05/30/17	LL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	05/30/17	LL	EPA 300.0
Ammonia-N *	mg/L	0.097*	0.02	06/06/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.51	0.2	06/08/17	KB	SM4500-Norg B-C
Chloride	mg/L	70	3.0	05/30/17	LL	EPA 300.0
Total Phosphorous (P)	mg/L	0.031	0.005	06/07/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.40	0.20	06/08/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	3.2*	0.50	06/06/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.25	NA	06/30/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.30	NA	06/30/17	MC	Calculation
Chlorophyll-a	*	15.4*	*	06/02/17	Alpha*	*
Ortho Phosphorous (P)	mg/L	0.006	0.005	05/31/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	0.4	NA	06/30/17	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.11	NA	06/30/17	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.55	NA	07/16/17	KB	Calculation
E coli	CFU/100mL	45	<1	05/30/17	MC	EPA 1603

BRL=below reportable limits

*see attached

By:


 Ronald J. Saari
 Laboratory Director

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Lab Number: L1717772
Report Date: 06/06/17

SAMPLE RESULTS

Lab ID: L1717772-02
Client ID: WW-171148
Sample Location: S-5B
Matrix: Water

Date Collected: 05/30/17 11:15
Date Received: 05/31/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	15.4		mg/m3	2.00	NA	1	05/31/17 16:15	06/02/17 11:05	121, 10200H	DW



ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Monday, July 17, 2017

Plymouth Environmental Management
K. Towers/ 11 Lincoln St.
Plymouth, MA

ProjectName: Eel River SW

Comments:

Project Number:

Collection Date: 05/30/17 **Collection Time:** 11:30

Sampled By: Kim Tower

Lab Order Number: WW-171149

Date Received: 05/30/17

Sample Type	Sample Time	Sample Date	Comments			
S-4A A	11:30	05/30/17	Eel River SW			
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	81	6.0	06/07/17	KB	SM 2540 C
Total Organic Carbon*	mg/L	5.1*	0.5	06/06/17	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	06/08/17	MC	EPA 200.7
Nitrate-N	mg/L	0.12	0.01	05/30/17	LL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	05/30/17	LL	EPA 300.0
Ammonia-N *	mg/L	0.099*	0.02	06/06/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.47	0.2	06/02/17	KB	SM4500-Norg B-C
Chloride	mg/L	34	3.0	05/30/17	LL	EPA 300.0
Total Phosphorous (P)	mg/L	0.037	0.005	06/07/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.39	0.20	06/02/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	4.6*	0.50	06/06/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.22	NA	06/30/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.29	NA	06/30/17	MC	Calculation
Chlorophyll-a	*	10.5*	*	06/02/17	Alpha*	*
Ortho Phosphorous (P)	mg/L	0.009	0.005	05/31/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	0.5	NA	07/16/17	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	.08	NA	07/16/17	KB	Calculation
Total Dissolved Nitrogen	mg/L	0.51	NA	06/30/17	MC	Calculation
E coli	CFU/100mL	70	<1	05/30/17	MC	EPA 1603

BRL=below reportable limits

*see attached

By: 

Ronald J. Squar
Laboratory Director

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Lab Number: L1717772
Report Date: 06/06/17

SAMPLE RESULTS

Lab ID: L1717772-03
Client ID: WW-171149
Sample Location: S-4A
Matrix: Water

Date Collected: 05/30/17 11:30
Date Received: 05/31/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	10.5		mg/m3	2.00	NA	1	05/31/17 16:15	06/02/17 11:05	121, 10200H	DW



ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Monday, July 17, 2017

Plymouth Environmental Management
K. Towers/ 11 Lincoln St.
Plymouth, MA

ProjectName: Eel River SW

Comments:

Project Number:

Collection Date: 05/30/17 **Collection Time:** 11:45

Sampled By: Kim Tower

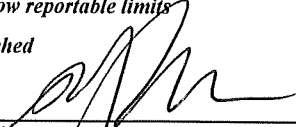
Lab Order Number: WW-171150

Date Received: 05/30/17

Sample Type		Sample Time	Sample Date	Comments		
S-3A	A	11:45	05/30/17	Eel River SW		
Parameters		Units	Test Results	Reportable Limits	Date Analyzed	Analyst Method
Total Dissolved Solids		mg/L	76	6.0	06/12/17	KB SM 2540 C
Total Organic Carbon*		mg/L	2.4*	0.5	06/06/17	RIA* SM 5310 C
Boron		mg/L	BRL	0.010	06/08/17	MC EPA 200.7
Nitrate-N		mg/L	0.21	0.01	05/30/17	LL EPA 300.0
Nitrite-N		mg/L	BRL	0.006	05/30/17	LL EPA 300.0
Ammonia-N *		mg/L	0.050*	0.02	06/06/17	RIA* SM4500 NH3 C
Total Kjeldhal Nitrogen		mg/L	0.28	0.2	06/02/17	KB SM4500-Norg B-C
Chloride		mg/L	31	3.0	05/30/17	LL EPA 300.0
Total Phosphorous (P)		mg/L	0.022	0.005	06/07/17	MC SM 4500-P
Dissolved Kjeldhal Nitrogen		mg/L	0.28	0.20	06/02/17	KB SM4500 Norg B-C
Dissolved Total Organic Carbon		mg/L	1.8*	0.50	06/06/17	RIA* EPA 415.1
Dissolved Inorganic Nitrogen		mg/L	0.26	NA	06/30/17	MC Calculation
Dissolved Organic Nitrogen		mg/L	0.23	NA	06/30/17	MC Calculation
Chlorophyll-a		*	16.4*	*	06/02/17	Alpha* *
Ortho Phosphorous (P)		mg/L	BRL	0.005	05/31/17	MC SM 4500-P
Particulate Organic Carbon		mg/L	0.6	NA	07/16/17	RIA* SM 5310 C
Particulate Organic Nitrogen		mg/L	ND	NA	07/16/17	KB Calculation
Total Dissolved Nitrogen		mg/L	0.49	NA	06/30/17	MC Calculation
E coli		CFU/100mL	30	<1	05/30/17	MC EPA 1603

BRL=below reportable limits

*see attached

By: 

Ronald J. Sqari
Laboratory Director

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Lab Number: L1717772
Report Date: 06/06/17

SAMPLE RESULTS

Lab ID: L1717772-04
Client ID: WW-171150
Sample Location: S-3A
Matrix: Water

Date Collected: 05/30/17 11:45
Date Received: 05/31/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	16.4		mg/m3	2.00	NA	1	05/31/17 16:15	06/02/17 11:05	121, 10200H	DW



ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
 Sandwich, MA 02563
 (508)888-6460 1-800-339-6460
 FAX (508)888-6446

Monday, July 17, 2017

Plymouth Environmental Management
 K.Towers/ 11 Lincoln St.
 Plymouth, MA

ProjectName: Eel River SW

Comments:

Project Number:

Collection Date: 05/30/17 **Collection Time:** 12:15

Sampled By: Kim Tower

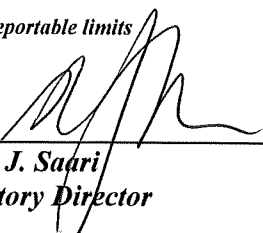
Lab Order Number: WW-171151

Date Received: 05/30/17

Sample Type		Sample Time	Sample Date	Comments		
S-2C	A	12:15	05/30/17	Eel River SW		
Parameters		Units	Test Results	Reportable Limits	Date Analyzed	Analyst Method
Total Dissolved Solids		mg/L	67	6.0	06/12/17	KB SM 2540 C
Total Organic Carbon*		mg/L	2.4*	0.5	06/06/17	RIA* SM 5310 C
Boron		mg/L	BRL	0.010	06/08/17	MC EPA 200.7
Nitrate-N		mg/L	0.09	0.01	05/30/17	LL EPA 300.0
Nitrite-N		mg/L	BRL	0.006	05/30/17	LL EPA 300.0
Ammonia-N *		mg/L	0.12*	0.02	06/06/17	RIA* SM4500 NH3 C
Total Kjeldhal Nitrogen		mg/L	0.68	0.2	06/02/17	KB SM4500-Norg B-C
Chloride		mg/L	27	3.0	05/30/17	LL EPA 300.0
Total Phosphorous (P)		mg/L	0.048	0.005	06/07/17	MC SM 4500-P
Dissolved Kjeldhal Nitrogen		mg/L	0.36	0.20	06/02/17	KB SM4500 Norg B-C
Dissolved Total Organic Carbon		mg/L	1.8*	0.50	06/06/17	RIA* EPA 415.1
Dissolved Inorganic Nitrogen		mg/L	0.22	NA	06/30/17	MC Calculation
Dissolved Organic Nitrogen		mg/L	0.24	NA	06/30/17	MC Calculation
Chlorophyll-a		*	18.5*	*	06/02/17	Alpha* *
Ortho Phosphorous (P)		mg/L	0.007	0.005	05/31/17	MC SM 4500-P
Particulate Organic Carbon		mg/L	0.6	NA	07/16/17	RIA* SM 5310 C
Particulate Organic Nitrogen		mg/L	0.32	NA	06/30/17	MC Calculation
Total Dissolved Nitrogen		mg/L	0.45	NA	06/30/17	MC Calculation
E coli		CFU/100mL	10	<1	05/30/17	MC EPA 1603

BRL=below reportable limits

*see attached

By: 
 Ronald J. Saari
 Laboratory Director

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Lab Number: L1717772
Report Date: 06/06/17

SAMPLE RESULTS

Lab ID: L1717772-05
Client ID: WW-171151
Sample Location: S-2C
Matrix: Water

Date Collected: 05/30/17 12:15
Date Received: 05/31/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	18.5		mg/m3	2.00	NA	1	05/31/17 16:15	06/02/17 11:05	121, 10200H	DW



ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

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Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Monday, July 17, 2017

Plymouth Environmental Management
K. Towers/ 11 Lincoln St.
Plymouth, MA

ProjectName: Eel River SW

Comments:

Project Number:

Collection Date: 05/30/17 **Collection Time:** 12:30

Sampled By: Kim Tower

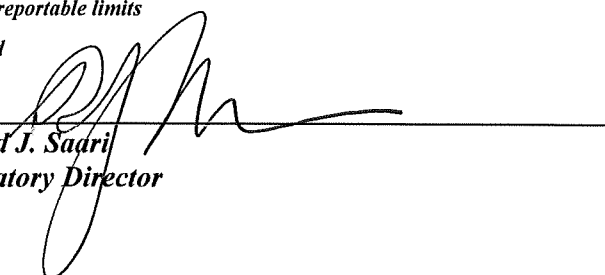
Lab Order Number: WW-171152

Date Received: 05/30/17

Sample Type		Sample Time	Sample Date	Comments		
S-6A	A	12:30	05/30/17	Eel River SW		
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	61	6.0	06/15/17	KB	SM 2540 C
Total Organic Carbon*	mg/L	1.6*	0.5	06/06/17	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	06/08/17	MC	EPA 200.7
Nitrate-N	mg/L	0.28	0.01	05/30/17	LL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	05/30/17	LL	EPA 300.0
Ammonia-N *	mg/L	0.051*	0.02	06/06/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.39	0.2	06/08/17	KB	SM4500-Norg B-C
Chloride	mg/L	21	3.0	05/30/17	LL	EPA 300.0
Total Phosphorous (P)	mg/L	0.053	0.005	06/07/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.32	0.20	06/02/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	1.5*	0.50	06/06/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.34	NA	06/30/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.27	NA	06/30/17	MC	Calculation
Chlorophyll-a	*	ND*	*	06/02/17	Alpha*	*
Ortho Phosphorous (P)	mg/L	0.008	0.005	05/31/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	0.1	NA	07/16/17	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.07	NA	06/30/17	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.60	NA	06/30/17	MC	Calculation
E coli	CFU/100mL	40	<1	05/30/17	MC	EPA 1603

BRL=below reportable limits

*see attached

By: 

Ronald J. Saari
Laboratory Director

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Lab Number: L1717772
Report Date: 06/06/17

SAMPLE RESULTS

Lab ID: L1717772-06
Client ID: WW-171152
Sample Location: S-6A
Matrix: Water

Date Collected: 05/30/17 12:30
Date Received: 05/31/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	ND		mg/m3	2.00	NA	1	05/31/17 16:15	06/02/17 11:05	121, 10200H	DW



ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
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(508)888-6460 1-800-339-6460
FAX (508)888-6446

Wednesday, July 19, 2017

Plymouth Environmental Management

K. Towers/ 11 Lincoln St.

Plymouth, MA

ProjectName: Eel River SW

Comments:

Project Number:

Collection Date: 05/30/17 **Collection Time:** 13:00

Sampled By: Kim Tower

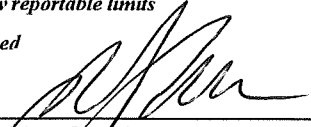
Lab Order Number: WW-171153

Date Received: 05/30/17

Sample Type	Sample Time	Sample Date	Comments			
S-12 A	13:00	05/30/17	Eel River SW			
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	60	6.0	06/15/17	KB	SM 2540 C
Total Organic Carbon*	mg/L	2.1*	0.5	06/06/17	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	06/08/17	MC	EPA 200.7
Nitrate-N	mg/L	0.28	0.01	05/30/17	LL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	05/30/17	LL	EPA 300.0
Ammonia-N *	mg/L	0.081*	0.02	06/06/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.32	0.2	06/08/17	KB	SM4500-Norg B-C
Chloride	mg/L	20	3.0	05/30/17	LL	EPA 300.0
Total Phosphorous (P)	mg/L	0.025	0.005	06/07/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.25	0.20	06/08/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	1.9*	0.50	06/06/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.37	NA	06/30/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.17	NA	06/30/17	MC	Calculation
Chlorophyll-a	*	ND*	*	06/02/17	Alpha*	*
Ortho Phosphorous (P)	mg/L	0.007	0.005	05/31/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	0.2	NA	07/16/17	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.07	NA	06/30/17	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.54	NA	07/16/17	KB	Calculation
E coli	CFU/100mL	90	<1	05/30/17	MC	EPA 1603

BRL=below reportable limits

*see attached

By: 

Ronald J. Saari
Laboratory Director

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Lab Number: L1717772
Report Date: 06/06/17

SAMPLE RESULTS

Lab ID: L1717772-07
Client ID: WW-171153
Sample Location: S-12
Matrix: Water

Date Collected: 05/30/17 13:00
Date Received: 05/31/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	ND		mg/m3	2.00	NA	1	05/31/17 16:15	06/02/17 11:05	121, 10200H	DW



ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
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 (508)888-6460 1-800-339-6460
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Monday, July 17, 2017

Plymouth Environmental Management
 K. Towers/ 11 Lincoln St.
 Plymouth, MA

ProjectName: Eel River SW

Comments:

Project Number:

Collection Date: 05/30/17 **Collection Time:** 12:00

Sampled By: Kim Tower

Lab Order Number: WW-171154

Date Received: 05/30/17

Sample Type	Sample Time	Sample Date	Comments			
S-8A A	12:00	05/30/17	Eel River SW			
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	81	6.0	06/15/17	KB	SM 2540 C
Total Organic Carbon*	mg/L	2.3*	0.5	06/06/17	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	06/08/17	MC	EPA 200.7
Nitrate-N	mg/L	0.20	0.01	05/30/17	LL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	05/30/17	LL	EPA 300.0
Ammonia-N *	mg/L	0.048*	0.02	06/06/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.43	0.2	06/09/17	KB	SM4500-Norg B-C
Chloride	mg/L	32	3.0	05/30/17	LL	EPA 300.0
Total Phosphorous (P)	mg/L	0.021	0.005	06/07/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.35	0.20	06/09/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	1.9*	0.50	06/06/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.25	NA	06/30/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.30	NA	06/30/17	MC	Calculation
Chlorophyll-a	*	11.8*	*	06/02/17	Alpha*	*
Ortho Phosphorous (P)	mg/L	0.005	0.005	05/31/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	0.4	NA	07/16/17	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.08	NA	06/30/17	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.55	NA	06/30/17	MC	Calculation
E coli	CFU/100mL	75	<1	05/30/17	MC	EPA 1603

BRL=below reportable limits

*see attached

By:

Ronald J. Saari
 Laboratory Director

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Lab Number: L1717772
Report Date: 06/06/17

SAMPLE RESULTS

Lab ID: L1717772-08
Client ID: WW-171154
Sample Location: S-8A
Matrix: Water

Date Collected: 05/30/17 12:00
Date Received: 05/31/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	11.8		mg/m3	2.00	NA	1	05/31/17 16:15	06/02/17 11:05	121, 10200H	DW



LABORATORY REPORT

Envirotech Laboratories, Inc.
Attn: Mr. Ron Saari
8 Jan Sebastian Drive
Sandwich, MA 02563

Date Received: 5/31/2017
Date Reported: 6/7/2017
P.O. Number

Work Order #: 1706-11419

Project Name: PLYMOUTH ENV.

Enclosed are the analytical results and Chain of Custody for your project referenced above. The sample(s) were analyzed by our Warwick, RI laboratory unless noted otherwise. When applicable, indication of sample analysis at our Hudson, MA laboratory and/or subcontracted results are noted and subcontracted reports are enclosed in their entirety.

All samples were analyzed within the established guidelines of US EPA approved methods with all requirements met, unless otherwise noted at the end of a given sample's analytical results or in a case narrative.

The Detection Limit is defined as the lowest level that can be reliably achieved during routine laboratory conditions.

These results only pertain to the samples submitted for this Work Order # and this report shall not be reproduced except in its entirety.

We certify that the following results are true and accurate to the best of our knowledge. If you have questions or need further assistance, please contact our Customer Service Department.

Approved by:



Dawne E. Smart
Data Reporting Manager

Laboratory Certification Numbers (as applicable to sample's origin state):

Warwick RI * RI LAI00033, MA M-RI015, CT PH-0508, ME RI00015, NH 2070, NY 11726
Hudson MA * M-MA1117, RI LAO00319

R.I. Analytical Laboratories, Inc.

Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1706-11419

Project Name: PLYMOUTH ENV.

Sample Number: 001
Sample Description: WW-171147 S-8B
Sample Type : GRAB
Sample Date / Time : 5/30/2017 @ 10:30

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.052	0.020	mg/l	SM4500NH3-B,H 18-21ed	6/6/2017 11:08	KLE
Dissolved TOC	<0.5	0.5	mg/l	EPA 415.1	6/6/2017 9:16	DEL
TOC	<0.5	0.5	mg/l	SM5310C 21 ed.	6/6/2017 9:16	DEL

Sample Number: 002
Sample Description: WW-171148 S-5B
Sample Type : GRAB
Sample Date / Time : 5/30/2017 @ 11:15

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.097	0.020	mg/l	SM4500NH3-B,H 18-21ed	6/6/2017 11:08	KLE
Dissolved TOC	3.2	0.5	mg/l	EPA 415.1	6/6/2017 9:16	DEL
TOC	3.6	0.5	mg/l	SM5310C 21 ed.	6/6/2017 9:16	DEL

Sample Number: 003
Sample Description: WW-171149 S-4A
Sample Type : GRAB
Sample Date / Time : 5/30/2017 @ 11:30

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.099	0.020	mg/l	SM4500NH3-B,H 18-21ed	6/6/2017 11:08	KLE
Dissolved TOC	4.6	0.5	mg/l	EPA 415.1	6/6/2017 9:16	DEL
TOC	5.1	0.5	mg/l	SM5310C 21 ed.	6/6/2017 9:16	DEL

Sample Number: 004
Sample Description: WW-171150 S-3A
Sample Type : GRAB
Sample Date / Time : 5/30/2017 @ 11:45

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.050	0.020	mg/l	SM4500NH3-B,H 18-21ed	6/6/2017 11:08	KLE
Dissolved TOC	1.8	0.5	mg/l	EPA 415.1	6/6/2017 9:16	DEL
TOC	2.4	0.5	mg/l	SM5310C 21 ed.	6/6/2017 9:16	DEL

R.I. Analytical Laboratories, Inc.

Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1706-11419

Project Name: PLYMOUTH ENV.

Sample Number: 005
Sample Description: WW-171151 S-2C
Sample Type : GRAB
Sample Date / Time : 5/30/2017 @ 12:15

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.12	0.02	mg/l	SM4500NH3-B,H 18-21ed	6/6/2017 11:08	KLE
Dissolved TOC	1.8	0.5	mg/l	EPA 415.1	6/6/2017 9:16	DEL
TOC	2.4	0.5	mg/l	SM5310C 21 ed.	6/6/2017 9:16	DEL

Sample Number: 006
Sample Description: WW-171152 S-6A
Sample Type : GRAB
Sample Date / Time : 5/30/2017 @ 12:30

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.051	0.020	mg/l	SM4500NH3-B,H 18-21ed	6/6/2017 11:08	KLE
Dissolved TOC	1.5	0.5	mg/l	EPA 415.1	6/6/2017 9:16	DEL
TOC	1.6	0.5	mg/l	SM5310C 21 ed.	6/6/2017 9:16	DEL

Sample Number: 007
Sample Description: WW-171153 S-12
Sample Type : GRAB
Sample Date / Time : 5/30/2017 @ 13:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.081	0.020	mg/l	SM4500NH3-B,H 18-21ed	6/6/2017 11:08	KLE
Dissolved TOC	1.9	0.5	mg/l	EPA 415.1	6/6/2017 9:16	DEL
TOC	2.1	0.5	mg/l	SM5310C 21 ed.	6/6/2017 9:16	DEL

Sample Number: 008
Sample Description: WW-171154 S-8A
Sample Type : GRAB
Sample Date / Time : 5/30/2017 @ 12:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.048	0.020	mg/l	SM4500NH3-B,H 18-21ed	6/6/2017 11:08	KLE
Dissolved TOC	1.9	0.5	mg/l	EPA 415.1	6/6/2017 9:16	DEL
TOC	2.3	0.5	mg/l	SM5310C 21 ed.	6/6/2017 9:16	DEL

ENVIROTECH LABS, INC.

18 Jan Sebastian Dr., Unit 12

18 Jan Sebastian Dr.,

Plymouth Env.

Sandwich, MA 02563

(508)888-6460

K

1-800-339-6460

FAX (508) 888-6446

Sample type	Sample size	Sample description	Sample source
...	...	...	...

Surface water

100

Surface water

Surface water

Surface water

Surface water

Surface water

01

30

Contact

1

人

Date/Time

Received:

Received: Frederick

**TOC dissolved samples are filtered
Contact lab with any exceeded MCL**

Date/Time:

Received:

Received: 

6771-9041
1705-1419



ANALYTICAL REPORT

Lab Number:	L1717772
Client:	Envirotech Laboratories, Inc. 8 Jan Sebastian Drive Unit 12 Sandwich, MA 02563
ATTN:	Ron Saari
Phone:	(800) 339-6460
Project Name:	PLYMOUTH ENVIRONMENTAL MGMT
Project Number:	Not Specified
Report Date:	06/06/17

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), NJ NELAP (MA935), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-14-00197).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Serial_No:06061718:40

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Lab Number: L1717772
Report Date: 06/06/17

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1717772-01	WW-171147	WATER	S-8B	05/30/17 10:30	05/31/17
L1717772-02	WW-171148	WATER	S-5B	05/30/17 11:15	05/31/17
L1717772-03	WW-171149	WATER	S-4A	05/30/17 11:30	05/31/17
L1717772-04	WW-171150	WATER	S-3A	05/30/17 11:45	05/31/17
L1717772-05	WW-171151	WATER	S-2C	05/30/17 12:15	05/31/17
L1717772-06	WW-171152	WATER	S-6A	05/30/17 12:30	05/31/17
L1717772-07	WW-171153	WATER	S-12	05/30/17 13:00	05/31/17
L1717772-08	WW-171154	WATER	S-8A	05/30/17 12:00	05/31/17

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Lab Number: L1717772
Report Date: 06/06/17

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Lab Number: L1717772
Report Date: 06/06/17

Case Narrative (continued)

Chlorophyll A

L1717772-01 through -08 were filtered with the method required holding time exceeded.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Kara Lindquist

Title: Technical Director/Representative

Date: 06/06/17

INORGANICS & MISCELLANEOUS

Project Name: PLYMOUTH ENVIRONMENTAL MGMT

Lab Number: L1717772

Project Number: Not Specified

Report Date: 06/06/17

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-08 Batch: WG1008593-2										
Chlorophyll A	ND		mg/m3	2.00	NA	1	05/31/17 16:15	06/02/17 11:05	121, 10200H	DW



Serial_No:06061718:40

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L1717772
Report Date: 06/06/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG1008593-1 QC Sample: L1717772-05 Client ID: WW-171151						
Chlorophyll A	18.5	30.5	mg/m3	49		

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Serial_No: 06061718:40
Lab Number: L1717772
Report Date: 06/06/17

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler **Custody Seal**
A Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1717772-01A	Brown Plastic 1000ml unpreserved	A	N/A	N/A	4.5	Y	Absent		CHLORO-A(1)
L1717772-01B	Brown Plastic 1000ml unpreserved	A	N/A	N/A	4.5	Y	Absent		CHLORO-A(1)
L1717772-02A	Brown Plastic 1000ml unpreserved	A	N/A	N/A	4.5	Y	Absent		CHLORO-A(1)
L1717772-02B	Brown Plastic 1000ml unpreserved	A	N/A	N/A	4.5	Y	Absent		CHLORO-A(1)
L1717772-03A	Brown Plastic 1000ml unpreserved	A	N/A	N/A	4.5	Y	Absent		CHLORO-A(1)
L1717772-03B	Brown Plastic 1000ml unpreserved	A	N/A	N/A	4.5	Y	Absent		CHLORO-A(1)
L1717772-04A	Brown Plastic 1000ml unpreserved	A	N/A	N/A	4.5	Y	Absent		CHLORO-A(1)
L1717772-04B	Brown Plastic 1000ml unpreserved	A	N/A	N/A	4.5	Y	Absent		CHLORO-A(1)
L1717772-05A	Brown Plastic 1000ml unpreserved	A	N/A	N/A	4.5	Y	Absent		CHLORO-A(1)
L1717772-05B	Brown Plastic 1000ml unpreserved	A	N/A	N/A	4.5	Y	Absent		CHLORO-A(1)
L1717772-06A	Brown Plastic 1000ml unpreserved	A	N/A	N/A	4.5	Y	Absent		CHLORO-A(1)
L1717772-06B	Brown Plastic 1000ml unpreserved	A	N/A	N/A	4.5	Y	Absent		CHLORO-A(1)
L1717772-07A	Brown Plastic 1000ml unpreserved	A	N/A	N/A	4.5	Y	Absent		CHLORO-A(1)
L1717772-07B	Brown Plastic 1000ml unpreserved	A	N/A	N/A	4.5	Y	Absent		CHLORO-A(1)
L1717772-08A	Brown Plastic 1000ml unpreserved	A	N/A	N/A	4.5	Y	Absent		CHLORO-A(1)
L1717772-08B	Brown Plastic 1000ml unpreserved	A	N/A	N/A	4.5	Y	Absent		CHLORO-A(1)

Project Name: PLYMOUTH ENVIRONMENTAL MGMT

Lab Number: L1717772

Project Number: Not Specified

Report Date: 06/06/17

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.
LCSD	- 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.
MSD	- 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.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
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.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

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

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.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

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.

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

Report Format: Data Usability Report



Project Name: PLYMOUTH ENVIRONMENTAL MGMT**Lab Number:** L1717772**Project Number:** Not Specified**Report Date:** 06/06/17**Data Qualifiers**

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.
- 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. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report



Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Lab Number: L1717772
Report Date: 06/06/17

REFERENCES

- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF.
Standard Methods Online.

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

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

Westborough Facility

EPA 624: m/p-xylene, o-xylene

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

EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 300: DW: Bromide

EPA 6860: NPW and SCM: Perchlorate

EPA 9010: NPW and SCM: Amenable Cyanide Distillation

EPA 9012B: NPW: Total Cyanide

EPA 9050A: NPW: Specific Conductance

SM3500: NPW: Ferrous Iron

SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO₂, NO₃.

SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility

SM 2540D: TSS

EPA 3005A NPW

EPA 8082A: NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.

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.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

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, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B

EPA 332: Perchlorate; EPA 524.2: THMs and VOCs; EPA 504.1: EDB, DBCP.

Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH₃-BH, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, SM4500NO₃-F, EPA 353.2: Nitrate-N, EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO₄-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, 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, SM9221E.

Mansfield Facility:

Drinking Water

EPA 200.7: Ba, Be, Cd, Cr, Cu, Ni, Na, Ca. EPA 200.8: Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, TL. EPA 245.1 Hg.

Non-Potable Water

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

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

EPA 245.1 Hg.

SM2340B

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

Serial No. 06064718-40

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④

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of Custody

Client:

Town of Plymouth - Marine & Environmental Affairs Attn: Kim Tower
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, ktower@townhall.plymouth.ma.us
Project Name: **Eel River SW Sampling -Plymouth MA**
Sampler: Kim Tower (KT)

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
NW-171147 5/30/17	1030	S-03	1	1 Liter Plastic	Dissolved	NONE
			1	500mL Plastic	Chloride, Boron, NO3, NO2, TDS	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			1	250mL Glass	Orthophosphate	NONE
			2	1 Liter Amber	Chlorophyll-a	NONE
			1	250mL Plastic	TOC	H2SO4
			1	100mL Plastic	Bacteria <i>ECOL 45</i>	NONE
NW-171148 5/30/17	1115	S-53	1	1 Liter Plastic	Dissolved ,Chloride, Boron	NONE
			1	500mL Plastic	Chloride, Boron, NO3, NO2, TDS	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			1	250mL Glass	Orthophosphate	NONE
			2	1 Liter Amber	Chlorophyll-a	NONE
			1	250mL Plastic	TOC	H2SO4
			1	100mL Plastic	Bacteria <i>ECOL 45</i>	NONE

Relinquished By: Date/Time

Kim Tower

Received By: Date/Time:

L. Wallis 5/30/17 1355

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of Custody

Client:

Town of Plymouth - Marine & Environmental Affairs Attn: Kim Tower
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, ktower@townhall.plymouth.ma.us
Project Name: **Eel River SW Sampling** -Plymouth MA
Sampler: Kim Tower (KT)

WW-171149

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
5/30/17	1130	S-4A	1	1 Liter Plastic	Dissolved	NONE
			1	500mL Plastic	Chloride, Boron, NO3, NO2, TDS	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			1	250mL Glass	Orthophosphate	NONE
			2	1 Liter Amber	Chlorophyll-a	NONE
			1	250mL Plastic	TOC	H2SO4
			1	100mL Plastic	Bacteria <i>ECOW</i> 70	NONE
5/30/17	1145	S-3A	1	1 Liter Plastic	Dissolved ,Chloride, Boron	NONE
			1	500mL Plastic	Chloride, Boron, NO3, NO2, TDS	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			1	250mL Glass	Orthophosphate	NONE
			2	1 Liter Amber	Chlorophyll-a	NONE
			1	250mL Plastic	TOC	H2SO4
			1	100mL Plastic	Bacteria <i>ECOW</i> 30	NONE

WW-171150

Relinquished By: Date/Time

Kim Tower

Received By: Date/Time:

Wavally 5/30/17 1355

②

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of Custody

Client:

Town of Plymouth - Marine & Environmental Affairs Attn: Kim Tower
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, ktower@townhall.plymouth.ma.us
Project Name: **Eel River SW Sampling -Plymouth MA**
Sampler: Kim Tower (KT)

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
WW-171151 5/30/17	1215	S-2C	1	1 Liter Plastic	Dissolved	NONE
			1	500mL Plastic	Chloride, Boron, NO3, NO2, TDS	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			1	250mL Glass	Orthophosphate	NONE
			2	1 Liter Amber	Chlorophyll-a	NONE
			1	250mL Plastic	TOC	H2SO4
			1	100mL Plastic	Bacteria ECW 10	NONE
WW-171152 5/30/17	1230	S-6A	1	1 Liter Plastic	Dissolved ,Chloride, Boron	NONE
			1	500mL Plastic	Chloride, Boron, NO3, NO2, TDS	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			1	250mL Glass	Orthophosphate	NONE
			2	1 Liter Amber	Chlorophyll-a	NONE
			1	250mL Plastic	TOC	H2SO4
			1	100mL Plastic	Bacteria ECW 40	NONE

Relinquished By: Date/Time

Kim Tower

Received By: Date/Time:

L. L. Wallen 5/30/17 1355

2

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of Custody

Client:

Town of Plymouth - Marine & Environmental Affairs Attn: Kim Tower
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, ktower@townhall.plymouth.ma.us
Project Name: **Eel River SW Sampling -Plymouth MA**
Sampler: Kim Tower (KT)

W-171153

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
5/30/17	1300	S-12	1	1 Liter Plastic	Dissolved	NONE
			1	500mL Plastic	Chloride, Boron, NO3, NO2, TDS	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			1	250mL Glass	Orthophosphate	NONE
			2	1 Liter Amber	Chlorophyll-a	NONE
			1	250mL Plastic	TOC	H2SO4
			1	100mL Plastic	Bacteria <i>edi 90</i>	NONE
5/30/17	1200	S-8A	1	1 Liter Plastic	Dissolved ,Chloride, Boron	NONE
			1	500mL Plastic	Chloride, Boron, NO3, NO2, TDS	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			1	250mL Glass	Orthophosphate	NONE
			2	1 Liter Amber	Chlorophyll-a	NONE
			1	250mL Plastic	TOC	H2SO4
			1	100mL Plastic	Bacteria <i>edi 75</i>	NONE

W-171154

Relinquished By: Date/Time

Kim Tower

Received By:

Date/Time:

K. Cavalley 5/30/17 1355

ENVIROTECH LABORATORIES, INC.

MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Monday, July 17, 2017

Plymouth Environmental Management

K. Towers/ 11 Lincoln St.

Plymouth, MA

ProjectName: Harbor Sampling

Comments:

Project Number: S-10 Ebb Tide

Collection Date: 06/07/17 **Collection Time:** 11:05

Sampled By: Kim Tower

Lab Order Number: WW-171239

Date Received: 06/07/17

Sample Type	Sample Time	Sample Date	Comments			
S-10 Ebb Tide A	11:05	06/07/17	Harbor Sampling			
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Organic Carbon*	mg/L	0.64	0.5	06/19/17	RIA*	SM 5310 C
Ammonia-N *	mg/L	<0.02	0.02	06/23/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.30	0.2	06/15/17	KB	SM4500-Norg B-C
Turbidity	NTU	3.8	1.0	06/08/17	LL	SM 2130 B
Total Phosphorous (P)	mg/L	0.042	0.005	06/09/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.28	0.20	06/15/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	0.60	0.50	06/19/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.10	NA	07/14/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.26	NA	07/14/17	MC	Calculation
Chlorophyll-a	*	2.72*	*	06/09/17	Alpha*	*
Ortho Phosphorous (P)	mg/L	0.007	0.005	06/07/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	0.04	NA	07/16/17	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.02	NA	07/16/17	KB	Calculation
Total Dissolved Nitrogen	mg/L	0.38	NA	07/16/17	MC	Calculation
E coli	CFU/100mL	<5	<1	06/07/17	MC	EPA 1603
Nitrate-N	mg/L	0.10	0.01	06/07/17	MC	SM 4500-NO3 E
Nitrite-N	mg/L	BRL	0.005	06/07/17	MC	SM 4500-NO3 E

BRL=below reportable limits

*see attached

By:


Ronald J. Saari
Laboratory Director

ENVIROTECH LABORATORIES, INC.**MA CERT. NO.: M-MA 063**

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Monday, July 17, 2017

Plymouth Environmental Management

K. Towers/ 11 Lincoln St.

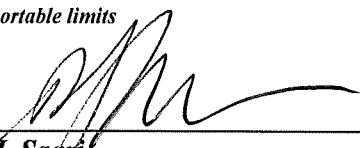
Plymouth, MA

ProjectName: Harbor Sampling**Comments:****Project Number:** S-7 Ebb Tide**Collection Date:** 06/07/17 **Collection Time:** 11:15**Sampled By:** Kim Tower**Lab Order Number:** WW-171240**Date Received:** 06/07/17

Sample Type	Sample Time	Sample Date	Comments			
S-7 Ebb Tide A	11:15	06/07/17	Harbor Sampling			
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Organic Carbon*	mg/L	0.78*	0.5	06/19/17	RIA*	SM 5310 C
Ammonia-N *	mg/L	0.13*	0.02	06/23/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.52	0.2	06/15/17	KB	SM4500-Norg B-C
Turbidity	NTU	4.7	1.0	06/08/17	LL	SM 2130 B
Total Phosphorous (P)	mg/L	0.070	0.005	06/09/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.46	0.20	06/15/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	0.57*	0.50	06/19/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.21	NA	07/16/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.33	NA	07/16/17	MC	Calculation
Chlorophyll-a	*	3.22*	*	06/09/17	Alpha*	*
Ortho Phosphorous (P)	mg/L	0.007	0.005	06/07/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	0.21	NA	07/16/17	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.06	NA	07/16/17	RIA*	Calculation
Total Dissolved Nitrogen	mg/L	0.54	NA	07/16/17	MC	Calculation
E coli	CFU/100mL	5	<1	06/07/17	MC	EPA 1603
Nitrate-N	mg/L	0.08	0.01	06/07/17	MC	SM 4500-NO3 E
Nitrite-N	mg/L	BRL	0.005	06/07/17	MC	SM 4500-NO3 E

BRL=below reportable limits

*see attached

By: Ronald J. Sadri
Laboratory Director

ENVIROTECH LABORATORIES, INC.

MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Monday, July 17, 2017

Plymouth Environmental Management

K. Towers/ 11 Lincoln St.

Plymouth, MA

ProjectName: Harbor Sampling

Comments:

Project Number: S-7 @ 2-4 HST

Collection Date: 06/07/17 **Collection Time:** 13:30

Sampled By: Kim Tower

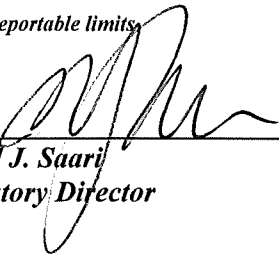
Lab Order Number: WW-171241

Date Received: 06/07/17

Sample Type	Sample Time	Sample Date	Comments			
S-7 @ 2-4 HST A	13:30	06/07/17	Harbor Sampling			
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Organic Carbon*	mg/L	0.75*	0.5	06/19/17	RIA*	SM 5310 C
Ammonia-N *	mg/L	0.048*	0.02	06/23/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.48	0.2	06/15/17	KB	SM4500-Norg B-C
Turbidity	NTU	5.3	1.0	06/08/17	LL	SM 2130 B
Total Phosphorous (P)	mg/L	0.047	0.005	06/09/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.43	0.20	06/15/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	0.61*	0.50	06/19/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.14	NA	07/16/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.38	NA	07/16/17	MC	Calculation
Chlorophyll-a	*	3.32*	*	06/09/17	Alpha*	*
Ortho Phosphorous (P)	mg/L	0.010	0.005	06/07/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	0.14	NA	07/16/17	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.05	NA	07/16/17	RIA*	Calculation
Total Dissolved Nitrogen	mg/L	0.52	NA	07/16/17	MC	Calculation
E coli	CFU/100mL	20	<1	06/07/17	MC	EPA 1603
Nitrate-N	mg/L	0.09	0.01	06/07/17	MC	SM 4500-NO3 E
Nitrite-N	mg/L	BRL	0.005	06/07/17	MC	SM 4500-NO3 E

BRL=below reportable limits

*see attached

By: 

Ronald J. Saari
Laboratory Director

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Monday, July 17, 2017

Plymouth Environmental Management
K.Towers/ 11 Lincoln St.
Plymouth, MA

ProjectName: Harbor Sampling **Comments:**
Project Number: S-8 @ 2-4 HST
Collection Date: 06/07/17 **Collection Time:** 13:50
Sampled By: Kim Tower
Lab Order Number: WW-171242
Date Received: 06/07/17

Sample Type	Sample Time	Sample Date	Comments			
S-8 @ 2-4 HST A	13:50	06/07/17	Harbor Sampling			
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Organic Carbon*	mg/L	0.64*	0.5	06/19/17	RIA*	SM 5310 C
Ammonia-N *	mg/L	0.036*	0.02	06/23/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.50	0.2	06/15/17	KB	SM4500-Norg B-C
Turbidity	NTU	4.2	1.0	06/08/17	LL	SM 2130 B
Total Phosphorous (P)	mg/L	0.043	0.005	06/09/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.25	0.20	06/15/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	0.56*	0.50	06/19/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.10	NA	07/14/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.21	NA	07/14/17	MC	Calculation
Chlorophyll-a	*	4.51*	*	06/09/17	Alpha*	*
Ortho Phosphorous (P)	mg/L	0.008	0.005	06/07/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	0.08	NA	07/16/17	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.25	NA	07/16/17	RIA*	Calculation
Total Dissolved Nitrogen	mg/L	0.31	NA	07/16/17	MC	Calculation
E coli	CFU/100mL	5	<1	06/07/17	MC	EPA 1603
Nitrate-N	mg/L	0.06	0.01	06/07/17	MC	SM 4500-NO3 E
Nitrite-N	mg/L	BRL	0.005	06/07/17	MC	SM 4500-NO3 E

BRL=below reportable limits

*see attached

By: 
Ronald J. Saggi
Laboratory Director

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
 Sandwich, MA 02563
 (508)888-6460 1-800-339-6460
 FAX (508)888-6446

Monday, July 17, 2017

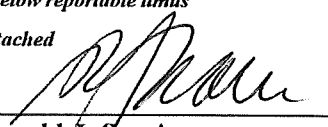
Plymouth Environmental Management
 K.Towers/ 11 Lincoln St.
 Plymouth, MA

ProjectName: Harbor Sampling **Comments:**
Project Number: S-10 @ 2-4 HST
Collection Date: 06/07/17 **Collection Time:** 13:40
Sampled By: Kim Tower
Lab Order Number: WW-171243
Date Received: 06/07/17

Sample Type	Sample Time	Sample Date	Comments			
S-10 @ 2-4 HST A	13:40	06/07/17	Harbor Sampling			
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Organic Carbon*	mg/L	0.70*	0.5	06/19/17	RIA*	SM 5310 C
Nitrite-N	mg/L	BRL	0.006	06/07/17	MC	EPA 300.0
Ammonia-N *	mg/L	0.028*	0.02	06/23/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.38	0.2	06/15/17	KB	SM4500-Norg B-C
Turbidity	NTU	3.8	1.0	06/08/17	LL	SM 2130 B
Total Phosphorous (P)	mg/L	0.045	0.005	06/09/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.36	0.20	06/15/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	0.62*	0.50	06/19/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.16	NA	07/16/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.33	NA	07/16/17	MC	Calculation
Chlorophyll-a	*	4.63*	*	06/09/17	Alpha*	*
Ortho Phosphorous (P)	mg/L	0.009	0.005	06/07/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	0.08	NA	07/16/17	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.02	NA	07/16/17	RIA*	Calculation
Total Dissolved Nitrogen	mg/L	0.49	NA	07/16/17	MC	Calculation
E coli	CFU/100mL	5	<1	06/07/17	MC	EPA 1603
Nitrate-N	mg/L	0.13	0.01	06/07/17	MC	SM 4500-NO3 E

BRL=below reportable limits

*see attached

By: 
 Ronald J. Saari
 Laboratory Director

R.I. Analytical Laboratories, Inc.

Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1706-12476

Project Name: PLYMOUTH ENV.

Sample Number: 001
Sample Description: WW-171239 S-10 AT EBB TIDE
Sample Type : GRAB
Sample Date / Time : 6/07/2017 @ 11:05

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	<0.02	0.02	mg/l	SM4500NH3-B,H 18-21ed	6/23/2017 12:00	APD
Dissolved TOC	0.60	0.5	mg/l	EPA 415.1	6/19/2017 9:28	DEL
TOC	0.64	0.5	mg/l	SM5310C 21 ed.	6/19/2017 9:28	DEL

Sample Number: 002
Sample Description: WW-171240 S-7 AT EBB TIDE
Sample Type : GRAB
Sample Date / Time : 6/07/2017 @ 13:10

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.13	0.02	mg/l	SM4500NH3-B,H 18-21ed	6/23/2017 12:00	APD
Dissolved TOC	0.57	0.5	mg/l	EPA 415.1	6/19/2017 9:28	DEL
TOC	0.78	0.5	mg/l	SM5310C 21 ed.	6/19/2017 9:28	DEL

Sample Number: 003
Sample Description: WW-171241 S-7 AT 2-4 HST
Sample Type : GRAB
Sample Date / Time : 6/07/2017 @ 13:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.048	0.020	mg/l	SM4500NH3-B,H 18-21ed	6/23/2017 12:00	APD
Dissolved TOC	0.61	0.5	mg/l	EPA 415.1	6/19/2017 9:28	DEL
TOC	0.75	0.5	mg/l	SM5310C 21 ed.	6/19/2017 9:28	DEL

Sample Number: 004
Sample Description: WW-171242 S-8A AT 2-4 HST
Sample Type : GRAB
Sample Date / Time : 6/07/2017 @ 13:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.036	0.020	mg/l	SM4500NH3-B,H 18-21ed	6/23/2017 12:00	APD
Dissolved TOC	0.56	0.5	mg/l	EPA 415.1	6/19/2017 9:28	DEL
TOC	0.64	0.5	mg/l	SM5310C 21 ed.	6/19/2017 9:28	DEL

R.I. Analytical Laboratories, Inc.

Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1706-12476

Project Name: PLYMOUTH ENV.

Sample Number: 005
Sample Description: WW-171243 S-10 AT 2-4 HST
Sample Type : GRAB
Sample Date / Time : 6/07/2017 @ 13:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.028	0.020	mg/l	SM4500NH3-B,H 18-21ed	6/23/2017 12:00	APD
Dissolved TOC	0.62	0.5	mg/l	EPA 415.1	6/19/2017 9:28	DEL
TOC	0.70	0.5	mg/l	SM5310C 21 ed.	6/19/2017 9:28	DEL

CHAIN OF CUSTODY FORM

PWS:

Project Name:

Plymouth Env.

ENVIROTECH LABS, INC.
8 Jan Sebastian Dr., Unit 12
Sandwich, MA 02563
(508)888-6460
1-800-339-6460
FAX (508)888-6446

RI Analytical
M RI 015
41 Illinois Avenue
Warwick, RI 02888
Phone# 401-737-8500
Fax# 401-738-1970

Sampler:

KT

1-800-339-6460
FAX (508)888-6446

Phone# 401-737-8500
Fax# 401-738-1970

Lab ID # Date Time Comp Grab Station location

WW-171239 06/07/17 1105 X S-10 at Ebb Tide

WW-171240 09/15/16 1310 X S-7 at Ebb Tide

WW-171241 09/15/16 1300 X S-7 at 2-4 HST

WW-171242 09/15/16 1300 X S-8A at 2-4 HST

WW-171243 09/15/16 1300 X S-10 at 2-4 HST

Container Pres. Sample type Analysis requested

P H₂SO₄ Harbor Ammonia-N (0.02 mdl)

P H₂SO₄ Harbor TOC total low detection

P H₂SO₄ Harbor TOC dissolved

P H₂SO₄ Harbor Ammonia-N (0.02 mdl)

P H₂SO₄ Harbor TOC total low detection

P H₂SO₄ Harbor TOC dissolved low detection

P H₂SO₄ Harbor TOC total low detection

P H₂SO₄ Harbor TOC dissolved low detection

P H₂SO₄ Harbor TOC total low detection

P H₂SO₄ Harbor TOC dissolved low detection

P H₂SO₄ Harbor TOC total low detection

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P H₂SO₄ Harbor TOC dissolved low detection

P H₂SO₄ Harbor TOC total low detection

P H₂SO₄ Harbor TOC dissolved low detection

P H₂SO₄ Harbor TOC total low detection

Ammonia-N low level 0.02 mg/L
Total TOC low level 0.5 mg/L
dissolved TOC low level 0.5 mg/L

TOC dissolved samples are filtered
Contact lab with any exceeded MCL

PV
12475

1706-12476



LABORATORY REPORT

Envirotech Laboratories, Inc.
Attn: Mr. Ron Saari
8 Jan Sebastian Drive
Sandwich, MA 02563

Date Received: 6/13/2017
Date Reported: 6/23/2017
P.O. Number

Work Order #: 1706-12476

Project Name: PLYMOUTH ENV.

Enclosed are the analytical results and Chain of Custody for your project referenced above. The sample(s) were analyzed by our Warwick, RI laboratory unless noted otherwise. When applicable, indication of sample analysis at our Hudson, MA laboratory and/or subcontracted results are noted and subcontracted reports are enclosed in their entirety.

All samples were analyzed within the established guidelines of US EPA approved methods with all requirements met, unless otherwise noted at the end of a given sample's analytical results or in a case narrative.

The Detection Limit is defined as the lowest level that can be reliably achieved during routine laboratory conditions.

These results only pertain to the samples submitted for this Work Order # and this report shall not be reproduced except in its entirety.

We certify that the following results are true and accurate to the best of our knowledge. If you have questions or need further assistance, please contact our Customer Service Department.

Approved by:

Dawne E. Smart
Data Reporting Manager

Laboratory Certification Numbers (as applicable to sample's origin state):

Warwick RI * RI LAI00033, MA M-RI015, CT PH-0508, ME RI00015, NH 2070, NY 11726
Hudson MA * M-MA1117, RI LAO00319



ANALYTICAL REPORT

Lab Number:	L1719012
Client:	Envirotech Laboratories, Inc. 8 Jan Sebastian Drive Unit 12 Sandwich, MA 02563
ATTN:	Ron Saari
Phone:	(800) 339-6460
Project Name:	PLYMOUTH ENVIRONMENTAL MGMT
Project Number:	Not Specified
Report Date:	06/14/17

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), NJ NELAP (MA935), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-14-00197).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Serial_No:06141718:26

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Lab Number: L1719012
Report Date: 06/14/17

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1719012-01	WW-171239	WATER	S-10 AT EBB TIDE	06/07/17 11:05	06/08/17
L1719012-02	WW-171240	WATER	S-7 AT EBB TIDE	06/07/17 11:15	06/08/17
L1719012-03	WW-171241	WATER	S-7 AT 2-4 HST	06/07/17 13:30	06/08/17
L1719012-04	WW-171242	WATER	S-8A AT 2-4 HST	06/07/17 13:50	06/08/17
L1719012-05	WW-171243	WATER	S-10 AT 2-4 HST	06/07/17 13:40	06/08/17

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Lab Number: L1719012
Report Date: 06/14/17

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Lab Number: L1719012
Report Date: 06/14/17

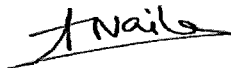
Case Narrative (continued)

Chlorophyll A

L1719012-01 through -05: The sample was analyzed with the method required holding time exceeded.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Amita Naik

Title: Technical Director/Representative

Date: 06/14/17

INORGANICS & MISCELLANEOUS

Serial_No:06141718:26

Project Name: PLYMOUTH ENVIRONMENTAL MGMT

Lab Number: L1719012

Project Number: Not Specified

Report Date: 06/14/17

SAMPLE RESULTS

Lab ID: L1719012-01
Client ID: WW-171239
Sample Location: S-10 AT EBB TIDE
Matrix: Water

Date Collected: 06/07/17 11:05
Date Received: 06/08/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	2.72		mg/m3	2.00	NA	1	06/08/17 16:45	06/09/17 10:00	121, 10200H	DW



Serial_No:06141718:26

Project Name: PLYMOUTH ENVIRONMENTAL MGMT

Lab Number: L1719012

Project Number: Not Specified

Report Date: 06/14/17

SAMPLE RESULTS

Lab ID: L1719012-02

Date Collected: 06/07/17 11:15

Client ID: WW-171240

Date Received: 06/08/17

Sample Location: S-7 AT EBB TIDE

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	3.22		mg/m3	2.00	NA	1	06/08/17 16:45	06/09/17 10:00	121, 10200H	DW



Serial_No:06141718:26

Project Name: PLYMOUTH ENVIRONMENTAL MGMT

Lab Number: L1719012

Project Number: Not Specified

Report Date: 06/14/17

SAMPLE RESULTS

Lab ID: L1719012-03

Date Collected: 06/07/17 13:30

Client ID: WW-171241

Date Received: 06/08/17

Sample Location: S-7 AT 2-4 HST

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	3.32		mg/m3	2.00	NA	1	06/08/17 16:45	06/09/17 10:00	121, 10200H	DW



Serial_No:06141718:26

Project Name: PLYMOUTH ENVIRONMENTAL MGMT

Lab Number: L1719012

Project Number: Not Specified

Report Date: 06/14/17

SAMPLE RESULTS

Lab ID: L1719012-04

Date Collected: 06/07/17 13:50

Client ID: WW-171242

Date Received: 06/08/17

Sample Location: S-8A AT 2-4 HST

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	4.51		mg/m3	2.00	NA	1	06/08/17 16:45	06/09/17 10:00	121, 10200H	DW



Serial_No:06141718:26

Project Name: PLYMOUTH ENVIRONMENTAL MGMT

Lab Number: L1719012

Project Number: Not Specified

Report Date: 06/14/17

SAMPLE RESULTS

Lab ID: L1719012-05

Date Collected: 06/07/17 13:40

Client ID: WW-171243

Date Received: 06/08/17

Sample Location: S-10 AT 2-4 HST

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	4.63		mg/m3	2.00	NA	1	06/08/17 16:45	06/09/17 10:00	121, 10200H	DW



Serial_No:06141718:26

Project Name: PLYMOUTH ENVIRONMENTAL MGMT

Lab Number: L1719012

Project Number: Not Specified

Report Date: 06/14/17

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-05 Batch: WG1011270-1										
Chlorophyll A	ND		mg/m3	2.00	NA	1	06/08/17 16:45	06/09/17 10:00	121, 10200H	DW



Serial_No:06141718:26

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L1719012
Report Date: 06/14/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1011270-2 QC Sample: L1719012-03 Client ID: WW-171241						
Chlorophyll A	3.32	3.68	mg/m3	10		

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Serial_No:06141718:26
Lab Number: L1719012
Report Date: 06/14/17

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler **Custody Seal**
A Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1719012-01A	Brown Plastic 1000ml unpreserved	A	NA		6.0	Y	Absent		CHLORO-A(1)
L1719012-01B	Brown Plastic 1000ml unpreserved	A	NA		6.0	Y	Absent		CHLORO-A(1)
L1719012-02A	Brown Plastic 1000ml unpreserved	A	NA		6.0	Y	Absent		CHLORO-A(1)
L1719012-02B	Brown Plastic 1000ml unpreserved	A	NA		6.0	Y	Absent		CHLORO-A(1)
L1719012-03A	Brown Plastic 1000ml unpreserved	A	NA		6.0	Y	Absent		CHLORO-A(1)
L1719012-03B	Brown Plastic 1000ml unpreserved	A	NA		6.0	Y	Absent		CHLORO-A(1)
L1719012-04A	Brown Plastic 1000ml unpreserved	A	NA		6.0	Y	Absent		CHLORO-A(1)
L1719012-04B	Brown Plastic 1000ml unpreserved	A	NA		6.0	Y	Absent		CHLORO-A(1)
L1719012-05A	Brown Plastic 1000ml unpreserved	A	NA		6.0	Y	Absent		CHLORO-A(1)
L1719012-05B	Brown Plastic 1000ml unpreserved	A	NA		6.0	Y	Absent		CHLORO-A(1)

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Lab Number: L1719012
Report Date: 06/14/17

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.
MSD	- 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.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
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.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

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

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.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

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.

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

Report Format: Data Usability Report



Project Name: PLYMOUTH ENVIRONMENTAL MGMT**Lab Number:** L1719012**Project Number:** Not Specified**Report Date:** 06/14/17**Data Qualifiers**

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.
- 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. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Lab Number: L1719012
Report Date: 06/14/17

REFERENCES

- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF.
Standard Methods Online.

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

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

Westborough Facility

EPA 624: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.
EPA 300: DW: Bromide
EPA 6860: NPW and SCM: Perchlorate
EPA 9010: NPW and SCM: Amenable Cyanide Distillation
EPA 9012B: NPW: Total Cyanide
EPA 9050A: NPW: Specific Conductance
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO₂, NO₃.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility

SM 2540D: TSS
EPA 3005A NPW
EPA 8082A: NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.
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.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

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, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B
EPA 332: Perchlorate; EPA 524.2: THMs and VOCs; EPA 504.1: EDB, DBCP.
Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH₃-BH, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, SM4500NO₃-F, EPA 353.2: Nitrate-N, EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO₄-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, 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, SM9221E.

Mansfield Facility:

Drinking Water

EPA 200.7: Ba, Be, Cd, Cr, Cu, Ni, Na, Ca. EPA 200.8: Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, TL. EPA 245.1 Hg.

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.
EPA 245.1 Hg.
SM2340B

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

Serial No: 06141718:2
4719012

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Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

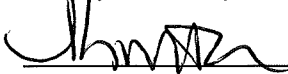
Chain of CustodyClient:

Town of Plymouth - Department of Marine and Environmental Affairs
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, ktower@townhall.plymouth.ma.us
Project Name: **Harbor Sampling** -Plymouth MA
Sampler: Kim Tower (KT)

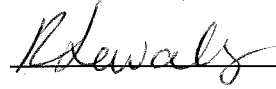
Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
6/7/17	1105	S-102	1	Plastic	TOC	H2SO4
		ebb tide	1	1 Liter Plastic	Dissolved	NONE
			1	500ml Plastic	NO2, NO3, Turbidity	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			1	Glass	Ortho	NONE
			1	100mL Plastic	Bacteria e-coli	NONE
			2	1 Liter Amber Plastic	Chlorophyll-a	NONE
6/7/17	1115	S-72	1	Plastic	TOC	H2SO4
		ebb tide	1	1 Liter Plastic	Dissolved	NONE
			1	500ml Plastic	NO2, NO3, Turbidity	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			1	Glass	Ortho	NONE
			1	100mL Plastic	Bacteria e-coli	NONE
			2	1 Liter Amber Plastic	Chlorophyll-a	NONE

NOTE: Analysis needed for reporting in lowest detection possible; O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Kjeldahl Nitrogen, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Bacteria E-coli, Chlorophyll-a

Relinquished By: Date/Time



Received By: Date/Time:

 06/07/17 1500

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of CustodyClient:

Town of Plymouth - Department of Marine and Environmental Affairs
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, ktower@townhall.plymouth.ma.us
Project Name: **Harbor Sampling -Plymouth MA**
Sampler: Kim Tower (KT)

hw-171241

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
6/7/17	5-720	1330	1	Plastic	TOC	H2SO4
	2-4HST		1	1 Liter Plastic	Dissolved	NONE
			1	500ml Plastic	NO2, NO3, Turbidity	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			1	Glass	Ortho	NONE
			1	100mL Plastic	Bacteria e-coli 20	NONE
			2	1 Liter Amber Plastic	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4
			1	1 Liter Plastic	Dissolved	NONE
			1	500ml Plastic	NO2, NO3, Turbidity	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			1	Glass	Ortho	NONE
			1	100mL Plastic	Bacteria e-coli 20	NONE
			2	1 Liter Amber Plastic	Chlorophyll-a	NONE

NOTE: Analysis needed for reporting in lowest detection possible; O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Kjeldahl Nitrogen, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Bacteria E-coli, Chlorophyll-a

Relinquished By: Date/Time



Received By: Date/Time:

 6/6/17 1500

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of Custody

Client:

Town of Plymouth - Department of Marine and Environmental Affairs
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, ktower@townhall.plymouth.ma.us
Project Name: **Harbor Sampling -Plymouth MA**
Sampler: Kim Tower (KT)

NW-171242

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
6/7/17	S-8A2	1350	1	Plastic	TOC	H2SO4
	2-4135		1	1 Liter Plastic	Dissolved	NONE
			1	500ml Plastic	NO2, NO3, Turbidity	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			1	Glass	Ortho	NONE
			1	100mL Plastic	Bacteria e-coli	NONE
			2	1 Liter Amber Plastic	Chlorophyll-a	NONE
6/7/17	S-102	1340	1	Plastic	TOC	H2SO4
	2-4135		1	1 Liter Plastic	Dissolved	NONE
			1	500ml Plastic	NO2, NO3, Turbidity	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			1	Glass	Ortho	NONE
			1	100mL Plastic	Bacteria e-coli	NONE
			2	1 Liter Amber Plastic	Chlorophyll-a	NONE

NW-171243

NOTE: Analysis needed for reporting in lowest detection possible; O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Kjeldahl Nitrogen, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Bacteria E-coli, Chlorophyll-a

Relinquished By: Date/Time

Kim Tower

Received By: Date/Time:

R. Hawley 06/07/17 1500

ENVIROTECH LABORATORIES, INC.**MA CERT. NO.: M-MA 063**

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Monday, July 17, 2017

Plymouth Environmental Management

K. Towers/ 11 Lincoln St.

Plymouth, MA

ProjectName: Surface water**Comments:****Project Number:****Collection Date:** 06/28/17 **Collection Time:** 11:00**Sampled By:** Kim Tower**Lab Order Number:** WW-171408**Date Received:** 06/28/17

Sample Type		Sample Time	Sample Date	Comments		
S-8B	A	11:00	06/28/17			
Parameters		Units	Test Results	Reportable Limits	Date Analyzed	Analyst Method
Total Nitrogen		mg/L	<0.2	NA	07/17/17	LL Calculation
Total Dissolved Solids		mg/L	BRL	6.0	07/10/17	KB SM 2540 C
Specific Conductance		uhoms/cm	BRL	10	06/29/17	LL EPA 120.1
Total Organic Carbon*		mg/L	<0.5*	0.5	07/05/17	RIA* SM 5310 C
Boron		mg/L	BRL	0.010	07/07/17	MC EPA 200.7
Nitrate-N		mg/L	BRL	0.01	06/29/17	LL EPA 300.0
Nitrite-N		mg/L	BRL	0.006	06/29/17	LL EPA 300.0
Ammonia-N *		mg/L	0.034*	0.02	07/07/17	RIA* SM4500 NH3 C
Total Kjeldhal Nitrogen		mg/L	BRL	0.2	07/12/17	KB SM4500-Norg B-C
pH grab		pH units	7.37	NA	06/28/17	LL SM 4500 H-B
Turbidity		NTU	BRL	1.0	06/29/17	LL SM 2130 B
Chloride		mg/L	BRL	3.0	06/29/17	LL EPA 300.0
Total Phosphorous (P)		mg/L	BRL	0.005	07/03/17	MC SM 4500-P
Dissolved Kjeldhal Nitrogen		mg/L	BRL	0.20	07/12/17	KB SM4500 Norg B-C
Dissolved Total Organic Carbon		mg/L	<0.5*	0.50	07/05/17	RIA* EPA 415.1
Dissolved Inorganic Nitrogen		mg/L	0.03	NA	07/17/17	MC Calculation
Dissolved Organic Nitrogen		mg/L	ND	NA	07/17/17	MC Calculation
Chlorophyll-a		*	ND*	*	06/30/17	Alpha* *
Ortho Phosphorous (P)		mg/L	BRL	0.005	06/28/17	MC SM 4500-P
Particulate Organic Carbon		mg/L	ND*	NA	07/05/17	RIA* SM 5310 C
Particulate Organic Nitrogen		mg/L	ND	NA	07/17/17	RIA* Calculation
Total Dissolved Nitrogen		mg/L	<0.2	NA	07/17/17	LL Calculation
E coli		CFU/100mL	<5	<1	06/28/17	MC EPA 1603

BRL=below reportable limits

*see attached

By:

Ronald J. Sauri

Laboratory Director

ENVIROTECH LABORATORIES, INC.**MA CERT. NO.: M-MA 063**

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Monday, July 17, 2017

Plymouth Environmental Management

K. Towers/ 11 Lincoln St.

Plymouth, MA

ProjectName: Surface water**Comments:****Project Number:****Collection Date:** 06/28/17 **Collection Time:** 11:20**Sampled By:** Kim Tower**Lab Order Number:** WW-171409**Date Received:** 06/28/17

Sample Type		Sample Time	Sample Date	Comments		
S-5B	A	11:20	06/28/17			
Parameters		Units	Test Results	Reportable Limits	Date Analyzed	Analyst Method
Total Nitrogen		mg/L	0.58	NA	07/17/17	KB Calculation
Total Dissolved Solids		mg/L	120	6.0	07/10/17	KB SM 2540 C
Specific Conductance		uhoms/cm	168	10	06/29/17	LL EPA 120.1
Total Organic Carbon*		mg/L	3.3*	0.5	07/05/17	RIA* SM 5310 C
Boron		mg/L	BRL	0.010	07/07/17	MC EPA 200.7
Nitrate-N		mg/L	0.14	0.01	06/29/17	LL EPA 300.0
Nitrite-N		mg/L	BRL	0.006	06/29/17	LL EPA 300.0
Ammonia-N *		mg/L	0.034*	0.02	07/07/17	RIA* SM4500 NH3 C
Total Kjeldhal Nitrogen		mg/L	0.44	0.2	07/12/17	KB SM4500-Norg B-C
pH grab		pH units	6.78	NA	06/28/17	LL SM 4500 H-B
Turbidity		NTU	1.4	1.0	06/29/17	LL SM 2130 B
Chloride		mg/L	48	3.0	06/29/17	LL EPA 300.0
Total Phosphorous (P)		mg/L	0.036	0.005	07/03/17	MC SM 4500-P
Dissolved Kjeldhal Nitrogen		mg/L	0.36	0.20	07/12/17	KB SM4500 Norg B-C
Dissolved Total Organic Carbon		mg/L	3.0*	0.50	07/05/17	RIA* EPA 415.1
Dissolved Inorganic Nitrogen		mg/L	0.18	NA	07/17/17	MC Calculation
Dissolved Organic Nitrogen		mg/L	0.32	NA	07/17/17	MC Calculation
Chlorophyll-a		*	9.84*	*	06/30/17	Alpha* *
Ortho Phosphorous (P)		mg/L	0.014	0.005	06/28/17	MC SM 4500-P
Particulate Organic Carbon		mg/L	0.3	NA	07/17/17	RIA* SM 5310 C
Particulate Organic Nitrogen		mg/L	0.08	NA	07/17/17	RIA* Calculation
Total Dissolved Nitrogen		mg/L	0.50	NA	07/17/17	KB Calculation
E coli		CFU/100mL	<5	<1	06/28/17	MC EPA 1603

BRL=below reportable limits

*see attached

By: Ronald J. Saari
Laboratory Director

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Monday, July 17, 2017

Plymouth Environmental Management
K. Towers/ 11 Lincoln St.
Plymouth, MA

ProjectName: Surface water

Comments:

Project Number:

Collection Date: 06/28/17 **Collection Time:** 11:40

Sampled By: Kim Tower

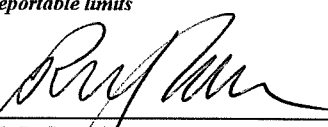
Lab Order Number: WW-171410

Date Received: 06/28/17

Sample Type	Sample Time	Sample Date	Comments			
S-4A A	11:40	06/28/17				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Nitrogen	mg/L	0.45	NA	07/17/17	KB	Calculation
Total Dissolved Solids	mg/L	95	6.0	07/10/17	KB	SM 2540 C
Specific Conductance	uhoms/cm	131	10	06/29/17	LL	EPA 120.1
Total Organic Carbon*	mg/L	3.8*	0.5	07/05/17	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	07/07/17	MC	EPA 200.7
Nitrate-N	mg/L	0.08	0.01	06/29/17	LL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	06/29/17	LL	EPA 300.0
Ammonia-N *	mg/L	0.066*	0.02	07/07/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.37	0.2	07/12/17	KB	SM4500-Norg B-C
pH grab	pH units	6.83	NA	06/28/17	LL	SM 4500 H-B
Turbidity	NTU	1.9	1.0	06/29/17	LL	SM 2130 B
Chloride	mg/L	36	3.0	06/29/17	LL	EPA 300.0
Total Phosphorous (P)	mg/L	0.033	0.005	07/03/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.35	0.20	07/12/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	3.5*	0.50	07/05/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.15	NA	07/17/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.28	NA	07/17/17	MC	Calculation
Chlorophyll-a	*	6.11*	*	06/30/17	Alpha*	*
Ortho Phosphorous (P)	mg/L	0.010	0.005	06/28/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	0.3	NA	07/17/17	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.02	NA	07/17/17	RIA*	Calculation
Total Dissolved Nitrogen	mg/L	0.43	NA	07/17/17	KB	Calculation
E coli	CFU/100mL	110	<1	06/28/17	MC	EPA 1603

BRL=below reportable limits

*see attached

By: 

Ronald J. Saari
Laboratory Director

ENVIROTECH LABORATORIES, INC.

MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Monday, July 17, 2017

Plymouth Environmental Management

K. Towers/ 11 Lincoln St.

Plymouth, MA

Project Name: Surface water

Comments:

Project Number:

Collection Date: 06/28/17 **Collection Time:** 11:55

Sampled By: Kim Tower

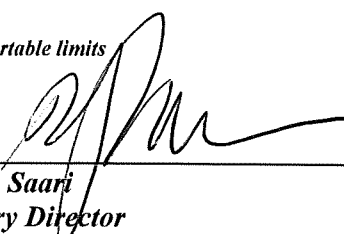
Lab Order Number: WW-171411

Date Received: 06/28/17

Sample Type		Sample Time	Sample Date	Comments		
S-3A	A	11:55	06/28/17			
Parameters		Units	Test Results	Reportable Limits	Date Analyzed	Analyst Method
Total Nitrogen		mg/L	0.47	NA	07/17/17	KB Calculation
Total Dissolved Solids		mg/L	93	6.0	07/10/17	KB SM 2540 C
Specific Conductance		uhoms/cm	128	10	06/29/17	LL EPA 120.1
Total Organic Carbon*		mg/L	2.2*	0.5	07/05/17	RIA* SM 5310 C
Boron		mg/L	BRL	0.010	07/07/17	MC EPA 200.7
Nitrate-N		mg/L	0.17	0.01	06/29/17	LL EPA 300.0
Nitrite-N		mg/L	BRL	0.006	06/29/17	LL EPA 300.0
Ammonia-N *		mg/L	0.032*	0.02	07/07/17	RIA* SM4500 NH3 C
Total Kjeldhal Nitrogen		mg/L	0.30	0.2	07/12/17	KB SM4500-Norg B-C
pH grab		pH units	6.96	NA	06/28/17	LL SM 4500 H-B
Turbidity		NTU	1.5	1.0	06/29/17	LL SM 2130 B
Chloride		mg/L	34	3.0	06/29/17	LL EPA 300.0
Total Phosphorous (P)		mg/L	0.022	0.005	07/03/17	MC SM 4500-P
Dissolved Kjeldhal Nitrogen		mg/L	0.24	0.20	07/12/17	KB SM4500 Norg B-C
Dissolved Total Organic Carbon		mg/L	2.0*	0.50	07/05/17	RIA* EPA 415.1
Dissolved Inorganic Nitrogen		mg/L	0.21	NA	07/17/17	MC Calculation
Dissolved Organic Nitrogen		mg/L	0.21	NA	07/17/17	MC Calculation
Chlorophyll-a		*	5.09*	*	06/30/17	Alpha* *
Ortho Phosphorous (P)		mg/L	BRL	0.005	06/28/17	MC SM 4500-P
Particulate Organic Carbon		mg/L	0.2	NA	07/17/17	RIA* SM 5310 C
Particulate Organic Nitrogen		mg/L	0.06	NA	07/17/17	RIA* Calculation
Total Dissolved Nitrogen		mg/L	0.41	NA	07/17/17	KB Calculation
E coli		CFU/100mL	50	<1	06/28/17	MC EPA 1603

BRL=below reportable limits

*see attached

By: 

Ronald J. Saari
Laboratory Director

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
 Sandwich, MA 02563
 (508)888-6460 1-800-339-6460
 FAX (508)888-6446

Monday, July 17, 2017

Plymouth Environmental Management
 K.Towers/ 11 Lincoln St.
 Plymouth, MA

ProjectName: Surface water

Comments:

Project Number:

Collection Date: 06/28/17 **Collection Time:** 12:05

Sampled By: Kim Tower

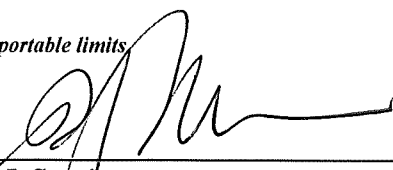
Lab Order Number: WW-171412

Date Received: 06/28/17

Sample Type	Sample Time	Sample Date	Comments			
S-8A A	12:05	06/28/17				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Nitrogen	mg/L	0.44	NA	07/17/17	KB	Calculation
Total Dissolved Solids	mg/L	79	6.0	07/10/17	KB	SM 2540 C
Specific Conductance	uhoms/cm	112	10	06/29/17	LL	EPA 120.1
Total Organic Carbon*	mg/L	2.1*	0.5	07/05/17	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	07/07/17	MC	EPA 200.7
Nitrate-N	mg/L	0.09	0.01	06/29/17	LL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	06/29/17	LL	EPA 300.0
Ammonia-N *	mg/L	0.035*	0.02	07/07/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.34	0.2	07/13/17	KB	SM4500-Norg B-C
pH grab	pH units	6.73	NA	06/28/17	LL	SM 4500 H-B
Turbidity	NTU	1.6	1.0	06/29/17	LL	SM 2130 B
Chloride	mg/L	29	3.0	06/29/17	LL	EPA 300.0
Total Phosphorous (P)	mg/L	0.018	0.005	07/03/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.24	0.20	07/13/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	1.8*	0.50	07/05/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.13	NA	07/17/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.20	NA	07/17/17	MC	Calculation
Chlorophyll-a	*	7.79*	*	06/30/17	Alpha*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	06/28/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	0.3	NA	07/17/17	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.10	NA	07/17/17	RIA*	Calculation
Total Dissolved Nitrogen	mg/L	0.34	NA	07/17/17	KB	Calculation
E coli	CFU/100mL	20	<1	06/28/17	MC	EPA 1603

BRL=below reportable limits

*see attached

By: 

Ronald J. Saari
 Laboratory Director

ENVIROTECH LABORATORIES, INC.**MA CERT. NO.: M-MA 063**

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Monday, July 17, 2017

Plymouth Environmental Management

K. Towers/ 11 Lincoln St.

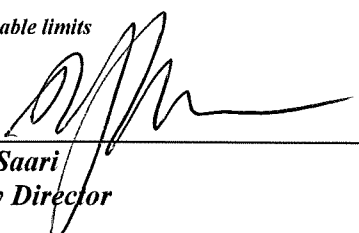
Plymouth, MA

ProjectName: Surface water**Comments:****Project Number:****Collection Date:** 06/28/17 **Collection Time:** 12:15**Sampled By:** Kim Tower**Lab Order Number:** WW-171413**Date Received:** 06/28/17

Sample Type		Sample Time	Sample Date	Comments		
S-2C	A	12:15	06/28/17			
Parameters		Units	Test Results	Reportable Limits	Date Analyzed	Analyst Method
Total Nitrogen		mg/L	0.43	NA	07/17/17	KB Calculation
Total Dissolved Solids		mg/L	78	6.0	07/10/17	KB SM 2540 C
Specific Conductance		uhoms/cm	112	10	06/29/17	LL EPA 120.1
Total Organic Carbon*		mg/L	2.1*	0.5	07/05/17	RIA* SM 5310 C
Boron		mg/L	BRL	0.010	07/07/17	MC EPA 200.7
Nitrate-N		mg/L	0.09	0.01	06/29/17	LL EPA 300.0
Nitrite-N		mg/L	BRL	0.006	06/29/17	LL EPA 300.0
Ammonia-N *		mg/L	0.028*	0.02	07/07/17	RIA* SM4500 NH3 C
Total Kjeldhal Nitrogen		mg/L	0.33	0.2	07/13/17	KB SM4500-Norg B-C
pH grab		pH units	6.82	NA	06/28/17	LL SM 4500 H-B
Turbidity		NTU	1.3	1.0	06/29/17	LL SM 2130 B
Chloride		mg/L	29	3.0	06/29/17	LL EPA 300.0
Total Phosphorous (P)		mg/L	0.031	0.005	07/03/17	MC SM 4500-P
Dissolved Kjeldhal Nitrogen		mg/L	0.21	0.20	07/13/17	KB SM4500 Norg B-C
Dissolved Total Organic Carbon		mg/L	1.8*	0.50	07/05/17	RIA* EPA 415.1
Dissolved Inorganic Nitrogen		mg/L	0.12	NA	07/17/17	MC Calculation
Dissolved Organic Nitrogen		mg/L	0.18	NA	07/17/17	MC Calculation
Chlorophyll-a		*	6.46*	*	06/30/17	Alpha* *
Ortho Phosphorous (P)		mg/L	BRL	0.005	06/28/17	MC SM 4500-P
Particulate Organic Carbon		mg/L	0.3	NA	07/17/17	RIA* SM 5310 C
Particulate Organic Nitrogen		mg/L	0.12	NA	07/17/17	RIA* Calculation
Total Dissolved Nitrogen		mg/L	0.30	NA	07/17/17	KB Calculation
E coli		CFU/100mL	<5	<1	06/28/17	MC EPA 1603

BRL=below reportable limits

*see attached

By: Ronald J. Saari
Laboratory Director

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
 Sandwich, MA 02563
 (508)888-6460 1-800-339-6460
 FAX (508)888-6446

Monday, July 17, 2017

Plymouth Environmental Management
 K. Towers/ 11 Lincoln St.
 Plymouth, MA

ProjectName: Surface water

Comments:

Project Number:

Collection Date: 06/28/17 **Collection Time:** 12:35

Sampled By: Kim Tower

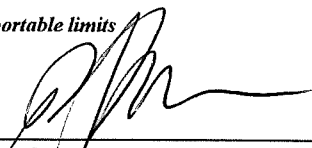
Lab Order Number: WW-171414

Date Received: 06/28/17

Sample Type		Sample Time	Sample Date	Comments		
S-6A	A	12:35	06/28/17			
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Nitrogen	mg/L	0.44	NA	07/17/17	KB	Calculation
Total Dissolved Solids	mg/L	69	6.0	07/10/17	KB	SM 2540 C
Specific Conductance	uhoms/cm	88	10	06/29/17	LL	EPA 120.1
Total Organic Carbon*	mg/L	1.9*	0.5	07/05/17	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	07/07/17	MC	EPA 200.7
Nitrate-N	mg/L	0.23	0.01	06/29/17	LL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	06/29/17	LL	EPA 300.0
Ammonia-N *	mg/L	0.043*	0.02	07/07/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.20	0.2	07/16/17	KB	SM4500-Norg B-C
pH grab	pH units	6.34	NA	06/28/17	LL	SM 4500 H-B
Turbidity	NTU	1.2	1.0	06/29/17	LL	SM 2130 B
Chloride	mg/L	22	3.0	06/29/17	LL	EPA 300.0
Total Phosphorous (P)	mg/L	0.022	0.005	07/03/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.20	07/15/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	1.8*	0.50	07/05/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.28	NA	07/17/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	ND	NA	07/17/17	MC	Calculation
Chlorophyll-a	*	ND*	*	06/30/17	Alpha*	*
Ortho Phosphorous (P)	mg/L	0.007	0.005	06/28/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	0.1	NA	07/17/17	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	ND	NA	07/17/17	RIA*	Calculation
Total Dissolved Nitrogen	mg/L	< 0.44	NA	07/17/17	KB	Calculation
E coli	CFU/100mL	<5	<1	06/28/17	MC	EPA 1603

BRL=below reportable limits

*see attached

By: 

Ronald J. Saafi
 Laboratory Director

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
 Sandwich, MA 02563
 (508)888-6460 1-800-339-6460
 FAX (508)888-6446

Monday, July 17, 2017

Plymouth Environmental Management
 K.Towers/ 11 Lincoln St.
 Plymouth, MA

ProjectName: Surface water

Comments:

Project Number:

Collection Date: 06/28/17 **Collection Time:** 13:00

Sampled By: Kim Tower

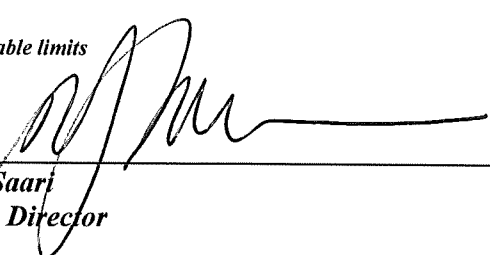
Lab Order Number: WW-171415

Date Received: 06/28/17

Sample Type	Sample Time	Sample Date	Comments			
S-12 A	13:00	06/28/17				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Nitrogen	mg/L	0.51	NA	07/17/17	KB	Calculation
Total Dissolved Solids	mg/L	63	6.0	07/10/17	KB	SM 2540 C
Specific Conductance	uhoms/cm	85	10	06/29/17	LL	EPA 120.1
Total Organic Carbon*	mg/L	2.6*	0.5	07/05/17	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	07/07/17	MC	EPA 200.7
Nitrate-N	mg/L	0.22	0.01	06/29/17	LL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	06/29/17	LL	EPA 300.0
Ammonia-N *	mg/L	0.024*	0.02	07/07/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.28	0.2	07/15/17	KB	SM4500-Norg B-C
pH grab	pH units	6.37	NA	06/28/17	LL	SM 4500 H-B
Turbidity	NTU	2.0	1.0	06/29/17	LL	SM 2130 B
Chloride	mg/L	21	3.0	06/29/17	LL	EPA 300.0
Total Phosphorous (P)	mg/L	0.024	0.005	07/03/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.26	0.20	07/15/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	2.4*	0.50	07/05/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.25	NA	07/17/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.24	NA	07/17/17	MC	Calculation
Chlorophyll-a	*	3.84*	*	06/30/17	Alpha*	*
Ortho Phosphorous (P)	mg/L	0.010	0.005	06/28/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	0.2	NA	07/17/17	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.02	NA	07/17/17	RIA*	Calculation
Total Dissolved Nitrogen	mg/L	0.48	NA	07/17/17	KB	Calculation
E coli	CFU/100mL	35	<1	06/28/17	MC	EPA 1603

BRL=below reportable limits

*see attached

By: 

Ronald J. Saari
 Laboratory Director

LABORATORY REPORT

Envirotech Laboratories, Inc.
Attn: Mr. Ron Saari
8 Jan Sebastian Drive
Sandwich, MA 02563

Date Received: 6/29/2017
Date Reported: 7/12/2017
P.O. Number

Work Order #: 1706-13841

Project Name: PLYMOUTH ENV.

Enclosed are the analytical results and Chain of Custody for your project referenced above. The sample(s) were analyzed by our Warwick, RI laboratory unless noted otherwise. When applicable, indication of sample analysis at our Hudson, MA laboratory and/or subcontracted results are noted and subcontracted reports are enclosed in their entirety.

All samples were analyzed within the established guidelines of US EPA approved methods with all requirements met, unless otherwise noted at the end of a given sample's analytical results or in a case narrative.

The Detection Limit is defined as the lowest level that can be reliably achieved during routine laboratory conditions.

These results only pertain to the samples submitted for this Work Order # and this report shall not be reproduced except in its entirety.

We certify that the following results are true and accurate to the best of our knowledge. If you have questions or need further assistance, please contact our Customer Service Department.

Approved by:



Dawne E. Smart
Data Reporting Manager

Laboratory Certification Numbers (as applicable to sample's origin state):

Warwick RI * RI LAI00033, MA M-RI015, CT PH-0508, ME RI00015, NH 2070, NY 11726

Hudson MA * M-MA1117, RI LAO00319

41 Illinois Avenue, Warwick, RI 02888
Phone: 401-737-8500 Fax: 401-738-1970

www.rianalytical.com

131 Coolidge Street, Suite 105, Hudson MA 01749
Phone: 978-568-0041 Fax: 978-568-0078

R.I. Analytical Laboratories, Inc.

Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1706-13841

Project Name: PLYMOUTH ENV.

Sample Number: 001
Sample Description: WW-171408 S-8B
Sample Type : GRAB
Sample Date / Time : 6/28/2017 @ 11:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.034	0.020	mg/l	SM4500NH3-B,H 18-21ed	7/7/2017 16:30	MFH
Dissolved TOC	<0.5	0.5	mg/l	EPA 415.1	7/5/2017 8:50	DEL
TOC	<0.5	0.5	mg/l	SM5310C 21 ed.	7/5/2017 8:50	DEL

Sample Number: 002
Sample Description: WW-171409 S-5B
Sample Type : GRAB
Sample Date / Time : 6/28/2017 @ 11:20

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.034	0.020	mg/l	SM4500NH3-B,H 18-21ed	7/7/2017 16:30	MFH
Dissolved TOC	3.0	0.5	mg/l	EPA 415.1	7/5/2017 8:50	DEL
TOC	3.3	0.5	mg/l	SM5310C 21 ed.	7/5/2017 8:50	DEL

Sample Number: 003
Sample Description: WW-171410 S-4A
Sample Type : GRAB
Sample Date / Time : 6/28/2017 @ 11:40

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.066	0.020	mg/l	SM4500NH3-B,H 18-21ed	7/7/2017 16:30	MFH
Dissolved TOC	3.5	0.5	mg/l	EPA 415.1	7/5/2017 8:50	DEL
TOC	3.8	0.5	mg/l	SM5310C 21 ed.	7/5/2017 8:50	DEL

Sample Number: 004
Sample Description: WW-171411 S-3A
Sample Type : GRAB
Sample Date / Time : 6/28/2017 @ 11:55

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.032	0.020	mg/l	SM4500NH3-B,H 18-21ed	7/7/2017 16:30	MFH
Dissolved TOC	2.0	0.5	mg/l	EPA 415.1	7/5/2017 8:50	DEL
TOC	2.2	0.5	mg/l	SM5310C 21 ed.	7/5/2017 8:50	DEL

R.I. Analytical Laboratories, Inc.

Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1706-13841

Project Name: PLYMOUTH ENV.

Sample Number: 005
Sample Description: WW-171412 S-8A
Sample Type : GRAB
Sample Date / Time : 6/28/2017 @ 12:05

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.035	0.020	mg/l	SM4500NH3-B,H 18-21ed	7/7/2017 16:30	MFH
Dissolved TOC	1.8	0.5	mg/l	EPA 415.1	7/5/2017 8:50	DEL
TOC	2.1	0.5	mg/l	SM5310C 21 ed.	7/5/2017 8:50	DEL

Sample Number: 006
Sample Description: WW-171413 S-2C
Sample Type : GRAB
Sample Date / Time : 6/28/2017 @ 12:15

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.028	0.020	mg/l	SM4500NH3-B,H 18-21ed	7/7/2017 16:30	MFH
Dissolved TOC	1.8	0.5	mg/l	EPA 415.1	7/5/2017 8:50	DEL
TOC	2.1	0.5	mg/l	SM5310C 21 ed.	7/5/2017 8:50	DEL

Sample Number: 007
Sample Description: WW-171414 S-6A
Sample Type : GRAB
Sample Date / Time : 6/28/2017 @ 12:35

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.043	0.020	mg/l	SM4500NH3-B,H 18-21ed	7/7/2017 16:30	MFH
Dissolved TOC	1.8	0.5	mg/l	EPA 415.1	7/5/2017 8:50	DEL
TOC	1.9	0.5	mg/l	SM5310C 21 ed.	7/5/2017 8:50	DEL

Sample Number: 008
Sample Description: WW-171415 S-12
Sample Type : GRAB
Sample Date / Time : 6/28/2017 @ 13:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.024	0.020	mg/l	SM4500NH3-B,H 18-21ed	7/7/2017 16:30	MFH
Dissolved TOC	2.4	0.5	mg/l	EPA 415.1	7/5/2017 8:50	DEL
TOC	2.6	0.5	mg/l	SM5310C 21 ed.	7/5/2017 8:50	DEL

[illegible]



ANALYTICAL REPORT

Lab Number:	L1722200
Client:	Envirotech Laboratories, Inc. 8 Jan Sebastian Drive Unit 12 Sandwich, MA 02563
ATTN:	Ron Saari
Phone:	(800) 339-6460
Project Name:	PLYMOUTH ENVIRONMENTAL MANGMT.
Project Number:	Not Specified
Report Date:	07/03/17

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Certifications & Approvals: MA (M-MA086), NH NELAP (2064), NJ NELAP (MA935), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-14-00197).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Serial_No:07031719:30

Project Name: PLYMOUTH ENVIRONMENTAL MANGMT.
Project Number: Not Specified

Lab Number: L1722200
Report Date: 07/03/17

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1722200-01	WW-171408	WATER	S-8B	06/28/17 11:00	06/29/17
L1722200-02	WW-171409	WATER	S-5B	06/28/17 11:20	06/29/17
L1722200-03	WW-171410	WATER	S-4A	06/28/17 11:40	06/29/17
L1722200-04	WW-171411	WATER	S-3A	06/28/17 11:55	06/29/17
L1722200-05	WW-171412	WATER	S-8A	06/28/17 12:05	06/29/17
L1722200-06	WW-171413	WATER	S-2C	06/28/17 12:15	06/29/17
L1722200-07	WW-171414	WATER	S-6A	06/28/17 12:35	06/29/17
L1722200-08	WW-171415	WATER	S-12	06/28/17 13:00	06/29/17

Project Name: PLYMOUTH ENVIRONMENTAL MANGMT.
Project Number: Not Specified

Lab Number: L1722200
Report Date: 07/03/17

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: PLYMOUTH ENVIRONMENTAL MANGMT.

Lab Number: L1722200

Project Number: Not Specified

Report Date: 07/03/17

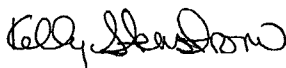
Case Narrative (continued)

Chlorophyll A

L1722200-01 through -08 were analyzed with the method required holding time exceeded.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Kelly Stenstrom

Title: Technical Director/Representative

Date: 07/03/17

INORGANICS & MISCELLANEOUS

Serial_No:07031719:30

Project Name: PLYMOUTH ENVIRONMENTAL MANGMT.

Lab Number: L1722200

Project Number: Not Specified

Report Date: 07/03/17

SAMPLE RESULTS

Lab ID: L1722200-01

Date Collected: 06/28/17 11:00

Client ID: WW-171408

Date Received: 06/29/17

Sample Location: S-8B

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	ND		mg/m3	2.00	NA	1	06/29/17 20:30	06/30/17 08:30	121, 10200H	DW



Serial_No:07031719:30

Project Name: PLYMOUTH ENVIRONMENTAL MANGMT.

Lab Number: L1722200

Project Number: Not Specified

Report Date: 07/03/17

SAMPLE RESULTS

Lab ID: L1722200-02

Date Collected: 06/28/17 11:20

Client ID: WW-171409

Date Received: 06/29/17

Sample Location: S-5B

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	9.84		mg/m3	2.00	NA	1	06/29/17 20:30	06/30/17 08:30	121, 10200H	DW



Serial_No:07031719:30

Project Name: PLYMOUTH ENVIRONMENTAL MANGMT.

Lab Number: L1722200

Project Number: Not Specified

Report Date: 07/03/17

SAMPLE RESULTS

Lab ID: L1722200-03

Date Collected: 06/28/17 11:40

Client ID: WW-171410

Date Received: 06/29/17

Sample Location: S-4A

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	6.11		mg/m3	2.00	NA	1	06/29/17 20:30	06/30/17 08:30	121, 10200H	DW



Serial_No:07031719:30

Project Name: PLYMOUTH ENVIRONMENTAL MANGMT.

Lab Number: L1722200

Project Number: Not Specified

Report Date: 07/03/17

SAMPLE RESULTS

Lab ID: L1722200-04

Date Collected: 06/28/17 11:55

Client ID: WW-171411

Date Received: 06/29/17

Sample Location: S-3A

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	5.09		mg/m3	2.00	NA	1	06/29/17 20:30	06/30/17 08:30	121, 10200H	DW



Project Name: PLYMOUTH ENVIRONMENTAL MANGMT.**Lab Number:** L1722200**Project Number:** Not Specified**Report Date:** 07/03/17**SAMPLE RESULTS****Lab ID:** L1722200-05**Date Collected:** 06/28/17 12:05**Client ID:** WW-171412**Date Received:** 06/29/17**Sample Location:** S-8A**Field Prep:** Not Specified**Matrix:** Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	7.79		mg/m3	2.00	NA	1	06/29/17 20:30	06/30/17 08:30	121, 10200H	DW



Serial_No:07031719:30

Project Name: PLYMOUTH ENVIRONMENTAL MANGMT.

Lab Number: L1722200

Project Number: Not Specified

Report Date: 07/03/17

SAMPLE RESULTS

Lab ID: L1722200-06

Date Collected: 06/28/17 12:15

Client ID: WW-171413

Date Received: 06/29/17

Sample Location: S-2C

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	6.46		mg/m3	2.00	NA	1	06/29/17 20:30	06/30/17 08:30	121, 10200H	DW



Serial_No:07031719:30

Project Name: PLYMOUTH ENVIRONMENTAL MANGMT.

Lab Number: L1722200

Project Number: Not Specified

Report Date: 07/03/17

SAMPLE RESULTS

Lab ID: L1722200-07

Date Collected: 06/28/17 12:35

Client ID: WW-171414

Date Received: 06/29/17

Sample Location: S-6A

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	ND		mg/m3	2.00	NA	1	06/29/17 20:30	06/30/17 08:30	121, 10200H	DW



Serial_No:07031719:30

Project Name: PLYMOUTH ENVIRONMENTAL MANGMT.

Lab Number: L1722200

Project Number: Not Specified

Report Date: 07/03/17

SAMPLE RESULTS

Lab ID: L1722200-08

Date Collected: 06/28/17 13:00

Client ID: WW-171415

Date Received: 06/29/17

Sample Location: S-12

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	3.84		mg/m3	2.00	NA	1	06/29/17 20:30	06/30/17 08:30	121, 10200H	DW



Serial_No:07031719:30

Project Name: PLYMOUTH ENVIRONMENTAL MANG

Lab Number: L1722200

Project Number: Not Specified

Report Date: 07/03/17

Method Blank Analysis
Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-08 Batch: WG1018585-1									
Chlorophyll A	ND	mg/m3	2.00	NA	1	06/29/17 20:30	06/30/17 08:30	121, 10200H	DW



Serial_No:07031719:30

Project Name: PLYMOUTH ENVIRONMENTAL MANGMT.
Project Number: Not Specified

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L1722200
Report Date: 07/03/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG1018585-2 QC Sample: L1722200-08 Client ID: WW-171415						
Chlorophyll A	3.84	3.18	mg/m3	19		

Project Name: PLYMOUTH ENVIRONMENTAL MANGMT.
Project Number: Not Specified

Serial_No: 07031719:30
Lab Number: L1722200
Report Date: 07/03/17

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler **Custody Seal**
A Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1722200-01A	Brown Plastic 1000ml unpreserved	A	NA		2.6	Y	Absent		CHLORO-A(1)
L1722200-01B	Brown Plastic 1000ml unpreserved	A	NA		2.6	Y	Absent		CHLORO-A(1)
L1722200-02A	Brown Plastic 1000ml unpreserved	A	NA		2.6	Y	Absent		CHLORO-A(1)
L1722200-02B	Brown Plastic 1000ml unpreserved	A	NA		2.6	Y	Absent		CHLORO-A(1)
L1722200-03A	Brown Plastic 1000ml unpreserved	A	NA		2.6	Y	Absent		CHLORO-A(1)
L1722200-03B	Brown Plastic 1000ml unpreserved	A	NA		2.6	Y	Absent		CHLORO-A(1)
L1722200-04A	Brown Plastic 1000ml unpreserved	A	NA		2.6	Y	Absent		CHLORO-A(1)
L1722200-04B	Brown Plastic 1000ml unpreserved	A	NA		2.6	Y	Absent		CHLORO-A(1)
L1722200-05A	Brown Plastic 1000ml unpreserved	A	NA		2.6	Y	Absent		CHLORO-A(1)
L1722200-05B	Brown Plastic 1000ml unpreserved	A	NA		2.6	Y	Absent		CHLORO-A(1)
L1722200-06A	Brown Plastic 1000ml unpreserved	A	NA		2.6	Y	Absent		CHLORO-A(1)
L1722200-06B	Brown Plastic 1000ml unpreserved	A	NA		2.6	Y	Absent		CHLORO-A(1)
L1722200-07A	Brown Plastic 1000ml unpreserved	A	NA		2.6	Y	Absent		CHLORO-A(1)
L1722200-07B	Brown Plastic 1000ml unpreserved	A	NA		2.6	Y	Absent		CHLORO-A(1)
L1722200-08A	Brown Plastic 1000ml unpreserved	A	NA		2.6	Y	Absent		CHLORO-A(1)
L1722200-08B	Brown Plastic 1000ml unpreserved	A	NA		2.6	Y	Absent		CHLORO-A(1)

Project Name: PLYMOUTH ENVIRONMENTAL MANGMT.

Lab Number: L1722200

Project Number: Not Specified

Report Date: 07/03/17

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.
MSD	- 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.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
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.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

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

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.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

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.

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

Report Format: Data Usability Report



Project Name: PLYMOUTH ENVIRONMENTAL MANGMT.**Lab Number:** L1722200**Project Number:** Not Specified**Report Date:** 07/03/17**Data Qualifiers**

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.
- 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. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

Project Name: PLYMOUTH ENVIRONMENTAL MANGMT.
Project Number: Not Specified

Lab Number: L1722200
Report Date: 07/03/17

REFERENCES

- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF.
Standard Methods Online.

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

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

Westborough Facility

EPA 624: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.
EPA 300: DW: Bromide
EPA 6860: NPW and SCM: Perchlorate
EPA 9010: NPW and SCM: Amenable Cyanide Distillation
EPA 9012B: NPW: Total Cyanide
EPA 9060A: NPW: Specific Conductance
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO₂, NO₃.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility

SM 2540D: TSS
EPA 3005A NPW
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
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.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

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; EPA 524.2: THMs and VOCs; EPA 504.1: EDB, DBCP.
Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH₃-BH, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, SM4500NO₃-F, EPA 353.2: Nitrate-N, EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO₄-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, 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, SM9221E.

Mansfield Facility:

Drinking Water

EPA 200.7: Ba, Be, Cd, Cr, Cu, Ni, Na, Ca. EPA 200.8: Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, TL. EPA 245.1 Hg.

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.
EPA 245.1 Hg.
SM2340B

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

L1722 Serial No: 07031719:30

Page 21 of 21

④

Chain of Custody

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Client:

Town of Plymouth - Marine & Environmental Affairs Attn: Kim Tower
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, ktower@townhall.plymouth.ma.us
Project Name: Eel River SW Sampling -Plymouth MA
Sampler: Kim Tower (KT)

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
WW-171408 6/28/17	1100	S8B	1	1 Liter Plastic	Dissolved, TOC, Orthophosphate	NONE
			1	500mL Plastic	Chloride, pH/Cond NO3, NO2, TDS	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			2	1 Liter Amber	Chlorophyll-a	NONE
			1	250mL Plastic	Boron	NONE
			1	100mL Plastic	Bacteria	NONE
WW-171409 6/28/17	1120	S-5B	1	1 Liter Plastic	Dissolved, TOC, Orthophosphate	NONE
			1	500mL Plastic	Chloride, pH/Cond NO3, NO2, TDS	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			2	1 Liter Amber	Chlorophyll-a	NONE
			1	250mL Plastic	Boron	NONE
			1	100mL Plastic	Bacteria	NONE

Relinquished By: Date/Time

Kim Tower

Received By: Date/Time:

J. Savally 6/28/17 1350

(L)

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of CustodyClient:

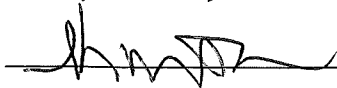
Town of Plymouth - Marine & Environmental Affairs Attn: Kim Tower
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, ktower@townhall.plymouth.ma.us
Project Name: **Eel River SW Sampling -Plymouth MA**
Sampler: Kim Tower (KT)

WW-171410

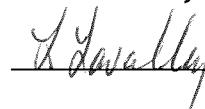
Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
6/28/17	1140	S-4A	1	1 Liter Plastic	Dissolved, TOC, Orthophosphate	NONE
			1	500mL Plastic	Chloride, pH/Cond NO3, NO2, TDS	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			2	1 Liter Amber	Chlorophyll-a	NONE
			1	250mL Plastic	Boron	NONE
			1	100mL Plastic	Bacteria 110	NONE
6/28/17	1155	S-3A	1	1 Liter Plastic	Dissolved, TOC, Orthophosphate	NONE
			1	500mL Plastic	Chloride, pH/Cond NO3, NO2, TDS	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			2	1 Liter Amber	Chlorophyll-a	NONE
			1	250mL Plastic	Boron	NONE
			1	100mL Plastic	Bacteria 50	NONE

WW-171411

Relinquished By: Date/Time



Received By: Date/Time:

 6/28/17 1350

②

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of Custody

Client:

Town of Plymouth - Marine & Environmental Affairs Attn: Kim Tower
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, ktower@townhall.plymouth.ma.us
Project Name: **Eel River SW Sampling -Plymouth MA**
Sampler: Kim Tower (KT)

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
WW-171412	6/28/17 1205	S-8A	1	1 Liter Plastic	Dissolved, TOC, Orthophosphate	NONE
			1	500mL Plastic	Chloride, pH/Cond NO3, NO2, TDS	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			2	1 Liter Amber	Chlorophyll-a	NONE
			1	250mL Plastic	Boron	NONE
			1	100mL Plastic	Bacteria 20	NONE
WW-171413	6/28/17 1215	S-2C	1	1 Liter Plastic	Dissolved, TOC, Orthophosphate	NONE
			1	500mL Plastic	Chloride, pH/Cond NO3, NO2, TDS	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			2	1 Liter Amber	Chlorophyll-a	NONE
			1	250mL Plastic	Boron	NONE
			1	100mL Plastic	Bacteria <5	NONE

Relinquished By: Date/Time

[Signature]

Received By: Date/Time:

[Signature] 6/28/17 1350

14

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

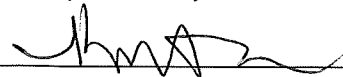
Chain of Custody

Client:

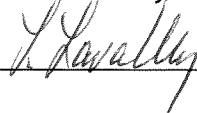
Town of Plymouth - Marine & Environmental Affairs Attn: Kim Tower
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, ktower@townhall.plymouth.ma.us
Project Name: **Eel River SW Sampling** -Plymouth MA
Sampler: Kim Tower (KT)

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
NW-171414 6/28/17	1235	S-6A	1	1 Liter Plastic	Dissolved, TOC, Orthophosphate	NONE
			1	500mL Plastic	Chloride, pH/Cond NO3, NO2, TDS	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			2	1 Liter Amber	Chlorophyll-a	NONE
			1	250mL Plastic	Boron	NONE
			1	100mL Plastic	Bacteria CS	NONE
NW-171415 6/28/17	1300	S-12	1	1 Liter Plastic	Dissolved, TOC, Orthophosphate	NONE
			1	500mL Plastic	Chloride, pH/Cond NO3, NO2, TDS	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			2	1 Liter Amber	Chlorophyll-a	NONE
			1	250mL Plastic	Boron	NONE
			1	100mL Plastic	Bacteria BS	NONE

Relinquished By: Date/Time



Received By: Date/Time:

 6/28/17 1350

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Wednesday, July 19, 2017

Plymouth Environmental Management
K. Towers/ 11 Lincoln St.
Plymouth, MA

ProjectName: Harbor Sampling

Comments:

Project Number:

Collection Date: 07/06/17 **Collection Time:** 12:40

Sampled By: Kim Tower

Lab Order Number: WW-171469

Date Received: 07/06/17

Sample Type	Sample Time	Sample Date	Comments			
S-7@ 2-4 HST A	12:40	07/06/17	Harbor Sampling			
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Organic Carbon*	mg/L	0.76	0.5	07/13/17	RIA*	SM 5310 C
Ammonia-N *	mg/L	0.091*	0.02	07/17/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.37	0.2	07/15/17	KB	SM4500-Norg B-C
Total Phosphorous (P)	mg/L	0.032	0.005	07/18/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.29	0.20	07/15/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	0.70*	0.50	07/13/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.11	NA	07/19/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.20	NA	07/19/17	MC	Calculation
Chlorophyll-a	*	5.41*	*	07/10/17	Alpha*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	07/07/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	0.06	NA	07/19/17	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.08	NA	07/19/17	KB	Calculation
Total Dissolved Nitrogen	mg/L	0.31	NA	07/19/17	KB	Calculation
E coli	CFU/100mL	5	<1	07/06/17	MC	EPA 1603
Nitrate-N	mg/L	0.02	0.01	07/06/17	MC	SM 4500-NO3 E
Nitrite-N	mg/L	BRL	0.005	07/06/17	MC	SM 4500-NO3 E

BRL=below reportable limits

*see attached

By:

Ronald J. Suari
Laboratory Director

Serial_No:07141713:28

Project Name: PLYMOUTH ENVIRONMENTAL MGMT

Lab Number: L1723052

Project Number: Not Specified

Report Date: 07/14/17

SAMPLE RESULTS

Lab ID: L1723052-01

Date Collected: 07/06/17 12:40

Client ID: WW-171469

Date Received: 07/07/17

Sample Location: S-7 AT 2-4 HST

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	5.41		mg/m3	2.00	NA	1	07/07/17 17:15	07/10/17 09:30	121, 10200H	DW



ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Wednesday, July 19, 2017

Plymouth Environmental Management
K. Towers/ 11 Lincoln St.
Plymouth, MA

ProjectName: Harbor Sampling

Comments:

Project Number:

Collection Date: 07/06/17 **Collection Time:** 12:30

Sampled By: Kim Tower

Lab Order Number: WW-171470

Date Received: 07/06/17

Sample Type	Sample Time	Sample Date	Comments			
S-8A @ 2-4 HST A	12:30	07/06/17	Harbor Sampling			
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Nitrite-N	mg/L	BRL	0.006	07/06/17	MC	EPA 300.0
Total Organic Carbon*	mg/L	0.74*	0.5	07/13/17	RIA*	SM 5310 C
Ammonia-N *	mg/L	0.053*	0.02	07/17/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.43	0.2	07/15/17	KB	SM4500-Norg B-C
Total Phosphorous (P)	mg/L	0.034	0.005	07/18/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.34	0.20	07/15/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	0.73*	0.50	07/13/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.07	NA	07/19/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.29	NA	07/19/17	MC	Calculation
Chlorophyll-a	*	4.96*	*	07/10/17	Alpha*	*
Ortho Phosphorous (P)	mg/L	0.019	0.005	07/07/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	0.01	NA	07/19/17	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.09	NA	07/19/17	KB	Calculation
Total Dissolved Nitrogen	mg/L	0.36	NA	07/19/17	KB	Calculation
E coli	CFU/100mL	<5	<1	07/06/17	MC	EPA 1603
Nitrate-N	mg/L	0.02	0.01	07/06/17	MC	SM 4500-NO3 E

BRL=below reportable limits

*see attached

By: _____

Ronald J. Sqari
Laboratory Director

Serial_No:07141713:28

Project Name: PLYMOUTH ENVIRONMENTAL MGMT

Lab Number: L1723052

Project Number: Not Specified

Report Date: 07/14/17

SAMPLE RESULTS

Lab ID: L1723052-02

Date Collected: 07/06/17 12:30

Client ID: WW-171470

Date Received: 07/07/17

Sample Location: S-8A AT 2-4 HST

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	4.96		mg/m3	2.00	NA	1	07/07/17 17:15	07/10/17 09:30	121, 10200H	DW



ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Thursday, July 20, 2017

Plymouth Environmental Management
K. Towers/ 11 Lincoln St.
Plymouth, MA

ProjectName: Harbor Sampling

Comments:

Project Number:

Collection Date: 07/06/17 **Collection Time:** 12:50

Sampled By: Kim Tower

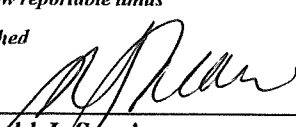
Lab Order Number: WW-171471

Date Received: 07/06/17

Sample Type	Sample Time	Sample Date	Comments			
S-10 @ 2-4 HST A	12:50	07/06/17	Harbor Sampling			
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Organic Carbon*	mg/L	0.80*	0.5	07/13/17	RIA*	SM 5310 C
Ammonia-N *	mg/L	0.052*	0.02	07/17/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.28	0.2	07/16/17	KB	SM4500-Norg B-C
Total Phosphorous (P)	mg/L	0.029	0.005	07/18/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.28	0.20	07/16/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	<0.5*	0.50	07/13/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.08	NA	07/19/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.23	NA	07/19/17	MC	Calculation
Chlorophyll-a	*	7.19*	*	07/10/17	Alpha*	*
Ortho Phosphorous (P)	mg/L	0.014	0.005	07/07/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	< 0.5	NA	07/19/17	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	ND	NA	07/19/17	KB	Calculation
Total Dissolved Nitrogen	mg/L	0.31	NA	07/19/17	MC	Calculation
E coli	CFU/100mL	5	<1	07/06/17	MC	EPA 1603
Nitrate-N	mg/L	0.03	0.01	07/06/17	MC	SM 4500-NO3 E
Nitrite-N	mg/L	BRL	0.005	07/06/17	MC	SM 4500-NO3 E

BRL=below reportable limits

*see attached

By: 
Ronald J. Saari
Laboratory Director

Serial_No:07141713:28

Project Name: PLYMOUTH ENVIRONMENTAL MGMT

Lab Number: L1723052

Project Number: Not Specified

Report Date: 07/14/17

SAMPLE RESULTS

Lab ID: L1723052-03

Date Collected: 07/06/17 12:50

Client ID: WW-171471

Date Received: 07/07/17

Sample Location: S-10 AT 2-4 HST

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	7.19		mg/m3	2.00	NA	1	07/07/17 17:15	07/10/17 09:30	121, 10200H	DW



LABORATORY REPORT

Envirotech Laboratories, Inc.
Attn: Mr. Ron Saari
8 Jan Sebastian Drive
Sandwich, MA 02563

Date Received: 7/7/2017
Date Reported: 7/18/2017
P.O. Number

Work Order #: 1707-14411

Project Name: PLYMOUTH ENV.

Enclosed are the analytical results and Chain of Custody for your project referenced above. The sample(s) were analyzed by our Warwick, RI laboratory unless noted otherwise. When applicable, indication of sample analysis at our Hudson, MA laboratory and/or subcontracted results are noted and subcontracted reports are enclosed in their entirety.

All samples were analyzed within the established guidelines of US EPA approved methods with all requirements met, unless otherwise noted at the end of a given sample's analytical results or in a case narrative.

The Detection Limit is defined as the lowest level that can be reliably achieved during routine laboratory conditions.

These results only pertain to the samples submitted for this Work Order # and this report shall not be reproduced except in its entirety.

We certify that the following results are true and accurate to the best of our knowledge. If you have questions or need further assistance, please contact our Customer Service Department.

Approved by:



Dawne E. Smart
Data Reporting Manager

Laboratory Certification Numbers (as applicable to sample's origin state):

Warwick RI * RI LAI00033, MA M-RI015, CT PH-0508, ME RI00015, NH 2070, NY 11726

Hudson MA * M-MA1117, RI LAO00319

41 Illinois Avenue, Warwick, RI 02888
Phone: 401-737-8500 Fax: 401-738-1970

www.rianalytical.com

131 Coolidge Street, Suite 105, Hudson MA 01749
Phone: 978-568-0041 Fax: 978-568-0078

R.I. Analytical Laboratories, Inc.

Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1707-14411

Project Name: PLYMOUTH ENV.

Sample Number: 001
Sample Description: WW-171469 S-7 AT 2-4 HST
Sample Type : GRAB
Sample Date / Time : 7/06/2017 @ 12:40

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.091	0.02	mg/l	SM4500NH3-B,H 18-21ed	7/17/2017 19:15	MFH
Dissolved TOC	0.70	0.5	mg/l	EPA 415.1	7/13/2017 7:30	DEL
TOC	0.76	0.5	mg/l	SM5310C 21 ed.	7/13/2017 7:30	DEL

Sample Number: 002
Sample Description: WW-171470 S-8A AT 2-4 HST
Sample Type : GRAB
Sample Date / Time : 7/06/2017 @ 12:30

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.053	0.02	mg/l	SM4500NH3-B,H 18-21ed	7/17/2017 19:15	MFH
Dissolved TOC	0.73	0.5	mg/l	EPA 415.1	7/13/2017 7:30	DEL
TOC	0.74	0.5	mg/l	SM5310C 21 ed.	7/13/2017 7:30	DEL

Sample Number: 003
Sample Description: WW-171471 S-10 AT 2-4 HST
Sample Type : GRAB
Sample Date / Time : 7/06/2017 @ 12:50

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.052	0.02	mg/l	SM4500NH3-B,H 18-21ed	7/17/2017 19:15	MFH
Dissolved TOC	<0.5	0.5	mg/l	EPA 415.1	7/13/2017 7:30	DEL
TOC	0.80	0.5	mg/l	SM5310C 21 ed.	7/13/2017 7:30	DEL

[illegible]



ANALYTICAL REPORT

Lab Number:	L1723052
Client:	Envirotech Laboratories, Inc. 8 Jan Sebastian Drive Unit 12 Sandwich, MA 02563
ATTN:	Ron Saari
Phone:	(800) 339-6460
Project Name:	PLYMOUTH ENVIRONMENTAL MGMT
Project Number:	Not Specified
Report Date:	07/14/17

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), NJ NELAP (MA935), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-14-00197).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Serial_No:07141713:28

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Lab Number: L1723052
Report Date: 07/14/17

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1723052-01	WW-171469	WATER	S-7 AT 2-4 HST	07/06/17 12:40	07/07/17
L1723052-02	WW-171470	WATER	S-8A AT 2-4 HST	07/06/17 12:30	07/07/17
L1723052-03	WW-171471	WATER	S-10 AT 2-4 HST	07/06/17 12:50	07/07/17

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Lab Number: L1723052
Report Date: 07/14/17

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Lab Number: L1723052
Report Date: 07/14/17

Case Narrative (continued)

Chlorophyll A

L1723052-01 through -03 were analyzed with the method required holding time exceeded.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Kara Lindquist

Title: Technical Director/Representative

Date: 07/14/17

INORGANICS & MISCELLANEOUS

Serial_No:07141713:28

Project Name: PLYMOUTH ENVIRONMENTAL MGMT

Lab Number: L1723052

Project Number: Not Specified

Report Date: 07/14/17

Method Blank Analysis
Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-03 Batch: WG1020593-1									
Chlorophyll A	ND	mg/m3	2.00	NA	1	07/07/17 17:15	07/10/17 09:30	121, 10200H	DW



Serial_No:07141713:28

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L1723052
Report Date: 07/14/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG1020593-2 QC Sample: L1723052-03 Client ID: WW-171471						
Chlorophyll A	7.19	6.22	mg/m3	14		

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Serial_No: 07141713:28
Lab Number: L1723052
Report Date: 07/14/17

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1723052-01A	Brown Plastic 1000ml unpreserved	A	NA		4.1	Y	Absent		CHLORO-A(1)
L1723052-01B	Brown Plastic 1000ml unpreserved	A	NA		4.1	Y	Absent		CHLORO-A(1)
L1723052-02A	Brown Plastic 1000ml unpreserved	A	NA		4.1	Y	Absent		CHLORO-A(1)
L1723052-02B	Brown Plastic 1000ml unpreserved	A	NA		4.1	Y	Absent		CHLORO-A(1)
L1723052-03A	Brown Plastic 1000ml unpreserved	A	NA		4.1	Y	Absent		CHLORO-A(1)
L1723052-03B	Brown Plastic 1000ml unpreserved	A	NA		4.1	Y	Absent		CHLORO-A(1)

Project Name: PLYMOUTH ENVIRONMENTAL MGMT

Lab Number: L1723052

Project Number: Not Specified

Report Date: 07/14/17

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.
LCSD	- 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.
MSD	- 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.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
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.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

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

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.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

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.

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

Report Format: Data Usability Report



Project Name: PLYMOUTH ENVIRONMENTAL MGMT

Lab Number: L1723052

Project Number: Not Specified

Report Date: 07/14/17

Data Qualifiers

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.
- 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. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Lab Number: L1723052
Report Date: 07/14/17

REFERENCES

- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF.
Standard Methods Online.

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

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

Westborough Facility

EPA 624: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.
EPA 300: DW: Bromide
EPA 6860: NPW and SCM: Perchlorate
EPA 9010: NPW and SCM: Amenable Cyanide Distillation
EPA 9012B: NPW: Total Cyanide
EPA 9050A: NPW: Specific Conductance
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO₂, NO₃.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility

SM 2540D: TSS
EPA 3005A NPW
EPA 8082A: NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.
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.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

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, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B
EPA 332: Perchlorate; EPA 524.2: THMs and VOCs; EPA 504.1: EDB, DBCP.
Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH₃-BH, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, SM4500NO₃-F, EPA 353.2: Nitrate-N, EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO₄-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, 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, SM9221E.

Mansfield Facility:

Drinking Water

EPA 200.7: Ba, Be, Cd, Cr, Cu, Ni, Na, Ca. EPA 200.8: Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, TL. EPA 245.1 Hg.

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.
EPA 245.1 Hg.
SM2340B

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

al. Np:07141713:28
61723052

~~Page 16 of 16~~

(L)

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of CustodyClient:

Town of Plymouth - Department of Marine and Environmental Affairs
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, ktower@townhall.plymouth.ma.us
Project Name: **Harbor Sampling -Plymouth MA**
Sampler: Kim Tower (KT)

WW-171469

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
7/6/17	1240	S-70	1	Plastic	TOC	H2SO4
		2-4155	1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			1	Glass	Ortho	NONE
			1	100mL Plastic	Bacteria e-coli	NONE
			2	1 Liter Amber Plastic	Chlorophyll-a	NONE
7/6/17	1230	S-042	1	Plastic	TOC	H2SO4
		2-4155	1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			1	Glass	Ortho	NONE
			1	100mL Plastic	Bacteria e-coli	NONE
			2	1 Liter Amber Plastic	Chlorophyll-a	NONE

WW-171470

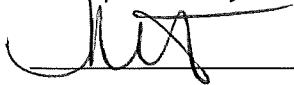
S

< 5

6

NOTE: Analysis needed for reporting in lowest detection possible; O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Kjeldahl Nitrogen, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Bacteria E-coli, Chlorophyll-a

Relinquished By: Date/Time



Received By: Date/Time:

 07/06/17 1345RL

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of Custody

Client:

Town of Plymouth - Department of Marine and Environmental Affairs
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, ktower@townhall.plymouth.ma.us
Project Name: **Harbor Sampling** -Plymouth MA
Sampler: Kim Tower (KT)

WW-171471

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
7/6/17	1250	S-102	1	Plastic	TOC	H2SO4
		2-4HST	1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			1	Glass	Ortho	NONE
			1	100mL Plastic	Bacteria e-coli	NONE
			2	1 Liter Amber Plastic	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			1	Glass	Ortho	NONE
			1	100mL Plastic	Bacteria e-coli	NONE
			2	1 Liter Amber Plastic	Chlorophyll-a	NONE

5

NOTE: Analysis needed for reporting in lowest detection possible; O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Kjeldahl Nitrogen, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Bacteria E-coli, Chlorophyll-a

Relinquished By: Date/Time

[Signature]

Received By: Date/Time:

[Signature] 07/06/17 1345 hr

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Tuesday, August 29, 2017

Plymouth Environmental Management
K. Towers/ 11 Lincoln St.
Plymouth, MA

ProjectName: Eel River SW

Comments:

Project Number:

Collection Date: 08/10/17 **Collection Time:** 13:00

Sampled By: Kim Tower

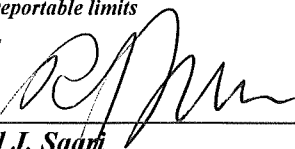
Lab Order Number: WW-171732

Date Received: 08/10/17

Sample Type		Sample Time	Sample Date	Comments		
S-12	A	13:00	08/10/17			
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Nitrogen	mg/L	0.35	NA	08/18/17	KB	Calculation
Total Dissolved Solids	mg/L	55	6.0	08/16/17	KB	SM 2540 C
Specific Conductance	uhoms/cm	81	10	08/10/17	LL	EPA 120.1
Total Organic Carbon*	mg/L	1.9*	0.5	08/18/17	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	08/17/17	MC	EPA 200.7
Nitrate-N	mg/L	0.05	0.01	08/10/17	LL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	08/10/17	LL	EPA 300.0
Ammonia-N *	mg/L	0.023*	0.02	08/17/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.30	0.2	08/16/17	KB	SM4500-Norg B-C
pH grab	pH units	6.30	NA	08/10/17	LL	SM 4500 H-B
Turbidity	NTU	BRL	1.0	08/11/17	LL	SM 2130 B
Chloride	mg/L	21	3.0	08/10/17	LL	EPA 300.0
Total Phosphorous (P)	mg/L	0.019	0.005	08/17/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.25	0.20	08/16/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	1.7*	0.50	08/18/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.07	NA	08/29/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.23	NA	08/29/17	MC	Calculation
Chlorophyll-a	*	5.06*	*	08/14/17	Alpha*	*
Ortho Phosphorous (P)	mg/L	0.012	0.005	08/11/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	0.2	NA	08/23/17	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.05	NA	08/29/17	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.30	NA	08/18/17	KB	Calculation
E coli	CFU/100mL	30	<1	08/10/17	MC	EPA 1603

BRL=below reportable limits

*see attached

By: 
Ronald J. Saari
Laboratory Director

Serial_No:08161720:23

Project Name: PLYMOUTH ENVIRONMENTAL MANAGE.

Lab Number: L1728072

Project Number: Not Specified

Report Date: 08/16/17

SAMPLE RESULTS

Lab ID: L1728072-01

Date Collected: 08/10/17 13:00

Client ID: WW-171732

Date Received: 08/11/17

Sample Location: S-12

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	5.06		mg/m3	2.00	NA	1	08/11/17 17:00	08/14/17 10:10	121, 10200H	DW



ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Tuesday, August 29, 2017

Plymouth Environmental Management
K. Towers/ 11 Lincoln St.
Plymouth, MA

ProjectName: Eel River SW

Comments:

Project Number:

Collection Date: 08/10/17 **Collection Time:** 13:15

Sampled By: Kim Tower

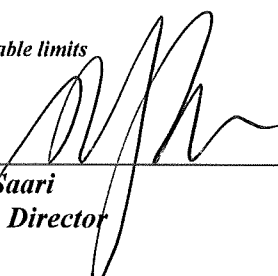
Lab Order Number: WW-171733

Date Received: 08/10/17

Sample Type	Sample Time	Sample Date	Comments			
S-8A A	13:15	08/10/17				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Nitrogen	mg/L	0.33	NA	08/18/17	KB	Calculation
Total Dissolved Solids	mg/L	61	6.0	08/16/17	KB	SM 2540 C
Specific Conductance	uhoms/cm	81	10	08/10/17	LL	EPA 120.1
Total Organic Carbon*	mg/L	1.8*	0.5	08/18/17	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	08/17/17	MC	EPA 200.7
Nitrate-N	mg/L	0.05	0.01	08/10/17	LL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	08/10/17	LL	EPA 300.0
Ammonia-N *	mg/L	0.023*	0.02	08/17/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.28	0.2	08/18/17	KB	SM4500-Norg B-C
pH grab	pH units	6.32	NA	08/10/17	LL	SM 4500 H-B
Turbidity	NTU	BRL	1.0	08/11/17	LL	SM 2130 B
Chloride	mg/L	21	3.0	08/10/17	LL	EPA 300.0
Total Phosphorous (P)	mg/L	0.015	0.005	08/17/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.23	0.20	08/18/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	1.7*	0.50	08/18/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.07	NA	08/29/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.21	NA	08/29/17	MC	Calculation
Chlorophyll-a	*	4.35*	*	08/14/17	Alpha*	*
Ortho Phosphorous (P)	mg/L	0.005	0.005	08/11/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	0.1	NA	08/23/17	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.05	NA	08/29/17	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.28	NA	08/18/17	KB	Calculation
E coli	CFU/100mL	40	<1	08/10/17	MC	EPA 1603

BRL=below reportable limits

*see attached

By: 

Ronald J. Saari
Laboratory Director

Serial_No:08161720:23

Project Name: PLYMOUTH ENVIRONMENTAL MANAGE.

Lab Number: L1728072

Project Number: Not Specified

Report Date: 08/16/17

SAMPLE RESULTS

Lab ID: L1728072-02

Date Collected: 08/10/17 13:15

Client ID: WW-171733

Date Received: 08/11/17

Sample Location: S-8A

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	4.35		mg/m3	2.00	NA	1	08/11/17 17:00	08/14/17 10:10	121, 10200H	DW



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MA CERT. NO.: M-MA 063

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Sandwich, MA 02563
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FAX (508)888-6446

Tuesday, August 29, 2017

Plymouth Environmental Management
K. Towers/ 11 Lincoln St.
Plymouth, MA

ProjectName: Eel River SW

Comments:

Project Number:

Collection Date: 08/10/17 **Collection Time:** 11:15

Sampled By: Kim Tower

Lab Order Number: WW-171734

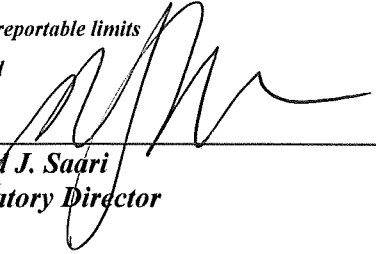
Date Received: 08/10/17

Sample Type		Sample Time	Sample Date	Comments		
S-8B	A	11:15	08/10/17			
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Nitrogen	mg/L	<0.20	NA	08/18/17	KB	Calculation
Total Dissolved Solids	mg/L	BRL	6.0	08/16/17	KB	SM 2540 C
Specific Conductance	uhoms/cm	BRL	10	08/10/17	LL	EPA 120.1
Total Organic Carbon*	mg/L	<0.5*	0.5	08/18/17	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	08/17/17	MC	EPA 200.7
Nitrate-N	mg/L	BRL	0.01	08/10/17	LL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	08/10/17	LL	EPA 300.0
Ammonia-N *	mg/L	0.041*	0.02	08/17/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	BRL	0.2	08/18/17	KB	SM4500-Norg B-C
pH grab	pH units	7.67	NA	08/10/17	LL	SM 4500 H-B
Turbidity	NTU	BRL	1.0	08/11/17	LL	SM 2130 B
Chloride	mg/L	BRL	3.0	08/10/17	LL	EPA 300.0
Total Phosphorous (P)	mg/L	BRL	0.005	08/17/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.20	08/18/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	<0.5*	0.50	08/17/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	<0.05	NA	08/29/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	<0.2	NA	08/29/17	MC	Calculation
Chlorophyll-a	*	ND*	*	08/14/17	Alpha*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	08/11/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	ND	NA	08/23/17	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	ND	NA	08/29/17	MC	Calculation
Total Dissolved Nitrogen	mg/L	<0.20	NA	08/18/17	KB	Calculation
E coli	CFU/100mL	<5	<1	08/10/17	MC	EPA 1603

BRL=below reportable limits

*see attached

By:


Ronald J. Saari
Laboratory Director

Serial_No:08161720:23

Project Name: PLYMOUTH ENVIRONMENTAL MANAGE.

Lab Number: L1728072

Project Number: Not Specified

Report Date: 08/16/17

SAMPLE RESULTS

Lab ID: L1728072-03

Date Collected: 08/10/17 11:15

Client ID: WW-171734

Date Received: 08/11/17

Sample Location: S-8B

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	ND		mg/m3	2.00	NA	1	08/11/17 17:00	08/14/17 10:10	121, 10200H	DW



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Tuesday, August 29, 2017

Plymouth Environmental Management
K. Towers/ 11 Lincoln St.
Plymouth, MA

ProjectName: Eel River SW

Comments:

Project Number:

Collection Date: 08/10/17 **Collection Time:** 11:30

Sampled By: Kim Tower

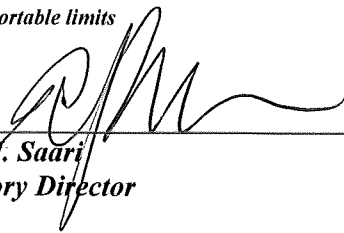
Lab Order Number: WW-171735

Date Received: 08/10/17

Sample Type		Sample Time	Sample Date	Comments		
S-5B	A	11:30	08/10/17			
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Nitrogen	mg/L	0.47	NA	08/18/17	KB	Calculation
Total Dissolved Solids	mg/L	100	6.0	08/16/17	KB	SM 2540 C
Specific Conductance	uhoms/cm	160	10	08/10/17	LL	EPA 120.1
Total Organic Carbon*	mg/L	2.7*	0.5	08/18/17	RIA*	SM 5310 C
Boron	mg/L	0.011	0.010	08/17/17	MC	EPA 200.7
Nitrate-N	mg/L	0.05	0.01	08/10/17	LL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	08/10/17	LL	EPA 300.0
Ammonia-N *	mg/L	0.15*	0.02	08/17/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.42	0.2	08/18/17	KB	SM4500-Norg B-C
pH grab	pH units	6.94	NA	08/10/17	LL	SM 4500 H-B
Turbidity	NTU	2.5	1.0	08/11/17	LL	SM 2130 B
Chloride	mg/L	46	3.0	08/10/17	LL	EPA 300.0
Total Phosphorous (P)	mg/L	0.029	0.005	08/17/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.36	0.20	08/18/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	2.4*	0.50	08/17/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.20	NA	08/29/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.21	NA	08/29/17	MC	Calculation
Chlorophyll-a	*	12.7*	*	08/14/17	Alpha*	*
Ortho Phosphorous (P)	mg/L	0.007	0.005	08/11/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	0.3	NA	08/23/17	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.06	NA	08/29/17	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.41	NA	08/18/17	KB	Calculation
E coli	CFU/100mL	100	<1	08/10/17	MC	EPA 1603

BRL=below reportable limits

*see attached

By: 

Ronald J. Saari
Laboratory Director

Serial_No:08161720:23

Project Name: PLYMOUTH ENVIRONMENTAL MANAGE.

Lab Number: L1728072

Project Number: Not Specified

Report Date: 08/16/17

SAMPLE RESULTS

Lab ID: L1728072-04

Date Collected: 08/10/17 11:30

Client ID: WW-171735

Date Received: 08/11/17

Sample Location: S-5B

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	12.7		mg/m3	2.00	NA	1	08/11/17 17:00	08/14/17 10:10	121, 10200H	DW



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Tuesday, August 29, 2017

Plymouth Environmental Management

K. Towers/ 11 Lincoln St.

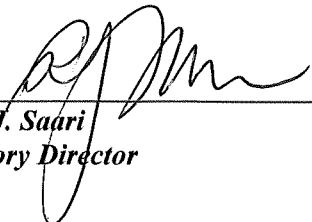
Plymouth, MA

ProjectName: Eel River SW**Comments:****Project Number:****Collection Date:** 08/10/17 **Collection Time:** 11:45**Sampled By:** Kim Tower**Lab Order Number:** WW-171736**Date Received:** 08/10/17

Sample Type		Sample Time	Sample Date	Comments		
S-4A	A	11:45	08/10/17			
Parameters		Units	Test Results	Reportable Limits	Date Analyzed	Analyst Method
Total Nitrogen		mg/L	0.39	NA	08/25/17	KB Calculation
Total Dissolved Solids		mg/L	73	6.0	08/21/17	KB SM 2540 C
Specific Conductance		uhoms/cm	127	10	08/10/17	LL EPA 120.1
Total Organic Carbon*		mg/L	2.2*	0.5	08/18/17	RIA* SM 5310 C
Boron		mg/L	BRL	0.010	08/17/17	MC EPA 200.7
Nitrate-N		mg/L	0.06	0.01	08/10/17	LL EPA 300.0
Nitrite-N		mg/L	BRL	0.006	08/10/17	LL EPA 300.0
Ammonia-N *		mg/L	<0.02*	0.02	08/17/17	RIA* SM4500 NH3 C
Total Kjeldhal Nitrogen		mg/L	0.33	0.2	08/24/17	KB SM4500-Norg B-C
pH grab		pH units	6.79	NA	08/10/17	LL SM 4500 H-B
Turbidity		NTU	1.4	1.0	08/11/17	LL SM 2130 B
Chloride		mg/L	35	3.0	08/10/17	LL EPA 300.0
Total Phosphorous (P)		mg/L	0.022	0.005	08/17/17	MC SM 4500-P
Dissolved Kjeldhal Nitrogen		mg/L	0.29	0.20	08/24/17	KB SM4500 Norg B-C
Dissolved Total Organic Carbon		mg/L	2.0*	0.50	08/17/17	RIA* EPA 415.1
Dissolved Inorganic Nitrogen		mg/L	<0.08	NA	08/29/17	MC Calculation
Dissolved Organic Nitrogen		mg/L	0.29	NA	08/29/17	MC Calculation
Chlorophyll-a		*	7.72*	*	08/14/17	Alpha* *
Ortho Phosphorous (P)		mg/L	0.007	0.005	08/11/17	MC SM 4500-P
Particulate Organic Carbon		mg/L	0.2	NA	08/23/17	RIA* SM 5310 C
Particulate Organic Nitrogen		mg/L	0.04	NA	08/25/17	KB Calculation
Total Dissolved Nitrogen		mg/L	0.35	NA	08/25/17	KB Calculation
E coli		CFU/100mL	115	<1	08/10/17	MC EPA 1603

BRL=below reportable limits

*see attached

By: **Ronald J. Saari**
Laboratory Director

Serial_No:08161720:23

Project Name: PLYMOUTH ENVIRONMENTAL MANAGE.

Lab Number: L1728072

Project Number: Not Specified

Report Date: 08/16/17

SAMPLE RESULTS

Lab ID: L1728072-05

Date Collected: 08/10/17 11:45

Client ID: WW-171736

Date Received: 08/11/17

Sample Location: S-4A

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	7.72		mg/m3	2.00	NA	1	08/11/17 17:00	08/14/17 10:10	121, 10200H	DW



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Tuesday, August 29, 2017

Plymouth Environmental Management

K. Towers/ 11 Lincoln St.

Plymouth, MA

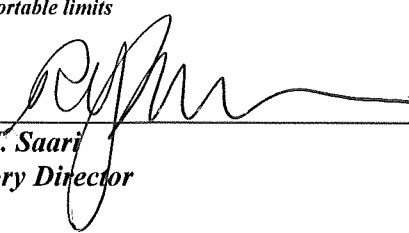
ProjectName: Eel River SW**Comments:****Project Number:****Collection Date:** 08/10/17 **Collection Time:** 12:00**Sampled By:** Kim Tower**Lab Order Number:** WW-171737**Date Received:** 08/10/17

Sample Type		Sample Time	Sample Date	Comments		
S-3A	A	12:00	08/10/17			
Parameters		Units	Test Results	Reportable Limits	Date Analyzed	Analyst
						Method
Total Nitrogen		mg/L	0.55	NA	08/25/17	KB
Total Dissolved Solids		mg/L	83	6.0	08/21/17	KB
Specific Conductance		uhoms/cm	117	10	08/10/17	LL
Total Organic Carbon*		mg/L	2.9*	0.5	08/18/17	RIA*
Boron		mg/L	BRL	0.010	08/17/17	MC
Nitrate-N		mg/L	0.08	0.01	08/10/17	LL
Nitrite-N		mg/L	BRL	0.006	08/10/17	LL
Ammonia-N *		mg/L	0.027*	0.02	08/17/17	RIA*
Total Kjeldhal Nitrogen		mg/L	0.47	0.2	08/24/17	KB
pH grab		pH units	7.09	NA	08/10/17	LL
Turbidity		NTU	1.7	1.0	08/11/17	LL
Chloride		mg/L	32	3.0	08/10/17	LL
Total Phosphorous (P)		mg/L	0.027	0.005	08/17/17	MC
Dissolved Kjeldhal Nitrogen		mg/L	0.31	0.20	08/24/17	KB
Dissolved Total Organic Carbon		mg/L	2.1*	0.50	08/17/17	RIA*
Dissolved Inorganic Nitrogen		mg/L	0.11	NA	08/29/17	MC
Dissolved Organic Nitrogen		mg/L	0.28	NA	08/29/17	MC
Chlorophyll-a		*	24.0*	*	08/14/17	Alpha*
Ortho Phosphorous (P)		mg/L	0.005	0.005	08/11/17	MC
Particulate Organic Carbon		mg/L	0.8	NA	08/23/17	RIA*
Particulate Organic Nitrogen		mg/L	0.16	NA	08/25/17	KB
Total Dissolved Nitrogen		mg/L	0.39	NA	08/25/17	KB
E coli		CFU/100mL	95	<1	08/10/17	MC

BRL=below reportable limits

*see attached

By:


Ronald J. Saari
Laboratory Director

Serial_No:08161720:23

Project Name: PLYMOUTH ENVIRONMENTAL MANAGE.

Lab Number: L1728072

Project Number: Not Specified

Report Date: 08/16/17

SAMPLE RESULTS

Lab ID: L1728072-06

Date Collected: 08/10/17 12:00

Client ID: WW-171737

Date Received: 08/11/17

Sample Location: S-3A

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	24.0		mg/m3	2.00	NA	1	08/11/17 17:00	08/14/17 10:10	121, 10200H	DW



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Tuesday, August 29, 2017

Plymouth Environmental Management
K.Towers/ 11 Lincoln St.
Plymouth, MA

ProjectName: Eel River SW

Comments:

Project Number:

Collection Date: 08/10/17 **Collection Time:** 12:20

Sampled By: Kim Tower

Lab Order Number: WW-171738

Date Received: 08/10/17

Sample Type		Sample Time	Sample Date	Comments		
S-2C	A	12:20	08/10/17			
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Nitrogen	mg/L	0.54	NA	08/25/17	KB	Calculation
Total Dissolved Solids	mg/L	76	6.0	08/21/17	KB	SM 2540 C
Specific Conductance	uhoms/cm	104	10	08/10/17	LL	EPA 120.1
Total Organic Carbon*	mg/L	3.6*	0.5	08/18/17	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	08/17/17	MC	EPA 200.7
Nitrate-N	mg/L	0.08	0.01	08/10/17	LL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	08/10/17	LL	EPA 300.0
Ammonia-N *	mg/L	0.039*	0.02	08/17/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.46	0.2	08/24/17	KB	SM4500-Norg B-C
pH grab	pH units	7.43	NA	08/10/17	LL	SM 4500 H-B
Turbidity	NTU	1.6	1.0	08/11/17	LL	SM 2130 B
Chloride	mg/L	32	3.0	08/10/17	LL	EPA 300.0
Total Phosphorous (P)	mg/L	0.027	0.005	08/17/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.25	0.20	08/24/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	1.9*	0.50	08/18/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.12	NA	08/29/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.21	NA	08/29/17	MC	Calculation
Chlorophyll-a	*	14.9*	*	08/14/17	Alpha*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	08/11/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	1.7	NA	08/23/17	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.21	NA	08/25/17	KB	Calculation
Total Dissolved Nitrogen	mg/L	0.33	NA	08/25/17	KB	Calculation
E coli	CFU/100mL	360	<1	08/10/17	MC	EPA 1603

BRL=below reportable limits

*see attached

By:


Ronald J. Saari
Laboratory Director

Serial_No:08161720:23

Project Name: PLYMOUTH ENVIRONMENTAL MANAGE.

Lab Number: L1728072

Project Number: Not Specified

Report Date: 08/16/17

SAMPLE RESULTS

Lab ID: L1728072-07

Date Collected: 08/10/17 12:20

Client ID: WW-171738

Date Received: 08/11/17

Sample Location: S-2C

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	14.9		mg/m3	2.00	NA	1	08/11/17 17:00	08/14/17 10:10	121, 10200H	DW



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Tuesday, August 29, 2017

Plymouth Environmental Management
K. Towers/ 11 Lincoln St.
Plymouth, MA

ProjectName: Eel River SW

Comments:

Project Number:

Collection Date: 08/10/17 **Collection Time:** 12:50

Sampled By: Kim Tower

Lab Order Number: WW-171739

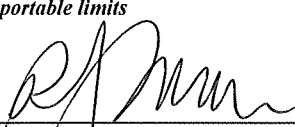
Date Received: 08/10/17

Sample Type		Sample Time	Sample Date	Comments		
S-6A	A	12:50	08/10/17			
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Nitrogen	mg/L	0.55	NA	08/25/17	KB	Calculation
Total Dissolved Solids	mg/L	61	6.0	08/21/17	KB	SM 2540 C
Specific Conductance	uhoms/cm	89	10	08/10/17	LL	EPA 120.1
Total Organic Carbon*	mg/L	1.4*	0.5	08/18/17	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	08/17/17	MC	EPA 200.7
Nitrate-N	mg/L	0.10	0.01	08/10/17	LL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	08/10/17	LL	EPA 300.0
Ammonia-N *	mg/L	0.043*	0.02	08/17/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.45	0.2	08/25/17	KB	SM4500-Norg B-C
pH grab	pH units	6.34	NA	08/10/17	LL	SM 4500 H-B
Turbidity	NTU	2.5	1.0	08/11/17	LL	SM 2130 B
Chloride	mg/L	22	3.0	08/10/17	LL	EPA 300.0
Total Phosphorous (P)	mg/L	0.032	0.005	08/17/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.20	08/25/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	1.3*	0.50	08/18/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.14	NA	08/29/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	<0.16	NA	08/29/17	MC	Calculation
Chlorophyll-a	*	4.23*	*	08/14/17	Alpha*	*
Ortho Phosphorous (P)	mg/L	0.009	0.005	08/11/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	0.1	NA	08/29/17	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	<0.21	NA	08/29/17	MC	Calculation
Total Dissolved Nitrogen	mg/L	<0.30	NA	08/25/17	KB	Calculation
E coli	CFU/100mL	25	<1	08/10/17	MC	EPA 1603

BRL=below reportable limits

*see attached

By:


Ronald J. Saari
Laboratory Director

Serial_No:08161720:23

Project Name: PLYMOUTH ENVIRONMENTAL MANAGE.

Lab Number: L1728072

Project Number: Not Specified

Report Date: 08/16/17

SAMPLE RESULTS

Lab ID: L1728072-08

Date Collected: 08/10/17 12:50

Client ID: WW-171739

Date Received: 08/11/17

Sample Location: S-6A

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	4.23		mg/m3	2.00	NA	1	08/11/17 17:00	08/14/17 10:10	121, 10200H	DW



LABORATORY REPORT

Envirotech Laboratories, Inc.
Attn: Mr. Ron Saari
8 Jan Sebastian Drive
Sandwich, MA 02563

Date Received: 8/11/2017
Date Reported: 8/22/2017
P.O. Number

Work Order #: 1708-17432

Project Name: PLYMOUTH ENV.

Enclosed are the analytical results and Chain of Custody for your project referenced above. The sample(s) were analyzed by our Warwick, RI laboratory unless noted otherwise. When applicable, indication of sample analysis at our Hudson, MA laboratory and/or subcontracted results are noted and subcontracted reports are enclosed in their entirety.

All samples were analyzed within the established guidelines of US EPA approved methods with all requirements met, unless otherwise noted at the end of a given sample's analytical results or in a case narrative.

The Detection Limit is defined as the lowest level that can be reliably achieved during routine laboratory conditions.

These results only pertain to the samples submitted for this Work Order # and this report shall not be reproduced except in its entirety.

We certify that the following results are true and accurate to the best of our knowledge. If you have questions or need further assistance, please contact our Customer Service Department.

Approved by:



Dawne E. Smart
Data Reporting Manager

Laboratory Certification Numbers (as applicable to sample's origin state):

Warwick RI * RI LAI00033, MA M-RI015, CT PH-0508, ME RI00015, NH 2070, NY 11726

Hudson MA * M-MA1117, RI LAO00319

41 Illinois Avenue, Warwick, RI 02888
Phone: 401-737-8500 Fax: 401-738-1970

www.rianalytical.com

131 Coolidge Street, Suite 105, Hudson MA 01749
Phone: 978-568-0041 Fax: 978-568-0078

R.I. Analytical Laboratories, Inc.

Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1708-17432

Project Name: PLYMOUTH ENV.

Sample Number: 001
Sample Description: WW-171732
Sample Type : GRAB
Sample Date / Time : 8/10/2017 @ 13:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.023	0.020	mg/l	SM4500NH3-B,H 18-21ed	8/17/2017 10:30	KLE
Dissolved TOC	1.7	0.5	mg/l	EPA 415.1	8/18/2017 12:01	DEL
TOC	1.9	0.5	mg/l	SM5310C 21 ed.	8/18/2017 12:01	DEL

Sample Number: 002
Sample Description: WW-171733
Sample Type : GRAB
Sample Date / Time : 8/10/2017 @ 13:15

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.023	0.020	mg/l	SM4500NH3-B,H 18-21ed	8/17/2017 10:30	KLE
Dissolved TOC	1.7	0.5	mg/l	EPA 415.1	8/18/2017 12:01	DEL
TOC	1.8	0.5	mg/l	SM5310C 21 ed.	8/18/2017 12:01	DEL

Sample Number: 003
Sample Description: WW-171734
Sample Type : GRAB
Sample Date / Time : 8/10/2017 @ 11:15

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.041	0.020	mg/l	SM4500NH3-B,H 18-21ed	8/17/2017 10:30	KLE
Dissolved TOC	<0.5	0.5	mg/l	EPA 415.1	8/17/2017 11:12	DEL
TOC	<0.5	0.5	mg/l	SM5310C 21 ed.	8/17/2017 11:12	DEL

Sample Number: 004
Sample Description: WW-171735
Sample Type : GRAB
Sample Date / Time : 8/10/2017 @ 11:30

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.15	0.02	mg/l	SM4500NH3-B,H 18-21ed	8/17/2017 10:30	KLE
Dissolved TOC	2.4	0.5	mg/l	EPA 415.1	8/17/2017 11:12	DEL
TOC	2.7	0.5	mg/l	SM5310C 21 ed.	8/17/2017 11:12	DEL

R.I. Analytical Laboratories, Inc.

Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1708-17432

Project Name: PLYMOUTH ENV.

Sample Number: 005
Sample Description: WW-171736
Sample Type : GRAB
Sample Date / Time : 8/10/2017 @ 11:45

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	<0.02	0.02	mg/l	SM4500NH3-B,H 18-21ed	8/17/2017 10:30	KLE
Dissolved TOC	2.0	0.5	mg/l	EPA 415.1	8/17/2017 11:12	DEL
TOC	2.2	0.5	mg/l	SM5310C 21 ed.	8/17/2017 11:12	DEL

Sample Number: 006
Sample Description: WW-171737
Sample Type : GRAB
Sample Date / Time : 8/10/2017 @ 12:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.027	0.020	mg/l	SM4500NH3-B,H 18-21ed	8/17/2017 10:30	KLE
Dissolved TOC	2.1	0.5	mg/l	EPA 415.1	8/17/2017 11:12	DEL
TOC	2.9	0.5	mg/l	SM5310C 21 ed.	8/17/2017 11:12	DEL

Sample Number: 007
Sample Description: WW-171738
Sample Type : GRAB
Sample Date / Time : 8/10/2017 @ 12:20

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.039	0.020	mg/l	SM4500NH3-B,H 18-21ed	8/17/2017 10:30	KLE
Dissolved TOC	1.9	0.5	mg/l	EPA 415.1	8/18/2017 12:01	DEL
TOC	3.6	0.5	mg/l	SM5310C 21 ed.	8/18/2017 12:01	DEL

Sample Number: 008
Sample Description: WW-171739
Sample Type : GRAB
Sample Date / Time : 8/10/2017 @ 12:50

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.043	0.020	mg/l	SM4500NH3-B,H 18-21ed	8/17/2017 10:30	KLE
Dissolved TOC	1.3	0.5	mg/l	EPA 415.1	8/18/2017 12:01	DEL
TOC	1.4	0.5	mg/l	SM5310C 21 ed.	8/18/2017 12:01	DEL

CHAIN OF CUSTODY FORM

ENVIROTECH LABS. INC.

RI Analytical

PWS:

Project Name:

Plymouth EX

8 Jan Sebastian Dr., Unit 12

Sandwich, MA 02563

(508) 888-6460

Sampler:

KT

1-800-339-6460

FAX (508) 888-6446

Address

RI 015

Warwick, RI 02888

401-737-8500

Fax# 401-738-1970

Lay ID #	Date	Time	Comg	Grab	Station location	Container	Pres.	Sample type	Analysis requested
WW-171732	08/10/17	1300		X	S-12	P	H ₂ SO ₄	Surface water	Ammonia-N (0.02 mdl)
						P	H ₂ SO ₄		TOC total low detection
						P	H ₂ SO ₄		TOC dissolved low detection
WW-171733	08/10/17	1315		X	S-8A	P	H ₂ SO ₄	Surface water	Ammonia-N (0.02 mdl)
						P	H ₂ SO ₄		TOC total low detection
						P	H ₂ SO ₄		TOC dissolved low detection
WW-171734	08/10/17	1115		X	S-8B	P	H ₂ SO ₄	Surface water	Ammonia-N (0.02 mdl)
						P	H ₂ SO ₄		TOC total low detection
						P	H ₂ SO ₄		TOC dissolved low detection
WW-171735	08/10/17	1130		X	S-5B	P	H ₂ SO ₄	Surface water	Ammonia-N (0.02 mdl)
						P	H ₂ SO ₄		TOC total low detection
						P	H ₂ SO ₄		TOC dissolved low detection
WW-171736	08/10/17	1145		X	S-4A	P	H ₂ SO ₄	Surface water	Ammonia-N (0.02 mdl)
						P	H ₂ SO ₄		TOC total low detection
						P	H ₂ SO ₄		TOC dissolved low detection
WW-171737	08/10/17	1200		X	S-3A	P	H ₂ SO ₄	Surface water	Ammonia-N (0.02 mdl)
						P	H ₂ SO ₄		TOC total low detection
						P	H ₂ SO ₄		TOC dissolved low detection
						P	H ₂ SO ₄		TOC total low detection
						P	H ₂ SO ₄		TOC dissolved low detection
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Relinquished:

Date/Time

Desired,

Relinquished:

Date/Time

Background

**TOC dissolved samples are filtered
Contact lab with any exceeded MCL**

Page 1 of 2

1708-17432

[illegible]

108-17432



ANALYTICAL REPORT

Lab Number:	L1728072
Client:	Envirotech Laboratories, Inc. 8 Jan Sebastian Drive Unit 12 Sandwich, MA 02563
ATTN:	Ron Saari
Phone:	(800) 339-6460
Project Name:	PLYMOUTH ENVIRONMENTAL MANAGE.
Project Number:	Not Specified
Report Date:	08/16/17

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), NJ NELAP (MA935), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-14-00197).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Serial_No:08161720:23

Project Name: PLYMOUTH ENVIRONMENTAL MANAGE.
Project Number: Not Specified

Lab Number: L1728072
Report Date: 08/16/17

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1728072-01	WW-171732	WATER	S-12	08/10/17 13:00	08/11/17
L1728072-02	WW-171733	WATER	S-8A	08/10/17 13:15	08/11/17
L1728072-03	WW-171734	WATER	S-8B	08/10/17 11:15	08/11/17
L1728072-04	WW-171735	WATER	S-5B	08/10/17 11:30	08/11/17
L1728072-05	WW-171736	WATER	S-4A	08/10/17 11:45	08/11/17
L1728072-06	WW-171737	WATER	S-3A	08/10/17 12:00	08/11/17
L1728072-07	WW-171738	WATER	S-2C	08/10/17 12:20	08/11/17
L1728072-08	WW-171739	WATER	S-6A	08/10/17 12:50	08/11/17

Project Name: PLYMOUTH ENVIRONMENTAL MANAGE.
Project Number: Not Specified

Lab Number: L1728072
Report Date: 08/16/17

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: PLYMOUTH ENVIRONMENTAL MANAGE.

Lab Number: L1728072

Project Number: Not Specified

Report Date: 08/16/17

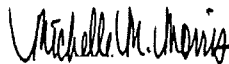
Case Narrative (continued)

Chlorophyll A

L1728072-01 through -08 were analyzed with the method required holding time exceeded.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 08/16/17

INORGANICS & MISCELLANEOUS

Serial_No:08161720:23

Project Name: PLYMOUTH ENVIRONMENTAL MANA

Lab Number: L1728072

Project Number: Not Specified

Report Date: 08/16/17

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-08 Batch: WG1031306-1										
Chlorophyll A	ND		mg/m3	2.00	NA	1	08/11/17 17:00	08/14/17 10:10	121, 10200H	DW



Serial_No:08161720:23

Project Name: PLYMOUTH ENVIRONMENTAL MANAGE.
Project Number: Not Specified

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L1728072
Report Date: 08/16/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG1031306-2 QC Sample: L1728072-08 Client ID: WW-171739						
Chlorophyll A	4.23	11.9	mg/m3	95		

Project Name: PLYMOUTH ENVIRONMENTAL MANAGE.
Project Number: Not Specified

Serial_No:08161720:23
Lab Number: L1728072
Report Date: 08/16/17

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler **Custody Seal**
A Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1728072-01A	Brown Plastic 1000ml unpreserved	A	NA		2.1	Y	Absent		CHLORO-A(1)
L1728072-01B	Brown Plastic 1000ml unpreserved	A	NA		2.1	Y	Absent		CHLORO-A(1)
L1728072-02A	Brown Plastic 1000ml unpreserved	A	NA		2.1	Y	Absent		CHLORO-A(1)
L1728072-02B	Brown Plastic 1000ml unpreserved	A	NA		2.1	Y	Absent		CHLORO-A(1)
L1728072-03A	Brown Plastic 1000ml unpreserved	A	NA		2.1	Y	Absent		CHLORO-A(1)
L1728072-03B	Brown Plastic 1000ml unpreserved	A	NA		2.1	Y	Absent		CHLORO-A(1)
L1728072-04A	Brown Plastic 1000ml unpreserved	A	NA		2.1	Y	Absent		CHLORO-A(1)
L1728072-04B	Brown Plastic 1000ml unpreserved	A	NA		2.1	Y	Absent		CHLORO-A(1)
L1728072-05A	Brown Plastic 1000ml unpreserved	A	NA		2.1	Y	Absent		CHLORO-A(1)
L1728072-05B	Brown Plastic 1000ml unpreserved	A	NA		2.1	Y	Absent		CHLORO-A(1)
L1728072-06A	Brown Plastic 1000ml unpreserved	A	NA		2.1	Y	Absent		CHLORO-A(1)
L1728072-06B	Brown Plastic 1000ml unpreserved	A	NA		2.1	Y	Absent		CHLORO-A(1)
L1728072-07A	Brown Plastic 1000ml unpreserved	A	NA		2.1	Y	Absent		CHLORO-A(1)
L1728072-07B	Brown Plastic 1000ml unpreserved	A	NA		2.1	Y	Absent		CHLORO-A(1)
L1728072-08A	Brown Plastic 1000ml unpreserved	A	NA		2.1	Y	Absent		CHLORO-A(1)
L1728072-08B	Brown Plastic 1000ml unpreserved	A	NA		2.1	Y	Absent		CHLORO-A(1)

Project Name: PLYMOUTH ENVIRONMENTAL MANAGE.

Lab Number: L1728072

Project Number: Not Specified

Report Date: 08/16/17

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.
MSD	- 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.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
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.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

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

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.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

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.

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

Report Format: Data Usability Report



Project Name: PLYMOUTH ENVIRONMENTAL MANAGE.**Lab Number:** L1728072**Project Number:** Not Specified**Report Date:** 08/16/17**Data Qualifiers**

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.
- 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. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

Project Name: PLYMOUTH ENVIRONMENTAL MANAGE.
Project Number: Not Specified

Lab Number: L1728072
Report Date: 08/16/17

REFERENCES

- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF.
Standard Methods Online.

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

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

Westborough Facility

EPA 624: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.
EPA 300: DW: Bromide
EPA 6860: NPW and SCM: Perchlorate
EPA 9010: NPW and SCM: Amenable Cyanide Distillation
EPA 9012B: NPW: Total Cyanide
EPA 9050A: NPW: Specific Conductance
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO₂, NO₃.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility

SM 2540D: TSS
EPA 3005A NPW
EPA 8082A: NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.
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.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

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, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B
EPA 332: Perchlorate; EPA 524.2: THMs and VOCs; EPA 504.1: EDB, DBCP.
Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH₃-BH, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, SM4500NO₃-F, EPA 353.2: Nitrate-N, EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO₄-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, 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, SM9221E.

Mansfield Facility:

Drinking Water

EPA 200.7: Ba, Be, Cd, Cr, Cu, Ni, Na, Ca. EPA 200.8: Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, TL. EPA 245.1 Hg.

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.
EPA 245.1 Hg.
SM2340B

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

No: 08161720:23
4728077

Page 21 of 21

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of CustodyClient:

Town of Plymouth - Marine & Environmental Affairs Attn: Kim Tower
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, ktower@townhall.plymouth.ma.us
Project Name: **Eel River SW Sampling -Plymouth MA**
Sampler: Kim Tower (KT)

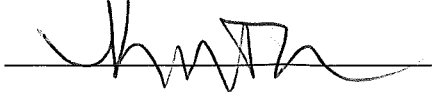
WW(71732

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
8/10/17	1300	S-12	1	1 Liter Plastic	Dissolved	NONE
			1	500mL Plastic	Chloride, pH/Cond NO3, NO2, TDS	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			2	1 Liter Amber	Chlorophyll-a	NONE
			1	250mL Plastic	Boron	NONE
			1	Glass	Orthophosphate	NONE
			1	Plastic	TOC	H2SO4
			1	100mL Plastic	Bacteria	NONE
8/10/17	1315	S-8A	1	1 Liter Plastic	Dissolved	NONE
			1	500mL Plastic	Chloride, pH/Cond NO3, NO2, TDS	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			2	1 Liter Amber	Chlorophyll-a	NONE
			1	250mL Plastic	Boron	NONE
			1	Glass	Orthophosphate	NONE
			1	Plastic	TOC	H2SO4
			1	100mL Plastic	Bacteria	NONE

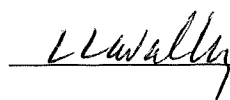
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40

Relinquished By: Date/Time



Received By: Date/Time:

 8/10/17 1405

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of CustodyClient:

Town of Plymouth - Marine & Environmental Affairs Attn: Kim Tower
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, ktower@townhall.plymouth.ma.us
Project Name: **Eel River SW Sampling -Plymouth MA**
Sampler: Kim Tower (KT)

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
8/10/17	1115	S-BB	1	1 Liter Plastic	Dissolved	NONE
			1	500mL Plastic	Chloride, pH/Cond NO3, NO2, TDS	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			2	1 Liter Amber	Chlorophyll-a	NONE
			1	250mL Plastic	Boron	NONE
			1	Glass	Orthophosphate	NONE
			1	Plastic	TOC	H2SO4
			1	100mL Plastic	Bacteria	NONE < 5
8/10/17	1130	S-SB	1	1 Liter Plastic	Dissolved	NONE
			1	500mL Plastic	Chloride, pH/Cond NO3, NO2, TDS	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			2	1 Liter Amber	Chlorophyll-a	NONE
			1	250mL Plastic	Boron	NONE
			1	Glass	Orthophosphate	NONE
			1	Plastic	TOC	H2SO4
			1	100mL Plastic	Bacteria	NONE 100

Relinquished By: Date/Time

Kim Tower

Received By: Date/Time:

Uwally 8/10/17 1405

Laboratory:

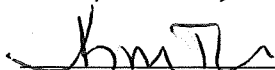
Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of CustodyClient:

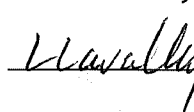
Town of Plymouth - Marine & Environmental Affairs Attn: Kim Tower
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, ktower@townhall.plymouth.ma.us
Project Name: **Eel River SW Sampling -Plymouth MA**
Sampler: Kim Tower (KT)

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
8/10/17	1145	S-4A	1	1 Liter Plastic	Dissolved	NONE
			1	500mL Plastic	Chloride, pH/Cond NO3, NO2, TDS	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			2	1 Liter Amber	Chlorophyll-a	NONE
			1	250mL Plastic	Boron	NONE
			1	Glass	Orthophosphate	NONE
			1	Plastic	TOC	H2SO4
			1	100mL Plastic	Bacteria	NONE
8/10/17	1200	S-3A	1	1 Liter Plastic	Dissolved	NONE
			1	500mL Plastic	Chloride, pH/Cond NO3, NO2, TDS	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			2	1 Liter Amber	Chlorophyll-a	NONE
			1	250mL Plastic	Boron	NONE
			1	Glass	Orthophosphate	NONE
			1	Plastic	TOC	H2SO4
			1	100mL Plastic	Bacteria	NONE

Relinquished By: Date/Time



Received By: Date/Time:

 8/10/17 1405

Laboratory:

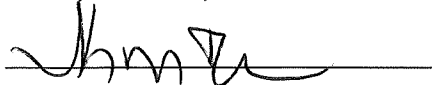
Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of CustodyClient:

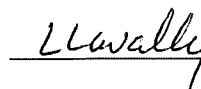
Town of Plymouth - Marine & Environmental Affairs Attn: Kim Tower
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, ktower@townhall.plymouth.ma.us
Project Name: **Eel River SW Sampling -Plymouth MA**
Sampler: Kim Tower (KT)

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
8/10/17	1220	S-2L	1	1 Liter Plastic	Dissolved	NONE
			1	500mL Plastic	Chloride, pH/Cond NO3, NO2, TDS	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			2	1 Liter Amber	Chlorophyll-a	NONE
			1	250mL Plastic	Boron	NONE
			1	Glass	Orthophosphate	NONE
			1	Plastic	TOC	H2SO4
			1	100mL Plastic	Bacteria	NONE 360
8/10/17	1250	S-6A	1	1 Liter Plastic	Dissolved	NONE
			1	500mL Plastic	Chloride, pH/Cond NO3, NO2, TDS	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			2	1 Liter Amber	Chlorophyll-a	NONE
			1	250mL Plastic	Boron	NONE
			1	Glass	Orthophosphate	NONE
			1	Plastic	TOC	H2SO4
			1	100mL Plastic	Bacteria	NONE 25

Relinquished By: Date/Time



Received By: Date/Time:

 8/10/17 1405

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Friday, August 25, 2017

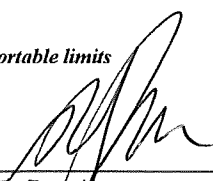
Plymouth Environmental Management
K. Towers/ 11 Lincoln St.
Plymouth, MA

Project Name: Harbor Sampling **Comments:**
Project Number:
Collection Date: 08/07/17 **Collection Time:** 12:25
Sampled By: Kim Tower
Lab Order Number: WW-171708
Date Received: 08/07/17

Sample Type	Sample Time	Sample Date	Comments			
S-10 @ Ebb Tide A	12:25	08/7/17				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Nitrogen	mg/L	1.02	NA	08/24/17	KB	Calculation
Total Organic Carbon*	mg/L	2.6*	0.5	08/15/17	RIA*	SM 5310 C
Ammonia-N *	mg/L	0.071*	0.02	08/17/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	1.0	0.2	08/16/17	KB	SM4500-Norg B-C
Total Phosphorous (P)	mg/L	0.025	0.005	08/17/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.53	0.20	08/16/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	2.6*	0.50	08/15/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.09	NA	08/24/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.46	NA	08/24/17	MC	Calculation
Chlorophyll-a	*	4.51*	*	08/09/17	Alpha*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	08/07/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	ND	NA	08/23/17	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.47	NA	08/24/17	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.55	NA	08/24/17	KB	Calculation
E coli	CFU/100mL	<5	<1	08/07/17	MC	EPA 1603
Nitrate-N	mg/L	0.02	0.01	08/07/17	MC	SM 4500-NO3 E
Nitrite-N	mg/L	BRL	0.005	08/07/17	MC	SM 4500-NO3 E

BRL=below reportable limits

*see attached

By: 

Ronald J. Saggi
Laboratory Director

Serial_No:08111718:32

Project Name: PLYMOUTH ENVIRONMENTAL MGMT

Lab Number: L1727368

Project Number: Not Specified

Report Date: 08/11/17

SAMPLE RESULTS

Lab ID: L1727368-01
Client ID: WW-171708
Sample Location: S-10 AT EBB TIDE
Matrix: Water

Date Collected: 08/07/17 12:25
Date Received: 08/08/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	4.51		mg/m3	2.00	NA	1	08/08/17 14:20	08/09/17 09:45	121, 10200H	DW



ENVIROTECH LABORATORIES, INC.

MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Thursday, August 24, 2017

Plymouth Environmental Management

K. Towers/ 11 Lincoln St.

Plymouth, MA

ProjectName: Harbor Sampling

Comments:

Project Number:

Collection Date: 08/07/17 **Collection Time:** 12:35

Sampled By: Kim Tower

Lab Order Number: WW-171709

Date Received: 08/07/17

Sample Type	Sample Time	Sample Date	Comments			
S-7 @ Ebb Tide A	12:35	08/07/17				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Nitrogen	mg/L	0.60	NA	08/18/17	KB	Calculation
Total Organic Carbon*	mg/L	0.95*	0.5	08/15/17	RIA*	SM 5310 C
Ammonia-N *	mg/L	0.12*	0.02	08/17/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.54	0.2	08/18/17	KB	SM4500-Norg B-C
Total Phosphorous (P)	mg/L	0.039	0.005	08/17/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.47	0.20	08/18/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	0.92*	0.50	08/15/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.18	NA	08/18/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.35	NA	08/18/17	MC	Calculation
Chlorophyll-a	*	3.38*	*	08/09/17	Alpha*	*
Ortho Phosphorous (P)	mg/L	0.032	0.005	08/07/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	0.03	NA	08/23/17	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.07	NA	08/24/17	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.53	NA	08/18/17	KB	Calculation
E coli	CFU/100mL	5	<1	08/07/17	MC	EPA 1603
Nitrate-N	mg/L	0.06	0.01	08/07/17	MC	SM 4500-NO3 E
Nitrite-N	mg/L	BRL	0.005	08/07/17	MC	SM 4500-NO3 E

BRL=below reportable limit

*see attached

By:

Ronald J. Saari
Laboratory Director

Serial_No:08111718:32

Project Name: PLYMOUTH ENVIRONMENTAL MGMT

Lab Number: L1727368

Project Number: Not Specified

Report Date: 08/11/17

SAMPLE RESULTS

Lab ID: L1727368-02

Date Collected: 08/07/17 12:35

Client ID: WW-171709

Date Received: 08/08/17

Sample Location: S-7 AT EBB TIDE

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	3.38		mg/m3	2.00	NA	1	08/08/17 14:20	08/09/17 09:45	121, 10200H	DW



ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Thursday, August 24, 2017

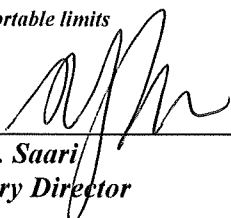
Plymouth Environmental Management
K. Towers/ 11 Lincoln St.
Plymouth, MA

ProjectName: Harbor Sampling **Comments:**
Project Number:
Collection Date: 08/07/17 **Collection Time:** 14:20
Sampled By: Kim Tower
Lab Order Number: WW-171710
Date Received: 08/07/17

Sample Type	Sample Time	Sample Date	Comments			
S-10 @ 2-4 HST A	14:20	08/07/17				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Nitrogen	mg/L	1.0	NA	08/18/17	KB	Calculation
Total Organic Carbon*	mg/L	2.9*	0.5	08/15/17	RIA*	SM 5310 C
Ammonia-N *	mg/L	0.086*	0.02	08/17/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	1.0	0.2	08/16/17	KB	SM4500-Norg B-C
Total Phosphorous (P)	mg/L	0.046	0.005	08/17/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.59	0.20	08/16/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	1.3*	0.50	08/15/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.10	NA	08/24/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.50	NA	08/24/17	MC	Calculation
Chlorophyll-a	*	4.92*	*	08/09/17	Alpha*	*
Ortho Phosphorous (P)	mg/L	0.034	0.005	08/07/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	1.60	NA	08/24/17	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.41	NA	08/24/17	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.60	NA	08/18/17	KB	Calculation
E coli	CFU/100mL	5	<1	08/07/17	MC	EPA 1603
Nitrate-N	mg/L	0.01	0.01	08/07/17	MC	SM 4500-NO3 E
Nitrite-N	mg/L	BRL	0.005	08/07/17	MC	SM 4500-NO3 E

BRL=below reportable limits

*see attached

By: 
Ronald J. Saari
Laboratory Director

Serial_No:08111718:32

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Lab Number: L1727368
Report Date: 08/11/17

SAMPLE RESULTS

Lab ID: L1727368-03
Client ID: WW-171710
Sample Location: S-10 AT 2-4 HST
Matrix: Water

Date Collected: 08/07/17 14:20
Date Received: 08/08/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	4.92		mg/m3	2.00	NA	1	08/08/17 14:20	08/09/17 09:45	121, 10200H	DW



ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Thursday, August 24, 2017

Plymouth Environmental Management
K. Towers/ 11 Lincoln St.
Plymouth, MA

ProjectName: Harbor Sampling

Comments:

Project Number:

Collection Date: 08/07/17 **Collection Time:** 14:30

Sampled By: Kim Tower

Lab Order Number: WW-171711

Date Received: 08/07/17

Sample Type	Sample Time	Sample Date	Comments			
S-7 @ 2-4 HST A	14:30	08/07/17				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Nitrogen	mg/L	0.47	NA	08/18/17	KB	Calculation
Total Organic Carbon*	mg/L	0.89*	0.5	08/15/17	RIA*	SM 5310 C
Ammonia-N *	mg/L	<0.02*	0.02	08/17/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.46	0.2	08/16/17	KB	SM4500-Norg B-C
Total Phosphorous (P)	mg/L	0.032	0.005	08/17/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.31	0.20	08/16/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	0.80*	0.50	08/15/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	<0.03	NA	08/24/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	<0.29	NA	08/24/17	MC	Calculation
Chlorophyll-a	*	3.80*	*	08/09/17	Alpha*	*
Ortho Phosphorous (P)	mg/L	0.023	0.005	08/07/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	0.09	NA	08/23/17	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.15	NA	08/24/17	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.32	NA	08/18/17	KB	Calculation
E coli	CFU/100mL	15	<1	08/07/17	MC	EPA 1603
Nitrate-N	mg/L	0.01	0.01	08/07/17	MC	SM 4500-NO3 E
Nitrite-N	mg/L	BRL	0.005	08/07/17	MC	SM 4500-NO3 E

BRL=below reportable limits

*see attached

By:

Ronald J. Saari
Laboratory Director

Serial_No:08111718:32

Project Name: PLYMOUTH ENVIRONMENTAL MGMT

Lab Number: L1727368

Project Number: Not Specified

Report Date: 08/11/17

SAMPLE RESULTS

Lab ID: L1727368-04

Date Collected: 08/07/17 14:30

Client ID: WW-171711

Date Received: 08/08/17

Sample Location: S-7 AT 2-4 HST

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	3.80		mg/m3	2.00	NA	1	08/08/17 14:20	08/09/17 09:45	121, 10200H	DW



ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Thursday, August 24, 2017

Plymouth Environmental Management
K. Towers/ 11 Lincoln St.
Plymouth, MA

Project Name: Harbor Sampling

Comments:

Project Number:

Collection Date: 08/07/17 **Collection Time:** 14:40

Sampled By: Kim Tower

Lab Order Number: WW-171712

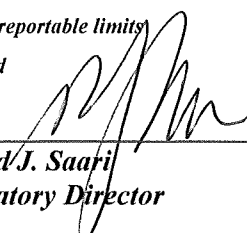
Date Received: 08/07/17

Sample Type	Sample Time	Sample Date	Comments			
S-8A @ 2-4 HST A	14:40	08/07/17				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Nitrogen	mg/L	0.52	NA	08/18/17	KB	Calculation
Total Organic Carbon*	mg/L	0.88*	0.5	08/15/17	RIA*	SM 5310 C
Ammonia-N *	mg/L	0.051*	0.02	08/17/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.52	0.2	08/16/17	KB	SM4500-Norg B-C
Total Phosphorous (P)	mg/L	0.039	0.005	08/17/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.45	0.20	08/16/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	0.86*	0.50	08/15/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.05	NA	08/24/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.40	NA	08/24/17	MC	Calculation
Chlorophyll-a	*	3.84*	*	08/09/17	Alpha*	*
Ortho Phosphorous (P)	mg/L	0.023	0.005	08/07/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	0.02	NA	08/23/17	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.07	NA	08/24/17	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.45	NA	08/18/17	KB	Calculation
E coli	CFU/100mL	10	<1	08/07/17	MC	EPA 1603
Nitrate-N	mg/L	BRL	0.01	08/07/17	MC	SM 4500-NO3 E
Nitrite-N	mg/L	BRL	0.005	08/07/17	MC	SM 4500-NO3 E

BRL=below reportable limits

*see attached

By:


Ronald J. Saari
Laboratory Director

Serial_No:08111718:32

Project Name: PLYMOUTH ENVIRONMENTAL MGMT

Lab Number: L1727368

Project Number: Not Specified

Report Date: 08/11/17

SAMPLE RESULTS

Lab ID: L1727368-05

Date Collected: 08/07/17 14:40

Client ID: WW-171712

Date Received: 08/08/17

Sample Location: S-8A AT 2-4 HST

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	3.84		mg/m3	2.00	NA	1	08/08/17 14:20	08/09/17 09:45	121, 10200H	DW



LABORATORY REPORT

Envirotech Laboratories, Inc.
Attn: Mr. Ron Saari
8 Jan Sebastian Drive
Sandwich, MA 02563

Date Received: 8/9/2017
Date Reported: 8/18/2017
P.O. Number

Work Order #: 1708-17191

Project Name: PLYMOUTH ENV.

Enclosed are the analytical results and Chain of Custody for your project referenced above. The sample(s) were analyzed by our Warwick, RI laboratory unless noted otherwise. When applicable, indication of sample analysis at our Hudson, MA laboratory and/or subcontracted results are noted and subcontracted reports are enclosed in their entirety.

All samples were analyzed within the established guidelines of US EPA approved methods with all requirements met, unless otherwise noted at the end of a given sample's analytical results or in a case narrative.

The Detection Limit is defined as the lowest level that can be reliably achieved during routine laboratory conditions.

These results only pertain to the samples submitted for this Work Order # and this report shall not be reproduced except in its entirety.

We certify that the following results are true and accurate to the best of our knowledge. If you have questions or need further assistance, please contact our Customer Service Department.

Approved by:



Melissa A. Manamon
QA /QC Officer

Laboratory Certification Numbers (as applicable to sample's origin state):

Warwick RI * RI LAI00033, MA M-RI015, CT PH-0508, ME RI00015, NH 2070, NY 11726

Hudson MA * M-MA1117, RI LAO00319

41 Illinois Avenue, Warwick, RI 02888
Phone: 401-737-8500 Fax: 401-738-1970

www.rianalytical.com

131 Coolidge Street, Suite 105, Hudson MA 01749
Phone: 978-568-0041 Fax: 978-568-0078

R.I. Analytical Laboratories, Inc.

Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1708-17191

Project Name: PLYMOUTH ENV.

Sample Number: 001
Sample Description: WW-171708 S-10 AT EBB TIDE
Sample Type : GRAB
Sample Date / Time : 8/07/2017 @ 12:25

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.071	0.020	mg/l	SM4500NH3-B,H 18-21ed	8/17/2017 10:30	KLE
Dissolved TOC	2.6	0.5	mg/l	EPA 415.1	8/15/2017 14:17	DEL
TOC	2.6	0.5	mg/l	SM5310C 21 ed.	8/15/2017 14:17	DEL

Sample Number: 002
Sample Description: WW-171709 S-7 AT EBB TIDE
Sample Type : GRAB
Sample Date / Time : 8/07/2017 @ 12:35

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.12	0.02	mg/l	SM4500NH3-B,H 18-21ed	8/17/2017 10:30	KLE
Dissolved TOC	0.92	0.5	mg/l	EPA 415.1	8/15/2017 14:17	DEL
TOC	0.95	0.5	mg/l	SM5310C 21 ed.	8/15/2017 14:17	DEL

Sample Number: 003
Sample Description: WW-171710 S-10 AT 2-4 HST
Sample Type : GRAB
Sample Date / Time : 8/07/2017 @ 14:20

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.086	0.020	mg/l	SM4500NH3-B,H 18-21ed	8/17/2017 10:30	KLE
Dissolved TOC	1.3	0.5	mg/l	EPA 415.1	8/15/2017 14:17	DEL
TOC	2.9	0.5	mg/l	SM5310C 21 ed.	8/15/2017 14:17	DEL

Sample Number: 004
Sample Description: WW-171711 S-7 AT 2-4 HST
Sample Type : GRAB
Sample Date / Time : 8/07/2017 @ 14:30

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	<0.02	0.02	mg/l	SM4500NH3-B,H 18-21ed	8/17/2017 10:30	KLE
Dissolved TOC	0.80	0.5	mg/l	EPA 415.1	8/15/2017 14:17	DEL
TOC	0.89	0.5	mg/l	SM5310C 21 ed.	8/15/2017 14:17	DEL

R.I. Analytical Laboratories, Inc.**Laboratory Report**

Envirotech Laboratories, Inc.

Work Order #: 1708-17191

Project Name: PLYMOUTH ENV.

Sample Number: 005
Sample Description: WW-171712 S-8A AT 2-4 HST
Sample Type : GRAB
Sample Date / Time : 8/07/2017 @ 14:40

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.051	0.020	mg/l	SM4500NH3-B,H 18-21ed	8/17/2017 10:30	KLE
Dissolved TOC	0.86	0.50	mg/l	EPA 415.1	8/16/2017 10:49	DEL
TOC	0.88	0.50	mg/l	SM5310C 21 ed.	8/16/2017 10:49	DEL

[illegible]



ANALYTICAL REPORT

Lab Number:	L1727368
Client:	Envirotech Laboratories, Inc. 8 Jan Sebastian Drive Unit 12 Sandwich, MA 02563
ATTN:	Ron Saari
Phone:	(800) 339-6460
Project Name:	PLYMOUTH ENVIRONMENTAL MGMT
Project Number:	Not Specified
Report Date:	08/11/17

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), NJ NELAP (MA935), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-14-00197).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Serial_No:08111718:32

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Lab Number: L1727368
Report Date: 08/11/17

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1727368-01	WW-171708	WATER	S-10 AT EBB TIDE	08/07/17 12:25	08/08/17
L1727368-02	WW-171709	WATER	S-7 AT EBB TIDE	08/07/17 12:35	08/08/17
L1727368-03	WW-171710	WATER	S-10 AT 2-4 HST	08/07/17 14:20	08/08/17
L1727368-04	WW-171711	WATER	S-7 AT 2-4 HST	08/07/17 14:30	08/08/17
L1727368-05	WW-171712	WATER	S-8A AT 2-4 HST	08/07/17 14:40	08/08/17

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Lab Number: L1727368
Report Date: 08/11/17

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Lab Number: L1727368
Report Date: 08/11/17

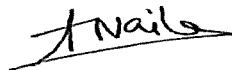
Case Narrative (continued)

Chlorophyll A

L1727368-01 and -02 were analyzed with the method required holding time exceeded.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Amita Naik

Title: Technical Director/Representative

Date: 08/11/17

INORGANICS & MISCELLANEOUS

Serial_No:08111718:32

Project Name: PLYMOUTH ENVIRONMENTAL MGMT

Lab Number: L1727368

Project Number: Not Specified

Report Date: 08/11/17

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-05 Batch: WG1030096-1										
Chlorophyll A	ND		mg/m3	2.00	NA	1	08/08/17 14:20	08/09/17 09:45	121, 10200H	DW



Serial_No:08111718:32

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L1727368
Report Date: 08/11/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1030096-2 QC Sample: L1727368-05 Client ID: WW-171712						
Chlorophyll A	3.84	3.85	mg/m3	0		

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Serial_No: 08111718:32
Lab Number: L1727368
Report Date: 08/11/17

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler **Custody Seal**
A Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1727368-01A	Brown Plastic 1000ml unpreserved	A	NA		2.4	Y	Absent		CHLORO-A(1)
L1727368-01B	Brown Plastic 1000ml unpreserved	A	NA		2.4	Y	Absent		CHLORO-A(1)
L1727368-02A	Brown Plastic 1000ml unpreserved	A	NA		2.4	Y	Absent		CHLORO-A(1)
L1727368-02B	Brown Plastic 1000ml unpreserved	A	NA		2.4	Y	Absent		CHLORO-A(1)
L1727368-03A	Brown Plastic 1000ml unpreserved	A	NA		2.4	Y	Absent		CHLORO-A(1)
L1727368-03B	Brown Plastic 1000ml unpreserved	A	NA		2.4	Y	Absent		CHLORO-A(1)
L1727368-04A	Brown Plastic 1000ml unpreserved	A	NA		2.4	Y	Absent		CHLORO-A(1)
L1727368-04B	Brown Plastic 1000ml unpreserved	A	NA		2.4	Y	Absent		CHLORO-A(1)
L1727368-05A	Brown Plastic 1000ml unpreserved	A	NA		2.4	Y	Absent		CHLORO-A(1)
L1727368-05B	Brown Plastic 1000ml unpreserved	A	NA		2.4	Y	Absent		CHLORO-A(1)

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Lab Number: L1727368
Report Date: 08/11/17

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.
LCSD	- 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.
MSD	- 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.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
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.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

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

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.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

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.

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

Report Format: Data Usability Report



Project Name: PLYMOUTH ENVIRONMENTAL MGMT

Lab Number: L1727368

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Report Date: 08/11/17

Data Qualifiers

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.
- 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. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Lab Number: L1727368
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REFERENCES

- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF.
Standard Methods Online.

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

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

Westborough Facility

EPA 624: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.
EPA 300: DW: Bromide
EPA 6860: NPW and SCM: Perchlorate
EPA 9010: NPW and SCM: Amenable Cyanide Distillation
EPA 9012B: NPW: Total Cyanide
EPA 9050A: NPW: Specific Conductance
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO₂, NO₃.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility

SM 2540D: TSS
EPA 3005A NPW
EPA 8082A: NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.
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.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

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, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B
EPA 332: Perchlorate; EPA 524.2: THMs and VOCs; EPA 504.1: EDB, DBCP.
Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH₃-BH, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, SM4500NO₃-F, EPA 353.2: Nitrate-N, EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO₄-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, 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, SM9221E.

Mansfield Facility:

Drinking Water

EPA 200.7: Ba, Be, Cd, Cr, Cu, Ni, Na, Ca. EPA 200.8: Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, TL. EPA 245.1 Hg.

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.
EPA 245.1 Hg.
SM2340B

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

10:08111718:2

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(2)

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of CustodyClient:

Town of Plymouth - Department of Marine and Environmental Affairs
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, ktower@townhall.plymouth.ma.us
Project Name: **Harbor Sampling -Plymouth MA**
Sampler: Kim Tower (KT)

WW-171708

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
8/7/17	1225	S-10 ebb tide	1	Plastic	TOC	H2SO4
			1	1 Liter Plastic	Dissolved	NONE
			1	Plastic	NO3, NO2	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			1	Glass	Ortho	NONE
			1	100mL Plastic	Bacteria e-coli	NONE
			2	1 Liter Amber Plastic	Chlorophyll-a	NONE
8/7/17	1225	S-72 ebb tide	1	Plastic	TOC	H2SO4
			1	1 Liter Plastic	Dissolved	NONE
			1	Plastic	NO3, NO2	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			1	Glass	Ortho	NONE
			1	100mL Plastic	Bacteria e-coli	NONE
			2	1 Liter Amber Plastic	Chlorophyll-a	NONE

WW-171709

NOTE: Analysis needed for reporting in lowest detection possible; O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Kjeldahl Nitrogen, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Bacteria E-coli, Chlorophyll-a

Relinquished By: Date/Time

Kim Tower

Received By:

Date/Time:

R. Lauder 08/07/17 1525

(L)

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of CustodyClient:

Town of Plymouth - Department of Marine and Environmental Affairs
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, ktower@townhall.plymouth.ma.us
Project Name: **Harbor Sampling** -Plymouth MA
Sampler: Kim Tower (KT)

WW-171710

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
8/7/17	1420	S-102 2-4HST	1	Plastic	TOC	H2SO4
			1	1 Liter Plastic	Dissolved	NONE
			1	Plastic	NO3, NO2	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			1	Glass	Ortho	NONE
			1	100mL Plastic	Bacteria e-coli	NONE 5
			2	1 Liter Amber Plastic	Chlorophyll-a	NONE
8/7/17	1430	S-72 2-4HST	1	Plastic	TOC	H2SO4
			1	1 Liter Plastic	Dissolved	NONE
			1	Plastic	NO3, NO2	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			1	Glass	Ortho	NONE
			1	100mL Plastic	Bacteria e-coli	NONE 15
			2	1 Liter Amber Plastic	Chlorophyll-a	NONE

NOTE: Analysis needed for reporting in lowest detection possible; O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Kjeldahl Nitrogen, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Bacteria E-coli, Chlorophyll-a

Relinquished By: Date/Time

Kim Tower

Received By: Date/Time:

Plumley 08/07/17 1525

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of Custody

Client:

Town of Plymouth - Department of Marine and Environmental Affairs
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, ktower@townhall.plymouth.ma.us
Project Name: **Harbor Sampling** -Plymouth MA
Sampler: Kim Tower (KT)

NW-171712

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
8/7/17	1440	S-040 2-4HST	1	Plastic	TOC	H2SO4
			1	1 Liter Plastic	Dissolved	NONE
			1	Plastic	NO3, NO2	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			1	Glass	Ortho	NONE
			1	100mL Plastic	Bacteria e-coli	NONE 10
			2	1 Liter Amber Plastic	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4
			1	1 Liter Plastic	Dissolved	NONE
			1	Plastic	NO3, NO2	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			1	Glass	Ortho	NONE
			1	100mL Plastic	Bacteria e-coli	NONE
			2	1 Liter Amber Plastic	Chlorophyll-a	NONE

NOTE: Analysis needed for reporting in lowest detection possible; O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Kjeldahl Nitrogen, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Bacteria E-coli, Chlorophyll-a

Relinquished By: Date/Time

Kim Tower

Received By: Date/Time:

R. D. Davis 08/07/17 1525

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Tuesday, October 10, 2017

Plymouth Environmental Management
K.Towers/ 11 Lincoln St.
Plymouth, MA

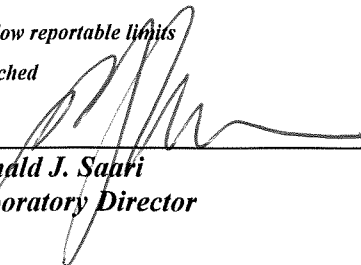
ProjectName: Harbor Sampling **Comments:**
Project Number: S-10 2-4 HST
Collection Date: 09/05/17 **Collection Time:** 13:35
Sampled By: Kim Tower
Lab Order Number: WW-171948
Date Received: 09/05/17

Sample Type	Sample Time	Sample Date	Comments			
S-102 2-4 HST A	13:35	09/05/17				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Organic Carbon*	mg/L	0.95*	0.5	09/22/17	RIA*	SM 5310 C
Ammonia-N *	mg/L	0.086*	0.02	09/15/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.33	0.2	09/15/17	KB	SM4500-Norg B-C
Total Phosphorous (P)	mg/L	0.044	0.005	09/11/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.26	0.20	09/15/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	0.66*	0.50	09/22/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.12	NA	10/10/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.17	NA	10/10/17	MC	Calculation
Chlorophyll-a	*	2.90*	*	09/07/17	Alpha*	*
Ortho Phosphorous (P)	mg/L	0.005	0.005	09/06/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	0.29	NA	10/10/17	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.07	NA	10/10/17	KB	Calculation
Total Dissolved Nitrogen	mg/L	0.29	NA	10/10/17	KB	Calculation
E coli	CFU/100mL	<5	<1	09/05/17	MC	EPA 1603
Nitrate-N	mg/L	0.03	0.01	09/05/17	MC	SM 4500-NO3 E
Nitrite-N	mg/L	BRL	0.005	09/05/17	MC	SM 4500-NO3 E

BRL=below reportable limits

*see attached

By:


Ronald J. Saari
Laboratory Director

Serial_No:09111721:03

Project Name: PLYMOUTH ENVIRONMENTAL MGMT

Lab Number: L1731205

Project Number: Not Specified

Report Date: 09/11/17

SAMPLE RESULTS

Lab ID: L1731205-01

Date Collected: 09/05/17 13:35

Client ID: WW-171948

Date Received: 09/06/17

Sample Location: S-10 AT 2-4 HST

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	2.90		mg/m3	2.00	NA	1	09/06/17 15:40	09/07/17 11:10	121, 10200H	AG



ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Tuesday, October 10, 2017

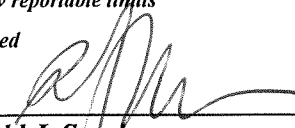
Plymouth Environmental Management
K. Towers/ 11 Lincoln St.
Plymouth, MA

ProjectName: Harbor Sampling **Comments:**
Project Number: S-72 2-4 HST
Collection Date: 09/05/17 **Collection Time:** 13:45
Sampled By: Kim Tower
Lab Order Number: WW-171949
Date Received: 09/05/17

Sample Type	Sample Time	Sample Date	Comments			
S-72 2-4 HST A	13:45	09/05/17				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Organic Carbon*	mg/L	0.85*	0.5	09/22/17	RIA*	SM 5310 C
Ammonia-N *	mg/L	0.21*	0.02	09/15/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.60	0.2	09/15/17	KB	SM4500-Norg B-C
Total Phosphorous (P)	mg/L	0.050	0.005	09/11/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.43	0.20	09/15/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	0.75*	0.50	09/22/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.24	NA	10/10/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.22	NA	10/10/17	MC	Calculation
Chlorophyll-a	*	3.00*	*	09/07/17	Alpha*	*
Ortho Phosphorous (P)	mg/L	0.015	0.005	09/06/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	0.10	NA	10/10/17	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.17	NA	10/10/17	KB	Calculation
Total Dissolved Nitrogen	mg/L	0.46	NA	10/10/17	KB	Calculation
E coli	CFU/100mL	<5	<1	09/05/17	MC	EPA 1603
Nitrate-N	mg/L	0.03	0.01	09/05/17	MC	SM 4500-NO3 E
Nitrite-N	mg/L	BRL	0.005	09/05/17	MC	SM 4500-NO3 E

BRL=below reportable limits

*see attached

By: 
Ronald J. Saari
Laboratory Director

Serial_No:09111721:03

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Lab Number: L1731205
Report Date: 09/11/17

SAMPLE RESULTS

Lab ID: L1731205-02
Client ID: WW-171949
Sample Location: S-7 AT 2-4 HST
Matrix: Water

Date Collected: 09/05/17 13:45
Date Received: 09/06/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	3.00		mg/m3	2.00	NA	1	09/06/17 15:40	09/07/17 11:10	121, 10200H	AG



ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Tuesday, October 10, 2017

Plymouth Environmental Management
K. Towers/ 11 Lincoln St.
Plymouth, MA

ProjectName: Harbor Sampling

Comments:

Project Number: S-8A 2-4 HST

Collection Date: 09/05/17 **Collection Time:** 13:50

Sampled By: Kim Tower

Lab Order Number: WW-171950

Date Received: 09/05/17

Sample Type	Sample Time	Sample Date	Comments			
S-8A 2-4 HST A	13:50	09/05/17				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Organic Carbon*	mg/L	0.78*	0.5	09/22/17	RIA*	SM 5310 C
Ammonia-N *	mg/L	0.075*	0.02	09/15/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.73	0.2	09/15/17	KB	SM4500-Norg B-C
Total Phosphorous (P)	mg/L	0.005	0.005	09/11/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.48	0.20	09/15/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	0.70*	0.50	09/22/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.11	NA	10/10/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.41	NA	10/10/17	MC	Calculation
Chlorophyll-a	*	3.50*	*	09/07/17	Alpha*	*
Ortho Phosphorous (P)	mg/L	<0.005	0.005	09/06/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	0.08	NA	10/10/17	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.25	NA	10/10/17	KB	Calculation
Total Dissolved Nitrogen	mg/L	0.51	NA	10/10/17	KB	Calculation
E coli	CFU/100mL	<5	<1	09/05/17	MC	EPA 1603
Nitrate-N	mg/L	0.03	0.01	09/05/17	MC	SM 4500-NO3 E
Nitrite-N	mg/L	BRL	0.005	09/05/17	MC	SM 4500-NO3 E

BRL=below reportable limits

*see attached

By: 
Ronald J. Saafi
Laboratory Director

Serial_No:09111721:03

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Lab Number: L1731205
Report Date: 09/11/17

SAMPLE RESULTS

Lab ID: L1731205-03
Client ID: WW-171950
Sample Location: S-8A AT 2-4 HST
Matrix: Water

Date Collected: 09/05/17 13:50
Date Received: 09/06/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	3.50		mg/m3	2.00	NA	1	09/06/17 15:40	09/07/17 11:10	121, 10200H	AG



R.I. Analytical Laboratories, Inc.
Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1709-20296

Project Name: PLYMOUTH ENV.

Sample Number: 001
Sample Description: WW-171948 S-10 AT 2-4 HST
Sample Type : GRAB
Sample Date / Time : 9/05/2017 @ 13:35

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
TOC	0.95	0.5	mg/l	SM5310C 21 ed.	9/22/2017 13:28	DEL
Dissolved TOC	0.66	0.5	mg/l	EPA 415.1	9/22/2017 13:28	DEL

Sample Number: 002
Sample Description: WW-171949 S-7 AT 2-4 HST
Sample Type : GRAB
Sample Date / Time : 9/05/2017 @ 13:45

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
TOC	0.85	0.5	mg/l	SM5310C 21 ed.	9/22/2017 13:28	DEL
Dissolved TOC	0.75	0.5	mg/l	EPA 415.1	9/22/2017 13:28	DEL

Sample Number: 003
Sample Description: WW-171950 S-8A AT 2-4 HST
Sample Type : GRAB
Sample Date / Time : 9/05/2017 @ 13:50

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
TOC	0.78	0.5	mg/l	SM5310C 21 ed.	9/22/2017 13:28	DEL
Dissolved TOC	0.70	0.5	mg/l	EPA 415.1	9/22/2017 13:28	DEL

[illegible]

R.I. Analytical Laboratories, Inc.**Laboratory Report**

Envirotech Laboratories, Inc.

Work Order #: 1709-19477

Project Name: PLYMOUTH ENV.

Sample Number: 001
Sample Description: WW-171948 S-10 AT 2-4 HST
Sample Type : GRAB
Sample Date / Time : 9/05/2017 @ 13:35

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.086	0.020	mg/l	SM4500NH3-B,H 18-21ed	9/15/2017 17:30	KLE

Sample Number: 002
Sample Description: WW-171949 S-7 AT 2-4 HST
Sample Type : GRAB
Sample Date / Time : 9/05/2017 @ 13:45

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.21	0.02	mg/l	SM4500NH3-B,H 18-21ed	9/15/2017 17:30	KLE

Sample Number: 003
Sample Description: WW-171950 S-8A AT 2-4 HST
Sample Type : GRAB
Sample Date / Time : 9/05/2017 @ 13:50

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.075	0.020	mg/l	SM4500NH3-B,H 18-21ed	9/15/2017 17:30	KLE

[illegible]



ANALYTICAL REPORT

Lab Number:	L1731205
Client:	Envirotech Laboratories, Inc. 8 Jan Sebastian Drive Unit 12 Sandwich, MA 02563
ATTN:	Ron Saari
Phone:	(800) 339-6460
Project Name:	PLYMOUTH ENVIRONMENTAL MGMT
Project Number:	Not Specified
Report Date:	09/11/17

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), NJ NELAP (MA935), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-14-00197).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Serial_No:09111721:03

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Lab Number: L1731205
Report Date: 09/11/17

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1731205-01	WW-171948	WATER	S-10 AT 2-4 HST	09/05/17 13:35	09/06/17
L1731205-02	WW-171949	WATER	S-7 AT 2-4 HST	09/05/17 13:45	09/06/17
L1731205-03	WW-171950	WATER	S-8A AT 2-4 HST	09/05/17 13:50	09/06/17

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Lab Number: L1731205
Report Date: 09/11/17

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEX data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Lab Number: L1731205
Report Date: 09/11/17

Case Narrative (continued)

Chlorophyll A

L1731205-01, -02 and -03 were analyzed with the method required holding time exceeded.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Amita Naik

Title: Technical Director/Representative

Date: 09/11/17

INORGANICS & MISCELLANEOUS

Serial_No:09111721:03

Project Name: PLYMOUTH ENVIRONMENTAL MGMT

Lab Number: L1731205

Project Number: Not Specified

Report Date: 09/11/17

Method Blank Analysis
Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-03 Batch: WG1039032-1									
Chlorophyll A	ND	mg/m3	2.00	NA	1	09/06/17 15:40	09/07/17 11:10	121, 10200H	AG



Serial_No:09111721:03

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L1731205
Report Date: 09/11/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG1039032-2 QC Sample: L1731205-03 Client ID: WW-171950						
Chlorophyll A	3.50	2.85	mg/m3	20		

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Serial_No:09111721:03
Lab Number: L1731205
Report Date: 09/11/17

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler **Custody Seal**
A Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1731205-01A	Brown Plastic 1000ml unpreserved	A	NA		3.8	Y	Absent		CHLORO-A(1)
L1731205-01B	Brown Plastic 1000ml unpreserved	A	NA		3.8	Y	Absent		CHLORO-A(1)
L1731205-02A	Brown Plastic 1000ml unpreserved	A	NA		3.8	Y	Absent		CHLORO-A(1)
L1731205-02B	Brown Plastic 1000ml unpreserved	A	NA		3.8	Y	Absent		CHLORO-A(1)
L1731205-03A	Brown Plastic 1000ml unpreserved	A	NA		3.8	Y	Absent		CHLORO-A(1)
L1731205-03B	Brown Plastic 1000ml unpreserved	A	NA		3.8	Y	Absent		CHLORO-A(1)

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Lab Number: L1731205
Report Date: 09/11/17

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.
LCSD	- 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.
MSD	- 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.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
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.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

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

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.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

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.

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

Report Format: Data Usability Report



Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Lab Number: L1731205
Report Date: 09/11/17

Data Qualifiers

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.
- 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. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report



LABORATORY REPORT

Envirotech Laboratories, Inc.
Attn: Mr. Ron Saari
8 Jan Sebastian Drive
Sandwich, MA 02563

Date Received: 9/7/2017
Date Reported: 9/18/2017
P.O. Number

Work Order #: 1709-19477

Project Name: PLYMOUTH ENV.

Enclosed are the analytical results and Chain of Custody for your project referenced above. The sample(s) were analyzed by our Warwick, RI laboratory unless noted otherwise. When applicable, indication of sample analysis at our Hudson, MA laboratory and/or subcontracted results are noted and subcontracted reports are enclosed in their entirety.

All samples were analyzed within the established guidelines of US EPA approved methods with all requirements met, unless otherwise noted at the end of a given sample's analytical results or in a case narrative.

The Detection Limit is defined as the lowest level that can be reliably achieved during routine laboratory conditions.

These results only pertain to the samples submitted for this Work Order # and this report shall not be reproduced except in its entirety.

We certify that the following results are true and accurate to the best of our knowledge. If you have questions or need further assistance, please contact our Customer Service Department.

Approved by:



Dawne E. Smart
Data Reporting Manager

Laboratory Certification Numbers (as applicable to sample's origin state):

Warwick RI * RI LAI00033, MA M-RI015, CT PH-0508, ME RI00015, NH 2070, NY 11726

Hudson MA * M-MA1117, RI LAO00319

41 Illinois Avenue, Warwick, RI 02888
Phone: 401-737-8500 Fax: 401-738-1970

www.rianalytical.com

131 Coolidge Street, Suite 105, Hudson MA 01749
Phone: 978-568-0041 Fax: 978-568-0078

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Lab Number: L1731205
Report Date: 09/11/17

REFERENCES

- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

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.



Alpha Analytical, Inc.
 Facility: Company-wide
 Department: Quality Assurance
 Title: Certificate/Approval Program Summary

Certification Information

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

Westborough Facility

EPA 624: m/p-xylene, o-xylene

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

EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 300: DW: Bromide

EPA 6860: NPW and SCM: Perchlorate

EPA 9010: NPW and SCM: Amenable Cyanide Distillation

EPA 9012B: NPW: Total Cyanide

EPA 9050A: NPW: Specific Conductance

SM3500: NPW: Ferrous Iron

SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO₂, NO₃.

SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility

SM 2540D: TSS

EPA 3005A NPW

EPA 8082A: NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.

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.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

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; EPA 524.2: THMs and VOCs; EPA 504.1: EDB, DBCP.

Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, SM4500NO3-F, EPA 353.2: Nitrate-N, EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, 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, SM9221E.

Mansfield Facility:

Drinking Water

EPA 200.7: Ba, Be, Cd, Cr, Cu, Ni, Na, Ca. EPA 200.8: Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, TL. EPA 245.1 Hg.

Non-Potable Water

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

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

EPA 245.1 Hg.

SM2340B

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

No: 09111721:03
C173720

Page 16 of 16

LABORATORY REPORT

Envirotech Laboratories, Inc.
Attn: Mr. Ron Saari
8 Jan Sebastian Drive
Sandwich, MA 02563

Date Received: 9/19/2017
Date Reported: 9/26/2017
P.O. Number

Work Order #: 1709-20296

Project Name: PLYMOUTH ENV.

Enclosed are the analytical results and Chain of Custody for your project referenced above. The sample(s) were analyzed by our Warwick, RI laboratory unless noted otherwise. When applicable, indication of sample analysis at our Hudson, MA laboratory and/or subcontracted results are noted and subcontracted reports are enclosed in their entirety.

All samples were analyzed within the established guidelines of US EPA approved methods with all requirements met, unless otherwise noted at the end of a given sample's analytical results or in a case narrative.

The Detection Limit is defined as the lowest level that can be reliably achieved during routine laboratory conditions.

These results only pertain to the samples submitted for this Work Order # and this report shall not be reproduced except in its entirety.

We certify that the following results are true and accurate to the best of our knowledge. If you have questions or need further assistance, please contact our Customer Service Department.

Approved by:



Melissa A. Manamon
QA /QC Officer

Laboratory Certification Numbers (as applicable to sample's origin state):

Warwick RI * RI LAI00033, MA M-RI015, CT PH-0508, ME RI00015, NH 2070, NY 11726

Hudson MA * M-MA1117, RI LAO00319

41 Illinois Avenue, Warwick, RI 02888
Phone: 401-737-8500 Fax: 401-738-1970

www.rianalytical.com

131 Coolidge Street, Suite 105, Hudson MA 01749
Phone: 978-568-0041 Fax: 978-568-0078

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

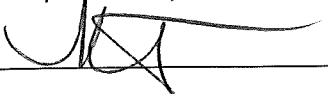
Chain of CustodyClient:

Town of Plymouth - Department of Marine and Environmental Affairs
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, ktower@townhall.plymouth.ma.us
Project Name: Harbor Sampling -Plymouth MA
Sampler: Kim Tower (KT)

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
9/5/17	1335	S-102 2-4HST	1	Plastic	TOC	H2SO4 H3PO4
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			1	Glass	Ortho	NONE
			1	100mL Plastic	Bacteria e-coli	NONE
			2	1 Liter Amber Plastic	Chlorophyll-a	NONE
9/5/17	1345	S-72 2-4HST	1	Plastic	TOC	H2SO4 H3PO4
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			1	Glass	Ortho	NONE
			1	100mL Plastic	Bacteria e-coli	NONE
			2	1 Liter Amber Plastic	Chlorophyll-a	NONE

NOTE: Analysis needed for reporting in lowest detection possible; O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Kjeldahl Nitrogen, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Bacteria E-coli, Chlorophyll-a

Relinquished By: Date/Time



Received By: Date/Time:

 09/05/17 1435



Chain of Custody

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Client:

Town of Plymouth - Department of Marine and Environmental Affairs
11 Lincoln Street, Plymouth, MA 02360 / 508-747-1620 x198, ktower@townhall.plymouth.ma.us
Project Name: **Harbor Sampling** - Plymouth MA
Sampler: Kim Tower (KT)

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
9/5/17	1350	S-8A 2-41151	1	Plastic	TOC	H2SO4 H3PO4
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			1	Glass	Ortho	NONE
			1	100mL Plastic	Bacteria e-coli	NONE
			2	1 Liter Amber Plastic	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			1	Glass	Ortho	NONE
			1	100mL Plastic	Bacteria e-coli	NONE
			2	1 Liter Amber Plastic	Chlorophyll-a	NONE

NOTE: Analysis needed for reporting in lowest detection possible; O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Kjeldahl Nitrogen, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Bacteria E-coli, Chlorophyll-a

Relinquished By: _____ Date/Time: _____

[Signature]

Received By: _____ Date/Time: _____

[Signature] 09/05/17 1435

Laboratory:

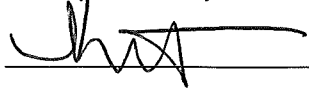
Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of CustodyClient:

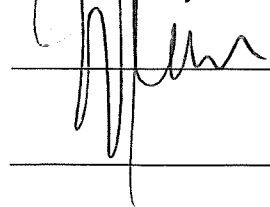
Town of Plymouth - Marine & Environmental Affairs Attn: Kim Tower
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, ktower@townhall.plymouth.ma.us
Project Name: Eel River SW Sampling -Plymouth MA
Sampler: Kim Tower (KT)

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
10/4/17	1100	S-8B	1	1 Liter Plastic	Dissolved, Chloride, pH/Cond NO3, NO2, TDS, Boron	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			2	1 Liter Amber	Chlorophyll-a	NONE
			1	Glass	Orthophosphate	NONE
			1	Plastic	TOC	H2SO4
			1	100mL Plastic	Bacteria	NONE
10/4/17	1120	S-8A	1	1 Liter Plastic	Dissolved, Chloride, pH/Cond NO3, NO2, TDS, Boron	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			2	1 Liter Amber	Chlorophyll-a	NONE
			1	Glass	Orthophosphate	NONE
			1	Plastic	TOC	H2SO4
			1	100mL Plastic	Bacteria	NONE

Relinquished By: Date/Time



Received By: Date/Time:



_____ 10/4/17 1430

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Monday, November 13, 2017

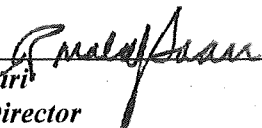
Plymouth Environmental Management
 K. Towers/ 11 Lincoln St.
 Plymouth, MA

ProjectName: Eel River SW Sampling **Comments:**
Project Number:
Collection Date: 10/04/17 **Collection Time:** 11:00
Sampled By: KT
Lab Order Number: WW-172226
Date Received: 10/04/17

Sample Type	Sample Time	Sample Date	Comments			
S-8B A	11:00	10/04/17				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
pH	pH units	6.09	NA	10/04/17	LL	SM 4500 H-B
Total Nitrogen	mg/L	<0.21	NA	11/07/17	KB	Calculation
Total Dissolved Solids	mg/L	BRL	6.0	10/17/17	KB	SM 2540 C
Chloride grab	mg/L	BRL	3.0	10/05/17	LL	EPA 300.0
E-coli	CFU/100 mL	<5	<1	10/04/17	MC	SM 9213 D
Specific Conductance	uhoms/cm	BRL	10	10/04/17	LL	EPA 120.1
Total Organic Carbon*	mg/L	<0.5*	0.5	10/16/17	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	10/17/17	MC	EPA 200.7
Nitrate-N	mg/L	BRL	0.01	10/05/17	LL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	10/05/17	LL	EPA 300.0
Ammonia-N *	mg/L	0.18*	0.02	10/18/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	BRL	0.2	10/18/17	KB	SM4500-Norg B-C
Turbidity	NTU	BRL	1.0	10/04/17	LL	SM 2130 B
Total Phosphorous (P)	mg/L	BRL	0.005	10/23/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.20	10/18/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	<0.5*	0.50	10/16/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.18	NA	11/13/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	<0.02	NA	11/13/17	MC	Calculation
Chlorophyll-a	*	ND*	*	10/09/17	Alpha*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	10/04/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	ND	NA	11/13/17	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	ND	NA	11/13/17	MC	Calculation
Total Dissolved Nitrogen	mg/L	<0.22	NA	11/07/17	KB	Calculation

BRL=below reportable limits

*see attached

By: 
 Ronald J. Saari
 Laboratory Director

Serial_No:10131716:15

Project Name: PLYMOUTH ENVIRONMENTAL MGMT

Lab Number: L1735789

Project Number: Not Specified

Report Date: 10/13/17

SAMPLE RESULTS

Lab ID: L1735789-01

Date Collected: 10/04/17 11:00

Client ID: WW-172226

Date Received: 10/05/17

Sample Location: S-8B

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	ND		mg/m3	2.00	NA	1	10/05/17 18:00	10/09/17 10:15	121, 10200H	AG



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Monday, November 13, 2017

Plymouth Environmental Management
 K. Towers/ 11 Lincoln St.
 Plymouth, MA

ProjectName: Eel River SW

Comments:

Project Number:

Collection Date: 10/04/17 **Collection Time:** 11:20

Sampled By: Kim Tower

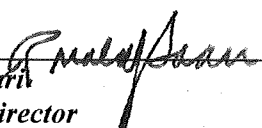
Lab Order Number: WW-172227

Date Received: 10/04/17

Sample Type	Sample Time	Sample Date	Comments			
S-8A A	11:20	10/04/17				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
pH	pH units	6.90	NA	10/04/17	LL	SM 4500 H-B
Total Nitrogen	mg/L	0.44	NA	11/07/17	KB	Calculation
Total Dissolved Solids	mg/L	120	6.0	10/17/17	KB	SM 2540 C
Chloride grab	mg/L	45	3.0	10/05/17	LL	EPA 300.0
E-coli	CFU/100 mL	15	<1	10/04/17	MC	SM 9213 D
Specific Conductance	uhoms/cm	165	10	10/04/17	LL	EPA 120.1
Total Organic Carbon*	mg/L	1.9*	0.5	10/16/17	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	10/17/17	MC	EPA 200.7
Nitrate-N	mg/L	0.12	0.01	10/05/17	LL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	10/05/17	LL	EPA 300.0
Ammonia-N *	mg/L	0.034*	0.02	10/18/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.32	0.2	10/18/17	KB	SM4500-Norg B-C
Turbidity	NTU	1.8	1.0	10/04/17	LL	SM 2130 B
Total Phosphorous (P)	mg/L	0.021	0.005	10/23/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.30	0.20	10/18/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	1.8*	0.50	10/16/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.15	NA	11/13/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.27	NA	11/13/17	MC	Calculation
Chlorophyll-a	*	7.48*	*	10/09/17	Alpha*	*
Ortho Phosphorous (P)	mg/L	0.008	0.005	10/04/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	0.10	NA	11/13/17	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.02	NA	11/13/17	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.42	NA	11/07/17	KB	Calculation

BRL=below reportable limits

*see attached

By: 
 Ronald J. Saari
 Laboratory Director

Serial_No:10131716:15

Project Name: PLYMOUTH ENVIRONMENTAL MGMT

Lab Number: L1735789

Project Number: Not Specified

Report Date: 10/13/17

SAMPLE RESULTS

Lab ID: L1735789-02

Date Collected: 10/04/17 11:20

Client ID: WW-172227

Date Received: 10/05/17

Sample Location: S-8A

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	7.48		mg/m3	2.00	NA	1	10/05/17 18:00	10/09/17 10:15	121, 10200H	AG



Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of Custody

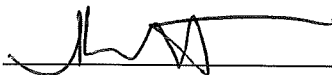
Client:

Town of Plymouth - Marine & Environmental Affairs Attn: Kim Tower
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, ktower@townhall.plymouth.ma.us
Project Name: Eel River SW Sampling -Plymouth MA
Sampler: Kim Tower (KT)

WW172228

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
10/4/17	5-53	1130	1	1 Liter Plastic	Dissolved, Chloride, pH/Cond NO3, NO2, TDS, Boron	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			2	1 Liter Amber	Chlorophyll-a	NONE
			1	Glass	Orthophosphate	NONE
			1	Plastic	TOC	H2SO4
			1	100mL Plastic	Bacteria	NONE 10
10/4/17	1210	S-4A	1	1 Liter Plastic	Dissolved, Chloride, pH/Cond NO3, NO2, TDS, Boron	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			2	1 Liter Amber	Chlorophyll-a	NONE
			1	Glass	Orthophosphate	NONE
			1	Plastic	TOC	H2SO4
			1	100mL Plastic	Bacteria	NONE 3

Relinquished By: Date/Time



Received By:

Date/Time:

 10/4/17 1430

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Monday, November 13, 2017

Plymouth Environmental Management

K. Towers/ 11 Lincoln St.

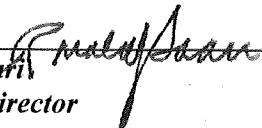
Plymouth, MA

ProjectName: Eel River SW**Comments:****Project Number:****Collection Date:** 10/04/17 **Collection Time:** 11:30**Sampled By:** Kim Tower**Lab Order Number:** WW-172228**Date Received:** 10/04/17

Sample Type	Sample Time	Sample Date	Comments			
S-5B A	11:30	10/04/17				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
pH	pH units	6.57	NA	10/04/17	LL	SM 4500 H-B
Total Nitrogen	mg/L	0.48	NA	11/07/17	KB	Calculation
Total Dissolved Solids	mg/L	120	6.0	10/17/17	KB	SM 2540 C
Chloride grab	mg/L	45	3.0	10/05/17	LL	EPA 300.0
E-coli	CFU/100 mL	10	<1	10/04/17	MC	SM 9213 D
Specific Conductance	uhoms/cm	167	10	10/04/17	LL	EPA 120.1
Total Organic Carbon*	mg/L	2.0*	0.5	10/16/17	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	10/17/17	MC	EPA 200.7
Nitrate-N	mg/L	0.12	0.01	10/05/17	LL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	10/05/17	LL	EPA 300.0
Ammonia-N *	mg/L	0.042*	0.02	10/18/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.36	0.2	10/18/17	KB	SM4500-Norg B-C
Turbidity	NTU	1.8	1.0	10/04/17	LL	SM 2130 B
Total Phosphorous (P)	mg/L	0.027	0.005	10/23/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.26	0.20	10/18/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	1.9*	0.50	10/16/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.16	NA	11/13/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.22	NA	11/13/17	MC	Calculation
Chlorophyll-a	*	8.71*	*	10/09/17	Alpha*	*
Ortho Phosphorous (P)	mg/L	0.005	0.005	10/04/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	0.10	NA	11/13/17	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.10	NA	11/13/17	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.38	NA	11/07/17	KB	Calculation

BRL=below reportable limits

*see attached

By: 
Ronald J. Saari
Laboratory Director

Serial_No:10131716:15

Project Name: PLYMOUTH ENVIRONMENTAL MGMT

Lab Number: L1735789

Project Number: Not Specified

Report Date: 10/13/17

SAMPLE RESULTS

Lab ID: L1735789-03

Date Collected: 10/04/17 11:30

Client ID: WW-172228

Date Received: 10/05/17

Sample Location: S-5B

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	8.71		mg/m3	2.00	NA	1	10/05/17 18:00	10/09/17 10:15	121, 10200H	AG



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Plymouth Environmental Management

K.Towers/ 11 Lincoln St.

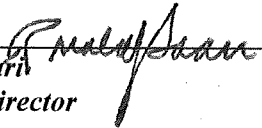
Plymouth, MA

ProjectName: Eel River SW**Comments:****Project Number:****Collection Date:** 10/04/17 **Collection Time:** 12:10**Sampled By:** Kim Tower**Lab Order Number:** WW-172229**Date Received:** 10/04/17

Sample Type		Sample Time	Sample Date	Comments		
S-4A	A	12:10	10/04/17			
Parameters		Units	Test Results	Reportable Limits	Date Analyzed	Analyst Method
pH		pH units	6.91	NA	10/04/17	LL SM 4500 H-B
Total Nitrogen		mg/L	0.40	NA	11/07/17	KB Calculation
Total Dissolved Solids		mg/L	90	6.0	10/17/17	KB SM 2540 C
Chloride grab		mg/L	33	3.0	10/05/17	LL EPA 300.0
E-coli		CFU/100 mL	5	<1	10/04/17	MC SM 9213 D
Specific Conductance		uhoms/cm	127	10	10/04/17	LL EPA 120.1
Total Organic Carbon*		mg/L	2.2*	0.5	10/16/17	RIA* SM 5310 C
Boron		mg/L	BRL	0.010	10/17/17	MC EPA 200.7
Nitrate-N		mg/L	0.06	0.01	10/05/17	LL EPA 300.0
Nitrite-N		mg/L	BRL	0.006	10/05/17	LL EPA 300.0
Ammonia-N *		mg/L	0.046*	0.02	10/18/17	RIA* SM4500 NH3 C
Total Kjeldhal Nitrogen		mg/L	0.34	0.2	10/18/17	KB SM4500-Norg B-C
Turbidity		NTU	2.1	1.0	10/04/17	LL SM 2130 B
Total Phosphorous (P)		mg/L	0.023	0.005	10/23/17	MC SM 4500-P
Dissolved Kjeldhal Nitrogen		mg/L	0.25	0.20	10/18/17	KB SM4500 Norg B-C
Dissolved Total Organic Carbon		mg/L	2.0*	0.50	10/16/17	RIA* EPA 415.1
Dissolved Inorganic Nitrogen		mg/L	0.11	NA	11/13/17	MC Calculation
Dissolved Organic Nitrogen		mg/L	0.20	NA	11/13/17	MC Calculation
Chlorophyll-a		*	3.31*	*	10/09/17	Alpha* *
Ortho Phosphorous (P)		mg/L	0.006	0.005	10/04/17	MC SM 4500-P
Particulate Organic Carbon		mg/L	0.2	NA	11/13/17	MC SM 5310 C
Particulate Organic Nitrogen		mg/L	0.09	NA	11/13/17	MC Calculation
Total Dissolved Nitrogen		mg/L	0.31	NA	11/07/17	KB Calculation

BRL=below reportable limits

*see attached

By: 
Ronald J. Saari
Laboratory Director

Serial_No:10131716:15

Project Name: PLYMOUTH ENVIRONMENTAL MGMT

Lab Number: L1735789

Project Number: Not Specified

Report Date: 10/13/17

SAMPLE RESULTS

Lab ID: L1735789-04

Date Collected: 10/04/17 12:10

Client ID: WW-172229

Date Received: 10/05/17

Sample Location: S-4A

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	3.31		mg/m3	2.00	NA	1	10/05/17 18:00	10/09/17 10:15	121, 10200H	AG



Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

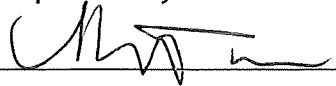
Chain of CustodyClient:

Town of Plymouth - Marine & Environmental Affairs Attn: Kim Tower
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, ktower@townhall.plymouth.ma.us
Project Name: **Eel River SW Sampling -Plymouth MA**
Sampler: Kim Tower (KT)

WW172230

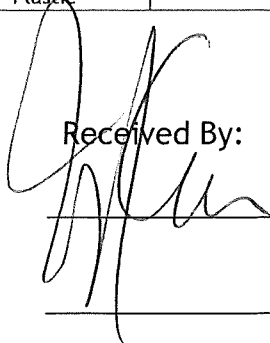
Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
10/4/17	1230	S-3A	1	1 Liter Plastic	Dissolved, Chloride, pH/Cond NO3, NO2, TDS, Boron	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			2	1 Liter Amber	Chlorophyll-a	NONE
			1	Glass	Orthophosphate	NONE
			1	Plastic	TOC	H2SO4
			1	100mL Plastic	Bacteria	NONE 5
10/4/17	1245	S-2C	1	1 Liter Plastic	Dissolved, Chloride, pH/Cond NO3, NO2, TDS, Boron	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			2	1 Liter Amber	Chlorophyll-a	NONE
			1	Glass	Orthophosphate	NONE
			1	Plastic	TOC	H2SO4
			1	100mL Plastic	Bacteria	NONE 25

Relinquished By: Date/Time



Received By:

Date/Time:



10/4/17 1430

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Thursday, November 16, 2017

Plymouth Environmental Management

K. Towers/ 11 Lincoln St.

Plymouth, MA

ProjectName: Eel River SW

Comments:

Project Number:

Collection Date: 10/04/17 **Collection Time:** 12:30

Sampled By: Kim Tower

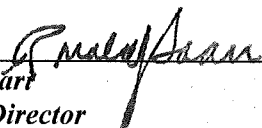
Lab Order Number: WW-172230

Date Received: 10/04/17

Sample Type	Sample Time	Sample Date	Comments			
S-3A A	12:30	10/04/17				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
pH	pH units	6.90	NA	10/04/17	LL	SM 4500 H-B
Total Nitrogen	mg/L	<0.27	NA	11/07/17	KB	Calculation
Total Dissolved Solids	mg/L	92	6.0	10/17/17	KB	SM 2540 C
Chloride grab	mg/L	29	3.0	10/05/17	LL	EPA 300.0
E-coli	CFU/100 mL	5	<1	10/04/17	MC	SM 9213 D
Specific Conductance	uhoms/cm	131	10	10/04/17	LL	EPA 120.1
Total Organic Carbon*	mg/L	1.4*	0.5	10/16/17	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	10/17/17	MC	EPA 200.7
Nitrate-N	mg/L	0.07	0.01	10/05/17	LL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	10/05/17	LL	EPA 300.0
Ammonia-N *	mg/L	0.056*	0.02	10/18/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	BRL	0.2	10/19/17	KB	SM4500-Norg B-C
Turbidity	NTU	2.0	1.0	10/04/17	LL	SM 2130 B
Total Phosphorous (P)	mg/L	0.022	0.005	10/23/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.20	10/19/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	1.3*	0.50	10/16/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.13	NA	11/13/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	<0.14	NA	11/13/17	MC	Calculation
Chlorophyll-a	*	4.44*	*	10/09/17	Alpha*	*
Ortho Phosphorous (P)	mg/L	0.006	0.005	10/04/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	0.1	NA	11/13/17	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	ND	NA	11/13/17	MC	Calculation
Total Dissolved Nitrogen	mg/L	<0.27	NA	11/07/17	KB	Calculation

BRL=below reportable limits

*see attached

By: 
Ronald J. Sauri
Laboratory Director

Serial_No:10131716:15

Project Name: PLYMOUTH ENVIRONMENTAL MGMT

Lab Number: L1735789

Project Number: Not Specified

Report Date: 10/13/17

SAMPLE RESULTS

Lab ID: L1735789-05

Date Collected: 10/04/17 12:30

Client ID: WW-172230

Date Received: 10/05/17

Sample Location: S-3A

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	4.44		mg/m3	2.00	NA	1	10/05/17 18:00	10/09/17 10:15	121, 10200H	AG



ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
 Sandwich, MA 02563
 (508)888-6460 1-800-339-6460
 FAX (508)888-6446

Monday, November 13, 2017

Plymouth Environmental Management
 K. Towers/ 11 Lincoln St.
 Plymouth, MA

ProjectName: Eel River SW

Comments:

Project Number:

Collection Date: 10/04/17 **Collection Time:** 12:45

Sampled By: Kim Tower

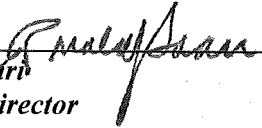
Lab Order Number: WW-172231

Date Received: 10/04/17

Sample Type		Sample Time	Sample Date	Comments		
S-2C	A	12:45	10/04/17			
Parameters		Units	Test Results	Reportable Limits	Date Analyzed	Analyst Method
pH		pH units	6.66	NA	10/04/17	LL SM 4500 H-B
Total Nitrogen		mg/L	1.1	NA	11/07/17	KB Calculation
Total Dissolved Solids		mg/L	83	6.0	10/17/17	KB SM 2540 C
Chloride grab		mg/L	10.2	3.0	10/05/17	LL EPA 300.0
E-coli		CFU/100 mL	<5	<1	10/04/17	MC SM 9213 D
Specific Conductance		uhoms/cm	114	10	10/04/17	LL EPA 120.1
Total Organic Carbon*		mg/L	1.6*	0.5	10/16/17	RIA* SM 5310 C
Boron		mg/L	BRL	0.010	10/17/17	MC EPA 200.7
Nitrate-N		mg/L	0.45	0.01	10/05/17	RL EPA 300.0
Nitrite-N		mg/L	0.284	0.006	10/05/17	LL EPA 300.0
Ammonia-N *		mg/L	0.041*	0.02	10/18/17	RIA* SM4500 NH3 C
Total Kjeldhal Nitrogen		mg/L	0.41	0.2	10/19/17	KB SM4500-Norg B-C
Turbidity		NTU	2.0	1.0	10/04/17	LL SM 2130 B
Total Phosphorous (P)		mg/L	0.042	0.005	10/23/17	MC SM 4500-P
Dissolved Kjeldhal Nitrogen		mg/L	0.20	0.20	10/19/17	KB SM4500 Norg B-C
Dissolved Total Organic Carbon		mg/L	1.3*	0.50	10/16/17	RIA* EPA 415.1
Dissolved Inorganic Nitrogen		mg/L	0.78	NA	11/13/17	MC Calculation
Dissolved Organic Nitrogen		mg/L	0.16	NA	11/13/17	MC Calculation
Chlorophyll-a		*	14.2*	*	10/09/17	Alpha* *
Ortho Phosphorous (P)		mg/L	0.006	0.005	10/04/17	MC SM 4500-P
Particulate Organic Carbon		mg/L	0.3	NA	11/13/17	MC SM 5310 C
Particulate Organic Nitrogen		mg/L	0.21	NA	11/13/17	MC Calculation
Total Dissolved Nitrogen		mg/L	0.93	NA	11/07/17	KB Calculation

BRL=below reportable limits

*see attached

By: 
 Ronald J. Sadri
 Laboratory Director

Serial_No:10131716:15

Project Name: PLYMOUTH ENVIRONMENTAL MGMT

Lab Number: L1735789

Project Number: Not Specified

Report Date: 10/13/17

SAMPLE RESULTS

Lab ID: L1735789-06

Date Collected: 10/04/17 12:45

Client ID: WW-172231

Date Received: 10/05/17

Sample Location: S-2C

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	14.2		mg/m3	2.00	NA	1	10/05/17 18:00	10/09/17 10:15	121, 10200H	AG



Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of CustodyClient:

Town of Plymouth - Marine & Environmental Affairs Attn: Kim Tower
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, ktower@townhall.plymouth.ma.us
Project Name: **Eel River SW Sampling -Plymouth MA**
Sampler: Kim Tower (KT)

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
10/4/17	1315	S-6A	1	1 Liter Plastic	Dissolved, Chloride, pH/Cond NO3, NO2, TDS, Boron	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			2	1 Liter Amber	Chlorophyll-a	NONE
			1	Glass	Orthophosphate	NONE
			1	Plastic	TOC	H2SO4
			1	100mL Plastic	Bacteria	NONE
10/4/17	1325	S-12	1	1 Liter Plastic	Dissolved, Chloride, pH/Cond NO3, NO2, TDS, Boron	NONE
			1	1 Liter Plastic	TKN, TN, TP, NH3	H2SO4
			1	1 Liter Amber	Chlorophyll-a	NONE
			1	Glass	Orthophosphate	NONE
			1	Plastic	TOC	H2SO4
			1	100mL Plastic	Bacteria	NONE

Relinquished By: Date/Time

[Signature]

Received By:

Date/Time:

[Signature] 10/4/17 1430

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
 Sandwich, MA 02563
 (508)888-6460 1-800-339-6460
 FAX (508)888-6446

Thursday, November 16, 2017

Plymouth Environmental Management
 K. Towers/ 11 Lincoln St.
 Plymouth, MA

Project Name: Eel River SW

Comments:

Project Number:

Collection Date: 10/04/17 **Collection Time:** 13:15

Sampled By: Kim Tower

Lab Order Number: WW-172232

Date Received: 10/04/17

Sample Type	Sample Time	Sample Date	Comments			
S-6A A	13:15	10/04/17				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
pH	pH units	6.37	NA	10/04/17	LL	SM 4500 H-B
Total Nitrogen	mg/L	0.43	NA	11/07/17	KB	Calculation
Total Dissolved Solids	mg/L	67	6.0	10/17/17	KB	SM 2540 C
Chloride grab	mg/L	22	3.0	10/05/17	LL	EPA 300.0
E-coli	CFU/100 mL	10	<1	10/04/17	MC	SM 9213 D
Specific Conductance	uhoms/cm	92	10	10/04/17	LL	EPA 120.1
Total Organic Carbon*	mg/L	1.2*	0.5	10/16/17	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	10/17/17	MC	EPA 200.7
Nitrate-N	mg/L	0.19	0.01	10/05/17	LL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	10/05/17	LL	EPA 300.0
Ammonia-N *	mg/L	0.028*	0.02	10/18/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.24	0.2	10/19/17	KB	SM4500-Norg B-C
Turbidity	NTU	1.0	1.0	10/04/17	LL	SM 2130 B
Total Phosphorous (P)	mg/L	0.028	0.005	10/23/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.24	0.20	10/19/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	0.95*	0.50	10/16/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.22	NA	11/13/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.21	NA	11/13/17	MC	Calculation
Chlorophyll-a	*	23.9*	*	10/09/17	Alpha*	*
Ortho Phosphorous (P)	mg/L	0.005	0.005	10/04/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	0.3	NA	11/13/17	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	ND	NA	11/13/17	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.43	NA	11/07/17	KB	Calculation

BRL=below reportable limits

*see attached

By: Ronald J. Saari
 Ronald J. Saari
 Laboratory Director

Serial_No:10131716:15

Project Name: PLYMOUTH ENVIRONMENTAL MGMT
Project Number: Not Specified

Lab Number: L1735789
Report Date: 10/13/17

SAMPLE RESULTS

Lab ID: L1735789-07
Client ID: WW-172232
Sample Location: S-6A
Matrix: Water

Date Collected: 10/04/17 13:15
Date Received: 10/05/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	23.9		mg/m3	2.00	NA	1	10/05/17 18:00	10/09/17 10:15	121, 10200H	AG



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 Sandwich, MA 02563
 (508)888-6460 1-800-339-6460
 FAX (508)888-6446

Monday, November 13, 2017

Plymouth Environmental Management
 K. Towers/ 11 Lincoln St.
 Plymouth, MA

Project Name: Eel River SW

Comments:

Project Number:

Collection Date: 10/04/17 **Collection Time:** 13:25

Sampled By: Kim Tower

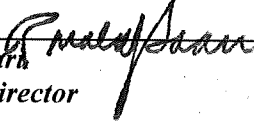
Lab Order Number: WW-172233

Date Received: 10/04/17

Sample Type	Sample Time	Sample Date	Comments			
S-12 A	13:25	10/04/17				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
pH	pH units	6.25	NA	10/04/17	LL	SM 4500 H-B
Total Nitrogen	mg/L	<0.33	NA	11/07/17	KB	Calculation
Total Dissolved Solids	mg/L	65	6.0	10/17/17	KB	SM 2540 C
Total Phosphorous (P)	mg/L	0.009	0.005	10/23/17	MC	SM 4500-P-B,E
Chloride grab	mg/L	22	3.0	10/05/17	LL	EPA 300.0
E-coli	CFU/100 mL	5	<1	10/04/17	MC	SM 9213 D
Specific Conductance	uhoms/cm	87	10	10/04/17	LL	EPA 120.1
Total Organic Carbon*	mg/L	1.4*	0.5	10/16/17	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	10/17/17	MC	EPA 200.7
Nitrate-N	mg/L	0.13	0.01	10/05/17	LL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	10/05/17	LL	EPA 300.0
Ammonia-N *	mg/L	0.022*	0.02	10/18/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	BRL	0.2	10/20/17	KB	SM4500-Norg B-C
Turbidity	NTU	5.2	1.0	10/04/17	LL	SM 2130 B
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.20	10/20/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	1.2*	0.50	10/16/17	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.15	NA	11/13/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	<0.18	NA	11/13/17	MC	Calculation
Chlorophyll-a	*	2.13*	*	10/09/17	Alpha*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	10/04/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	0.2	NA	11/13/17	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	ND	NA	11/13/17	MC	Calculation
Total Dissolved Nitrogen	mg/L	<0.33	NA	11/07/17	KB	Calculation

BRL=below reportable limits

*see attached

By: 
 Ronald J. Saara
 Laboratory Director

Serial_No:10131716:15

Project Name: PLYMOUTH ENVIRONMENTAL MGMT

Lab Number: L1735789

Project Number: Not Specified

Report Date: 10/13/17

SAMPLE RESULTS

Lab ID: L1735789-08

Date Collected: 10/04/17 13:25

Client ID: WW-172233

Date Received: 10/05/17

Sample Location: S-12

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chlorophyll A	2.13		mg/m3	2.00	NA	1	10/05/17 18:00	10/09/17 10:15	121, 10200H	AG



R.I. Analytical Laboratories, Inc.
Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1710-21838

Project Name: PLYMOUTH ENV.

Sample Number: 001
Sample Description: WW-172226 S-8B
Sample Type : GRAB
Sample Date / Time : 10/04/2017 @ 11:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.18	0.02	mg/l	SM4500NH3-B,H 18-21ed	10/18/2017 11:04	KLE
Dissolved TOC	<0.5	0.5	mg/l	EPA 415.1	10/16/2017 12:53	DEL
TOC	<0.5	0.5	mg/l	SM5310C 21 ed.	10/16/2017 12:53	DEL

Sample Number: 002
Sample Description: WW-172227 S-8A
Sample Type : GRAB
Sample Date / Time : 10/04/2017 @ 11:20

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.034	0.02	mg/l	SM4500NH3-B,H 18-21ed	10/18/2017 11:04	KLE
Dissolved TOC	1.8	0.5	mg/l	EPA 415.1	10/16/2017 12:53	DEL
TOC	1.9	0.5	mg/l	SM5310C 21 ed.	10/16/2017 12:53	DEL

Sample Number: 003
Sample Description: WW-172228 S-5B
Sample Type : GRAB
Sample Date / Time : 10/04/2017 @ 11:30

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.042	0.02	mg/l	SM4500NH3-B,H 18-21ed	10/18/2017 11:04	KLE
Dissolved TOC	1.9	0.5	mg/l	EPA 415.1	10/16/2017 12:53	DEL
TOC	2.0	0.5	mg/l	SM5310C 21 ed.	10/16/2017 12:53	DEL

Sample Number: 004
Sample Description: WW-172229 S-4A
Sample Type : GRAB
Sample Date / Time : 10/04/2017 @ 12:10

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.046	0.02	mg/l	SM4500NH3-B,H 18-21ed	10/18/2017 11:04	KLE
Dissolved TOC	2.0	0.5	mg/l	EPA 415.1	10/16/2017 12:53	DEL
TOC	2.2	0.5	mg/l	SM5310C 21 ed.	10/16/2017 12:53	DEL

R.I. Analytical Laboratories, Inc.
Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1710-21838

Project Name: PLYMOUTH ENV.

Sample Number: 005
Sample Description: WW-172230 S-3A
Sample Type : GRAB
Sample Date / Time : 10/04/2017 @ 12:30

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.056	0.02	mg/l	SM4500NH3-B,H 18-21ed	10/18/2017 11:04	KLE
Dissolved TOC	1.3	0.5	mg/l	EPA 415.1	10/16/2017 12:53	DEL
TOC	1.4	0.5	mg/l	SM5310C 21 ed.	10/16/2017 12:53	DEL

Sample Number: 006
Sample Description: WW-172231 S-2C
Sample Type : GRAB
Sample Date / Time : 10/04/2017 @ 12:45

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.041	0.02	mg/l	SM4500NH3-B,H 18-21ed	10/18/2017 11:04	KLE
Dissolved TOC	1.3	0.5	mg/l	EPA 415.1	10/16/2017 12:53	DEL
TOC	1.6	0.5	mg/l	SM5310C 21 ed.	10/16/2017 12:53	DEL

Sample Number: 007
Sample Description: WW-172232 S-6A
Sample Type : GRAB
Sample Date / Time : 10/04/2017 @ 13:15

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.028	0.02	mg/l	SM4500NH3-B,H 18-21ed	10/18/2017 11:04	KLE
Dissolved TOC	0.95	0.5	mg/l	EPA 415.1	10/16/2017 12:53	DEL
TOC	1.2	0.5	mg/l	SM5310C 21 ed.	10/16/2017 12:53	DEL

Sample Number: 008
Sample Description: WW-172233 S-12
Sample Type : GRAB
Sample Date / Time : 10/04/2017 @ 13:25

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.022	0.02	mg/l	SM4500NH3-B,H 18-21ed	10/18/2017 11:04	KLE
Dissolved TOC	1.2	0.5	mg/l	EPA 415.1	10/16/2017 12:53	DEL
TOC	1.4	0.5	mg/l	SM5310C 21 ed.	10/16/2017 12:53	DEL

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of Custody

(L)

Client:

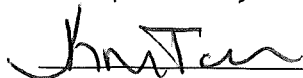
Town of Plymouth - Department of Marine & Environmental Affairs Attn: Kim Tower
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, ktower@townhall.plymouth.ma.us
Project Name: **GW Eel River -Plymouth MA**
Sampler: Kim Tower (KT)

WW17285

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
10-10-17	1020	A13	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN - Total Nitrogen	H2SO4
			1	500ml Plastic	Ph/cond, turb, NO ₂ , NO ₃ , TDS, Chloride	NONE
			1	500ml Plastic	B, Cu, Hg, FE	NONE
			1	Plastic	TOC	H2SO4
			1	Glass	Ortho-phosphate	NONE
WW17286	10-10-17	A19	1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN - Total Nitrogen	H2SO4
			1	500ml Plastic	Ph/cond, turb, NO ₂ , NO ₃ , TDS, Chloride	NONE
			1	500ml Plastic	B, Cu, Hg, FE	NONE
			1	Plastic	TOC	H2SO4
			1	Glass	Ortho-phosphate	NONE
			1	1 Liter Plastic	Dissolved	NONE

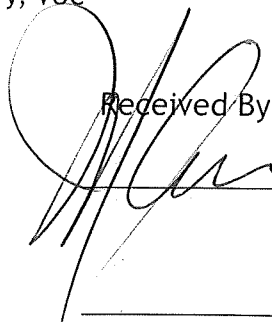
NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Boron, Chloride, Copper, Iron, Mercury, VOC

Relinquished By: Date/Time



Received By:

Date/Time:


10/10/17 1425

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

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 Sandwich, MA 02563
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 FAX (508)888-6446

Monday, November 13, 2017

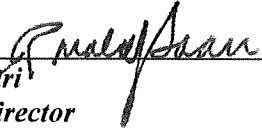
Plymouth Environmental Management
 K. Towers/ 11 Lincoln St.
 Plymouth, MA

ProjectName: GW Eel River **Comments:**
Project Number:
Collection Date: 10/10/17 **Collection Time:** 10:20
Sampled By: Kim Tower
Lab Order Number: WW-172285
Date Received: 10/10/17

Sample Type	Sample Time	Sample Date	Comments			
A13 A	10:20	10/10/17				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
pH	pH units	5.07	NA	10/10/17	RL	SM 4500 H-B
Total Nitrogen	mg/L	0.50	NA	11/07/17	KB	Calculation
Total Dissolved Solids	mg/L	330	6.0	10/17/17	KB	SM 2540 C
Chloride grab	mg/L	180	3.0	10/11/17	RL	EPA 300.0
Specific Conductance	uhoms/cm	580	10	10/13/17	RL	EPA 120.1
Total Organic Carbon*	mg/L	0.423*	0.5	10/10/17	NEC*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	10/13/17	RIA*	*
Total Iron	mg/L	4.46	0.01	10/17/17	MC	EPA 200.7
Mercury*	mg/L	<0.0005*	0.0005	10/13/17	RIA*	EPA 245.1
Boron	mg/L	BRL	0.010	10/17/17	MC	EPA 200.7
Copper	mg/L	BRL	0.003	10/17/17	MC	EPA 200.7
Nitrate-N	mg/L	0.29	0.01	10/11/17	RL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	10/11/17	RL	EPA 300.0
Ammonia-N *	mg/L	0.085*	0.02	10/19/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.21	0.2	10/20/17	KB	SM4500-Norg B-C
Turbidity	NTU	8.1	1.0	10/10/17	RL	SM 2130 B
Total Phosphorous (P)	mg/L	0.028	0.005	10/23/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.20	10/20/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	0.296*	0.50	10/10/17	NEC*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.38	NA	11/13/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	<0.12	NA	11/13/17	MC	Calculation
Ortho Phosphorous (P)	mg/L	0.007	0.005	10/11/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	0.13	NA	11/13/17	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.01	NA	11/13/17	MC	Calculation
Total Dissolved Nitrogen	mg/L	<0.49	NA	11/07/17	KB	Calculation

BRL=below reportable limits

*see attached

By: 
 Ronald J. Sadri
 Laboratory Director

R.I. Analytical Laboratories, Inc.
Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1710-22173

Project Name: PLYMOUTH ENV.

Sample Number: 001
Sample Description: WW-172285 A13
Sample Type : GRAB
Sample Date / Time : 10/10/2017 @ 10:20

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.085	0.02	mg/l	SM4500NH3-B,H 18-21cd	10/19/2017 11:54	KLE
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
Bromobenzene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
Bromochloromethane	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
Bromodichloromethane	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
Bromoform	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
Bromomethane	<5	5	ug/l	SW-846 8260C	10/13/2017 17:17	WL
n-Butylbenzene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
Sec-butylbenzene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
tert-Butylbenzene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
Chlorobenzene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
Chloroethane	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
Chloroform	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
Chloromethane	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
2-Chlorotoluene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
4-Chlorotoluene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
Dibromochloromethane	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260C	10/13/2017 17:17	WL
1,2-Dibromooethane(EDB)	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
Dibromomethane	<2	2	ug/l	SW-846 8260C	10/13/2017 17:17	WL
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
Dichlorodifluoromethane	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
Ethylbenzene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
Isopropylbenzene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
Methylene Chloride	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
Naphthalene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL

R.I. Analytical Laboratories, Inc.
Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1710-22173

Project Name: PLYMOUTH ENV.

Sample Number: 001
Sample Description: WW-172285 A13
Sample Type : GRAB
Sample Date / Time : 10/10/2017 @ 10:20

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
n-Propylbenzene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
Styrene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
Tetrachloroethene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
Toluene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
Trichloroethene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
1,2,3-Trichloropropane	<2	2	ug/l	SW-846 8260C	10/13/2017 17:17	WL
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
Vinyl Chloride	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
o-Xylene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
m,p-Xylene	<2	2	ug/l	SW-846 8260C	10/13/2017 17:17	WL
MTBE	<2	2	ug/l	SW-846 8260C	10/13/2017 17:17	WL
Carbon Disulfide	<1	1	ug/l	SW-846 8260C	10/13/2017 17:17	WL
Acetone	<10	10	ug/l	SW-846 8260C	10/13/2017 17:17	WL
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260C	10/13/2017 17:17	WL
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260C	10/13/2017 17:17	WL
2-Hexanone	<10	10	ug/l	SW-846 8260C	10/13/2017 17:17	WL
cis-1,3-Dichloropropene	<0.4	0.4	ug/l	SW-846 8260C	10/13/2017 17:17	WL
trans-1,3-Dichloropropylene	<0.4	0.4	ug/l	SW-846 8260C	10/13/2017 17:17	WL
Vinyl Acetate	<50	50	ug/l	SW-846 8260C	10/13/2017 17:17	WL
Surrogates			RANGE			
Dibromofluoromethane	102		86-118%	SW-846 8260C	10/13/2017 17:17	WL
Toluene-d8	99		88-110%	SW-846 8260C	10/13/2017 17:17	WL
4-Bromofluorobenzene	89		86-115%	SW-846 8260C	10/13/2017 17:17	WL
1,2 Dichloroethane-d4	116		80-120%	SW-846 8260C	10/13/2017 17:17	WL
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	10/13/2017 18:09	RAT
Mercury Digestion				EPA 245.1	10/13/2017 15:42	AGJ

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Monday, November 13, 2017

Plymouth Environmental Management
K. Towers/ 11 Lincoln St.
Plymouth, MA

ProjectName: GW Eel River

Comments:

Project Number:

Collection Date: 10/10/17 **Collection Time:** 11:10

Sampled By: Kim Tower

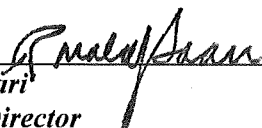
Lab Order Number: WW-172286

Date Received: 10/10/17

Sample Type		Sample Time	Sample Date	Comments		
A19	A	11:10	10/10/17			
Parameters		Units	Test Results	Reportable Limits	Date Analyzed	Analyst Method
pH		pH units	5.53	NA	10/10/17	RL SM 4500 H-B
Total Nitrogen		mg/L	1.0	NA	11/07/17	KB Calculation
Total Dissolved Solids		mg/L	93	6.0	10/20/17	KB SM 2540 C
Chloride grab		mg/L	41	3.0	10/11/17	RL EPA 300.0
Specific Conductance		uhoms/cm	153	10	10/10/17	RL EPA 120.1
Total Organic Carbon*		mg/L	0.305	0.5	10/10/17	NEC* SM 5310 C
Volatile Organic Compounds*		ug/L	ND*	*	10/13/17	RIA* *
Total Iron		mg/L	0.18	0.01	10/17/17	MC EPA 200.7
Mercury*		mg/L	<0.0005*	0.0005	10/13/17	RIA* EPA 245.1
Boron		mg/L	BRL	0.010	10/17/17	MC EPA 200.7
Copper		mg/L	BRL	0.003	10/17/17	MC EPA 200.7
Nitrate-N		mg/L	1.03	0.01	10/11/17	RL EPA 300.0
Nitrite-N		mg/L	BRL	0.006	10/11/17	RL EPA 300.0
Ammonia-N *		mg/L	0.037*	0.02	10/19/17	RIA* SM4500 NH3 C
Total Kjeldhal Nitrogen		mg/L	BRL	0.2	10/20/17	KB SM4500-Norg B-C
Turbidity		NTU	4.5	1.0	10/10/17	RL SM 2130 B
Total Phosphorous (P)		mg/L	0.018	0.005	10/23/17	MC SM 4500-P
Dissolved Kjeldhal Nitrogen		mg/L	BRL	0.20	10/20/17	KB SM4500 Norg B-C
Dissolved Total Organic Carbon		mg/L	0.388*	0.50	10/10/17	NEC* EPA 415.1
Dissolved Inorganic Nitrogen		mg/L	1.0	NA	11/13/17	MC Calculation
Dissolved Organic Nitrogen		mg/L	<0.16	NA	11/13/17	MC Calculation
Ortho Phosphorous (P)		mg/L	0.010	0.005	10/11/17	MC SM 4500-P
Particulate Organic Carbon		mg/L	ND	NA	11/13/17	MC SM 5310 C
Particulate Organic Nitrogen		mg/L	ND	NA	11/13/17	MC Calculation
Total Dissolved Nitrogen		mg/L	1.0	NA	11/07/17	KB Calculation

BRL=below reportable limits

*see attached

By: 
Ronald J. Saari
Laboratory Director

R.I. Analytical Laboratories, Inc.
Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1710-22173

Project Name: PLYMOUTH ENV.

Sample Number: 002
Sample Description: WW-172286 A19
Sample Type : GRAB
Sample Date / Time : 10/10/2017 @ 11:10

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.037	0.02	mg/l	SM4500NH3-B,H 18-21ed	10/19/2017 11:54	KLE
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
Bromobenzene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
Bromochloromethane	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
Bromodichloromethane	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
Bromoform	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
Bromomethane	<5	5	ug/l	SW-846 8260C	10/13/2017 17:45	WL
n-Butylbenzene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
Sec-butylbenzene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
tert-Butylbenzene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
Chlorobenzene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
Chloroethane	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
Chloroform	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
Chloromethane	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
2-Chlorotoluene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
4-Chlorotoluene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
Dibromochloromethane	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260C	10/13/2017 17:45	WL
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
Dibromomethane	<2	2	ug/l	SW-846 8260C	10/13/2017 17:45	WL
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
Dichlorodifluoromethane	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
Ethylbenzene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
Isopropylbenzene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
Methylene Chloride	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
Naphthalene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL

R.I. Analytical Laboratories, Inc. **Laboratory Report**

Envirotech Laboratories, Inc.

Work Order #: 1710-22173

Project Name: PLYMOUTH ENV.

Sample Number: 002
Sample Description: WW-172286 A19
Sample Type : GRAB
Sample Date / Time : 10/10/2017 @ 11:10

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
n-Propylbenzene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
Styrene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
Tetrachloroethene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
Toluene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
Trichloroethene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
1,2,3-Trichloropropane	<2	2	ug/l	SW-846 8260C	10/13/2017 17:45	WL
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
Vinyl Chloride	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
o-Xylene	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
m,p-Xylene	<2	2	ug/l	SW-846 8260C	10/13/2017 17:45	WL
MTBE	<2	2	ug/l	SW-846 8260C	10/13/2017 17:45	WL
Carbon Disulfide	<1	1	ug/l	SW-846 8260C	10/13/2017 17:45	WL
Acetone	<10	10	ug/l	SW-846 8260C	10/13/2017 17:45	WL
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260C	10/13/2017 17:45	WL
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260C	10/13/2017 17:45	WL
2-Hexanone	<10	10	ug/l	SW-846 8260C	10/13/2017 17:45	WL
cis-1,3-Dichloropropene	<0.4	0.4	ug/l	SW-846 8260C	10/13/2017 17:45	WL
trans-1,3-Dichloropropylene	<0.4	0.4	ug/l	SW-846 8260C	10/13/2017 17:45	WL
Vinyl Acetate	<50	50	ug/l	SW-846 8260C	10/13/2017 17:45	WL
Surrogates			RANGE			
Dibromofluoromethane	100		86-118%	SW-846 8260C	10/13/2017 17:45	WL
Toluene-d8	100		88-110%	SW-846 8260C	10/13/2017 17:45	WL
4-Bromofluorobenzene	87		86-115%	SW-846 8260C	10/13/2017 17:45	WL
1,2 Dichloroethane-d4	119		80-120%	SW-846 8260C	10/13/2017 17:45	WL
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	10/13/2017 18:10	RAT
Mercury Digestion				EPA 245.1	10/13/2017 15:42	AGJ

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of CustodyClient:

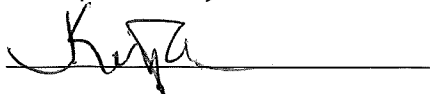
Town of Plymouth - Department of Marine & Environmental Affairs Attn: Kim Tower
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, ktower@townhall.plymouth.ma.us
Project Name: **GW Eel River -Plymouth MA**
Sampler: Kim Tower (KT)

11/17/2287

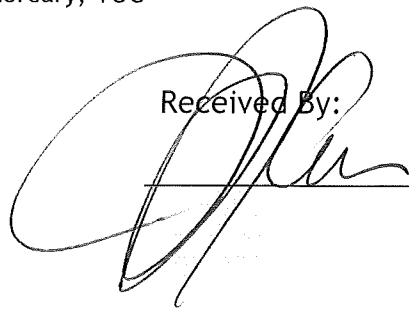
Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
10-10-17	1255	SS	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN - Total Nitrogen	H2SO4
			1	500ml Plastic	Ph/cond, turb, NO ₂ , NO ₃ , TDS, Chloride	NONE
			1	500ml Plastic	B, Cu, Hg, FE	NONE
			1	Plastic	TOC	H2SO4
			1	Glass	Ortho-phosphate	NONE
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN - Total Nitrogen	H2SO4
			1	500ml Plastic	Ph/cond, turb, NO ₂ , NO ₃ , TDS, Chloride	NONE
			1	500ml Plastic	B, Cu, Hg, FE	NONE
			1	Plastic	TOC	H2SO4
			1	Glass	Ortho-phosphate	NONE
			1	1 Liter Plastic	Dissolved	NONE

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Boron, Chloride, Copper, Iron, Mercury, VOC

Relinquished By: Date/Time



Received By: Date/Time:


10/10/17 1445

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
 Sandwich, MA 02563
 (508)888-6460 1-800-339-6460
 FAX (508)888-6446

Thursday, November 16, 2017

Plymouth Environmental Management

K. Towers/ 11 Lincoln St.

Plymouth, MA

ProjectName: GW Eel River

Comments:

Project Number:

Collection Date: 10/10/17 **Collection Time:** 12:55

Sampled By: Kim Tower

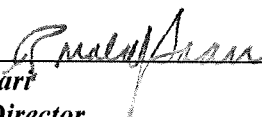
Lab Order Number: WW-172287

Date Received: 10/10/17

Sample Type	Sample Time	Sample Date	Comments			
5S A	12:55	10/10/17	**Chloroform			
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
pH	pH units	5.18	NA	10/10/17	RL	SM 4500 H-B
Total Nitrogen	mg/L	0.45	NA	11/07/17	KB	Calculation
Total Dissolved Solids	mg/L	970	6.0	10/20/17	KB	SM 2540 C
Chloride grab	mg/L	540	3.0	10/11/17	RL	EPA 300.0
Specific Conductance	uhoms/cm	1,690	10	10/13/17	RL	EPA 120.1
Total Organic Carbon*	mg/L	ND*	0.5	10/10/17	NEC*	SM 5310 C
Volatile Organic Compounds*	ug/L	3.2**	*	10/13/17	RIA*	*
Total Iron	mg/L	0.08	0.01	10/17/17	MC	EPA 200.7
Mercury*	mg/L	<0.0005*	0.0005	10/13/17	RIA*	EPA 245.1
Boron	mg/L	BRL	0.010	10/17/17	MC	EPA 200.7
Copper	mg/L	BRL	0.003	10/17/17	MC	EPA 200.7
Nitrate-N	mg/L	0.45	0.01	10/11/17	RL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	10/11/17	RL	EPA 300.0
Ammonia-N *	mg/L	0.029*	0.02	10/19/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	BRL	0.2	10/28/17	KB	SM4500-Norg B-C
Turbidity	NTU	1.3	1.0	10/10/17	RL	SM 2130 B
Total Phosphorous (P)	mg/L	0.017	0.005	10/23/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.20	10/20/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	ND*	0.50	10/10/17	NEC*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.48	NA	11/13/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	<0.17	NA	11/13/17	MC	Calculation
Ortho Phosphorous (P)	mg/L	0.009	0.005	10/11/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	ND	NA	11/13/17	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	ND	NA	11/13/17	MC	Calculation
Total Dissolved Nitrogen	mg/L	<0.65	NA	11/07/17	KB	Calculation

BRL=below reportable limits

*see attached

By: 

Ronald J. Sauri
 Laboratory Director

R.I. Analytical Laboratories, Inc.
Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1710-22173

Project Name: PLYMOUTH ENV.

Sample Number: 003
Sample Description: WW-172287 5S
Sample Type : GRAB
Sample Date / Time : 10/10/2017 @ 13:25

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.029	0.02	mg/l	SM4500NH3-B,H 18-21ed	10/19/2017 11:54	KLE
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
Bromobenzene	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
Bromochloromethane	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
Bromodichloromethane	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
Bromoform	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
Bromomethane	<5	5	ug/l	SW-846 8260C	10/13/2017 18:12	WL
n-Butylbenzene	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
Sec-butylbenzene	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
tert-Butylbenzene	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
Chlorobenzene	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
Chloroethane	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
Chloroform	3.2	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
Chloromethane	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
2-Chlorotoluene	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
4-Chlorotoluene	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
Dibromochloromethane	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260C	10/13/2017 18:12	WL
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
Dibromomethane	<2	2	ug/l	SW-846 8260C	10/13/2017 18:12	WL
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
Dichlorodifluoromethane	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
Ethylbenzene	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
Isopropylbenzene	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
Methylene Chloride	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
Naphthalene	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL

R.I. Analytical Laboratories, Inc.
Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1710-22173

Project Name: PLYMOUTH ENV.

Sample Number: 003
Sample Description: WW-172287 5S
Sample Type : GRAB
Sample Date / Time : 10/10/2017 @ 13:25

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
n-Propylbenzene	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
Styrene	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
Tetrachloroethene	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
Toluene	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
Trichloroethene	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
1,2,3-Trichloropropane	<2	2	ug/l	SW-846 8260C	10/13/2017 18:12	WL
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
Vinyl Chloride	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
o-Xylene	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
m,p-Xylene	<2	2	ug/l	SW-846 8260C	10/13/2017 18:12	WL
MTBE	<2	2	ug/l	SW-846 8260C	10/13/2017 18:12	WL
Carbon Disulfide	<1	1	ug/l	SW-846 8260C	10/13/2017 18:12	WL
Acetone	<10	10	ug/l	SW-846 8260C	10/13/2017 18:12	WL
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260C	10/13/2017 18:12	WL
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260C	10/13/2017 18:12	WL
2-Hexanone	<10	10	ug/l	SW-846 8260C	10/13/2017 18:12	WL
cis-1,3-Dichloropropene	<0.4	0.4	ug/l	SW-846 8260C	10/13/2017 18:12	WL
trans-1,3-Dichloropropylene	<0.4	0.4	ug/l	SW-846 8260C	10/13/2017 18:12	WL
Vinyl Acetate	<50	50	ug/l	SW-846 8260C	10/13/2017 18:12	WL
Surrogates			RANGE			
Dibromofluoromethane	101		86-118%	SW-846 8260C	10/13/2017 18:12	WL
Toluene-d8	100		88-110%	SW-846 8260C	10/13/2017 18:12	WL
4-Bromofluorobenzene	89		86-115%	SW-846 8260C	10/13/2017 18:12	WL
1,2 Dichloroethane-d4	120		80-120%	SW-846 8260C	10/13/2017 18:12	WL
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	10/16/2017 19:22	RAT
Mercury Digestion				EPA 245.1	10/16/2017 20:04	DDP

LABORATORY REPORT

Envirotech Laboratories, Inc.
Attn: Mr. Ron Saari
8 Jan Sebastian Drive
Sandwich, MA 02563

Date Received: 10/11/2017
Date Reported: 10/20/2017
P.O. Number

Work Order #: 1710-22173

Project Name: PLYMOUTH ENV.

Enclosed are the analytical results and Chain of Custody for your project referenced above. The sample(s) were analyzed by our Warwick, RI laboratory unless noted otherwise. When applicable, indication of sample analysis at our Hudson, MA laboratory and/or subcontracted results are noted and subcontracted reports are enclosed in their entirety.

All samples were analyzed within the established guidelines of US EPA approved methods with all requirements met, unless otherwise noted at the end of a given sample's analytical results or in a case narrative.

The Detection Limit is defined as the lowest level that can be reliably achieved during routine laboratory conditions.

These results only pertain to the samples submitted for this Work Order # and this report shall not be reproduced except in its entirety.

We certify that the following results are true and accurate to the best of our knowledge. If you have questions or need further assistance, please contact our Customer Service Department.

Approved by:



Melissa A. Manamon
QA /QC Officer

Laboratory Certification Numbers (as applicable to sample's origin state):

Warwick RI * RI LAI00033, MA M-RI015, CT PH-0508, ME RI00015, NH 2070, NY 11726
Hudson MA * M-MA1117, RI LAO00319

131 Coolidge Street, Suite 105, Hudson, MA 01749
P: 978-568-0041 F: 978-568-0078

41 Illinois Avenue, Warwick, RI 02888
P: 401-737-8500 F: 401-738-1970

15 Lark Industrial Drive, Smithfield, RI 02828
P: 401-737-8500 F: 401-349-0844

www.rianalytical.com

CHAIN OF CUSTODY FORM

ENVIROTECH LABS, INC.

RI Analytical

8 Jan Sebastian Dr., Unit 12

M RI 015

PWS: Project Name: Plymouth Env.

Sandwich, MA 02563

Address 41 Illinois Avenue
Warwick, RI 02888

Sampler: KT

(508) 888-6460

Phone# 401-737-8500

1-800-339-6460

Fax# 401-738-1970

Lab ID # Date Time Comp Grab Station location

Container Pres. Sample type Analysis requested

WW-172285 10/10/17 1020 X A13

P H₂SO₄ Groundwater Ammonia-N (0.02 mdl)

P HNO₃

2 VOA HCl

Mercury

EPA 8260 Extended

WW-172286 10/10/17 1110 X A19

P H₂SO₄ Groundwater Ammonia-N (0.02 mdl)

P HNO₃

Mercury

EPA 8260 Extended

2 VOA HCl

WW-172287 10/10/17 1325 X 5S

P H₂SO₄ Groundwater Ammonia-N (0.02 mdl)

P HNO₃

Mercury

EPA 8260 Extended

2 VOA HCl

Ammonia-N low level 0.02 mg/L

Relinquished: Date/Time Received: Date/Time

Relinquished: Date/Time Received: Date/Time

Relinquished: Date/Time Received: Date/Time

PU# 20169

1710-20173

Relinquished:

Relinquished:

Relinquished:

Relinquished:

Contact lab with any exceeded MCL

[illegible]

Plymouth Environmental

Calculations 0=<0.2

Lab ID	Date	1	2	3	4	5	(2+4+5) (3+4+5)		(2-3)		(1-3)+(2-3)		(6-7)		6	7
		TKN <0.2	Dissolved TKN	NH3 <0.02	NO3 <0.01	NO2 <0.004	T Diss N	Diss Inorg N	Diss Org N	Particulate Org N	Total (P)	Ortho (P)	POC 0=<0.5	TOC <0.2	D TOC <0.2	
2301	10/11/2017	0.20	0.20	0.023	0.15	0.000	0.35	0.17	0.18	0.00	0.013	0.007	0.00	0.20	0.20	
2302		0.20	0.20	0.027	0.15	0.000	0.35	0.18	0.17	0.00	0.008	0.005	0.00	0.20	0.20	
2303		0.20	0.20	0.037	0.01	0.000	0.21	0.05	0.16	0.00	0.006	0.005	-0.07	0.200	0.269	
2304		0.20	0.20	0.021	2.83	0.000	3.03	2.85	0.18	0.00	0.058	0.037	-0.04	0.259	0.301	

RED =<

New England ChromaChem
6 Nichols Street
Salem, MA 01970
978-744-6600

Massachusetts DEP Lab. M-MA072

Client: Envirotech Laboratory, Inc.
 State: Liquid

Lab ID	Client ID	Date Sampled	Analytical Results									
			TOC mg/L									
710184	WW-172285 TOC Total	10/10/17	0.423									
710185	WW-172285 TOC Dissolved	10/10/17	0.296									
710186	WW-172286 TOC Total	10/10/17	0.305									
710187	WW-172286 TOC Dissolved	10/10/17	0.388									
710188	WW-172287 TOC Total	10/10/17	ND									
710189	WW-172287 TOC Dissolved	10/10/17	ND									
710190	WW-172301 TOC Total	10/11/17	ND									
710191	WW-172301 TOC Dissolved	10/11/17	ND									
710192	WW-172302 TOC Total	10/11/17	ND									
710193	WW-172302 TOC Dissolved	10/11/17	ND									
710194	WW-172303 TOC Total	10/11/17	ND									
710195	WW-172303 TOC Dissolved	10/11/17	0.269									
710196	WW-172304 TOC Total	10/11/17	0.259									
710197	WW-172304 TOC Dissolved	10/11/17	0.301									
710198	WW-172314 TOC Total	10/12/17	0.427									
710199	WW-172314 TOC Dissolved	10/12/17	0.486									
710200	WW-172315 TOC Total	10/12/17	0.341									
710201	WW-172315 TOC Dissolved	10/12/17	0.297									
710202	WW-172316 TOC Total	10/12/17	0.548									
710203	WW-172316 TOC Dissolved	10/12/17	0.563									
710204	WW-172317 TOC Total	10/12/17	ND									
710205	WW-172317 TOC Dissolved	10/12/17	ND									
710206	WW-172318 TOC Total	10/12/17	0.859									
710207	WW-172318 TOC Dissolved	10/12/17	0.755									

Analytical Methodology						
Analyte	Method	Detection Limit	PQL	Units	Date Analyzed	Cert Status
TOC	Standard Methods 5310C	0.200	0.200	mg/L	10/19/17	N

Electronically signed and approved by: *Brian L. Bonnette* Date: 10/19/17

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
 Sandwich, MA 02563
 (508)888-6460 1-800-339-6460
 FAX (508)888-6446

Monday, November 13, 2017

Plymouth Environmental Management
 K. Towers/ 11 Lincoln St.
 Plymouth, MA

ProjectName: GW Eel River

Comments:

Project Number:

Collection Date: 10/11/17 **Collection Time:** 09:00

Sampled By: Kim Tower

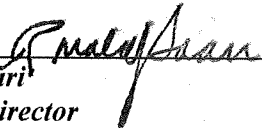
Lab Order Number: WW-172301

Date Received: 10/11/17

Sample Type	Sample Time	Sample Date	Comments			
DW-1 A	09:00	10/11/17				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
pH	pH units	5.28	NA	10/11/17	RL	SM 4500 H-B
Total Nitrogen	mg/L	<0.35	NA	11/07/17	KB	Calculation
Total Dissolved Solids	mg/L	440	6.0	10/20/17	KB	SM 2540 C
Chloride grab	mg/L	250	3.0	10/12/17	RL	EPA 300.0
Specific Conductance	uhoms/cm	971	10	10/13/17	RL	EPA 120.1
Total Organic Carbon*	mg/L	ND*	0.5	10/11/17	NEC*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	10/19/17	RIA*	*
Total Iron	mg/L	0.02	0.01	10/17/17	MC	EPA 200.7
Mercury*	mg/L	<0.0005*	0.0005	10/19/17	RIA*	EPA 245.1
Boron	mg/L	BRL	0.010	10/17/17	MC	EPA 200.7
Copper	mg/L	BRL	0.003	10/17/17	MC	EPA 200.7
Nitrate-N	mg/L	0.15	0.01	10/12/17	RL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	10/12/17	RL	EPA 300.0
Ammonia-N *	mg/L	0.023*	0.02	10/19/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	BRL	0.2	10/20/17	KB	SM4500-Norg B-C
Turbidity	NTU	BRL	1.0	10/11/17	RL	SM 2130 B
Total Phosphorous (P)	mg/L	0.013	0.005	10/23/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.20	10/20/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	ND*	0.50	10/11/17	NEC*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.17	NA	11/13/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	<0.18	NA	11/13/17	MC	Calculation
Ortho Phosphorous (P)	mg/L	0.007	0.005	10/11/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	ND	NA	11/13/17	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	ND	NA	11/13/17	MC	Calculation
Total Dissolved Nitrogen	mg/L	<0.35	NA	11/07/17	KB	Calculation

BRL=below reportable limits

*see attached

By: 
 Ronald J. Saari
 Laboratory Director

R.I. Analytical Laboratories, Inc.
Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1710-22398

Project Name: PLYMOUTH ENV.

Sample Number: 001
Sample Description: WW-172301 DW-1
Sample Type : GRAB
Sample Date / Time : 10/11/2017 @ 09:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED		ANALYST
Ammonia (as N)	0.023	0.02	mg/l	SM4500NH3-B,H 18-21ed	10/19/2017	11:54	KLE
Volatile Organic Compounds							
Benzene	<1	1	ug/l	SW-846 8260C	10/19/2017	17:52	WL
Bromobenzene	<1	1	ug/l	SW-846 8260C	10/19/2017	17:52	WL
Bromochloromethane	<1	1	ug/l	SW-846 8260C	10/19/2017	17:52	WL
Bromodichloromethane	<1	1	ug/l	SW-846 8260C	10/19/2017	17:52	WL
Bromoform	<1	1	ug/l	SW-846 8260C	10/19/2017	17:52	WL
Bromomethane	<5	5	ug/l	SW-846 8260C	10/19/2017	17:52	WL
n-Butylbenzene	<1	1	ug/l	SW-846 8260C	10/19/2017	17:52	WL
Sec-butylbenzene	<1	1	ug/l	SW-846 8260C	10/19/2017	17:52	WL
tert-Butylbenzene	<1	1	ug/l	SW-846 8260C	10/19/2017	17:52	WL
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260C	10/19/2017	17:52	WL
Chlorobenzene	<1	1	ug/l	SW-846 8260C	10/19/2017	17:52	WL
Chloroethane	<1	1	ug/l	SW-846 8260C	10/19/2017	17:52	WL
Chloroform	<1	1	ug/l	SW-846 8260C	10/19/2017	17:52	WL
Chloromethane	<1	1	ug/l	SW-846 8260C	10/19/2017	17:52	WL
2-Chlorotoluene	<1	1	ug/l	SW-846 8260C	10/19/2017	17:52	WL
4-Chlorotoluene	<1	1	ug/l	SW-846 8260C	10/19/2017	17:52	WL
Dibromochloromethane	<1	1	ug/l	SW-846 8260C	10/19/2017	17:52	WL
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260C	10/19/2017	17:52	WL
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260C	10/19/2017	17:52	WL
Dibromomethane	<2	2	ug/l	SW-846 8260C	10/19/2017	17:52	WL
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	10/19/2017	17:52	WL
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	10/19/2017	17:52	WL
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	10/19/2017	17:52	WL
Dichlorodifluoromethane	<1	1	ug/l	SW-846 8260C	10/19/2017	17:52	WL
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260C	10/19/2017	17:52	WL
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260C	10/19/2017	17:52	WL
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260C	10/19/2017	17:52	WL
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260C	10/19/2017	17:52	WL
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260C	10/19/2017	17:52	WL
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260C	10/19/2017	17:52	WL
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260C	10/19/2017	17:52	WL
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260C	10/19/2017	17:52	WL
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260C	10/19/2017	17:52	WL
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260C	10/19/2017	17:52	WL
Ethylbenzene	<1	1	ug/l	SW-846 8260C	10/19/2017	17:52	WL
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260C	10/19/2017	17:52	WL
Isopropylbenzene	<1	1	ug/l	SW-846 8260C	10/19/2017	17:52	WL
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260C	10/19/2017	17:52	WL
Methylene Chloride	<1	1	ug/l	SW-846 8260C	10/19/2017	17:52	WL
Naphthalene	<1	1	ug/l	SW-846 8260C	10/19/2017	17:52	WL

R.I. Analytical Laboratories, Inc.
Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1710-22398

Project Name: PLYMOUTH ENV.

Sample Number: 001
Sample Description: WW-172301 DW-1
Sample Type : GRAB
Sample Date / Time : 10/11/2017 @ 09:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
n-Propylbenzene	<1	1	ug/l	SW-846 8260C	10/19/2017 17:52	WL
Styrene	<1	1	ug/l	SW-846 8260C	10/19/2017 17:52	WL
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260C	10/19/2017 17:52	WL
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260C	10/19/2017 17:52	WL
Tetrachloroethene	<1	1	ug/l	SW-846 8260C	10/19/2017 17:52	WL
Toluene	<1	1	ug/l	SW-846 8260C	10/19/2017 17:52	WL
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260C	10/19/2017 17:52	WL
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260C	10/19/2017 17:52	WL
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260C	10/19/2017 17:52	WL
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260C	10/19/2017 17:52	WL
Trichloroethene	<1	1	ug/l	SW-846 8260C	10/19/2017 17:52	WL
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260C	10/19/2017 17:52	WL
1,2,3-Trichloropropane	<2	2	ug/l	SW-846 8260C	10/19/2017 17:52	WL
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260C	10/19/2017 17:52	WL
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260C	10/19/2017 17:52	WL
Vinyl Chloride	<1	1	ug/l	SW-846 8260C	10/19/2017 17:52	WL
o-Xylene	<1	1	ug/l	SW-846 8260C	10/19/2017 17:52	WL
m,p-Xylene	<2	2	ug/l	SW-846 8260C	10/19/2017 17:52	WL
MTBE	<2	2	ug/l	SW-846 8260C	10/19/2017 17:52	WL
Carbon Disulfide	<1	1	ug/l	SW-846 8260C	10/19/2017 17:52	WL
Acetone	<10	10	ug/l	SW-846 8260C	10/19/2017 17:52	WL
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260C	10/19/2017 17:52	WL
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260C	10/19/2017 17:52	WL
2-Hexanone	<10	10	ug/l	SW-846 8260C	10/19/2017 17:52	WL
cis-1,3-Dichloropropene	<0.4	0.4	ug/l	SW-846 8260C	10/19/2017 17:52	WL
trans-1,3-Dichloropropylene	<0.4	0.4	ug/l	SW-846 8260C	10/19/2017 17:52	WL
Vinyl Acetate	<50	50	ug/l	SW-846 8260C	10/19/2017 17:52	WL
Surrogates			RANGE			
Dibromofluoromethane	101		86-118%	SW-846 8260C	10/19/2017 17:52	WL
Toluene-d8	100		88-110%	SW-846 8260C	10/19/2017 17:52	WL
4-Bromofluorobenzene	89		86-115%	SW-846 8260C	10/19/2017 17:52	WL
1,2 Dichloroethane-d4	118		80-120%	SW-846 8260C	10/19/2017 17:52	WL
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	10/19/2017 15:27	JRW
Mercury Digestion				EPA 245.1	10/19/2017 11:38	AGJ

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
 Sandwich, MA 02563
 (508)888-6460 1-800-339-6460
 FAX (508)888-6446

Monday, November 13, 2017

Plymouth Environmental Management
 K.Towers/ 11 Lincoln St.
 Plymouth, MA

ProjectName: GW Eel River

Comments:

Project Number:

Collection Date: 10/11/17 **Collection Time:** 10:15

Sampled By: Kim Tower

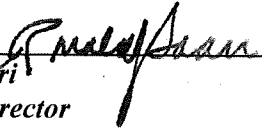
Lab Order Number: WW-172302

Date Received: 10/11/17

Sample Type	Sample Time	Sample Date	Comments			
7SR A	10:15	10/11/17				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
pH	pH units	5.24	NA	10/11/17	RL	SM 4500 H-B
Total Nitrogen	mg/L	<0.35	NA	11/07/17	KB	Calculation
Total Dissolved Solids	mg/L	430	6.0	10/20/17	KB	SM 2540 C
Chloride grab	mg/L	250	3.0	10/12/17	RL	EPA 300.0
Specific Conductance	uhoms/cm	792	10	10/13/17	RL	EPA 120.1
Total Organic Carbon*	mg/L	ND*	0.5	10/11/17	NEC*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	10/19/17	RIA*	*
Total Iron	mg/L	0.01	0.01	10/17/17	MC	EPA 200.7
Mercury*	mg/L	<0.0005*	0.0005	10/19/17	RIA*	EPA 245.1
Boron	mg/L	BRL	0.010	10/17/17	MC	EPA 200.7
Copper	mg/L	BRL	0.003	10/17/17	MC	EPA 200.7
Nitrate-N	mg/L	0.15	0.01	10/12/17	RL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	10/12/17	RL	EPA 300.0
Ammonia-N *	mg/L	0.027	0.02	10/19/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	BRL	0.2	10/20/17	KB	SM4500-Norg B-C
Turbidity	NTU	BRL	1.0	10/11/17	RL	SM 2130 B
Total Phosphorous (P)	mg/L	0.008	0.005	10/23/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.20	10/20/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	ND*	0.50	10/11/17	NEC*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.18	NA	11/13/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	<0.17	NA	11/13/17	MC	Calculation
Ortho Phosphorous (P)	mg/L	BRL	0.005	10/11/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	ND	NA	11/13/17	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	ND	NA	11/13/17	MC	Calculation
Total Dissolved Nitrogen	mg/L	<0.35	NA	11/07/17	KB	Calculation

BRL=below reportable limits

*see attached

By: 
 Ronald J. Saari
 Laboratory Director

R.I. Analytical Laboratories, Inc.
Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1710-22398

Project Name: PLYMOUTH ENV.

Sample Number: 002
Sample Description: WW-172302 7SR
Sample Type : GRAB
Sample Date / Time : 10/11/2017 @ 10:15

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED		ANALYST
Ammonia (as N)	0.027	0.02	mg/l	SM4500NH3-B,H 18-21ed	10/19/2017	11:54	KLE
Volatile Organic Compounds							
Benzene	<1	1	ug/l	SW-846 8260C	10/19/2017	18:19	WL
Bromobenzene	<1	1	ug/l	SW-846 8260C	10/19/2017	18:19	WL
Bromochloromethane	<1	1	ug/l	SW-846 8260C	10/19/2017	18:19	WL
Bromodichloromethane	<1	1	ug/l	SW-846 8260C	10/19/2017	18:19	WL
Bromoform	<1	1	ug/l	SW-846 8260C	10/19/2017	18:19	WL
Bromomethane	<5	5	ug/l	SW-846 8260C	10/19/2017	18:19	WL
n-Butylbenzene	<1	1	ug/l	SW-846 8260C	10/19/2017	18:19	WL
Sec-butylbenzene	<1	1	ug/l	SW-846 8260C	10/19/2017	18:19	WL
tert-Butylbenzene	<1	1	ug/l	SW-846 8260C	10/19/2017	18:19	WL
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260C	10/19/2017	18:19	WL
Chlorobenzene	<1	1	ug/l	SW-846 8260C	10/19/2017	18:19	WL
Chloroethane	<1	1	ug/l	SW-846 8260C	10/19/2017	18:19	WL
Chloroform	<1	1	ug/l	SW-846 8260C	10/19/2017	18:19	WL
Chloromethane	<1	1	ug/l	SW-846 8260C	10/19/2017	18:19	WL
2-Chlorotoluene	<1	1	ug/l	SW-846 8260C	10/19/2017	18:19	WL
4-Chlorotoluene	<1	1	ug/l	SW-846 8260C	10/19/2017	18:19	WL
Dibromochloromethane	<1	1	ug/l	SW-846 8260C	10/19/2017	18:19	WL
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260C	10/19/2017	18:19	WL
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260C	10/19/2017	18:19	WL
Dibromomethane	<2	2	ug/l	SW-846 8260C	10/19/2017	18:19	WL
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	10/19/2017	18:19	WL
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	10/19/2017	18:19	WL
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	10/19/2017	18:19	WL
Dichlorodifluoromethane	<1	1	ug/l	SW-846 8260C	10/19/2017	18:19	WL
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260C	10/19/2017	18:19	WL
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260C	10/19/2017	18:19	WL
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260C	10/19/2017	18:19	WL
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260C	10/19/2017	18:19	WL
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260C	10/19/2017	18:19	WL
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260C	10/19/2017	18:19	WL
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260C	10/19/2017	18:19	WL
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260C	10/19/2017	18:19	WL
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260C	10/19/2017	18:19	WL
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260C	10/19/2017	18:19	WL
Ethylbenzene	<1	1	ug/l	SW-846 8260C	10/19/2017	18:19	WL
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260C	10/19/2017	18:19	WL
Isopropylbenzene	<1	1	ug/l	SW-846 8260C	10/19/2017	18:19	WL
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260C	10/19/2017	18:19	WL
Methylene Chloride	<1	1	ug/l	SW-846 8260C	10/19/2017	18:19	WL
Naphthalene	<1	1	ug/l	SW-846 8260C	10/19/2017	18:19	WL

R.I. Analytical Laboratories, Inc.
Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1710-22398

Project Name: PLYMOUTH ENV.

Sample Number: 002
Sample Description: WW-172302 7SR
Sample Type : GRAB
Sample Date / Time : 10/11/2017 @ 10:15

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
n-Propylbenzene	<1	1	ug/l	SW-846 8260C	10/19/2017 18:19	WL
Styrene	<1	1	ug/l	SW-846 8260C	10/19/2017 18:19	WL
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260C	10/19/2017 18:19	WL
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260C	10/19/2017 18:19	WL
Tetrachloroethene	<1	1	ug/l	SW-846 8260C	10/19/2017 18:19	WL
Toluene	<1	1	ug/l	SW-846 8260C	10/19/2017 18:19	WL
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260C	10/19/2017 18:19	WL
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260C	10/19/2017 18:19	WL
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260C	10/19/2017 18:19	WL
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260C	10/19/2017 18:19	WL
Trichloroethene	<1	1	ug/l	SW-846 8260C	10/19/2017 18:19	WL
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260C	10/19/2017 18:19	WL
1,2,3-Trichloropropane	<2	2	ug/l	SW-846 8260C	10/19/2017 18:19	WL
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260C	10/19/2017 18:19	WL
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260C	10/19/2017 18:19	WL
Vinyl Chloride	<1	1	ug/l	SW-846 8260C	10/19/2017 18:19	WL
o-Xylene	<1	1	ug/l	SW-846 8260C	10/19/2017 18:19	WL
m,p-Xylene	<2	2	ug/l	SW-846 8260C	10/19/2017 18:19	WL
MTBE	<2	2	ug/l	SW-846 8260C	10/19/2017 18:19	WL
Carbon Disulfide	<1	1	ug/l	SW-846 8260C	10/19/2017 18:19	WL
Acetone	<10	10	ug/l	SW-846 8260C	10/19/2017 18:19	WL
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260C	10/19/2017 18:19	WL
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260C	10/19/2017 18:19	WL
2-Hexanone	<10	10	ug/l	SW-846 8260C	10/19/2017 18:19	WL
cis-1,3-Dichloropropene	<0.4	0.4	ug/l	SW-846 8260C	10/19/2017 18:19	WL
trans-1,3-Dichloropropylene	<0.4	0.4	ug/l	SW-846 8260C	10/19/2017 18:19	WL
Vinyl Acetate	<50	50	ug/l	SW-846 8260C	10/19/2017 18:19	WL
Surrogates			RANGE			
Dibromofluoromethane	102		86-118%	SW-846 8260C	10/19/2017 18:19	WL
Toluene-d8	99		88-110%	SW-846 8260C	10/19/2017 18:19	WL
4-Bromofluorobenzene	89		86-115%	SW-846 8260C	10/19/2017 18:19	WL
1,2 Dichloroethane-d4	119		80-120%	SW-846 8260C	10/19/2017 18:19	WL
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	10/19/2017 15:29	JRW
Mercury Digestion				EPA 245.1	10/19/2017 11:38	AGJ

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of CustodyClient:

Town of Plymouth - Department of Marine & Environmental Affairs Attn: Kim Tower
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, ktower@townhall.plymouth.ma.us
Project Name: GW Eel River -Plymouth MA
Sampler: Kim Tower (KT)

WW72301

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
10-11-17	0900	DW-1	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN - Total Nitrogen	H2SO4
			1	500ml Plastic	Ph/cond, turb, NO ₂ , NO ₃ , TDS, Chloride	NONE
			1	500ml Plastic	B, Cu, Hg, FE	NONE
			1	Plastic	TOC	H2SO4
			1	Glass	Ortho-phosphate	NONE
10-11-17	1015	7SR	1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN - Total Nitrogen	H2SO4
			1	500ml Plastic	Ph/cond, turb, NO ₂ , NO ₃ , TDS, Chloride	NONE
			1	500ml Plastic	B, Cu, Hg, FE	NONE
			1	Plastic	TOC	H2SO4
			1	Glass	Ortho-phosphate	NONE
			1	1 Liter Plastic	Dissolved	NONE

WW72302

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Boron, Chloride, Copper, Iron, Mercury, VOC

Relinquished By: Date/Time

Kim Tower

Received By:

Date/Time:

10/11/17 1430

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
 Sandwich, MA 02563
 (508)888-6460 1-800-339-6460
 FAX (508)888-6446

Monday, November 13, 2017

Plymouth Environmental Management
 K.Towers/ 11 Lincoln St.
 Plymouth, MA

ProjectName: GW Eel River

Comments:

Project Number:

Collection Date: 10/11/17 **Collection Time:** 11:00

Sampled By: Kim Tower

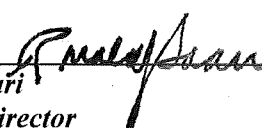
Lab Order Number: WW-172303

Date Received: 10/11/17

Sample Type	Sample Time	Sample Date	Comments			
GW-1 A	11:00	10/11/17				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
pH	pH units	5.90	NA	10/11/17	RL	SM 4500 H-B
Total Nitrogen	mg/L	<0.21	NA	11/07/17	KB	Calculation
Total Dissolved Solids	mg/L	BRL	6.0	10/20/17	KB	SM 2540 C
Chloride grab	mg/L	BRL	3.0	10/11/17	RL	EPA 300.0
Specific Conductance	uhoms/cm	BRL	10	10/11/17	RL	EPA 120.1
Total Organic Carbon*	mg/L	ND*	0.5	10/11/17	NEC*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	10/19/17	RIA*	*
Total Iron	mg/L	BRL	0.01	10/17/17	MC	EPA 200.7
Mercury*	mg/L	<0.0005*	0.0005	10/19/17	RIA*	EPA 245.1
Boron	mg/L	BRL	0.010	10/17/17	MC	EPA 200.7
Copper	mg/L	BRL	0.003	10/17/17	MC	EPA 200.7
Nitrate-N	mg/L	BRL	0.01	10/12/17	RL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	10/12/17	RL	EPA 300.0
Ammonia-N *	mg/L	0.037	0.02	10/19/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	BRL	0.2	10/20/17	KB	SM4500-Norg B-C
Turbidity	NTU	BRL	1.0	10/11/17	RL	SM 2130 B
Total Phosphorous (P)	mg/L	0.006	0.005	10/23/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.20	10/20/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	0.269*	0.50	10/11/17	NEC*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	<0.05	NA	11/13/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	<0.16	NA	11/13/17	MC	Calculation
Ortho Phosphorous (P)	mg/L	0.005	0.005	10/11/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	ND	NA	11/13/17	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	ND	NA	11/13/17	MC	Calculation
Total Dissolved Nitrogen	mg/L	<0.21	NA	11/07/17	KB	Calculation

BRL=below reportable limits

*see attached

By: 
 Ronald J. Saari
 Laboratory Director

R.I. Analytical Laboratories, Inc.
Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1710-22398

Project Name: PLYMOUTH ENV.

Sample Number: 003
Sample Description: WW-172303 GW-1
Sample Type : GRAB
Sample Date / Time : 10/11/2017 @ 11:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED		ANALYST
Ammonia (as N)	0.037	0.02	mg/l	SM4500NH3-B,H 18-21ed	10/19/2017	11:54	KLE
Volatile Organic Compounds							
Benzene	<1	1	ug/l	SW-846 8260C	10/19/2017	18:47	WL
Bromobenzene	<1	1	ug/l	SW-846 8260C	10/19/2017	18:47	WL
Bromochloromethane	<1	1	ug/l	SW-846 8260C	10/19/2017	18:47	WL
Bromodichloromethane	<1	1	ug/l	SW-846 8260C	10/19/2017	18:47	WL
Bromoform	<1	1	ug/l	SW-846 8260C	10/19/2017	18:47	WL
Bromomethane	<5	5	ug/l	SW-846 8260C	10/19/2017	18:47	WL
n-Butylbenzene	<1	1	ug/l	SW-846 8260C	10/19/2017	18:47	WL
Sec-butylbenzene	<1	1	ug/l	SW-846 8260C	10/19/2017	18:47	WL
tert-Butylbenzene	<1	1	ug/l	SW-846 8260C	10/19/2017	18:47	WL
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260C	10/19/2017	18:47	WL
Chlorobenzene	<1	1	ug/l	SW-846 8260C	10/19/2017	18:47	WL
Chloroethane	<1	1	ug/l	SW-846 8260C	10/19/2017	18:47	WL
Chloroform	<1	1	ug/l	SW-846 8260C	10/19/2017	18:47	WL
Chloromethane	<1	1	ug/l	SW-846 8260C	10/19/2017	18:47	WL
2-Chlorotoluene	<1	1	ug/l	SW-846 8260C	10/19/2017	18:47	WL
4-Chlorotoluene	<1	1	ug/l	SW-846 8260C	10/19/2017	18:47	WL
Dibromochloromethane	<1	1	ug/l	SW-846 8260C	10/19/2017	18:47	WL
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260C	10/19/2017	18:47	WL
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260C	10/19/2017	18:47	WL
Dibromomethane	<2	2	ug/l	SW-846 8260C	10/19/2017	18:47	WL
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	10/19/2017	18:47	WL
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	10/19/2017	18:47	WL
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	10/19/2017	18:47	WL
Dichlorodifluoromethane	<1	1	ug/l	SW-846 8260C	10/19/2017	18:47	WL
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260C	10/19/2017	18:47	WL
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260C	10/19/2017	18:47	WL
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260C	10/19/2017	18:47	WL
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260C	10/19/2017	18:47	WL
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260C	10/19/2017	18:47	WL
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260C	10/19/2017	18:47	WL
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260C	10/19/2017	18:47	WL
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260C	10/19/2017	18:47	WL
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260C	10/19/2017	18:47	WL
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260C	10/19/2017	18:47	WL
Ethylbenzene	<1	1	ug/l	SW-846 8260C	10/19/2017	18:47	WL
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260C	10/19/2017	18:47	WL
Isopropylbenzene	<1	1	ug/l	SW-846 8260C	10/19/2017	18:47	WL
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260C	10/19/2017	18:47	WL
Methylene Chloride	<1	1	ug/l	SW-846 8260C	10/19/2017	18:47	WL
Naphthalene	<1	1	ug/l	SW-846 8260C	10/19/2017	18:47	WL

R.I. Analytical Laboratories, Inc.
Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1710-22398

Project Name: PLYMOUTH ENV.

Sample Number: 003
Sample Description: WW-172303 GW-1
Sample Type : GRAB
Sample Date / Time : 10/11/2017 @ 11:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
n-Propylbenzene	<1	1	ug/l	SW-846 8260C	10/19/2017 18:47	WL
Styrene	<1	1	ug/l	SW-846 8260C	10/19/2017 18:47	WL
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260C	10/19/2017 18:47	WL
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260C	10/19/2017 18:47	WL
Tetrachloroethene	<1	1	ug/l	SW-846 8260C	10/19/2017 18:47	WL
Toluene	<1	1	ug/l	SW-846 8260C	10/19/2017 18:47	WL
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260C	10/19/2017 18:47	WL
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260C	10/19/2017 18:47	WL
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260C	10/19/2017 18:47	WL
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260C	10/19/2017 18:47	WL
Trichloroethene	<1	1	ug/l	SW-846 8260C	10/19/2017 18:47	WL
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260C	10/19/2017 18:47	WL
1,2,3-Trichloropropane	<2	2	ug/l	SW-846 8260C	10/19/2017 18:47	WL
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260C	10/19/2017 18:47	WL
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260C	10/19/2017 18:47	WL
Vinyl Chloride	<1	1	ug/l	SW-846 8260C	10/19/2017 18:47	WL
o-Xylene	<1	1	ug/l	SW-846 8260C	10/19/2017 18:47	WL
m,p-Xylene	<2	2	ug/l	SW-846 8260C	10/19/2017 18:47	WL
MTBE	<2	2	ug/l	SW-846 8260C	10/19/2017 18:47	WL
Carbon Disulfide	<1	1	ug/l	SW-846 8260C	10/19/2017 18:47	WL
Acetone	<10	10	ug/l	SW-846 8260C	10/19/2017 18:47	WL
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260C	10/19/2017 18:47	WL
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260C	10/19/2017 18:47	WL
2-Hexanone	<10	10	ug/l	SW-846 8260C	10/19/2017 18:47	WL
cis-1,3-Dichloropropene	<0.4	0.4	ug/l	SW-846 8260C	10/19/2017 18:47	WL
trans-1,3-Dichloropropylene	<0.4	0.4	ug/l	SW-846 8260C	10/19/2017 18:47	WL
Vinyl Acetate	<50	50	ug/l	SW-846 8260C	10/19/2017 18:47	WL
Surrogates			RANGE			
Dibromofluoromethane	101		86-118%	SW-846 8260C	10/19/2017 18:47	WL
Toluene-d8	100		88-110%	SW-846 8260C	10/19/2017 18:47	WL
4-Bromofluorobenzene	87		86-115%	SW-846 8260C	10/19/2017 18:47	WL
1,2 Dichloroethane-d4	117		80-120%	SW-846 8260C	10/19/2017 18:47	WL
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	10/19/2017 15:32	JRW
Mercury Digestion				EPA 245.1	10/19/2017 11:38	AGJ

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
 Sandwich, MA 02563
 (508)888-6460 1-800-339-6460
 FAX (508)888-6446

Monday, November 13, 2017

Plymouth Environmental Management
 K. Towers/ 11 Lincoln St.
 Plymouth, MA

ProjectName: GW Eel River

Comments:

Project Number:

Collection Date: 10/11/17 **Collection Time:** 12:35

Sampled By: Kim Tower

Lab Order Number: WW-172304

Date Received: 10/11/17

Sample Type	Sample Time	Sample Date	Comments			
A15 A	12:35	10/11/17				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
pH	pH units	6.03	NA	10/11/17	RL	SM 4500 H-B
Total Nitrogen	mg/L	2.8	NA	11/07/17	KB	Calculation
Total Dissolved Solids	mg/L	150	6.0	10/20/17	KB	SM 2540 C
Chloride grab	mg/L	52	3.0	10/12/17	RL	EPA 300.0
Specific Conductance	uhoms/cm	223	10	10/11/17	RL	EPA 120.1
Total Organic Carbon*	mg/L	0.259*	0.5	10/11/17	NEC*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	10/19/17	RIA*	*
Total Iron	mg/L	0.19	0.01	10/17/17	MC	EPA 200.7
Mercury*	mg/L	<0.0005*	0.0005	10/19/17	RIA*	EPA 245.1
Boron	mg/L	BRL	0.010	10/17/17	MC	EPA 200.7
Copper	mg/L	BRL	0.003	10/17/17	MC	EPA 200.7
Nitrate-N	mg/L	2.83	0.01	10/12/17	RL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	10/12/17	RL	EPA 300.0
Ammonia-N *	mg/L	0.021	0.02	10/19/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	BRL	0.2	10/27/17	KB	SM4500-Norg B-C
Turbidity	NTU	1.3	1.0	10/11/17	RL	SM 2130 B
Total Phosphorous (P)	mg/L	0.058	0.005	10/23/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.20	10/27/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	0.301*	0.50	10/11/17	NEC*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	2.85	NA	11/13/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	<0.18	NA	11/13/17	MC	Calculation
Ortho Phosphorous (P)	mg/L	0.037	0.005	10/11/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	ND	NA	11/13/17	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	ND	NA	11/13/17	MC	Calculation
Total Dissolved Nitrogen	mg/L	2.8	NA	11/07/17	KB	Calculation

BRL=below reportable limits

*see attached

By: 
 Ronald J. Saari
 Laboratory Director

R.I. Analytical Laboratories, Inc.
Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1710-22398

Project Name: PLYMOUTH ENV.

Sample Number: 004
Sample Description: WW-172304 A15
Sample Type : GRAB
Sample Date / Time : 10/11/2017 @ 12:35

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.021	0.02	mg/l	SM4500NH3-B,H 18-21ed	10/19/2017 11:54	KLE
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
Bromobenzene	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
Bromochloromethane	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
Bromodichloromethane	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
Bromoform	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
Bromomethane	<5	5	ug/l	SW-846 8260C	10/19/2017 19:15	WL
n-Butylbenzene	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
Sec-butylbenzene	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
tert-Butylbenzene	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
Chlorobenzene	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
Chloroethane	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
Chloroform	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
Chloromethane	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
2-Chlorotoluene	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
4-Chlorotoluene	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
Dibromochloromethane	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260C	10/19/2017 19:15	WL
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
Dibromomethane	<2	2	ug/l	SW-846 8260C	10/19/2017 19:15	WL
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
Dichlorodifluoromethane	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
Ethylbenzene	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
Isopropylbenzene	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
Methylene Chloride	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
Naphthalene	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL

R.I. Analytical Laboratories, Inc.
Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1710-22398

Project Name: PLYMOUTH ENV.

Sample Number: 004
Sample Description: WW-172304 A15
Sample Type : GRAB
Sample Date / Time : 10/11/2017 @ 12:35

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
n-Propylbenzene	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
Styrene	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
Tetrachloroethene	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
Toluene	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
Trichloroethene	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
1,2,3-Trichloropropane	<2	2	ug/l	SW-846 8260C	10/19/2017 19:15	WL
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
Vinyl Chloride	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
o-Xylene	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
m,p-Xylene	<2	2	ug/l	SW-846 8260C	10/19/2017 19:15	WL
MTBE	<2	2	ug/l	SW-846 8260C	10/19/2017 19:15	WL
Carbon Disulfide	<1	1	ug/l	SW-846 8260C	10/19/2017 19:15	WL
Acetone	<10	10	ug/l	SW-846 8260C	10/19/2017 19:15	WL
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260C	10/19/2017 19:15	WL
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260C	10/19/2017 19:15	WL
2-Hexanone	<10	10	ug/l	SW-846 8260C	10/19/2017 19:15	WL
cis-1,3-Dichloropropene	<0.4	0.4	ug/l	SW-846 8260C	10/19/2017 19:15	WL
trans-1,3-Dichloropropylene	<0.4	0.4	ug/l	SW-846 8260C	10/19/2017 19:15	WL
Vinyl Acetate	<50	50	ug/l	SW-846 8260C	10/19/2017 19:15	WL
Surrogates			RANGE			
Dibromofluoromethane	101		86-118%	SW-846 8260C	10/19/2017 19:15	WL
Toluene-d8	99		88-110%	SW-846 8260C	10/19/2017 19:15	WL
4-Bromofluorobenzene	88		86-115%	SW-846 8260C	10/19/2017 19:15	WL
1,2 Dichloroethane-d4	118		80-120%	SW-846 8260C	10/19/2017 19:15	WL
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	10/19/2017 15:33	JRW
Mercury Digestion				EPA 245.1	10/19/2017 11:38	AGJ

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of CustodyClient:

Town of Plymouth - Department of Marine & Environmental Affairs Attn: Kim Tower
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, ktower@townhall.plymouth.ma.us
Project Name: GW Eel River -Plymouth MA
Sampler: Kim Tower (KT)

(L)

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
10-11-17	1100	GW-1	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN - Total Nitrogen	H2SO4
			1	500ml Plastic	Ph/cond, turb, NO ₂ , NO ₃ , TDS, Chloride	NONE
			1	500ml Plastic	B, Cu, Hg, FE	NONE
			1	Plastic	TOC	H2SO4
			1	Glass	Ortho-phosphate	NONE
10-11-17	1235	A15	1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN - Total Nitrogen	H2SO4
			1	500ml Plastic	Ph/cond, turb, NO ₂ , NO ₃ , TDS, Chloride	NONE
			1	500ml Plastic	B, Cu, Hg, FE	NONE
			1	Plastic	TOC	H2SO4
			1	Glass	Ortho-phosphate	NONE
			1	1 Liter Plastic	Dissolved	NONE

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Boron, Chloride, Copper, Iron, Mercury, VOC

Relinquished By: Date/Time

Kim Tower

Received By: Date/Time:

[Signature] 10/11/17 1430

Plymouth Environmental Calculations 0=<0.2

(6-7)

(1-3)+(2-3)

(2-3)

(2+4+5) (3+4+5)

5

4

3

2

1

6

7

Lab ID	Date	TKN <0.2	Dissolved TKN	NH3 <0.02	NO3 <0.01	NO2 <0.004	T Diss N	Diss Inorg N	Diss Org N	Particulate Org N	Total (P)	Ortho (P)	POC 0=<0.5	TOC <0.2	D TOC <0.2
2314	10/12/2017	0.20	0.20	0.041	0.06	0.000	0.26	0.10	0.16	0.00	0.017	0.005	-0.06	0.427	0.487
2315		0.20	0.20	0.020	0.19	0.000	0.39	0.21	0.18	0.00	0.032	0.005	0.04	0.341	0.297
2316		0.20	0.20	0.021	2.63	0.000	2.83	2.65	0.18	0.00	0.006	0.005	-0.01	0.548	0.563
2317		0.20	0.20	0.027	1.85	0.000	2.05	1.88	0.17	0.00	0.018	0.008	0.00	0.200	0.200
2318		0.47	0.40	0.280	0.01	0.000	0.41	0.29	0.12	0.07	0.148	0.035	0.10	0.859	0.755

RED =<

[Faint handwritten notes and signatures at the bottom of the page]

New England ChromaChem
6 Nichols Street
Salem, MA 01970
978-744-6600

Massachusetts DEP Lab. M-MA072

Client: Envirotech Laboratory, Inc.
State: Liquid

Lab ID	Client ID	Date Sampled	Analytical Results									
			TOC mg/L									
710184	WW-172285 TOC Total	10/10/17	0.423									
710185	WW-172285 TOC Dissolved	10/10/17	0.296									
710186	WW-172286 TOC Total	10/10/17	0.305									
710187	WW-172286 TOC Dissolved	10/10/17	0.388									
710188	WW-172287 TOC Total	10/10/17	ND									
710189	WW-172287 TOC Dissolved	10/10/17	ND									
710190	WW-172301 TOC Total	10/11/17	ND									
710191	WW-172301 TOC Dissolved	10/11/17	ND									
710192	WW-172302 TOC Total	10/11/17	ND									
710193	WW-172302 TOC Dissolved	10/11/17	ND									
710194	WW-172303 TOC Total	10/11/17	ND									
710195	WW-172303 TOC Dissolved	10/11/17	0.269									
710196	WW-172304 TOC Total	10/11/17	0.259									
710197	WW-172304 TOC Dissolved	10/11/17	0.301									
710198	WW-172314 TOC Total	10/12/17	0.427									
710199	WW-172314 TOC Dissolved	10/12/17	0.486									
710200	WW-172315 TOC Total	10/12/17	0.341									
710201	WW-172315 TOC Dissolved	10/12/17	0.297									
710202	WW-172316 TOC Total	10/12/17	0.548									
710203	WW-172316 TOC Dissolved	10/12/17	0.563									
710204	WW-172317 TOC Total	10/12/17	ND									
710205	WW-172317 TOC Dissolved	10/12/17	ND									
710206	WW-172318 TOC Total	10/12/17	0.859									
710207	WW-172318 TOC Dissolved	10/12/17	0.755									

Analytical Methodology						
Analyte	Method	Detection Limit	PQL	Units	Date Analyzed	Cert Status
TOC	Standard Methods 5310C	0.200	0.200	mg/L	10/19/17	N

Electronically signed and approved by:

Brian L. Bonate

Date: 10/19/17

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
 Sandwich, MA 02563
 (508)888-6460 1-800-339-6460
 FAX (508)888-6446

Monday, November 13, 2017

Plymouth Environmental Management

K. Towers/ 11 Lincoln St.

Plymouth, MA

ProjectName: GW Eel River

Comments:

Project Number:

Collection Date: 10/12/17 **Collection Time:** 08:30

Sampled By: Kim Tower

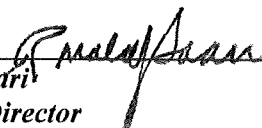
Lab Order Number: WW-172314

Date Received: 10/12/17

Sample Type	Sample Time	Sample Date	Comments			
Bradford Well A	08:30	10/12/17				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
pH	pH units	5.91	NA	10/12/17	RL	SM 4500 H-B
Total Nitrogen	mg/L	<0.26	NA	11/07/17	KB	Calculation
Total Dissolved Solids	mg/L	34	6.0	10/20/17	KB	SM 2540 C
Chloride grab	mg/L	12	3.0	10/13/17	RL	EPA 300.0
Specific Conductance	uhoms/cm	59	10	10/12/17	RL	EPA 120.1
Total Organic Carbon*	mg/L	0.427*	0.5	10/12/17	NEC*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	10/17/17	RIA*	*
Total Iron	mg/L	3.25	0.01	10/18/17	MC	EPA 200.7
Mercury*	mg/L	<0.0005*	0.0005	10/18/17	RIA*	EPA 245.1
Boron	mg/L	BRL	0.010	10/18/17	MC	EPA 200.7
Copper	mg/L	0.009	0.003	10/18/17	MC	EPA 200.7
Nitrate-N	mg/L	0.06	0.01	10/13/17	RL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	10/13/17	RL	EPA 300.0
Ammonia-N *	mg/L	0.041*	0.02	10/19/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	BRL	0.2	10/27/17	KB	SM4500-Norg B-C
Turbidity	NTU	5.1	1.0	10/12/17	RL	SM 2130 B
Total Phosphorous (P)	mg/L	0.017	0.005	10/25/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.20	10/27/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	0.487*	0.50	10/12/17	NEC*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.10	NA	11/13/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	<0.16	NA	11/13/17	MC	Calculation
Ortho Phosphorous (P)	mg/L	BRL	0.005	10/13/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	ND	NA	11/13/17	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	ND	NA	11/13/17	MC	Calculation
Total Dissolved Nitrogen	mg/L	<0.26	NA	11/07/17	KB	Calculation

BRL=below reportable limits

*see attached

By: 
 Ronald J. Saadi
 Laboratory Director

R.I. Analytical Laboratories, Inc.
Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1710-22397

Project Name: PLYMOUTH ENV.

Sample Number: 001
Sample Description: WW-172314 BRADFORD
Sample Type : GRAB
Sample Date / Time : 10/12/2017 @ 08:30

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.041	0.02	mg/l	SM4500NH3-B,H 18-21ed	10/19/2017 11:54	KLE
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
Bromobenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
Bromochloromethane	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
Bromodichloromethane	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
Bromoform	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
Bromomethane	<5	5	ug/l	SW-846 8260C	10/17/2017 17:18	WL
n-Butylbenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
Sec-butylbenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
tert-Butylbenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
Chlorobenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
Chloroethane	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
Chloroform	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
Chloromethane	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
2-Chlorotoluene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
4-Chlorotoluene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
Dibromochloromethane	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260C	10/17/2017 17:18	WL
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
Dibromomethane	<2	2	ug/l	SW-846 8260C	10/17/2017 17:18	WL
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
Dichlorodifluoromethane	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
Ethylbenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
Isopropylbenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
Methylene Chloride	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
Naphthalene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL

R.I. Analytical Laboratories, Inc.
Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1710-22397

Project Name: PLYMOUTH ENV.

Sample Number: 001
Sample Description: WW-172314 BRADFORD
Sample Type : GRAB
Sample Date / Time : 10/12/2017 @ 08:30

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
n-Propylbenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
Styrene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
Tetrachloroethene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
Toluene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
Trichloroethene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
1,2,3-Trichloropropane	<2	2	ug/l	SW-846 8260C	10/17/2017 17:18	WL
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
Vinyl Chloride	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
o-Xylene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
m,p-Xylene	<2	2	ug/l	SW-846 8260C	10/17/2017 17:18	WL
MTBE	<2	2	ug/l	SW-846 8260C	10/17/2017 17:18	WL
Carbon Disulfide	<1	1	ug/l	SW-846 8260C	10/17/2017 17:18	WL
Acetone	<10	10	ug/l	SW-846 8260C	10/17/2017 17:18	WL
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260C	10/17/2017 17:18	WL
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260C	10/17/2017 17:18	WL
2-Hexanone	<10	10	ug/l	SW-846 8260C	10/17/2017 17:18	WL
cis-1,3-Dichloropropene	<0.4	0.4	ug/l	SW-846 8260C	10/17/2017 17:18	WL
trans-1,3-Dichloropropylene	<0.4	0.4	ug/l	SW-846 8260C	10/17/2017 17:18	WL
Vinyl Acetate	<50	50	ug/l	SW-846 8260C	10/17/2017 17:18	WL
Surrogates			RANGE			
Dibromofluoromethane	101		86-118%	SW-846 8260C	10/17/2017 17:18	WL
Toluene-d8	98		88-110%	SW-846 8260C	10/17/2017 17:18	WL
4-Bromofluorobenzene	87		86-115%	SW-846 8260C	10/17/2017 17:18	WL
1,2 Dichloroethane-d4	118		80-120%	SW-846 8260C	10/17/2017 17:18	WL
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	10/17/2017 19:34	RAT
Mercury Digestion				EPA 245.1	10/18/2017 10:52	AGJ

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Monday, November 13, 2017

Plymouth Environmental Management

K. Towers/ 11 Lincoln St.

Plymouth, MA

ProjectName: GW Eel River

Comments:

Project Number:

Collection Date: 10/12/17 **Collection Time:** 09:20

Sampled By: Kim Tower

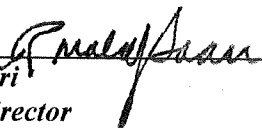
Lab Order Number: WW-172315

Date Received: 10/12/17

Sample Type	Sample Time	Sample Date	Comments			
2 DR A	09:20	10/12/17				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
pH	pH units	5.62	NA	10/12/17	RL	SM 4500 H-B
Total Nitrogen	mg/L	<0.39	NA	11/07/17	KB	Calculation
Total Dissolved Solids	mg/L	220	6.0	10/20/17	KB	SM 2540 C
Chloride grab	mg/L	130	3.0	10/16/17	LL	EPA 300.0
Specific Conductance	uhoms/cm	397	10	10/12/17	RL	EPA 120.1
Total Organic Carbon*	mg/L	0.341*	0.5	10/12/17	NEC*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	10/17/17	RIA*	*
Total Iron	mg/L	9.40	0.01	10/18/17	MC	EPA 200.7
Mercury*	mg/L	<0.0005*	0.0005	10/18/17	RIA*	EPA 245.1
Boron	mg/L	BRL	0.010	10/18/17	MC	EPA 200.7
Copper	mg/L	BRL	0.003	10/18/17	MC	EPA 200.7
Nitrate-N	mg/L	0.19	0.01	10/13/17	RL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	10/13/17	RL	EPA 300.0
Ammonia-N *	mg/L	<0.02*	0.02	10/19/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	BRL	0.2	10/27/17	KB	SM4500-Norg B-C
Turbidity	NTU	2.0	1.0	10/12/17	RL	SM 2130 B
Total Phosphorous (P)	mg/L	0.032	0.005	10/25/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.20	10/27/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	0.297*	0.50	10/12/17	NEC*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	<0.21	NA	11/13/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	<0.18	NA	11/13/17	MC	Calculation
Ortho Phosphorous (P)	mg/L	BRL	0.005	10/13/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	0.04	NA	11/13/17	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	ND	NA	11/13/17	MC	Calculation
Total Dissolved Nitrogen	mg/L	<0.39	NA	11/07/17	KB	Calculation

BRL=below reportable limits

*see attached

By: 
Ronald J. Saari
Laboratory Director

R.I. Analytical Laboratories, Inc.
Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1710-22397

Project Name: PLYMOUTH ENV.

Sample Number: 002
Sample Description: WW-172315 2DR
Sample Type : GRAB
Sample Date / Time : 10/12/2017 @ 09:20

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	<0.02	0.02	mg/l	SM4500NH3-B,H 18-21ed	10/19/2017 11:54	KLE
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
Bromobenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
Bromochloromethane	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
Bromodichloromethane	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
Bromoform	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
Bromomethane	<5	5	ug/l	SW-846 8260C	10/17/2017 17:46	WL
n-Butylbenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
Sec-butylbenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
tert-Butylbenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
Chlorobenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
Chloroethane	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
Chloroform	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
Chloromethane	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
2-Chlorotoluene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
4-Chlorotoluene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
Dibromochloromethane	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260C	10/17/2017 17:46	WL
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
Dibromomethane	<2	2	ug/l	SW-846 8260C	10/17/2017 17:46	WL
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
Dichlorodifluoromethane	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
Ethylbenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
Isopropylbenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
Methylene Chloride	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
Naphthalene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL

R.I. Analytical Laboratories, Inc.
Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1710-22397

Project Name: PLYMOUTH ENV.

Sample Number: 002
Sample Description: WW-172315 2DR
Sample Type : GRAB
Sample Date / Time : 10/12/2017 @ 09:20

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
n-Propylbenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
Styrene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
Tetrachloroethene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
Toluene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
Trichloroethene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
1,2,3-Trichloropropane	<2	2	ug/l	SW-846 8260C	10/17/2017 17:46	WL
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
Vinyl Chloride	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
o-Xylene	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
m,p-Xylene	<2	2	ug/l	SW-846 8260C	10/17/2017 17:46	WL
MTBE	<2	2	ug/l	SW-846 8260C	10/17/2017 17:46	WL
Carbon Disulfide	<1	1	ug/l	SW-846 8260C	10/17/2017 17:46	WL
Acetone	<10	10	ug/l	SW-846 8260C	10/17/2017 17:46	WL
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260C	10/17/2017 17:46	WL
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260C	10/17/2017 17:46	WL
2-Hexanone	<10	10	ug/l	SW-846 8260C	10/17/2017 17:46	WL
cis-1,3-Dichloropropene	<0.4	0.4	ug/l	SW-846 8260C	10/17/2017 17:46	WL
trans-1,3-Dichloropropylene	<0.4	0.4	ug/l	SW-846 8260C	10/17/2017 17:46	WL
Vinyl Acetate	<50	50	ug/l	SW-846 8260C	10/17/2017 17:46	WL
Surrogates			RANGE			
Dibromofluoromethane	103		86-118%	SW-846 8260C	10/17/2017 17:46	WL
Toluene-d8	98		88-110%	SW-846 8260C	10/17/2017 17:46	WL
4-Bromofluorobenzene	88		86-115%	SW-846 8260C	10/17/2017 17:46	WL
1,2 Dichloroethane-d4	118		80-120%	SW-846 8260C	10/17/2017 17:46	WL
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	10/17/2017 19:35	RAT
Mercury Digestion				EPA 245.1	10/18/2017 10:52	AGJ

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

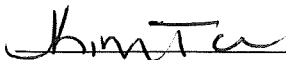
Chain of CustodyClient:

Town of Plymouth - Department of Marine & Environmental Affairs Attn: Kim Tower
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, ktower@townhall.plymouth.ma.us
Project Name: GW Eel River -Plymouth MA
Sampler: Kim Tower (KT)

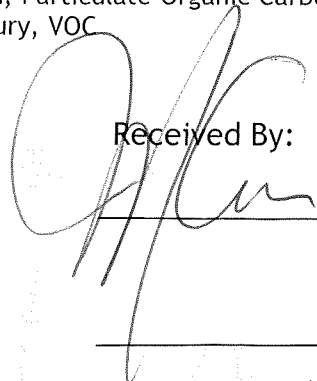
Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
10-12-17	0830	Bradford	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN - Total Nitrogen	H2SO4
			1	500ml Plastic	Ph/cond, turb, NO ₂ , NO ₃ , TDS, Chloride	NONE
			1	500ml Plastic	B, Cu, Hg, FE	NONE
			1	Plastic	TOC	H2SO4
			1	Glass	Ortho-phosphate	NONE
10-12-17	0920	2DR	1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN - Total Nitrogen	H2SO4
			1	500ml Plastic	Ph/cond, turb, NO ₂ , NO ₃ , TDS, Chloride	NONE
			1	500ml Plastic	B, Cu, Hg, FE	NONE
			1	Plastic	TOC	H2SO4
			1	Glass	Ortho-phosphate	NONE
			1	1 Liter Plastic	Dissolved	NONE

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Boron, Chloride, Copper, Iron, Mercury, VOC

Relinquished By: Date/Time



Received By: Date/Time:


10/12/17 1400

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
 Sandwich, MA 02563
 (508)888-6460 1-800-339-6460
 FAX (508)888-6446

Monday, November 13, 2017

Plymouth Environmental Management
 K.Towers/ 11 Lincoln St.
 Plymouth, MA

ProjectName: GW Eel River

Comments:

Project Number:

Collection Date: 10/12/17 **Collection Time:** 09:55

Sampled By: Kim Tower

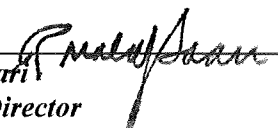
Lab Order Number: WW-172316

Date Received: 10/12/17

Sample Type		Sample Time	Sample Date	Comments		
2SR	A	09:55	10/12/17			
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
pH	pH units	5.20	NA	10/12/17	RL	SM 4500 H-B
Total Nitrogen	mg/L	2.6	NA	11/07/17	KB	Calculation
Total Dissolved Solids	mg/L	72	6.0	10/20/17	KB	SM 2540 C
Chloride grab	mg/L	27	3.0	10/13/17	RL	EPA 300.0
Specific Conductance	uhoms/cm	126	10	10/12/17	RL	EPA 120.1
Total Organic Carbon*	mg/L	0.548*	0.5	10/12/17	NEC*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	10/17/17	RIA*	*
Total Iron	mg/L	0.05	0.01	10/18/17	MC	EPA 200.7
Mercury*	mg/L	<0.0005*	0.0005	10/18/17	RIA*	EPA 245.1
Boron	mg/L	BRL	0.010	10/18/17	MC	EPA 200.7
Copper	mg/L	BRL	0.003	10/18/17	MC	EPA 200.7
Nitrate-N	mg/L	2.63	0.01	10/13/17	RL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	10/13/17	RL	EPA 300.0
Ammonia-N *	mg/L	0.021*	0.02	10/19/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	BRL	0.2	10/27/17	KB	SM4500-Norg B-C
Turbidity	NTU	BRL	1.0	10/12/17	RL	SM 2130 B
Total Phosphorous (P)	mg/L	0.008	0.005	10/25/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.20	10/27/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	0.563*	0.50	10/12/17	NEC*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	2.65	NA	11/13/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	<0.18	NA	11/13/17	MC	Calculation
Ortho Phosphorous (P)	mg/L	BRL	0.005	10/13/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	ND	NA	11/13/17	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	ND	NA	11/13/17	MC	Calculation
Total Dissolved Nitrogen	mg/L	2.6	NA	11/07/17	KB	Calculation

BRL=below reportable limits

*see attached

By: 
 Ronald J. Saafi
 Laboratory Director

R.I. Analytical Laboratories, Inc.
Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1710-22397

Project Name: PLYMOUTH ENV.

Sample Number: 003
Sample Description: WW-172316 2SR
Sample Type : GRAB
Sample Date / Time : 10/12/2017 @ 09:55

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.021	0.02	mg/l	SM4500NH3-B,H 18-21ed	10/19/2017 11:54	KLE
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
Bromobenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
Bromochloromethane	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
Bromodichloromethane	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
Bromoform	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
Bromomethane	<5	5	ug/l	SW-846 8260C	10/17/2017 18:14	WL
n-Butylbenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
Sec-butylbenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
tert-Butylbenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
Chlorobenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
Chloroethane	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
Chloroform	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
Chloromethane	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
2-Chlorotoluene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
4-Chlorotoluene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
Dibromochloromethane	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260C	10/17/2017 18:14	WL
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
Dibromomethane	<2	2	ug/l	SW-846 8260C	10/17/2017 18:14	WL
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
Dichlorodifluoromethane	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
Ethylbenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
Isopropylbenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
Methylene Chloride	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
Naphthalene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL

R.I. Analytical Laboratories, Inc.
Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1710-22397

Project Name: PLYMOUTH ENV.

Sample Number: 003
Sample Description: WW-172316 2SR
Sample Type : GRAB
Sample Date / Time : 10/12/2017 @ 09:55

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
n-Propylbenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
Styrene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
Tetrachloroethene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
Toluene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
Trichloroethene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
1,2,3-Trichloropropane	<2	2	ug/l	SW-846 8260C	10/17/2017 18:14	WL
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
Vinyl Chloride	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
o-Xylene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
m,p-Xylene	<2	2	ug/l	SW-846 8260C	10/17/2017 18:14	WL
MTBE	<2	2	ug/l	SW-846 8260C	10/17/2017 18:14	WL
Carbon Disulfide	<1	1	ug/l	SW-846 8260C	10/17/2017 18:14	WL
Acetone	<10	10	ug/l	SW-846 8260C	10/17/2017 18:14	WL
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260C	10/17/2017 18:14	WL
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260C	10/17/2017 18:14	WL
2-Hexanone	<10	10	ug/l	SW-846 8260C	10/17/2017 18:14	WL
cis-1,3-Dichloropropene	<0.4	0.4	ug/l	SW-846 8260C	10/17/2017 18:14	WL
trans-1,3-Dichloropropylene	<0.4	0.4	ug/l	SW-846 8260C	10/17/2017 18:14	WL
Vinyl Acetate	<50	50	ug/l	SW-846 8260C	10/17/2017 18:14	WL
Surrogates			RANGE			
Dibromofluoromethane	103		86-118%	SW-846 8260C	10/17/2017 18:14	WL
Toluene-d8	100		88-110%	SW-846 8260C	10/17/2017 18:14	WL
4-Bromofluorobenzene	87		86-115%	SW-846 8260C	10/17/2017 18:14	WL
1,2 Dichloroethane-d4	117		80-120%	SW-846 8260C	10/17/2017 18:14	WL
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	10/17/2017 19:36	RAT
Mercury Digestion				EPA 245.1	10/18/2017 10:52	AGJ

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
 Sandwich, MA 02563
 (508)888-6460 1-800-339-6460
 FAX (508)888-6446

Monday, November 13, 2017

Plymouth Environmental Management
 K.Towers/ 11 Lincoln St.
 Plymouth, MA

ProjectName: GW Eel River

Comments:

Project Number:

Collection Date: 10/12/17 **Collection Time:** 12:00

Sampled By: Kim Tower

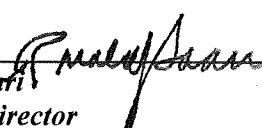
Lab Order Number: WW-172317

Date Received: 10/12/17

Sample Type		Sample Time	Sample Date	Comments		
A17	A	12:00	10/12/17			
Parameters		Units	Test Results	Reportable Limits	Date Analyzed	Analyst Method
pH		pH units	5.47	NA	10/12/17	RL SM 4500 H-B
Total Nitrogen		mg/L	1.9	NA	11/07/17	KB Calculation
Total Dissolved Solids		mg/L	220	6.0	10/20/17	KB SM 2540 C
Chloride grab		mg/L	100	3.0	10/16/17	LL EPA 300.0
Specific Conductance		uhoms/cm	332	10	10/12/17	RL EPA 120.1
Total Organic Carbon*		mg/L	ND*	0.5	10/12/17	NEC* SM 5310 C
Volatile Organic Compounds*		ug/L	ND*	*	10/17/17	RIA* *
Total Iron		mg/L	0.09	0.01	10/18/17	MC EPA 200.7
Mercury*		mg/L	<0.0005*	0.0005	10/18/17	RIA* EPA 245.1
Boron		mg/L	BRL	0.010	10/18/17	MC EPA 200.7
Copper		mg/L	BRL	0.003	10/18/17	MC EPA 200.7
Nitrate-N		mg/L	1.85	0.01	10/13/17	RL EPA 300.0
Nitrite-N		mg/L	BRL	0.006	10/13/17	RL EPA 300.0
Ammonia-N *		mg/L	0.027*	0.02	10/19/17	RIA* SM4500 NH3 C
Total Kjeldhal Nitrogen		mg/L	BRL	0.2	10/28/17	KB SM4500-Norg B-C
Turbidity		NTU	1.6	1.0	10/12/17	RL SM 2130 B
Total Phosphorous (P)		mg/L	0.018	0.005	10/25/17	MC SM 4500-P
Dissolved Kjeldhal Nitrogen		mg/L	BRL	0.20	10/28/17	KB SM4500 Norg B-C
Dissolved Total Organic Carbon		mg/L	ND*	0.50	10/12/17	NEC* EPA 415.1
Dissolved Inorganic Nitrogen		mg/L	1.88	NA	11/13/17	MC Calculation
Dissolved Organic Nitrogen		mg/L	<0.17	NA	11/13/17	MC Calculation
Ortho Phosphorous (P)		mg/L	0.008	0.005	10/13/17	MC SM 4500-P
Particulate Organic Carbon		mg/L	ND	NA	11/13/17	MC SM 5310 C
Particulate Organic Nitrogen		mg/L	ND	NA	11/13/17	MC Calculation
Total Dissolved Nitrogen		mg/L	1.9	NA	11/07/17	KB Calculation

BRL=below reportable limits

*see attached

By: 
 Ronald J. Saari
 Laboratory Director

R.I. Analytical Laboratories, Inc.
Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1710-22397

Project Name: PLYMOUTH ENV.

Sample Number: 004
Sample Description: WW-172317 A17
Sample Type : GRAB
Sample Date / Time : 10/12/2017 @ 12:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.027	0.02	mg/l	SM4500NH3-B,H 18-21ed	10/19/2017 11:54	KLE
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
Bromobenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
Bromochloromethane	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
Bromodichloromethane	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
Bromoform	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
Bromomethane	<5	5	ug/l	SW-846 8260C	10/17/2017 18:41	WL
n-Butylbenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
Sec-butylbenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
tert-Butylbenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
Chlorobenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
Chloroethane	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
Chloroform	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
Chloromethane	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
2-Chlorotoluene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
4-Chlorotoluene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
Dibromochloromethane	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260C	10/17/2017 18:41	WL
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
Dibromomethane	<2	2	ug/l	SW-846 8260C	10/17/2017 18:41	WL
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
Dichlorodifluoromethane	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
Ethylbenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
Isopropylbenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
Methylene Chloride	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
Naphthalene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL

R.I. Analytical Laboratories, Inc.
Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1710-22397

Project Name: PLYMOUTH ENV.

Sample Number: 004
Sample Description: WW-172317 A17
Sample Type : GRAB
Sample Date / Time : 10/12/2017 @ 12:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
n-Propylbenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
Styrene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
Tetrachloroethene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
Toluene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
Trichloroethene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
1,2,3-Trichloropropane	<2	2	ug/l	SW-846 8260C	10/17/2017 18:41	WL
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
Vinyl Chloride	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
o-Xylene	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
m,p-Xylene	<2	2	ug/l	SW-846 8260C	10/17/2017 18:41	WL
MTBE	<2	2	ug/l	SW-846 8260C	10/17/2017 18:41	WL
Carbon Disulfide	<1	1	ug/l	SW-846 8260C	10/17/2017 18:41	WL
Acetone	<10	10	ug/l	SW-846 8260C	10/17/2017 18:41	WL
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260C	10/17/2017 18:41	WL
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260C	10/17/2017 18:41	WL
2-Hexanone	<10	10	ug/l	SW-846 8260C	10/17/2017 18:41	WL
cis-1,3-Dichloropropene	<0.4	0.4	ug/l	SW-846 8260C	10/17/2017 18:41	WL
trans-1,3-Dichloropropylene	<0.4	0.4	ug/l	SW-846 8260C	10/17/2017 18:41	WL
Vinyl Acetate	<50	50	ug/l	SW-846 8260C	10/17/2017 18:41	WL
Surrogates			RANGE			
Dibromofluoromethane	103		86-118%	SW-846 8260C	10/17/2017 18:41	WL
Toluene-d8	98		88-110%	SW-846 8260C	10/17/2017 18:41	WL
4-Bromofluorobenzene	88		86-115%	SW-846 8260C	10/17/2017 18:41	WL
1,2 Dichloroethane-d4	117		80-120%	SW-846 8260C	10/17/2017 18:41	WL
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	10/17/2017 19:39	RAT
Mercury Digestion				EPA 245.1	10/18/2017 10:52	AGJ

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of CustodyClient:

Town of Plymouth - Department of Marine & Environmental Affairs Attn: Kim Tower
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, ktower@townhall.plymouth.ma.us
Project Name: **GW Eel River -Plymouth MA**
Sampler: Kim Tower (KT)

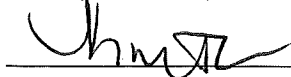
WW172316

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
10-12-17	0955	252	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN - Total Nitrogen	H2SO4
			1	500ml Plastic	Ph/cond, turb, NO ₂ , NO ₃ , TDS, Chloride	NONE
			1	500ml Plastic	B, Cu, Hg, FE	NONE
			1	Plastic	TOC	H2SO4
			1	Glass	Ortho-phosphate	NONE
10-12-17	1200	A17	1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN - Total Nitrogen	H2SO4
			1	500ml Plastic	Ph/cond, turb, NO ₂ , NO ₃ , TDS, Chloride	NONE
			1	500ml Plastic	B, Cu, Hg, FE	NONE
			1	Plastic	TOC	H2SO4
			1	Glass	Ortho-phosphate	NONE
			1	1 Liter Plastic	Dissolved	NONE

WW172317

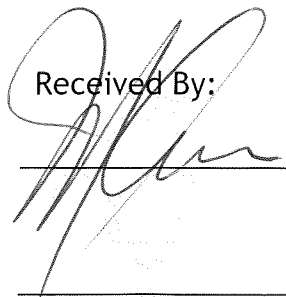
NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Boron, Chloride, Copper, Iron, Mercury, VOC

Relinquished By: Date/Time



Received By:

Date/Time:


10/12/17 1400

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
 Sandwich, MA 02563
 (508)888-6460 1-800-339-6460
 FAX (508)888-6446

Monday, November 13, 2017

Plymouth Environmental Management
 K.Towers/ 11 Lincoln St.
 Plymouth, MA

ProjectName: GW Eel River

Comments:

Project Number:

Collection Date: 10/12/17 **Collection Time:** 13:00

Sampled By: Kim Tower

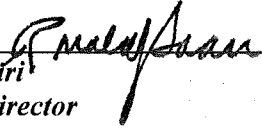
Lab Order Number: WW-172318

Date Received: 10/12/17

Sample Type	Sample Time	Sample Date	Comments			
A21-A A	13:00	10/12/17				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
pH	pH units	6.47	NA	10/12/17	RL	SM 4500 H-B
Total Nitrogen	mg/L	0.47	NA	11/07/17	KB	Calculation
Total Dissolved Solids	mg/L	74	6.0	10/20/17	KB	SM 2540 C
Chloride grab	mg/L	30	3.0	10/13/17	RL	EPA 300.0
Specific Conductance	uhoms/cm	136	10	10/12/17	RL	EPA 120.1
Total Organic Carbon*	mg/L	0.859*	0.5	10/12/17	NEC*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	10/17/17	RIA*	*
Total Iron	mg/L	2.16	0.01	10/18/17	MC	EPA 200.7
Mercury*	mg/L	<0.0005*	0.0005	10/18/17	RIA*	EPA 245.1
Boron	mg/L	BRL	0.010	10/18/17	MC	EPA 200.7
Copper	mg/L	BRL	0.003	10/18/17	MC	EPA 200.7
Nitrate-N	mg/L	BRL	0.01	10/13/17	RL	EPA 300.0
Nitrite-N	mg/L	BRL	0.006	10/13/17	RL	EPA 300.0
Ammonia-N *	mg/L	0.28*	0.02	10/19/17	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.47	0.2	10/28/17	KB	SM4500-Norg B-C
Turbidity	NTU	1.5	1.0	10/12/17	RL	SM 2130 B
Total Phosphorous (P)	mg/L	0.148	0.005	10/25/17	MC	SM 4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.40	0.20	10/28/17	KB	SM4500 Norg B-C
Dissolved Total Organic Carbon	mg/L	0.755*	0.50	10/12/17	NEC*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.29	NA	11/13/17	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.12	NA	11/13/17	MC	Calculation
Ortho Phosphorous (P)	mg/L	0.035	0.005	10/13/17	MC	SM 4500-P
Particulate Organic Carbon	mg/L	0.10	NA	11/13/17	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.07	NA	11/13/17	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.40	NA	11/07/17	KB	Calculation

BRL=below reportable limits

*see attached

By: 
 Ronald J. Sadri
 Laboratory Director

R.I. Analytical Laboratories, Inc.
Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1710-22397

Project Name: PLYMOUTH ENV.

Sample Number: 005
Sample Description: WW-172318 A21-A
Sample Type : GRAB
Sample Date / Time : 10/12/2017 @ 13:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Ammonia (as N)	0.28	0.02	mg/l	SM4500NH3-B,H 18-21ed	10/19/2017 11:54	KLE
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
Bromobenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
Bromochloromethane	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
Bromodichloromethane	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
Bromoform	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
Bromomethane	<5	5	ug/l	SW-846 8260C	10/17/2017 19:09	WL
n-Butylbenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
Sec-butylbenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
tert-Butylbenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
Chlorobenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
Chloroethane	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
Chloroform	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
Chloromethane	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
2-Chlorotoluene	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
4-Chlorotoluene	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
Dibromochloromethane	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260C	10/17/2017 19:09	WL
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
Dibromomethane	<2	2	ug/l	SW-846 8260C	10/17/2017 19:09	WL
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
Dichlorodifluoromethane	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
Ethylbenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
Isopropylbenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
Methylene Chloride	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
Naphthalene	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL

R.I. Analytical Laboratories, Inc.
Laboratory Report

Envirotech Laboratories, Inc.

Work Order #: 1710-22397

Project Name: PLYMOUTH ENV.

Sample Number: 005
Sample Description: WW-172318 A21-A
Sample Type : GRAB
Sample Date / Time : 10/12/2017 @ 13:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
n-Propylbenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
Styrene	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
Tetrachloroethene	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
Toluene	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
Trichloroethene	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
1,2,3-Trichloropropane	<2	2	ug/l	SW-846 8260C	10/17/2017 19:09	WL
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
Vinyl Chloride	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
o-Xylene	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
m,p-Xylene	<2	2	ug/l	SW-846 8260C	10/17/2017 19:09	WL
MTBE	<2	2	ug/l	SW-846 8260C	10/17/2017 19:09	WL
Carbon Disulfide	<1	1	ug/l	SW-846 8260C	10/17/2017 19:09	WL
Acetone	<10	10	ug/l	SW-846 8260C	10/17/2017 19:09	WL
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260C	10/17/2017 19:09	WL
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260C	10/17/2017 19:09	WL
2-Hexanone	<10	10	ug/l	SW-846 8260C	10/17/2017 19:09	WL
cis-1,3-Dichloropropene	<0.4	0.4	ug/l	SW-846 8260C	10/17/2017 19:09	WL
trans-1,3-Dichloropropylene	<0.4	0.4	ug/l	SW-846 8260C	10/17/2017 19:09	WL
Vinyl Acetate	<50	50	ug/l	SW-846 8260C	10/17/2017 19:09	WL
Surrogates			RANGE			
Dibromofluoromethane	104		86-118%	SW-846 8260C	10/17/2017 19:09	WL
Toluene-d8	99		88-110%	SW-846 8260C	10/17/2017 19:09	WL
4-Bromofluorobenzene	87		86-115%	SW-846 8260C	10/17/2017 19:09	WL
1,2 Dichloroethane-d4	119		80-120%	SW-846 8260C	10/17/2017 19:09	WL
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	10/17/2017 19:41	RAT
Mercury Digestion				EPA 245.1	10/18/2017 10:52	AGJ

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of CustodyClient:

Town of Plymouth - Department of Marine & Environmental Affairs Attn: Kim Tower
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, ktower@townhall.plymouth.ma.us
Project Name: **GW Eel River -Plymouth MA**
Sampler: Kim Tower (KT)

WW172318

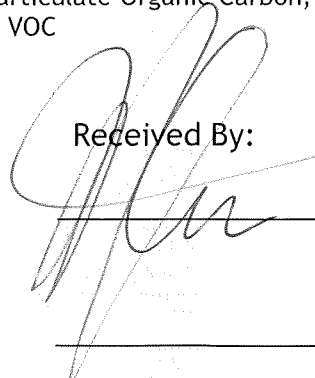
Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
10-12-17	1300	A21-A	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN - Total Nitrogen	H2SO4
			1	500ml Plastic	Ph/cond, turb, NO ₂ , NO ₃ , TDS, Chloride	NONE
			1	500ml Plastic	B, Cu, Hg, FE	NONE
			1	Plastic	TOC	H2SO4
			1	Glass	Ortho-phosphate	NONE
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN - Total Nitrogen	H2SO4
			1	500ml Plastic	Ph/cond, turb, NO ₂ , NO ₃ , TDS, Chloride	NONE
			1	500ml Plastic	B, Cu, Hg, FE	NONE
			1	Plastic	TOC	H2SO4
			1	Glass	Ortho-phosphate	NONE
			1	1 Liter Plastic	Dissolved	NONE

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Boron, Chloride, Copper, Iron, Mercury, VOC

Relinquished By: Date/Time



Received By: Date/Time:


10/12/17 1400